**CROP POST HARVEST PROGRAMME**

**Analysis of promotion and uptake pathways for post harvest research outputs in Uganda: Case studies**

**R No 8498 (ZB No 0387)**

**PROJECT FINAL REPORT**

**Start date – End date** (Arial, point 14, bold)
(e.g. **1 September 1997 – 31 August 1999**)

Core Partners
Dr. Imelda Kashaija (Centre Manager Kachwekano ARDC Kabale), Mr. Simon Byabagambi (Agronomist DAO Kiboga), Mr. Patrick Kalunda (Post harvest economist KARI), Ms. Jane Nabawanuka (Post harvest technologist KARI), Mr. Denis Mutabazi (NAADS Coordinator Kabale), Mr. Kasmir Mukasa (BUCADEF Liaison Officer Kiboga)

Managing Partner (Arial, point 14, regular)
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National Post Harvest Programme,
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# Project Final Report

**Section A      Executive Summary**

Studies to analyse promotion and uptake pathways for crop post harvest (CPH) research were conducted in Kabale and Kiboga districts.  The key players in CPH technology generation, dissemination and utilization were identified at national, district and village levels. Uptake of CPH technologies required innovations like technology demonstrations, radio broadcasting, farmer participatory research methods, local institutions including churches, local drama and concerted actions by residents NGOs, CBOs and extension agents.  Market demands and dynamics played major roles in determining type, size and number and when the PH technologies are acquired.

It was observed that national and local government policy instruments that could promote sustainable dissemination and utilization were lacking.  Dissemination strategies that include partnerships between CPH research output intermediary users and end users have been communicated to district stakeholders through feedback workshops.  The strategy also takes into consideration that both the intermediary users and end users are unique and no single strategy is a panacea for all.

At the national and regional level it is anticipated that project outputs will be disseminated through a publication "Kalunda P. and Agona A (2006) Uptake of crop post harvest innovations in Uganda. A case of Kabale and Kiboga districts" submitted in the Uganda Journal of Agricultural Sciences.

**Section B      Identification and design stage      (max 3 pages)**

Over the last five years poverty levels in Uganda have deepened from the national average of 38% to 43%.  The scenario is even much worse in the rural areas where the majority are smallholder farmers characterized by poor access to information, knowledge and technologies for improved crop productivity, value-addition and marketing.  Cognizant of the contributions of many change agents (including NGOs, CBOs, agricultural advisors, extension agents and researchers) in trying to uplift the standards of the rural poor, the project therefore aimed at understanding the contributions made and the different mechanisms in use in identifying, demanding and/or promotion of CPH technology innovations.

With the development framework of the Plan for Modernization of Agriculture (PMA), farmers orientation is towards commercial production that entails production that meets market demands/requirements.  Success however, greatly hinges on information flow on availability of technologies that improve upon volume, quality as well as timeliness.  By identifying information flow systems including dissemination pathways, the project aimed at identifying and removal of bottlenecks by creating an enabling environment.

Please describe the importance of the livelihood constraint(s) that the project sought to address and specify how and why this was identified.

Current information provided by the Government of Uganda indicates that the rural poor cannot benefit much in a meaningful way when most farmers cannot access information due to remoteness, poor infrastructure, and inability to utilize the information transferred to them, among others. In addition, there has been, over the years, a government policy of decentralization, liberalization, privatization and empowerment of the people in decision

making for development, and increasing public sector coordination and accountability. It is thus envisaged that an analysis of promotion and uptake pathways for CPH research outputs, will improve accessibility to technologies by end users.

How and to what extent did the project understand and work with different groups of end users? Describe the design for adoption of project outputs by the user partners?

The different groups of end users that the project worked with were identified by key CPH intermediary users in the study districts. The groups were categorised by the different functions they play and their information needs in the CPH sector. In order to understand the various information flow systems used by the end users the project identified the type of information sought, sources of this information and how the information is utilized.

