

REVIEW REPORT

Developing crop protection research promotional strategies for semi-arid East Africa (Kenya and Tanzania)

R8349

**Jill Lenné
Kerry Albright**

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Executive summary and key recommendations

A mission was carried out during May 2004 in Kenya, Tanzania and the UK to review the project R8349 'Developing crop protection research promotional strategies for semi-arid East Africa (Kenya and Tanzania)'. The project was approved by CPP management in November 2003. It is an innovative promotional project with the overall objective to develop and test promotional strategies for crop protection (CP) information and technologies. Through this process, CP technologies will be promoted. The project is concentrating on knowledge-based products which are considered more difficult and challenging for the development of promotional strategies. Some seed-based technologies are included. Although the project has retained a focus on promoting CP technologies developed through previous projects on sorghum pest, disease and weed management (R7504 Striga; R7518 [smut], R7572 [insect pests]), additional CP technologies have been incorporated based on farmer demand. Some links have been retained with the previous project research and extension teams and locations in Western Kenya (pests); Eastern Kenya (smut); and in Tanzania (smut and Striga).

The conceptual framework of the project is anchored in strengthening linkages between key stakeholders including researchers, extensionists and farmers as defined by the four project outputs: feedback; access to technologies; dissemination effectiveness; and process M&E and identifying lessons learnt to policy makers. The principle approach is action learning for more effective promotion. In Kenya, the project teams are researcher-led with the coordinators in Eastern Kenya and Western Kenya being researchers from KARI-Katamani and KARI-Kisii, respectively. In Tanzania, the project team is NGO-led by the INADES Formation Tanzania with technical backstopping from two research institutes – Ilonga (crop protection) and Mpwapwa (information management and M&E) working in three districts in the semi-arid Central Zone. A summary of project coverage and project teams and activities of the review mission and main contacts are given in Appendices 1 and 2.

The main objectives of the review were to: provide programme management with independent feedback on the progress of the project in specified areas as defined by the TORs; assess some of the concerns of programme management of the original proposal; inform programme management of both the positive and negative aspects of the project and areas where there is opportunity to strengthen the activities; and assess the prospect of the project to become a regional project for the promotion of outputs from DFID CPP and other programmes projects in East Africa and highlight actions that could improve this prospect.

In Kenya, the review included field visits and a 1.5 day workshop where project teams from E and W Kenya reported on progress to date against the four project outputs and the review team interacted with both teams. In Tanzania, the focus was on field visits and interaction with farmers. Two half days were available for interaction with the project team and some progress reports were provided (communication strategy and activities; draft M&E strategy paper). A summary of project outputs, activities and progress is given in Table 3.

The outputs are considered appropriate for a project whose main objective is to develop promotional and communication strategies for CP technologies in semi-arid East Africa. The project has achieved good progress against its objectives in the past six months as evidenced by the analysis made in this report and will achieve more progress in the time remaining (up to March 2005), especially if the suggestions and recommendations made by the review team are addressed. But, there is an urgent

need for CPP management to clarify to the project teams the extent and the type of progress (e.g. end-user satisfaction) considered as 'acceptable progress' for R8349.

The project is especially progressing well in strengthening the capacity of researchers and extensionists to understand promotion and communication processes and farmer demands. Strengthening of linkages between researchers and extensionists is also progressing well but further efforts should be made in strengthening extensionist-farmer linkages and to link with policy-makers. Based on the review teams interaction with farmers in Kenya and Tanzania, there is further potential to seek and source additional technologies appropriate to farmer demands from other CPP projects and more widely.

Consideration should be given to extending the project as one cycle of lesson learning is probably not sufficient to establish a sustainable system and mechanisms for promotion of CP technologies. Further consideration should also be given to developing robust mechanisms and indicators to adequately quantify the learning processes and enhanced capacity of stakeholders and to make cost-effective comparisons of approaches for delivery of CP information to farmers, in Kenya and Tanzania.

In order to develop a sustainable communications strategy, project teams from both Kenya and Tanzania should develop better links and exchange of information with other communications projects and initiatives in East Africa. There is potential to greatly strengthen the communications strategies within R8349 by incorporating experiences from other communications projects within East Africa and advice from communications professionals. Greater efforts should be made to forge such links and exchange experiences. In addition, greater attention needs to be given by project teams to both formal and informal publications throughout the life of the project, in order to maximise likely influence on policy-makers and development communications research more generally.

Three types of development outcomes will be achieved by the project. The extent of achievement, especially of the latter two types, will depend on the lifetime of the project and the links it can forge for sustainability. The first outcome is enhanced capacity among stakeholders in action learning processes. There is a need to develop indicators to monitor stakeholder progress. The second outcome is achievement of the main project outputs. Improved user access to crop protection knowledge and products will be developmentally beneficial to the end-users; identification of cost-effective approaches for delivery of crop protection information to farmers will be beneficial to extension staff; the establishment of feedback mechanisms on demand for crop protection knowledge by users will be beneficial to researchers in improving the focus of their research, beneficial to extension staff in targeting technology promotion, and to farmers in giving them what they want. Finally, development of effective M&E for deriving lessons to inform policy implementation will strengthen linkages between research-extension and policy makers for revising and improving policies for the benefit of farmers. The extent of achievement of this outcome will depend on the lifetime of the project.

The third developmental outcome is uptake of CP information and technologies by farmer groups directly involved in the project and additional farmers who learn from the farmers groups. The extent of achievement of this outcome will partly depend on the lifetime of the project i.e. how many farmer groups and additional farmers can be reached. Currently, there is no mechanism in the project to measure this developmental outcome. There is an urgent need for programme management in consultation with project leadership to clarify unanswered questions about the nature

of *how much* and *what sort of uptake* of research outputs is expected by the end of the project as this is likely to be one of the yardsticks against which the project will be evaluated.

Greater developmental outcomes should be achieved through links with national agricultural development projects (e.g. the KAPP in Kenya and the ASSP in Tanzania); the EU KASALS Programme; ICRISAT and ECARSAM for marketing issues; and, possibly FIPS for seed-based technology promotion. These links are discussed in the report.

And as *Recommendation 13* suggests R8349 would achieve far more if it was extended for another year (up to March 2006) to: a) give more time and effort into improving assessments of farmer demand and establishing sustainable promotional systems for CP technologies; b) develop appropriate linkages for further uptake beyond the life of the project for scaling-up and developmental impact including with policy-makers; and c) facilitate the project's evolution to a regional project for promotion of CP and other farmer-demanded technologies.

Thirty-two prioritised recommendations (see below) were made for CPP Management and the project teams. The review team strongly feels that addressing these recommendations will improve the likelihood of R8349 fully achieving its objectives and having lasting developmental impact in East Africa.

At programme level, the review team recommends that CPP management considers organising a workshop on 'Pathways to Impact' in April 2005 to share promotional experiences across the programme modelled on the 'Sustaining Change' workshop.

No.	Recommendation	Resp.	Priority
1.	If R8349 is to draw on technical results from other CPP projects; share ideas with R8281; and, at some later stage, develop into a regional project, Programme Management will need to agree on additional activities (workshops, meetings etc.) and the logframe will need to be modified to include explicit linkages to the projects and technologies.	CPP Manag.	M
2.	If the programme development process that lead to this project were to be repeated, it should be shortened to allow more time for the project to be implemented and its independence should be carefully managed by CPP management and the PAC.	CPP Manag.	M
4.	In Tanzania, R8349 should consider ways to strategically utilise the skills of INADES in farmer training, action research and M&E in future project activities, depending on the availability of resources.	Tanzania	L
5.	In Kenya, valuable lessons have been learn from this assessment of feedback mechanisms for CP technologies. Priority should be given to seeking solutions to identified problems affecting CP technology promotion in Kenya and making policy-makers aware of the problems during the	Kenya	H

No.	Recommendation	Resp.	Priority
	remainder of the project, particularly through influencing the KAPP processes.		
6.	In Tanzania, priority should be given to comprehensively documenting stakeholders experiences with the various communication tools and strategies being piloted so that objective assessments of their comparative effectiveness can be made in October 2004.	Tanzania	H
7.	In Kenya and Tanzania, the project is effectively building stakeholder teams that should grow as key resources for future technology promotion activities after the project ends. At the same time, the teams need to build more direct interaction with farmers/farmer groups into project activities to ensure that they are fully aware of farmer demand for technologies – both CP and non-CP – at systems level. Even if the project is not able to address demand for non-CP technologies, it may be able to identify where farmers groups can access the necessary information/technologies.	Kenya Tanzania	M
8.	In Kenya, it is recommended that linkages be made with the KAPP (and other relevant projects) to ensure the sustainability of ToT activities (refresher courses and training in new CP technologies).	Kenya	M
9.	In Tanzania, consideration should be given to greater use of schools as conduits of information about CP technologies to farmer parents and to more creative ways of disseminating seed-based technologies (see later comments on small seed packets), depending on availability of seed.	Tanzania	M
10.	In both Kenya and Tanzania, greater thought and discussion is needed to developing appropriate indicators for assessing the effectiveness, cost-effectiveness and efficiency of the different dissemination and communication methods being used by project teams to ensure that Output 3 will be fully achieved.	Kenya Tanzania	H
11.	In Kenya and Tanzania, establishing and testing M&E systems are planned as important activities in the next phase of the project. As confidence is lacking among project team members about their abilities to achieve this, capacity building in M&E procedures should be given urgent priority, based on availability of resources. This should be followed up with guidance by the NRI project leaders.	Kenya Tanzania NRI	H
12.	In Kenya and Tanzania, project teams should consider developing indicators to monitor their <i>own</i> progress in lesson learning and capacity building using indicators such as increased effectiveness and creativity and enhanced confidence in dealing with problems; greater appreciation of the value of	Kenya Tanzania	M

No.	Recommendation	Resp.	Priority
	communication tools; improved ability to work in teams etc.).		
13.	The review team recommends that CPP management should seriously consider extending the project for another year (up to March 2006) to a) give more time and effort into improving assessments of farmer demand and establishing sustainable promotional systems for CP technologies; b) develop appropriate linkages for further uptake beyond the life of the project for scaling-up and developmental impact including with policy-makers; and c) facilitate the project's evolution to a regional project for promotion of CP and other farmer-demanded technologies.	CPP Manag.	H
14.	The review team feels that it could be beneficial to the project's success for the Kenyan and Tanzanian project teams to share their experiences and progress to date (through a workshop, if resources are available) prior to finalising the next season's activities. We feel that both teams would benefit from the other's experiences and the project leaders would be able to assess overall project progress. In addition, the review team recommends that additional interaction between NRI and the Tanzanian team would be beneficial. CPP management should give priority to supporting this recommendation, if further funds are needed.	Kenya Tanzania NRI CPP Manag.	H
15.	In Kenya and Tanzania, the review team feels that the project is effectively identifying research outputs to address gaps and weaknesses in existing agricultural research and extension systems for the successful promotion of CP technologies. In Kenya, consideration needs to be given to additional/novel promotion/communication mechanisms to add value to existing methods.	Kenya	H
16.	In Kenya and Tanzania, there is good evidence that the project is aligning to the demands of farmers participating in the project. However there remain deficiencies in the current systems of assessing farmer demand that should be articulated by project teams. To fully capture the breadth of farmer demand, the review team recommends that the project teams seek ways to improve interaction with farmers in the field. It appears that farmers feel more comfortable and confident interacting with researchers and extension staff on their own terms.	Kenya Tanzania	M
17.	To further improve the project's alignment with farmer demand the following suggestions are made: project teams should give further thought to gender issues (access) and wealth category issues	Kenya Tanzania	M

No.	Recommendation	Resp.	Priority
	when working with farmers groups; project teams should seek ways to address farmer demand for capacity building in marketing; project teams should give further thought to developing methods to promote multiple technologies without making the process too complex; and project teams should give further thought to improving the efficiency of the promotional process.		
18.	In Kenya, the CP expertise available to the project is considered adequate for the current technologies being promoted. If additional crop protection technologies are promoted through future activities, the review team recommends a further assessment of available expertise. In Tanzania, the project team should creatively seek additional CP expertise and information for the technologies being promoted through the project from within Tanzania or through other CPP funded projects, in consultation with NRI crop protectionists.	Tanzania NRI	H
19.	Project teams need to think creatively and flexibly about contingency and value-adding lesson learning exercises and capacity building which could be implemented if field training is not possible.	Kenya Tanzania	M
20.	There is an urgent need for CPP management to clarify to the project teams the extent and the type of progress (e.g. end-user satisfaction) considered as 'acceptable progress' for R8349.	CPP Manag.	H
21.	There is also a need for the project teams to decide how and to what extent they will interact with policy-makers during the lifetime of the project and define further interaction needed after the project is completed.	Kenya Tanzania	H
22.	The review team recommends that as a matter of urgency, project teams in Kenya forge links with the KAPP (Dr S G Muigai, Coordinator, KAPP Secretariat); EU KASALS Programme (Dr Helga Recke); ICRISAT (Dr Richard Jones) and ECARSAM (Dr Aberra Debelo) and the project team in Tanzania forges links with the ASSP (Dr George Sempeho, Project Manager, TARP II) as the best opportunities for scaling-up research outputs for greater developmental impact. It is also recommended that the project leadership and project coordinators in all locations should become more familiar with the CP technology delivery methods used by FIPS and seek opportunities to incorporate these into R8349.	Kenya Tanzania NRI	H
23.	Although we would not recommend any major re-allocation of funds in the existing contract, we suggest that: a) project teams in Kenya carefully assess how they can best use the funds ear-	Kenya Tanzania NRI	H

No.	Recommendation	Resp.	Priority
	marked for communication tools and consult with the team in Tanzania about lessons learnt to date; and b) funding is identified to facilitate the project team in Tanzania (including NRI members) to interact periodically with farmer groups in the field.		
24.	There is an urgent need for programme management in consultation with project leadership to clarify unanswered questions about the nature of <i>how much</i> and <i>what sort of uptake</i> of research outputs is expected by the end of the project as this is likely to be one of the yardsticks against which the project will be evaluated.	CPP Manag.	H
25.	At this stage in the project, it would be a good idea for project teams from both Kenya and Tanzania to develop better links and exchange of information with other communications projects and initiatives in East Africa.	Kenya Tanzania NRI	H
26.	Greater attention needs to be given to the utilisation of knowledge and experiences that the UK-based project leaders have gained from their position as CPP programme advisors. The project may well benefit from incorporation of knowledge from other CPP projects with substantial innovative communication or promotional content.	NRI	H
27.	It is recommended that CPP management provide project summaries of all relevant projects to project leaders to act as refreshers and to share with project staff for identification of potential complementarities.	CPP Manag.	M
28.	There is potential to greatly strengthen the communications strategies within R8349 by incorporating experiences from other communications projects within East Africa and advice from communications professionals. Greater efforts should be made to forge such links and exchange experiences.	Kenya Tanzania	H
29.	In Tanzania, greater efforts should be made to build upon existing linkages with local policy-makers such as District Councillors and to explore potential complementarities with the Ministry of Agriculture and Food Security IPM programme.	Tanzania	H
30.	In both Kenya and Tanzania, the issue of cost recovery and/or willingness to pay for promotional materials produced can act as an indicator of effectiveness of communications tools developed and may be a crucial development for sustainability once the project has ended. Greater attention should be given to exploring this issue.	Kenya Tanzania	H

No.	Recommendation	Resp.	Priority
31.	Greater attention needs to be given by project teams to both formal and informal publications throughout the life of the project, in order to maximise likely influence on policy-makers and development communications research more generally.	Kenya Tanzania NRI	H
32.	In the past two years the CPP has commissioned a number of promotional projects each of which has valuable experiences to share. The review team recommends that CPP management considers organising a workshop on 'Pathways to Impact' in April 2005 to share promotional experiences across the programme modelled on the 'Sustaining Change' workshop.	CPP Manag.	H

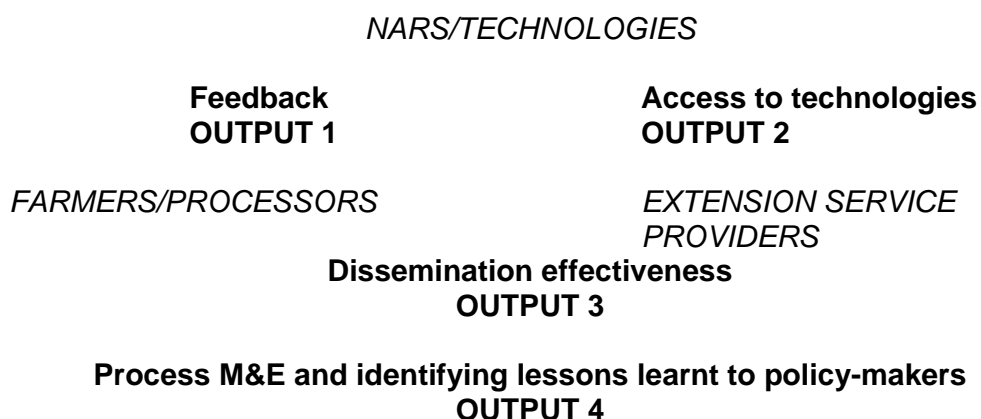
* H = high; M = medium; L = low

Background to project

The overall objective of the project is to develop and test promotional strategies for crop protection (CP) technologies – identifying needs and opportunities, developing training tools, capacity building, resolving issues and challenges related to promotion of crop protection outputs and learning lessons for future sustainability of the approach. Through this process, CP technologies will be promoted. The project is concentrating on knowledge-based products which are considered more difficult and challenging for the development of promotional strategies. Some seed-based technologies including improved Striga-tolerant sorghum varieties in Tanzania and improved blight tolerant tomato varieties in Kenya and Tanzania are included but difficulties were experienced in obtaining some seed-based technologies in time for use in this project e.g. pest-resistant sorghum varieties from R7572.

Although the project has retained a focus on promoting CP technologies developed through previous projects on sorghum pest, disease and weed management (R7504 Striga; R7518 [smut], R7572 [insect pests]), additional CP technologies have been incorporated based on farmer demand. Some links have been retained with the previous project research and extension teams and locations in western Kenya (pests); eastern Kenya (smut); and in Tanzania (smut and Striga).

The conceptual framework of the project is anchored in strengthening the following linkages defined by the four project outputs:



The principle approach is action learning for more effective promotion. The process is more flexible in Tanzania than Kenya. In Kenya, the project teams are researcher-led with the coordinators in eastern Kenya (Mwingi and Kitui districts) and western Kenya (Kisii and Homa Bay Districts) being researchers from KARI-Katamani and KARI-Kisii, respectively. In Tanzania, the project team is NGO-led by the INADES Formation Tanzania with technical backstopping from two research institutes – Ilonga (crop protection) and Mpwapwa (information management and M&E) – and works in three districts (Dodoma Rural, Kongwa, Singida rural) in the semi-arid Central Zone. It is expected that the project will influence research-extension policy. Linkages with local government policy-makers are already being made in Tanzania and are planned in Kenya.

A summary of project coverage and project teams and a summary of activities of the review mission and main contacts are given in Appendices 1 and 2.

Objectives of the review

1. Provide the programme management with independent feedback on the progress of this project in each of the specified areas;
2. Assess the consideration of some of the concerns of the programme management of the original proposal;
3. Inform the programme management of both the positive and negative aspects of the project and areas where there is opportunity to strengthen the activities; and
4. Assess the prospect of the project to become a regional project for the promotion of outputs from DFID CPP and other programmes projects in East Africa and highlight actions that could improve this prospect.

Prospect for R8349 to become a regional promotional project for semi-arid East Africa

R8349 is considered by CPP management to have potential to become a regional project for promotion of outputs from CPP and other DFID programmes in East Africa. *“It is anticipated that the project will draw widely on technical results from other CPP projects within the semi-arid clusters.....and will share information and ideas with R8281 “Agriculture: Uganda” promotional project and vegetable IPM promotional projects in Kenya”* (see PMF – Q. 9). As such, this project should not only be the conduit for the achievement of developmental outcomes from CPP funded activities in this sector, but should also provide future decision-makers a clear example of best practice in agricultural research and promotion.

Farmer demand is the principal determinant of the CP technologies being promoted through R8349. As well as outputs from the previous CP sorghum projects (pests, smut and Striga), maize (larger grain borer, stem borer), tomato (blight resistant lines) and onion (pest management) CP technologies are being promoted. From interactions with farmers during the review mission, it is clear that farmers demand many additional technologies, both CP and non-CP, which could be sourced from CPP and other DFID projects. There may be also opportunities for R8349 to share ideas and experiences with R8281, especially for their Outputs 1 and 2.

