

CROP POST HARVEST PROGRAMME

Project Title: Maximising impact of food safety knowledge of street vended and informally vended foods generated by CPHP projects in West and Southern Africa using the coalition approach and extending the approach to India

R No 8433 (ZB No 0375)

PROJECT FINAL REPORT

15 January 2005 - 15 January 2006

Core Partners:

Ghana: Food Research Institute, Accra Metropolitan Assembly, Food and Drugs Board, Ghana Traditional Catering Association, University of Ghana, Kwame Nkrumah University of Science & Technology, Consumer Association of Ghana;

Zambia: National Institute for Scientific & Industrial Research, Lusaka City Council; Food & Drugs Control Laboratory, Ministry of Health, Central Board of Health, Ministry of Commerce, Trade and Industry, Ministry of Health;

India: Jadavpur University;

Zimbabwe: City Health Department, Government Analyst Laboratory, Institute of Food, Nutrition and Family Sciences, Kutsaga Research Station.

Managing Partner(s): Mr Keith Tomlins & Dr Andrew Graffham.

Managing Partner's Institute: Natural Resources Institute, the University of Greenwich, Central Avenue, Chatham Maritime, Kent, ME4 4TB, United Kingdom.

Project Final Report

Section A Executive Summary

A very brief summary of how the outputs of the project contributed to the purpose, the key activities and highlights of dissemination outputs. (Up to 500 words).

The project sought to contribute to poverty reduction through improved livelihoods for those employed in the street vended food (SVF) and informal vended food sectors (IVF) and improved health of consumers of SVF through reduced incidence of foodborne illness.

The project, comprising over 20 partners in Ghana, Zambia, Zimbabwe, India and the UK sought to combine the experiences and knowledge gained in previous projects and develop a new coalition partnership in Kolkata, India. The four coalitions used the 'knowledge management' approach to explore ways that institutions and organisations manage and share knowledge. They jointly developed a management and control system for the street and informal food sector, broken down into a series of 'modules'. These documented the food safety management approach developed to enable other towns and cities who wish to explore ways of improving the livelihoods of vendors and consumer health.

In, Kolkata, India, a new coalition managed by Jadavpur University grew in size to 14 partners. National outputs included a socio-economic study and participation in the development of a National Policy for Urban Street Vendors. Internationally, the coalition attended coalition meetings in Ghana and Zambia and contributed to module development.

National modules specific for the management and control of the SVF and IVF sectors in each of Ghana, Zambia, Zimbabwe and India were developed from earlier project outputs.

International modules were developed from the national modules in Ghana, Zimbabwe, Zambia and India so that they had a wider application. Using a knowledge management approach the project:

- Brought together knowledge and experiences from earlier projects on IVF and SVF;
- Developed a systematic approach for management and control of food vending, broken down into a series of modules.

To achieve this, two international meetings were held by the project in Ghana and Zambia. A total of 11 international modules were agreed at the meetings and developed. These, modules, based on practical experience, included Partnerships, Training, Consumer Awareness, Food safety, Food Inspection, Policy, Infrastructure, Monitoring and Evaluation, Livelihoods, Legal Framework and Supply Chain. The draft modules included case study stories to illustrate examples of how the project worked together to solve common issues.

In Zambia, 12 60min radio programmes entitled 'Eating Out Safety' were broadcast over a 3 month period. Each programme included food safety messages, a drama and a phone-in. CDs were produced to disseminate the programmes. Consumer interviews indicated a very positive response to the programmes.

The project has attracted global attention and was programmes were broadcast on BBC World TV (Earth Report) and BBC World Service Radio (Health Matters) to an estimated audience of 350million.

Lessons learned included:

- the need for key policy stakeholders understand the importance of vending to the economy;
- there was a genuine interest by key organisations in the modular approach;

- vendors saw their inclusion at the centre of the project activities as positive;
- that new partnerships can be initiated by any partner and that commitment was more important than expertise;
- partners from different countries and cultures were keen to share experiences;

Section B Identification and design stage (max 3 pages)

How did the project aim to contribute to poverty reduction? Was it enabling, inclusive or focussed (see definitions below¹)? What aspects of poverty were targeted, and for which groups?

The project sought to contribute to poverty reduction through an enabling and inclusive process. The aspects of poverty targeted were as follows:

- Improved livelihoods for those employed (mainly low income and resource-poor) in the street and informal food sectors (enabling process);
- Improved health of consumers (all income groups) of street vended foods through reduced incidence of food borne illness (inclusive process).

