

# **Research-into-use**

**An Independent Review**

November 2012 (Final draft)

## RIU External Review

### Preface

The Research Into Use programme (RIU) was commissioned in 2006 to address ways to scale up successful innovations from agricultural research. The intention of RIU was to deliver the impact from the 10 year (1995 to 2005) DFID-funded suite of programmes on Renewable Natural Resources (RNRRS). This change in direction to funding research on uptake rather than on generation of new technologies was a new approach for DFID (and its research community) in agricultural research, but is one that is arguably even more pressing now than at the time the programme was designed. Ensuring that the predicted global population of 9 billion in 2050 can be fed sustainably and equitably in an era of climate change is an unprecedented challenge that will require the global food system to change radically. Delivering a step-change in agricultural innovation will require new approaches to developing technologies and to getting them into the hands of farmers. It will require revitalised funding, new institutional arrangements and evidence based approaches to delivery and scaling up.

This independent review was commissioned by DFID in 2011, to ensure, therefore, that lessons from Research Into Use could be learnt at an early stage. The review was undertaken by independent evaluators with oversight by an external advisory group. This group enabled DFID to both solicit external technical expertise, and to ground the findings in the context in which other development partners are operating and ensure that it speaks to a wider set of priorities than DFID alone.

Research Into Use has been a large and complex programme. It underwent a substantive change in management and direction following the 2009 Mid Term Review. Such a change in direction at a relatively late stage has made assessing impact difficult and posed particular challenges for this review. The new project management team were asked to turn around a programme which was not delivering. This they have done effectively, leading to some significant outcomes and achievements. These have included communication outreach work with youth through Shujaaz, which won the Digital Emmy award in 2011, development and market testing of an innovative social bond for sleeping sickness control and developing new social business models including warehouse receipting in Rwanda, and village based advisers for input provision and advisory services in Kenya.

Not everything has worked well, however, and there are important lessons which can be learnt from the RIU experience, from the periods both before and after the 2009 review. These lessons have considerable relevance not just to DFID but also to other funders interested in designing new programmes and initiatives to stimulate the uptake of research into use.

This review captures many of those lessons. To facilitate dissemination of these, a separate “Lessons Learnt” commentary, has been made available as an additional resource, alongside the Review itself. The Executive Summary and the main body of the report will introduce the reader to the essence of the RIU. For those who went to delve beyond the details of this report, RIU has produced a large number of working papers and discussions papers (available on [www.researchintouse.org](http://www.researchintouse.org)).

For those working on agricultural innovation, this report is very timely. Firstly there is growing awareness of the need for sustainable intensification, driven by the UK Government Foresight into the Future of Food and Farming, the Royal Society report “Reaping the Benefits” and others and for an accelerated scale and pace of innovation. There is growing interest in new ways of working with the private sector and in innovative financing as demonstrated in the AgResults initiative launched by the Prime Ministers of Australia, Canada and the UK at the G20 Summit in June 2012, and the G8 New Alliance agenda on scaling up innovation tools.

In many respects RIU has been an innovative approach for its time - moving individuals, teams and organisations out of their ‘comfort’ zone into new disciplinary areas, partnerships and ways of working, without many good overall templates to follow. If we in the international development community really want to ensure that research delivers developmental impact, such moves will be increasingly necessary. Innovation involves taking risks, but is essential to meet the challenges of development. Learning the lessons of how to manage those risks will ensure faster progress.

DFID, USAID, BMGF and our partners are already making strides in this area. We hope that others will engage with us in this. We are currently scaling up research and evidence initiatives into innovation. New work in this area includes ensuring that we test the use of “pull” mechanisms in agriculture through the AgResults initiative, exploring the feasibility of social impact bonds and the role of social enterprises in innovation. We hope that this review will stimulate discussion and debate amongst others.

### **Members of Steering Committee**

BMGF	Elvis Frasier
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EC	David Radcliffe
USAID	Meredith Soule

**29<sup>th</sup> November 2012**

*This study was commissioned by DFID to provide an independent review of the Research Into Use programme it had set up, initially to support adoption of agricultural research output from its earlier Renewable Natural Resources Research Strategy, and to improve more general understanding about how to encourage putting agricultural research into use.*

*It was carried out by a team led by Tim Robertson. It comprised John Wyeth and Gerry Gill (from Tango International), Allyson Thirkell, Sally Neville, Seema Khan and Jesse Smith (from Social Development Direct) and Rachel Percy, Barbara Adolph and Josephine Tsui (from the IDL group). A number of other consultants from these organisations contributed to the design of the evaluation. Dermot Shields took over as team leader for the final phase of the analysis and report writing.*

*The Review sought answers to questions aimed about impact and lesson learning which the evidence from the field studies is only partly able to address at this stage of implementation. The programme was radically revised during 2009 after a critical Mid-term Review (MTR) early that year so the time for the changes that were made to have had an impact has been very limited.*

*The purpose of this report is to document progress and the potential impact of the programme and to identify the lessons being learned. The study does not, and was not designed to, assess any one project or set of activities, nor was the exercise intended to be a formal evaluation.*

*The report focuses on the phase of the programme since the Mid Term Review, covering the period from mid 2009 to May 2011. The field work was analysed and is presented in a set of Annexes. A first draft of the report was produced in the second half of 2011 and there were several subsequent versions until this shorter one was prepared. The main final report was prepared by Dermot Shields and John Wyeth, who wrote Chapter 2. John Wyeth also produced the final shortened version of the report. Chapter 3 is mainly the work of Gerry Gill.*

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7	Review of Guidance and Learning on Gender and Social exclusion	SDD team
8	Evidence on Social Development Findings from the case studies	SDD team
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## Acronyms

ABB	African Best Bets Programme (RIU)
ACP	African Country Programme (RIU)
AGRA	Alliance for a Green Revolution in Africa
AICF	Asian Innovation Challenge Fund (RIU)
ARCN	Agricultural Research Council of Nigeria
ARM	Private Fertiliser firm (Kenya)
AWBB	Army Worm Best Bet project (Kenya)
CA	Country Assessment (RIU)
CAADP	Comprehensive African Agriculture Development Programme
CBAF	Community-based Armyworm Forecasting
CBSP	Community-based Seed producer (group)
CGIAR	Consultative Group on International Agricultural Research
CIP	Crop Intensification programme (Rwanda)
CORAF/ WECARD	Conference of Agricultural Research Leaders in W. and C. Africa/ W. and C. African Council for Agricultural Research and Development Country Programme Manager (RIU)
CRD	Central Research Department (DFID)
CRT	Central Research Team (Phase 2)
CS	Country Strategy (RIU)
DAC	Development Assistance Committee of the OECD
DAE	Department for Agricultural Extension (Bangladesh)
DFID	Department for International Development (UK)
DP	Discussion Paper (RIU)
DSP	Decentralised (fish) Seed Production (Bangladesh)
EC	European Commission
EPA	Environmental Protection Agency (Ghana)
FARA	Forum for Agricultural Research in Africa
FFS	Farmer Field School (Rwanda)
FIPS	Farm Input Promotions (Africa)
FORWARD	Forum for Welfare and Agricultural Development (Nepal)
GANP	Global Agro-tech Nepal Private Ltd
GIS	Geographic Information Systems
HS	Household Survey of IJET
I4D	Innovation for Development (RIU)
ICF	Innovation Challenge Fund (RIU)
ICUC	International Centre for Under-utilised Crops
ICV	Intervention Curriculum Vita (RIU)
ID-Framework	Innovation Diagnostic Framework (IIE)
ILRAD	International Laboratory for Research on Animal Diseases
IOD	Institutional Organisation Development
IPM	Integrated Pest Management
IS	Innovations System
ISA	Innovations Systems Approach
I4D	Innovation for Development
KEPHIS	Kenya Plant Health Inspectorate Services
LINK	Learning, Innovation, Knowledge
LFMPR	Linking Farmers with Markets for Rural Prosperity
M&E	Monitoring and Evaluation
MDGs	Millennium Development Goals

MIL	Monitoring, Impact and Learning (RIU Phase 1)
MOU	Memorandum of Understanding
MTR	Mid-Term Review (RIU)
NARI	National Agricultural Research Institute (Nigeria)
NARS	National Agricultural Research System (Nigeria)
NGO	Non-Government Organisation
NIC	National Innovation Coalition
NMLC	National Monitoring and Learning Coordinator (Country programme Monitoring officers under Phase 1)
NRIL	NR International Ltd
OECD	Organisation for Economic Development and Cooperation/
PAID	Partnership for Agricultural Innovation and Development (Sierra Leone)
PAM	Performance Accountability Matrix
PARC	Performance Assessment Resource Centre (IOD)
PCB	Participatory Crop Breeding
PCI	Participatory Crop Intensification project (Nepal)
PCI- FORWARD	PCI project implemented by FORWARD-Nepal
PETTRA	Poverty Elimination Through Rice Research Assistance
PMCA	Participatory Market Chain Approach (Nepal)
PPP	Public-Private Partnership
PSA	Public Service Agreement (DFID)
PVS	Participatory Varietal Selection
QOS	Quality of Science (RIU)
QR	Quarterly Report (RIU)
RDC	Rapid Demand Creation
RF	Research Fellow RIU (Phase 2)
R&D	Research and Development
RIU	Research-Into-Use programme
RMRC	Rat Management for Rural Communities (Bangladesh)
RNRRS	Renewable Natural Resources Research Strategy (DFID)
SOS	Stamp Out Sleeping Sickness (Uganda)
SHG	Self-help group
SSC	Statistical Services Centre (University of Reading)
SCP	Small-holder commercialisation Programme (Sierra Leone)
TOC	Theory of Change
TORs	Terms of reference
T&V	Training and Visit Extension System
USAID	United States Agency for International Development
VBAA	Village-based Agricultural Assistants (Kenya)
VDC	Village Development Council (Nepal)
WTS	Well-told Story (Kenya)
3IE	International Initiative for Impact Evaluations



## Research-into-use: An Independent Review.

### Executive Summary of Report

#### Introduction to Project and Review

- S1. The objectives of the RIU were to support sustained poverty reduction through agriculture by contributing both to investment in innovative technologies and to knowledge about how to support and sustain innovation. The programme was based on models that go beyond the traditional linear research and extension systems common in developing countries.
- S2. It was divided into a "development component" & a "learning component". The development component comprised the field activities or "experiments" covering 40 activities spread across East Africa, West Africa and Asia working through Africa country Programmes (ACPs), Asian Challenge Fund projects and "Best Bets". The learning component first operated as Monitoring, Impact and Learning (MIL) and then through the Central Research Team (CRT), carrying out research into research-into-use.
- S3. Implementation has been in two phases split by a Mid Term Review (MTR) that led to a fundamental reorganisation, implementation through fewer activities and a stronger, more explicit focus on the role of the private sector in encouraging innovation.
- S4. The present Review focussed on actual and potential impact and on identifying lessons learned. It worked through:
  - i. a general study of the programme based on interviews and documentation.
  - ii. a review of the development component based on:
    - a. eight detailed case studies of the 40 or so existing field activities. The studies looked at **institutional and instrumental change**, **social issues** and **household level impact**.
    - b. qualitative household surveys in three of the case studies, one from each type of intervention, with a smaller one from a second ACP, to investigate motivation, attitudes and impact on households.
  - iii. an investigation into the quality of science in the learning component.

#### Institutional change:

- S5. The ACPs are the most explicit at promoting institutional change whilst the other two models generally promote more targeted institutional change related to their respective activity. Lessons were learned about the importance of changes in **relationships**, in **roles** and in **policy**.
- S6. Most RIU activities attempted to change **relationships** in one way or another but the ACP Innovation Platforms took the most systematic approach to altering how producers relate to other actors in their commodity chains. They explicitly encouraged the formation of new linkages and partnerships and motivated the private sector to become more involved with small producers.
- S7. The activities also influenced how government relates to small producers. They created new linkages with donors too, although these generally turned out to have more to do with funding than with influencing how donors operate in respect of poor farmers.
- S8. Nearly all RIU activities developed new **roles**, including roles not existing before and changes in ones that did. The private sector in particular took on a new importance. Roles for brokers were developed and filled by individuals and by institutions, such as the NICs, both at platform and at national level. Among other achievements they provided important non-market coordination and solutions to many implementation difficulties.
- S9. It remains to be seen how sustainable these changes are. There has been both government and non-government interest in taking them over. However, lack of interest was also evident from

some sections of government. Poor capacity and problems in developing long term funding systems also existed and endanger sustainability.

- S10. Most RIU activities fitted themselves into existing **policy** rather than setting out to change it. Nevertheless, there has been some success in raising awareness about policy issues and influencing change in operating procedures, as well as in forging alliances with others who also seek to change policy.
- S11. An important lesson about attempting to influence policy that came out of the work confirms the importance of making sure that any project aiming to influence policy is explicitly structured to build relationships and networks that include policy makers.
- S12. The **instruments** used by programme activities have included facilitated inputs, risk reduction measures, training and, to a smaller extent, investments.
- S13. The Review was able to observe common themes between the activities indicating the conditions that need to exist if innovation is to occur. However, there was little use of standard development planning approaches that incorporate ex ante social, economic and institutional analysis in the activities and only limited formal analysis of progress that could have assisted lesson learning and guided implementation. There also remains considerable scope for further ex post economic and social analysis about how the different techniques have worked and how effective they have been.

#### **Social change:**

- S14. When the programme was established there was only limited guidance on social issues although, in addition to the focus on poverty, there was always a general recognition of the importance of working with marginalised and disadvantaged groups as well as women. Important conclusions can therefore be drawn about **inclusion**, the generation of **social capital** and **gender** issues.
- S15. **Inclusion**, or targeting of groups most in need, can be by working in poor areas, choosing crops, activities and services favoured by them, and by working through organisations that already target the poor & disadvantaged. Again, results might have been improved by more explicit professional analysis of these goals in the early stages of an intervention.
- S16. A number of conclusions about generating different forms of social capital can be drawn from the activities. **“Bonding”** social capital refers to the strength of bonds within and between families and interest groups. Most of the activities attempted to promote it by working with groups and evidence did emerge that this gives individuals stronger voice and reduces transactions costs. On the other hand, it was also noted that this form of bonding occurred even in the counter example of FIPS-Africa that explicitly avoided working directly with groups in order to improve inclusion.
- S17. **“Bridging”** social capital describes the connections between beneficiaries and their livelihoods associates. Strengthening this was a notable outcome of the ACP Innovation Platforms as well as of some of the Asian activities working with value chains. Finally, **“linking”** social capital, which describes relationships between social, political and economic unequals, was successfully targeted in several cases, including through the National Innovation Councils and the unconventional example of Shujaaz.
- S18. There were many positive social lessons from this programme., though they would have been enriched by additional professional analysis of economic, gender and social issues at the field level. There would have been more interesting enquiry and lessons if there had been greater analysis of political economy and institutional matters at all stages. Allowing greater voice from the targeted poor within the design, implementation and monitoring of activities would also have improved performance and responsiveness from those groups.

#### **Lessons from the household level.**

- S19. The household survey carried out by the Review revealed important lessons about the ways in which the activities were conducted. The sample chosen was purposive and not statistically

significant, but patterns emerged that indicated how the primary stakeholders viewed the programme and its outcomes, particularly in respect of: motivation for adoption; livelihoods impact; along with general attitudes of the respondents and how those attitudes affected results.

- S20. The results were particularly revealing about the ways in which innovations need to be presented to targets if they are to be adopted. Reasons why beneficiaries decided to adopt a technology offered to them included: taking advantage of material incentives, improving productivity, social pressure, hope of learning new skills, and using family labour surpluses.
- S21. The first of these was initially the most important, irrespective of wealth status or gender of household head, but the other issues became more important when it came to commitment to sustain the innovation after initial incentives disappeared.
- S22. Most adopters increased output as a result of the innovation, but changes need to be significant if they are to motivate sustainability. It was notable in these cases too, that increased production generally went to consumption, or reducing food deficits, rather than to creating or adding to a surplus, implying that the RIU was successfully reaching food insecure people.
- S23. Amongst factors that create sustainability, increased human and social assets were important, even though the prospect of increasing skills, knowledge and social capital often had not formed part of the initial personal motivation for adoption.
- S24. The best way of creating positive attitudes toward supportive activity clearly emerged as frequent, responsive and reliable contact that generates good personal relationships between facilitators and adopters. The importance of trust in the messenger and of working through local community members who are already respected is not a new message, but it was strongly apparent.
- S25. Lessons also come from the relatively few negative attitudes that appeared. For some, expectations had not been fulfilled. In some cases these expectations had clearly been unrealistic and that might reflect the way some project staff implemented the activities. Insufficient contact and support from staff; unsuitability of the innovation for local conditions; agronomic issues and the lack of promised inputs all also need to be guarded against.
- S26. The survey revealed too that poor people were more pessimistic, less successful in applying the innovations and more complaining. The fact that it is easier to work with better off wealth groups was underlined and this emphasises the need for activities targeting the poor to be organised so there is no temptation for staff to divert attention from that group and toward the easier ones.

