

# Partnership-based innovation helps break bad habits

RIU

## Validated RNRRS Output.

An innovation systems concept pioneered in India provides a new conceptual framework for improving the responsiveness of research to the needs of diverse technology users; the integration of research into the wider set of development activities; and the cultivation of practices that facilitate integration. Partnership is increasingly important for improving the use of research in development. Yet long-standing issues (habits, routines and practices) often make partnerships difficult to establish and sustain, keeping innovation from taking place. This conceptual framework is currently shaping a diversity of programmes. Investment in capacity strengthening will enable numerous organisations to apply the approaches effectively.

Project Ref: **CPH12:**

Topic: **6. Promoting Success: Partnerships, Policy & Empowerment**

Lead Organisation: **Natural Resources Institute (NRI), UK**

Source: **Crop Post Harvest Programme**

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## Description

**CPH12**

### A. *Description of the research output(s)*

## Research into Use

NR International  
Park House  
Bradbourne Lane  
Aylesford  
Kent  
ME20 6SN  
UK

## Geographical regions included:

[Bangladesh](#), [Colombia](#),  
[Ghana](#), [India](#), [Kenya](#),  
[Tanzania](#), [Uganda](#),  
[Zimbabwe](#),

## Target Audiences for this content:

[Crop farmers](#), [Livestock farmers](#), [Fishers](#), [Forest-dependent poor](#),  
[Processors](#), [Traders](#),

1. *Working title of output or cluster of outputs.*

*In addition, you are free to suggest a shorter more imaginative working title/acronym of 20 words or less.*

**Original title:** Decision tools for institutional change in public and private sectors

**Suggested title** Analytical and policy principles for planning research and technology use within a system of innovation. **Suggested short title:** Principles for enabling partnership-based innovation.

2. *Name of relevant RNRRS Programme(s) commissioning supporting research and also indicate other funding sources, if applicable.*

Crop Post Harvest Programme

3. *Provide relevant R numbers (and/or programme development/dissemination reference numbers covering supporting research) along with the institutional partners (with individual contact persons (if appropriate)) involved in the project activities. As with the question above, this is primarily to allow for the legacy of the RNRRS to be acknowledged during the RIUP activities.*

**R7502 Project title** Optimising institutional arrangements for demand driven post-harvest research, delivery, uptake and impact on the livelihoods of the poor through public and private sector partnerships.

**Project partners:** Natural Resources Institute (NRI), UK; University Strathclyde, UK; National Centre for Agriculture and Policy Research (NCAP), India; and the International Crops Research Institute.

**Contact persons for this output:** **Dr Andy Hall** (formally NRI), Coordinator of the UNU-MERIT LINK programme, LINK Secretariat, Karma Enclave, Road no 10 Banjara Hills, Hyderabad, 500 034 AP, Tel 00 91 40 66108111, Fax 00 91 40 23300844 e-mail [hall@merit.unu.edu](mailto:hall@merit.unu.edu). **Dr Norman Clark** (formally University of Strathclyde), Research Director, African Centre for Technology Studies, and LINK associate, [n.clark@cgiar.org](mailto:n.clark@cgiar.org). **Dr Rasheed Sulaiman** (formally NCAP), Director of the Centre for Innovation and Science Policy and Director of the LINK South Asia Rural Innovation Policy Studies Hub, Karma Enclave, Road no 10 Banjara Hills, Hyderabad, 500 034 AP, Tel 00 91 40 66108111, Fax 00 91 40 23300844 e-mail [Rasheed.sulaiman@gmail.com](mailto:Rasheed.sulaiman@gmail.com)

**R6306 Project Title:** Field trials for quality assurance for horticultural exports

**Project partners:** Natural Resources Institute (NRI), UK; Agricultural Products Export Development Authority, India.

**Contact person:** Dr Sarah Taylor (contact via [j.e.orchard@greenwich.ac.uk](mailto:j.e.orchard@greenwich.ac.uk))

**R 6641 Project title:** Developing integrated post-harvest techniques to enhance small-holder livelihoods in India by improved quality of fresh horticultural exports