The study was able to identify over 50 intermediary users of CPH outputs and 190 end users. Research tools were designed to obtain information from the users. Information was obtained using local expertise (in agriculture and information technology) in the districts of Kiboga and Kabale.

The first step in the design for adoption of project outputs is to inform all stakeholders of the findings and then design an appropriate communication strategy that will ensure CPH outputs are accessed by the intended users. One of the strategies is to strengthen the work relations or partnerships knowing that various organisations have different needs and goals. Communication channels also need to be improved in order to have a smooth and timely flow of information. The project was able to show that the private sector is playing an increasing role in information dissemination and promotion. In Kabale district where NAADS activities are being implemented, they were mentioned as a major source of information. In Kiboga, NGOs (BUCADEF) was also mentioned as a major source of information and CPH technologies.

Therefore this implies that to ensure sustainable information flow systems, partnerships with the private sector are likely to improve the adoption of CPH technologies.

Further analysis of the information needs and utilization of the various stakeholders is still needed to design appropriate policy interventions and instruments. The project worked with local government policy implementers to find out how policy is implemented and the tools used.

What institutional factors were seen as being important?

It was observed that there were no formal rules or guidelines in the formation of partnerships between the various users. However, steps towards formalising the relationships have been implemented, for example, registering groups and opening up of bank accounts. This indicates that there is some form of organization where the intermediary organizations are implementing their activities. CPH research output developers can therefore utilize these organizations as points of leverage in disseminating information and knowledge to the end users.

Other important CPH information pathways include local institutions in the communities that the end users are. Forming and strengthening these partnership in form of skills development will also ensure better access to CPH technologies.

## Section C    Research Activities

This section should include a description of all the research activities (research studies, surveys etc.) conducted to achieve the outputs of the project analysed against the milestones set for the implementation period.

Information on any facilities, expertise and special resources used to implement the project should also be included.

| Quarter | Output indicator (OVI) | PLANNED ACTIVITY MILESTONES (no and description) | ACTIVITIES CONDUCTED |
|---|---|---|---|
| Q2 | 1.1 At least 10 intermediary users and 40 end users of CPH research outputs per target district identified and characterized by the end of 2nd quarter<br><br>1.3. The number and characteristics of linkages among the actors defined<br><br>1.2. At least 5 promotion activities used in making potential users aware of CPH research outputs in the target districts identified by end of 2nd quarter<br><br>1.4. The number of channels by which CPH information and technology reach the users identified by end of 2nd quarter | • Formalizing the relationship of coalition partners through work agreements in the 3 districts beginning of quarter 2<br>• Research team selection, planning and design workshop held beginning of Q2<br>• At least 2 participatory surveys held in each district to identify and characterize CPH users<br>• Key informant interviews conducted among the coalition partners and among CPH users by end of Q2<br>• Quarterly meeting held by end of Q2<br>• Quarterly progress reports submitted by 15th June<br>• At least 2 enumerators per district trained in conducting and applying participatory survey tools by end of Q2<br>• Participatory surveys to further refine the understanding of the linkages among CPH users conducted in districts by end of quarter 2<br>• RAAKS participatory research method tested in the 3 districts and used to define the CPH knowledge systems | • The partners developed individual work plans that ensured completing of the activities.<br>• In every district, the research team comprised of a supervisor and enumerators.  This formed the team that ensured that information was collected properly.  Data were analysed at KARI.<br>• Workshops were held in the districts to promote the project and what it intends to achieve among the partners and end-users.<br>• Training workshops for 25 enumerators were conducted in Kabale and Kiboga on how to gather information<br>• Planning meetings with the partners have started on the content and scheduling of radio messages in regards to CPH<br>• Planning meetings on training of the intermediary organizations in CPH management have taken place |
| Q3. | 2.1. The number of mechanisms farmers use to access CPH | • At least 2 RAAKS tools applied per district to establish mechanisms used by CPH research output users to access information | • Promotional mechanisms including CPH dissemination pathways of radio, local institutions, NGO's, agro-input traders have been identified have been identified as |