There have been four projects on street food and informally vended foods that have been funded by the DFID Crop Post Harvest Programme. These projects have involved the collaboration of over 22 partner organisations in Africa (Ghana, Zambia and Zimbabwe), South Asia (India) and Europe (United Kingdom). Project R7493 was a one year preliminary study in Accra, Ghana (1999 to 2000). This was initially primarily a food safety investigation but the project team decided to focus resources on determining the importance of the sector to the urban economy of Accra with a smaller food safety survey. These findings were disseminated to policy makers at the local and national government level who subsequently formed a street food working group consisting of policy makers in Ghana to provide support to the sector and improve consumer health. A further project in Ghana (R8270; 2002 to 2004) sought to formalise the development of the coalition partnership using the innovation systems approach. Similarly, a third project (R8272; 2002 to 2004) on informally vended foods sought to address concerns to consumer health and vendor livelihoods in Zambia and Zimbabwe. Coalition partnerships in Harare and Lusaka sought to carryout action research to explore the issues of government support for unlicensed vendors, economic decline, rapid urbanisation, high unemployment and the impact of the HIV/AIDS pandemic.

The current project (2005 to 2006) sought to combine the experiences and knowledge gained previously in Ghana, Zambia and Zimbabwe while at the same time introducing a fourth coalition partnership in Kolkata, India. The four coalitions will use the 'knowledge management' approach to explore ways that institutions and organisations manage and share knowledge. They jointly developed a series of 'modules' that document the food safety management approach developed by the coalitions to facilitate other towns and cities who wish to explore ways of improving the livelihoods of vendors and consumer health.

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

The livelihood constraints that this project sought to address were identified in a previous CPHP projects (R7493, R8270, R8272) which established that the street and informal vended food sector significantly contributes to the urban economy in Accra (Ghana), Lusaka (Zambia) and Harare (Zimbabwe). For example, in Accra, Ghana, 60,000 street vendors make an estimated

¹ **Enabling:** addresses an issue that under-pins pro-poor economic growth or other policies for poverty reduction which leads to social, environmental and economic benefits for poor people

Inclusive: addresses an issue that affects both rich and poor, but from which the poor will benefit equally

Focussed: addresses an issue that directly affects the rights, interests and needs of poor people primarily

profit of US\$24 million a year, in Lusaka, Zambia, 16,000 people serve more than 81 million meals a year, in Harare there are 8700 vendors but are considered illegal. Most vendors had minimal education and were female. While there are benefits, there are also risks to vendor livelihoods and consumer health. Food safety surveys showed that in Accra showed that some street foods are intrinsically safer than others (kenkey and waakye are safe products while most fufu samples were contaminated) and that hazards from the heavy metal lead were not a major concern although some cooking pots made by informal foundries contained high levels of lead that could leach into food slightly above the maximum recommended levels by WHO. In Lusaka and Harare, high rainfall increased the risk of transmission of disease through contaminated water and generally poor sanitation. Meat stew represented the highest risk to health with 1.6% samples containing significant levels of *Salmonella* spp and 14.6% of samples being contaminated with *Bacillus cereus*. Water used by vendors in Lusaka often had quite high bacterial counts but faecal contamination was only detected in 1.2% of samples analysed. Monitoring of vendors hands and preparation surfaces and serving utensils by swabs revealed very little evidence of faecal contamination.

While the research had been undertaken in a coalition approach, it was felt by partners that sustainable improvements in livelihoods and consumer health could best be achieved by developing appropriate management and control strategies for street and informal food vending. This could be achieved through:

- Bringing together knowledge from earlier projects on informal / street foods (R7493, R8270, R8272);
- Sharing knowledge, ideas and experience between players in Ghana, India, Zambia and Zimbabwe in improving livelihoods of vendors and the health of consumers;
- Developing a systematic approach for management and control of informal food vending, broken down into a series of modules, so that other towns and cities can use similar approaches to deal with common problems;
- Discuss the issues of testing our concept for some of the modules in collaboration with partners.

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

In this project, all of the key partners involved in the project were end-users of the knowledge. These included direct beneficiaries (vendor organisations, market organisations and consumer organisations) and supporting institutions (local authorities, policy, food inspection, government organisations, public health, food standards, trade, laboratories, research (food safety, social and economics) and food security. Table 1 shows the end users, as institutions in each country by class or organisation and type of organisation.