### **The Learning Component**

- S27. The Learning Component of the RIU has produced an impressive array of research output, although explicit effort on social and economic analysis along with study of political-economic context would improve understanding of the lessons generated by the experience of the activities.
- S28. Considerable differences in the way the initial phase and the later phase of the programme dealt with monitoring field activity pointed strongly at the need to develop a balanced approach. On the one hand an intrusive non participative system becomes a chore that ultimately fails. On the other, an overly liberal approach can lead to insufficient collection of the systematic data needed to assess progress and feedback into the activities. Finally, more appropriately planned data collection could have been used more effectively as a primary pool of information for research.
- S29. Wide variations between the activities in monitoring were mirrored by variations in levels of backstopping. These gave rise to similar lessons about a need to balance autonomy and flexibility at the field level with the effective guidance and support needed to achieve specific objectives.
- S30. Ultimately, no innovation is going to be sustainable without financial viability. Supporting the activities to carry out financial, economic or social cost benefit analysis or some equivalent is therefore crucial to inform this issue.

# Report of an Independent Review of the DFID Research Into Use (RIU) Programme

## 1. Introduction

### 1.1 Introduction

1. This report offers an independent review of the Research-into-Use (RIU) programme funded by the UK's Department for International Development (DFID).
2. The RIU was established in 2006 with an inception period that lasted until June 2007. Following a Mid-term Review (MTR)<sup>1</sup> in middle of 2009 there was a major restructuring and this new Review focuses mainly on the period after that and up to May 2011.
3. The programme initially focused on promoting the uptake of products developed under previous research activities, especially those funded by DFID under the Renewable Natural Resources Research Strategy (RNRRS). Over time the programme moved more toward supporting institutional arrangements required to promote innovation in commodity chains and sponsoring initiatives that could demonstrate commercial potential. After the restructuring it gave more explicit emphasis to the importance of the private sector as key in unlocking the potential for growth and encouraging innovation over the long term.
4. The programme works by funding individual activities or projects that could be regarded as 'experiments' on the best ways of getting agricultural research results into use. The programme also has a research agenda of its own which has the objective of using the evidence generated by the experiments and combining it with further evidence gathered from other sources to identify, systematise and present what elements are necessary to put research into use.
5. Problems identified by the Mid Term Review related to the implementation of the programme, to management issues and to a lack of focus within the programme. Questions were also raised about the conceptual framework underlying the programme and about whether it would be able to deliver on the research objectives<sup>2</sup>.
6. The restructuring resulted in management changes, a new logical framework, a revised Business Plan and fewer experiments. The number of activities were reduced from about 140 to around 40, out of over 900 products that were considered during the inception phase. The research component was also re-organised and refocused during the MTR.
7. Although most of the field activities had their genesis in Phase 1, or even in earlier programmes, they only really began active implementation toward the end of 2009, following a transition period earlier that year. Hence at this stage the effective period of implementation has been too short to allow measurement of impact or assessment of outcome sustainability.
8. The purpose of the present Review is therefore to provide an independent analysis of the programme that focuses on actual and potential impact where it can, and especially on outcomes

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<sup>1</sup> Barr et al (2009)

<sup>2</sup> Barr et al (2009)

and outputs. It looks at some of the effects the interventions have had on institutions and systems so far and specifically asks:

- a) What has RIU delivered and what likely impacts can be foreseen?
- b) What has been successful and why?

9. The remainder of this Chapter provides a brief introduction to the programme and to the Review. The substance of the report is in Chapters 2 and 3 covering findings of on field activities (Chapter 2) and the research process (Chapter 3). Chapter 4 brings together some of the main conclusions reached by the Review in a number of areas.

## 1.2 Programme Objectives

### 1.2.1 Programme aims

10. The objectives of Phase 2 of the programme were stated in the logical framework attached to the Business Plan (July 2009)<sup>3</sup> and subsequently revised in April 2010)<sup>4</sup>, just before the Annual Review of May 2010 (Appendix 1).
11. The goal and purpose of supporting sustained poverty reduction through agriculture by contributing to knowledge and investment in innovative technology is served through two outputs that were simplified from Phase I as follows:

Output 1: putting research-into-use - carried out through the experience gathering "development component" that introduces and implements *"experimental modalities which seek to expand the demand for and use of, pro-poor agricultural research/technologies"*

Output 2: implemented through the "research component", run by the CRT, which studies *"experimental investment models, disseminate[s] findings and, thereby, increase[s] understanding of how to promote and expand use of agricultural research and technology"*

### 1.2.2 Progress indicators

12. The indicator set for the goal was expressed in terms of growth in agricultural GDP, with targets of 5% and 10% over 1 and 2 years respectively. No baseline was collected for this indicator and data have not been gathered to support it, especially since effects would not show up in this type of macro -level data over so short a period.
13. At the purpose level, two indicators were specified:
  - The scope of the programme was to be measured by the number of poor people benefiting from RIU initiatives. This figure is not systematically available for all projects. The potential number of people who might ultimately benefit from the changes brought about through programme activity can be estimated<sup>5</sup>, although only a small proportion of these would be direct beneficiaries.

<sup>3</sup> RIU June 2009 Annex A p. 17

<sup>4</sup> RIU April 2010

<sup>5</sup> And it has been, at a figure in the order of 65 million people (April 2010).

See <http://www.researchintouse.com/resources/riu10direct-impact.pdf>.

- Impact on policy change was to be measured through proxy indicators such as the number of policies and strategies informed by outcomes of RIU.
14. The output 2 indicator mentioned below is related to the latter of these, but in general the Review did not consider it was feasible to collect reliable data for these variables at this stage and in any case they would not provide direct measurement of changes in “knowledge of and investment in innovative models that promote the use of technology”.
  15. Indicators at output level are relatively easier to track.
 

**Output 1 targets** were to:

    - i. reduce the number of “challenge fund” projects included in the programme - many of which were carried over from previous programmes,
    - ii. maintain the country programmes started in Phase 1 and
    - iii. develop the Best Bets approach introduced in Phase 2. Information is available on all these areas.

**Output 2 targets** were broken down by number of publications, citations, policy dialogues and personal interactions. Data is available on this since the number of papers produced has been recorded and the RIU website contains a log of advocacy events in each country programme.

### 1.2.3 Programme Structure

16. Although the RIU was simplified after the MTR it remains a large programme. The structure as it affects this Review is as follows<sup>6</sup>.
17. The **development component**, which is implemented through three different approaches or **modalities**, each of which comprises a number of “projects” or “experiments”<sup>7</sup>:
  - a) The **African Country Programmes (ACP)** was established in six countries, four in East Africa and two in West Africa. They were designed to take a holistic approach to innovation, starting with an assessment of “the system” and leading on to the identification of specific interventions, usually focused on a specific commodity chain.

Central to the implementation plan for each commodity chain was a loosely-defined “innovation platform”, convened by RIU and comprising key stakeholders.

A National Innovation Council (NIC) was established in each of the countries in which the programme worked which formed an umbrella structure under which the commodity platforms operated and which acted as an interface between the informal platforms and policy makers.

Funding for the platforms from the RIU has been relatively small in each country, especially when compared with the large and comprehensive agricultural modernisation programmes<sup>8</sup> which were also being introduced in the countries where RIU operated. The activities funded

<sup>6</sup> A more lengthy, and personal, interpretation on how the Programme is organised can be found in Annex 3 - A Beginner's Interpretation of the RIU Project.

<sup>7</sup> The word “experiment” is often used within the RIU to describe the activities under each project. However, not all were strictly experiments and so the word “activity” is also sometimes used, especially when referring to the Asian programme. The word “programme” generally refers to RIU and its implementation modalities.

<sup>8</sup> such as Comprehensive African Agricultural Development Plans (CAADDP)

through the country programmes were limited to helping these evolving agricultural or rural development systems become more innovative and the starting points and rationales for the interventions differed in each country.

The ACPs were staffed by a RIU Country Programme Manager (CPM) assisted by one or more programme managers or officers with responsibility for the commodity platforms. During Phase 1, the Country Programme offices were given little flexibility over the way they operated but in Phase 2, following the MTR, greater discretion was given to the CPM, including provision of a small flexibility fund over which the CPM had control.

- c) **The Asian Innovation Challenge Fund (AICF) projects** were set up in Bangladesh, Nepal and India, with limited activity in Vietnam and Cambodia, through an Innovation Challenge Fund with the stated aim of answering specific research questions.

These projects are grouped into a number of thematic clusters covering:

- a) dissemination of crop varieties developed through participatory research;
- b) promotion of research products into commodity chains; and
- c) development of research into natural resource management.

Projects funded under the AICF were generally closely related to projects which had been funded previously under the RNRRS. These projects also had a private sector element to them and, under Phase 2, a commercial focus. The rationale for each project was often articulated around a problem and the research product required to address it. The AICF also included a number of projects for which funding was provided under the 'Best Bet' programme, although each generally retained the characteristics of a previous project it continued from, and it was still managed under the AICF.

- b) **The African Best Bets Programme (ABB)** comprise a number of projects aimed at support for high-potential new technologies that combined profitability with social and development aspirations.

The initial focus of the Best Bets programme was on entrepreneurs, selected through a competitive and challenging process similar to the "dragon's den" arrangement in which prospective agencies 'pitched' their proposals to a panel of experts. Project success was dependent on implementers being able to see their way through constraints that would arise. The onus was therefore on the entrepreneur/project manager to ascertain the issues and risks in the system in which they operated. The programme has active projects in Kenya, Uganda, Tanzania, and Ghana.

18. The **research component** of RIU is aimed at learning and research and was intended to combine lessons from the experiments/projects of Output 1 with knowledge about putting research into use generated outside the programme,. The purpose was to produce policy guidance on supporting and encouraging innovation in agriculture.
19. Overall responsibility for Output 2 lay with the Central Research Team (CRT) which was contracted out to Learning, Innovation and Knowledge (LINK). The CRT consisted of senior research staff and Research Fellows based in country offices and elsewhere. As well as reports produced by the CRT core staff, the CRT also commissioned a number of external studies.
20. The establishment of the CRT was a response to the problems there had been of coordination between the implementation and research activities in Phase I. Specifically, there had been



concern that the RIU activities were not the intended “population of interest” for research and that projects were not being informed by a unifying conceptual framework.

21. These problems were to be resolved by bringing research functions closer to central management and making the CRT responsible for shaping and supporting the field programme. The extent to which this has happened is assessed in Chapter 3. However, it is worth noting here that CRT did not see this coordination function as being part of its role, instead identifying the main clients for their outputs as policy makers and academics that were external to the programme.
22. The learning aspects of the ABB programme have been structured differently and are closely integrated into the support arrangements for individual projects. The implications of these different arrangements are discussed in more detail in Chapter 3.
23. **Central management team.** The complex conceptual structure of the programme and the legacy of the management structure and style of Phase 1 had, in turn, been carried forward from the previous RNRRS programmes. In essence, central management has acted as a hub providing grants to relatively autonomous units comprising the different developmental models and the CRT.



## 2. RIU as a Development programme

### 2.1 Introduction

24. In this Chapter the Review uses material it collected during its fieldwork, including primary data from household surveys, to look at how the RIU introduced and implemented experimental models to expand demand for, and use of, pro-poor agricultural research/technologies. It also discusses some of the results and outcomes of that work.
25. Eight case studies were chosen for special study<sup>9</sup> from programme activities in seven countries and household surveys were carried out in four of those sites.

**Table 1. RIU Review Case Studies**

No	Focus	Modality	Case study activity	Case study country	Nature of activity
1	Commodity chain	ACP	Potato Innovation Platform	Rwanda	Availability of quality seed potatoes improved by: 1. Training & encouraging farmers in improved positive / negative selection of seed potatoes from own crops. 2. Supporting effective multiplication, certification and commercial distribution of mini tissues from improved varieties.
2	Commodity chain	ACP	Cassava Innovation Platform	Rwanda	Availability of new mosaic disease-free cassava planting material and crop husbandry improved through use of Farmer Field Schools.
3	Commodity chain	ACP	Poultry Innovation Platform	Sierra Leone	Poultry feed expansion supported through inputs for maize and start-up assistance for mills and chick production.
4	Commodity chain	ACP	Aquaculture Innovation Platform	Nigeria	Support to fish farming commodity chain by facilitating access to quality brood stock, locally produced feed, production and post-harvest technologies, integration with vegetable farming and linkages throughout the commodity chain.
5	Commodity chain	ABB	Farmer Inputs Promotions (FIPS)	Kenya	Village-based Agricultural Advisors supporting small farmers with appropriate technologies and appropriately scaled inputs for locally important crops.
6	Supply response	AICF	PCI-FORWARD	Nepal	High quality seed produced locally and promoted through distribution of samples.
7	Demand management	AICF	RMRCF	Bangladesh	Rat Management for Rural Communities Effective trapping systems and advice provided for controlling rats in rice fields.
8	Demand management	ABB	Shujaaz	Kenya	Youth targeted printed and radio mass media used to disseminate agricultural and other advice.

<sup>9</sup> See Annex 2 for a more complete description.

26. The case studies were purposively selected to reflect the characteristics of the approximately 40 plus projects being implemented in Phase 2. The selection criteria were specifically the modality or experimental model, geography and sectoral orientation of the substance of the activity (Table 1).
27. The main criterion for retaining projects between Phase 1 and Phase 2 related to their potential for private sector commercial sustainability. These findings, therefore, apply to this final set of projects, rather than to the set of projects which were included in the programme at the end of Phase 1.
28. The types of innovation found in the eight case studies are indicated in Table 2. In Phase 2 all of them were encouraged to promote private sector leadership.

**Table 2. Type of interventions found in RIU case studies**

Types of innovation	ACP	ABB	AICF
New technologies (e.g. crops, varieties, fingerlings, rat traps, etc)	Rwanda Nigeria Sierra Leone		RMRCF (Bangladesh)
New local sources for seeds	Rwanda	FIPS-Africa	PCI -Forward (Nepal)
New connections between providers and farmers		FIPS-Africa	
New ways of disseminating information		Shujaaz	

29. Apart from the research on what drives, facilitates and even inhibits innovation, the practical activities of the programme have worked with different ways of identifying appropriate innovations and putting them into use.
30. The general focus of the activities has been to look at specific problem areas that are the subject of the innovation in the whole commodity chain of which it forms a part (Table 3). The approach was to offer external facilitation that would lead to the mobilisation of actors who would be able to identify solutions and provide the inputs and services needed.
31. Country assessments were carried out at the start of the programme and these helped to identify problem areas. Ultimately, however, there has been an emphasis on the use of strong individuals as the principal agents of change in this process, and even to identify the problems. They include Country Programme Managers and platform conveners in the ACPs, and entrepreneurs in both the Best Bets and in the Asian activities. They are responsible for the analysis of problems, the identification of individual interventions and the instruments to be used.
32. For the most part the individual interventions by the Project have been relatively small. They can be seen as 'nudges' to the system, or as a means of filling gaps, that will lever significant improvements in the functioning or capacity of the system so that it facilitates sustained innovation.