| | | |
|---|---|---|
| | information identified by end of 3<sup>rd</sup> quarter<br><br>2.2. The number of actors and the characteristics of the mechanisms used in the uptake of CPH innovations identified by end of 3<sup>rd</sup> quarter<br><br>2.3. The type and characteristic of the media used to promote the uptake of CPH research outputs<br><br>2.4. Identification of relevance of CPH research outputs among the users<br><br>2.5. The number of applications of CPH research outputs by the users identified<br><br>3.1 At least 3 institutional policy recommendations that influence uptake of post-harvest outputs proposed | • At least 3 promotion mechanism identified and their relevance established<br>• Training of post harvest information providers and users by end of quarter<br>• Institutional arrangements monitored<br>• Policy recommendations proposed by end of quarter 3<br>• Stakeholder workshops on disseminating findings held in the 3 districts by end of quarter 3 | critical<br>• Modalities for training of CPH information providers and users is being developed basing on the recommendations of the study<br>• 2 preliminary stakeholder workshops have been held in Kabale and Kiboga<br>• CPH research outputs have various uses for the different users. End users mainly utilize the CPH outputs to improve or maintain on the quality and quantity of their harvested produce |

## Section D - Outputs (max 5 pages)

1. Promotion processes, strategies and pathways used for uptake of post-harvest outputs by various users identified and established
   - 60 intermediary users were interviewed
   - 190 end users were interviewed (141 farmers and 49 farmer groups)
   - From the whole sample, the radio featured the main means through which farmers are made aware of post-harvest technologies (PHT)
   - Other important channels included fellow farmers, NGOs, government advisory projects (NAADS), extension workers and traditional knowledge.
   - However these trends varied across the districts. Where there was no government advisory service, NGOs were the main channel through which post-harvest information is channelled.

2. Relevant rural innovative systems and institutional mechanisms that promote the uptake of CPH research outputs understood
   - The main information media type used to promote CPH research was the radio. Other systems through which information is channelled included the farmer groups and their leadership, local administration leadership, seminars or workshops attended.
   - Market information is mainly obtained from the traders (buyers) and also from the local market centres. The farmers have formed linkages with agro-input dealers and traders. However, the linkages formed were informal with no legal documentation binding the players
   - CPH research outputs have impacted farmers' livelihoods by reducing on food losses and improved incomes. Crop storage and marketing practices have improved and thus improving their incomes. Improved food security was also mentioned as an important impact. The social network/framework and integrity of the farmers has improved due to the spirit of collective team work and responsibility in enhancing information flow
   - CPH knowledge and information was applied to mainly improve their storage systems including construction of improved stores, pest management and quality control

3. Policy recommendations relevant for enhancing and improving uptake of post-harvest outputs generated and disseminated
   - Infrastructure development (roads) in the study sites was rated poor and this affects the delivery of timely information; the majority of the farmers were too poor to afford modern communication equipment like the mobile phone
   - Almost 75% of the respondents rated financial services in their areas poor
   - About 50% of the respondents rated agricultural research and technologies poor, probably indicating that the research outputs were not reaching them, or the packaging of technologies/information was not user friendly
   - Local government roles are to implement policy, taxation and administrative duties. The farmers are made aware of local government support and roles through extension workers, local council leaders, NGOs, the radio, government advisory projects and fellow farmers
   - The need for more and efficient extension workers was expressed by the farmers as a means of improving CPH information flow. Other important means included use of radio programs, improved roads, improved mobilization by the local leaders, and use of improved communication systems (wider network areas)
   - There is however still need for research outputs to be felt by improving on the demonstration sites at parish level and also setting up of resource centres.