Currently, there does not appear to be any mechanism in the logframe for R8349 *“to draw widely on technical results from other CPP projects within the semi-arid clusters... and vegetable IPM promotional projects in Kenya”* nor *“to share information and ideas with R8281 “Agriculture: Uganda” promotional project and vegetable IPM promotional projects in Kenya”*. If the project is to draw on technical results from other CPP projects; share ideas with R8281; and, at some later stage, develop into a regional project, additional activities are needed to develop linkages with other relevant projects and the logframe will need to be modified to include explicit linkages to these projects and technologies. A list is given in Table 1, but there may be others depending on farmer demand.

Recommendation 1. **If R8349 is to draw on technical results from other CPP projects; share ideas with R8281; and, at some later stage, develop into a regional project, Programme Management will need to agree on additional activities (workshops, meetings etc. between the project teams and other project teams) and the logframe will need to be modified to include explicit linkages to the projects and technologies (Priority = Medium).**

Programme Development Process

TOR. 1: If the programme development process that lead to this project were to be repeated could it be improved in any manner?

The programme development process that lead to this project being commissioned was thorough and comprehensive. It included interaction and consultation with leaders of projects in the semi-arid cluster and in East Africa, cluster advisors and representatives from the NRSP, CPHP and LPP through a one day meeting; extensive review of published and grey literature; consultations with a wide range of stakeholders in Kenya and Tanzania; and an MSc thesis from the Kenya review. This process produced a useful review paper: 'Review of crop protection issues in semi-arid East Africa, in the context of sustainable livelihoods' which identified specific promotional and future research opportunities. This paper formed the basis for the project under review: R8349 'Promotional strategies for semi-arid East Africa.

If the programme development process were to be repeated, the review team suggest two improvements and highlight two issues. Firstly, the process was carried out over one full year. Accepting that this was caused by unforeseen changes in responsibilities of members of CPP and the inclusion of an MSc thesis, the long process together with further delays in developing and initiating R8349 will compromise its ability to thoroughly test methodologies and strategies and achieve sustainability within the short project life (1.5 yr). The timeliness of the programme development process could have been improved to allow more time for the project. Secondly, the independence of the process is potentially compromised by the fact that the NRI socio-economists (RL and AS) who carried out the review are the lead NRI staff implementing R8349. The review team accepts that this was difficult to avoid as RL is the socio-economic advisor to the semi-arid clusters and is the most knowledgeable person to carry out the programme development process. However the issue of independence should be carefully managed by CPP Management and the Programme Advisory Committee (PAC) in future projects.

At the pre-review meeting with the NRI project staff, it was emphasised that the programme development process was strongly driven by the need to look at semi-arid regions of East Africa as **a system** in spite of the diffuse nature of crop protection projects commissioned. Although there is system recognition in R8349, the review team feel that it is currently crop-focussed; there is not sufficient recognition the importance of livestock, especially in Kenya. For example, Mwingi District in eastern Kenya has 10,000 km² of mostly Zone 5 – Crop-livestock systems. Interaction with farmers in Mwingi (see Table 2) reinforced the importance farmers place on livestock and the potential to promote relevant LPP and CP technologies developed in semi-arid India (management of diseases and pests in stover) to semi-arid East Africa. A key linkage could be made with the EU Kenya Arid and Semi-arid Lands (KASALS) Programme (the next phase of the ARSP II) which will be initiated in June 2005 (see discussion under TOR 9).

The review paper highlighted the need to address crop utilisation and marketing issues in parallel with crop protection research. However this priority has not yet been addressed in R8349. The longer-term development impact of establishing sustainable promotional strategies leading to successful promotion of crop protection technologies is likely to be affected by failures in existing marketing and utilisation systems. As this report notes later, marketing is a major problem for sorghum, tomato, onion and maize – the focal crops under R8349. Suggestions are made as to

how strategic linkages with ICRISAT and ECARSAM could address this issue (under TOR 9).

Recommendation 2. If the programme development process that led to this project were to be repeated, it should be shortened to allow more time for the project to be implemented and its independence should be carefully managed by CPP management and the PAC (Priority = Medium).

Recommendation 3. In Kenya, R8349 should consider incorporating LPP and CP technologies appropriate to semi-arid mixed crop-livestock systems based on farmer demand and to linking with the EU-KASALS Project as an uptake pathway. In Kenya and Tanzania, it should also consider addressing marketing issues of target commodities in future activities (to March 2005) and especially if the project is given a year's extension (to March 2006) through linking with other projects that are specifically addressing marketing (Priority = Medium).

Project Progress

Key stakeholders

Appendix 1 lists key stakeholders involved in the project teams in both Kenya and Tanzania. An organogram illustrating the interactions and linkages between the various stakeholders in eastern Kenya is also provided. Relevant information regarding roles and responsibilities is summarised below.

Eastern Kenya: The local coordinator is Justus Kavoi, Socio-economist, KARI-Katumani. He works closely with the KARI-Katumani Research Extension Liaison Office (RELO); the Machakos District Ministry of Agriculture RELO; the Mwingi District Agriculture Office; and the Coordinator of the Food Security Programme, Catholic Diocese of Kitui (CDK). He also collaborates with the KARI-Katumani Seed Unit and ICRISAT. These stakeholders work through Mwingi District extension officers; the Mwingi District Farmer Field School coordinator; and CDK field extension staff and parishes. Farmer groups organised in FFS or farmer self-help groups as well as para-extensionists are the main beneficiaries; they then have the capacity to promote technologies to individual contact farmers in project sites.

Western Kenya: The local coordinator is John Ogecha, Entomologist, KARI-Kisii. He works closely with the KARI-Kisii RELO and the Kisii District RELO; the Homa Bay District Agriculture Office; and the NGO C-MAD. These stakeholders work through Kisii and Homa Bay District extension officers and C-MAD field extension staff. Farmer groups organised in FFS, smaller groups for farmer to farmer training, and focal area groups are the main beneficiaries; they then have the capacity to promote technologies to individual contact farmers in project sites.

Tanzania: The INADES Formation (African Institute for Social and Economic Development), Tanzania, is based in Dodoma and coordinates the project in Central Tanzania. INADES is an NGO which aims to promote self-reliant development (organisation and empowerment) in rural populations. INADES provides training in the fields of: organisation and planning; marketing; finance; environment/natural resources management; financial management; and local development. Their action training approach places the farmer at the centre of the action learning process. It

strives to build partnerships at all levels. It receives funding from a number of donors including Germany. It produces a wide range of educational, promotional and communication materials including radio programmes mostly in Swahili. The managing director of INADES is Alphonse Katunzi; the project coordinator is Patrick Lameck.

INADES Tanzania works closely with the DRD, Central Zone (Dodoma and Singida Regions) and with the Zonal Research Extension Liaison Office (ZRELO) Office, especially the Zonal Communications Officer (J. D. Mika), responsible facilitating interactive dialogue between researchers, extensionists and farmers and promotion of research outputs as well as development and publication of communication materials and the Zonal Information Officer (Judicate Mwanga), responsible for maintaining a repository of all information from the project and facilitating zonal level M&E. This core group of stakeholders links closely with the District Executive Director (DEDs), District Agriculture & Livestock Development Officer (DALDOs), District Project Coordinators; and subject matter specialists in three District Councils and District Agricultural Extension: Dodoma rural, Kogwa and Singida rural who implement the project working directly with farmer groups for technology promotion. Technical backstopping is provided by Dr A Mwanga, Ilonga Agricultural Research Institute, Ilonga, who liaises with the district subject matter specialists. INADES coordinates quarterly monitoring meetings for the project team. With respect to their extensive experience in training methods and application (training by transformation; training by extending and integrating knowledge; action research etc.), INADES could play more than a coordinating role in the project. This need was reinforced by some of the project stakeholders e.g. the Zonal Communication Officer.

Recommendation 4. In Tanzania, R8349 should consider ways to strategically utilise the skills of INADES in farmer training, action research and M&E in future project activities, depending on the availability of resources (Priority = Low).

Review process

Different approaches were used for the review process in Kenya and Tanzania. In Kenya, the review included field visits and a 1.5 day workshop where project teams from E and W Kenya reported on progress to date against the four project outputs and the review team interacted with both teams. In Tanzania, the focus was on field visits and interaction with farmers. Two half days were available for interaction with the project team and some progress reports were provided (communication strategy and activities; draft M&E strategy paper). In Tanzania, as a result, it was more difficult to assess progress made against specific outputs.

Responses to TORs 2, 3 and 4 are addressed through an assessment of project progress to date. A summary of project outputs, activities and progress is given in Table 3.

OUTPUT 1. Methods for updating demand for CP outputs and sustaining feedback documented and assessed = Feedback mechanisms and lessons learnt

Planning meetings, workshops and surveys have been held in Kenya and Tanzania (November, December 2003 and February 2004) with participation from all key stakeholders to discuss and agree the details of activities and the roles and responsibilities of each stakeholder. In Kenya, meetings were held in both eastern

and western Kenya; in Tanzania, due to the decentralised research and extension structure, meetings were held in each district. Following review and analysis of existing methods of validation of demand for CP research outputs from reports, literature, and stakeholder consultations in each country, suggestions for improvements have been made and are being tested in each country.

In Kenya, a major focus is on feedback mechanisms and lessons learnt from the analysis of minutes of the Regional Extension Advisory Committee (REAC) meetings in western Kenya and the Central Research Advisory Committee (CRAC) meetings in eastern Kenya. In western Kenya, the REAC is a regional forum for interaction and exchange between researchers, extensionists, NGOs and farmers – ideally creating and facilitating feedback loops and communication so that farmers' problems are brought to the attention of researchers and extensionists. The membership of the REAC is over 90 but attendance was always less. No meetings have been held since 2003.

A review of the minutes of the meetings raised the following issues:

- researchers were more regular attendees (72%) compared to extension staff (43%) with a few NGOs and farmer groups attending later meetings
- researchers and extensionists more commonly raised CP issues than NGOs and farmers; these included: Striga, stemborers, maize streak virus, sorghum smut, tomato blight, finger millet blast
- CP technologies suggested by REAC included: push-pull technology for Striga and stemborers, resistant varieties for streak virus, tomato blight and finger millet blast, clean seed for sorghum smut

Lessons learnt included:

- poor and fluctuating attendance of extension, NGO and farmer representatives
- limited follow-up action and feedback on CP and other issues
- time for meetings too short (1 day)
- lack of funding for large number of attendees
- difficult to manage large meetings
- poor and late circulation of REAC minutes prior to meetings
- limited incentives for farmers to bring their problems to the REAC

Suggested improvements included:

- improve the format of reporting with sections on specific issues e.g. CP issues
- improve the timeliness and circulation of REAC meeting minutes
- strengthen district agriculture committee meetings for district specific issues – expected to happen under the new government (workshops on how to strengthen committees and make them more effective have already been held)
- reduce the number of participants for more efficient and less costly meetings
- self-financing attendance of NGOs

The CRAC, eastern Kenya, is a forum for interaction and exchange of information between key stakeholders in research, extension and development and farmers: providing guidance to and review and approval of both research and extension activities. Meetings are held annually over 3 days and attended by representatives from KARI, MOA, MOLFD, NGOs, CBOs, and farmer representatives.

A review of the minutes of the meetings during 1995-2003 raised the following issues:

- meeting attendance was dominated by KARI (55%) and MOA (28%) representatives with NGOs (5.7%) and farmers (8.2%) in the minority
- participation varied from 40-69 i.e. large meetings
- 40-60% of issues raised in the CRAC were crop protection and included: large grain borer; stem borers, covered kernel smut, Striga (on cowpea) etc.
- problems with fake and adulterated chemicals and high costs of agricultural inputs were also raised

Lessons learnt included:

- poor and fluctuating attendance of NGO and farmer representatives
- limited follow-up action and feedback on crop protection (CP) issues
- non-flexibility in utilisation of research funds to address emerging CP issues needing immediate action
- CRAC has little input to priority setting of research (KARI) and extension (MOA) activities
- Need for policy support to enhance adoption of CP technologies

Suggested improvements included:

- district extension representatives should ensure that farmers attending are representative of gender and enterprises
- CRAC recommendations from the previous year are reviewed and assessed as part of the CRAC agenda
- partnerships and networking should be encouraged in addressing CP challenges
- future priority setting should involve all key stakeholders and feedback results to the CRAC
- farmer-based for a should be strengthened to identify farmer demands for CP technologies and provide feedback mechanisms
- specific planning and review meetings should be organised at commodity/factor level to serve as feedback mechanisms on technologies and farmer demands
- feedback mechanisms for CP issues requiring policy interventions should be developed.

Useful interactive discussions between team members from eastern and western Kenya followed the presentations. Issues raised included: the critical need to strengthen linkages between research and extension; the value of 3 day meetings; the problem of lack of flexibility in utilising research funds to address emerging CP issues (KARI's priority setting process for allocation of research funds is not aligned with that of the CRAC); the value of the meetings in identifying areas where additional project funding should be sought; potential conflict of interest in KARI's role in organising and funding the meeting – KARI's priorities may always come first irrespective of the priorities of other stakeholders; the need for feedback from the meeting participants on the structure and content of the meetings so that they can make a more useful contribution; and the need for additional consultation mechanisms to obtain more comprehensive feedback from farmers

In addition to the REAC and CRAC, the creation of the Research and Extension Liaison Officers (RELOs) was to enhance linkages between research, extension and farmers. The RELOs were initially funded by the World Bank but currently there is no funding for operations. There was general agreement on the need to strengthen the

role, function and resources of RELOs, hopefully under the new KAPP 'Strategy for revitalising agriculture 2004–2014. Strong RELOs are considered critical for enhancing the linkages between research, extension and farmers.

The analysis of CRAC and REAC meetings was a useful exercise in lesson learning and in seeking solutions to important problems affecting CP technology promotion. The project teams in Kenya realise that they must now seek ways to influence the KAPP so that the identified problems can be addressed to improve dissemination systems.

Recommendation 5. In Kenya, valuable lessons have been learnt from this assessment of feedback mechanisms for CP technologies. Priority should be given to seeking solutions to identified problems affecting CP technology promotion in Kenya and making policy-makers aware of the problems during the remainder of the project, particularly through influencing the KAPP processes (Priority = High).

In Tanzania, a major inception workshop on 'Developing crop protection research promotional strategies for semi-arid East Africa' was held in November 2003 and a second major workshop on 'Improving agricultural communication strategies to meet farmers' crop protection needs in the semi-arid Central zone of Tanzania' was held in February 2004. These workshops, together with follow-up district workshops and meetings, set the scene for analysing the current systems, agreeing on roles and responsibilities, agreeing an implementation plan and developing district and zonal promotional and communication strategies based on farmer needs and promotional opportunities. The workshops had wide participation including INADES, the ZRELO, research scientists (ARIs), district extension staff, farmers, NGOs, DRD and NRI. Experiences were shared on current extension methods; reports were given on district level consultations; CP experiences of all stakeholders were analysed; and ways to improve communication strategies were identified including a review of crop protection leaflets.

The outcome of the workshops and meetings was the development of comprehensive district and zonal communication strategies for CP technologies for testing through the project. Each district developed practical implementation plans based on district-specific CP needs; communication needs; existing and emerging tools for communication; and M&E indicators. A workshop will be held in October 2004 when all activities from the three districts will be reported. This will provide an opportunity to assess the functionality and effectiveness of the various communication tools and strategies.

Recommendation 6. In Tanzania, priority should be given to comprehensively documenting stakeholders experiences with the various communication tools and strategies being piloted so that objective assessments of their comparative effectiveness can be made in October 2004 (Priority = High).

OUTPUT 2. Approaches for improving stakeholders' access to crop protection research outputs = Improving access to CP information

In Kenya and Tanzania, planning workshops identified key stakeholders and mapped available resources. In Kenya, existing methods/constraints for accessing crop protection information were briefly reviewed through questionnaires sent out before

the workshops. These gave feedback on access to CP knowledge and technologies which was reviewed and analysed.

Postal surveys among a wide range of stakeholders have been carried out in E and W Kenya to identify ways in which extension staff and farmers access CP information and the importance of each tool e.g. leaflets, demonstrations, radio, traders, neighbours etc. Weaknesses in current systems are being identified and suggestions are being formulated to improve the current access and promotional systems e.g. under-utilised but important sources of information. Monitoring and evaluation of training of trainers courses has been implemented to improve future ToT courses.

In W Kenya, Village Information Centres are being established as repositories of CP (and other information) – farmers can obtain photocopies of relevant information for a small fee. In E Kenya, Katumani has a repository of information that can be copied and purchased e.g. at agricultural shows. In fact, the KARI Agricultural Information Resource Centre in KARI-HQ has proposed that all KARI centres should establish a repository of leaflets and other communication tools so that information can reach more extensionists and farmers.

Analysis of the information obtained through postal surveys in W Kenya identified the following constraints to improving access to CP information:

- lack of resources in the extension system to meet farmer demands
- delays in response to farmer demand
- availability of materials
- language (different regional languages)
- lack of mechanisms to access information

Ways of improving access to CP information suggested:

- improved systems and frequency of training extension staff
- improving awareness of available information e.g. through radio, barazas, meetings, FFS, school plays etc.
- increase availability of information through stockists/traders

In W Kenya, an inventory and catalogue of available crop protection research information has been developed by KARI-Kisii. This will be further improved prior to publication and dissemination.

In Tanzania, the review of existing methods/constraints for accessing crop protection information led to the development of a zonal communication strategy based on existing and new/novel methods. This is currently being piloted in the three districts. A brief summary report on progress to date was provided to the review team by the Zonal Communication Officer, J D Mika. The report highlights the following: CP information and technologies for the following problems are being promoted/communicated: sorghum pests, smut and Striga; tomato pests and diseases; onion pests and diseases; larger grain borer and stalk borer in maize; and safe application of agrochemicals. Different sources of information have been identified for each technology; communication strategies being compared include: leaflets, radio programmes, demonstration plots; field days; farmer visits; training; and meetings with both farmers and extension staff. Each village has a project office which displays information about the project. Each farmer group keeps a logbook for recording key developments and visitors.

The project is already considered to be facilitating districts to improve access to crop protection information as part of the decentralisation process to be implemented under the ASSP. District officials (e.g. DEDs, DALDOs, district extension staff etc.) are being made aware of the project to generate interest in using it as a model process through the ASSP. The feedback received from the DED's and DALDO's about the project was positive: it is recognised as a different kind of project; its focus on awareness building among all stakeholders was welcome; it provides practical messages to farmers; and there is a need to institutionalise the project with support from the district councils.

Table 2 lists some of the farmer groups involved in R8349 in eastern Kenya and Tanzania. The review team were able to interact with two farmer groups in Mwingi District, eastern Kenya and several farmer groups in two villages in the Central Zone of Tanzania (Merya, Singida rural District; Mkoko, Kongwa District). The outcomes of these interactions are discussed later in this report (under Output 3 and response to TOR. 4). The review team felt that further effort could be made by the project teams to fully capture farmer demand for technologies at systems level.

Recommendation 7. In Kenya and Tanzania, the project effectively building stakeholder teams that should grow as key resources for future technology promotion activities after the project ends. At the same time, the teams need to build more direct interaction with farmers/farmer groups into project activities to ensure that they are fully aware of farmer demand for technologies – both CP and non-CP – at systems level. Even if the project is not able to address demand for non-CP technologies, it may be able to identify where farmers groups can access the necessary information/technologies (Priority = Medium).

OUTPUT 3. Methods for delivery of crop protection research outputs to uptake pathways and farmers piloted = Pilot effective dissemination

In Kenya and Tanzania, workshops and meetings were held to identify and review existing uptake pathways for CP technologies and approaches to match uptake pathways with development and production of communication/training materials and pilot dissemination of selected technologies to farmers.

In E Kenya, researchers and extension staff discussed and agreed on the technologies to be disseminated (improved sorghum stover management to reduce stem borer carry over; sustainable control of sorghum smut; and improved food grain and seed storage [esp. for larger grain borer in maize]); sources of CP information; and the format for presenting information. A Training of Trainers Manual was developed and a ToT workshop was held for 10 farmer para-extensionists, 8 government extension officers, 3 CDK extension officers and 4 primary school teachers. In W Kenya, demand for technologies by farmers was assessed; topics were agreed; training materials were developed; a ToT for extension staff and NGOs was carried out in two districts; and leaflets were developed. The sustainability of ToT activities (refresher courses and training in new CP technologies) was raised as an issue at the review.

In Tanzania, a zonal communication strategy has been developed and is being piloted in 3 districts. Through the M&E strategy, comparisons of the different communication methods e.g. leaflets, radio programmes, video etc. are planned but

as indicators have not yet been drafted it was not possible to assess how the cost-effectiveness of different promotional and communication methods will be compared.