Table 3. Underlying problem addressed by each case study

Project rationale	African Country Programmes			ABB	AICF	AICF
	Nigeria	Sierra Leone	Rwanda	Kenya	Nepal	Bangladesh
	Aquaculture Platform	Poultry feed platform	Potato/Cassava Platform	Farm Inputs Promotion (FIPS)	Participatory Crop Intensification (PCI)	Rat Management (RMRC)
<b>Underlying problem</b>	Market is not functioning due to problems with sourcing fish feed and fingerlings	Eggs are imported at great expense, because of a lack of feed. (Maize is a new crop which could provide feed And income)	Poor quality seed and production techniques following civil war	Farmer not receiving inputs on time and in an appropriate form, especially for 'orphan' crops	High quality seeds expensive and not appropriate to small holder farming system; improved seeds not being taken up, because of access and knowledge. Few incentives for seed producers to access these areas.	Rats are a health hazard; people not aware of risks; coordinated community action needed to address problem; (new traps not available locally)
<b>Causes</b>	<p>Little trust between actors in the sector</p> <p>No regulation and certification of fingerling providers Difficult to determine species at fingerling stage</p> <p>Lack of knowledge of aquaculture technology</p>	<p>Takes time to adjust in post-civil war period</p> <p>Inputs not available; knowledge lost; social institutions and markets not functioning well</p>	<p>Takes time to adjust in post-civil war period</p> <p>Inputs not available; knowledge lost; social institutions and markets not functioning well</p>	<p>Failure of government systems, through lack of incentives for dealers and extension agents</p> <p>Lack of interest in poor people's crops</p>	<p>New improved technology, with some additional costs and risks when compared with traditional, but not as high cost or risky as commercial varieties.</p> <p>Producers/users are not involved in selecting varieties</p>	<p>Lack of social organisation; lack of supply chain for rat traps</p>
<b>Outcome</b>	Little incentive to invest; low production levels	High cost of protein	Low productivity Low participation	Poor and small farmers not innovating	Low productivity	Rat infestation
<b>Impact</b>	Fish prices are high and inaccessible to poor people	Eggs only consumed by rich; missed income opportunity	Low incomes Limited employment and contribution to national income	Poverty and exclusion	Cycle of poverty	Poor health

N.B.: The Shujaaz case study is not included in this format

33. The following sections provide a summary of the findings about how these activities were implemented and what outcomes are emerging in three areas.
- Section 2.2 discusses Institutions. The RIU puts a strong emphasis on institutional requirements for putting research into use so the first section below identifies institutional changes that RIU has influenced and some of the instruments it has used to do this.
  - The way the RIU has affected poverty, social and gender issues is looked at in Section 2.3.
  - Section 2.4 discusses the innovations promoted by the RIU and what impact the primary beneficiaries have observed in their quality of life as a result of them.

## 2.2 Institutional transformation and Instrumental Change.

34. Institutional change, including developments in roles played by individuals, along with the appropriate use of instruments, has been the subject of most of the RIU activities in one way or another, and a major focus of the work carried out by the CRT.
35. The purpose of the Review is not to evaluate these individual activities but to use the case studies as evidence to develop a more general picture of the programme and the associated lessons learnt.

### 2.2.1 Institutional change

36. Changing institutions in order to facilitate innovation is at the heart of the RIU programme. The African Country Programmes aim explicitly at promoting institutions that encourage interaction amongst commodity chain actors. The African Best Bets and Asian Innovation Challenge Fund projects generally seek institutional change that is more specific to the targeted activity.
37. Monitoring institutional change is not easy and has not been carried out systematically by the Project. However, the Review did develop a qualitative understanding of some of the changes that have taken place and it has identified three types of development resulting from its interventions. They were: changes in **relationships**, changes in **roles** and changes in **policy**.

#### ***Changes in relationships, systems and processes:***

38. The first of these refer to transformation that could be identified in relationships between producers affected by RIU activities on the one hand, and other actors in the commodity chain as well as government agencies on the other.
39. The main changes seen were in the relationships amongst producers targeted by the activities and other commodity chain actors promoted by facilitating meetings and other forms of interaction. For example, important developments of this sort were seen in Sierra Leone where partnerships were being forged with careful forethought, and also in Nepal where new linkages were developed between users and producers of seeds as well as with providers of services and finance.
40. In Nigeria active steps have been taken to increase private sector participation in research and innovation. Also, the cassava platform in Rwanda has brought the attention of the private sector to the commercial potential of cassava, up to now only considered a subsistence crop.
41. FIPS-Africa has placed emphasis on forming links between commercial producers of seed and fertilizer manufacturers with small farmers, again a market that commercial concerns had previously regarded as too small to merit attention.

42. Although to a lesser extent, changes are also apparent between producers and government agencies. In particular, the aquaculture platform in Nigeria has been successful in bringing together government and private sector stakeholders, including in research activity, and this has affected attitudes and the way in which the stakeholders operate and interact. Linkages with donors have been developed too, but they seem to have been aimed mainly at finding further funding for producers rather than at encouraging donor organisations to learn lessons and change the ways in which they operate in respect of small farmers.
43. Developments were also seen in the dynamics of production and supply, including in seed production, quality control, certification, labelling and government regulations.
44. Not all of the changes have gone smoothly. Several instances were found where RIU activity encouraged innovation that led to demand for inputs that could not be supplied, at least in sufficient quantities. For example, demand created for traps promoted by the rat management project in Bangladesh and pheromone traps publicised in Shujaaz have not been satisfied. Supply problems have also been faced by FIPS-Africa. Two other Best Bets, the Army Worm and the Real IPM projects, although not included in the case studies, are known to have come up against tougher regulatory hurdles than expected.
45. It is emphasised, however, that learning about, understanding and solving just these types of problems is an important part of RIU activity. Some of them might have been foreseen and dealt with better if planning had been done differently, but it is neither possible nor desirable for there to be complete certainty that all problems can be solved before starting an activity. In any case many unforeseen problems were ultimately solved satisfactorily and it is not surprising that some have turned out to be more intractable than others.

***Changes in roles of institutional actors:***

46. The second type of institutional change refers to the development of new roles for institutional actors and of new ways in which existing roles are carried out.
47. Training has been provided for institutional actors in an effort to improve the ways in which they carry out what they do, and new institutions with new roles have been created. The engagement of the private sector as a key player in commodity chains has generally increased, with RIU brokerage creating new ways of communication and coordination between the private sector and other commodity chain actors.
48. In fact almost every RIU activity has developed new roles. An example is to be found in one of the projects supported by the Sierra Leone Country Programme which identifies problem areas in commodity production where commodity platforms can play a role. Another is in Nepal where Community-Based Seed Producers (CBSPs) have established new ways of producing and distributing quality seeds. Also, commodity platforms in Rwanda provide advice for their members through Community Facilitators who also provide voice when dealing with other institutions and credibility for individual members who are looking for finance or other services. Finally, Village Based Agricultural Advisers (VBAAAs), established through FIPS-Africa, provide a new source of inputs as well as advice on a permanent and self-financing basis.
49. It is too early to come to a conclusion about the effectiveness or the sustainability of all these developments. Many appear to be working well at the moment, though lessons are also still being learnt about what is needed to ensure they do not disappear when the funding does.

50. In Nigeria there is serious interest from central level structures in continuing methods that have been developed by the RIU. In other places the sustainability of new roles is less certain. In Nepal it was originally planned that future support for the CBSP groups would come from the extension services, which have indeed prioritised this activity. However, the poor capacity of those services has raised doubts about their ability to do this and there is now a search for new support options. Similarly, the rodent control groups in Bangladesh are unlikely to get the support they need from the extension authorities, especially since in this case the extension service does not even see the activity as a priority for them.
51. Nevertheless, variations in the level of seriousness about the uptake of new roles when RIU ends provides lessons about planning in the preparatory stages of project development to make a clearer assessment about the ability of identified institutions to take on and continue new roles and change existing ones.
52. A case in point is the role of brokering, which has been fundamental to many of the RIU activities, and especially the African Country Programmes. This is a role that has emerged and been promoted both at the level of platforms and at national level.
53. At the former level they provide a non market coordination role that fills gaps in state systems and help implement RIU activities. They are carried out both by individuals and, as in the case of Sierra Leone, institutions. They also lead to the facilitation and development of linkages between actors and aid information flows. At the national level the National Innovation Councils (NICs) also have brokering roles which have been able to elicit much stronger commitment from key agricultural sector players.
54. Again, the future of some of the institutions developed as well as the roles developed at the individual level, remains to be assured. This is especially the case given that the intention to provide funding through a fee structure has not yet proved successful in some cases.
55. There has also been considerable discussion about the sustainability of innovation platforms themselves, whether they can be sustained - and indeed the extent to which they need to be sustained at all. If they do not survive then the question arises about how the learning that they have encouraged, the relationships they have fostered and the advocacy they lead to, can be maintained and expanded.
56. In many cases functions are carried out voluntarily or underwritten by the RIU and clarity is still sought on what will happen when the programme ends. Where the success of activities depends on the energy of a single charismatic and highly committed individual or "champion", the energy generated will usually prove hard to sustain when that individual has moved on.
57. The potential for the private sector to become involved in brokering to continue into the foreseeable future depends on whether appropriate incentives can be developed.
58. Whether it does varies in the different activities according to conditions including, for example, local attitudes toward the private sector, the policy and regulatory environment and how stable or conflict prone a country is. The potential is less, for example, in Rwanda and Sierra Leone than it is in Nigeria or Kenya.
59. There is scope for much more study of the involvement of the private sector and how it gets involved. The strategy of increased private sector involvement would benefit from more systematic monitoring and documentation of experiences than has been the case in the RIU.

***Changes in policy and administrative environments relevant to innovation:***

60. The third set of institutional changes that has been identified refers to the influence of policy. It is noted that, in general, the approach taken by the programme has been to align itself with government policies rather than to change them.
61. In some cases, such as the Rat Management for Rural Communities Project (RMRCPP) in Bangladesh, awareness about policy issues was raised through RIU activity but this did not lead to change. In others, including in Sierra Leone and Nigeria, issues were raised with government but the relatively small size of the RIU activity gave it little influence.
62. More effective influence on policy would probably have required a different design for the RIU, including the development of closer relationships with policy makers.
63. Nevertheless, there are instances where RIU methods *have* influenced local policies and particularly specific operating procedures. There have also been cases where the Project has been able to combine forces with other actors (the private sector, donors and NGOs) which makes it possible to contribute to lobbying for policy change more effectively.
64. Quite a few examples were found where there has been an impact, especially in the area of regulatory and administrative systems. They include Nigeria once again, where contributions were made to standardisation and certification guidelines for the production of fish fingerlings and the management of fish farms.
65. FIPS-Africa's advocacy in Kenya led to policy change allowing the certification of small quantities of seed. And there are examples in Asia, including Nepal, where the participatory market chain approach has been endorsed by the government. In Malawi also, although not a case study country, evidence was gathered of improvements in regulations relating to fingerlings and seed certification.

**2.2.2 Instruments used:**

66. The main instruments used in RIU projects were the provision of:
  - (a) inputs, in cash or kind, into the commodity chain;
  - (b) risk reduction measures for poor farmers taking up unknown technologies;
  - (c) training in various forms for key players in the chain; and
  - (d) investment to stimulate specific sections of the commodity chain.
67. Inputs and risk reduction measures are closely connected, since subsidies on inputs reduce the potential for loss for the recipient.
68. Nearly all the activities use subsidies and the household survey (discussed below) found direct evidence of the importance of such incentives in promoting innovation. It is worth pointing out also, however, that if subsidies are to be successful in leading to long term use of the innovation, the innovation needs to generate sufficient value to provide the incentives and motivate all actors in the chain.
69. In nearly all the cases where these incentives have been used there is more scope for financial and economic analysis of the way in which the subsidies work and how they lead on to a more viable and longer term functioning of the commodity chain.
70. Training or capacity development is targeted toward agents at different places along the commodity chain, specifically at producers, intermediaries and policy makers. Whether they are playing new roles or improving the way they perform existing ones, the aim is to improve



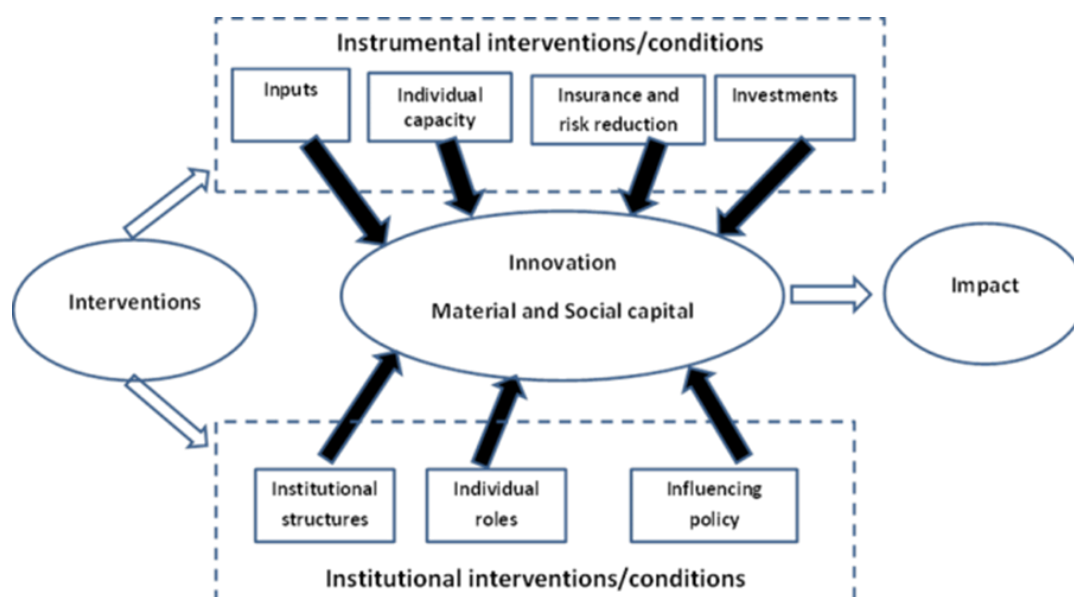
understanding of how their roles fit into the commodity chain, to implement them more efficiently at a technical level, and to encourage individual actors to interact with each other more effectively.

71. Emphasis on training is clearly justified where there is technical change and new roles are created. Furthermore, the household survey (Section 2.4, below) underlines the extent to which primary stakeholders themselves value training and capacity development, and the fact that the prospect of training itself can be an incentive to innovate.
72. Investment promoted or enabled by RIU activities can be exogenous (from Government or donors) or endogenously induced by commodity chain actors perceiving higher returns and responding with additional capital.
73. The RIU strategy has generally been to encourage investment by others but investment from state agencies (other than donor funding) was rarely found within the RIU. Relatively small amounts of direct investment from the programme itself did take place, for example on infrastructure in the form of a greenhouse for producing seed potatoes in the Rwanda Potato Innovation Platform, but it was generally limited.
74. Other capital injections that occurred with the support of the Project include exploratory investment, co-investment with private sources, and investment in new institutions.
75. There are several examples of such developments within the case studies. FIPS-Africa has encouraged seed and fertilizer companies to package products in the much smaller amounts that are appropriate to small farmers. This has prompted companies that would not normally have bothered with such farmers to make exploratory investments that include them as targets.
76. Another example is the Shujaaz project which has joint investment with media bodies and other companies that allow it to distribute its development and social messages in return for advertising. In Nepal, RIU has direct investment in a private sector firm that aims to overcome bottlenecks in the supply and commodity chains.
77. Again, it is not possible to assess the long term impact of these activities but the RIU interventions have certainly demonstrated potential for showing how incentives can be devised that would encourage private sector involvement in developing innovations that benefit small, poor farmers.

### 2.2.3 Summary of findings and lessons emerging

78. During the Review, and particularly when carrying out the case studies, a number of issues emerged about the conditions required for the successful promotion of innovation and these are summarised in a general framework below. Not surprisingly, these conditions are similar to those that might arise in the institutional analysis of any sector.
79. The framework is descriptive rather than analytical and it simply seeks to summarise areas that need attention when facilitating innovation. In the illustration the elements are grouped and separated into two main functional areas:
  - a. **Instrumental** elements or interventions (inputs and investments) which are required to ensure that the existing or evolving system functions as intended; and
  - b. **Institutional or transformative** interventions (relationships, roles & policies), which seek to change the nature and capacity of the system as whole.



**Figure 1: A framework for support to Innovation**

80. The elements described were not always distinct in the case studies and it was sometimes difficult to determine whether an activity was instrumental or transformative without looking at the specific circumstances. Different elements were prioritised in each of the case studies and no one element was sufficient on its own. All the elements may need attention although, if an RIU activity was found to be active in only one or a few of them, it often turned out that the other elements were already in place and functioning.
81. The main use of interventions from a programme such as RIU is to shape, form or nudge current systems to make them more amenable to innovation. The Review demonstrated the importance of building social capital (discussed further in the following section) especially for the functioning of the type of commodity systems included in the case studies, which were largely governed by non-market coordination mechanisms (Figure 1). It has also highlighted the need to ensure that there are positive incentives for each actor in the chain. Clearly, innovation requires a sound policy environment as well as the right institutional structures.
82. As noted above, there has been an emphasis throughout the programme on the use of strong individuals as principal agents of change in this process, and even to identify problems. They include Country Programme Managers and platform conveners in the ACPs, and entrepreneurs in the Best Bets and in the Asian activities. It is they who analyse problems and identify the individual interventions and instruments to be used.
83. One thing that the Review feels has been lacking, however, is formal analysis at each stage of work as well as in monitoring. There does seem to be a need for programmes of this sort to make use of standard development planning techniques that are available for the social, gender, economic, institutional and political economy analysis of the background and context in which the institutional arrangements are situated.
84. Nonetheless, RIU has demonstrated that, with relatively little cost but with highly motivated and dynamic staff, commodity chains can be made to function more efficiently and productively.