Further dissemination of project outputs to the end users is needed. The National Post Harvest Programme will embark on sensitising the intermediary users who will pass on the information to the end users through the already existing channels. CPH information will be packaged in easy to understand language and in a manner that can easily be multiplied by the intermediaries.

## Section E - Purpose (max 2 pages)

The uptake and adoption of CPH innovations require a multi-stakeholder approach that provides identification of end-users' felt needs, collection, collation and analysis of the needs and provision of timely feedback. In other words it provides for forward and backward linkages. The players however, need to work in tandem using less complicated mechanisms of communication with the most disadvantaged communities.

## Section F - Goal (max 1 page)
What is the expected contribution of outputs to Project Goal?

The project outputs are expected to contribute to the goal of "National and international crop-post harvest innovation systems respond more effectively to the needs of the poor" by showcasing how technology end users, intermediaries and developers obtain, synthesize and apply information. This will help the technology developers to blend and utilize already existing and effective information channels thereby increasing the adoption rate of the technologies and responding to the needs of the poor. The outputs show that effectiveness is only achieved when traditional norms (innovations) are blended with modern methods of doing things in a focused and concerted manner.

It is observed that any breakdown in the channel of information flow results in distortion and failure to appreciate the importance of CPH innovations. By identifying precisely the players (end users, intermediaries and technology developers) and streamlining activities and action points the research outputs in promoting uptake CPH and adoption innovations are considered timely.

## Section G      Project effectiveness
This section of the evaluation report uses the rating criteria for the purpose and your outputs previously used in your annual reports.

|  | Rating |
|---|---|
| Project Goal | 3 |
| Project Purpose | 2 |
| Project Outputs 1. | 2 |
| 2. | 3 |
| ……………….3 | 3 |

1=    completely achieved
2=    largely achieved
3=    partially achieved
4=    achieved only to a very limited extent
X=    too early to judge the extent of achievement (avoid using this rating for purpose and outputs)

**Section H – Uptake and Impact (2 pages)**
*Organisational Uptake* (max 100 words)

In Uganda, the National Agricultural Advisory Services project (NAADS) is responsible for dissemination of research outputs to the end users. This is done through contracting private service providers who deliver to farmer groups based on what the farmers have demanded. The process of demand articulation by the farmers (farmer groups) is facilitated by the service provider. The farmers play a big role in the processes of selecting the service providers, articulating their demands and paying the service provider.


*End user uptake* (max 100 words)

Uptake of research outputs by the end-users is dependent on many factors including relevance of the output in addressing their felt needs, who is promoting the research output, the way the research output is packaged, cost of research output and relationship to traditional technologies. The project identified 190 end users in Kiboga and Kabale districts and it was found that they are still constrained in accessing CPH technologies thus affecting the uptake. The study found that poverty/limited resources were a major factor limiting access to CPHT. Other limiting factors included poor extension services, limited training and knowledge, and timeliness and quality of information.


*Knowledge* (max 100 words)
The project has helped us understand how CPH information reaches the end users and which channels could be used to effectively disseminate the research outputs. Information plays a major role in the decisions of the farmers and therefore the need for reliable information on a timely basis. Lack of information also impacts on the food security situation of the farm households.

*Institutional* (max 100 words)
The project has revealed that technology developers need to form partnerships with technology promoters. This therefore calls for developing structures and procedures for strengthening this relationship. Given the growing importance of the private sector in development, public institutions will need to collaborate more in order to compliment each other. Therefore skills and capacity to collaborate with other players need to be developed. Institutional and cultural barriers may hamper the partnership between CPH actors. Effective management of the partnership can mitigate this problem and adopting formal mechanisms that encourage the communication and sharing of information.

*Policy* (max 100 words)
The conditions at the village level are influenced by policy decisions and are filtered to the households through the local institutions. There is need for improvement of communication between development workers and local institutions. The main source of information about local government support was through the extension workers and NGOs as well as the local leaders.