**Project partners:** Cranfield University, UK and the Natural Resources Institute UK.

**Contact person:** Dr Sarah Taylor and Prof. Keith Thompson (contact via [j.e.orchard@greenwich.ac.uk](mailto:j.e.orchard@greenwich.ac.uk))

**R 7494 Project Title:** Optimisation of horticulture research and uptake in India through the development of technical and management systems with public and private sector partners

**Project partners:** Natural Resources Institute (NRI), UK; Agricultural Products Export Development Authority,

India

**Contact person:** Dr Sarah Taylor (contact via [j.e.orchard@greenwich.ac.uk](mailto:j.e.orchard@greenwich.ac.uk))

**Project title R 7551** Sustainable retailing of post-harvest technology to the poor: alternative institutional mechanisms for developing and transferring technology

Project partners: Intermediary Technology Consultants (ITC), UK and International Development Enterprises India

**Contact person:**

This output also draws on two unlisted programme development projects of the Crop Post-Harvest Programme conducted by the Natural Resources Institute (NRI), UK

1. Development of research strategies to improve institutional support for small scale farmer participation in high value horticultural markets.

2. Development a strategy for CPHP research to support small farmer access to high value markets for horticultural products (India).

4. *Describe the RNRRS output or cluster of outputs being proposed and when was it produced? (max. 400 words).*

*This requires a clear and concise description of the output(s) and the problem the output(s) aimed to address.*

*Please incorporate and highlight (in bold) key words that would/could be used to select your output when held in a database.*

This output came from a series of both technical and policy research projects conducted between 1995 and 2003. (Technical outputs are reported in proforma Market information tools R7494). The technical projects acted as a vehicle to observe the way technology development and up take were affected by the composition and behaviour of various groupings of organisations involved. The policy research project (R7502) at the heart of this output pioneered the use of the **innovation systems concept** in agriculture, adapting, applying and testing it through a series of cases studies of other research projects and wider experiences of agricultural innovation in India.

The research that led to this output emerged from issues raised by two trends remain important in the contemporary rural development context across the developing world). The first trend is the increasing recognition that **partnership** between research and enterprise and developmental organisations in the **public and private sectors** is a potentially important way of i) **linking research with the needs of technology users** in different operational contexts; and ii) **uptake and use of technology needs the active involvement of non-research organisations** as ultimately they the one who need to incorporate new ideas and technology into their production process / enterprise or service. The second trend was that creating the partnerships and linkages was recognised as being much more difficult than anticipated with large **barriers to partnership** arising from historically rooted ways of doing things; and even where some degree of partnership was possible, often these ways of doing things meant that **inclusion of poor people** and their representatives and agendas was not guaranteed.

This output contains a **conceptual framework** and **policy advice** aimed at (i) improving the **responsiveness of research** to needs of different technology users; (ii) improving the **integration of research** into the wider set of activities where research findings and technology are put into use; (iii) improving the **habits, routines and practices** (collectively referred to as **institutions**) that shape the **relationships** that in turn facilitate this integration and create the patterns of **interaction** between research, entrepreneurial and developmental

organisations and individuals involved in the process of **innovation**. In this context innovation is understood to be both the creation, diffusion and adaptation of knowledge and, critically, the putting into use of this knowledge in socially and economically significant ways.

The value of this output is that it provides analytical and planning principles that (i) reveals the diversity of organisations that are needed to ensure that research contributes effectively to the wider process of innovation; (ii) it brings relationships and institutional issues – i.e. habits, routines and practices – into the centre of the analysis and by doing so reveals some of the underlying reasons why partnerships are difficult to establish and sustain and why innovation often fails to take place. With **partnership becoming central strategy for making more effective use of research** in the development process, this output has importance in providing **principles on how this could be facilitated**.

The output is well documented through a large number of journal articles, policy briefs and two books.