In E Kenya, at least two different existing methods for disseminating CP technologies are being tested with farmers including FFS, demonstrations, and barazas at each site. The sustainability and future costs of FFS was raised as an issue at the review. Farmer groups are encouraged to continue to work together to solve problems after the training is completed and there is good evidence that this is happening but there is no certainty that this will continue in the longer-term

In W Kenya, three different dissemination methods (FFS, farmer to farmer, focal area approach) are being piloted at three different sites in collaboration with C-MAD, Lagrotech and Winrock. All farmer groups had previously been through FFS and/or adult literacy courses. Pest resistant sorghum varieties, blight resistant tomato varieties, fertilisers and pesticides were provided to farmers. C-MAD also provided mosaic virus resistant cassava varieties to the technologies being disseminated. Follow-up field days and farmer exchanges are planned as part of the process of assessment and M&E. The project team highlighted the need for the comparative study of dissemination methods to be carried out over two seasons – learning followed by consolidation – as some farmers need more time to test technologies. One season is not enough for data collection and lesson learning.

In Tanzania, both existing and novel dissemination methods e.g. radio and video are being compared. Ten leaflets (in Swahili) have been produced to cover the various CP technologies being disseminated and 17,000 have already been distributed (at least 1000 for each technology). CABI ARC has requested copies of the leaflets. Leaflets are continuing to be demanded by farmers. Forty-four 15 minute radio programmes covering the various CP technologies have been produced through project funds and are being aired by Radio Tanzania during March to July 2004. A programme of videos on the same CP topics is being developed. These will be used in future training courses and may be shown on TV. The ZCO has taken the mobile van and videos to villages where there was a great deal of interest. Of immediate future importance is to receive feedback on the effectiveness of the various communication channels used to date but as M&E indicators are still being formulated, it was not possible for the review team to assess how this comparison will be made.

In Kongwa District, Tanzania, several primary schools will participate in a drama competition in July based on sorghum pest management technologies. The project team are keen to utilise primary schools more as conduits of information about CP technologies to farmers. There is a need to train teachers in the technologies. As working with school children is a good way to reach parents, the project team plan to use more schools in other districts.

In Tanzania, promotion of Striga tolerant sorghum varieties Wahi and Hakika is being implemented with small numbers of farmers in higher wealth categories (see Table 2). This is partly due to the small quantities of seed available for promotion. At the same time, a great deal of interest is being shown by other farmers; the demand for seed exceeds supply. There is a need to identify further resources for seed multiplication and to seek more creative ways of getting seed to more farmers.

Recommendation 8. In Kenya, it is recommended that linkages be made with the KAPP (and other relevant projects) to ensure the sustainability of ToT activities (refresher courses and training in new CP technologies) (Priority = Medium).

Recommendation 9. In Tanzania, consideration should be given to greater use of schools as conduits of information about CP technologies to farmer parents and to more creative ways of disseminating seed-based technologies (see later comments on small seed packets), depending on availability of seed (Priority = Medium).

Recommendation 10. In both Kenya and Tanzania, greater thought and discussion is needed to developing appropriate indicators for assessing the effectiveness, cost-effectiveness and efficiency of the different dissemination and communication methods being used by project teams to ensure that Output 3 will be fully achieved (Priority = High).

OUTPUT 4. Lesson learning and policy implications documented = M&E and lesson learning

This is a key output of the project. In Kenya and Tanzania, workshops have been held to discuss the development of an M&E system for promotional and communication processes. In W Kenya, two scientists have been trained in M&E skills and some indicators are already being used to monitor activities with farmers. In E Kenya, the M&E system is still under discussion and the need for training in M&E methodology was emphasised. There is potential for capacity building in M&E from W Kenya to E Kenya, at minimal cost. Guidance from NRI is recommended.

In Tanzania, a participatory M&E strategy has been drafted with specific indicators for each village. Baseline information for the M&E activities is currently being gathered. The indicators relate mostly to increased crop production through successful application of CP technologies; increased participation by farmers; and improved livelihoods. A project level M&E system is currently being developed which will capture the lessons learnt and progress made by the project, especially in promotional and communication processes. There is recognition of the need to map knowledge flows through the farmer groups and spillover to neighbouring villages. Project team members requested training in M&E methods. INADES has oversight on M&E processes. Guidance from NRI is recommended.

Recommendation 11. In Kenya and Tanzania, establishing and testing M&E systems are planned as important activities in the next phase of the project. As confidence is lacking among project team members about their abilities to achieve this, capacity building in M&E procedures should be given urgent priority, based on availability of resources. This should be followed up with guidance by the NRI project leaders (Priority = High).

The review team considers that an important outcome of the project will be lesson learning and capacity building among the project teams which could have wider influence on future improved research-extension-farmer linkages in Kenya (through the KAPP) and in Tanzania (through the ASSP). There is therefore value in monitoring and evaluating this process.

Recommendation 12. In Kenya and Tanzania, project teams should consider developing indicators to monitor their *own* progress in lesson learning and capacity building using indicators such as increased effectiveness and creativity and enhanced confidence in dealing with problems; greater appreciation of the value of communication tools; improved ability to work in teams etc.) (Priority = Medium).

Addressing TORS 2, 3 and 4

TOR. 2: Revisit the project outputs, are they still appropriate for the project considering the progress made and the time remaining? If not what adjustments do you recommend to ensure realistic outputs?

The outputs are considered appropriate for a project whose main objective is to develop promotional and communication strategies for CP technologies in semi-arid East Africa. As the project OVI's are generic and non-quantified nature, even a modest level of achievement could be considered as successfully achieving the outputs. The project has achieved good progress against its objectives in the past six months as evidenced by the above analysis and will achieve more progress in the time remaining (up to March 2005). It remains for CPP management to decide how much progress is considered acceptable for R8349.

The project is especially progressing well in strengthening the capacity of researchers and extensionists to understand promotion and communication processes and the importance of understanding farmer demands. Strengthening of linkages between researchers and extensionists is also progressing well but further efforts should be made in strengthening extensionist-farmer linkages. The review team feels that there is a need for more rigour in assessing and responding to farmer demand. This is reflected in *Recommendation 7* (above).

In Tanzania, facilitated by the decentralised zonal and district system, good linkages are being made with policy-makers through government officials at district level e.g. the review team met three DED's all of whom were complementary about the project as a model for the new ASSP. More effort is needed in Kenya to link with policy-makers especially those associated with the soon to be initiated KAPP which should provide a supporting framework for enhanced promotional opportunities. This is reflected in *Recommendation 5* (above).

A main concern raised by all project teams in all locations (Kenya and Tanzania) was whether one cycle of lesson learning is sufficient to establish a sustainable system and mechanisms for promotion of CP technologies. The teams emphasised the need for the comparative study of dissemination methods to be carried out over two seasons – learning followed by consolidation – as some farmers need more time to test technologies. One season is not enough for data collection and lesson learning.

Recommendation 13. The review team recommends that CPP management should seriously consider extending the project for another year (up to March 2006) to a) give more time and effort into improving assessments of farmer demand and establishing sustainable promotional systems for CP technologies; b) develop appropriate linkages for further uptake beyond the life of the project for scaling-up and developmental impact including with policy-makers; and c) facilitate

the project's evolution to a regional project for promotion of CP and other farmer-demanded technologies (Priority = High).

At the same time, there appears to have been an evolution in thinking and approaches over the short life of the project. The original outputs of the project as stated in the PMF are:

1. Methods for updating demand for CP outputs and sustaining feedback documented and assessed
2. Approaches for improving stakeholders' access to crop protection research outputs
3. Methods for delivery of crop protection research outputs to uptake pathways and farmers piloted
4. Lesson learning and policy implications documented

The project outputs as stated in the 2003–2004 Annual Report are:

1. **Improving** user access to crop protection knowledge and products
2. **Cost-effective approaches** for delivery of crop protection information to farmers
3. Feedback mechanisms on demand for crop protection knowledge by users;
4. **Effective M&E** for deriving lessons to inform policy implementation

This development will potentially provide a greater capacity for the project to quantify changes and map progress made through the action learning process. Due to this evolutionary process, it is not clear whether sufficiently robust mechanisms and indicators are currently in place to adequately quantify the learning processes and enhanced capacity of stakeholders and to make cost-effective comparisons of approaches for delivery of CP information to farmers, in Kenya and Tanzania. Due to this early stage in the development of the project M&E strategies, the review team were not able to assess whether these strategies will be able to respond to these evolving objectives (as noted above in *Recommendation 11*), particularly whether sufficient quantification will be included so that such comparisons could be made.

Different approaches to the implementation of the project are being followed in Kenya and Tanzania. The Kenya team has received more hands-on guidance from the NRI project leader; the Tanzanian team has been given more freedom to establish their own methods and systems of working together but would benefit from more oversight. This difference may reflect different styles of leadership from NRI staff and/or the appropriate ways of working in two quite different countries in East Africa. The Kenyan team is researcher-led; the Tanzanian team is NGO-led. The implementation style of the Kenyan team is methodical and rigorous (e.g. structured feedback and comparison of methodologies) while that of the Tanzanian team innovative and flexible.

***Recommendation 14.* The review team feels that it could be beneficial to the project's success for the Kenyan and Tanzanian project teams to share their experiences and progress to date (through a workshop, if resources are available) prior to finalising the next season's activities. We feel that both teams would benefit from each other's experiences and the project leaders would be better able to assess overall project progress. In addition, the review team recommends that additional interaction between NRI and the Tanzanian team would be beneficial.**

CPP management should give priority to supporting this recommendation, if further funds are needed (Priority = High).

TOR. 3: How effectively is the project identifying research outputs? How do these match with needs?

The analysis of existing systems of promotion and communication through project activities has identified gaps and weaknesses in the agricultural research and extension linkages and systems that are seriously reducing farmer awareness of and access to CP technologies. The project is effectively identifying research outputs to address these gaps and weaknesses through: improving user access to CP knowledge and products; developing cost-effective approaches for delivery of CP information to farmers; institutionalising feedback mechanisms on demand for CP knowledge by users; and developing effective M&E systems for deriving lessons to inform policy implementation to target these gaps and weaknesses. The analysis and lesson learning to date is building confidence and capability among the project teams to improve existing research and extension systems and to better manage institutional constraints to successful promotion. By developing promotional and communication strategies through an action learning process, the project outputs are likely to be tailored to the needs of the respective research-extension-farmer dissemination systems.

In Kenya, the project teams are using existing mechanisms for developing improved promotional and communication strategies. This is sound and justified on the grounds of the time frame of the project; familiarity with the systems; and potential sustainability. In contrast in Tanzania, a combination of existing and novel (radio, video) mechanisms is being used by the project team to develop improved promotional and communication strategies. The review team feels that the Kenyan teams would benefit from considering additional/novel mechanisms such as radio if these can be incorporated into the project within its current timeframe.

***Recommendation 15.* In Kenya and Tanzania, the review team feels that the project is effectively identifying research outputs to address gaps and weaknesses in existing agricultural research and extension systems for the successful promotion of CP technologies. In Kenya, consideration needs to be given to additional/novel promotion/communication mechanisms to add value to existing methods (Priority = High).**

TOR. 4: Does the project appear to be aligned to the demand of the end users?

There is good evidence that farmer demand for CP technologies has been factored into the choice of technologies being promoted in different locations through the involvement of farmers in planning workshops. The farmers who attended the planning workshops were selected by farmer groups in target villages. It would be expected that their inputs into the workshops were representative of the consensual demands of the farmer groups currently participating in the project. However the review team suggests that it also would have been useful for researchers and extension staff to interact with farmer groups in the field in addition to farmer participation in the planning workshops, to fully understand farmer demand for CP and non-CP technologies.

The review team was impressed with the number and range of demands for technologies expressed by the various farmer groups (see Table 2), in particular the demand for sorghum Striga and smut management technologies from farmers who are currently participating in capacity building for other CP technologies. **A priority demand across nearly all farmer groups in Tanzania and Kenya was for capacity building in marketing.**

In Tanzania especially, the project team found the interactions with farmers during the review to be a very useful way to document farmer demand. They acknowledged that there were still deficiencies in the current system for extension service providers to receive feedback on farmer demand, in particular, the need to further strengthen farmer groups to articulate their needs as well as convincing service providers to listen to farmers. The project team in Tanzania plan to include more team interaction with farmers in the field in future project activities – this is reflected in the feedback from the team (see Table 4).

There are deficiencies in the current approach of promoting single technologies to farmers, both in Kenya and Tanzania. Farmers appear to want more than one technology at a time. Further thought is needed on developing methods to promote multiple technologies without making the process too complex. Many farmer demands are linked and inter-related. Tackling only one will not necessarily resolve a problem and will limit developmental impact.

Currently the project is working with existing farmer groups, usually formed due to common interests and/or ideals (drama, religion, friends, previous FFS groups). Researchers, extension staff and farmers recognise the value and efficiency of group training. Farmers especially value this forum for the free exchange of ideas and sharing problem solving: group decision making is considered of higher value than individual decision making. Also group members have more confidence than non-group members and farmer groups feel that they have more power to negotiate with middlemen and traders than individually. However, the project teams need to give some thought to gender issues and wealth category issues when working with farmers groups.

Based on the review teams interaction with farmers in both Kenya and Tanzania, there is further potential to seek and source additional technologies appropriate to farmer demands from other CPP projects and more widely. To improve the efficiency of responding to farmer demand – shorten the uptake pathway – it is suggested that priority should be given to existing technologies that can be readily incorporated into the systems. Criteria are needed for selecting technologies that can be rapidly promoted in response to farmer demand.

***Recommendation 16.* In Kenya and Tanzania, there is good evidence that the project is aligning to the demands of farmers participating in the project. However there remain deficiencies in the current systems of assessing farmer demand that should be articulated by project teams. To fully capture the breadth of farmer demand, the review team recommends that the project teams seek ways to improve interaction with farmers in the field. It appears that farmers feel more comfortable and confident interacting with researchers and extension staff on their own terms (Priority = Medium).**

***Recommendation 17.* To further improve the project's alignment with farmer demand the following suggestions are made:**

- **project teams should give further thought to gender issues (access) and wealth category issues when working with farmers groups;**
- **project teams should seek ways to address farmer demand for capacity building in marketing;**
- **project teams should give further thought to developing methods to promote multiple technologies without making the process too complex; and**
- **project teams should give further thought to improving the efficiency of the promotional process.**

(Priority = Medium)

Addressing TORS 5 and 6

TOR. 5: The programme management expressed concerns about the lack of technical expertise in the project teams. Comprehensive feedback was given to the project leaders. In the opinion of the reviewers has the reviewers have the technical backstopping/ inputs been of an adequate standard?

Crop protection expertise

In eastern Kenya, the project is coordinated by Justus Kavoi, a socio-economist, at KARI-Katamani. Although there is currently no entomologist at KARI-Katamani (senior entomologist recently relocated to KARI HQ), the project coordinator has sound experience in entomology and general crop protection. In addition, there is one young pathologist and an experienced group of technicians. KARI-Katamani is hoping to recruit more crop protection expertise however there is currently a shortage of crop protection skills across KARI. In western Kenya, the project is coordinated by John Ogecha, an experienced entomologist, from KARI-Kisii. Members of the project teams have previously been involved in previous CPP sorghum insect pest and smut management projects. Unfortunately, Dr Maureen Nyang'wara, who obtained her PhD through the sorghum pests project, has been moved to KARI-Ngoro and is no longer able to be involved in R8349.

In Tanzania, one experienced crop protection specialist, Dr A Mwabaga, from Ilonga Research Station provides technical back-stopping to the project. He is supported by extension crop protection subject matter specialists in the three districts. Dr Mwabaga has been involved in previous CPP projects on sorghum Striga and smut management. In addition, Charlie Riches is available to provide technical back-stopping and oversight. Dr Mwabaga is over-committed, being involved in many projects. The review team feels that the project team in Tanzania should seek additional complementary sources of technical support for some of the CP technologies being promoted through the project, to reduce the workload on Dr Mwabaga.

In particular, the botanical technologies being promoted for maize stalk borer management appear to be based on farmer methods without technical validation. The review team learnt that information about methods and dosage is available in Tanzania and technical information is also available from other CPP supported projects e.g. vegetable IPM. In addition, there is no CP expertise available in the Central Zone for tomato and onion. Expertise sought from other research facilities in Tanzania has met with mixed response e.g. attempts to source expertise from

Horticultural Research, Tengeru (Northern Zone) failed due to lack of resources and possible inter-zonal barriers. Due to seasonal constraints, it was not possible to evaluate the quality of technical support to onion and tomato pest management.

Recommendation 18. In Kenya, the CP expertise available to the project is considered adequate for the current technologies being promoted. If additional crop protection technologies are promoted through future activities, the review team recommends a further assessment of available expertise. In Tanzania, the project team should creatively seek additional CP expertise and information for the technologies being promoted through the project from within Tanzania or through other CPP funded projects, in consultation with NRI crop protectionists (Priority = High).

TOR 6. In the opinion of the reviewers has the use of ICRISAT been of an adequate standard?

In Kenya, there has been on-going, although not continuous, contact with ICRISAT, Nairobi during the previous CPP funded sorghum pests project and in the planning workshops implemented in R8349. KARI-Katamani has a long history of collaboration with ICRISAT. Due to staff changes in ICRISAT, different staff have been involved however Eric Manyasa has provided continuity throughout. Although ICRISAT, Nairobi is currently without both a crop protection specialist and a sorghum breeder, Dr Mary Mgonja will relocate to Nairobi in July 2004 and should be linked into the project.

In Tanzania, due to lack of interest shown by ICRISAT, Zimbabwe (gave preference to running their own projects), comprehensive attempts of previous CPP Striga projects to link with ICRISAT were not successful. This did not reduce the effectiveness of these projects which facilitated the successful release of Hakika and Wahi. Due to the termination of SMIP and relocation of ICRISAT staff to other centres, there is now limited value in linking R8349 with ICRISAT, Zimbabwe. At the same time, information from ICRISAT on promotion of sorghum seed-based technologies in Southern Africa has been used by the project in Tanzania.

ICRISAT's evolving focus on cereals and legumes in semi-arid East Africa is on marketing issues. In addition, the ASARECA East and Central Africa Region Sorghum and Millet Network (ECARSAM) has recently been revived and will also develop a focus on quality and marketing of sorghum and millets. These recent developments create potential for linkage with for R8349 for uptake of outputs.

Within the constraints and funding problems faced by ICRISAT during the past six years, adequate attempts have been made to maintain linkages especially in Kenya. However with ICRISAT's evolving focus on marketing issues and the revival of ECARSAM, there is now greater potential for R8349 to strengthen linkages with ICRISAT. This is discussed in more detail under TORs 8 & 9.

Addressing TOR 7

TOR. 7: Are the reviewers happy with the contingency plans e.g. if there are adverse weather conditions will the project still be able to have an impact?

Many of the project activities carried out in Kenya during the first six months of the project have involved analysing documents, conducting surveys and consolidating lessons learnt from this process. The project teams have therefore not been sufficiently tested by adverse weather conditions or other unforeseen events during the first six months of the project. Where minor problems have arisen, alternative approaches have been successfully sought. This suggests that the teams have potential to cope with unforeseen field events – however no contingency plans are currently in place to deal with an unexpected drought which may jeopardise one season of farmer training in the field.

Some project activities carried out in Tanzania during the first six months of the project were not contingent on adverse weather conditions and have been successfully completed e.g. development of a communication strategy and tools; drafting an M&E strategy. However project teams have experienced problems in some field sites including drought in Dodoma rural district which severely affected sorghum work and floods in Kongwa District which destroyed the first tomato crop. In the case of sorghum, promotion of CP technologies will be repeated next season; in the case of tomato, a new crop has already been planted as farmers have access to irrigation. However no contingency plans are currently in place to deal with further unexpected weather conditions which may jeopardise another season of farmer training in the field.

Project teams need to think more creatively and flexibly about lesson learning exercises and capacity building which could be implemented if unpredictable environmental conditions are again experienced. It is clear that farmers in Kenya and Tanzania would benefit from training in organisation and management and marketing and business issues – training which could be implemented if field work is interrupted. In Tanzania, INADES has extensive experience in action learning training in these areas; expertise could be sought in Kenya.

Recommendation 19. Project teams need to think creatively and flexibly about contingency and value-adding lesson learning exercises and capacity building which could be implemented if field training is not possible (Priority = Medium).

Addressing TORs 8 & 9

TOR. 8: Will the project achieve developmental outcomes and if so what? If not what actions will be required to achieve developmental outcomes and who would conduct/ funds these?

It is expected that three types of development outcomes will be achieved by the project. The extent of achievement, especially of the latter two types, will depend on the lifetime of the project and the links it can forge for sustainability of approach and technology promotion.

The first developmental outcome is enhanced capacity in among stakeholders in action learning processes. It was clear from interacting with researchers, extension staff and farmers that they enjoyed and appreciated this way of working together. This suggests there will be further use of this approach in subsequent activities and projects. Currently, there do not appear to be any mechanisms to capture the level of achievement of this important outcome. As *Recommendation 12* recommends there

is a need to develop indicators to monitor stakeholder progress in lesson learning and capacity building through R8349.

