

# Crop Post-Harvest Programme

## Regional Strategy for East Africa

2002 – 2005



**TABLE OF CONTENTS**

<b>1.</b>	<b>INTRODUCTION</b>	<b>1</b>
<b>2.</b>	<b>OVERVIEW OF THE DFID CROP-POST HARVEST PROGRAMME</b>	<b>1</b>
2.1	Background	1
2.2	Past Strategies	1
2.3	Past Approaches	2
2.4	Highlights of Past Achievements	2
2.5	The Global Strategy for 2002-2005	3
2.5.1	Geographic Focus	3
2.5.2	Shift from Production systems to Regional Strategies	3
2.5.3	Target Beneficiaries: the Groups of Poor People who will Benefit	3
2.5.4	Research to be undertaken	4
2.5.5	New Approaches	5
<b>3.</b>	<b>THE CPHP IN EAST AFRICA</b>	<b>6</b>
3.1	The CPHP Country Framework for Uganda	6
3.1.1	Background	6
3.1.2	Geographic Focus for Uganda	7
3.1.3	Past focus Themes for Uganda	7
3.2	The CPHP Country framework for Tanzania	8
3.2.1	Background	8
3.2.2	The Geographic Focus	8
3.2.3	Commodity Focus	9
3.2.4	Past focus Themes for Tanzania	9
3.3	Past Activities and Outputs of CPHP Research in East Africa	9
3.3.1	Reducing Storage Losses	10
3.3.2	Making Food Safer and More Nutritious	10
3.3.3	Adding Value Through Processing/Reducing Drudgery	11
3.3.4	Table 4: Improving Access to Markets	11
3.4	The 2002-2005 CPHP Strategy for East Africa	11
3.4.1	Objectives	11
3.4.2	Ongoing Projects in the Region	12
3.4.3	New Coalition projects	12
3.4.4	Studies on Innovation Systems	16
3.4.5	Logical Framework	16
<b>4.</b>	<b>LOGFRAME OF THE DFID CROP POST-HARVEST PROGRAMME - EAST AFRICA</b>	<b>17</b>

## **1. INTRODUCTION**

This document is intended to inform people who might be interested in working in East Africa with the Crop Post-harvest Programme (CPHP) of the Department for International Development (DFID) of the Government of the United Kingdom (UK). It gives an overview of the Programme and how its current global strategy is translated into a specific strategy focusing on East Africa.

## **2. OVERVIEW OF THE DFID CROP POST HARVEST PROGRAMME**

### **2.1 Background**

The CPHP is funded by DFID within the framework of a 10 year Renewable Natural Resources Research Strategy (RNRRS) that commenced in 1995 and ends in 2005. The CPHP therefore contributes to the attainment of DFID's objective of poverty eliminated in poorer countries through sustainable development. Like the other nine programmes supported under the RNRRS, the CPHP contributes to the attainment of this objective by aiming at the goal of improving the livelihoods of the poor through sustainably enhanced production and productivity of renewable natural resources systems. The CPHP is managed on behalf of the DFID by Natural Resources International (NR International) a private consulting firm based in the UK.

### **2.2 Past Strategies**

Since 1995, the CPHP has focused in four regions in sub-Saharan Africa and South Asia. The regions are consistent with large numbers of poor people affected by market liberalisation and urbanization. The Programme generates and promotes new knowledge and technologies with a particular focus on post-harvest constraints affecting crops grown or consumed by the poor, and in which women are heavily engaged in processing and marketing. Its initial concern was with reducing crop losses, lessening drudgery and adding value to foods grown by the poor through improved processing and storage.

Priority-setting within the Programme has been based on CPHP Country Framework Documents, first produced in 1995 and updated in 1998-99. These were drawn up in line with national agricultural research and development policy and the results of needs assessments carried out by the Programme. In line with DFID's thinking of the time, Country Framework Documents discussed post-harvest research priorities in terms of production systems and commodities. As a result of this, the early strategy of the Programme focused on ensuring that a balanced portfolio of strategic and adaptive research projects was commissioned in each production system guided by independent logical frameworks.

In 2000, the Programme commissioned a series of Issues Papers to guide topic selection in the short and medium term. This led to an increased focus on market access and food safety issues and a greater proportion of work in peri-urban areas. Urbanisation and associated phenomena (e.g. increase in demand for snack foods) has now become a strategic guiding theme. Research has been commissioned to identify economic opportunities for producers, traders and processors presented by the changing consumption patterns associated with urbanisation. Projects have also been initiated to generate new knowledge to improve poor peoples' access to markets following the effects of market liberalisation in much of sub-Saharan Africa and South Asia.

### 2.3 Past Approaches

The Programme has put together a multidisciplinary management team. In addition to post-harvest scientists, it has comprised the skills required to deepen the Programme's poverty focus (e.g. social development, partnerships) and strengthen the Programme's monitoring and evaluation mechanisms. In implementing the CPHP-funded projects the Programme has increasingly supported social and institutional inputs - particularly where farmer participation in research and validation in specific locations are central. This is done to make research more relevant and responsive to the needs of the poor; and secondly to address factors in the enabling environment (e.g. institutions, markets, policy, patterns of resource tenure) which impinge on poor people's ability to adopt and benefit from new knowledge.

The Programme has a central management office based in the UK supported by regional offices in South Asia as well as in West, East and Southern Africa. The offices have increasingly been given some decision making powers and some control over resources. Through these offices the CPHP has kept in continuous touch with the evolving thinking on post-harvest concerns in the regional contexts. Through them it has also supported capacity-building initiatives that have led to increase in work led by developing country expertise.

The Programme also has sought to collaborate with other DFID research programmes, and other donor research and development programmes.

### 2.4 Highlights of Past Achievements

The Programme has many innovation successes generated in response to constraints and opportunities identified in national agricultural research strategies and through participatory needs assessments commissioned by the Programme. The innovations fall in the areas of reduction of storage losses (examples in development of safe and environmentally friendly grain protectants for improving access to safe and nutritious foods) value addition to food products (as illustrated by the production of peanut butter by women's groups for retail in Zimbabwe and improved access to markets and working terms and conditions through research into ethical trade for export markets and). The Programme has explored novel methods of promotion through the offices of Regional Coordinators. One example was to link our work with a civil society initiative in Zimbabwe – *Zunde Ramambo* – where communities produce and store food as a safety net for the disadvantaged. The Programme is now receiving numerous requests for assistance/information from this one initiative alone. Other examples include uptake and adaptation of new technologies by NGOs and private agro-processors.