*Poverty and livelihoods* (max 100 words)
In Uganda it is estimated that 38% (or 9 million people) of the population are living in absolute poverty. With information on how to improve their crop products and markets, the incomes are likely to increase. The main information sources for the poor were the service providers (including NGOs and traders). The study found that CPH information is used by the poor for improving their storage structures and reducing on PH losses and thereby improving on their

incomes.  The ability to afford school fees, health costs and acquisition to production inputs were impacts mentioned.

***Environment*** (max 100 words)
The impact is better utilization of the local resources available to the farmers.  On average, the farmers produce their food on less than 2 Ha of land implying that their outputs are still small.  Use of harmful chemicals is not encouraged as this would destroy the biodiversity and many of the farmers are illiterate thereby misusing the drugs.  Use of local biorationals and methods are encouraged to control pests and diseases.

| | Signature | Date |
|---|---|---|
| Core Partners | …………………………….. | …….. |
| Managing Partner | …………………………….. | …….. |

**ANNEXES**

I        Project Logical Framework

| Narrative Summary | Objectively Verifiable Indicators | Means of Verification | Risks |
|---|---|---|---|
| **Goal** | | | |
| National and international crop-post harvest innovation systems respond more effectively to the needs of the poor. | By 2006, a replicable range of different institutional arrangements which effectively and sustainably improve access to post-harvest knowledge and/or stimulate post-harvest innovation to benefit the poor have been validated in three regions. | Project evaluation reports.<br><br>Regional Coordinators' Annual Reports.<br><br>Annual Reports of CPH projects.<br><br>CPH project Review 2005.<br><br>Partners' reports. | National and international crop-post harvest systems have the capacity to respond to and integrate an increased range of research outputs during and after programme completion.<br><br>National and international delivery systems deliver a range of services relevant to poor people in both focus and non-focus countries.<br><br>Livelihood analysis provides accurate identification of researchable constraints or opportunities that lead to poverty reduction. |
| **Purpose** | | | |
| New knowledge is generated and promoted into how national innovation systems can be mobilised to sustain uptake and adoption of CPH knowledge for the benefit of the poor | 1. By 2006, evidence-based insights on how research innovations can be introduced sustainbly into local knowledge systems are disseminated to intermediary organisations in 4 regions.<br><br>2. By 2006, thematic synthesis of CPH technical outputs are disseminated to intermediary organisations in 4 regions.<br><br>3. By 2006, databases of partners and organisations involved in, and processes involved in management of innovation and knowledge by CPH projects are made available to intermediary organisation in 4 regions. | 1.1  Project research reports and findings<br><br>2.1  Stakeholders workshop reports<br><br>3.1  Partner databases<br><br>3.2  Records by different CPH funded projects | ▪  Decision makers willing to use project outputs in research priority setting<br><br>▪  No civil strife in areas of project implementation<br><br>▪  Policies on uptake of CPH innovations remain favourable<br><br>▪  End users willing to seek out new information<br><br>▪  Timely and adequate funding for project research work |
| **Outputs** | | | |
| 1. Promotion processes, strategies and pathways used for uptake of post- | 1.1  At least 10 intermediary users and 40 end users of CPH research outputs per target | 1.1 Quarterly reports<br><br>1.2 Research | Cooperation between project implementers and, other service providers |