## 2.3 Social Change

85. It has already been pointed out that the priority of the RIU programme was initially on how to get research into use and there was only limited discussion of desired social outcomes. Nevertheless, because this is a DFID-funded programme, poor people were always the explicit target of RIU and there is a requirement to ensure access for the marginalised and disadvantaged groups in society.
86. The lack of emphasis on social issues in programme documentation and logical framework did not inhibit awareness of those issues both before and after the reorganisation of the Programme. The Review, therefore, looked at the role that social change has played in programme activities.
87. It concentrated on two main social issues: the first was **inclusion**, specifically on whether poor and disadvantaged households and women were able to participate in project activities, and the second was the generation of **social capital** amongst those who were affected by those activities.

### 2.3.1 Inclusion

88. Two main aspects of inclusion were investigated:
  - targeting**: how the Programme dealt with who was able to take part in programme activities and so have the potential for receiving material and non-material direct and indirect economic and social benefits.
  - voice**: the way in which people, and women and poor in particular, were included in programme activities and the extent to which participants had a voice in programme decisions and how the activities gave them more control and power, both within the programme and more generally.
89. Table 4 offers a summary of how different aspects of inclusion have been handled in the cases studies and the following describes general highlights.
90. The objective of reaching the poorest, the marginalised and disadvantaged, including women, was achieved in both phases of the programme by:
  - a) working in specific areas where the population was poor (e.g. PCI in Nepal, FIPS-Africa);
  - b) choosing crops that are grown by the poor (e.g. FIPS-Africa; cassava platforms in Rwanda);
  - c) specialising in services provided for or by the poor (e.g. aquaculture in Nigeria),
  - d) working through NGOs that already targeted the poor and disadvantaged (e.g. Sierra Leone projects); and
  - e) working with activities that are traditionally carried out by disadvantaged groups, such as women (e.g. rat control project in Bangladesh).In Asia there were also government requirements to target disadvantaged groups based on caste.
91. These activities were all chosen and developed in Phase 1 and therefore it is not possible to assess the extent to which different outcomes would have occurred under the Phase 2 strategy of greater engagement with the private sector.
92. In addition some of the project activities took very specific steps to target the poor and disadvantaged. In Sierra Leone, for example, there were consultations to define the details of groups that should be targeted - leading to a youth and gender focus. The more active collection of baseline data characterising many of the Asian activities generally captured data on socio economic indicators that could be used to measure change in the target groups. In Africa, inclusion relied more on the location and the subject matter of the activities.

Table 4. Different forms of social capital found in the RIU case study experiments

FORM of social capital	African Country Programmes			ABB	AICF	AICF	ABB
	Nigeria	Sierra Leone	Rwanda	Kenya	Nepal	Bangladesh	Kenya
	Aquaculture Platform	Poultry feed platform	Potato/Cassava Platforms	Farm Inputs Promotion (FIPS)	Participatory Crop Intensification (PCI)	Rodent Control	Shujaaz
<b>Bonding (i.e. within homogeneous groups).</b>	Within groups and at District level.	Strengthened, but highly 'structured' by CBOS and NGOs.		Focus on individual farmers.	Works through groups – CBSPs ; promotes groups savings and loans.	Groups (women) formed for rat control.	Sense of youth identity within Kenyan society. Deals with social and moral issues affecting society.
<b>Bridging (i.e. between groups and/or agents along the commodity chain).</b>	Links to bona fide fingerling producers developed; greater confidence in sector as whole.	Role played by meta-level Platform (PAID), who coordinate along the chain.		Bridging managed by promoter; forms links and addresses linkages problem through contracting; creates incentives for linkages along chain, e.g. VBAA's income depends on farmer returns.	Limited bridging along the chain; Participatory varietal selection leads to need for bridging along chain. Seed company proposed to address supply problem.	Rotation among village groups in each area.  No supply linkages.	Not addressed.
<b>Linking between groups within the commodity chain and people in power.</b>	NIC in place.  Members often have informal links to official networks as many are ex Govt. staff.	Farmer groups have formed new relationships with District Agricultural Office.	Closely linked to national agricultural systems through licensing and access to other services.				The moral context of these relationships are raised and discussed.

93. The importance of groups in strengthening the voice of farmers is mentioned below, but even when the groups are of poor farmers, their ability to improve inclusion in general is limited. Working with them does not by itself lead to inclusion of marginalised segments of the population in cultures where women, specific castes or other groupings do not have as much time or opportunity to participate that others have. In Rwanda and Nepal respectively, for example, government policy to support greater representation of women and lower castes may have led to stronger presence but not necessarily to more effective participation.
94. FIPS-Africa had a policy of avoid insistence on group membership, in the way that many projects do, specifically to facilitate inclusion of those who would not, or could not, join such groups. The way their system of VBAs deal with the communication and logistical issues that groups are used to solve in other activities was an interesting and apparently effective exception. This approach merits a more formal comparative study.
95. Allowing Village Based Advisors (VBAs) to earn income from farmers also addressed the issue of accountability to their clientele. Other RIU activities allowed feedback and other forms of interaction through group meetings but the results of the household survey suggested that this was not as consistently effective an accountability mechanism as the potential economic power provided in the VBA system. This, and how it might be offset by, or complement, other implications of the VBA system, is also worth close study.
96. So, despite some remaining questions, the individual RIU projects show a general awareness of social issues when implementing activities and they all reflect the social and cultural context in which they operate, including adhering to legal obligations relating to disadvantaged groups. On the other hand, it must be acknowledged that none of the projects have staff members dedicated to dealing with gender, inclusion / exclusion or other social issues connected with development.
97. It should be noted also that the Review could not identify much formal study of the extent to which the targeting methods used have achieved the uptake by the poor and disadvantaged or whether they are the most effective means of reaching the intended beneficiary groups.

### 2.3.2 Social capital

98. Another question considered by the Review was the extent to which social capital, referring generally to benefits that can be derived from developing social relationships, was created amongst the groups who were reached. Table 4 (above) summarises the social capital issues found to exist amongst the case studies. Three types of social capital were considered.
99. **Bonding social capital**, which refers to ties within family, interest or functional bodies, appears in most of the RIU activities that work with producer groups. In addition to developing bonding amongst members this reduces the costs of project activities; an important consideration given the difficulty of contacting poor and marginalised farmers living in remote areas.
100. It is argued that the extent to which innovation is "socially constructed", and the atmosphere, discussion and interchange that take place within groups, both improve the quality of innovation and spread it faster. There was evidence that working in groups strengthened the ability of farmers to deal with other stakeholders.
101. For example, in the aquaculture project in Nigeria group membership is an obligatory pre-requisite for accessing services. In Sierra Leone being part of a group is also necessary and is tightly

regulated by the NGOs and CBOs implementing the activity. They operate almost as collectives, even deciding on whether surpluses from the activities should be retained or distributed.

102. No evidence could be collected to show how the use of groups alters innovation but working through NGOs, CBOs and even local individuals that have already earned local respect and credibility made the task of dissemination of new technologies considerably easier.
103. The household survey, described below, found that participant views of social capital were usually positive. Indeed, in the case of FIPS-Africa, which does not claim to create social capital and avoids working through groups in order to minimise exclusion, strong bonds were still established. Considerable discussion was generated amongst the farmers the project worked with, simply because of the common interest generated by the uptake of the innovation, even without the formation of a formal group.
104. **Bridging social capital** is defined by linkages with business or livelihood associates rather than personal ties. Promoting bridging social capital is an explicit objective of the ACP Innovation Platforms which are designed to establish links between actors in the commodity chains.
105. Bridging social capital is developed in Asia as well, for example in Nepal where the PCI involves both users and beneficiaries in the production of good quality seeds that reflect user preferences. It was also an objective of the Bangladesh Rat Control Project that developed a market for traps, although in this case there was little supply response to the demand created. Also, amongst the African Best Bets, FIPS has established a series of transactional relationships between seed companies and poor farmers.
106. **Linking social capital** describes connections amongst those on unequal footings, between people who do and who do not have power, and between people and institutions.
107. The work of the National Innovation Coalitions in the African Country Programmes provides the most generalised example of promoting such relationships. This has been especially valuable where farmers depend on state services and regulation, such as in seed certification and supply.
108. Finally, Shujaaz provides an interesting alternative approach to developing linking social capital. It does not offer direct material benefits but it does empower its target group by providing the information needed to develop linkages, and its effectiveness is enhanced by the way it gets its messages across by using an appropriate language and cultural package.

### 2.3.3 Summary findings and lessons

109. Some of the lessons on the importance of social capital that emerged from the case studies are provided in Table 4 above, and some of the points made are summarised below.
110. **Inclusion:** Although there has been a general awareness of poverty and marginalised groups within project activities, there is also a need for more specialised analysis of poverty and social issues in order to ensure that these groups have increased access to innovation, and to monitor the extent to which the activities have facilitated access by them.
111. Greater attention to this in the planning stages and in the monitoring of the activities would have facilitated correct targeting, justify it formally and allowed the development of baselines that would have made it possible to measure changes.
112. Effectiveness would also have been enhanced if the targeted groups had themselves then been involved in the design, implementation and monitoring of the activities.

113. Specific issues that need to be taken into account if inclusion is to be improved cover time availability; control over household decisions about disposal of assets and revenue; relative levels of education in the household; cultural barriers to speaking out; mobility and capacity to travel; access to government structures; and social perceptions and jealousies.
114. Improvements in **social capital** in its various forms have been significant across all the case studies. This again is a positive result that would have produced more effective lessons had there been baselines that would have allowed formal measurement and description of the impact.
115. **Other issues:**
- The dissemination of new technologies and the strength of adoption is clearly strongest when the innovation takes place through farmers who are locally known and respected and social bonds are developed between neighbours who are always available to each other.
  - More focus is needed on the extent to which farmer knowledge and expertise can contribute to the innovation. Some activities explicitly took farmer preferences as their starting point, and this could have been enhanced by developing mechanisms that allow constant feedback and incorporation of that feedback into the innovations.
  - Whilst dissemination of knowledge and demonstration of benefits can be effective in promoting initial uptake, it is also useful to monitor the medium and longer term impacts of the innovation and knowledge acquired in order to get an increased understanding of the sort of follow-up that is necessary to enhance commitment to an innovation.
  - There was a tendency in some activities for attendance at training and the receipt and / or initial uptake of an innovation to be seen as an end in itself. There were not sufficient data to allow a deeper analysis of the calculations farmers make when deciding to use the offered innovations and what they do after initial participation.
  - Lessons have therefore been learned about the importance of using a specialist in social issues to help in the design of activities, collecting baselines, carrying out on-going monitoring of social impacts, learning about barriers and solutions to inclusion problems, and allowing scope for taking into account new and emerging issues.

## 2.4 Participant views of change

116. The Review also wanted to understand the perception of households that were intended to benefit directly from specific activities. In the absence of resources to carry out a formal representative survey, three cases, one from each of the main RIU models with additional data from another ACP, were chosen for study. The cases chosen were as follows:
- African Country Programme      - Commodity Platform in Sierra Leone with additional material from Rwanda.
  - African Best Bet                      - FIPS-Africa in Kenya
  - Asian Innovation Challenge Fund   - Community Based Seed Producers, PCI in Nepal
117. A total of 125 households were interviewed. They were purposively selected to include representatives of each of three wealth classes which, because of cultural and other differences, meant that poverty or "well-being" was defined differently in each site. Hence the reference is to

relative poverty for each case. Approximately 26% of the respondents interviewed were in the better-off group, 39% in the average group and 45% were classified as being relatively poor.

118. A particular effort was made to target female-headed households in the survey in order to find out whether this had an effect on uptake or impact. Women-headed households made up about 25% of the sample and were interviewed by female enumerators. There are no data on how many female-headed households there are in the full population of beneficiaries, but it was probably less than this. There was a slight tendency for female-headed households to be poorer than male-headed households, but it was not strong, and there were some female-headed households that were better-off.
119. The interviews were based on a set of standardised but open questions that were designed to give a feel for the opinions of those who were benefiting from the Project and to reveal any potential patterns in responses based on household characteristics. It is important to note that respondents were given no prompting for any of these questions. No leading was provided and all responses were open, so the range and groupings of answers only emerged when the data were analysed.
120. Whilst the sample interviewed was in no way statistically representative, patterns did emerge that provide a feel for what primary stakeholders were thinking about the approach and outcomes of the programme activities. Only a few of the survey findings are offered here. There is a more complete report (Annex 10) where the design of the survey, the evidence for the findings and the analysis itself are all described in more detail.
121. Apart from gaining an understanding of general attitudes of respondents to the RIU, two main issues were investigated in the survey. The first looked at the reasons why households take up innovations, and the second studied the effect the innovations have on their families when they do take them up.

#### **2.4.1 Motivation for Adoption**

122. Understanding what motivates farmers to adopt changes in their practices is fundamental to the objectives of RIU and the farmers' own views of this are an important input into understanding the issue.
123. Five main reasons, or groups of reasons, were given for why the respondent households had taken up the innovation. They were:
  - i. To get the material inputs: free, subsidised or facilitated in some way. It was not always the case that the price of the inputs was the issue. In some cases the problem was that the farmers were having difficulty obtaining the inputs at all without the help of the RIU.
  - ii. A general hope that the respondent would improve productivity and earn more. The source of improved productivity could be from new activities, improved varieties or improved skills.
  - iii. As a response to social pressure from friends, neighbours, colleagues or from someone they respect.
  - iv. The hope of gaining skills and learning improved farming systems.
  - v. As a way of using labour surpluses in the family.
124. The gender of the household head had no obvious impact on the reported motivation for adoption.
125. By far the most frequent reason given for adopting the innovation was the presence of incentives; whatever the type. This was no less true for the better-off group than it was for the poorer one, even though the monetary value of the inputs was usually small. On the other hand, poorer



respondents were more likely to push for a continuation of the incentive in the future, in whatever form it took.

126. It is worth noting also that producers generally did not express the attraction of free, subsidised or facilitated inputs as a means of reducing the risks they faced in trying the technology, but that is a possible interpretation of it.
127. Although the availability of inputs was given much more importance than the prospect of improved productivity by respondents, increased output, as well as some of the other reasons cited, were more important determinants of whether the farmers said they would continue to use the technologies after the subsidies had ended.
128. The relatively short life span of the Programme means that it has not been possible to verify retention of the innovation once adopted, but most (though not all) respondents indicated that they intended to continue using it.
129. The importance of incentives is understood by the staff of all the RIU activities but there are dangers to avoid when using them, and in some cases responses did suggest that excessive expectations had been aroused, even if unintentionally. Some respondents expected things from the project - principally greater and more continuing material support - but also types of training, that there was never any intention of providing.

#### **2.4.2 Livelihoods impact.**

130. Having taken part, the households were generally very positive about the programme. Not everybody agreed but the majority were able to report positive outcomes.
131. The livelihoods impacts included direct economic benefits as well as increased human and social assets. The impacts reported were quite varied and many reported multiple impacts. The main ones that were described can be summarised in the following list:

*Positive material impact:*

1. Improved productivity
2. Improved food consumption (quantitative and / or quality)
3. Increased cash income
4. Increased assets

*Positive Impact of human capital:*

5. Greater knowledge / greater skills

*Positive impact on social capital:*

6. Widened social network

*Negative impact:*

7. Innovation was tried and rejected for lack of continuing support
8. No benefit received at all

132. Most of the households reported increased output and for the majority (71%) of those who did, it was consumption that was affected. This means that any increased production was more likely to reduce a food household deficit than create or increase a surplus. Some respondents did say that they were already eating enough before they started participating, and so the extra production had no effect on consumption patterns or quantity, but nearly all of these came from the richest group and none at all came from the poorest category.
133. In general, however, the fact that it was mainly consumption rather than cash income that was affected provided evidence that the RIU was reaching food insecure people.



134. Most households were also very positive about the increased knowledge they had received from participation in the programme including, but not confined to, the benefits of formal training, even where this had not been part of their initial expectations when getting involved.
135. Another benefit that was discussed by many but which had not been expected by them was the expanded social network and increased social capital that their participation had generated. Social pressure was frequently described as a motive for participation, but irrespective of that pressure, many respondents mentioned the widening of their personal network as a result of participation.
136. Finally, there was a group of negative answers about impact and these are described and commented on in the following section.

### 2.4.3 General attitudes

137. The survey also revealed some general attitudes of participants and specific points about their experience of participation in the respective projects.