The second developmental outcome is through achievement of the main project outputs. Improved user access to crop protection knowledge and products will be developmentally beneficial to the end-users; identification of cost-effective approaches for delivery of crop protection information to farmers will be beneficial to extension staff with regard to the scarce financial and labour resources available for delivery activities; the establishment of feedback mechanisms on demand for crop protection knowledge by users will be beneficial to researchers in improving the focus of their research, beneficial to extension staff in targeting technology promotion, and to farmers in giving them what they want; and finally, development of effective M&E for deriving lessons to inform policy implementation will strengthen linkages between research-extension and policy-makers for revising and improving policies for the benefit of farmers. The extent of achievement of this outcome will depend on the lifetime of the project. And as *Recommendation 13* suggests R8349 would achieve far more if it was extended for another year (up to March 2006) to a) give more time and effort into improving assessments of farmer demand and establishing sustainable promotional systems for CP technologies and to b) develop appropriate linkages for further uptake beyond the life of the project for scaling-up and developmental impact including with policy-makers.

In addition, as noted above under TOR 2, as the project OVI's are generic and non-quantified nature, even a modest level of achievement could be considered as successfully achieving the outputs. The project has achieved good progress against its objectives in the past six months as evidenced by the above analysis and will achieve more progress with more time.

***Recommendation 20.* There is an urgent need for CPP management to clarify to the project teams the extent and the type of progress (e.g. end-user satisfaction) considered as “acceptable progress” for R8349 (Priority = High).**

***Recommendation 21.* There is also a need for the project teams to decide how and to what extent they will interact with policy-makers during the lifetime of the project and define further interaction needed after the project is completed (Priority = High).**

The third developmental outcome is uptake of CP information and technologies by farmer groups directly involved in the project and additional farmers who learn from the farmers groups. The extent of achievement of this outcome will partly depend on the lifetime of the project i.e. how many farmer groups and additional farmers can be reached. Currently, there is no mechanism in the project to measure this developmental outcome. Although the review team acknowledges that uptake of CP information and technologies per se was not a major objective of R8349, in the process of successfully implementing this project, uptake of research outputs will occur and should be quantified as a developmental outcome (note: this is reinforced under TOR 13 below as *Recommendation 24*).

Greater developmental outcomes should be achieved through links with national agricultural development projects (e.g. the KAPP in Kenya and the ASSP in Tanzania); the EU KASALS Programme; ICRISAT and ECARSAM for marketing issues; and, possibly FIPS for seed-based technology promotion. These links are discussed under TOR 9.

TOR. 9: How could the activities be scaled up?

The programme development study on issues in crop protection in semi-arid East Africa highlighted a number of critical constraints to scaling-up promotion of CP technologies including: inadequate mechanisms for feedback to research agencies involved in training and dissemination activities; very limited access by these agencies to research results; and use of inappropriate methods for dissemination of crop protection information. R8349 will progress well in addressing these constraints through the development of proven mechanisms for improved access and delivery of CP knowledge and products to users; feedback on demand for CP knowledge and products; and effective M&E for deriving lessons to inform policy-makers at least among the project teams and farmers groups. The best opportunities for scaling-up will be to link into projects/activities that either are already planning to use similar learning and action research approaches and/or to convince relevant projects of the likely success of the approach. Some of these opportunities are listed below.

Kenya

Kenya Agricultural Productivity Project (KAPP)

In March 2004, the GoK presented its 'Strategy for revitalising agriculture 2004–2014' (SRA), in which radical reform proposals are presented on how to make the agricultural sector and its supporting research and extension systems more efficient in Kenya's economic development. In parallel, the GoK and the World Bank developed a new project to support the realisation of the new SRA – the 'Kenya Agricultural Productivity Project' (KAPP). The objective of the KAPP is 'to contribute to sustainable increase of Kenya's agricultural productivity and improvement of livelihoods of its rural communities through improved performance in agricultural technology supply and demand system'. Phase I will support: ongoing reforms; initiation of a participatory process of change in extension services and farmer empowerment; **pilot testing of extension methods and delivery systems**; and, adoption of improved farming systems for NRM in selected areas of high risk. Activities planned under pilot testing of extension methods and delivery systems include some of the same activities being implemented under R8349. **It is unfortunate that only one of the 20 pilot districts chosen for Phase I i.e. Homa Bay is common to R8349. Some consideration should be given by R8349 to piloting some activities in other relevant districts (West Pokot, Trans Nzoia, Busia, Butere, Kakamega, Siaya, Gucha, Nakuru, Nyandarua, Nyeri, Meru Central, Embu, Makueni, Taita Taveta, Tana River, Kwale, Kilifi, Garissa and Wajir), especially if R8349 is given a year's extension as this would greatly facilitate links with the KAPP.** In addition, the R8349 Kenya project teams should organise a seminar on the activities of and progress made by the project to be presented to the KAPP Secretariat and other influential KARI staff to generate awareness about the approaches used as models for the KAPP.

EU Kenya Arid and Semi-arid Lands Programme

A key linkage could be made with the EU Kenya Arid and Semi-arid Lands (KASALS) Programme (the next phase of the ARSP II) which will be initiated in June 2005. This project will work through KARI-Katamani in Machakos district and use participatory learning and action research methodology. It will have a strong focus on improving the productivity of crop-livestock systems through promotion of integrated packages (including crop protection technologies), improved dissemination methods and

innovations, addressing marketing constraints, and institutional change management. It plans to forge close links with the KAPP.

ICRISAT

During more than 20 yrs of working with sorghum and millet in eastern and Southern Africa, ICRISAT realises that unless producers are linked to markets and processors that these cereals will gradually disappear except in very marginal areas where no other cereal can be grown. Through a USAID funded project, with CRS it is developing model producer marketing groups (PMGs) for a range of crops, with business training provided by Technoserve. This project is being carried out in Kenya, Tanzania and Uganda. The incentives to the PMG's are premium prices paid for quality product. ICRISAT admitted that although it is aware of sorghum being used in various processed products in Kenya, it has no information on the extent of use or demand in East Africa. An untapped market may be exported animal feed to Europe. ICRISAT will be seeking additional funding to expand this approach and this could provide a link for R8349 to incorporate marketing issues in a project extension to March 2006.

ECARSAM

The eastern and Central African Region Sorghum and Millet Network under ASARECA has been revitalised with EU funding for the next four years (until 2008). Among its priority activities, ECARSAM will make a comprehensive analysis of the sorghum and millets value chain. In addition, enhancing processing and utilisation for commercialisation of sorghum and millets and improved marketing for commercialisation are given priority among its overall objectives. ECARSAM will issue a call for projects in August 2004. The R8349 project teams might be able to access add-on funds for marketing studies from ECARSAM.

FIPS

Through FIPS projects including the CPP project R8219 'Improved access to farm inputs for maize farmers in Kenya', Paul Seward is successfully using innovative methods for scaling-up crop protection technologies including mini-packs of fertiliser, seed and herbicide; FFS for agri-dealers and agri-stockists; development of a dealers/stockists network; locating information packs at dealers; and using markets (with posters and megaphones) as a means of enhancing awareness of CP knowledge and technologies. **The review team feels that all of these methods are highly relevant to activities being carried out under R8349 and opportunities should be sought to incorporate some of them.**

Tanzania

'Agricultural Support Services Project' (ASSP)

In the past few years, implementation of the agricultural research strategy in Tanzania was largely financed through TARP II with the objectives to support the generation of technology to improve efficiency and productivity of crop and livestock production systems, with a particular focus on the smallholder sector and on the sustainable use of natural resources. Important emphases in the project were the decentralisation of decision making to local levels and the direct involvement of farmers and other clients in setting and implementing the research agenda.. Two

important components of the TARP II supported strategy were the testing of an improved research management system (The Client-Oriented Research Management Approach – CORMA) and the introduction of Zonal Agricultural Research Funds (ZARFs).

During the implementation of TARP II, the Government of Tanzania developed the Agricultural Sector Development Strategy (ASDS) to guide the planning and direct investment to the agricultural sector as a whole. The ASDS is implemented through the Agricultural Sector Development Programme (ASDP) and ASDP formulation is guided by a set of Task Forces and technical Working Groups. Agricultural research aspects fall under ASDP Task Force No. 3, which deals with agricultural services, including extension, information and communication, training, technical services and farmer empowerment. This has been developed into the Agricultural Support Services Project, funded by the World Bank and IFAD, which will be initiated in early 2005. Dr George Sempeho, Project Manager, TARP II, was the key architect of the ASSP.

Under the ASSP, researchers will participate directly in development and work in partnership with clients to create substantial change within the agricultural sector through improved reliability, sustainability and consistency of performance. Funding for research will be linked to the quality of outputs. There is explicit encouragement for strong development links and farmer orientation in all research activities and emphasis on marketing, post-harvest operations, farming systems approaches, agribusiness, encouraging the private sector, and building the farmers voice into the research process. Funds for projects will be located in the zones. The ZRELO will play a key role in developing a client-orientated competitive funding facility. Project teams should be aware that IFAD, one of the main donors supporting the ASSP, is sceptical of whether this approach will work as well as the World Bank (the other main donor) envisages and factor this into their perceptions of the ASSP as an uptake pathway.

It is likely that the learning and action research approaches developed under R8349 in Tanzania will be very relevant to operational mechanisms of the ASSP and it is strongly recommended that the project team in Tanzania contacts Dr George Sempeho and make him aware of the project activities.

It is expected that R8349 could use these projects/initiatives as uptake pathways and the respective project funds would support the process however CPP may wish to buy into the process as well.

Recommendation 22. The review team recommends that as a matter of urgency, project teams in Kenya forge links with the KAPP (Dr S G Muigai, Coordinator, KAPP Secretariat); EU KASALS Programme (Dr Helga Recke); ICRISAT (Dr Richard Jones) and ECARSAM (Dr Aberra Debelo) and the project team in Tanzania forges links with the ASSP (Dr George Sempeho, Project Manager, TARP II) as the best opportunities for scaling-up research outputs for greater developmental impact. It is also recommended that the project leadership and project coordinators in all locations should become more familiar with the CP technology delivery methods used by FIPS and seek opportunities to incorporate these into R8349 (Priority = High).

Addressing TOR 10

TOR 10. How has the project linked with in-country DFID desks, poverty reduction strategy papers, country action plans, sub-regional networks?

In Kenya, the project leader has maintained contact with DFID Kenya -Rachel Lambert – who has expressed interest in the approach and encouraged the project team to forge links with the KAPP to influence the reform process of agricultural research and extension policies in Kenya. DFID has recently completed a policy and institutional framework for agricultural policy reform in Kenya that hopefully will become a project in late 2004. There may be opportunities for R8349 to link with this project with regard to enhancing GoK capacity to formulate and implement agricultural policy. The Kenya Poverty Reduction Strategy paper was used by Justus Kavoi as a source document for the programme development study and his MSc thesis. Semi-arid regions are given high priority in the poverty reduction strategy paper. Links with the KAPP and ECARSAM are discussed under TORs 9.

In Tanzania, discussions were held with DFID Tanzania – Liz Ditchburn – who showed interest and provided documentation on the ASDP. DFID Tanzania will appoint a Growth Policy Adviser in July 2004 who may be the best DFID contact as there is currently no-one in DFID Tanzania who deals with agriculture per se. The Tanzania Poverty Reduction Strategy paper was used as a base document for the programme development review. Links with the ASSP are discussed under TOR 9. Future links with SADC networks should be explored.

Addressing TORS 11 and 12

TOR 11: Is the project making sufficient use of the staff and resources at its disposal? How is the project coping on the IT front (e.g. availability of computers).

TOR 12: Are the project funds being allocated in an appropriate manner? Would you recommend any re-allocation of funds?

In both Kenya and Tanzania, the project coordinators indicated that the funds allocated were sufficient to implement the agreed work programme but Tanzania noted that more farmers could be reached through communication tools e.g. leaflets (which are very much in demand) if more funds were available to produce them. W Kenya has need for a new laser printer as the old one is below capacity and is hindering the delivery of CP information.

The project leader noted that insufficient funds were available to involve some more costly potential collaborators e.g. CRS and ICRISAT. This led to the decision to give priority to 'lesson learning' with selected national stakeholders which will build sustainability beyond the life of the project.

The review team judges from the information available and interactions made that the project is making good use of the staff and resources at its disposal. With one exception (laser printer for W Kenya), it is coping on the IT front.

Recommendation 23. Although we would not recommend any major re-allocation of funds in the existing contract, we suggest that: a) project teams in Kenya carefully assess how they can best use the funds ear-

marked for communication tools and consult with the team in Tanzania about lessons learnt to date; and b) funding is identified to facilitate the project team in Tanzania (including NRI members) to interact periodically with farmer groups in the field (Priority = High).

Feedback on lesson learning and future priorities

As part of the review process, the E and W Kenya project teams and the Tanzanian team were asked for feedback on two questions:

1. What are the key lessons you have learnt to date from the project?
2. If the project was extended for another year, what are the most important activities you would like to do?

Responses were obtained on both questions at team level for Kenya and individually for Tanzania. These are listed in Tables 4a and b.

Key lessons learnt to date from the project

The team from E Kenya emphasised the value of enhancing collaboration and partnership and knowledge flows. The team from W Kenya emphasised the value of multi-disciplinary team work and the importance of strengthening linkages. Responding as individuals, team members from Tanzania highlighted the value of multi-disciplinary teamwork and the useful impact of this on farmer learning processes. This feedback should be of use to project teams in refining future activities.

Priority activities in a potential project extension

The team from E Kenya would like to give priority to fully completing current project activities. The team from W Kenya would like to give priority to additional activities to complement and add value to existing project activities. Team members from Tanzania gave priority to completing and expanding current project activities as well as implementing additional complementary activities. All of these suggestions were considered worthy of further discussion if the project is extended for another year.

The Communication Strategy

TOR 13: What are the remaining challenges to achieving uptake of research outputs?

Many of the concerns outlined in response to TOR 8 on the ability of the project to achieve developmental outcomes and TOR 10 on how the project activities could be scaled up are also applicable to this question.

There is already some evidence of uptake of research outputs in all sites despite the problems caused by a delay in receiving funding and other problems such as natural hazards in some sites such as drought and flooding. However, outstanding questions remain as to both *how much/what sort of* actual uptake is expected to be achieved by the end of the project, as well as *how to* measure it.

Recommendation 24: There is an urgent need for programme management in consultation with project leadership to clarify unanswered questions about the nature of *how much* and *what sort of uptake* of research outputs is expected by the end of the project as this is likely to be one of the yardsticks against which the project will be evaluated (Priority = High).

Baseline information was collected in both Kenya and Tanzania prior to the start of the project so answers to these questions are possible, but further work is needed in the development of the project M&E systems to establish acceptable indicators of achievement for both project and programme management.

This will not be an easy task as there is very little available information on tools for assessing the impact of research communications for maximum uptake. Typical indicators in general use look at different elements of change including the demand for research findings (e.g. requests for copies of reports, translation of video/information leaflets etc), tracking 'knock-on' activities (e.g. influencing a donor to adopt new procedures) or seeking evidence of policy change.

Although these are all useful, they fall some way short of an overall 'evaluation toolkit' that would enable researchers to look for the different elements of change (institutional, behavioural, capacity etc) to show developmental impact within the relatively short research timeframes. The M&E specialists within the project will need to give some further thought to development of non-technical indicators for measuring the effectiveness of uptake pathways and may find the IDRC/Rockefeller current collaboration on developing strategic methods of evaluating communication (Communication for Social Change Working Paper Series) of interest.

Another key area which will need clarification in order to assess uptake of research outputs is *which* outputs? There are differing perspectives on this by programme management and project leaders. Project leaders view this as an action-research project with a primary emphasis on lesson learning for promotion of crop protection information in semi-arid areas of East Africa at a generic level. Whilst some technologies arising from DFID Crop Protection Programme (CPP) research may be promoted during this process, promising technologies from elsewhere may also be promoted according to farmer demand.

The Kenyan and Tanzanian project leaders have also adopted very different approaches to communication activities. It is too early to tell how this may affect likelihood of eventual uptake of research outputs. At this stage, all approaches adopted seem to be showing some evidence of impact but this will need to be reviewed once quantification of effectiveness of different communication pathways has been attempted in forthcoming stages of the project. Most of the stakeholders within both Kenya and Tanzania have experience of traditional channels for achieving uptake of research outputs, but experience varies with use of 'new' communication channels. The introduction of the RELOs- Research and Extension Liaison Officers in Kenya (or ZRELOs – Zonal Research and Extension Liaison Officers in Tanzania) is looking like an exciting innovation to tackle many of the traditional barriers to achieving uptake within the research-extension system, but in Kenya in particular, further exposure is needed to the potential of research uptake as facilitated through the private sector or the mass media. In Tanzania, training and exposure to more innovative forms of communication pathways is quite advanced, but more analysis is needed of approaches adopted.

More generically, the strength of an action-learning approach has meant that many of the challenges to achieving uptake are well recognised. In many cases, steps have already been put in place wherever possible to overcome these barriers to uptake, but inevitably there are additional areas that need more thought. Detailed examples of both of these have been covered within responses to TORs 15, 16 and 19. In both Kenya and Tanzania, the current state of flux within the external enabling environment for agricultural research uptake and policy development is proving challenging for project staff to keep abreast of, but there are also many opportunities for a flexible action-learning project to influence the policy and research environment within with they are working.

One very obvious example of a barrier to maximum uptake and impact which could easily be overcome is the current lack of opportunity to exchange information and experiences between the Kenyan and Tanzanian project sites. Indeed, the workshop the reviewers attended as part of this review was also the first opportunity for staff from eastern and western Kenya to exchange lessons learned so far and all agreed it was an extremely useful exercise. The review team feel that a supplementary workshop to exchange experiences, ideas and differences in approach would be beneficial to both countries and would be likely to widen thinking, thereby facilitating uptake of research outputs (see *Recommendation 14.*).

TOR 14: Are the stakeholders aware of the promotional challenges?

Once again, there are differences in approach between the project in Tanzania and in Kenya with the former emphasising systems for communication and the latter emphasising avenues for promoting research outputs.

Responses to TORs 2, 3 and 4 give detailed feedback from project staff and the reviewers on the project's progress to date in delivery of outputs which include methods to improve access to CP information and pilot effective dissemination pathways for CP research products. As such, the stakeholders seem acutely aware of promotional challenges within the semi-arid East African environment.

In **eastern Kenya**, it was recognised that farmers seek information from multiple promotional sources (extension agents, barazas, neighbours, agro-chemical companies, mass media etc), but that there was no written information on which of these sources was most effective. As such, in April 2004, postal survey questionnaires were sent to all district extension officers in 46 divisions and analysis will be undertaken shortly by an MSc student. Sustainability concerns were also recognised as leaflets were often seen to 'vanish into the community' with no evidence of uptake, and respondents were specifically asked to comment on whether they would be willing to pay for information, and if so, for what types. Farmers were also asked directly which were their most important existing sources of CP information and what new sources of information they would find useful. A follow-up exercise on why/if farmers are not accessing information will take place over the next 6 months. Greater use could also be made of the Katumani Seed Unit to distribute leaflets with seed packets.

In **western Kenya**, questionnaires were also sent out to stakeholders before the February 2004 workshop, but these have already been analysed and run through a SPSS system. An important finding was that the main sources of CP information varies among different groups with Ministry of Agriculture extension staff finding leaflets, meetings and workshops the main source compared to NGOs, CBOs and farmers claiming extension service providers and researchers to be their main source

of information. Field days, barazas and demonstration days were also identified as important by all.

Barriers to effective promotion of information included delays in response on the side of researchers; need for regular updating of training of extension officers; and lack of resources especially for national extension service provision, with transport, lack of training materials and limited staff as particular limitations. As a result, an inventory and catalogue of available crop protection research information has been produced by KARI-Kisii and a manual for trainers on three technologies (improved stover management to reduce stemborer carryover; sustainable control of covered kernal smut and food grain and seed storage with emphasis on the Larger Grain Borer) has been developed as reference material and placed in libraries, KARI HQ and district agricultural offices.

Other barriers included those of access including general lack of suitable materials in quantity and quality to answer the demands of stakeholders and especially, a lack of materials available in local languages (not necessarily Kiswahili). As a result, whilst Rural Agricultural Information Centres have been established to act as a local depository of research information in user friendly format /local languages, farmer-run library services have also been started on an experimental basis with farmers charging a small fee of 1 shilling per visit, as well as offering photocopying services.

Interestingly, despite concerns often cited that women do not often have the time to attend Farmer Field Schools, in western Kenya 80% of attendees were female. The team were also considering the potential of reaching women in particular through passing on information through inviting parents to attend primary school plays. An inter-school competition with plays acted in the vernacular has therefore been scheduled for June 2004.