| | | | |
|---|---|---|---|
| harvest outputs by various users identified and established | district identified and characterized by the end of $2^{nd}$ quarter<br><br>1.2 At least 5 promotion activities used in making potential users aware of CPH research outputs in the target districts identified by end of $2^{nd}$ quarter<br><br>1.3 The number and characteristics of linkages among the actors defined<br><br>1.4 The number of channels by which CPH information and technology reach the users identified by end of $2^{nd}$ quarter | report<br><br>1.3 Project progress report | and users of information |
| 2. Relevant rural innovative systems and institutional mechanisms that promote the uptake of CPH research outputs understood | 2.1 The number of mechanisms farmers use to access CPH information identified by end of $3^{rd}$ quarter<br><br>2.2 The number of actors and the characteristics of the mechanisms used in the uptake of CPH innovations identified by end of $3^{rd}$ quarter<br><br>2.3 The type and characteristic of the media used to promote the uptake of CPH research outputs<br><br>2.4 Identification of relevance of CPH research outputs among the users<br><br>2.5 The number of applications of CPH research outputs by the users identified | 2.1 Workshop reports<br><br>2.2 Annual reports<br><br>2.3 Training Modules<br><br>2.4 Project progress reports | End users willing to seek out new information |
| 3. Policy recommendations relevant for enhancing and improving uptake of post-harvest outputs generated and disseminated | 3.1 At least 3 institutional policy recommendations that influence uptake of post-harvest outputs proposed | 3.1 Research reports | |

| Activities | | | |
|---|---|---|---|
| 1.1 Identification of intermediary and end users of post-harvest outputs<br><br>1.2 Designing tool for analysing agricultural knowledge and information systems among users of post-harvest outputs<br><br>1.3 Identification of factors influencing uptake of post-harvest outputs<br><br>1.4 In target areas, conduct a RAAKS with all actors, to identify problem, analyse constraints and opportunities; plan action/interventions<br><br>1.5 Conduct quarterly meetings and prepare quarterly progress reports<br><br>1.6 Conduct planning workshops in target areas | *A milestone form (provided with this form) needs to be completed and expenditure forecast by the quarter. The total of the first three quarters must not exceed 75% of the total budget.* | | Institutional support from all stakeholders especially CPH Projects, DFID funded projects, NAADS support farmer organisations, private technology fabricators, input suppliers and farmers |
| 2.1 Designing tool for collecting information on factors affecting uptake of outputs; use and exchange of information; constraints and opportunities; major actors<br><br>2.2 In study areas, conduct RAAKS and PRA surveys on PH technology, information and knowledge, institutional needs and mechanisms<br><br>2.3 Data analyses (STATA, SPSS)<br><br>2.4 Prepare reports<br><br>2.5 Provide feedback on findings to intermediary and end-users<br><br>2.6 Put together relevant post-harvest innovations, information and knowledge<br><br>2.7 Facilitate and enhance mechanisms for harmonized information flow to users | | | -do- |

| | | | |
|---|---|---|---|
| 3.1 Conduct action plan meetings with farmers in target areas | | | -do- |
| 3.2 Generate and disseminate recommendations | | | |
| 3.3 Publication of research findings | | | |
| 3.4 Project evaluation | | | |
| 3.5 Final report write up | | | |

II        Partner (user) organisations workplan for adopting project outputs

III      Copies of diaries, coalition meeting reports etc
**Minutes of the meeting held with project partners and enumerators in Kabale district**

Agenda

**Members present**

| | |
|---|---|
| Dr. Ambrose Agona | Managing Partner |
| Dr. Imelda Kashaija | Centre Manager, Kachwekano ARDC – Coalition Partner |
| Mr. Sunday Mutabazi | Ag. NAADS District Coordinator – Coalition Partner |
| Mr. Patrick Kalunda | Agricultural Economist KARI – Coalition Partner |
| Mr. James Kasimbazi | Kabale District Agricultural Officer |
| Mr. Gard Turyamureeba | Kachwekano ARDC SRO |
| Musimenta Emmanuel | Enumerator |
| Twetegye Burnet | Enumerator |
| Betonde Michael | Enumerator |
| Kyomukama Rose | Enumerator |
| Ahimbisibwe Alfred | Enumerator |
| Adrian Tumwebaze | Enumerator |
| Nyiramajora Annet | Enumerator |
| Komugisha Beth | Enumerator |
| Sunday Eric | Enumerator |
| Atukunda Charity | Enumerator |
| Turyamureeba Shem | Enumerator |
| Atusimire Prima | Enumerator |
| Hilman Edison | Enumerator |
| Musimenta Justine | Enumerator |
| Dickens Sande | Enumerator |