Policy research on the Indian crop post-harvest innovation system has made significant conceptual and practical progress in understanding the way new coalitions of partners can more effectively generate and apply new pro-poor knowledge. An action research project in Himachal Pradesh, India, has put this into practice, demonstrating the way that the correct selection and management of research and technology promotion partnerships can successfully develop packaging technology and disseminate it to user groups that include the poor

The Programme has also influenced policy in several regions. Research on access to markets is cited in Uganda's *Plan for the Modernisation of Agriculture (PMA)*. Research in Ghana resulted in the formation a Street Food Working Group coordinated by the Ministry of Environment, Science and Technology. Other work in Ghana on rice quality and marketing is being considered by Ministry of Food and Agriculture officials keen to stimulate Ghana's rice markets.

The quality of research has been recognised through awards to institutions and individuals leading research. In 1997, Adam Brett and Kate Sebag were awarded the World Aware Award for Development Initiative. During 2000, work by a number of project leaders has been recognised by national and international panels (the Queen's Anniversary Prize to the Natural Resources Institute, a Best Paper Award from the International Society for Tropical Roots Crops and the de Montfort Poster Prize to two project leaders).

## 2.5 The Global Strategy for 2002-2005

The CPHP is now in its seventh year of implementation under the RNRRS. In the remaining three years, it plans to focus its activities on activities that will maximise the value of its past investments. In 2001, the Programme commissioned an **independent external review** to assist it in getting this re-orientation. The outcome of the review is a new strategy for 2002-2005. The elements of the strategy are outlined below.

### 2.5.1 Geographic Focus

The CPHP proposes to maintain a tight geographic focus and pursue greater linkages with the "emerging" regional and national research networks in these areas. Our focus areas are:

- South Asia – **India** and **Bangladesh**;
- West Africa – **Ghana**, extending into Nigeria;
- East Africa – mainly **Tanzania** and increasingly **Uganda**, but also Kenya;
- Southern Africa – mainly **Zimbabwe**, but also Mozambique, Namibia, South Africa and Zambia.

### 2.5.2 Shift from Production systems to Regional Strategies

In the interests of developing and implementing effective promotion initiatives through coalitions of partners the four production systems-based logframes have been aggregated into a single Programme master logframe and regional logframes have been developed to underpin the work that shall be implemented under the regional strategies.

### 2.5.3 Target Beneficiaries: the Groups of Poor People who will Benefit

The CPHP has identified its main target beneficiaries through consultation with the Programme Advisory Committee (PAC), Specialist Advisers and Regional Coordination offices; and, in addition, through reference to literature and attendance at international meetings. DFID's poverty focus has guided the choice of target beneficiaries. The CPHP interprets 'pro-poor research' as benefiting the poor either directly or indirectly. Although some of our work directly addresses the problem of remoteness, and most of it aims to benefit poor consumers, the Programme also explicitly aims to improve economic opportunities for producers of small, regular surpluses and petty traders and small-scale processors with access to modest amounts of capital. DFID's categories of enabling, inclusive and focused research are useful in this regard. Thus, in food production areas, the Programme targets its research at constraints faced by **remote, rural producers** and **consumers** of food. In food demand areas, the target beneficiaries are **poor consumers** and **(peri-urban) producers**. The Programme aims to be inclusive of **womens' interests** in the post-harvest sector: as consumers, producers, traders and household/commercial food processors. Research design is required to take into account differences in people's interests and capabilities - whether those differences are linked to gender, ethnic or other forms of social stratification. The Programme also keeps itself informed of research on the implications of HIV/AIDS for household livelihood strategies.