When both eastern and western teams were asked at the workshop by the reviewers about the potential of non face-to-face forms of communication, feedback indicated that TV was an unlikely promotional source due to lack of electricity and little information was to be found in newspapers. When asked by the reviewers about the potential of radio, participants stated that whilst many farmers listen to the news, they tend to switch off after that. They do not necessarily listen to agricultural programmes with young people keener to listen to the new FM music stations as oppose to KBC (on which agricultural programmes are traditionally broadcast) and women keen on the specialist religious stations. An additional problem was the lack of broadcasting in local languages and the fact that programmes broadcast nationally on KBC were often in Kiswahili which many farmers did not speak well enough to enjoy listening. The team also mentioned the issues of lack of funds to buy batteries for radio at certain times of the year, the fact that most radios belonged to men meaning this promotional source biased against women and that radio broadcasting was expensive and therefore unsustainable.

This issue needs further exploration as it often contradicted feedback from other sources interviewed. The Mediae Trust for example, stated that their soap opera 'Tembea Na Majira' has a vast and growing, mainly female, rural listenership and that KBC broadcasts in several languages including in Homa Bay, one of the project sites in western Kenya. They also disputed the lack of access by women to radios, stating that in their research, women often named radio as a preferred source of information. With respect to costs, whilst radio production was undeniably expensive, its potential reach was far greater and that with private sector sponsorship, these costs could be substantially offset.

In **Tanzania**, challenges for promotion were of a different nature. The Ministry extension service has been reduced and decentralised, with the role of NGOs/CBOs becoming increasingly important (and private sector in some places). The Zonal Research Extension Liaison Officer (ZRELO) is the focus for development of communications strategies with the responsibility of organising researcher information into a user-friendly format and feeding back from the field. However, the ZRELOs have only a small budget, so relatively few materials have been disseminated and they are often short of capital equipment to enhance promotion. Radio journalists often come with ZRELOS to the field, but they expect payment from the ZRELOs budget.

Other barriers to effective promotion identified included a historical lack of record-keeping/documentation skills and a weak level of feedback from farmers to service providers. The Tanzanian team had used a wide variety of promotional tools including radio which they found to be very effective. Whilst there were many radio stations and a similar rise in the prominence of FM stations to Kenya, these were predominantly urban and Radio Tanzania was the most effective station throughout the country in reaching rural audiences. It has to be acknowledged however that as Swahili is the predominant language throughout the whole of the country, radio communication is a more straight-forward promotional pathway than in Kenya. The team also stated that whilst the majority of farmers were still not willing to pay for information (especially leaflets), private sector service providers were increasing and in certain circumstances e.g. onions as a valuable crop, they were more willing to consider payment.

TOR 15: Assess the likelihood that the communication strategy will lead to successful uptake and adoption/adaptation of research outputs.

The reviewers found this question a little confusing as there is no official 'communication strategy' for the project as such. Individual communication strategies vary from country to country and site to site so need to be assessed in turn.

At the original workshop in **eastern Kenya**, participants decided to test 4 methods of disseminating CP research to farmers: Farmer Field Schools (FFS), On-farm Demonstrations, Local Schools and Para-Extension Workers (farmers). The reviewers were able to visit an example of a Farmer Field School and a para-extension Worker to try and draw a preliminary indication of the likelihood of effective uptake and adoption of research outputs through farmer feedback (see Table 2). With respect to Farmer Field Schools, a decision was made to use existing FFS for promotion of CP technologies. This FFS 2004 intake included 40 farmers who had initially registered but a few had since dropped out and the members had stabilised at 26 (21 female, 5 male). 23 members were present at the meeting on the day the reviewers attended. Participants represented about 20 households within the area. Farmers had been trained on three CP technologies which had been selected by the trainer:

- a) improved stover management to reduce stemborer in maize and sorghum
- b) covered kernel smut and how to control
- c) improved food grain/seed storage practices

Feedback from some of the farmers present indicated that:

Muke Kivundoko had "been at the FFS 6 months – originally we did not understand each other as we came from different places. But now we have similar objectives and can use our own knowledge and ideas to help one another, in addition to the

facilitator. Learning is seasonal- it goes with the calendar and I am keen to learn more/expand my knowledge.”

Musya Nzoka stated that “Non-members wanted to know what had been happening. There had been other learning fora and they thought it would be more of the same but they have now realised this approach is different and so some are enquiring if there will be another school for new members.”

Naomi Maketa stated that “during the publicity, a good number of the community were not taking it seriously- now several people have approached me and asked how much it costs to be a member”

Munanye Kithunga felt that “one season not enough and she needed more time to learn and evaluate the technologies.”

When asked what topics they would like to see at future FFS, responses included “poultry, livestock keeping, growing/grafting of fruit trees, health, education and termites.” The trainer, Mr Stanley Musyoka Muniyithya also produced a list of communication sources most commonly used by the FFS members. These were as follows:

0 (M/F): Radio
1 (M) 2(F): Posters
0 (M/F): Newspapers/Magazines
0 (M/F): Schools through children
2 (M) 10(F): Other farmers/friends/neighbours
0 (M/F): Para-extensionists
3 (M) 3(F) Traders of chemicals/Agrovets

Experience from eastern Kenya FFS indicate that graduates do tend to stay together post-school and continue to do trials themselves at a lower level, accessing technical back-up from extension agents where required. A question remains however as to the sustainability of further FFS started by graduates when confronted by lack of funding.

The para-extension worker visited was Ms Joyce Mwendwa (see Table 2). She is a farmer who has been trained by KARI to train others and has received training on spraying chemicals, maize and sorghum stemborer, smut, LGB and seed problems (selection and dressing). There were no formal extension workers in her village although she stated that she could get help from other extension workers if she didn't know the answers to questions raised by her trainees. She trains up to 30 farmers at a time for 4 days, usually between 10 a.m. and 4.00 p.m. and often calling barazas to pass on information to a group.

She receives no payment for her services but stated that she enjoyed doing this service to the community and to God. As her father didn't send the girls in the family to school, she took any opportunity given to her to learn. A small sample of the farmers she had trained were present and they indicated that they were happy to pay for her travel expenses associated with updating her training although did not feel they could afford to pay for her services directly. When questioned about the use of radio in the village, most of the women present said they did not tend to listen to radio as it was often not broadcast in local languages and so they therefore found it hard to understand. A male villager said he had listened, had learnt a lot and was changing his farming practices

Whilst Joyce's motivation and drive was unquestionable, potential problems of sustainability do exist. The most notable of these was identified by Joyce herself who indicated that if she travels elsewhere to train farmers, she needs to pay people 100 shillings a day to look after her livestock. Furthermore, Joyce was in a somewhat unusual situation as she was a de-facto head of household as her husband was a migrant worker in the city. This meant that she currently had a lot of freedom to undertake such activities, but this may change if her husband returns to the village.

In **western Kenya**, project staff decided to focus on three pathways – a) FFS b) a Focal Area approach c) Farmer to Farmer spread of learning. Due to the fact that the reviewers were not able to visit sites in western Kenya, our ability to monitor uptake and adoption first-hand was obviously limited. However, project staff from western Kenya reported that with the FFS there were differences between schools in different districts and an important lesson learned so far was that if adult literacy classes were incorporated into FFS, then uptake was much quicker.

With the focal area approach – all activities were taking place in one district, based on initial PRAs carried out and a Community Action Plan which had subsequently been developed. The district uses a new focal area and an old one for purposes of comparison and uses 16 farmers in each area (8 M/F) of which 8 are looking at tomato CP information and 8 at sorghum (total 32 farmers). A major barrier to uptake encountered here was that most field staff had low educational level so interpretation of information was sometimes difficult. Average time comparisons for each approach were 22 days per district for the focal area approach and 80 days per district for the FFS approach, although direct comparison is difficult as the numbers of farmers trained also varied.

The farmer-to-farmer approach had been undertaken in conjunction with the NGO C-MAD, who were conducting food security activities within the district. 2 awareness workshops were conducted and farmers subsequently set up demo plots- 6 farmers with sorghum, 6 with tomatoes, making a total of 24 farmers over 2 sites (12 male/12 female). This joint approach sharing vehicles and resources etc was felt to add substantial value, not least because farmers seem to be impressed by the multi-disciplinary nature of the team. 60 farmers have been trained so far through ToT approaches and the project team is monitoring the evidence of spread of further training. Preliminary indications seem to be that the trickle-down approach is working quite well.

In **Tanzania**, there has been an emphasis on working with groups not individuals. Farmer groups select their own representatives to attend workshops etc, with the proviso that there must be a gender balance. The communication strategy adopted by the Tanzanian project has been to utilise a number of different uptake pathways under the co-ordination of the ZRELO. The ZRELO system has now been established in all districts in Tanzania to collect information from research, translate it into language easily understood by farmers and distribute it to district councils and farmers, as well to as collect feedback from farmers and convey back to researchers. However, this is not yet a well established network and there have been teething problems, particularly in accessing feedback from farmers and gaining insights from other districts.

Radio is a very popular communication channel in many Tanzanian villages. Indeed, the Central zone ZRELO indicated that in the past, he had received angry letters from farmers when broadcasting had been halted due to lack of funds. The Central zone ZRELO has produced 44 radio programmes to date with 18 programmes being aired through Radio Tanzania- Central Zone Dodoma (little competition from FM stations as yet). These are 15 minute programmes which fit into an 'Agricultural Hour'

slot broadcast at 16.45, just before the news on Saturdays and repeated on Sundays. Broadcasting covers Dodoma, Singida and other nearby regions. The current programme started on 13 March 2004 and will end on 27 July. Issues broadcast so far include onion pests control, tomato pests control, tomato diseases control, maize stalk borer control, sorghum smut control, precaution/safety application of agrochemicals, seed production/promotion and larger grain borer control. The project is paying both production and airtime costs and whilst District Councils have promised to contribute to the costs of radio and other promotional materials but this has not yet materialised. No attempt has been made to seek private sector sponsorship.

Access to TV is growing at a rapid rate in Tanzania, even in rural areas. The main channel is ITV. The Ministry of Agriculture has mobile media vans and videoshows and TV are stated as a major draw, with people travelling into town especially to watch the programmes. The ZRELO has a camcorder and the project has been filming information and materials for production of videos on onion pests and diseases, safety and application of pesticides; control of maize stalkborer; performance of Wahi variety (sorghum) tolerant to striga; and training on tomato production. Videos on maize and onion have been produced already and the rest will be ready shortly. It is intended to use these for training next season. INADES also make videos themselves to document their experiences of working with farmers but they hire the services of private communications specialists. Publicity from the project 's stalkborers workshop has resulted in two mentions on national TV news bulletins and has created nation-wide awareness of crop protection promotion in Central Zone region.

The ZRELO also has access to a huge database of photographs taken over the course of the project and it is intended that these be used in publications such as leaflets, agricultural magazine and extension newsletters, posters etc as well as reference materials. In the near future, it is intended to hold a participatory planning meeting to decide on posters to be produced; to receive feedback on effectiveness of communications channels used so far and to discuss production of more copies of leaflets on LGB and striga control in sorghum (in response to farmer request).

Seventeen thousand leaflets have been distributed to districts, research centres, regional commissioners and to CABI Kenya in response to a request. These include leaflets on onion pests (1400), onion diseases (1400), tomato pests (1400), tomato diseases (1400), LGB (5400), chemicals application (1400), smut (1400), striga (1400), maize stalk borer (1400), and seed multiplication (1400)

The reviewers were able to visit several project sites and elicit feedback as to the likelihood of successful uptake and adoption of research outputs through several farmers.

In Merya village in Singida district, there are 5 groups of 6 farmers each making a total of 30 farmers (only 4 women, but more men are onion farmers) (see Table 2). They have chosen to focus on CP technologies for onion production, but 2 other villages in Singida district are looking at storage pests targeted at LGB. Within the district, the project has facilitated district staff to teach in villages, utilised demonstration plots, distributed leaflets to farmers, undertaken video and radio recording, introduced village noticeboards and visitors books, facilitated farmers to go to stakeholder workshops and farmer field days in villages. The District council has bought into the project by providing extension staff time, transport and leaflets and has made provisions within future budgets for additional radio programmes, video shooting and leaflet distribution and preparation. A good bond seems to have

developed between District council staff, researchers, Central zone office and INADES Formation which bodes well for sustainability.

Farmer feedback indicated that leaflets on controlling pests and diseases and information on safe handling of chemicals had been particularly beneficial, although more leaflets were needed. They recognised the difficulties the extension officers faced with lack of materials, particularly when individuals not yet in the groups had requested information to help them decide about joining.

They also recognised the value of working in a group approach as opposed to as individual farmers stating that “when in a group, we unite our efforts so are able to transport crops further and when united together, we can also defeat middlemen who try to cheat us. Non participants are also learning from us – how to apply chemicals/manage onions and we discuss information between groups with everyone free to exchange ideas”.

They also stated the need for still more two-way information trafficking, saying communications experts needed to visit the field more as one individual was not capable of receiving all the information this way and being in the field enabled experts to see the problems they were experiencing with their own eyes and give practical solutions right from the field.

Feedback on the effectiveness of radio communications indicated that as the programme was broadcast at 16.45, most women were at work and it may be best to broadcast at 20.00 p.m. when everyone is finished work, immediately after the news. One farmer felt that 15 minutes was too short and a longer programme was needed.

The content of the radio programmes was viewed as fine although further CP information was requested. Other information requested for radio programmes was for weather forecasting information; storage problems with LGB in maize; stunted growth, viral problems and marketing in sunflowers; oxen dying from pneumonia so information on animal health; cheating stockists/unadulterated chemicals; market surveillance and market prices; information on sorghum, finger millet, pearl millet and maize; information and technologies on striga (available but not in this village); tick-borne diseases in livestock; cassava pests and okra; the potential for irrigated agriculture to extend the onion growing season. It was also requested that the information contained within groups should also be sent to primary schools as children will help educate parents who have no radio or are illiterate.

In Mkota village in Kongwa District, the project is comparing technologies for maize stalkborer control (see Table 2). There are 25 FFS in the district, originally established by FAO and people come from other districts to learn from the Kongwa groups. The farmer group the reviewers visited in Mkota were called ‘Wana wa Nuru’. This group started as a religious group in 1997 and evolved into a FFS in June 2002. It has 29 members (17 women). The FFS have 5 joint plots: plot 1- botanical control of stalkborers, plot 2- neem, plot 3- ashes, plot 4- Duzone (insecticide), plot 5 – control. There was some evidence of farmers applying knowledge learnt on their own farms as well.

The group commented that fellow farmers have been asking what they are doing and about 56 so far have come to visit the group plots (mostly women) A central meeting room in the village provided a repository for information on the room walls. They felt that most of their CP knowledge had been gained from their ancestors, they rarely used radio,newspapers etc and got the majority of their remaining information through the extension system. At least half of the men and women claimed to own

radios (even mix) but state they did not listen to programmes either because their radio was defective (2 cases) or the timing of the programme was problematic (ok on Saturdays but in Sundays group is at church). As such, they felt the programme should be both repeated and aired at different times, although days should remain as Saturdays and Sundays as these were the only days where broadcasting was not likely to be spontaneously interrupted by parliamentary session broadcasts.

With respect to village and district government buy-in, the project co-ordinator was still trying to get money from the district council to carry out some activities outlined in the annual plan. This remained a serious challenge but this has been fought for in Singida rural district and has now been included. The village government have provided the land for communal plots and stated that they encouraged other farmers to join similar groups and copy the experimentation.

Discussions followed with project staff on how to maximise influence of Government policy-makers. Getting them to buy into leaflet production was seen as a key indicator of uptake and it was suggested that DEDs should be invited regularly to the field to encourage interest and participation. Production of a ZRELO calendar and simple newsletter possible was suggested as a possible promotional channel and could even be sold for a nominal fee to cover production costs. Participation of project groups from all sites at the annual 8 August 'Nane Nane' (National Farmers Days) was also viewed as an exciting possibility but would take substantial additional planning and finance.

In Dodoma District, 6 villages are participating, looking at striga in 3 villages and seed multiplication/promotion in the other 3 villages (sorghum) (see Table 2). There is one farmer group for each village (10–15 farmers) comprising a church group, a drama group and 4 farming groups. Dodoma is not working with individual farmers. Training for the groups takes place at individual farms (in future, want all groups to work on one area and are in the process of negotiating a block from the village council). Farmers had originally wanted to work on horticultural crops but were dissuaded otherwise as this district is often affected by drought and it was felt more important to work on maize because of issues of food security. Indeed, severe drought has occurred this season and farmers wanted an additional season to test the technologies properly.

Over 632 leaflets for striga, 632 for smut, 500 for seed production, and 500 for LGB have been distributed already and there are no more materials available. Feedback from project staff indicates that more radio programmes, video shows, and posters have been requested and the drama group in particular is very keen on the idea of presenting a play to the village, which is then videoed and sent to other villages.

The issue of monitoring and evaluation (M&E) is a major one in order to be able to measure any eventual uptake or adoption for the project in both Kenya and Tanzania. As previously stated, this is compounded by the fact that very little information is available on best tools for comparing the effectiveness of different communication pathways for maximum uptake (including issues of cost-effectiveness). As both Kenya and Tanzania conducted baseline surveys before the project started, the simplest method may be to conduct another baseline survey upon project completion but this would somewhat defeat the object of an action-research project. In Kenya, project staff are still grappling with the issues involved in establishing a suitable M&E system for the project. In Tanzania, an M&E plan for all three sites has been implemented from the start including participatory M&E (PM&E) systems with each group, primary school, village committee etc being given a notebook, a pen, a radio programme flier, a noticeboard and 500 pins to display

documentation. As a result, group record-keeping across all the sites in Tanzania is very impressive. The zonal information officer/M&E expert then collates this information at his office. In Tanzania, greater thought needs to be given to measuring the impact (including the cost-effectiveness) of different communication pathways and as this is a particularly challenging area, it would be very useful to exchange experiences and implementation problems across both country projects (see *Recommendation 11.*).

TOR 16: The programme management were originally concerned about the lack of a core communication specialist. Do the review team feel that this should continue to be a concern?

When originally considering this idea, the project leaders recognised the fact that there were many different sorts of communication specialists (communications for empowerment; technical communications, communications analysts etc) and consequently found it difficult to imagine one person would have all of the requisite skills likely to be required by the project. They may well have a point and a core communications specialist may not be necessary, but the project could still benefit greatly from bringing on board specialist communications expertise at periodic phases. It is likely that participation of communications specialists in the earlier workshops of the project may have helped to inject both additional elements of innovation into the design of the project particularly in Kenya, as well as to give greater guidance to non-communications specialists in both countries on likely limitations and possible implications of adopting certain approaches. For example, problems of inappropriate timing for airing of radio programmes in Tanzania may well have been avoided.

Recommendation 25. At this stage in the project, it would be a good idea for project teams from both Kenya and Tanzania to develop better links and exchange of information with other communications projects and initiatives in East Africa (Priority = High).

Ideas for possible links and contacts are given in response to TOR 19.

TOR 17: How has the communication strategy improved on approaches used by a) CPP projects b) other semi-arid initiatives in the past?

To a certain extent, this is a pioneering project and the question is therefore rhetorical. Whilst all previous CPP projects in the semi-arid areas have had a promotional component, this project aims to look at research outputs in terms of a basket of technologies, both technical and promotional that are demand-led.

This project has built upon the experiences of Alistair Sutherland on the sorghum pests project in Kenya; on those of Charlie Riches on Striga in Tanzania; and on sorghum smut management in Kenya and Tanzania. Some project staff and stakeholders are common to the previous three projects. In Kenya, researchers are still leading the project and it is viewed largely as a continuation of research impact. It was necessary to overcome initial tension between researchers and extension agents on respective roles for uptake and this has been largely achieved. In Tanzania, whilst research scientists are still being used, their role has changed to technical backstopping from the Striga project and an NGO- INADES is leading promotion and co-ordination. Of the 3 pilot areas in Tanzania, one of these is the original area for the previous striga work and extension agents are largely the same.

Furthermore, districts will now be the central point for decision-making so researchers are now the suppliers.

This, coupled with the fact that this project is an 'action-research' or 'learning by doing' project also enhances the chances of building upon lessons learned from previous work in the semi-arid in order to maximise chances of sustainability. However,

***Recommendation 26.* Greater attention needs to be given to the utilisation of knowledge and experiences that the UK-based project leaders have gained from their position as CPP programme advisors. The project may well benefit from incorporation of knowledge from other CPP projects with substantial innovative communication or promotional content (e.g. Tanzania beans, Uganda semi-arid promotional project, Kenya Private Sector Service providers and Farm Inputs Promotion Services projects) (Priority = High).**

***Recommendation 27.* It is recommended that CPP management provide project summaries of all relevant projects to project leaders to act as refreshers and to share with project staff for identification of potential complementarities (Priority = Medium).**

TOR 18: Can the communication strategy be further strengthened?