- **Positive attitudes:** general sentiment toward the RIU was overwhelmingly positive.
- **Complaints:** Nevertheless, criticism did arise. Poorer people were more likely to be negative than better-off ones and there were occasional but persistent complaints that arose where material expectations were not fulfilled, when the innovation did not have the results expected or if there was insufficient contact with representatives of the Project.

There were also specific complaints about agronomic issues such as maturing periods, the need for complementary inputs that were not supplied, and unsuitability of the innovation for local conditions. In some cases these complaints referred to issues that were not under the control of the project, as for example when crops had failed because of drought.

It was apparent that poor producers were more likely to blame the RIU activity they were associated with for this kind of problem than better off ones.

- **Sustainability:** The survey took place too early to come to a firm conclusion about sustainability. In some cases it was clear that lives had been affected profoundly by their experience of contact with the RIU, whereas in others the improvements were more incremental. The majority of respondents claimed that they would continue with the innovation but it was not possible to confirm this and much depends on the ability of the innovation to fulfil a need that the adopter perceives.

Certainly, comments about lack of contact with the Project highlight the importance of maintaining a long term relationship with the intended beneficiaries of an innovation when it is being promoted.

- **Targeting the poor:** It was noticeable that the respondents who were less successful with their innovations were more likely to be in the poorer groups and there was a clear tendency for poor families to have a pessimistic attitude and the better off ones to be more optimistic.

The extent to which the RIU as a whole has benefited the poorest remains open to study. Participation in most activities did require access to some resources: land, labour and/or inputs. There were variations in findings between the wealth classes, and the survey results did suggest that better-off groups sometimes seemed to benefit more.

These relatively well-off groups tended to be more optimistic, more receptive and more positive toward RIU. They got more out of what they had done, were more likely to internalise messages and be willing to continue to work with the innovation in the absence of the support provided by the Project.

All of this makes the better-off easier to work with and more likely to deliver results. Many responses indicated the relatively greater difficulty the poor had to face in order to take advantage of new technologies and of efforts to encourage them to innovate.

This makes it easier for the project staff to work with the better-off, which in turn encourages them to be favoured. Targeting the poorest therefore may require a special effort to be taken understand their problems as well as a need to deal with the poorest separately from the better-off.

- One of the strongest impressions that came through from the survey was the importance of generating a **personal relationship** between the project facilitators and the adopters. The most positive comments were directed at multiple contacts and responsiveness to questions about problems. Also, repeated, regular, low-level messaging allows absorption to occur at a realistic pace.
- A corollary to the previous point is **trust in the messenger** and the advantages of working through farmers who are already locally respected and who are accessible to the beneficiaries. Such people cannot escape the consequences of advice they give. This is not a new finding of course, but it was strongly reinforced by the survey.

138. Indeed, many of the points brought out in the survey tended to reinforce conclusions that had emerged during the other activities in the Review.

## 2.5 Summary and conclusions

139. The programme has a wide range of many positive achievements, despite the difficulties of design and conceptualisation.
140. Considerable success has been achieved by the ACPs in improving the functioning of a number of commodity chains in different countries and under different circumstances. This has been due to the work of capable, committed and creative individuals working for the programme in each country.
141. The approach taken has demonstrated that by:
- (a) convening platforms which bring actors within a specific commodity chain together and
  - (b) facilitating the building of networks which develop trust and build social capital,
- the effectiveness and efficiency of a commodity chain can be substantially enhanced. Further, despite the lack of either initial guidance or of documentation, in many instances there was evidence of understanding of social and gender issues in terms of both targeting of benefits and inclusion in programme activities.
142. Lessons have been learned regarding the nature of effective interventions. Clearly, there is no single approach which would be appropriate in all situations but a number of common elements have been identified any one of which, if not addressed, will limit innovation. These elements are presented in terms of transformational interventions (new relationships, roles and policies) which

change the way the system works and instrumental interventions (incentives, inputs, investments and incentives) which improve the functioning of the system.

143. As well as learning lessons about the elements that need to be addressed to promote research into use, the Review noted the critical role of individuals and champions in promoting change. This was not totally surprising and the important role of the network brokers is recognised in the RIU Discussion Papers and elsewhere. However, the findings are challenging for an institutional approach that emphasises the capacity and functioning of a system and raises concerns about post-project sustainability when this role will no longer be supported.
144. Another finding is related to the importance of social capital as both an alternative to markets and as an element of markets especially where the number of transactions are relatively few and the opportunities to build trust through repeated successful impersonal transactions remain limited.
145. Less is known about the dynamics of the innovation process. This lack of knowledge may be resolved with two pieces of forthcoming work in the form of a report on ‘institutional histories’ and a CRT Discussion paper on innovation trajectories.
146. The extent to which the outcomes of these initiatives will survive is hard to judge. In all the case studies, as well as convening platforms, RIU staff have managed a programme of support that includes providing input subsidies to different parts of the commodity chain. The effect of these subsidies is not only to prime the innovation system by addressing the lack of incentives at particular stages of the chain, but also to create dependency on external support and thereby to solve serious structural problems only temporarily.
147. The study also saw evidence of notable achievements under the African Best Bets and Asian Innovation Challenge Fund programmes where entrepreneurs and entrepreneurial projects have been supported by funds and technical assistance to address institutional and managerial problems constraining innovation.
148. These programmes had a more clearly defined results chain and management structure than the ACPs, often centred on an entrepreneur or project and, at least, a broad solution or approach to a well-defined and specific problem. This implied an approach to institutional and political economy issues that was essentially problem-based and framed in terms of resolving issues related to achieving the goal of the project. There was, therefore, an explicit recognition that the ultimate success of the initiatives depended on a range of circumstances lying largely outside the control of the entrepreneur.
149. The focus of the programme has been refined over its lifetime, moving from promoting RNRRS products, though a more general “innovation systems approach” and then to a “best bets” strategy, with a strong commercialisation focus, following the MTR.
150. This change in focus has resulted in a portfolio of fewer projects, each with a clearer rationale and justification and, therefore, a greater chance of longer term success. Effectively, with the adoption of the “best bet” approach across the whole programme, the approaches of the ACP and ABB programmes became similar while retaining different management arrangements.
151. Many of the factors which will determine long-term success of both ACP and ABB projects lie in the political economy of the country as whole. Despite the formation of National Innovation Coalitions under the ACP programme, and with some notable achievements, neither ACPs nor ABBs have been able to address many of the policy issues which affect the functioning of commodity chains. This is perhaps not surprising given the positioning and nature of the

programme. However, greater understanding and more analysis of the political economy and institutional context in which the RIU interventions have functioned might have led to greater awareness of bottlenecks as well as other potential complications, and created new opportunities to address constraints.

152. The Review team's view is that the programme would have been enriched by additional professional expertise on economics and social issues. Greater political economy and institutional analysis at the design and subsequent stages would also have added to the body of implicit knowledge held by country and project staff. Nevertheless, particularly at the level of specific activities, it is clear that some notable and outstanding successes were achieved.

### 3. RIU as a Research Programme: The Quality of Science

#### 3.1 Introduction

153. The second of RIU's twin objectives was to develop an understanding about the process of putting research-into-use i.e. research into research-into-use. Not surprisingly, this was an important component of a programme funded from DFID's Central Research Department, and, in Phase 2, the research output was given a 70% weighting in terms of its contribution to the programme purpose. This focus on research was also reflected in the language of the programme, with individual projects or local initiatives often referred to as 'experiments'.
154. It is too early to identify outcome and impact level results for this component and, therefore, this section of the report is concerned with:
- (a) assessing the research design,
  - (b) the way the research and learning was implemented (quality of evidence) and
  - (c) the outputs from this component.
- The different arrangements for ABB and AICF are discussed under each section.

#### 3.2 Research Design

155. There are some fundamental features of the RIU programme which the research component has had to address. These relate to:
- 1. developing a research framework;
  - 2. establishing research domains and populations of interest;
  - 3. addressing strategic changes; and
  - 4. allowing for the short implementation horizon.

##### 3.2.1 Research framework

156. There was some difficulty over establishing a research framework and this partly arose from confusion over what type of programme RIU is, and therefore related confusion over what should be monitored and evaluated. The MTR noted that "since inception, the programme as a whole, and between its components, has tended to shuttle between four objectives within the broad purpose domain:
- adding value to RNRRS (and other) research investment, by getting research into use
  - having significant impact on poverty
  - learning about getting research into use
  - proving of the "Innovation Systems hypothesis".
157. The absence of a testable hypothesis based on an agreed and clearly defined conceptual framework or theory of change is not unusual in social research - especially in a programme which aims to develop such a theory as part of its objectives. In such an absence the Central Research Team (CRT) set out a research design with the framework, concepts and approach to developing an hypotheses and models during the life of the programme shown in Box 1.

### Box 1: The Research Design of RIU Phase 2

The research design consists of the following key elements.

1. The aim of the research is to contribute to an **understanding of how agricultural research can best be put into use for developmental purposes**. The research is premised on the notion that this field of investigation is not about how to put research products, technologies and ideas into use, *per se*, but rather about how the process of research can best be used within the wider process of innovation.
2. The specific research question being addressed is: *What configurations of relationships and processes around agricultural research are required in different contexts, for different types of innovation (technical, institutional and policy) at different points in the innovation trajectory and what policy and institutional settings support and steer these innovation trajectories towards different social, economic and sustainability goals?*
3. A better understanding of the relationship between research and innovation, combined with insights about which approaches work under which circumstances, will help planners and entrepreneurs make choices about investments that will enable innovation and have developmental impact.
4. The centrepiece of the research design is six overlapping innovation narratives. These narratives will provide competing and complementary explanations of the circumstances that lead to agricultural innovation. Each implies different roles for research and each has a set of hypotheses about how innovation takes place. The main purpose of these narratives is as a framework to help sort evidence about how research gets put into use under different circumstances.
5. The research will use the four RIU experiments (Africa County Programmes, Asia Project Clusters, Best Bets and the Innovation Finance Facility) to generate evidence that explains the circumstances under which these innovation narratives hold true and to understand the sequencing and clustering of these modes of innovation and the location and role of research within these processes, as well as the opportunities for private investment and public policy.
6. To ensure that RIU's research can contribute an understanding to all six narratives, gap-filling case studies will be selected from outside the programme's activities.
7. The approach to putting research into use adopted by RIU is an evolving one that will develop incrementally by learning throughout the programme's life. Direct comparison of the added value of the programme's approach will, however, be conceptually problematic. The programme nevertheless wishes to explore comparator cases where more traditional approaches to agricultural research and innovation have dominated. This will be achieved by investigating a limited number of cases through histories of selected research and innovation trajectories.

*Source: RIU Central Research Team Work Plan; May 2009; p.2*

158. The aim of this programme was to contribute to understanding how agricultural research can best be put into use for developmental purposes. The specific research question being addressed was:

*"What configurations of relationships and processes around agricultural research are required in different contexts, for different types of innovation (technical, institutional and policy) at different points in the innovation trajectory and what policy and institutional settings support and steer these innovation trajectories towards different social, economic and sustainability goals?" (Element #2, Box 1).*

159. Although there was an agreed high level research question in Phase 2, what was less well developed was the methodological and analytical framework required to provide meaningful answers to the research question. As Box 1 shows, the new research framework for Phase 2 contained seven key elements, two of which require further examination.
160. Firstly, the focus from Phase 1 was changed to investigating ‘how the process of research can best be used within the wider process of innovation’. While not a problem in itself, this implied that a new dimension needed to be added to what the experiments were already doing. Facilitating this change was clearly the responsibility of the CRT. However, the implication of this and other facets of the CRT programme were not fully appreciated by RIU management. In particular, this shift seems, partly, to explain the departure from the Phase 1 approach in that, despite a commitment to using RIU experiments (Element #5, Box 1), the RIU experiments were no longer the main source of generating evidence for implementing the research design.
161. Secondly, the centre-piece statement (Element # 4, Box 1) and the introduction of Innovation Narratives (listed in full in Box A4.2 of Annex 4) were an attempt to provide a strong methodological and analytical framework, albeit constrained by the fact that, at the point the CRT came into being, it was too late to attempt to make fundamental changes in the design (as distinct from the mode of implementation) of the experiments. These narratives are discussed as part of the project logic in Annex 8 but, for various reasons, they were deemed not to be appropriate and were therefore subject to radical reconceptualisation after about twelve months. Effectively, this put the methodological framework into abeyance and, as a result, failed to provide a badly-needed construct which would link the development and research components of the programme.
162. The ABB do not have an explicit formal research framework. Instead these projects are designed to address the market failure problem by (a) identifying RNRRS (and other) technologies with high potential to have ‘impact at scale’, hence maximising the probability of having a research product which will be attractive to poor farmers, and (b) creating researcher-private sector partnerships that can circumvent the problems associated with the traditional public sector model.
163. This approach makes Best Bets a restrictive, high-risk but innovative experimental modality within RIU. In keeping with the venture capital approach, then, it should be accepted that there is likely to be a quite high failure rate for some experiments to set alongside expected high returns from others.

### 3.3.2 Research domains and populations of interest

164. The changes in programme and approach which took place in the aftermath of the highly critical MTR conducted in 2008/09<sup>10</sup> affected the research component more radically than the development component and, as result, there is a very distinct break between the phases. In Phase 2, the emphasis was placed on supporting “best bets”, both as a distinct programme and through the ACPs, in which commodity chains without significant commercial potential were dropped.
165. The closure of projects prior to Phase 2 brought greater focus to the programme, by reducing its scope and spread. Although these changes make the design of a research framework more complex, they do introduce new opportunities for comparison and learning which might not otherwise have been available. Unfortunately, the research framework did not maintain contact

<sup>10</sup> ITAD 2009: Research into Use Programme Mid-Term Review Final Report (revised version); January.

with any of the projects which had been dropped and therefore little is known about the large number of initiatives originally included in the RIU portfolio.

166. The combined requirement of learning about how to put research into use and simultaneously expecting impact at scale militates against experimentation with risky initiatives. The imperative to scale up and produce results (in the shape of impact on the ground) creates incentives for RIU experiments to veer towards tried-and-tested approaches with a high probability of producing impact but with less probability of adding value to existing knowledge. Fortunately, several RIU experiments have resisted this temptation.

### 3.2.3 Management structure

167. The problem of “disconnect” between the developmental and research components of the programme had been identified in Phase 1. The activities of the Monitoring, Impact Assessment and Learning (MIL) component included many studies, covering a wide range of topics and location, often of good quality, but without an overall framework into which these studies could be turned into principles and learning. The MTR found that, despite having developed a central hypothesis, the programme lacked a unified vision which was limiting its ability to learn lessons:

*Overall, we conclude that the MIL work has been slow to take-off, particularly the Component 2.2 ‘knowledge’ work which lacks a strong methodological and thence analytical framework. The ‘monitoring and impact’ work and Output 1 activities (AICFs and ACPs) have not been well integrated until more recently.*

168. In Phase 1, the MIL tended to work independently of the Country Programmes themselves while, in the AICFs, separate quantitative M&E support was bought in. These concerns were taken so seriously that, in Phase 2, the previous MIL team was discontinued and a new Central Research Team (CRT) with new personnel was established to take over this facet of RIU’s work.
169. The CRT’s staff complement consists of a team leader, two senior professionals responsible for leading research in Africa and Asia respectively (each employed roughly 75% of full time), and six Research Fellows, each responsible for specific aspects of the work.
170. Although the contracting arrangements for the CRT were somewhat different to those for MIL, the research and learning activities of the programme remained as an outsourced and independent activity with its own budget, staff and dynamic. Increasingly, CRT interpreted its mandate as being that of independent researchers. This hands-off approach to development activities contrasted with the MIL arrangements in Phase 1, where MIL imposed a considerable burden of reporting on each country programme. As a result of CRT’s interpretation of its mandate, there was no attempt by CRT to shape and little to support country programmes. These were largely left without technical support from either CRT or the central management team.
171. These problems were not observed in the ABB programme where learning and support were integrated into programme management. In the case of the more established AICF’s, management arrangements were largely left to the implementing agencies.

### 3.2.4 Time horizon

172. A five year time horizon is a very short period to observe outcomes and impact in the context of putting research into use in developing countries. Given the history of the programme, with a lengthy inception phase and an implementation phase that had to be radically redesigned half way through the remaining four years, this seriously compromises the prospects for scientific rigour.



Further, such a short time period also compromises prospects for producing research outputs (especially in the shape of publications in refereed journals) within the programme's lifespan, as the gestation period for producing such outputs is relatively long.