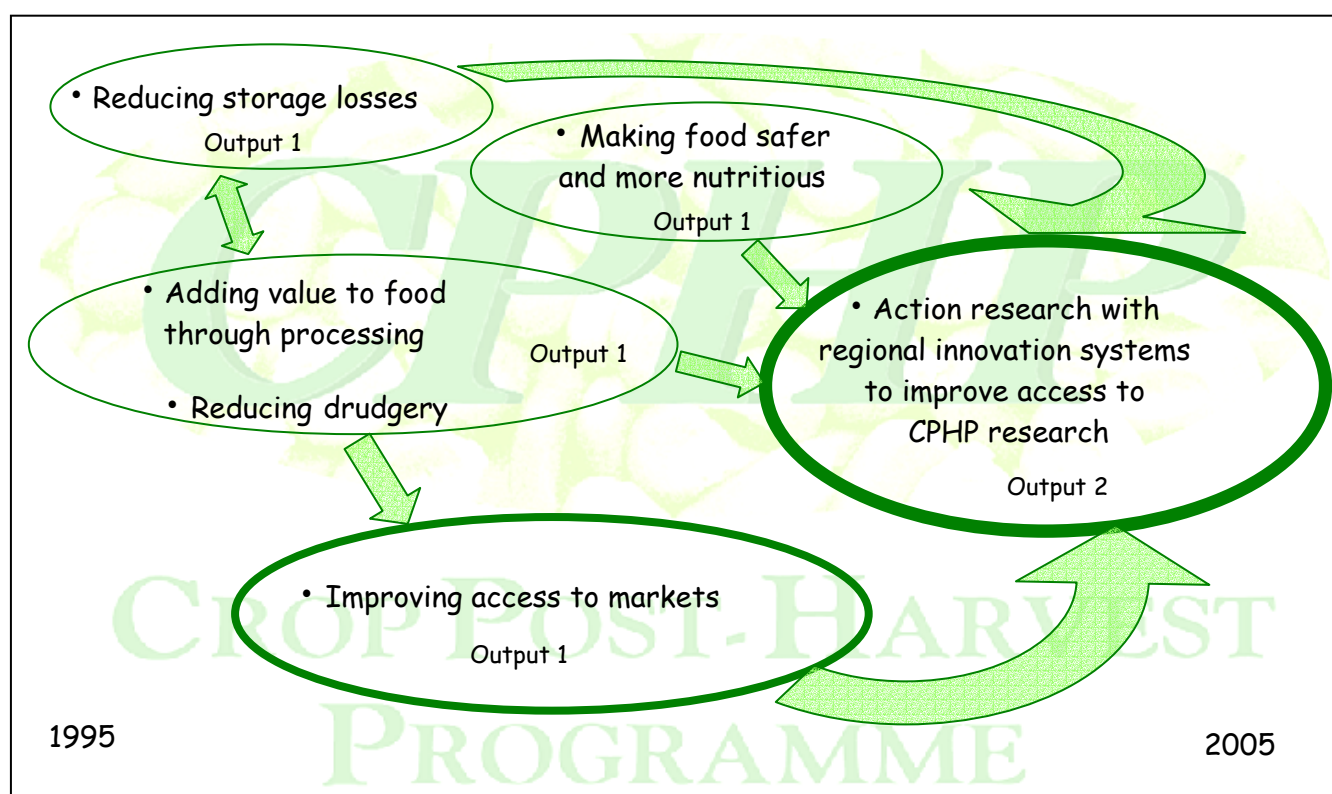
#### 2.5.4 Research to be undertaken

In the last three years the CPHP shall undertake research aimed at:

- Generation / validation of new knowledge (output area 1);
- Dissemination and promotion of research outputs (output area 2).

Figure 1 illustrates the types and functional linkages of the work that shall be supported in 2002-2005.

**Figure 1. The Crop Post-Harvest Programme Output Areas and their interlinkages: Improving food security for poor people by....**



##### 2.5.4.1 Generation/validation of new knowledge (output area 1)

The Programme shall continue to support those most promising basic research projects, with a long-term view of poor people benefiting by 2015. Adaptive research of the type that has hitherto been mainly supported shall also be reduced such that the resource allocation to both basic and adaptive research shall not exceed 40% of the budget.

Based on analyses undertaken in the last two years, the priority for the Programme shall be investigations on methods to improve **access to markets** (in the focus regions) for the poor/ remote groups - both as producers and consumers.

##### 2.5.4.2 Dissemination and promotion of research outputs (output area 2)

The main emphasis of the Programme during 2002-2005 will be focussed on dissemination and promotion of outputs from its past research towards which the Programme will allocate at least 60% of its resources. Work that the Programme has carried out in the technical areas of - reducing storage losses, value addition through processing, making food safer and more nutritious, reducing drudgery, and improved knowledge on improving market access - shall be

taken forward in relation to the theme of market access. The Programme shall consolidate existing findings and maximise opportunities for cross-regional validation and promotion. It shall also explore opportunities for joint Programme promotion of outputs. Promotion will be reframed, within an innovation systems approach (explained below) as an integral part of action research rather than as a discreet stage in a linear process.

## 2.5.5 New Approaches

### 2.5.5.1 Action research

Working within a 'systems' approach and through regional hubs, the Programme will facilitate the formation of coalitions of teams in each region to implement action research. Increased resources will be provided for these hubs to take on the additional roles and responsibilities. The Programme management team, based in the UK, will provide support directly to the regional hubs. In addition, the Programme management will ensure greater cohesion with other programmes working in the post-harvest arena, and further nurture links to national and international research and development organisations. Specifically, CPHP shall:

- task regional coordination offices with negotiating coalitions before and during projects;
- adopt a process approach to project management and design;
- develop administrative procedures to accommodate the process approach;
- develop databases of partners;
- develop regional checklists for partner selection;
- develop a monitoring system for institutional processes;
- resource coalition-building before and after proposal submission (e.g. finance more frequent visits between collaborators; finance and arrange exchange visits between projects);
- ensure that projects budget for the time and resources necessary to nurture partnerships;
- document institutional processes during project lifetime and feed back lessons learned into project and Programme management;
- provide coalition-building skills for prospective partners, with key needs in this area being identified by the Regional Coordinators through a participatory process, with support from advisers as required.

Emphasis will be given to encouraging validation of outputs from one region in another, to fully exploit the Programme's position as a global research facility. Tools shall be developed to facilitate promotion (e.g. regional CPHP websites, a central website, links to databases on post-harvest literature, links to funding bodies in the post-harvest sector). The Programme will ensure all research outputs and datasets from projects are catalogued and used to produce sub-set packages of information to user groups.

The CPHP anticipates some single technologies may emerge in the coming three years worthy of substantial support. The Programme will respond through its own promotional activities and by facilitating access to other promotional budget lines.

### 2.5.5.2 Innovation systems approach

Based on the recommendations of the external review the Programme shall mainstream an **'innovation systems approach'** throughout its operations. The rationale for a change in approach is that the current conceptualisation, organisation and management of the CPHP is based on the linear, cyclical, 'transfer of technology' model. It is widely argued that it is unrealistic to treat assumptions about institutional roles, relationships and performance as exogenous to the research and development process. An alternative framework, the 'innovations systems' approach, has been developed (to date, largely outside the natural resources sector) to take account of the central role of institutions in the generation and

promotion of science. The approach conceptualises technical innovation process to be embedded in a system of institutional relationships and processes (coalitions). CPHP believes that getting these relationships and processes right in its last three years is the avenue through which it shall achieve sustainable impact.

Through carefully designed coalitions, a portfolio of **action research** projects will be developed and implemented, centring on 'uptake' of existing outputs (where 'uptake' may involve validation and adaptation/ modification of outputs). Such projects will be largely client-driven. Pipeline and new research projects will also be encouraged to adopt this approach.

To make the move to the innovation systems approach the following shifts have been made:

- terms derived from the transfer of technology model (e.g. 'beneficiaries' and 'target institutions') have been replaced with others that reflect the agency of individuals and institutions within innovation systems;
- the Programme logframe has been recast to foreground the role of institutions and institutional change;
- space has been created in the Programme for studies on institutional processes - but without making institutional change the central objective of the Programme;
- application forms have been revised to make the institutional framework a more explicit and integral component of projects;
- an appropriate mechanism for assessing the institutional framework of proposals at project selection time has been developed;
- formats for project reports (annual reports and end-of-project reports) and for the Programme report to DFID have been designed to make it possible to report on institutional issues as an integral part of the project progress and outputs;
- adequate resources have been provided to facilitate coalition-building, principally via the regional offices. These resources will be directed at supporting the formation of **coalitions** of partners within the post-harvest innovation systems of the four regions. These coalitions are expected to be linked to, or directly representative of, constituencies of poor people;
- mechanisms have been put in place to document the processes and to feed the lessons back into the Programme, as well as disseminating them more widely.