5. *What is the type of output(s) being described here?*

*Please tick one or more of the following options.*

<b>Product</b>	<b>Technology</b>	<b>Service</b>	<b>Process or Methodology</b>	<b>Policy</b>	<b>Other Please specify</b>
			X	X	Conceptual framework

6. *What is the main commodity (ies) upon which the output(s) focussed? Could this output be applied to other commodities, if so, please comment*

This output came from work looking at institutional issues associated with knowledge up grading in the post-harvest sector, with a particular emphasis on the horticultural sub-sector. Since the output involve a conceptual framework and principle for how to better organise knowledge upgrading and innovation, **it has relevance across all commodities and all natural resource based activities**.

7. *What production system(s) does/could the output(s) focus upon?*

*Please tick one or more of the following options. Leave blank if not applicable*

<b>Semi-Arid</b>	<b>High potential</b>	<b>Hillsides</b>	<b>Forest-Agriculture</b>	<b>Peri-urban</b>	<b>Land water</b>	<b>Tropical moist forest</b>	<b>Cross-cutting</b>
							X

8. *What farming system(s) does the output(s) focus upon?*

*Please tick one or more of the following options (see Annex B for definitions).*

*Leave blank if not applicable*

Since the output involve a conceptual framework and principle for how to better organise knowledge upgrading and innovation, **it has relevance across all farming systems**.

<b>Smallholder rainfed humid</b>	<b>Irrigated</b>	<b>Wetland rice based</b>	<b>Smallholder rainfed highland</b>	<b>Smallholder rainfed dry/cold</b>	<b>Dualistic</b>	<b>Coastal artisanal fishing</b>

9. How could value be added to the output or additional constraints faced by poor people addressed by clustering this output with research outputs from other sources (RNRRS and non RNRRS)? (**max. 300 words**).

Please specify what other outputs your output(s) could be clustered. At this point you should make reference to the circulated list of RNRRS outputs for which proformas are currently being prepared.

This output provided a conceptual framework and policy advice on how partnership-based ways of working could make more effective use of research within the wider process of innovation – i.e. both creating and putting knowledge into use in ways responsive to different client groups. One of the key messages in this output is that a partnership-based way of working involves substantial changes in the way people and organisations operate. This means changes in the rules, routines, norms and practices that shape how things are done – i.e. what is referred to as institutional change. For example it involves breaking down the barriers and mistrust between the public and the private sectors; it involves breaking down hierarchies between scientific knowledge and local, tacit knowledge; and it involves adopting a more learning based self-reflective approach to improving performance.

This leaves an important question; namely how can organisations and public policy bring about the institutional changes needed to work in a more interactive, partnership-based process of learning and innovation. The caveat being that what is required is not just institutional innovation that supports a process of innovation, but that is also addresses the social development need of a particular sector or country. While to a certain degree the question of how institutional change be stimulated and facilitated is always going to be an empirical one, further research had been under taken on this topic and this has added value to this output (.See for example the outputs discussed in output proforma *Policy advice and planning frameworks to help strengthen pro-poor institutional learning and change*. The Institutional Learning and Change Initiative of the Consultative Group for International Agricultural Research have also approached this issue. A recent DFID project New Insights into Rural Innovation has also explored what are the institutional innovations needed to bring about socially relevant innovation.

The question of how to bring about institutional change, however, is far from fully answered. Value could be added to this output by exploring this question systematically as an embedded component of all research and development projects.

In addition while this output as been put into use by a number of organisation (see validation and use # 10 -12) diffusing this idea more widely requires the facilitation of organisations to experiment and adapt this to their own situation. This sort of facilitation and mentoring would add value to this output.

These two points are discussed in more detail in sections dealing to uptake and promotion and steps needs to achieve wide scale poverty impacts.

## Validation

### B. Validation of the research output(s)

#### 10. How were the output(s) validated and who validated them?

*Please provide brief description of method(s) used and consider application, replication, adaptation and/or adoption in the context of any partner organisation and user groups involved. In addressing the “who” component detail which group(s) did the validation e.g. end users, intermediary organisation, government department, aid organisation, private company etc... This section should also be used to detail, if applicable, to which social group, gender, income category the validation was applied and any increases in productivity observed during validation (max. 500 words).*

Since this output is a conceptual framework and policy advice, the question of its validation needs to be answered in terms of the organisations that have used it and their assessment of its value for their particular purposes. Note therefore that there is an overlap with the discussion with the extent of its current use as the distinction between validation and use is artificial for these sorts of outputs — i.e. their validation comes through use. Bearing this in mind, the following three “validation” processes are illustrative.