### 3.3 Research Implementation

173. In this section we review the implementation of the programme in terms of the monitoring of implementation, the tracking of impact and, most importantly, the analysis of outcomes. Although the focus of the whole programme relates to the outcome level, understanding changes in the institutional arrangements requires knowledge of both the interventions and the impacts.

#### 3.3.1 Monitoring system

174. At the time of the MTR, monitoring arrangements for the African Country Programmes were limited to management performance and a programme monitoring system had not yet been fully put in place. However, it was noted, that:

*"It will be important that the Country Programme MIL work is able to establish an M&E system that can compare across platforms and countries to make a meaningful contribution to the understanding of agricultural innovation system (IS), as well as assess the performance of individual platforms".*

175. This observation is particularly ironic in that during Phase 2 RIU has gone from a highly centralised (and basically dysfunctional) monitoring of programme performance system to one where there was no overarching monitoring framework at all, and decisions about what to monitor seems to have been taken at a country or experiment level. One consequence of this reality is that there is a high degree of variability across the experiments and experimental modalities. This has compromised efforts to learn lessons across RIU as a whole.

176. The MTR found that the Asian Innovation Challenge Funds appear to have a:

*"solid basis for monitoring through their logframes, indicator sets, sampling frameworks and protocols for data management. This has been achieved through additional support from the Statistical Services Centre (SSC) at the University of Reading and also through inter-project learning through the Bangkok MIL workshop".*

177. A review paper conducted across all experiments by the present evaluation broadly agrees with this view, noting that all of the AICFs had baseline studies which were intended to be used as a set of starting points against which future impact assessments could be conducted.<sup>11</sup>
178. The review for the present Review<sup>12</sup> covered all 14 countries and all experiments and found a very mixed picture with respect to monitoring and data availability (Box 2). Four important points arise from this categorisation. First, the MTR recommendation, noted above, that an M&E system for the ACPs should make it possible to compare across platforms and countries was initially followed but then discontinued under RIU Phase 2. Second, ACP countries now lack guidance as to how to conduct monitoring operations, even though some have expressed a need for this. Third, the fact that the AICFs collect good data but that this does not include information on institutional change

<sup>11</sup> John Wyeth: Research Into Use: Method Options and Approach Issues; September 2010 (p.20)

<sup>12</sup> Wyeth, *ibid.*

or policy indicates that they are working towards fulfilling Output 1 of the current logframe but not Output 2. Fourth, the fact that ABB projects (other than FIPS) collect and process data “only for their own use” suggests a similar situation.

179. In the absence of guidance from RIU, monitoring activities, at least in the three ACPs that were visited as case studies for the present Review (Nigeria, Rwanda and Sierra Leone). In most experiments, monitoring activities consisted of: ensuring the recommended practices were followed, some rudimentary impact data collection (usually in the shape of sales of recommended inputs) and basic troubleshooting. One ACP (Rwanda) did not collect baseline data at all.
180. CRT’s failure to put in place an adequate monitoring system to capture lessons that could be used to inform the requirements of Output 2 has meant that its lesson-learning has been largely restricted to a combination of those lessons (a) derived from theory, (b) generated by non-RIU empirical work, and (c) thrown up almost as a by-product of work done by the experiments in pursuit of Output 1. This problem lies partly in the way RIU is managed, with central management unable to hold CRT adequately to account, as illustrated by management’s evident failure to address the critical gap between CRT’s interpretation of its TORs and the programme’s need to shape and support programme activities, particularly in the ACPs.

### 3.3.2 Impact and benefits

181. The need for baseline data on impact was emphasised by the programme and by MIL in Phase 1. The ABBs and AICFs, where there were clearer results frameworks, addressed this issue in varying degrees within each project. This is because results were easier to define at both the “impact” level as they were relatively more amenable to quantification because they relate to the livelihoods of targeted populations and, at the outcome level, as they were related to specific changes in the functioning of institutions and the capacity of organisations. This, in turn, made it easier to establish baselines from which to measure changes and to track progress. For the ACPs, the results framework was less clear-cut with benefits more problematic to define and less easily attributable to project interventions.
182. In practice, impact in RIU has tended to be measured in terms of uptake of the new technologies. Sales of improved inputs, such as seed and other planting materials, are generally used as a proxy for uptake, but farmers are also often monitored to check that they are using recommended practices. Productivity improvements are also measured to varying degrees. Few experiments measure impact at household level. However, there is at least one excellent example of this being done, in the FIPS Best Bet project in Kenya, which has a comprehensive baseline and a set of 17 input/output forms used to monitor against this. These forms include measurement in areas such as household level food security and seasonality of household income and food security, but even with this database it may not be possible to estimate income changes.
183. Few experiments, including FIPS, have attempted to measure up-scaling beyond the immediate beneficiaries. An exception is the PCI project which conducted studies of up-scaling in India. Here a sample of 100 ‘non-target user households’ was surveyed and the results revealed that over the six years since a new variety had been introduced the adoption rate by these secondary

beneficiaries had followed the classic ‘S-shaped’ curve.<sup>13</sup> Another study commissioned by the same experiment measured the uptake of project-promoted varieties on a total area basis, and found that the rate of adoption was higher than that for varieties from other sources.<sup>14</sup> Nearly all the AICF projects, based on previous RNRRS activities, had impact and coverage baselines in place. The same is broadly true for the ABB programmes which were started at the beginning of Phase 2, where the expected coverage and level of benefits was computed.

184. There was little or no analysis of benefits in the ACPs. This is partly due to the difficulty in defining interventions which often included only part of the investment costs but it is also due to the absence of any support from the programme for economic analysis.
185. Impact is measured in terms of incremental changes and therefore it is important to establish control groups in order to establish counterfactuals: i.e. what would have happened in the absence of the programme intervention. Almost none of the RIU experiments has established control groups so that it is impossible to determine incremental impact, especially when there are many development initiatives on-going in a given country, community or commodity group, or when the general enabling environment is evolving.
186. An exception is the Linking Farmers with Markets for Rural Prosperity (LFMPR) experiment under the Asian Innovation Challenge Fund in Nepal. Here households were selected in villages that were at least one Village Development Committee (the lowest tier of government) away from the intervention village, and the relevant variables were monitored in both. It was found that, although household incomes in the intervention villages rose, incomes in the control villages also rose, although by a statistically significantly smaller mean. Hence the inclusion of a control group in this experiment showed that the net effect of the RIU intervention was less than would have appeared to have been the case had only the intervention households been included in impact studies.<sup>15</sup>
187. **Social and gender differentiation** Limited attention has been paid to social differentiation and gender where impact has been tracked (Chapter 2). This partly reflects the general difficulties in impact assessment, especially in the ACPs. However, as the social and economic analysis shows, field staff were highly conscious of gender issues during programme implementation. Despite this, only some of the experiments are generating information about gender aspects of putting research into use. This is surprising as one of the early RIU Discussion Papers was a literature review that identified the lack of attention to the gender division of labour as a key issue in failure to put research into use.

### 3.3.3 Outcome and learning

188. The outcome level which relates to the institutional arrangements the programme directly sought to change through the development component was the main focus for the learning component. At this level, it is rarely possible or even useful to track changes in the same way as outputs and impacts are monitored, aggregated and compared, nor would such an approach have been

<sup>13</sup> Monitoring, Impact Assessment and Learning Components (MIL) of the Research into Use Programme: New Upland Rice Varieties for India's Rainfed Agriculture; Impact Study No.1; Figure 5 (n.d.; not earlier than 2009)

<sup>14</sup> JR Witcombe, KK Lal and KD Joshi. Scoping Study on Adoption of Rice Varieties from Client-Oriented Breeding in the Nepal Rice Innovation System (n.d.; not earlier than 2008)

<sup>15</sup> Interview with Dr Luke Colavito, Country Director, and Mr. Madhan Pariyar, Program Development/M&E Director, IDE-Nepal, January 2011.

consistent with the institutionalist approach set out in the logframe. Instead, this approach required the establishment of a baseline in the form of a “model” of the system and an appreciation of the context in which the model functioned, together with an understanding of the historical processes which determine the functioning and outcomes of the system.

189. **Baselines** The purpose of the Country Assessments was to provide country-specific knowledge at the start of the programme, of the institutional environment and the political economy context in which experiments would be carried out. From a research perspective, the country assessments should have served as the initial framework or baseline against which to track institutional and policy changes and to assess the validity of the theory of change which underlay RIU interventions.
190. The reasons for this not happening are multiple: the lack of an overall theory of change and the MIL focus on performance monitoring have already been discussed. Others include the quality of the assessments themselves and the apparent lack of understanding as to the purpose of these assessments.
191. The **perspective** of the country assessments remained closely linked to research agendas. In many cases, the assessment used existing contacts, often based in research stations and produced assessment reports with a strong research-centric perspective. As a result, the exercise resulted in the identification of specific commodity chains, associated with a known technology which had potential for up-scaling.
192. The **quality** of the country assessments varied. However, in general, there was little or no political economy, social analysis or economic analysis undertaken of the existing institutional arrangements. Few of the consultants deployed in these exercises had experience of political economy or institutional analysis and some were not aware of standard development project preparation techniques.
193. This lack of political economy and institutional analysis is also exhibited in the development component, where the nature of the institutional arrangements for programme delivery has not been formally analysed and essentially has been taken as a “given”<sup>16</sup>.
194. This lack of analysis and in particular the failure to define and then deconstruct the problem which RIU was to address in each country lie behind the absence of explicit theories of change underlying each country programme. This creates a gap for both the research agenda and the development programme. The exception was the Nigerian Country programme where, to fill this gap, one of the Research Fellows, who is also a country programme manager, developed his own theory of change.
195. In practice, however, each country programme was derived opportunistically and based on the implicit and historic understanding of RIU local staff. This is not to question the quality of the understanding of RIU field staff - quite the opposite is the case, as evidenced by the results described in Chapter 2. Nevertheless, it is noted that without the explicit documentation of institutional arrangements, the political economy context and historic trajectories, the opportunity and scope for learning are severely constrained. The forthcoming KIT studies setting out institutional histories based on participant recall may partly redress this omission.

<sup>16</sup> Two examples reported in the field studies were the role of (a) civil society groups in Sierra Leone and (b) cooperatives in Rwanda in determining access to programme and other inputs.

196. There was no Country Assessment or institutional assessment for the AICF or ABBs, as these are not national-level programmes<sup>17</sup> and it was assumed that these programmes had undertaken this analysis themselves. Despite some of the programmes having strong participatory elements, preparation of an analysis of the economic and policy context might have identified bottlenecks which could have been addressed by the respective project.
197. **Outcome tracking** In the case of ACPs, the programmes collected data on institutional change in the shape of the 'Intervention CVs', but this was meant to be completed every four months, and by the time the second report was due, the MIL system was no longer operational. As a result, the 'Intervention CV' was completed only once - effectively, therefore, acting only as a baseline for which there was no follow up as it did not evolve into a system of process monitoring.
198. Given that stated programme learning focused on the institutional arrangements that delivered different livelihood impacts for poor people, it is surprising that these institutional arrangements (and associated trajectories) were not the main focus of the CRT and of the M&E programme. The reason for this lack of focus was the lack of such expertise in the RIU management team. The CRT did recognise the importance of the institutional arrangements but regarded many of the RIU experiments as not generating useful data to test institutional hypotheses. This view was reinforced for the CRT as projects were phased out on the basis of their commercialisation potential rather than their research value. Furthermore, the CRT did not see it as their remit to address, shape, support or monitor implementation.
199. **Economic analysis** As well as a lack of political economy analysis, there has been little analysis of the economic aspects of putting research into use. An exception was the Discussion Paper No 4 on Market Failure, but this approach is not integrated into the programme as a whole. This is an important omission for several reasons. Firstly, the incentive to innovate is determined by economic returns. Irrespective of the institutional arrangements, innovation is highly unlikely where net returns are significantly positive. Without this understanding it is difficult to imagine how other information on the functioning of the system can be interpreted. Secondly, when considering a commodity chain, these incentives have to be aligned for all the actors in the chain, otherwise resources are wasted as bottlenecks are merely transferred to a different part of the chain. Thirdly, innovation and, indeed, development more generally, in Africa are constrained by market conditions such as economies of scale associated with low population densities, low productivity and poor public infrastructure providing low or negative returns to dealers and traders. Finally, the strong focus of the development component in Phase 2 was on "best bets" and incubating commercial enterprises and it is, therefore, surprising that market analysis was not undertaken at an earlier stage.
200. **Financial analysis** No innovation is likely to be sustainable unless it is financially viable. Few if any RIU experiments attempt formal evaluation of net financial, far less the net economic, benefits of research products that are being promoted.<sup>18</sup> Even where some analysis was undertaken, the techniques used are often inadequate. For example, some rudimentary financial cost-benefit analysis is done by some of the platforms in Rwanda, but the cost-benefit streams are not discounted, so that interest rates and/or the opportunity costs of self-financing are not taken

<sup>17</sup> An exception was Bangladesh, where a Country Assessment was initiated, but this was not followed up by a Country Strategy and no use ever seems to have been made of the CA.

<sup>18</sup> In financial cost-benefit analysis (CBA) the unit of analysis is the project, whereas economic CBA looks at costs and benefits at the level of the entire economy or sector.

into account, and innovations appear to be more economically attractive than they really are. Moreover, as interest rates tend to be higher for the poor (who cannot offer collateral) than for the non-poor, and since the poor cannot self-finance, failure to discount over time has an even greater distortional effect on them than it does for others. A major explanation of this lacuna probably lies in a surprising lack of economic expertise at both programme and experiment/experimental modality levels.

201. A number of the Best Bets projects have been subject to a more financial- and market-orientated analysis as part of the programme of trying to establish self-financing enterprises. Similar analysis would have been useful for each of the commodity chains supported by RIU activities.

### 3.3.4 Learning Outputs

202. The main output of RIU is to “increase understanding of how to promote and expand use of agricultural research and technology”. Lesson learning is therefore at the heart of this exercise. However, the history of the programme, with its prolonged inception phase and its radical shift in emphasis half way through the remaining four-year period, must be kept in mind when attempting to assess the outputs of programme lesson-learning. In many cases it is simply too early to judge. Further, additional learning outputs (discussion papers and referred articles) are known to be under preparation, but not yet available to the study.

#### *Quarterly reporting*

203. Most of the quarterly reports (QRs) of the experiments contain a section in which any lessons that have been learned in the previous quarter are reported. This section is completed in most cases, but there is huge variation in the quantity and quality of the output. However, there are notable exceptions. In particular, several of the country programmes have included a significant degree of reporting on lessons learned in their quarterly reports and a few have also organised workshops structured around the ‘lessons learnt’ theme. However, in general, the quarterly reports of the individual experiments indicate a large degree of variability in the quality of output, and they do not generally tend to be very analytical, nor is much attention paid to lesson learning.
204. **African Country Programmes** In the quarterly reports of the ACPs the lessons that are reported to have been learned range from frankly banal observations of little practical use (such as “Partnerships are important to achieve results or get research into use” and “Partnerships are the only way for sustaining innovation systems and developing financially sound business enterprises”) to some very perceptive, insightful and valuable observations. Among the latter, the Nigerian and Tanzanian ACPs have provided particularly useful insights, although it must be stressed that these two countries are not alone in having garnered meaningful lessons in the course of programme implementation. However, the lessons are primarily focussed – like the ACPs themselves – at the level of Output 1 and are, therefore, often quite context-specific. There is a corresponding lack of transferability in such recommendations, but they provide a series of starting points from which lessons of wider applicability, and hence relevance to Output 2, might be drawn.
205. **Asian Innovation Challenge Funds (AICFs)** In the AICFs, a different reporting format is used from that of the ACPs, one which has not changed since the outset of RIU and therefore does not reflect the new logframe. The AICF format has no separate section for reporting on lessons learned, but does have a section entitled ‘Highlights/Lessons Learned’. Combining the two under the same heading has transpired to be unfortunate, since the focus generally has been on highlights rather than lessons learnt - a tendency which is no doubt encouraged by the

accompanying instructions, which downplay the importance of lesson learning. Perhaps understandably, no report included negative observations.

206. **African Best Bets projects.** As in the case of AICF, the format for quarterly reporting on ABB projects gives relatively little prominence to lesson learning, listing it last among a number of issues to emerge from the activity, under *Communication, advocacy, policy influence or lesson learning issues that have arisen that might need action by RIU management*. Perhaps as a result, not all quarterly reports contain a 'lessons learned' section, while some ABB projects produced none at all. Nevertheless some ABBs have reported lessons that are of a generic nature (Box 2).