### 3. THE CPHP IN EAST AFRICA

In East Africa, CPHP has in the past worked mainly in Tanzania, but increasingly in Uganda and in Kenya. CPHP research activities in East Africa were guided by Country Framework Documents (CFDs), which set out an agenda for CPHP, based on an analysis of research priorities and agreed by stakeholders. CFDs have been prepared for Tanzania and Uganda.

#### 3.1 The CPHP Country Framework for Uganda

##### 3.1.1 Background

The first CFD to be produced by the CPHP followed initial consultation in 1995, which analysed DFID bilateral priorities, national priorities and strategies together with the objectives of the CPHP. The CFD was formulated to embed the output of this analysis within the existing Uganda development strategies.

The main ones were:

- The Poverty Eradication Action Plan (PEAP) – Uganda's strategy for poverty eradication – formulated in 1997. The poverty focus of the PEAP is based on poor



people's perspectives contained in various poverty studies, especially the Uganda Participatory Poverty Assessment Project (UPPAP).

- The Plan for Modernisation of Agriculture (PMA) which translates PEAP strategies into a holistic framework for eradicating poverty through multi-sectoral interventions. It is intended to enable people who depend on natural resources for their livelihoods to improve their livelihoods in a sustainable manner. The mission of the PMA is '*eradicating poverty by transforming subsistence agriculture to commercial agriculture*'. Improving the welfare of poor subsistence farmers will require that they orientate their production to the market. The broad strategies for achieving the PMA objectives include deepening decentralisation for efficient service delivery; reducing public sector activities and promoting the role of the private sector; supporting the dissemination and adoption of productivity-enhancing technologies; addressing food security through the market rather than emphasising self-sufficiency; enhancing and strengthening stakeholder consultation participation in planning, designing and implementing gender-balanced programmes. The priority areas for action under the PMA include:
  - research and technology development;
  - improving access to rural finance;
  - agro-processing and marketing;
  - agricultural advisory services;
  - agricultural education;
  - sustainable natural resource utilisation and management;
  - physical infrastructure.
- The DFID Natural Resources Strategy for Uganda developed in 1997.
- The National Agricultural Research Organisation research priorities which included post-harvest research in the areas of agro-processing and marketing.

### 3.1.2 Geographic focus for Uganda

In the past the CPHP concentrated its efforts in the Northern and Eastern Districts. Food security and balanced nutrition in these regions of Uganda is the most susceptible to constraints in the food production system due to unreliable and or low rainfall and poor soils. Post-harvest research is therefore of greater importance in these regions to improve food security (including greater access to markets) and nutrition.

### 3.1.3 Past focus themes for Uganda

The second CFD produced in 2000, identified priority themes, which were the basis for a call for concept notes made in October 2000 by CPHP (UK). The themes were identified following consultations with key stakeholders in Uganda and policy documents such as the PEAP and PMA.

The priority themes identified were:

*Marketing opportunities for food crops*

*Linking producers to the agro-processing private sector*

*Providing better nutrition to vulnerable groups through improved household food security*

*Promoting post-harvest technologies in Uganda*

*Increasing incomes of the rural poor through marketing of fish, livestock and crop products.*

### 3.2 The CPHP Country framework for Tanzania

#### 3.2.1 Background

The first CPHP CFD for Tanzania was prepared in 1995 and updated in 2000. It brought together DFID bilateral priorities, national priorities and strategies together with the objectives of the CPHP. The analysis of the priorities identified the following key features:

##### The DFID-Tanzania bilateral strategy

The three key objectives to support the improvement and sustainability of rural livelihoods as detailed in the 1999 strategy for Sustaining Rural Livelihoods in Tanzania (DFID EA (T)) are to:

- promote and implement pro-poor economic agricultural and natural resources policies;
- encourage and facilitate improved access for rural people to resources, markets and services
- influence and shape sustainable management of the natural environment through community-based approaches.

The CPHP can make a significant contribution to the second objective by providing new knowledge that will increase food security and income generation by poor farmers.

##### Tanzanian Priorities and Strategies

Tanzanian zonal priorities were defined in a zonal Prioritisation exercise (the priorities are available from the Division of Research and Development). The approach that was taken in the CFD was to take the zonal priorities defined for the areas identified for the DFID bilateral programme.

The CFD laid out the following key guiding principles for CPHP research in Tanzania (a blend of, CPHP, DFID and Tanzania principles):

- a clear poverty focus;
- project design guided by the Sustainable Livelihoods approach;
- demand-driven, client-oriented and participatory approaches;
- partnerships between researchers, farmers, extension services, private sector (e.g. traders, processors), NGOs and CBOs;
- research scope embracing the whole spectrum from knowledge generation through dissemination, promotion and uptake by target institutions;
- dissemination and promotion of research outputs from projects funded during the period 1995 -1999.

#### 3.2.2 The Geographic Focus

In line with the DFID Bilateral Strategy, the geographic focus of the CPHP in Tanzania since 1995 has been on the Southern and Lake Zones (Mwanza and Shinyanga Regions, Iringa District, Usangu Wetlands and Mtwara and Lindi regions as well as part of Ruvuma). In production system terms, this focus translates into the Forest-Agriculture Interface and Semi-Arid systems. Bringing together DFID bilateral priorities and zonal priorities with these production systems for the CPHP was considered the most optimum avenue for the CPHP knowledge generation activities to have an impact upon poverty.

Consideration for CPHP research and development work was also to be made in the other zones – especially the Eastern Zone mainly with respect to the commercialisation of value-added products.