Welcome note and introduction to the project
- Key questions that the research intends to answer
- 

Introduction to post harvest

**Meeting with Enumerators**

**Action points for the survey**

1.      End users (to be interviewed by 12 enumerators for 12 days)
  -       72 individual farmers
  -       30 farmer groups
  -       18 agro-processors (wheat millers, hammer mills, brewers, bakers, snacks, potato drying)
  -       24 traders who perform storage and handling

2.    Intermediary users (to be interviewed by 3 enumerators for 12 days)
-    NGOs and associations
    ▪ Africare FSP,
    ▪ Care ISAMI,
    ▪ KADIFA,
    ▪ Africa 2000 Network,
    ▪ AHI
-    Local Government:
    ▪ District commercial officer,
    ▪ NAADS,
    ▪ AAMP,
    ▪ Extension,
    ▪ District Production Office,
    ▪ District and Sub-county Council (to obtain policy related information, e.g., by laws, enforcement, etc),
    ▪ District Information Office
-    CBOs
-    NARO
    ▪ ARDC – Radio Kachwekano
-    PSPC (private sector promotion centre)
-    Agro-input dealers
-    Radios
    ▪ Voice of Kigezi
    ▪ Etc
-    News print
    ▪ Entasi
    ▪ New Vision
    ▪ Monitor
    ▪ Orumuri
-    Telecentres and CMC (community resource centres)


A)    Criteria for selecting locations for study
i)      areas where PH activities/interventions are
ii)     areas where legumes and cereals are widely grown
iii)    existence of indigenous granaries (their history?)
iv)     areas where perishable commodities are grown (fruits, vegetables and tubers)
v)      NAADS implementation area
vi)     Enterprises

B)    Sub-counties

| Sub-county | Characteristics |
| --- | --- |
| i.   Bubare | NAADS area, availability of potato stores – built by Africare |
| ii.  Kamwezi | NAADS implementation area, warm climate, low land, relatively larger areas, beans |
| iii. Muko | NAADS implementation area, volcanic soils – fertile, near Kalengyere Research Station, high potato production, |

|      |                     | traditional granaries.                                                 |
|------|---------------------|------------------------------------------------------------------------|
| iv.  | Kaharo              | AAMP, vegetables,access to road                                        |
| v.   | Bukinda (Muhanga)   | NAADS implementation area                                              |
| vi.  | Kabale municipality | Central market, storage and handling, mushrooms, NAADS implementation area, snacks – agro-processing, other enterprises |

C)      Human Resources

- 12 enumerators to interview end users
- 3 enumerators for the intermediary users

D)      Financial Resources

| Particular            | Quantity1 | Quantity2 | Rate (USH) | Amount (USH) |
|-----------------------|-----------|-----------|-----------:|-------------:|
| Fee for enumerators   | 15        | 12        | 30,000     | 5,400,000    |
| Travel for enumerators| 15        | 12        | 15,000     | 2,700,000    |
| Stationery            | 15        | 1         | 10,000     | 150,000      |
| Photocopying          |           |           |            | 200,000      |
| Paper (carton)        | 1         | 1         | 40,000     | 40,000       |
| **Total**             |           |           |            | **8,490,000**|

Other costs that will have to be considered include mobilization that involve announcements, airtime, travel, vehicle and driver