Table 1: Project end users

Class of organisation	Type of organisation	Country			
		Ghana	Zambia	Zimbabwe	India
Direct beneficiary	Vendor / market organisations	Ghana Traditional Caterers Association, Accra	Market traders association	Market traders association	Hawkers Association
	Consumers association	Consumer Association of Ghana, Accra		Consumer council of Zimbabwe	Consumer Action Forum, Kolkata
Supporting institution	Local authority / policy / food inspection	Accra Metropolitan Assembly Accra	Lusaka City Council, Lusaka	City Health Department, Harare,	Kolkata Municipal Corporation, Kolkata
	Government organisations /		Ministry of Health, Lusaka	Ministry of Health and Child welfare, Harare	Health Department, Govt of West

public health / policy				Bengal All India Institute of Hygiene and Public Health, Kolkata.
Food Standards / Trade	Food & Drugs Board of Ghana, Accra	Ministry of Commerce, Trade and Industry Lusaka	Ministry of Small and Medium Enterprise Development, Harare	
Analytical laboratory	Food Research Institute, Accra	Food and Drugs Control Laboratory, Ministry of Health, Lusaka	Government Analyst Laboratory, Harare Kutsaga Research Station, Harare	Central Food Laboratory, Kolkata
Research organisation (food safety)	Food Research Institute, Accra Kwame Nkrumah University of Science & Technology, Kumasi	National Institute for Scientific & Industrial Research Lusaka	Institute of Food and Nutrition and Family Sciences , University of Zimbabwe, Harare	Institute of Dairy Research and University of Animal Husbandry and Fishery.
Research organisation (social and economics)	Dept of Agricultural Economics and Agribusiness, University of Ghana, Legon			Jadavpur University, Kolkata
Food Security				Association of Food Security and technology.

Note: The Natural Resources Institute, United Kingdom was classified as an international organisation and is therefore not included in this table.

In this project, the different groups of end users were previously partners in earlier projects apart from those in Kolkata, India who were new to the project. The design for adoption of project outputs by the user partners was in three phases:

Phase I: Partners in Ghana, Zambia and Zimbabwe who had participated in earlier CPHP funded projects develop modules specific to their own experiences in improving vendor livelihoods and consumer health in each country;

Phase II: Extend the coalition approach Kolkata, India by developing a new partnership there

Phase III: Partners in Ghana, Zambia, Zimbabwe and India develop a common set of modules, based on practical experiences in improving vendor livelihoods and consumer health. This approach will be recommended for inclusion in national and urban systems.

What institutional factors were seen as being important?

The development of appropriate management and control strategies for street and informal food vending required a partnership of key institutional organisations. Table 1 shows that the institutional factors for the management and control approach involved organisations involved were vendor / market organisations, consumers associations, local authority / policy / food inspection, government organisations / public health / policy, food Standards / trade, analytical laboratories, research organisations (food safety, social and economics) and food security.

Factors considered important were participation in earlier projects, capability and capacity, mandate and ability to champion the partnership (managing partner).

Section C Research Activities

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

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

Ghanaian vendors



Zambian Vendors



Zimbabwean vendors



Indian vendors



The purpose of this project was to bring together knowledge from four earlier projects on street food and informally vended foods that have been funded by the DFID Crop Post Harvest Programme. These projects had been either managed or jointly managed by NRI in collaboration with over 22 partner organisations in Africa (Ghana, Zambia and Zimbabwe) and South Asia (India). Project R7493 was a one year preliminary study in Accra, Ghana (1999 to 2000). This was initially primarily a food safety investigation but the project team decided to focus resources on determining the importance of the sector to the urban economy of Accra with a smaller food safety survey. These findings were disseminated to policy makers at the local and national government level who subsequently formed a street food working group consisting of policy makers in Ghana to provide support to the sector and improve consumer health. A further project in Ghana (R8270; 2002 to 2004) sought to formalise the development of the coalition partnership using the innovation systems approach. Similarly, a third project (R8272; 2002 to 2004) on informal vended foods sought to address concerns to consumer health and vendor livelihoods in Zambia and Zimbabwe. Coalition partnerships in Harare and Lusaka sought to carry out action research to explore the issues of government support for unlicensed vendors, economic decline, rapid urbanisation, high unemployment and the impact of the HIV/AIDS pandemic.

The current project seeks to combine the experiences and knowledge gained previously in Ghana, Zambia and Zimbabwe while at the same time introducing a fourth coalition partnership in Kolkata (formerly Calcutta), India. The four coalitions will use the 'knowledge management' approach to explore ways that institutions and organisations manage and share knowledge. They will jointly develop a series of 'modules' that document the food safety management approach developed by the coalitions to facilitate other towns and cities who wish to explore ways of improving the livelihoods of vendors and consumer health.