### 3.2.3 Commodity Focus

The CFD identified the following priority commodities for the Crop Post-Harvest Programme in Tanzania:

- Lake Zone (High priority): Cassava , Sweet potato, Sorghum, Millets, Rice;
- Southern Zone (High priority): Cassava (*Coconut, Groundnut, Sesame, Cashew, were to be considered where demand-led research interventions can make a significant contribution to eliminating poverty and there is complementarity with other initiatives*);
- Central Zone (Low priority): Sorghum and Millet.

### 3.2.4 Past Focus Themes for Tanzania

#### 3.2.4.1 Theme 1: Improved small grain marketing and utilisation

The focus for this theme was on reducing drudgery, adding value through processing, and improving access to markets sorghum in the semi-arid production system.

#### 3.2.4.2 Theme 2: Improved marketing systems and marketing opportunities for non-grain starch staples

The focus for this theme was in the Forest-Agriculture Interface production system. Projects were expected to address the following issues:

- improved marketing systems for non-grain starch staples;
- quality assurance of traded non-grain starch staples and their products;
- the exploitation of new market opportunities.

#### 3.2.4.3 Theme 3: Improvement of non-grain starch staple processing and storage

Focusing on the Forest-Agriculture Interface production system work on non-grain staple storage and processing (mainly on dried cassava and dried sweet potato) was to be undertaken with due regard to:

- the quality and safety aspects – particularly cyanogen levels and microbiological contamination in processed cassava products;
- labour-saving technologies to reduce women workload in processing;
- product diversification and value-added products;
- minimizing losses through bad handling.

#### 3.2.4.4 Theme 4: Promotion of new knowledge from previous projects

Specific attention should be given to:

- dissemination and promotion of new knowledge generated by the project portfolio in Tanzania;
- identification of opportunities for promoting the outputs of projects in other CPHP target countries to meet known needs in Tanzania.

## 3.3 Past Activities and outputs of CPHP Research in East Africa

Since 1995 the CPHP has funded 16 projects in East Africa some of which are on going. Commodity research was conducted on maize, cassava, sweet potatoes, millet, sorghum, rice and cowpeas. The themes under which CPHP outputs have been generated include reducing storage losses, making food safer and more nutritious, adding value through processing/ reducing drudgery, and improving access to markets.

## 3.3.1 Reducing storage losses

Ref No.	Project Title	Outputs
R6314/ R6507	The extension of storage life and improvement of quality in fresh sweet potato through selection of appropriate cultivars and handling conditions	<ul style="list-style-type: none"> <li>• Identification of consumer acceptability criteria for sweet potato</li> <li>• Assessment of cultivar amongst germplasm with respect to quality and perishability – water loss and rotting are key sources of loss</li> <li>• Identification of physiological factors affecting storability</li> <li>• Identification of methods to reduce losses due to insect infestation in dried sweet potato</li> </ul>
R6500	Control measures for the reduction of losses for cassava and sweet potato products in Tanzania	<ul style="list-style-type: none"> <li>• Assessment of storage losses due to mould/insect growth on cassava and sweet potato products in 3 regions of Tanzania. Losses low – work not further perused</li> </ul>
R6773	Control of storage pests with formulations of entomopathogenic fungi such as <i>Beauveria bassiana</i>	<ul style="list-style-type: none"> <li>• Four <i>B. bassiana</i> isolates inoculated from insects were characterised using simple biological methods and one (KE26 from Bondo District) found to be more significantly more ideal for development into biopesticide</li> <li>• Studies on toxicity of ordinary vegetable cooking oil to <i>S. zeamais</i> conducted</li> <li>• A technique for the mass-production of <i>B. bassiana</i> on sterile boiled rice and extraction by a novel spore extraction machine were developed</li> </ul>
R6769	Investigating the potential of cultivar differences in susceptibility to sweet potato weevil as a means of control	<ul style="list-style-type: none"> <li>• Study of cultivar differences with respect to weevil damage</li> </ul>
R7442	Improvement in the storage and marketing quality of legumes (Phase II)	<ul style="list-style-type: none"> <li>• Improved storage techniques for cowpea – major technique is solarisation</li> <li>• Mechanisms for providing technical and financial support to traders</li> </ul>
R7486	Development of IPM techniques for the control of Larger Grain Borer and effective management of household food grain stocks in sub-Saharan Africa (Phase II)	<ul style="list-style-type: none"> <li>• Risk assessment method for determining the potential for LGB outbreaks allowing better control</li> </ul>
R7498	Maximising incomes from sweet potato production as a contribution to rural livelihoods	<ul style="list-style-type: none"> <li>• Improved storage techniques for fresh sweet potato as either a means of out of season marketing or food security</li> </ul>
R7520	Sweet potato cultivars with improved keeping qualities for East Africa	<ul style="list-style-type: none"> <li>• Dissemination of protocols for assessing post-harvest quality</li> <li>• Feasibility of producing high dry matter cultivars to good storage properties</li> <li>• Variability of root metabolism assessed with respect to long term storage</li> </ul>

## 3.3.2 Making food safer and more nutritious

Ref No.	Project Title	Outputs
R6639	Improved cassava utilisation in Tanzania	<ul style="list-style-type: none"> <li>• Improved processing techniques to ensure safety of high cyanide cassava for populations that are frequently food insecure</li> </ul>

## 3.3.3 Adding value through processing/reducing drudgery

Ref No.	Project Title	Outputs
R6508	Improving the quality and value of non-grain starch staples	<ul style="list-style-type: none"> <li>• Development of methods for assessing quality value relationships</li> <li>• Improved handling systems for sweet potato to reduce losses</li> <li>• Basic research on solid substrate fermentation of cassava</li> </ul>
R6640	Increasing the utilisation of sorghum and millet based foods in Tanzania	<ul style="list-style-type: none"> <li>• Knowledge about marketing systems</li> <li>• Database on nature and extent of processing and consumer preferences for cereals</li> <li>• Potential of SME processing identified</li> <li>• Understanding of consumer acceptance of sorghum in comparison with maize</li> </ul>
R7036 (and earlier project)	An enterprise approach to commodity system improvement: sweet potato in Uganda and Kenya	<ul style="list-style-type: none"> <li>• Strategies developed for successful development of small enterprises based on sweet potato products</li> <li>• Improved technologies developed for new products</li> <li>• Early research on the use of orange-fleshed sweet potato in sweet products</li> </ul>
R7497	Commercialisation of Cassava Processing to Enhance Rural Livelihoods in Eastern and Southern Africa	<ul style="list-style-type: none"> <li>• Livelihood assessment using sustainable livelihoods framework</li> <li>• Improved processing techniques for cassava to be identified market demand</li> <li>• Group organisation / enterprise development issues to benefit from identified market opportunities</li> </ul>
R7531	To determine post-harvest practices for rice, particularly those associated with small scale milling, in Tanzania	<ul style="list-style-type: none"> <li>• Some of factors involved in processing of high quality rice identified</li> </ul>
Project R7498 also addresses issues relating to adding value through processing and reducing drudgery		