1. DFID’s crop post-harvest programme made use of this conceptual framework part of this output, reorienting its entire programme in a new approach that it called “Coalitions for innovation”. This involved establishing partnership-based projects and mandating institutional lessons as well as technical outputs. This approach – and therefore the application of this output – were independently evaluated by Andrew Barnett (see Barnett 2006 *Journeying from Research to Innovation*. CPHP, NRint,). He concluded that the approach was effective and that when applied in project design there was evidence that the approach could deliver “significance poverty impacts”. The coalitions approach to innovation was in operation between 2003 and 2006 and the evaluation was completed in 2006.
2. The Agriculture and Rural Development Department of the World Bank, recognising that the potential value of this output, commissioned one of the project team (Dr Andy Hall) to develop an operational diagnostic tools and intervention framework based on the innovation system concept and evaluation the usefulness of these in guiding investments in agricultural development. This led to the development of new intervention framework and the study concluded that the innovation systems approach and principles for innovation capacity development that it embodies could indeed help guide intervention design. This study was very favourably reviewed by international experts in agricultural R&D and innovation management: notably Dr Derek Byerlee of the World Bank and Dr Paul Engel of the European Centre for Development Policy management. This “validation” process was completed in June 2006. See World Bank, 2006. *Enabling Agricultural Innovation: How to go beyond strengthening agricultural research systems*. Economic Sector Work Report. World Bank Washington, DC
3. DFID commissioned the project team to explore the applicability of this output (and particularly the conceptual framework part of it) for drawing lessons about pro-poor innovation from a cross a range of agricultural and other rural activities. The project had just concluded at the time of writing (October 2006), but the results tend to validate the conceptual framework and suggest that it is indeed useful for drawing lessons and in particular those about institutional innovations that lead to pro-poor innovation. See Final Technical report for DFID Central Policy Department project R 8372 *New insights into promoting rural innovation: Learning from civil society organisations*

about the effective use of innovation in development

11. **Where and when** have the output(s) been validated?

Please indicate the places(s) and country(ies), any particular social group targeted and also indicate in which production system and farming system, using the options provided in questions 7 and 8 respectively, above (**max 300 words**).

See also answers to #10 also.

Validation illustration 1# was undertaken through application in projects in India, Uganda, Tanzania, Kenya, Ghana, Zimbabwe. All projects were aimed at supporting a development process inclusive of the poor. According to the guidance notes these would probably be classified as the moderate, although some projects worked with more vulnerable social groups such as tribal communities in India. The projects were undertaken in a variety of crops/ livestock based farming systems in different agro climatic zones. Marine fisheries were not included.

Validation illustration #2 included case studies in Bangladesh, India, Ghana and Colombia. Cases were chosen to explore the experiences of the moderate poor deriving a livelihood in different ways from dynamic agricultural sector where innovation had become the key to sector development. The projects were undertaken on a variety of crops/livestock based farming systems in different agro climatic zones and included coastal fisheries.

The Validation illustration 3# included case studies in India and Ugandan. Cases were chosen to illustrate innovation process relevant to the moderate poor. Cases were both agricultural and non-agricultural and included artisan marine fisheries.

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## Current Situation

### C. Current situation

12. **How and by whom** are the outputs currently being used? Please give a brief description (**max. 250 words**).

# 10 gives illustrates the way this output has been used and by who. In fact since this output was developed and particular the innovation systems conceptual framework element of the output, this idea has been adopted very widely in the literature and policy debates about agricultural research and development. The project can not claim all the credit for this spread and use of the output. However it did make a considerable contribution to the legitimisation of this concept and paved the way for to be used more widely. The fact that the research team that developed this output continue to advise the World Bank, the Research Into Use Programme of DFID, the Science Council of the CGIAR, the Global Forum Agricultural Research (GFAR), The forum for Agricultural Research in Africa (FARA) and others suggests that both significant interest in the output has been generated; that this interest is generic to agriculture and rural development more generally; and that there is a strong

demand for the output. The output can also be seen to be shaping specific national programme; for example the National Agricultural Innovation Project of the Indian Council of Agricultural Research