The greatest potential to strengthen the communications strategies of the projects in Tanzania and in Kenya is to take the opportunity to learn from other communications projects or initiatives within the region and elsewhere, as well as to use the communications experiences and lessons learned to strengthen the policy influence of the project. Markets were seen as a vital issue in all sites and there is a need to link the communication of CP information with that of marketing. Whilst communications is recognised as an important issue in Tanzania, in Kenya the review team still felt that there was some reluctance to engage in thought on mass media-based forms of communication. Recommendations from the M Blackie review of the semi-arid promotional project in Uganda should also be shared with project staff.

***Recommendation 28.* There is potential to greatly strengthen the communications strategies within R8349 by incorporating experiences from other communications projects within East Africa. and advice from communications professionals. Greater efforts should be made to forge such links and exchange experiences (Priority = High).**

The draft DFID Research Strategy Communications theme identifies 4 key gaps in the flow of development research information: between the international research community and international policy-makers and practitioners (gap 1); between the international level and national level (gap 2); between national level researchers and national level policymakers and practitioners (gap 3); and between the above and end users (gap 4). Objective 2 for gap two and three is to encourage greater involvement of Southern researchers, institutes and think-tanks in development thinking and objective two in gap 4 states the need for DFID to help identify national processes which could strengthen research effectiveness, particularly incorporating experiences of action research projects.

Panos UK

Reviewer meetings with the Directors of Communications and Global Programmes at Panos UK identified several Panos projects which may be of interest to the project teams and welcomed collaboration and interaction with the project. Experiences from the Panos 'Radio Listening Clubs' project in Zambia, whilst not directly relevant to the East African context, may be of generic interest. Experiences from development of a Ugandan soap opera confirmed the view that even though the amount of technical information able to be conveyed is limited, audience surveys have subsequently identified high levels of changes in practice.

A new project 'Research into Pro-poor Broadcasting' aims to document the state of knowledge of the impact of radio, identify what donors are funding and identify best practice for pro-poor language, content, participation etc. A literature review of best practice and policy lessons is planned and an innovative survey of current programming practices of a sample of radio stations across Africa will take place. Focus group discussions with radio audiences, especially in poorer rural communities will also take place in order to gather information on how people respond to different sorts of programmes. The results are hoped to be published within the next 6 months and there may be an opportunity for the project to feed in their experiences to the Panos study as well as to learn from the project's findings.

InterWorld Radio, a production company and subsidiary of Panos UK also have a focus on capacity-building of developing country journalists and broadcasters and have funds local radio stations can apply to make their own programmes or to receive training.

Panos projects likely to be of specific interest to either the Kenyan or Tanzanian project teams are outlined in the subsequent country sections. Panos has a regional office in East Africa based in Kampala, Uganda. Contact pea@panoseasternafrika.org.ug for general information. Both Panos and Wren Media interviewees also recommended getting in touch with the ITDG office in Nairobi who have a large programme of work on communications in East Africa (contact sofia.duda@itdg.org.ke)

The Mediae Trust

The reviewers also met with David Campbell, Director and co-founder of the Mediae Trust based in Nairobi, Kenya. David has been in Kenya since 1979 and Mediae have undertaken massive levels of communications research, particularly on radio listenership in East Africa.

In Kenya, they stated that radio reaches 91% of the Kenyan population, although are urban and rural area distinctions. KBC broadcast nationally and in 8 different languages including in Kitui (Kamba), Homa Bay (Luo). There was now a 5 million TV audience in Kenya now – a 50% increase in the last 2 to 3 years and 3 million of this audience is rural.

One of their best known outputs in Kenya is a weekly radio soap opera programme, 'Tembea Na Majira (Move with the Times)' incorporating technical agricultural and health messages. This is aired at 18.00 p.m on Thursdays for 15 minutes and reaches a mostly rural female audience of 8 million people in Kenya with audience figure growing year on year. Scriptwriters have been trained by BBC staff and ex Archers consultants. Audience feedback sessions take place in the field every six weeks as well as through listeners letters, interviews and independent impact assessments. Private advertisers help secure financial sustainability through paying for product placements and the current commercial partner is SafariCom mobile

phones (previous sponsors include Cadburys and Colgate). They have a £70,000 a year advertising budget which pays for airtime costs (50% of costs) and the remaining 50% for production costs comes from donor funding keen to convey technical messages. Experience has shown that some technical information is difficult to convey on radio soap opera and it is most effective to have accompanying illustrated leaflets. One of the programmes funded by ICIPE and the Gatsby Foundation featured information on push-pull (Napier- maize stalk borer). Follow-up surveys indicated nationwide awareness rose from 4% to 27% in 2 years.

An accompanying weekly magazine programme 'Sikizia Ueruvuke' (Listen and Be Enlightened) conveys more technical/factual information about social and agricultural issues covered in the soap. This is also 15 minutes long and includes interviews with farmers, listeners letters etc. Its is broadcast on Sunday evenings, also at 8.00 pm .- the best time to reach rural women- and follow-up surveys for both indicate that 47% of soap listeners and 28% of magazine listeners claim to have put ideas learnt into practice. Mediae now has the prime-time slot on radio and a key lesson learned is that it takes time to build up an audience, gain trust and interest necessary for a prime time slot. Starting from scratch rather than building into existing programmes inevitably makes impact more difficult.

Mediae tend to use the services of a private advertising company, Steadman Research Services to conduct initial research on ground as well as follow up audience surveys etc. They are a commercial operation who include Coca-Cola among their clients. They provide very detailed reports and statistics disaggregated by gender, age, social class etc, usually using a sample base of 1000 people which is statistically viable. Costs are approximately £15k for a detailed piece of research.

Mediae are also currently seeking funding to produce a new TV series 'Mukutama Junction' (Meeting at the Junction). Funding has been sought with DFID CRD and DFID Kenya offices but has not yet materialised although £200k has been promised from the Ford Foundation. 13 initial episodes are planned to be produced early next year, with help on production from a UK team who have previously worked on the Bill, Eastenders etc. The objective is to make the first series together and then train up the local team for subsequent production with an objective of reaching £20k an episode. Issues being discussed so far include dairy production, malaria/mosquito nets and biological control methods. Whilst TV is a growing area of influence, particularly amongst young people, it is probably not appropriate to consider this for the semi-arid project at this point in time.

Other communications initiatives which Mediae have been involved in include the use of Cadburys mobile vans to go to marketplaces and talk about what was on the radio that month. This includes placing large plastic posters on the sides of the van and accompanying technical leaflets etc. The exercise reached 1.5 million people via the marketplaces although was a £150k exercise!

This does raise the issue though of other methods of ensuring technical leaflets are distributed and do not remain unused on shelves in extension offices. One possible idea raised was for partnership with Coke or an agrochemical company to undertake 'reality marketing'. This could include a 'mobile circus' with a roving agricultural show turning up in a village every three months, providing information on credit and finance, agro-chemicals etc, but would need partnerships between several sectors to be effective and again, could be potentially expensive. However, if potential audiences were large enough, the commercial sector would probably want to be involved which could help offset costs. Radio could be used to advertise future shows in marketplaces. A simpler option which wouldn't cost much could be to seek a

partnership with a private sector company such as Coca Cola for their Coke truck drivers who regularly deliver supplies to semi-arid villages anyway to disseminate leaflets or display posters on the side of their vans.

Mediae were also involved in a Livestock Production Programme project producing children's colouring cartoon books conveying technical information for use by children in schools ('Wambui' series). The idea behind these was that children would be used as vehicles and provide a link between wider dissemination and education. This series was tremendously successful and changes in KAP (knowledge, attitude, practice) were measured through two separate feedback sessions including a follow-up one month later to choose new issues to be covered in the later Wambui books. A similar series for dryland areas on crop protection issues could be an interesting possibility.

The reviewers certainly felt that both project teams would benefit from an exchange of ideas and experiences with Mediae, particularly as CPP is working with them on another project in Tanzania facilitating dissemination of technical information about bean production through a new soap opera.

USAID

The review team met with Peter Ewell who is the Head of the USAID Regional Office, based in Kenya. The focus of his work lies in the monitoring and evaluation of ASARECA. USAID is keen to link to other donors through the 'Initiative to end Hunger in Africa' which is a multi-donor framework. Peter raised the experiences of FoodNet- a regional network for ASARECA implemented by IITA which has done lots of work on the potential of cellphones to convey technical and market information, particularly in Uganda. He felt that cellphones and worldspace radio had a huge a potential for rural areas in East Africa as they could convey technical information in a cheap and decentralised manner.

SciDev.Net

The overall aim of the internet-based Science and Development Network (SciDev.Net) is to enhance the provision of reliable and authoritative information on science- and technology-related issues that impact on the economic and social development of developing countries. In conversations with Kirsty Cockburn, the Managing Editor of the network, it emerged that SciDev is hoping to appoint a regional co-ordinator for East Africa, to be based in Nairobi by the end of the year. They are also planning to hold science communication workshop in Nairobi in November, although no more details were available at the time of writing this report. However, it may be worthwhile for project leaders to monitor any developments as the conference could be an ideal place for the project to convey initial lessons learned to a wider audience. Contact africa@scidev.net for further information.

SciDev are also planning to put together a new online resource for radio production notes- posted on the web as a guide to science communication www.scidev.net/scicomm. They are keen to work with developing country organisations with an interest in radio and development, to collaborate on training workshops for both print-based and radio journalists. They are also interested in linking with new broadcasting partners in Africa to help raise awareness of science and technology issues more generally and requested that if the project was interested in using radio to share information about science and technology, they should get in touch at africa@scidev.net. If interested in getting actively involved in SciDev.Net Africa on a more general basis, contact should be made with editor@scidev.net. SciDev may also be a very useful place for publication of non-formal articles about experiences from the project.

ACACIA Initiative (IDRC funded) – Communities and the Information Society in Africa Initiative

Initial contact was made with the ACACIA Initiative, an IDRC-funded project on communications with a base in Nairobi which aims to repackage research results into simple and easy to use formats for rural farmers, disseminated using various ICTs channels. Unfortunately, the review team did not have time to follow up on this contact in person, but the project leaders may wish to do so to see whether there is an opportunity to exchange lessons.

Contact Edith Adera, Senior Programme Specialist eadera@idrc.or.ke or colleague Luis Navarro who has responsibility for the agricultural portfolio.

Specific Recommendations for Kenya

The review team felt that the extension- researcher gap in the project cycle was covered very well, more needed to be done on the gap between extensionists and farmers. Mass media communications technologies could help plug this gap and problem in lack of staff and transport in rural areas, albeit in conjunction with face to face visits and accompanying technical information where possible. In general, whilst the project had made the understandable decision to largely focus on existing promotional channels, it was felt that the potential of radio and private sector involvement was somewhat under-estimated and novel methodologies such as cartoons, mobile vans in marketplaces, posters in churches etc may add value. Farmers also indicated that they rarely wanted single messages and were particularly seeking information on crops-livestock and crops-marketing linkages. There is a potential to introduce technologies from other DFID CP projects in Kenya and the region.

The reviewers were excited by the potential of the Rural Agricultural Information Centres (potential for E and W links), as well as the library lending scheme. Further thought should be given to other ways to stimulate demand. The potential of the RELO position and other mechanisms to encourage researcher-extension was also encouraging. More use should be made of networks and workshops to help scale up and out. Further interaction between eastern and western Kenya needed to be encouraged

The project team recognised that greater attention needed to be given to development of appropriate M&E systems in the next few months. For example, some problems of recording data with para-extensionists had been reported a many were illiterate. Similarly, it was felt that school /drama competitions had a good impact but this has not yet evaluated in this project. In western Kenya, the project has been selected as a beneficiary of the CIAT M&E project, intended to develop M&E indicators with farmers to capture impact 5 years down the line. As a result, CIAT have provided some M&E training to two members of the western team (Rockefeller have also provided M&E training) so it is hoped that the recipients will be able to train other members of the team. It may also be useful to share this knowledge with members of the eastern Kenya team. Attention needs to be given to the impact of capacity-building, not only among end users but also among themselves.

Specific efforts should be made to extract and incorporate existing knowledge from the following projects:

Panos Pastoralist Communication project

Focus on the arid lands within East Africa, including in Kenya. Gave support for journalists to learn and write about pastoralist issues and their lives and to establish community radio operated by pre-existing community groups, thereby strengthening their capacity to share information. The womens groups were very effective, but the youth groups less so. Technical input was provided by KBC. Contact Dr Sarah Ossiya, Pastoralist Communication Programme Coordinator, based Uganda saraho@panoseasternafrika.org.ug

Wren Media recommended linking with the 'Open Knowledge Network', which itself has a link with the DFID-funded CATIA project. Farmers form into CBOs- identify key interests and make proposal to KARI to assist with their problems. This project started in 2000 and funded by the World Bank through IDA. The aim is to provide a framework for farmers to link with RELOs at KARI and at extension offices in order to link research scientists with farmers and assist in providing guidance for on-farm research activities. Some obvious comparable lessons may emerge from exchanging information through this forum.

Wren Media were also heavily involved in a previous DFID Communications project in Uganda and Bangladesh, working with the Animal Health programme to convey messages on sleeping sickness. It aimed to assess the most effective channels for communicating technical and policy messages to poor people in rural areas and to learn lessons both at country and generic levels about the processes that achieve better impact; They were not involved in the production of messages which was left up to journalists, but the project was innovative in that it got radio journalists together with technical experts in the field. The project was completed in September 2003 but Wren Media are now undertaking a follow-up scoping study in Kenya. This proposal aims to examine how to most effectively disseminate findings of existing research work. The stated aim is to gain greater understanding of how researchers and policy-makers in Kenya perceive ways in which rural people access info and knowledge, as well as gain greater understanding of how policy-makers access and make use of research information to include an understanding of the impact of lobbying by organisations to improve rural development.

As such, they are currently looking at what other studies are being undertaken in Kenya in terms of effectiveness of communications pathways. This study is being conducted in collaboration with DFID Kenya and Dr Dan Kisauzi from the DFID NR office in Uganda. If the scoping study is successful, it is intended to hold a stakeholder workshop to identify appropriate press and radio material according to need. The output of study is to report back to DFID key findings of other studies that have been undertaken on communicating research in Kenya etc with a final report to be produced for DFID by 30 November 2004. It is recommended that project leaders make contact with Wren Media as soon as possible.

The CPP-funded **ICIPE Private Sector Service Providers Project** (project leader Brigitte Nyambo) is also currently conducting an awareness-raising campaign for EEUREPGAP certification using radio, posters, TV and some newspapers (working with the Agricultural Resource Information Centre (KARI), KBC and funded by DFID Kenya). The campaign is due to start in the first week of July this year and will comprise of 3 months of activity – 12 week of 15 min programmes, followed by a review in September/October to determine improvements and how to best identify long-term impact indicators. They recognise that determining changes in KAP (knowledge, attitude, practice) may be hard to implement because it is an awareness-raising exercise and may not result in changes in practice in 12 weeks.

Exchanging experiences on indicator development for impact of communications tools may be beneficial to both parties.

Specific Recommendations for Tanzania:

In general, the Tanzanian team have been more willing to experiment with novel communications pathways, but in so doing, have not been so good as the Kenyan team on following through with rigorous analysis. Outstanding communications issues which the Tanzanians wish to consider include the utility of a catalogue of outputs useful(could extract from existing database) as Kenya has produced; the sustainability issue and potential to pay for information; expanding the role and remit of the media vans and the potential involvement of the private sector in use of billboards. Like Kenya, the Tanzanians may have benefited greatly from having a communications specialist participate at the project planning workshops. In this case, they had tried to contact the Mediae Trust, but there was an unfortunate clash of commitments. Similarly, no ZRELOS from other regions were able to attend. A joint Kenya and Tanzania workshop to exchange experiences to which communications specialists would be invited would certainly be beneficial to all.

As with Kenya, greater attention needs to be given to development of M&E systems for communications and development of less technical indicators on human capacity-building and gender sensitivity. In Tanzania, two M&E systems are being set up- a PM&E for districts and zones and a project M&E system. The system is not 100% in place yet

Specific efforts should be made to extract and incorporate existing knowledge from the following projects:

Panos had some involvement in production of a TV environment series 'Mazangira Yangu, Mazangira Yetu'. A Tanzanian TV production company Abantu Visions submitted a proposal to the Royal Netherlands Embassy to produce 24 half hour TV/video programmes on environmental issues in Tanzania. Panos were contracted to support Abantu in production and distribution of videos and an NGO- Agenda for Environment and Development (AGENDA) were brought on to give advice on topics to be covered and to help distribute copies of the videos. 450 copies of each tape were made and Agenda has a database of organisations who possess the tapes. Some useful lessons were learned from the evaluation of the project conducted by Kitty Warnock and these may be of interest to the Central zone ZRELO. For example, the potential of showing videos on public up-country buses and a reinforcement of the ZRELO messages that mobile video vans are very popular, with audiences of 300-500 on average per time. The programmes also incorporated work from projects in Central Zone (Singida and Dodoma). Contact; Silvani Mng'anya, Director AGENDA agenda@raha.com Tel: 0741 226568 (Mob) +255 22 2450213

Mediae Trust

Steadman Research Services conducted a Tanzania Audience Research Report in February 2004 which looked at issues of ownership and access to radio, battery replacement, listenership patterns, radio stations tuned to, programmes enjoyed most, issues that need more coverage (including specific information requested on agricultural production and post production, disaggregated by gender and social class). CPP management have a copy of the report available upon request, as it was intended to act as a baseline survey for the CPP beans project in Tanzania which is intending to publicise technical messages through the new Mediae soap opera to be broadcast across Tanzania. The SA Tanzanian project staff had not heard of the concept of soap and were keen to learn more and some of the information from the

sorghum projects could easily be incorporated into the new programme schedule if required.

TOR 19: How sustainable are the promotional pathways being developed?

This depends largely upon the capability of the collaborators and funding – innovation and creative thinking could be the key to long-term success as well as the ability share information and experiences with networks and similar communities of practice. The links with policy-makers will also be vital and DFID Kenya are keen on lesson-learning for the policy context.

In **Kenya**, the introduction of the World Bank funded Kenya Agricultural Project (KAP) has changed the external enabling environment in the middle of the project. The KAP plans for decentralisation and district communication plan are also likely to impact upon the functioning of the project. In western Kenya last month, a high-level KAP team (KARI/MoA delegates) visited one of the FFS sites – Maguje, used for delivery of CP information and technologies in order to conduct a baseline survey. A KAP project office will be created at KARI HQ from July this year and the western Kenya team know the key appointee, John Magabe within this office well, which should be capitalised upon. Greater use could also be made of ICRISAT and other networks to disseminate lessons learned from project (see response to TOR 21)

Lessons learned/feedback from western Kenya demonstrates potential for sustainability. It emphasised the value of multidisciplinary and working together in this approach (visits by multi-disciplinary teams greatly enhanced feedback and demand for CP research from farmers); the project had engendered incredible goodwill and collaboration between the Ministry of Agriculture, KARI and NGOs which both adds value and brings confidence to the partners. It also improves quality, reduces duplication and is likely to be more sustainable.

Lessons learned/feedback from eastern Kenya also demonstrates potential for sustainability, again mentioning the enhanced collaboration and partnerships between stakeholders. The eastern team were also interested in the issue of financial sustainability of information production. The Ministry of Agriculture 'National Agricultural Information Resource Centre' has information on CP technologies released and provides copies on a cost charging basis. The team had been invited to attend an agricultural show in Machakos and were interested in exploring the idea of charging farmers/extension agents to buy what they require.

In **Tanzania**, similar changes in the external enabling environment have occurred with the introduction of the Agricultural Sector Development Plan (ASDP). DFID Tanzania do not currently seem keen to participate in this 'joint basket' of donor funding, preferring the use of direct budgetary support, but it is vital for the project to strengthen links wherever possible for the purposes of sustainability. One of the INADES staff members, Patrick Lameck sits on the Task Force III for Agricultural Research, Extension and Training and this should be encouraged. INADES are also a founding member of PELUM (an umbrella network of civil society organisations) which has a stated objective to be an advocacy organisation to link to the Government/ASDP.

The potential of District Councillors (representatives elected by the people for each ward) to link to higher policy-makers and Councillors from neighbouring districts

should also not be under-estimated. The project has also attempted to make these links in some instances and this should also be encouraged further. The Dodoma District Executive Director (DED) Susan Bidya recommended inviting Councillors to visit the project sites. She also stated that the Ministry of Agriculture and Food Sec also has its own IPM programme which has projects at least in Singida district and there could be an opportunity to learn from each other even if have two separate funding sources as both programmes started from the grassroots so have mutual interests.

Recommendation 29. In Tanzania, greater efforts should be made to build upon existing linkages with local policy-makers such as District Councillors and to explore potential complementarities with the Ministry of Agriculture and Food Security IPM programme (Priority = High).