## 3.3.4 Table 4: Improving access to markets

Ref No.	Project Title	Outputs
R7147	Improving smallholder access to maize marketing opportunities in Sub-Saharan Africa	<ul style="list-style-type: none"> <li>• Better understanding of t some of the interventions that would improve market access for maize producers</li> </ul>
R7941	Sustainable NGO/ CBO agricultural marketing initiatives	<ul style="list-style-type: none"> <li>• Improved information on the nature of agricultural marketing constraints faced by poor farmers</li> <li>• Guidelines for best practice by NGOs/CBOs helping rural communities develop sustainable marketing strategies</li> <li>• Type of support needed by NGOs/CBOs to improve their capacity to respond to these needs</li> </ul>
Projects R6508, R6640, R7497, R7498 also address issues relating to improving access to markets		

## 3.4 The 2002-2005 CPHP Strategy for East Africa

## 3.4.1 Objectives

The overall objective of the CPHP Regional Coordination Office is to contribute to the attainment of the general objective of the CPHP namely, improving the livelihoods of poor people by making the crop post-harvest systems in East Africa respond more effectively to the

needs of the poor. The specific objectives through which the Regional Office shall achieve this are to:

- support the development of new strategies that improve the crop-based food security of poor households through increased availability, improved quality, and better access to markets (support for ongoing and new CPHP research projects);
- support action research aimed at promoting the outputs of CPHP research in a manner that leads to development of systems that can sustain processes of continuous innovation in crop post-harvest by the poor (support for new CPHP coalition projects);
- support institutional learning - within CPHP specifically and research systems in general - on innovative processes for sustainably enhancing the uptake of new crop post-harvest knowledge and technologies by the rural poor (studies on innovation systems);
- coordinate CPHP activities in the Region with those of other DFID programmes, national and regional systems.

### 3.4.2 Ongoing Projects in the Region

Ongoing knowledge and technology generation CPHP Projects in the region are managed by their Project Leaders. The Regional Office has in the past provided them occasional support to link with institutions and individuals working the region as well as apprising them of changing development policy and strategy environments. This working relationship shall be maintained.

In order to bring about convergence of the old and the new CPHP approaches, the ongoing projects shall be reviewed against innovation systems criteria and recommendations made to them for possible re-alignments during the projects life. It is considered to be in the interest of the projects to do so as this would enable them to easily phase into the output promotion phase using the new CPHP approach.

Hitherto, Project Leaders have been reporting directly to the CPHP Programme Manager who has sought the views of the Regional Office where necessary. Commencing April 2002 progress reports shall be submitted to the Regional Office from where they shall be reviewed - to flag issues that require attention - and subsequently forwarded to the Programme Manager.

### 3.4.3 New Coalition projects

#### 3.4.3.1 Priority Themes

The priority themes for the promotion of research outputs in East Africa (specifically Tanzania and Uganda) were set in April 2002 at stakeholder workshops held in Kampala, Mwanza and Dar es Salaam. Stakeholders were from the national research organisations, NGOs, government ministries and the private sector. The themes for each commodity were prioritised under the over-arching theme of improving market access - the global theme of the CPHP strategy for 2002-2005. The priorities are presented in Tables 5 – 7.

**Table 5: Priority themes for CPH research and technology promotion in Uganda**

Priority	Commodity				
	Maize	Sorghum	Millet	Cassava/ sweet potatoes	Rice
First	Reducing storage losses	Market <sup>1</sup> systems	Market systems	Marketing systems	Reducing drudgery
Second	Market systems	Reducing storage losses	Adding value	Adding value	Market systems
Third	Adding value	Adding value	Reducing storage losses	Reducing storage losses	Reducing storage losses

**Table 6: Priority themes for CPH research and technology promotion in the Lake Zone of Tanzania**

Priority	Commodity					
	Maize	Sorghum	Sweet Potatoes	Cassava	Horticulture (Fruits and Vegetables)	Rice
First	Reducing storage losses	Adding Value	Reducing Storage losses	Adding Value	Market systems	Marketing Systems
Second	Market systems	Marketing Systems	Market systems	Market systems	Adding Value	Reducing Drudgery
Third	Adding Value	Reducing drudgery	Adding value	Reducing drudgery	Reducing storage losses	Adding Value

**Table 7: Priority themes for the Southern, Central and Eastern Zones of Tanzania**

Priority	Commodity			
	Sorghum	Sweet Potatoes	Cassava	Rice
First	Improving Access to Markets	Improving Access to Markets	Improving Access to Markets	Improving Access to Markets
Second	Reducing Drudgery	Reducing Storage losses	Adding Value/ Reducing Drudgery	Reducing Drudgery
Third	Reducing Storage losses	Adding Value	Making food safer and more nutritious	Adding value

### 3.4.3.2 Proposal Development

#### 3.4.3.2.i Pre-concept Notes

Development of proposals for CPHP funding shall be initiated by a call for Pre-concept Notes (PCN). The calls shall define the focus of the action research to be undertaken. In general for 2002-2005 the calls shall all be addressing the area of increasing access to markets for improving the livelihoods of the rural poor. The focus shall be derived from the themes defined by the stakeholders in the region (see Section 3.4.2 above). The PCN shall brief outlines of the objectives of the proposal, the major activities, the coalition of partners to undertake the work, the expected technical and institutional outputs of the project, the expected immediate and sustained impacts, timeframe, and rough budget estimates. It is expected that PCN shall be developed by the core members of the proposed coalition.