### Box 2: Data Availability in the RIU

- Data availability within the RIU project is patchy.
- Data collection was more structured under Phase 1 than under Phase 2
- The only standardised data for the country programmes are the data sent to the MIL based on the forms designed by the MIL component during Phase 1. And of these only the Intervention CVs were generally completed.
- Since Phase 2 started the country programmes are no longer required to collect regular data although some have still done so. Both West African countries have systems in place for the collection of livelihood data connected with their platforms and one or two of the East African countries, aware of the deficiencies in their data collection systems since Phase 2 began, have been planning to do better, but they would like to have more guidance on what to do.
- The Asian projects have generally made a good effort to collect data, but the focus of impact for most of them (not all) is the household rather than institutional change or policy.
- Most of the experiments / projects were very forthcoming with their data (the two exceptions were the fish and the underused crops projects in Asia, both of which set conditions, but I expect these could be overcome). These data can therefore be looked on as available for use.
- The Best Bets activities vary widely in their approach to data collection. FIPS are way in front but again the data are mainly aimed at measuring livelihoods impacts and the process of data collection and entering is in its initial stages. The others only collect process data for their own use
- There are also data that appear in documents associated with the country assessments for the country programmes, but the assessments were carried out by different people and the data in them are therefore inconsistent. I have not been able to ascertain whether the raw data (beyond what appears in the published material) are available for the country assessments.

Source: John Wyeth: *Research Into Use Impact Evaluation: Method Options and Approach Issues*; September 2010 (p.23)



### ***Discussion papers***

207. The principal research outputs of RIU are to be found in a series of Discussion Papers<sup>19</sup>, eleven of which have been released as of July 2011, with more in the pipeline in the period leading up to the end of the Programme. These papers are not peer-reviewed and are published only on the RIU website.
208. At this stage, it is too early to comment on the full range of scientific papers that will emerge from RIU. However, the DPs collectively demonstrate that the authors are very familiar with the 'state of the art', in terms of theoretical aspects of putting research into use. Although the standard is high, with few exceptions they fail to reflect the empirical work of RIU adequately. This is not surprising given that the DP series was prepared mostly by CRT staff in isolation from programme staff.

### ***Peer reviewed articles***

209. Acceptance of a paper for publication in a reputed and peer-reviewed journal is prima facie evidence of quality of science. RIU maintains a list of such journal articles<sup>20</sup>, published by its staff and associates. However, on examination, most transpire to be mainstream scientific research publications, rather than papers reporting findings or emerging from the process of putting research into use.
210. Three of the papers already published, or accepted for publication, do address the issue of putting research into use<sup>21</sup>. Two of these are by an RIU Research Fellow and address the important subject of the relationship between a developing country's (in this case Kenya's) emerging regulatory framework on biotechnology and the issues this raises for getting agricultural technologies into use by farmers.<sup>22</sup> However, as in so many other cases with work emanating from the CRT, this research is not embedded in any of RIU's experiments.

## **3.4 Organisation and management of learning**

211. The MIL component of RIU during Phase 1 was implemented by a UK company, IOD-PARC, which developed a suite of monitoring tools for the purpose. The RIU Sierra Leone Country Programme was most assiduous in completing the range of MIL documents. This raw data was returned to IOD-PARC, as required, for analysis, but RIU Sierra Leone reported that they had never received any feedback from this exercise.<sup>23</sup>
212. This experience was far from unique. Of the full range of MIL data instruments that have been developed, only the "Intervention CVs" were generally completed and returned to MIL by all ACPs (Box 2). This instrument contained questions that, as they were updated, could have generated information about institutional impacts of RIU, but IOD-PARC struggled to find a way of analysing

<sup>19</sup> <http://www.researchintouse.com/learning/learning40discussionpapers.html>

<sup>20</sup> A number of other papers generated from RIU research are reported as having been submitted to internationally-recognised refereed journals, but have not yet been accepted for publication.

<sup>21</sup> The few papers that have been accepted so far is merely a reflection of the lengthy gestation period between submission and acceptance of papers by academic journals.

<sup>22</sup> Ann N. Kingiri 2011. Conflicting advocacy coalitions in an evolving modern biotechnology regulatory subsystem: policy learning and influencing Kenya's regulatory policy process; Science and Public Policy, 38(3), April.

Ann N. Kingiri 2011. The contested framing of Biosafety Regulation as a tool for enhancing public awareness: Insights from the Kenyan regulatory process and BioAWARE Strategy; Tailoring Biotechnology (forthcoming: May)

<sup>23</sup> Interview with Dr Foday Matkay, former National Monitoring and Learning Co-ordinator, RIU-Sierra Leone, February 2011



the data that had been collected, so there was no output.<sup>24</sup> This is one of the reasons that MIL function was discontinued after Phase 1.

213. During Phase 2 responsibility for co-ordinating research by the ACPs and AICFs fell on the new Central Research Team (CRT), which was staffed by LINK. The ABB programme has a separate co-ordination mechanism (examined below). The need for specially-designed monitoring instruments is underscored by the following considerations: (a) the CRT research design commits the team to basing its findings primarily on the work of the RIU experiments, (b) these experiments are primarily geared towards fulfilling Output 1 of the current logframe and (c) the costs of Output 1 are largely justified on the basis of the research being based on the Output 1 experiments. Given that a good deal of dissatisfaction had been expressed at field level with the MIL monitoring instruments, responsibility for either substantially revising these instruments or developing replacements lay with CRT. This was not done.
214. Rigorous process monitoring is prominent among the requirements for understanding institutional change. LINK had earlier produced a report on process monitoring which containing a sample instrument for this purpose.<sup>25</sup> This paper makes the following observation:

*"If innovation is increasingly about institutional change, as is our main argument here, one needs to be far more serious about how such change is monitored – and thus expand the perspective of normal M&E and impact assessments – which grossly underestimate change because it views this in terms of short-term tangible economic terms only"*

215. A range of methodologies for monitoring institutional change – stages of progress/ monitoring domains, socio-economic benchmarking, episode analysis – is listed in the same document, and the following observation is made:

*"The emphasis of such activities requires an action research/action development orientation and the need to think about progressive change in these processes, where the different progressive stages need to be defined and redefined throughout the project"*

216. This paper was distributed to RIU field staff, thereby implicitly endorsing its approach. If the statements in this paper are to be taken at face value, the experiments would have had to be involved in a range of process and institutional monitoring activities and action research, using the suite of monitoring instruments listed in the above quotation, particularly the stages of progress monitoring domains approach, which LINK identified as the 'tool of choice', but this was not done. Even in the case of the single instrument that was distributed to the field, no training was ever given in its use, and it was never deployed in the field. It was simply shared with the country programmes and it was left to them whether they wanted to use it or not. Only in one case, Sierra Leone, was an attempt made to use it (and even then it was a highly-modified version of the report). In any case, the outcome was never analysed and CRT has no knowledge what was done with the information that was generated.<sup>26</sup>

<sup>24</sup> Interview with Dr Andy Frost, RIU Deputy Programme Director, March 2011

<sup>25</sup> Jeroen Dijkman A brief operational guide to process monitoring; Learning Innovation, Knowledge (LINK) (n.d.)

<sup>26</sup> Interview with Dr Andy Hall and Dr Jeroen Dijkman, CRT, December 2010.

217. More positively, Research Fellows have worked on a range of topics: commodity chains, regulatory frameworks, gender, innovation brokering, agricultural policy, innovation intermediation, adaptive collaborative approaches in agriculture and natural resource management, below-the-radar private sector development, social entrepreneurship, public-private partnership, emerging development-relevant enterprises, and linking microfinance and technology supply.<sup>27</sup> All of these subjects are relevant to putting research into use.
218. However, the extent to which the Research Fellows' work is embedded in the work of the experiments varies. One is completely embedded as the Nigeria-based Research Fellow is also the Co-ordinator of the Nigeria Country Programme. Wearing his research hat, he also works closely with the Co-ordinator of the Sierra Leone ACP. At the other end of the spectrum, staff of three of the experiments visited by the study team reported that they had never been visited by a Research Fellow.
219. More generally, the evidence from field staff in RIU experiments is that the work of the Research Fellows is not integrated into the empirical work they are doing. Of course, there can be no objection to the Research Fellows working outside of the experiments – indeed this is part of the research design – but failure to link their work into the experiments adequately represents a missed opportunity to capitalise on the considerable investment (77% of RIU's total budget) that was being made in the experiments/experimental modalities.
220. **African Best Bets** The ABB programme is managed separately and is, by far, the most carefully monitored experimental modality within RIU.<sup>28</sup> It is mainly geared to serving Output 1 of the logframe, although it also aims to generate lessons learned in accordance with Output 2. Hence the Output 1 - Output 2 asymmetries mentioned above concerning CRT do not arise. There are three part-time staff members, (a) a UK-based Senior Advisor (who works approximately 15% of full time on ABBs), (b) a technical support professional, based in Africa (roughly 75% of full-time) and (c) a Research Fellow, whose RIU time is split roughly 50-50 between ABB and the CRT.
221. The technical support professional visits all of the ABB experiments at approximately three-monthly intervals and produces a separate quarterly report on his findings on each. These reports follow a common format of: (a) achievements/ progress/ outputs for the quarter just completed, (b) activities planned for the next quarter, and (c) discussion/comments. These quarterly reports are shared with the Senior Advisor, who synthesises the information across ABB and distils lessons learned from this. It is intended that lessons learned in the course of these activities will be the subject of a special report towards the end of RIU. Meanwhile this team has recently produced a report summarising progress to date on the ABBs.<sup>29</sup>
222. The ABB support team has conducted two special studies arising from issues thrown up by the monitoring process and the Research Fellow who has been assigned to ABB has been carefully mentored by the RIU Advisory team in the course of his work.

<sup>27</sup> This list was compiled from the CRT's Research Into Use Paper-O-Meter; January 2011

<sup>28</sup> There is also one Best Bets programme in Asia, *Participatory Crop Improvement in South Asia*. This is also carefully monitored, but for obvious reasons it is not monitored by African Best Bets and is not included in the analysis for this section of the report.

<sup>29</sup> Norman Clark and Andrew Ward: The RIU Best Bets programme: A Progress Report, April 2011.

### 3.5 Summary and conclusions

223. The research and learning component of the programme has also struggled with the complex and contested programme design and strategies.
224. The component has remained separate to the development component throughout both phases of the programme. In Phase 1, this arrangement was built into the contracting and managerial arrangements, with funds allocated to functions and managed by different organisations and, within RIU, by different units. In Phase 2, research and learning were again contracted out, under the umbrella of RIU management, but with its own budget and staffing.
225. Phase 1 was characterised by a heavy, performance-focused set of monitoring instruments, introduced by one unit and imposed upon the country programmes, together with a wide-ranging but somewhat ad-hoc set of learning studies. Phase 2, on the other hand, virtually abandoned any form of centralised process monitoring, leaving such record keeping to individual country programmes and projects. In terms of learning studies, in Phase 2 the CRT introduced a more coherent framework and approach, which over time has changed. Disappointingly, this evolving framework and approach has not been put into practice during implementation.
226. Despite these difficulties, the array of research products that have been produced under both Phases has been impressive. Under Phase 2, the framework for these studies had been more apparent and there has been generally stronger academic understanding of the issues. Further, at this stage it is impossible to judge the scope and totality of the eventual output as there is a substantial pipeline of documents, including referred journal articles, to be finalised before the end of the programme.
227. However, the view of the Review team is that the weak link between the work of CRT and the RIU experiments represents a missed opportunity for learning lessons in order to achieve the objectives of Output 2. With some notable exceptions, few of the project experiments were used as the primary pool of information for the research outputs. This is particularly disappointing given the richness of the experiments and the different circumstances in which they operated. The reasons for this are unclear - but partly relate to a concern that an institutional focus on innovation systems required a broader domain of interest than that encompassed by the fewer and more commercially-orientated set of experiments which emerged at the start of Phase 2.
228. Conversely, although the change in strategy over the life of the programme altered the nature of experiments within the programme, it also generated a large number of projects which were not continued, mostly because they did not fit with the objective of identifying “best bet” commercial propositions. As a result, these projects represented situations where the adoption of new research had been considered unlikely to be taken up and, as a result, could not provide a useful source of lessons. None of these projects were followed up as part of the learning exercise.
229. Finally, the learning and research component was contracted in Phase 2 to contribute to the shaping and steering of the country programmes and this did not happen. Some backstopping support was provided by one member of the CRT, but CRT did not recognise its responsibility for this role. There was no attempt to inform country programmes by collecting data on their experience and using it to provide feedback that would improve the performance of the interventions. This problem did not exist in the ABBs where there was a stronger and more integrated approach to supporting implementation and lesson learning than elsewhere.

230. Finally, there were some very glaring gaps in the research agenda which suffered from the same lack of political economy, social and economic analysis as the overall programme design. This is most surprising given the institutional approach of the CRT as set out in the research framework and indeed in the revised programme logical framework. A more formal process of peer review in the development of the research framework might have identified some of these gaps earlier.

## 4. Concluding Comments

### 4.1 General conclusions

- 231. The complexity of the RIU makes it hard for the Review to reach a single general conclusion about the potential impact of its activities, so this final Chapter attempts to review the variety of conclusions that have emerged during the study.
- 232. Although it is too early to assess impact on progress indicators at the goal and purpose levels, the Review found that Output 1 targets on reducing Challenge Fund activities, maintaining country programmes and developing the Best Bets approach, have been broadly achieved.
- 233. Output 2 targets on publications citations and dialogues have also been met. Although not correlated with influence, and without exact figures on targets other than the number of publications, it appears that the programme has delivered in terms of the numbers in the logical framework.

### 4.2 Development component

- 234. The new management of Phase II had a much clearer idea than in Phase I about the importance of the private sector in establishing a satisfactory enabling environment to support continuous innovation in the agricultural sector. Nevertheless, it was hampered by a historical legacy that limited the flexibility available to develop what it would regard as an ideal structure to realise that vision.
- 235. Despite the difficulties caused by the initial approach, the subsequent reorganisation and the short implementation period since then, the field work has many positive achievements in all three of main field models used.
- 236. Considerable success has been achieved by the ACPs in improving the functioning of commodity chains in different countries and under different circumstances and much of the credit for this is due to the capable, committed and creative individuals who staff the activities.
- 237. The approach taken has demonstrated that by :
  - (a) convening platforms which bring actors within a specific commodity chain together and
  - (b) facilitating the building of networks that develop trust and build social capital,
 the effectiveness and efficiency of a commodity chain can be substantially enhanced. In many instances there was also evidence of understanding of social and gender issues both when targeting of benefits and when considering inclusion in programme activities.
- 238. Lessons have been learnt about how to intervene. Whilst there can be no single approach which would be appropriate in all situations, the Review observed a number of common elements emerging any one of which, if not addressed, will limit innovation. These elements can be characterised as transformational (new relationships, roles and policies) which change the way the system works and instrumental (incentives/risk management, inputs and investments) which improve the functioning of the system<sup>30</sup>.

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<sup>30</sup> An approach which has similar elements can be seen in the Discussion Paper 11 from the CRT.

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239. The critical role that has been played by individuals and champions in promoting change was also noted and the important role of network brokers is recognised in the RIU Discussion Papers and elsewhere. However, the observation does raise questions for an institutional approach that emphasises the capacity and functioning of a system and raises concerns about post-project sustainability when charismatic individuals may no longer be available.
  240. The general lack of knowledge about the dynamics of the innovation process may be resolved with two pieces of forthcoming work in the form of the KIT institutional histories and a CRT Discussion paper on innovation trajectories.
  241. The extent to which these initiatives will survive is hard to determine. The household survey confirmed the importance of incentives to prime the innovation system, but they do also create dependency on external support and no obvious solution this problem has been found.
  242. The study also saw evidence of notable achievements under the African Best Bets and Asian Innovation Challenge Fund programmes. In both cases entrepreneurs and entrepreneurial projects have been supported by funds and technical assistance to address institutional and managerial problems constraining innovation.
  243. These programmes had a more clearly defined results chain and management structure than the country programmes and their approaches were essentially problem-based and aimed at resolving specific issues. There was, therefore, an explicit recognition that the ultimate success of these initiatives depended on a range of circumstances some of which could not be controlled.
  244. Many of the factors which will determine long-term success of both ACP and ABB projects lie in the political economy of the countries in which they operate and neither have been able to address many of the policy issues which affect the functioning of commodity chains.
  245. The Review feels that the programme would have been enriched by additional professional expertise on economic and social analysis at the field level. Greater political economy and institutional analysis at the design and subsequent stages would also have added to the body of knowledge held by country and project staff.
  246. Conversely, although the change in strategy over the life of the programme altered the nature of experiments within the programme, it also generated a large number of projects which were not continued, mostly because they did not fit with the objective of identifying commercial propositions. The opportunity of studying the reasons why these projects would probably not lead to the adoption of new techniques and give rise to useful lessons had not been pursued at the time of the Review.