**Details about enumerators**

| Name                      | Sub-county           | Background                          |
|---------------------------|----------------------|-------------------------------------|
| 1.  Musimenta Emmanuel    | Bubare               | Agriculture                         |
| 2.  Twetegye Burnet       | Bubare               | Community mobilization/information  |
| 3.  Betonde Michael       | Bukinda              | Agriculture                         |
| 4.  Kyomukama Rose        | Bukinda              | Community mobilization/information  |
| 5.  Ahimbisibwe Alfred    | Kabale Municipality  | Agriculture                         |
| 6.  Adrian Tumwebaze      | Kabale Municipality  | Community mobilization/information  |
| 7.  Nyiramajora Annet     | Kabale Municipality  | Community mobilization/information  |
| 8.  Komugisha Beth        | Kabale Municipality  | Community mobilization/information  |
| 9.  Sunday Eric           | Kaharo               | Agriculture                         |
| 10. Atukunda Charity      | Kaharo               | Community mobilization/information  |
| 11. Turyamureeba Shem     | Kamwezi              | Agriculture                         |
| 12. Atusimire Prima       | Kamwezi              | Community mobilization/information  |
| 13. Hilman Edison         | Muko                 | Agriculture                         |
| 14. Musimenta Justine     | Muko                 | Community mobilization/information  |
| 15. Dickens Sande         | NGOs                 | Agriculture                         |

**Milestones**

| Activity | Action by | When |
|----------|-----------|------|

| | | | |
|---|---|---|---|
| 1. | Survey tool in Kabale | KARI | 31/10 |
| 2. | Mobilization of farmers (location, farmers and farmer groups, time, market days) | Centre Manager/DPO | 31/10 |
| 3. | Internalize tools | CM/DPO and enumerators | 2-3/11 |
| 4. | Logistics for survey | CM/DPO | 7/11 |
| 5. | Tools administered | Enumerators | 7/11 |
| 6. | review and sharing on administration of tool | Enumerators, CM/DPO | 9/11 |
| 7. | Data cleaning | Enumerators | 7-20/11 |
| 8. | delivery of tools to KARI | CM/DPO | 21/11 |

IV      Feedback on the process from Partners(s) and users (where appropriate)

V       Tabulated description of disseminated outputs (format from green book) – same as given in the PCSS and should include all published, unpublished and data sets.  If any of the reports included in this annex has not been submitted to the programme previously, please include a copy (preferably an electronic copy or if not available a hard copy)

**Publications:**

Kalunda P. and Agona A. (in press) Uptake of crop post harvest innovations in Uganda: The role of intermediate organizations. Uganda Journal of Agricultural Sciences. Kampala Uganda

Kalunda P. and Agona A. (in preparation) What policy interventions will promote the uptake of crop post harvest innovations in Uganda?  Uganda Journal of Agricultural Sciences. Kampala Uganda

**Internal Reports:**

Quarterly report

KALUNDA P. and AGONA A. (2005) Sensitization and training report of enumerators in Kabale district. Back to office report. National Post Harvest Programme, KARI, Kampala Uganda

KALUNDA P. and AGONA A. (2005) Sensitization and training report of enumerators in Kiboga district. Back to office report. National Post Harvest Programme, KARI, Kampala Uganda

**Other Dissemination of Results:**

KALUNDA P. and AGONA A. (2005) Training and Sensitization report of Enumerators. Workshop held in Kachwekano ARDC, Kabale 10-14th October 2005.  Kawanda Agricultural Research Institute, Kampala, Uganda [Four-Day Training Workshop for 15 Enumerators] [English] [Rukiga]

KALUNDA P. and AGONA A. (2005) Training and Sensitization report of Enumerators. Workshop held at district agricultural offices in Kiboga district, 17-21st October 2005. Kawanda Agricultural Research Institute, Kampala, Uganda [Four-Day Training Workshop for 14 Enumerators] [English] [Luganda]

**Listing and reference to key data sets generated:**

KAWANDA AGRICULTURAL RESEARCH INSTITUTE (2005) Semi structures surveys of 141 farmers, 49 farmer groups and 67 intermediary organisations to identify their crop post harvest information sources, needs and strategies in Kabale and Kiboga districts in Uganda.  Kawanda Agricultural Research Institute (KARI), Kampala, Uganda [Unpublished dataset]