<sup>1</sup> Marketing also includes market information

The main criteria for the evaluation of the PCN shall be:

- evidence of general demand from the perspective of national development objectives and priorities;
- whether access to markets is being approached through the priority themes;
- utilization of past outputs of CPHP research and how this would contribute to attainment of CPHP outputs and purpose;
- potential for generating outputs that sustainably improve access to markets for the rural poor;
- comparative advantage and whether similar work is not being undertaken by others;
- whether the cost estimates can be accommodated within available resources;
- project feasibility within two years;
- adequacy and relevancy of the range of partners for the desired output;
- whether the partners can work together in an efficient and effective way;
- whether the project has elements to ensure sustained innovation by the coalition, after it has ended.

The evaluation shall be undertaken by the regional office assisted by selected external reviewers.

#### 3.4.3.2.ii Concept Notes

The PCN that pass the evaluation shall progress to the Concept Note (CN) stage. The CN shall be the product of a participatory planning process involving all the coalition partners. Hence the CN shall be expected to give details of the process through which it was developed. A standard CPHP format shall be used to write the CN. The CN shall be evaluated by the CPHP Programme Advisory Committee (PAC). The major criteria for the evaluation shall include:

- validation of the demand within target beneficiaries that the project shall focus on;
- analysis of the livelihood problem/ opportunity within the context of the target beneficiaries;
- the hypothesis for the project;
- stakeholder analysis;
- the original learning that will take place in the coalition during implementation and how this shall contribute to establishment of an innovation system as well as how it could be scaled up to form other innovation system;
- the immediate benefits - for improving the livelihoods of the targeted rural poor - that shall flow from the project;
- analysis and design of the partnership arrangements and how they shall work during and after the project;
- the management of the project;
- the proposed allocation of the budget estimates to the main budget lines.

#### 3.4.3.2.iii Project Memorandum

The CN that are supported by the PAC shall proceed to the Project Memorandum (PMF) stage. The PMF shall be the basis for contracts to be drawn between the coalition and the CPHP. As such it shall put flesh on all aspects of the CN and in particular give the full technical, institutional, administrative and financial details. It shall have a detailed work plan and a monitoring and evaluation framework based on a detailed logical framework. It shall also respond comprehensively to the specific requirements by DFID and CPHP relating especially to poverty, environment and gender. The PMF shall be endorsed by all the coalition partners.



3.4.3.2.iv Support for proposal Development

In general no support shall be given for development of pre-concept notes. Small grants shall be given - based on strong justifications - for interactions of potential coalition partners during the CN development. Similar support shall be provided to support broader interaction between the coalition and major stakeholders.

It is perceived that individuals and organisations interested to develop PCN shall be able to do so using available information and through consultations with the Regional Office. However, given that the innovation system approach and coalition projects are very new concepts, training shall be provided on demand to groups of potential coalitions for the purpose of helping them to develop CN and PMF.

3.4.3.3 Management3.4.3.3.i Central Management

The central management of the CPHP shall be by the Programme Manager (PM) based in the UK at the headquarters of *NR International* – the Company contracted by DFID to manage the Programme. The PM is supported by a technical and administrative team. The Central Office shall be responsible for:

- management of overall Programme finances;
- issuing and managing contracts for;
  - already commissioned projects;
  - new coalition projects;
  - dissemination activities;
  - Programme development activities.
- monitoring and evaluating;
  - already commissioned projects;
  - new coalition projects;
  - to design methodology for RLD to evaluate CPHP;
- reporting to DFID;
- management of information for general use;
- providing capacity-building/ technical support to the ROs and for coalition projects;
- provide general leadership in deriving lessons for from coalition projects;
- general public relations.

3.4.3.3.ii Regional Office

The Regional Office shall:

- manage the process leading to the choice of priority themes (set out in Regional Strategies);
- identify coalition partners and facilitate the formation of coalitions based on these themes;
- support coalitions in articulating aspirations, identifying strategies to meet them, identifying the researchable constraints and developing research proposals;
- receive reports from projects being implemented in the region, collate and forward them to central management flagging issues that need to be addressed;
- commission regional studies for deriving lessons from coalition projects;
- take forward cross-programme links.
- dissemination activities;
- programme development activities.
- monitoring and evaluating new coalition projects

#### 3.4.3.3.iii Managing Partner

The driving force for coalition projects is a shared agenda of overlapping interests with no dominant member. This demands a management approach that recognises that all processes have to be undertaken through negotiation, iteration and consensus building so as to have joint responsibility and ownership. Coalition projects shall therefore not have a “project leader” in the conventionally accepted sense. Instead they shall have a Managing Partner who shall be responsible for:

- facilitating the relationships between all actors through to ensure that the processes of needs identification, planning, implementation, monitoring and evaluation of coalition activities is fully participatory;
- collating meeting reports, technical reports and financial reports from the coalition and submitting them to the central office through the RO.

#### 3.4.3.4 Monitoring and Evaluation

The innovation systems approach requires changes in M&E approach from what has been used to date within the CPHP. The Programme is developing new approaches that shall be used. The essential changes shall relate to the need to better reconcile technical and financial accountability, and to enhance the value of the M&E to learning within and across coalition projects. Hence the new M&E approach shall focus on both institutional and technical innovation. The Regional Office shall take the lead in institutionalising the new M&E approach within projects being implemented in the region and shall work with the coalition partners to implement the approach.

#### 3.4.4 Studies on Innovation Systems

The new CPHP approach will generate lessons in institutional innovations for enhancing the sustainable uptake and continued demand-driven generation of new knowledge and technologies by poor people. To ensure that not only the institutional outputs and outcomes of coalition projects are captured, studies shall be funded to contribute to the improved understanding of the processes that lead to development of successful innovation systems within the CPHP projects as well as other projects striving to achieve the same goal. These studies shall be supported through special grants.

#### 3.4.5 Logical Framework

The logical framework that shall guide the activities of the Regional Coordination Office in East Africa is given below.