The issue of financial sustainability for information production is also of concern to the Tanzanian team. INADES has substantial training material and leaflets for sale in Swahili including on crop protection, banana production, cotton production, vegetable production, maize production, sorghum and millet production, groundnut production as well as post-harvest, soil and water management and livestock production booklets. It offers these for sale at two prices- between 500-1200 Tanzanian dollars for individual farmers and between 700-1500 Tanzanian dollars for groups.

The project team were keen to explore the potential to recover costs for distribution of learning tools, seek to add value rather than use a blanket approach to dissemination. Even a nominal value would enhance peoples perceptions of the worth of the information and even if cost recovery were unlikely, willingness to pay could act as an indicator of effectiveness for the project. As leaflets were often culturally worthless, people would probably not be willing to pay for these, but the experiences of INADES meant that maybe the sale of small booklets would be possible. As a result, the ZRELO is planning to produce single booklet comprising all technologies in one place which can then be purchased.

Recommendation 30. In both Kenya and Tanzania, the issue of cost recovery and/or willingness to pay for promotional materials produced can act as an indicator of effectiveness of communications tools developed and may be a crucial development for sustainability once the project has ended. Greater attention should be given to exploring this issue (Priority = High).

Lessons learned/feedback from Tanzania demonstrates potential for sustainability through recognition of the value of improved interaction between researchers, extensionists and farmers because of the project; the need to have a combination of face to face and mass media communications channels for maximum uptake; the value of the multi-disciplinary nature of the team for exchanging ideas and experiences; and the effect of confidence building not just for team but also for farmers through multi-disciplinary teams and visits by VIPs.

The team felt that the communications strategy could be further improved by building the management and organisational capacity of farmer groups (a potential additional role for INADES); that the experiences of building partnerships for development could be a useful tool to influence policy-makers; that women are still biased against in some communications tools including radio (bias is access) and that they need to think more about timing and opportunities to listen; that more participatory radio

interviews to include experts was necessary; that more leaflets needed to be produced, especially for striga, smut, and LGB; that additional training for the communications officer on video editing and radio production would be useful; that the intensity of mass media and video shows should be increased and the potential of Nane Nane explored as a new communication pathway; that there was a need for greater consideration of quantification and comparison between different promotional pathways to compare effectiveness and that there was a need to continue efforts to lobby at district/council level to ensure sustainability.

The review team feel strongly that to enhance sustainability of CP outputs across both this project and the CPP more generally, a workshop should be planned for April 2005 to share promotional experiences across the programme modelled on the 'Sustaining Change' workshop. This could possibly be called 'Pathways to Impact' or a similar title. East Africa would be an obvious location for such a workshop.

TOR 20: Are there still plans to produce an ODI Agren paper? Do the reviewers believe the focus of this is appropriate?

The reviewers felt that whilst both countries had been very good at documenting the process of the project so far, there was a need to exchange these experiences with wider audiences. This need not necessarily be with international research journals, but could also be with less formal development research/science communications bodies. It was felt important not to leave formal documentation and publication of lessons learned until the end of the project as there plenty of opportunities to have policy influence along the way.

At the workshop, the Kenyan team spontaneously identified the issues of fake/adulterated chemicals, high costs of external inputs and lessons learned from the RREAC/ CRAC review as issues which could be the subject of policy papers giving recommendations for policy reform. Whilst an ODI Agren paper would be an excellent output and appropriate focus for the project, there are also other possibilities.

There is an additional issue here related to communication and dissemination which is that of publication issues in general. It is not clear if there plans to publish any papers from the research but this is important both for CPP and for NRI's research assessment exercise as well as for the project to maximise policy influence.

Recommendation 31. Greater attention needs to given by project teams to both formal and informal publications throughout the life of the project, in order to maximise likely influence on policy-makers and development communications research more generally (Priority = High).

In addition to an ODI Agren paper, other possibly appropriate options for both formal and informal channels of publication or dissemination of lessons learned through networks include:

ASARECA (Association for Strengthening Agricultural Research in Eastern and Central Africa) <http://www.asareca.org/about/networks.htm>
Including ECAMAW (Eastern and Central Africa Maize and Wheat Network),
ECAPAPA (Eastern and Central Africa Programme for Agricultural Policy Analysis);
ECARSAM (Eastern and Central Africa Regional Sorghum and Millet Network); RAIN
(Regional Agricultural Information Network), particularly the:

Sorghum and Millets Newsletter – published annually with short (5 pages maximum) articles. The advantage is that it will reach the researchers.

Tanzania On-line <http://www.tzonline.org/> A gateway to information on development issues in Tanzania, including a database of research outputs.

Arid Lands Information Network (ALIN) with the Regional Co-ordinator for eastern Africa based in Nairobi, publishes and distributes the *Baobab* journal three times a year. Baobab is a forum where members exchange their experiences on development approaches as a way of learning from one another. ALIN also publishes and disseminates a series of booklets under its 'Development Projects in Arid Lands' framework to stimulate sharing of development experiences and lessons with those interested in setting up similar projects. <http://www.alin.or.ke/data/publications.htm>
Contact Jedidah Mukere www.alin.or.ke Tel 2731557.

id21 <http://www.id21.org> is a development research reporting service which has a new 'Natural Resources and Livelihoods Editor' – Timothy Woods. He is actively seeking research experiences which are relevant to their natural resources and rural livelihoods section. Of particular use is research which has clear policy implications for decision makers in the UK and overseas. id21 has a circulation list of 20,000 (hard copy), an additional 20,000 (e-mail copy) and a website with half a million hits per month, many in East Africa. The id21 email network is also used by international media outlets such as the BBC World Service and national newspapers and radio stations in sub-Saharan Africa.

Wren Media *New Agriculturist* magazine
<http://www.new-agri.co.uk/> which invites suggested subjects for future issues.

There is also the possibility of interest by international journals with tropical agricultural content such as **Crop Protection; Field Crops Research** etc. Additional ideas for networks and international workshops have been mentioned earlier in the report.

Importance of sharing promotional experiences across CPP

Programme Recommendation: In the past two years the CPP has commissioned a number of promotional projects each of which has valuable experiences to share. The review team recommends that CPP management considers organising a workshop on 'Pathways to Impact' in April 2005 to share promotional experiences across the programme modelled on the 'Sustaining Change' workshop (Priority = High).

Table 1. Some CPP projects* that may provide linkages and technologies for promotion for R8349 depending on farmer demand

No.	Project
R7965	Promotion of integrated pest management strategies of major insect pests of beans in hillsides systems in eastern and southern Africa
R 8215	Increasing food security and improving livelihoods through promotion of integrated pest and soil management in lowland maize systems
R8219	Improving access to appropriate farm inputs for integrated maize crop management by small-scale farmers in Embu and Kirinyaga districts, Kenya
R8281	Linking the demand for, and supply of, agricultural production and post-harvest information in Uganda
R8297	Development of private sector service providers for the horticultural industry in Kenya
R8299	Accelerated uptake and impact of CPP research outputs in Kenya
R8312	Promotion of quality vegetable seed in Kenya
R8341	Promoting adoption of integrated pest management in vegetable production
R8030	Finger millet blast in East Africa: pathogen diversity and disease management strategies

* It is likely that other CPP projects in semi-arid regions in South Asia will provide additional CP information and technologies

Table 2. Information and feedback from farmers groups and farmers

EASTERN KENYA

District/Village	Farmers No. Male/Female	Technologies being promoted through CPP project	Additional technologies requested
Mwingi/Ithingili	26 (5M, 21F)	Sorghum stover management to reduce stemborer damage * Management of covered kernel smut Improved food grain storage methods	Soil fertility management and erosion control Poultry feeding & management Livestock feeding & management Fruit tree growing Grafting and budding Health & education Management of termites during grain storage
Mwingi/Wawas	Joyce Mwendwa, Para-extensionist 30 farmers in Ikulya group; training to 50+ farmers to date	Sorghum stover management to reduce stemborer damage Management of covered kernel smut Improved food grain storage methods	Additional training requested but technologies not specified

* Different technologies will be promoted according to the appropriate season and timing

Mwingi – Ithingili Village: feedback

Has benefited from previous project on covered kernel smut carried out in the District

Collaboration between KARI and the DAO has been good

Previous history of FFS approach in the District since 2001

The CD of Kitui has been responsible for training government extension officers

Two dissemination methods chosen for comparison: baranzas (village meetings) and on-farm demonstrations

Interest shown by other farmers and neighbours in the technologies

Although it is only six months since the FFS group was formed, farmer members are already appreciating the value of group learning – sharing ideas, interchange, receiving feedback, building confidence etc.

Each member takes ideas back to test on their own farms

Feedback from farmers:

- non-member farmers are eager to learn about the FFS group and the new technologies
- non-member farmers want to join the FFS group to learn more

Different methods of acquiring knowledge/communication:

- Field days and demonstrations
- Friends
- Baranzas
- Radio – some farmers listen to the radio but often the message is not complete or understood

Farmers indicated that another season would allow them to be more effective trainers of other farmers

Mwingi – Wawas Village: feedback

Use of para-extensionist model – Joyce Mwendwa trained by CDK – retains back-up from the CDK for problems that she cannot resolve from her training

Para-extensionists become resources for the village and neighbouring villages

Farmers contribute to the costs of her transport to various locations for training them

Farmers indicated that they had benefited from the training given by Joyce and asked for training on additional issues

Willing to train more farmers; main concern is that when she is absent training, she needs to pay a reliable person 100 KSh per day to look after her animals

Different methods of acquiring knowledge/communication:

- Field days and demonstrations
- Baranzas
- Radio – some farmers have obtained information about new varieties and cultivation methods from the radio but information is not always complete

TANZANIA

District/ Village	Farmers No. Male/Female	Technologies being promoted through CPP project	Additional technologies requested
Singida/ Merya	5 farmers groups each with 6 farmers (mostly male) linked in a network; each group has a chairman, secretary and treasurer; record keeping is given high priority (our visit was recorded in all group record books)	Onion pest management through FFS	<p>Main request was for more leaflets and training on onion pest management</p> <p>Capacity building in marketing esp. dealing with middlemen and access to commodity price information on the radio – plan to form a farmers marketing association stimulated by the establishment (through INADES funding of an onion market and storage facility) Access to weather forecasting information</p> <p>Management of sorghum and pearl millet Striga Management of large grain borer in maize Management of sunflower diseases Control of animal health problems (oxen) Management of cassava and okra pests</p>
Kongwa/ Mkoko	Wana wa Nuru Farmer Group of 29 farmers mostly female; religious group; record keeping is given high priority (our visit was recorded in record books)	Maize stalk borer management with botanicals (n neem, ash, mhunungu) and insecticide	<p>Management of elegant grasshopper Improved varieties of maize and sorghum</p> <p>Management of smut of maize and sorghum Management of larger grain borer Management of aphids in legume crops Management of cutworms in maize</p> <p>Access to reliable transport of product Marketing information to avoid middlemen Micro-credit advice</p>

District/ Village	Farmers No. Male/Female	Technologies being promoted through CPP project	Additional technologies requested
Dodoma rural (not visited)/6 villages	One farmer group (10-15 farmers) in each village; both male and female farmers; including a chyrch group and a drama group	Management of sorghum Striga including promotion of Striga tolerant varieties	Management of sorghum smut Management of stalk borer in maize Marketing information

Singida/Merya Village: feedback

Each onion farmer has 1 acre; farmers are supplied with insecticides; training; leaflets; a village office with posters, training aids, notice-board, schedule of radio programmes, list of participating farmers, and map of farms; participation in the development of videos

Huge demand for leaflets – need to increase production

Non-onion farmers have been stimulated to consider growing onions

Farmers are very pleased as the application of CP technologies increased onion production from 8–10 bags/acre to 12–15 bags per acre

Problems encountered included: unreliable rainfall; timely weeding; timely application of FYM

Need expressed by farmers (and project stakeholders) for the project to look at marketing issues

Kongwa/Mkoko Village: feedback

A village office with posters, training aids established, notice-board, schedule of radio programmes, list of participating farmers, and map of farms; signing visitors books is an important part of record keeping

Farmers are supplied with insecticides; backpack sprayer; training; leaflets

Concerns raised on how to purchase sprayers (cost TSh35,000) – request by farmers to empower them to purchase sprayers

An additional 56 farmers (majority women) have visited the experimental sites

The group indicated that the botanical technologies being promoted came from their ancestors

There are considerable problems with processing and application of botanicals (e.g. neem burnt plants)

The CPP project has helped us to “concrete” the message through leaflets, radio and video

A drama competition on sorghum pest and disease management technologies will be held among primary schools in Kongwa District in July

Promotion of Striga tolerant varieties: feedback from two farmers

Additional farmers visited re promotion of Striga tolerant sorghum varieties e.g. Wahi in Malolo and Mpititi – 10–11 farmers per village growing the improved variety on approx 1 acre chosen based on interest created at local seminar

In additional villages, 25 farmers are growing Hakiki for promotion

Striga management package involves FYM application, and ridges for water harvesting

No comparative study of lesson learning

Both were obviously of the high wealth category – one was Chairman of the farmers group growing Wahi

Main reasons for growing Wahi> early maturing; Striga tolerant; easier to scare birds

Great interest shown by other farmers; demand for seed exceeds supply; need for more creative thinking about how to get seed to more farmers

Will plant 2 acres next year as yield will be double that of traditional variety

Promotion of tomato pest and disease management

Village not visited due to distance; one farmer group of 30 farmers sharing same irrigation channel

Due to floods, the first tomato crop was lost; new crop being transplanted

A project office in the village with posters, training aids established, notice-board, schedule of radio programmes, list of participating farmers, and map of farms

Farmers demanded information on and technologies to manage bacterial and fungal diseases and pests of tomato

Access to the necessary information: Information was sought from Horticultural Research, Tengeru but they declined to visit (problem of cross-zonal capacity dissemination in Tanzania)

Information was obtained from HR, Morogoro and specialists visited the field to review the problems and conduct training

Root-knot nematode is also a problem – potential for promotion of additional CPP technologies?

Marketing information requested

Dodoma rural: feedback from extension staff

A project office in each village with posters, training aids established, notice-board, schedule of radio programmes, list of participating farmers, and map of farms

Poor season due to drought: one village has no crop; 45% stands in others

Zanka village planted very early and harvested seed which was sold; the farmer will again harvest from the rationed crop

Use of demonstration plots of improved Striga tolerant sorghum varieties Wahi and Hakika plus cultural control methods

Over 500 leaflets distributed for sorghum smut and Striga management, seed production and larger grain borer control

Farmer field days have generated a great deal of interest in the new sorghum varieties – main problem is lack of seed

Farmers have requested more radio programmes

The drama group will develop a drama about the technologies which will be videoed and shown in other villages

Table 3. Outputs, activities and progress

Outputs/activities	Location/Lead	Progress
1. Methods for updating demand for CP outputs and sustaining feedback documented and assessed		
1.1 Planning and inception meetings	E Kenya: KARI/NRI/MoA/KCDI W Kenya: KARI C Tanzania: INADES/ZRELO	Workshops, surveys, planning meetings completed with participation of all stakeholders in all three sites (November, December 2003 and February 2004)
1.2 Review of methods for on-going validation of demand	E Kenya: KARI/NRI/MoA/KCDI W Kenya: KARI C Tanzania: INADES/ZRELO/NRI	Kenya: Workshop held to review, analyse and suggest improvements in existing methods; CRAC and REAC minutes have been analysed in both sites; strengths and weaknesses have been identified; strategies are being formulated to address the weaknesses Tanzania: Workshop held to review, analyse and suggest improvements in existing promotional and communication methods; initial strategy developed for piloting
1.3 Analysis of stakeholder feedback incentives	E Kenya: KARI/NRI/MoA/KCDI W Kenya: KARI C Tanzania: INADES/ZRELO/NRI	Kenya & Tanzania: Workshops held to review, analyse and suggest improvements in existing methods; Kenya: poor circulation of minutes of meetings and poor follow-up on CP issues raised were disincentives
1.4 Test feedback methods	E Kenya: KARI/NRI/MoA/KCDI W Kenya: KARI C Tanzania: INADES/ZRELO/NRI	Kenya & Tanzania: Workshops held to review, analyse existing methods; plans made and being implemented to test feedback and improve methods e.g. comparisons of field visits, FFS, field days etc.; all sites will report lessons learnt in October workshop

Outputs/activities	Location/Lead	Progress
2. Approaches for improving stakeholders' access to crop protection research outputs		
2.1 Stakeholder mapping and characterisation	E Kenya: KARI/NRI/MoA/KCDI W Kenya: KARI C Tanzania: INADES/ZRELO/NRI	Kenya & Tanzania: Workshops held to identify stakeholders and map available resources
2.2 Review of existing methods/constraints for accessing crop protection information	E Kenya: KARI/NRI/MoA/KCDI W Kenya: KARI C Tanzania: INADES/ZRELO/NRI	Kenya & Tanzania: Questionnaires sent out before workshops (Kenya); workshops held to review, analyse and suggest improvements in existing methods; postal surveys among a very wide range of stakeholders carried out in E & W Kenya; weaknesses of current systems being identified and suggestions formulated to improve the current access and promotional systems; M&E of TOT activities carried out; Tanzania: a zonal communication strategy has been developed based on existing and new/novel methods
2.3 Inventory and catalogue of available crop protection research information	E Kenya: KARI/NRI/MoA/KCDI W Kenya: KARI	Draft document of available crop protection information developed by KARI in W.Kenya; will be further improved
2.4 Facilitate districts to improve access to crop protection information through the ASDP	C Tanzania: INADES/ZRELO/NRI	Planned in Tanzania as part of the decentralization process to be implemented under the ASDP. Contacts have been made with district officials (e.g. DED, DALDO etc.) to generate awareness and interest in the project as a model process to be used in the ASDP
2.5 Review of crop protection information supply against demand	E Kenya: KARI/NRI/MoA/KCDI W Kenya: KARI	Activities in progress; report will be prepared analysing available information on supply and demand
2.6 Distribution of catalogue and inventory materials	E Kenya: KARI/NRI/MoA/KCDI W Kenya: KARI	To be undertaken when a final version of the catalogue has been produced

Outputs/activities	Location/Lead	Progress
3. Methods for delivery of crop protection research outputs to uptake pathways and farmers piloted		
3.1 Mapping and analysis of uptake pathways	E Kenya: KARI/NRI/MoA/KCDI W Kenya: KARI C Tanzania: INADES/ZRELO/NRI	Kenya & Tanzania: Workshops held to review, analyse and suggest improvements in existing methods; on-going mapping and analysis through pilot activities
3.2 Matching uptake pathways and promotional methods with crop protection technologies	E Kenya: KARI/NRI/MoA/KCDI W Kenya: KARI C Tanzania: INADES/ZRELO/NRI	Kenya & Tanzania: Workshops held to review, analyse and identify crop protection technologies to be promoted; consultations with farmer groups on technologies and promotional processes; technologies include management of pests, diseases and weeds of sorghum, maize and vegetables
3.3 Development and production of communication/training materials	E Kenya: KARI/NRI/MoA/KCDI W Kenya: KARI C Tanzania: INADES/ZRELO/NRI	Kenya: communication and training materials produced (TOT) e.g. manual in E Kenya and other tools being produced for testing and promotion in pilot sites through FFS, farmer to farmer training, demonstrations, barazas etc. In Tanzania: leaflets and training materials have been developed and distributed to extension offices and farmers; a series of radio programmes is being aired, field days and demonstrations are in progress; a video series is being developed
3.4 Pilot dissemination of selected technologies to farmers	E Kenya: KARI/NRI/MoA/KCDI W Kenya: KARI C Tanzania: INADES/ZRELO/NRI	Kenya & Tanzania: training of trainers activities have been implemented and are ongoing; Kenya: data will be gathered on different training outcomes using different methods for different crop protection technologies including FFS, demonstrations, barazas, farmer to farmer, focal area

Outputs/activities	Location/Lead	Progress
		training etc. Tanzania: a zonal communication strategy has been developed and is being piloted in 3 districts; not clear how different methods will be compared
4. Lesson learning and policy implications documented		
4.1 Develop an M&E system of promotion process	E Kenya: KARI/NRI/MoA/KCDI W Kenya: KARI C Tanzania: INADES/ZRELO/NRI	Kenya & Tanzania: Workshops held to discuss the M&E system; W Kenya: two scientists have been trained in M&E skills; some indicators are already being used in initial monitoring activities E Kenya: still under discussion – need for training emphasized Tanzania: a M&E system has been drafted
4.2 Project review workshops	E Kenya: KARI/NRI/MoA/KCDI W Kenya: KARI C Tanzania: INADES/ZRELO/NRI	Planned
4.3 Workshop to identify key lessons learnt and policy implications for sustaining and further strengthening of the promotional strategy	E Kenya: KARI/NRI/MoA/KCDI W Kenya: KARI C Tanzania: INADES/ZRELO/NRI	Planned

Table 4a. Lessons learnt **

Project location/Lessons learnt
<p>EAST KENYA</p> <ul style="list-style-type: none">• Different uptake pathways for CP information have different levels of efficiency in delivery information to farmers and this needs to be quantified• The project has enhanced collaboration and partnership between different CP players• Knowledge gaps exist in available CP information in both extension staff and para-extensionists; they also lack confidence in delivering information to farmers• The project has enhanced the CP knowledge of the extension service providers• There is inadequate knowledge of M&E procedures among the project team• Holistic approaches are needed to enhance uptake of CP information and technologies• CRAC meetings are too broadly focused; there is need for an alternative more focused forum to address CP issues at the district level <p><i>* Feedback from E Kenya emphasizes the value of enhancing collaboration and partnership and knowledge flows</i></p> <p>WEST KENYA</p> <p>OUTPUT 1. Methods for updating demand for CP outputs and sustaining feedback documented and assessed</p> <ul style="list-style-type: none">• There is a strong need to strengthen linkages in order to improve follow-ups and maintain consistency in persons attending meetings (REAC) to maintain the quality of discussion• There is a need to improve the frequency of meetings to address emerging issues in time. Meeting frequency can only be effective if disbursement of funding is enhanced• FFS approach and joint visits by multi-disciplinary teams greatly improves feedback and demand for CP information and products due to interaction on site <p>OUTPUT 2. Approaches for improving stakeholders' access to crop protection research outputs</p> <ul style="list-style-type: none">• Many of the questionnaire respondents quoted meetings, seminars and workshops as the main means for accessing CP research outputs and information• Extension officers who were not aware of the information appreciated the awareness created by KARI of CP information• Awareness creation of CP information and the production of the catalogue has created demand by end-users• The main effective methods identified for accessing CP information included meetings, workshops, field days, seminars, leaflets, and seminars by extension staff• To enhance access and availability of CP information, there is a need to

print more and to establish more Rural Information Centres.