### **4.3 Research component**

247. The performance of the research and learning component has also been affected by the complexity of the programme and its unsettled history. Nevertheless, by the end of the programme, it probably will have contributed considerably to the body of knowledge and understanding about putting on research into use.
248. The array of research products produced under both Phases has been impressive. There has been a clearer framework for these studies in Phase II and a stronger academic understanding of the issues but it is too early for judgement on the scope and quality of the eventual output.
249. Nevertheless, it can be noted that the replacement of heavy, performance-focused set of monitoring instruments in Phase I by the more liberal approach of Phase II, with no centralised

process monitoring, left the project without systematically collected data about progress and results at the field level.

250. The research component has operated quite separately from the development component in both Phases of the programme. In spite of notable exceptions, in general it has been found that few experiments were used as a primary pool of information for research outputs.
251. This was a missed opportunity given the richness of the experiments and the different circumstances in which they operated. The reasons for this are unclear - but they could relate at least partly to concern that an institutional focus on innovation systems requires a broader domain of interest than what is provided by the fewer and more commercially orientated set of experiments which emerged at the start of Phase 2.
252. The Review noted that in Phase II the learning and research component was contracted to contribute to the shaping and steering of the country programmes and this did not happen. Some backstopping support was provided by CRT individuals, but the CRT as a whole did not recognise itself as having responsibility for this role and this limited the extent to which a continuous study of experience from the field could feed back and inform country activity.
253. A major lesson for multi-country programmes such as this has been a need to match autonomy and responsibility for results with support to field staff. This problem appears throughout the programme, though rather less to the Asian activities, the historical background of which has led to stronger support for implementation and lesson learning.
254. There were also gaps in the research agenda which suffered from the same lack of political economy, social and economic analysis as the overall programme design. This is most surprising given the institutional approach of the CRT as set out in the research framework and the revised logical framework. A more formal process of peer review in the development of the research framework might have identified some of these gaps earlier on.

#### **4.4 Management and communication issues**

255. The complexity of the programme has provided challenges for central management throughout and these have been compounded by the geographical dispersion and diversity of the programme. The general autonomy of the different units within the project has allowed ideas to flourish and has ensured space for free thinking, but it has also proved less conducive to a collective approach or to coordinated and focused implementation.
256. The limitations of using an approach that provides grants to key players to perform functions is reflected by the difficulties encountered when reshaping the programme after the MTR. The main options available to the new Director when refocusing the programme were to restructure with a mix of (a) adjustments to the portfolio of projects and (b) the dropping or amending of contracts.
257. A further implication of the management approach was the low level of strategic support provided to the country teams as mentioned above. The little support provided by the CRT tended to be reactive rather than strategic. As a result, the programmes have depended heavily on the CPMs using their own experience, knowledge and networks to develop the country programmes. More importantly, the expertise of the CPMs and feel for the local situation have had to substitute for more formal analysis and study.
258. The work of the country programmes was originally based on country assessments at the start of Phase 1. These assessments were built on contacts and networks, often in research-related

institutions, which had been established as part of the previous RNRRS programme. This led to a programme focused on institutional issues around commodity chains rather than, say, more directly on policy issues or economic conditions. In practice, the Country Programmes are all relatively similar in nature, though modified by national policy frameworks and by the legacy of activities developed and identified during Phase 1.

259. Central management also includes a separately managed **Communications Unit** which responded to strong criticism in the MTR of the lack of effective communication within and outside the programme. The structural changes introduced after the MTR were intended to reduce the need for internal coordination and communication and, therefore, the unit focused on public relations and external communications. In this respect, communications can be regarded as a component in its own right, responsible for disseminating the work of the RIU to the wider world.
260. Despite this shift in formal role, the Communications Unit has played an important role in supporting both the ACP and ABB programmes, often having more direct and frequent contact with programme staff around substantive issues than anyone else. Although not a substitute for technical support, the Communications Unit has played an important role in sharing experiences amongst programme staff and providing appreciation of effort for staff who have often found themselves working in difficult and isolated circumstances.
261. The ultimate conclusion that emerges is of a difficult and complicated programme that has produced some striking results at the field level despite an uneven trajectory and both conceptual and management challenges. There have been some missed opportunities, especially in the learning area, but lessons have been learned from this programme both about getting agricultural research into use and about running multi country programmes. These should form a strong basis for future similar projects.



## Appendix 1. Research into use (RIU) Logframe (4th Revision) dated 30<sup>th</sup> April 2010

Project title: Research Into Use Programme (April 2009 – June 2011)						Date: 1 <sup>st</sup> July 2009 26 <sup>th</sup> January 2010 (Revised) 29 <sup>th</sup> January 2010 (2 <sup>nd</sup> revision) 2 <sup>nd</sup> February (3 <sup>rd</sup> revision) 30 <sup>th</sup> April (4 <sup>th</sup> revision)	
Goal	Indicator		Milestone	Target	Target + 1		
		(2009)	(2010)	(2011)	(2012)		
To contribute to sustained poverty reduction in countries of Africa and South Asia, where agriculture is important to the livelihoods of the poor.	A positive contribution made to agricultural GDP growth		baseline	+5% of baseline	+10% of baseline		
		Sources: National Statistical Data. World Development Report (Annual) Human Development Report (Annual)					

Given the short time period (and the possibility of a one year extension), results have been defined for 2012 (i.e. EOP +1)

Purpose	Indicator			Baseline	Milestone	Target	Target + 1	Assumptions: (Linking Purpose to Goal)
				(2009)	(2010)	(2011)	(2012)	
To significantly contribute to the knowledge of and investment in innovative models that promote and increase the widespread use of technology, thereby contributing to poverty reduction and economic growth	1. Number of poor people (on < \$2/day), disaggregated by gender, to benefit from RIU initiatives				395,000	1,500,000	>3,000,000	<ul style="list-style-type: none"><li>Institutional arrangements are the limiting factor in preventing and excluding poor farmers moving to more efficient production paths</li></ul> <b>This will be monitored and tracked.</b>
	2. Plans, strategies, policies, working papers from key international organisations investing in the agricultural development sector e.g. World Bank, DFID, IFAD, EU and GATES informed by outcomes of the RIU.					1	5	
				Sources: Independent surveys (2010 – 2012) and key policy, strategic and working plans of key international organisations				
Inputs £	DFID	20,251,351	100%	DFID (FTEs)	PO	0.2 FTEs		
	Govt	0	%		Advisers	0.4 FTEs		
	Other	0	%			FTEs		
	Total	20,251,351	100%			FTEs		

Output 1	Indicator			Baseline (2009)	Milestone (2010)	Target (2011)	Target +1 (2012)	Assumptions: (Linking Output to Purpose)
To introduce and implement experimental models which seek to expand the demand for and use of pro-poor agricultural research/ technologies.	An established portfolio of RIU activities generating and validating evidence on the institutional and policy conditions needed to : <ul style="list-style-type: none"><li>Strengthen networks and partnerships needed to put research into use for innovation;</li><li>Strengthen the demand for research in the innovation process;</li><li>Strengthen the responsiveness of innovation processes to the needs of poor people and other socially desirable outcomes;</li></ul> containing <ul style="list-style-type: none"><li>(a) Challenge fund projects;</li><li>(b) Country programmes with thematic innovation platforms, partnerships and policy advocacy activities;</li><li>(c) Best bet activities</li></ul> Annual reports, strategy documents, working papers, white papers, project proposals of national research and development organisation and in selected regional organisations (CAADP, FARA and the SROs) reflect the adoption and promotion of RIU-derived lessons on institutional and policy change			13	8	8		<ul style="list-style-type: none"><li>National policy environments allow RIU programme and agents to RIU Country offices to exercise effective leadership</li></ul> <b>(RIU support and mentoring has been built into Output 1)</b> <ul style="list-style-type: none"><li>International trade environment and national trade policies are supportive of innovation</li></ul> <b>(This variable will be monitoring by national programmes and Output 2)</b>
				6	6	6		
				0	6	10		
				Sources: Independent evaluations (2010 – 2012); RIU Country work-plans (2009) and RIU sub-contracts (2008-2011).				
Impact weighting:								Risk rating:
30%								Medium
Inputs £	DFID	16,619,291	100%	DFID (FTEs)	PO	0.1 FTEs		
	Govt	0	%		Advisers	0.2 FTEs		
	Other	0	%			FTEs		
	Total	16,619,291	100%			FTEs		

Output 2	Indicator	Baseline	Milestone	Target	Target + 1	Assumptions:
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				(2009)	(2010)	(2011)	(2012)	(Linking Output to Purpose)																											
To research the experimental investment models, disseminate findings and, thereby, increase understanding of how to promote and expand use of agricultural research and technology.	1. Publications, synthesising evidence and lessons on the circumstances under which different modes of innovation and institutional and policy settings are needed to put research into use in different contexts for developmental purposes: a. Pro-poor led innovation; b. PPP/agro-enterprise led innovation; c. Capacity development innovation; d. Opportunity-led innovation; e. Investment-led innovation; f. Research communication-led innovation 2. Citations of RIU lessons in professional and academic publications. 3. Policy dialogues with DFID and other target organisations in national and international arenas. 4. RIU staff promote lessons and principles through their wider professional activities and networks <ul style="list-style-type: none"><li>• Reviews/evaluations of donor and national programmes;</li><li>• Reviews of funding proposals, peer review articles and PhDs;</li><li>• Advisory assignments to donors and national programmes;</li><li>• Keynote speeches and other conference interactions;</li><li>• Memberships of advisory boards, editorial boards, organisational committees and steering committees</li></ul>			0	10	50	100	<ul style="list-style-type: none"><li>• The underlying complexity of innovation can be captured by the proposed “institutionalist” approach and framework</li></ul> <b>(The “Institutionalist” approach is now used commonly for an analysis of governance, institutions and political economy more generally. Lessons can be learnt even where programmes fail!)</b>																											
									1	4	6	8																							
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																						2	2	4											
																									1	2	4								
																												Sources: RIU policy and practice briefs; RIU publications and professional/academic publications and independent evaluations							
																												Impact weighting:							Risk rating:
																												70%							Low
Inputs £	DFID	3,632,060	100%	DFID (FTEs)	PO	0.1 FTEs																													
	Govt	0	%		Advisers	0.2 FTEs																													
	Other	0	%			FTEs																													
	Total	3,632,060	100%			FTEs																													

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## Appendix 2. Programme expenditure

1. Total programme expenditure to December 2011 is estimated to be £36.1 million (Appendix 2) of which the Inception phase accounted for 15% of the total. Approximately 53% of the total cost was spent on Output 1 and 15% of Output 2. The remaining 17% was unallocated to programmes and covered programme management and communications.
2. Within the Output 1 programme 41% of expenditure was allocated to African Country programmes, 36% to African Best Bets projects, which only really started after the MTR in 2009 and the remainder (23%) allocated to the Asian Innovation Challenge funds, many of which were phased out after the MTR.
3. The ACP included six counties some of which consisted of more than one commodity chain. Expenditure averaged £360,000 per year, with three countries receiving less than £300,000 per year and two countries receiving less than £400,000 per year. Tanzania had the highest expenditure averaging over £600,000 per year.
4. Output 2 consisted of programme monitoring (20%) activities most of which was utilised prior to the MTR (and might have been classified under programme management) and learning activities (80%) which included impact studies and research (CRT) in Both Phase 1 and Phase 2.
5. Details are in the following table.

Activity Area All figures in £ sterling	2006-2007 Actual 6 months	2007-2008 Actual 12 months	2008-2009 Actual 12 months	2009-2010 Actual 12 months	2010-2011 Actual 12 months	2011-2012 Budget 6 months	TOTAL
<b>INCEPTION PHASE</b>	<b>4,819,384</b>	<b>607,280</b>					<b>5,426,664</b>
<b>IMPLEMENTATION PHASE</b>							
<b>OUTPUT 1 (Development focus)</b>							
<b>Africa Country Programmes</b>							
Non specific set-ups		663,322					663,322
Tanzania			393,735	609,004	861,942	192,412	2,057,092
Rwanda			238,434	328,116	306,069	73,995	946,614
Nigeria			154,572	593,878	389,937	207,500	1,345,887
Sierra Leone			297,929	377,601	400,540	92,510	1,168,579
Zambia			173,233	294,770	362,466	102,346	932,814
Malawi			460,157	41,213	335,299	162,901	999,569
<b>Sub-total (ACPs)</b>		<b>663,322</b>	<b>1,718,060</b>	<b>2,244,581</b>	<b>2,656,252</b>	<b>831,664</b>	<b>8,113,878</b>
<b>African Best Bets</b>							
Programme Development		156,412	177,239	146,871	116,356	40,517	637,394
Projects				1,666,782	4,262,573	469,346	6,398,701
<b>Sub-total (ABBs)</b>		<b>156,412</b>	<b>177,239</b>	<b>1,813,653</b>	<b>4,378,929</b>	<b>509,863</b>	<b>7,036,096</b>
<b>Asia Innovation Challenge Fund</b>							
Programme Development		228,088	247,172	65,968			541,228
Projects		87,703	989,567	1,736,125	763,560	312,457	3,889,412
<b>Sub-total (AICFs)</b>		<b>315,791</b>	<b>1,236,739</b>	<b>1,802,093</b>	<b>763,560</b>	<b>312,457</b>	<b>4,430,639</b>
<b>Sub-total (Output 1)</b>		<b>1,135,525</b>	<b>3,132,037</b>	<b>5,860,326</b>	<b>7,798,741</b>	<b>1,653,984</b>	<b>19,580,613</b>
<b>OUTPUT 2 (Learning focus)</b>							
<b>Monitoring, Impact and Learning</b>							
IOD PARC Management		226,850		18,670			245,520
IOD PARC Management - ACPs		23,998		56,238			80,236
IOD PARC Management - AICF		8,995	5,433	11,570			25,998
MIL costs			794,332				794,332
		259,843	799,765	86,478			1,146,085
<b>Impact evaluation</b>							
IOD PARC Management		546,565		102,295			648,860
Impact Case studies				385,556			385,556
Impact Evaluation			1,494,168				1,494,168
Independent Impact Assessment					589,892	154,520	744,412
		546,565	1,494,168	487,852	589,892	154,520	3,272,996
<b>Central Research Team</b>							
Total				263,142	537,463	342,371	1,142,977
				263,142	537,463	342,371	1,142,977
<b>Sub-total (Output 2)</b>		<b>806,408</b>	<b>2,293,932</b>	<b>837,472</b>	<b>1,127,355</b>	<b>496,891</b>	<b>5,562,058</b>
<b>PROGRAMME MANAGEMENT (Unallocated to outputs)</b>							
<b>Influencing the agenda/communications</b>							
Phase 1 inputs		229,140	151,640	177,989	23		558,746
Communication		378,363	417,844	331,885	329,664	91,990	1,549,746
<b>sub-total</b>		<b>607,503</b>	<b>569,484</b>	<b>509,874</b>	<b>329,641</b>	<b>91,990</b>	<b>2,108,492</b>
<b>Capacity building</b>							
Capacity building - PICO/ACTS			88,939	104,321	30,247	31,307	254,815
Other Africa programme costs			45,503				45,503
Responsive budget line		59,311					59,311
<b>sub-total</b>		<b>59,311</b>	<b>134,443</b>	<b>104,321</b>	<b>30,247</b>	<b>31,307</b>	<b>359,629</b>
<b>Management</b>							
NIDA Management		180,359	308,033	91,293			579,686
IOD PARC/Michael Flint Mgmt		114,502	127,042	48,886			290,430
NRIL Management		581,217	572,189	619,883	493,284		2,266,572
UoE Management					220,537	205,317	425,855
<b>sub-total</b>	-	<b>876,078</b>	<b>1,007,264</b>	<b>760,062</b>	<b>713,821</b>	<b>205,317</b>	<b>3,562,543</b>
<b>Sub-total (Programme management)</b>	-	<b>1,542,892</b>	<b>1,711,191</b>	<b>1,374,257</b>	<b>1,073,710</b>	<b>328,615</b>	<b>6,030,664</b>
<b>TOTAL</b>	<b>4,819,384</b>	<b>4,092,105</b>	<b>7,137,160</b>	<b>8,072,055</b>	<b>9,999,806</b>	<b>2,479,490</b>	<b>36,600,000</b>
Percent	13%	11%	20%	22%	27%	7%	100%