The outputs that these project activities sought to contribute to were:

- 1: Improved project impact within each coalition (in Ghana, Zambia and Zimbabwe) by evaluating and documenting knowledge demands within the partnership.
- 2: Synthesis of knowledge at the regional and cross-regional levels to produce information packages for wider application of the food safety and coalition management approaches.
- 3: Transfer and evaluation of knowledge packages in food safety and quality management developed in output 2 by a newly formed partnership in Kolkata, India.
4. Innovative approaches for creating consumer awareness developed in Zambia through the production of a series of radio programmes to be broadcast on Zambia national radio.

The research activities were undertaken in a number of stages (these were undertaken congruently instead of in a linear fashion):

- **Stage I:** Project inception and stakeholder meetings in each country (output 1)
- **Stage II:** Extend the project approach to include a new coalition of partners from Kolkata, India (output 3).
- **Stage III:** Development of national modules for the management and control of the street / informal food vending sector that are specific and unique to each countries situation (output 1).
- **Stage IV:** Develop a set of international modules for the management and control of the street / informal food vending sector that have common and general themes that have wider application (output 2).
- **Stage V:** Knowledge Attitude Practice study (output 1)
- **Stage VI:** Explore ways of informing and educating consumers and vendors by the use of radio (output 4)

Stage I: Project inception and stakeholder meetings in Ghana, Zambia, India and Zimbabwe

For a project with 22 partners spanning five countries in three continents the project inception meetings for core coalition partners and stakeholders in each country was important so that partners in each country could be informed about the project purpose, outputs and activities both nationally and internationally.

Ghana

Project inception and coalition meetings were held at FRI on 8th March to inform the coalition partners about the project and to identify the stakeholders. Coalition partners are keen to further develop the project approach. A stakeholders' meeting was held on the 10th of March at the Ange Hill Hotel, Accra which was attended by over 50 people.

Zambia

Project inception and coalition meetings were held at NISIR on 3rd and 18th March 2005 to inform the coalition partners about the project and to identify the stakeholders.

A stakeholders' meeting was held at the Mulungushi International Conference Centre, Lusaka, 11-12th May 2005. The meeting discussed issues of food safety and good hygienic practices in the informal food vending sector in Lusaka. The meeting was attended by

vendors and market leaders from 7 markets in Lusaka, city councillors, health inspectors, policy makers, researchers and consumers.

Zimbabwe

A project inception and coalition meeting was held on 10 June at the City Health Department offices, Rowan Martin Building, where partners were informed of the project approach and agreed on the project activities. A stakeholders' meeting was held at Rowan Martin Building, Harare on 14 June 2005, and was attended by 19 participants from the City Health Department, Kutsaga Research Station, Government Analyst Laboratory, Crops Post Harvest Programme, University of Zimbabwe, Standards Association of Zimbabwe, Ministry of Health and Child Welfare, Municipal Police, Urban Councils Association of Zimbabwe, Consumer Council of Zimbabwe and Ministry of Small and Medium Enterprise Development.

India

The inception meeting of the India Coalition was held at the University of Jadavpur, Economics department on 18 April 2005. It was attended by 18 people from JU (Economics Department, School of Water resources, Food Technology), Consumer Association of Kolkata and the private sector (Shrimon, Bio-tech). It was also attended by the managing partners (NRI) and a representative from CPHP (NRIL).

Ghana – stakeholder inception meeting, 10 March 2005



Zambia – stakeholder inception meeting, 11-12 May 2005



Zimbabwe – stakeholder inception meeting, 14 June 2005



India – stakeholder inception meeting 19 April 2005



Stage II: Extend the coalition approach to Kolkata, India

Projects R7493, R8270 and R8272 have successfully contributed to developing new knowledge on food safety issues, how information is used and partners adopt new knowledge using the coalition approach. They also illustrated new challenges if this new knowledge is to be adapted successfully and in a sustainable way to improve livelihoods of the vendors and the health of consumers. These projects also highlight that collaboration between West Africa and Southern Africa can substantially enhance the outputs in this proposal and how knowledge is managed.

In view of this, the coalition approach and approach for management and control of the street / informal food sector was transferred to Kolkata in Southern India where 130,000 street-vendors make an estimated profit of nearly US\$100 million per year.