**13. *Where are the outputs currently being used? As with Question 11 please indicate place(s) and countries where the outputs are being used (max. 250 words).***

This answered in # 10, 11 and 12. To give another example of the way this output is being used (although not to claim credit for this), the International Livestock Research Institute (ILRI) established a theme on enabling innovation which drew on similar principles to those suggested by this outputs. ILRI has just had funding approved by DFID to use the principles of this output to explore the-until-now intractable problem of enabling fodder innovation in crop livestock systems. There has been a proliferation of such applications of the concept since 2004 (as evidenced by the funding proposals that the research has been asked to review).

**14. *What is the scale of current use? Indicating how quickly use was established and whether usage is still spreading (max 250 words).***

This is difficult to quantify, but as the examples and explanations in # 10 – 13 illustrate the scale of current use is not insignificant. Although it is also acknowledged that while the language of the outputs is widely visible in for example literature, mission statements and annual reports, operational applications of the output are still in their infancy. As mentioned earlier there are large opportunities for adding value to this output by investing in capacity strengthening activities that enable organisations to apply these approaches.

**15. *In your experience what programmes, platforms, policy, institutional structures exist that have assisted with the promotion and/or adoption of the output(s) proposed here and in terms of capacity strengthening what do you see as the key facts of success? (max 350 words).***

A number of things have aided the promotion and adoption of this output.

**Publications.** The output is very well documented through outlets aimed at different audiences. Approximately 10 journal articles, a number of policy briefs, 2 books, book chapters and other reports documented the conceptual framework and the policy recommendations of this output. This not only made the information available, but it gave credibility to the output. This credibility has been important for accessing three promotion mechanisms mentioned below

**Professional networks:** The output was shared widely with peers at international conferences and meeting. This included through informal discussion but also through presentation of papers and invited keynote addresses.

**Feeding into specialist programmes and initiatives:** The output has been used extensively in two specialist programmes that have drawn on documentation mentioned above. The first of these is the Institutional Learning and Change Initiative (ILAC) of the CGIAR (see [www.cgiar-ilac.org](http://www.cgiar-ilac.org)). This is an on-going programme. The second is Learning Innovation and Knowledge initiative of UNU-MERIT ([www.innovationstudies.org](http://www.innovationstudies.org)) which has used this output as part of its efforts to promote policy change in relation to innovation and rural development. This is an on-going programme.



**Capacity development activities:** Materials associated with this initiative have been used in capacity development workshops run by The Centre for Research on Innovation and Science Policy; UNU-MERIT; The ISNAR programme of the International Food Policy Research Institute; and the International Livestock Research Institute.

**Advisory and consulting activities of original project team:** Advisory work has been a major route for promoting this output (see #12) This perhaps emphasises how much of outputs of this type are embodied in the knowledge and capacities that project partners gain as part of executing projects – rather than the written outputs alone. The implication for the Research Into Use programme is that networking maybe as important as making “technical” output information available on databases.

## Environmental Impact

### *H. Environmental impact*

*24. What are the direct and indirect environmental benefits related to the output(s) and their outcome(s)? (max 300 words)*

*This could include direct benefits from the application of the technology or policy action with local governments or multinational agencies to create environmentally sound policies or programmes. Any supporting and appropriate evidence can be provided in the form of an annex.*

This output is at worst environmentally neutral. While it relates to enhancing the innovation process and putting technology into use, its systemic view encompasses environmental sustainability.

*25. Are there any adverse environmental impacts related to the output(s) and their outcome(s)? (max 100 words)*

There is no evidence of adverse impacts

*26. Do the outputs increase the capacity of poor people to cope with the effects of climate change, reduce the risks of natural disasters and increase their resilience? (max 200 words)*

The output involves an evolutionary concept that deals with the need to innovation in relation to changing context. One such changing context is climate. One could therefore argue that this increases the capacity of economic systems (including poor people) to deal with evolutionary unpredictable change of the sort that characterises climate change.