OUTPUT 3. Methods for delivery of crop protection research outputs to uptake pathways and farmers piloted

- Joint field visits proved to be effective and add value
- The project has enhanced collaboration between KARI and the MoA in terms of sharing resources for effective CP dissemination
- There is a need to have a more holistic approach to delivery CP research outputs to farmers

OUTPUT 4. Lesson learning and policy implications documented

- Through working with the private sector, NGOs, CBOs and adult literacy classes as well as incorporating participatory M&E, the project is demonstrating good results and sustainability and is likely to be taken up by KARI as a way forward.

** Feedback from the W Kenyan team emphasizes the value of multi-disciplinary team work and the importance of strengthening linkages*

TANZANIA

- **A great spirit of working together and drawing on skills and resources from the whole team; interaction between research, extension and farmers was strengthened**
- Farmers can learn and adopt new ideas
- Extent of adoption depends on the method of dissemination
- It is important to use a combination of communication channels – some farmers are reached by radio; others by leaflets; posters are important – each channel has different characteristics – creating awareness, stimulating adoption etc.
- **Great value of working in multidisciplinary teams – joint effort – share experiences**
- Farmers groups facilitate discussions and interaction with researchers and extensionists
- The need to improve the flow of information from researchers to farmers via extensionists
- Communication and promotional strategies used in the project are helping farmers to raise awareness and to adopt new CP technologies for optimum production
- **There is great value in working in a project team**
- When farmers get access to new knowledge – they want to know more and more
- **Teamwork is not only of value to the team but it also provides encouragement and incentives to farmers and stimulates their neighbours**
- When many stakeholders work together to solve CP problems, there is greater potential to solve the problems
- Use of a range of communication tools and channels of communication stimulates farmers
- There is commitment of district councillors to the project which builds sustainability and benefits farmers
- There is clear farmer commitment to the project

- Farmers have experiences that need to be respected by other stakeholders especially research, extension and policy makers
- Collaboration in the field vs. collaboration in the meeting room has greater impact on analysis and problem solving
- If facilitated, partnership collaboration results in improved information flow for all stakeholders
- Involving policy makers and leaders in projects attracts government and political commitment
- Religious farm groups are not open to working with other farmer groups
- The use of group and individual farmer plots reinforces farmer commitment
- The project must be owned by the farmers to ensure sustainability – they are the main decision makers
- The project has fostered the spontaneous response of researchers to farmers needs – improved linkages
- The project has empowered farmers to know where to go for CP information
- Further support is need to developing and disseminating communication tools
- The project has provided an opportunity to learn how to learn together
- Both researchers and extensionists are now more aware of how to work with farmers
- There is a critical need to build the management and organizational capacity of farmers if they are to reap most benefits from the project
- The project has broadened the range of communication and promotional tools used to promote CP technologies – INADES has learnt about new and effective tools
- The pilot initiative has created a 'partnership for development' and is developing tools to influence policy makers – an important base for sustainability
- Farmers have a wealth of local knowledge that needs to be tapped
- Empowerment of farmers facilitates M&E so one can learn lessons from the project
- Participatory M&E is a practical lesson learning process
- Women are biased against some communication tools e.g. radio
- **Multi-institutional approaches adds value to communication and promotional information as well as development activities**

** Feedback from Tanzanian team emphasizes the value of multi-disciplinary teamwork and the impact of this on farmer learning processes*

** For Tanzania, individual project team members wanted to give their feedback hence there is some repetition in the suggestions made

Table 4b. Future priority activities if the project was extended**

<p>Project location/priority activities</p> <p>KENYA</p> <ul style="list-style-type: none">• There is a need to finalise the currently implemented activities and documentation• There is a need to incorporate tools and methods of quantifying the efficiency and effectiveness of the different uptake pathways for CP technologies• There is a need for workshops for project stakeholders to share and exchange CP information learnt and catalogued through the project• There is a need for training in M&E for stakeholders• There is a need for a workshop to finalize the ToT manual and realize opportunities to develop leaflets, posters and other training tools for farmers• There is a need to sensitise and train extension service providers and farmers on strategic use of crop residues as livestock feed to avoid carry-over of pests and diseases <p><i>* Feedback from E Kenya gave priority to completion of current project activities</i></p> <p>WEST KENYA</p> <ul style="list-style-type: none">• There is a need to support a REAC meeting so that identified weaknesses can be improved (timeliness, documentation, reports, structure)• RELOs should attend research extension workshops and collaborators meetings in relevant districts• Training on safe use of agrochemicals is needed• Future monitoring of project activities and progress should include:<ul style="list-style-type: none">○ Impact of the dissemination of the catalogue on demand for CP information; publication and distribution of more copies in the mandate areas○ Changes in practices and knowledge gained at project sites○ Lesson learning on how to monitor the effectiveness of different pathways <p><i>* Feedback from West Kenya gave priority to additional activities to complement current project activities</i></p> <p>TANZANIA</p> <ul style="list-style-type: none">• Farmer groups need capacity building in financial management and group organisation• Farmer demand was expressed for smut and Striga management in sorghum and maize – this needs to be given priority• Need for greater involvement of primary schools e.g. for IPM for stalk borer in maize• Need to scale-up promotion of Wahi (Striga tolerant improved sorghum variety) and train farmers in the potential for Wahi to out-compete Striga

- **Need to further improvement in communication strategies** e.g. expand and improve radio programmes with more interactive interviews and with radio soaps/drama that may attract more women listeners
- Need to produce more leaflets – there is great farmer demand
- Need to produce video programmes to complement training exercises with experiences from other areas
- Need for more farmer field visits
- Need to further strengthen farmer groups so that they can become independent and deal spontaneously with problems
- Need for greater promotion of information on Striga control
- Need for the ZCO to be trained in video editing and radio production
- Need to link with other projects to exchange experiences in communication and promotional activities
- **Need for a return visit of the reviewers to see how much the team has learnt**
- Need for greater promotion of Striga tolerant varieties Wahi and Hakika
- Need for additional tomato and sorghum varieties with resistance to pests and diseases
- Need for more farmer field days so that farmers can learn from each other
- Need for further training on management of grain storage pests
- Need for greater promotion of technologies for controlling Striga, smut and larger grain borer as well as improved sorghum varieties in Singida
- **Primary schools need to be more involved in the promotional activities;** primary school teachers should be trained as trainers in the above technologies
- More leaflets needed on Striga, smut and larger grain borer management
- Need for further training of farmer groups and primary school teachers in agriculture subjects e.g. 50 teachers from Dodoma rural
- Need to increase the number of farmer groups in each village in this pilot phase
- **Need to strengthen the primary school pathway to promotion across the whole project** – many teachers teaching agriculture do not have the latest knowledge
- Need to strengthen farmer groups by farmer exchange visits to facilitate farmer to farmer learning
- **INADES could play a greater role in training farmers across the project**
- **Need to strengthen farmer access to market information**
- Need to facilitate links with other projects in the villages
- **Need to promote holistic messages – not just CP – should include agronomy, crop management and marketing – the whole process of crop production and sale**
- **Need to identify ways in which farmers pay for crop protection information** – farmers will give more value to the leaflets (cost TSh 300 each approx. 15p); farmers will buy booklets but no history of buying leaflets
- Need to provide stockists with leaflets – good distribution channel to reach more farmers

- Need to scale-up means a need for another year's support
- Need to link project into national farmer network MVIWATA
- Need to develop a CP technology databank
- Need to link into the project other important stakeholders e.g. micro-credit and financial agencies such as SACOS
- Need to produce more dissemination materials to reach more farmers
- Need to increase the intensity of mass-media communication channels e.g. radio, video, TV
- Need to strengthen farmer groups by farmer exchange visits
- Researchers and extensionists need to participate in farmer field days
- **The different pathways need to be tested to identify the “best-bets”**
- Gender needs to be mainstreamed in the project
- Need for more emphasis on including local knowledge in the project
- **Need for product-wise comparison of different promotional methods**
- Need to better document project experiences over the whole project
- Need to include training on marketing – especially those products with greater market value
- Give more emphasis on capacity building for learning together – to give farmers more control
- **Promotion of CP technologies should not over-shadow promotion of sound crop management**
- **Need for economic analysis of promotional strategies – need to assess cost-effectiveness**
- Need to involve local government as much as possible to ensure sustainability

** Feedback from Tanzania included emphasis on completing and expanding current project activities as well as additional complementary activities*

** For Tanzania, individual project team members wanted to give their feedback hence there is some repetition in the suggestions made

APPENDIX 1. PROJECT COVERAGE AND PROJECT TEAMS

1. Geographical coverage

Kenya:

Eastern Kenya: Mwingi and Kitui Districts

Western Kenya: Kisii and Homa Bay Districts

Tanzania:

Central Zone: Dodoma Rural; Kongwa and Singida Districts

2. Project teams

Responsible for Kenya:

Alistair Sutherland, Project Leader, NRI

Eastern Kenya:

Justus Kavoi, Deputy Director, KARI, Katumani, Regional Project Coordinator

David Karanja, Seed Unit, KARI, Katumani

Richard Ndegwa, RELO – Ministry of Agriculture, Katumani

Charles Mugo, District Agricultural Officer – Mwingi

Emily Kioko, District Agricultural Officer – Kitui (not met)

Emanuel Kisanjau, Agricultural Co-ordinator, CDK, Kitui (not met)

Grace Umbi, WINROCK International – ADSP, Kitui (not met)

Western Kenya:

John Ogecha, Entomologist, KARI, Kisii, Regional Project Coordinator

George Bosire, RELO – Ministry of Agriculture, Kisii

Odhiambo Opwapo, District Agricultural Office – Homa Bay

Charles Nyakora Onyango, Agricultural Officer, C-MAD, Rongo

Rosemary Ogola, Agricultural Coordinator, CARE-Task Project, Homa Bay

ICRISAT:

Eric Manyasa

Responsible for Tanzania:

Richard Lamboll, CPP Socio-economic Advisor for Semi-Arid, NRI

Charlie Riches, Weed management specialist

Project Coordination:

Alphonse Katunzi, Managing Director, INADES-Formation, Dodoma

Patrick Lameck, Project Co-Coordination, INADES-Formation, Dodoma

Central Zone ZRELO:

N E Kiariri

Job David Miki, Zonal Communications Officer, Dodoma

Judicate Mwangi, Zonal Information Officer, LPRI, Mpwapwa

Technical backstopping:

Dr A Mwangi, Ilonga Agricultural Research Institute, Ilonga
Judicate Mwangi, Zonal Information Officer, LPRI, Mpwapwa

Dodoma Rural District:

John Semwaiko, DSMS Crop Officer & District Project Coordinator
Susan Bidya, District Executive Officer
Mary Bonventura, DALDO

Kongwa District:

Barnabas Mongo, DSMS Crop Protection & District Project Coordinator
Mr Jim K Mllay, District Executive Director
Mr Walter Mtumbala, Acting DALDO

Singida District:

Loveness Sakwera, DSMS Agriculture & District Project Coordinator
Mr Mwagowa, District Executive Director
Mr Ben Manento, DALDO

APPENDIX 2. ACTIVITIES OF REVIEW MISSION AND CONTACTS

1. Travel schedule

7 May	Meeting with Panos UK
7/8 May	Travel to from UK to Nairobi, Kenya
11 May	Meetings with Mediae Trust and Wren Media
12 May*	Travel to from Nairobi to Katumani; Mwingi and field visits
13-14 May*	Project Review Workshop, Mwingi and field visits; return to Nairobi
15 May	Travel to Dar es Salaam, Tanzania
16 May**	Travel from Dar to Dodoma to Singida
17 May**	Field visits Singida District; return to Dodoma
18 May**	Field visits Kongwa District; consultations with project team
19 May**	Visit to DED, Dodoma Rural; feedback session with project team; wrap-up briefing; return to Dar
20 May	Travel to Nairobi
21 May	Meetings with ICIPE; USAID; ICRISAT and ECARSAM
22 May	Further meetings with Mediae Trust; report writing
23 May	Report writing
26 May	Meeting with Paul Seward, FIPS (dual-purpose)
27 May	Meeting with Helga Recke, EU KASALS Travel from Nairobi to the UK

2. Project Review Workshop Programme – Kenya, Mwingi Cortege Hotel, Mwingi, 12–14 May 2004*

Day/Date	Activity
Wednesday 12 May	Visit to KARI, Katumani; meet Centre Director Travel to Mwingi; courtesy call at DAO's Office Field visit to Ithingili FFS; discussions with farmers
Thursday 13 May	Introduction to the workshop Objectives of the review workshop and project background Review team objectives Output 1: Feedback mechanisms & lessons Output 2: Improving access to crop protection information Output 3: Pilot effective dissemination Output 4: Monitoring and evaluation and lesson learning
Friday 14 May	Feedback from Kenya project team on key lessons learnt and future priorities to meet on-going challenges Feedback from the review team Field visit to Para-extensionist Joyce Mwendwa's farm; discussions with farmers Return to Nairobi

3. Project Review Mission – Tanzania, Dodoma, Kongwa and Singida Districts, 16–19 May 2004**

Day/Date	Activity
Sunday 16 May	Travel from Dar es Salaam to Dodoma and Singida Meeting with project team in Singida
Monday 17 May	Courtesy call on DED and DALDO, Singida Field visit to Merya Village (onion crop protection); discussions with farmers Field visit to two farms (sorghum Striga management with resistant varieties {Wahi} and cultural strategies); discussions with farmers Return to Dodoma
Tuesday 18 May	Travel to Kongwa Courtesy call on DED and DALDO, Kongwa Field visit to Mkoko Village (maize stalk borer crop protection); discussions with farmers Discussions with the project team Return to Dodoma
Wednesday 19 May	Courtesy call on DED and DALDO, Dodoma Rural Feedback from Tanzanian project team on lessons learnt and future priorities Feedback from the review team Return to Dar es Salaam

4. Contacts

UK:

Kitty Warnock, Director of Communications, Panos UK

kittyw@panoslondon.org.uk

Teresa Hanley, Global Programmes Director, Panos UK

teresah@panoslondon.org.uk

Kirsty Cockburn, Managing Editor, Science and Development Network
(SciDev.Net) (consulted via email)

kirsty.cockburn@scidev.net

Malcolm Blackie, Independent Consultant (consulted via phone)

Mblackie@netcom.co.uk

Kenya:

David Campbell, Director, Mediae Trust

mediae@africaonline.co.ke

Susanna Thorp, Director, Wren Media

S.Thorp@wrenmedia.co.uk

Susie Emmett- Radio Producer/Broadcaster, Wren Media

S.Emmett@wrenmedia.co.uk

Alistair Sutherland, Project Leader, NRI

A.J.Sutherland@gre.ac.uk

George Okwach, Director, KARI, Katumani

geokwach@africaonline.ke
Justus Kavoi, Deputy Director, KARI, Katumani, Regional Project Coordinator
imkavoi@yahoo.com
David Karanja, Seed Unit, KARI, Katumani
ksukatu@felmu.co.ke
Arnold Ngare Njaimwe, KARI, Katumani
Agnes Nzuku, KARI, Katumani
Paul Musembi, KARI, Katumani
M Lumumba, KARI, Katumani
Richard Ndegwa, RELO – Ministry of Agriculture, Katumani,
daomks@africaonline.co.ke
Charles Mugo, District Agricultural Officer – Mwingi
Daniel K Mwangi, Deputy DAO, Ministry of Agriculture, Mwingi
Titus M Utungo, Ministry of Agriculture, Mwingi
Stanley Musyoka Munyithya, Ministry of Agriculture, Mwingi (Ithingili Village)
Patricia Koki, Catholic Diocese of Kitui- Food Security
kokpatricia@yahoo.com
John Ogecha, Entomologist, KARI, Kisii, Regional Project Coordinator
kisikari@west.nbnet.co.ke
George Bosire, RELO – Ministry of Agriculture, Kisii
bosaya2004@yahoo.com
Odhiambo Opwapo, District Agricultural Office – Homa Bay
Charles Nyakora Onyango, Agricultural Officer, C-MAD, Rongo
Nyakorac-madke@yahoo.com
Rosemary Ogola, Agricultural Coordinator, CARE-Task Project, Homa Bay
Bernhard Lohr, Head Pest Management, ICIPE, Nairobi
blohr@icipe.org
Brigitte Nyambo, Head Technology Transfer Unit, ICIPE, Nairobi
bnyambo@icipe.org
Said Silim, Regional Director, ICRISAT, Nairobi
S.Silim@cgiar.org
Richard Jones, Global Theme Leader, Sustainable Seed Supply Systems,
ICRISAT, Nairobi
R.Jones@cgiar.org
Eric Manyasa, Technical Scientist, ICRISAT, Nairobi
e.manyasa@cgiar.org
Patrick Audi, Social Scientist, ICRISAT, Nairobi
Aberra Debelo, Regional Coordinator, ECARSAM, Nairobi
a.debelo@cgiar.org
Harrigan Mukhongo, Project Manager/Market Linkages Specialist,
Technoserve/ICRISAT, Nairobi
H.Mukhongo@cgiar.org
Peter Ewell, Regional Agricultural Advisor, USAID
pewell@usaid.gov
Helga Recke, Project Coordinator, EU-KASALS
HelgaRecke@kari.org
Paul Seward, FIPS, Nairobi
fipskenya@yahoo.com

Tanzania:

Alphonse Katunzi, Managing Director, INADES-Formation, Dodoma
alphonse_katunzi@yahoo.com

Patrick Lameck, Project Co-Cordination, INADES-Formation, Dodoma
patrickmbag@yahoo.com

Job David Mika, Zonal Communications Officer/ZRELO, Ministry of Agriculture and Food Security, Zonal Communication Centre- Central Zone, Dodoma
jobumika@yahoo.com

Judicate Mwanga, Socio-Economist and Zonal Information Liaison Officer (Central Zone), Ministry of Water and Livestock Development, Livestock Production Research Institute, Mpwapwa
mwangajudi@yahoo.com

Ambonesigwe Mbwaga, Ministry of Agriculture and Food Security, Department of Research and Development, Ilonga Agricultural Research Institute, Ilonga
ilonga@africaonline.co.tz

John Semwaiko, DSMS Crop Officer & District Project Coordinator, Dodoma
Susan Bidya, District Executive Officer (DED), Dodoma

Mary Bonventura, DALDO, Dodoma

Barnabas Mongo, DSMS Crop Protection & District Project Coordinator, Kongwa

Jim K Mllay, District Executive Director (DED), Kongwa

Walter Mtumbala, Acting DALDO, Kongwa

Loveness Sakwera, DSMS Agriculture & District Project Coordinator, Singida

Mr Mwangowa, District Executive Director (DED), Singida

Ben Manento, DALDO, Singida

Daniel Ticehurst, SDP/ASDP, Dar es Salaam, Tanzania

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