## 4. LOGFRAME OF THE DFID CROP POST-HARVEST PROGRAMME – EAST AFRICA

Narrative Summary	Indicators	Means of Verification	Important Assumptions
<b>Goal:</b> Livelihood of poor people improved through sustainably enhanced production and productivity of RNR systems.			
<b>Purpose:</b> Crop Post-harvest systems in East Africa respond more effectively to the needs of the poor.	pi 1.0. A range of institutional arrangements that effectively and sustainably improve access to post-harvest knowledge and/or stimulate post-harvest innovation to benefit the poor validated in East Africa by 2005	<ul style="list-style-type: none"> <li>• Project Evaluation reports</li> <li>• Regional Coordinators' annual reports</li> <li>• Partners' reports</li> <li>• CPHP annual reports</li> <li>• CPHP review 2005</li> </ul>	
<b>Output 1:</b> Strategies that improve the crop-based food security of poor households (through increased availability, improved quality, and better access to markets) developed and promoted.	oi 1.0. On-going projects reviewed for compliance with the new CPHP innovation systems approach by October 2002 and recommendations for re-direction made (after dialogue with project leaders) by December 2002 oi 1.1. All ongoing projects have (to the extent possible) adjusted to the new approach by April 2003 oi 1.2. New knowledge and strategies developed by ongoing/ending projects, and is usable by coalitions in the region, promoted as they emerge.	<ul style="list-style-type: none"> <li>• Annual and quarterly reports from RO</li> <li>• Partners' reports</li> <li>• External Monitoring and Evaluation reports</li> <li>• CPHP annual reports</li> </ul>	<ul style="list-style-type: none"> <li>• Enabling environment exists for coalition partners to develop, adapt and promote research findings to the poor.</li> <li>• Coalition partners and post-harvest systems in East Africa demand for CPH innovations and have the capability to validate, adapt and use them after the projects and Programme.</li> </ul>
<b>Output 2:</b> Action research projects centring on the uptake of existing outputs and using partnerships for innovation approach are commissioned and their implementation monitored.	oi 2.0. Outputs and knowledge of past CPHP research in East Africa identified and made available to potential developers of coalition project by end May 2002. oi 2.1. Priority themes for CPH research and technology promotion in East Africa (specifically Uganda and Tanzania) selected with stakeholders by the end of May 2002. oi 2.2. Potential partner organisations for joining coalition projects identified by Regional Coordinator and Specialist Adviser by end April 2002. oi 2.3. Coalitions of partners with interest to implement action research projects to promote outputs of research and following the priority themes formed by end June 2002		

Narrative Summary	Indicators	Means of Verification	Important Assumptions
	oi 2.4. Implementation of at least three new action research projects through coalitions of relevant partners commences in East Africa by the end 2002 and at least two more projects are commissioned in 2003 oi 2.5. Monitoring and evaluation procedures for coalition projects in place by February 2003. oi 2.6. The outputs of CPHP selected by coalition projects for promotion are being adapted/ used by the end users as quantified in the coalition projects proposals oi 2.7. Each coalition project has developed at least one institutional innovation for sustained generation and uptake of new crop post-harvest knowledge and technologies		
<b>Output 3:</b> Institutional processes in coalition projects studied, lessons documented and disseminated to national and regional Post-harvest systems	oi 3.0. Innovation systems studies to derive lessons from commissioned coalition projects commissioned by March 2003 oi 3.1. Studies completed and lessons documented and disseminated by March 2005		
<b>Output 4:</b> CPHP activities in the Region are coordinated with those of other DFID programmes, national and regional systems	oi 4.0. At least one visit made to each of the three countries for meetings with DFID NR Advisors and NARS institutions and back to office reports produced oi 4.1. CPHP inputs into the website of the DFID Natural Resources R&D Coordination Office updated quarterly oi 4.2. Database of East African R&D institutions relevant to CPHP activities maintained oi 4.3. The Newsletter (LINKS) of DFID Natural Resources R&D Coordination Office contains information about CPHP oi 4.4. Publicity material developed by CPHP distributed to GOs, NGOs CBOs and a distribution list maintained oi 4.5. Updates of evolving national policies, and of strategies in national and regional research systems produced quarterly oi 4.6. Training programmes addressing expressed needs conducted in partnership with regional and national institutions. oi 4.7. At least one policy and/ or institutional learning study conducted per year		

<b>ACTIVITIES</b>
<b>1. Manage ongoing projects</b>
1.1 Review ongoing projects and develop recommendations for re-alignment
1.2 Review quarterly reports of ongoing projects
1.3 Promote new outputs of projects
1.4 (As needed by central CPHP Management) Participate in M&E of ongoing activities
<b>2. Planning of coalition projects</b>
2.1 Identify outputs of past CPHP research for inclusion in coalition projects and disseminate them to potential coalition partners
2.2 Identified institutions with potential to participate in coalition projects
2.3 Hold sensitisation workshops on coalition projects
2.4 Participate in the development of planning formats and proposal evaluation criteria for coalition projects (New Starter Pack)
2.5 Support process of development of coalition project PCN, CN and PM
<b>3. Capacity Development</b>
3.1 Provide training on topics demanded by coalitions (might include livelihoods analysis, gender analysis, stakeholder analysis, proposal writing, partnership skills)
<b>4. Monitoring and evaluation of coalition Projects</b>
4.1 Participate in the development of M&E methodology for coalition projects
4.2 Pilot the M&E methodology
4.3 Design M&E plan for the projects in the region
4.4 M&E of projects
<b>5. Innovation System Studies</b>
5.1 Develop concepts for the studies
5.2 Issue contracts for the studies
5.3 Provide management support for the studies
5.4 Dissemination and promotion of outputs of the studies
<b>6. General Coordination</b>
6.1 Coordinate CPHP with bilateral DFID programmes and the other RNRRS working in the region
6.2 Maintain CPHP inputs into the website of the DFID Natural Resources R&D Coordination Office
6.3 Maintain a database of R&D institutions relevant to CPHP activities
6.4 Publish and information about CPHP in the Newsletter (LINKS) of DFID Natural Resources R&D Coordination Office
6.5 Develop and distribute publicity material to GOs, NGOs and CBOs on the CPHP activities in the region
6.6 Link CPHP to evolving national policies and strategies in national and regional research systems
6.7 Contribute to the general capacity building activities of the Natural Resources R&D Coordination Office
6.8 Contribute to general policy and institutional learning activities of the Natural Resources R&D Coordination Office