The India coalition, through the inputs of Professor Joyashree, Roy, Jadavpur University, was developed through personal contact, telephone calls and face to face meetings. The inception meeting of partners in April 2005, which was attended by Mr K Tomlins and Dr A Graffham, NRI, enabled the project approach to be explained to the new partners in detail. In particular the management structure was explained so that partners understood the vital role of country managers, the coordination role of international organisations (NRI) and the need for inputs and exchange of knowledge from all partners. The coalition development process was observed by Dr Vino Graffham, Assistant Programme Manager, Crop Post Harvest Programme, UK. Figure 1 gives the phased development of the partnership mechanism as attempted through this research. Table 2 shows the partnership in November 2005.

Figure 1: Partnership development for the India coalition

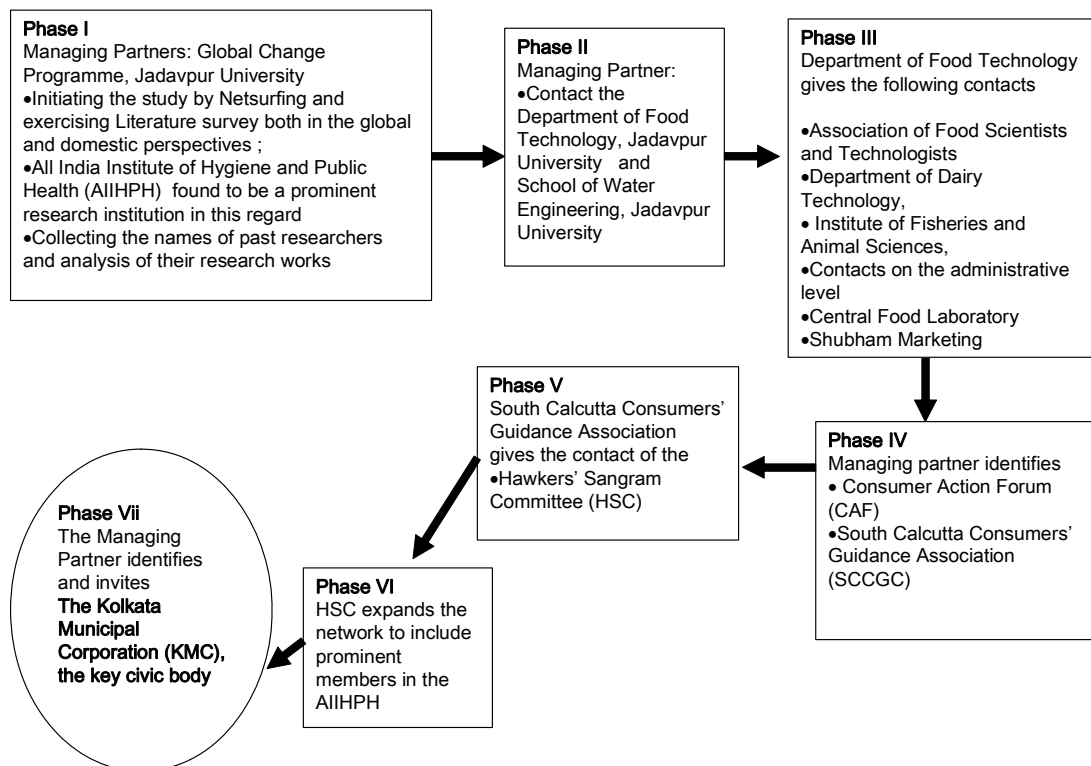


Table 2: Street / informal food partnership in Kolkata – November 2005

Class of partner	Organisation
Managing partner	Jadavpur University
Civic Administration / Local authority	Kolkata Municipal Corporation Intelligence Bureau of West Bengal
Vendors' Association	Hawkers' Sangram Committee
Consumer Association	Consumer Action Forum South Calcutta Consumers' Guidance Association
Public Health	All India Institute of Hygiene and Public Health
Laboratory	Central Food Research Laboratory
Academic/Research Institutes	Department of Food Technology, Jadavpur University Department of Dairy Technology, Institute of Fisheries and Animal Sciences Department of Home Science and Nutrition, Smt J.D. Birla Institute School of Water Engineering, Jadavpur University Association of Food Scientists and Technologists
Private Entrepreneurs	Shubham Marketing
Number of partners	14

The outputs of the India coalition were at national and international levels

National outputs of the India coalition

- A socio-economic study (appendices 1, 2 and 3) found that the total no of vendors operating in the informal sector is 2,75000. Amongst those, informal food vendors constitute 1,43000, thus comprising 52% of the total urban vending population in Kolkata. Food vendors were commonly vending at office Hubs (Rabindra Sadan, Minto park, Nizam Palace, Acharya Jagadish Ch Rd, Karunamoyee, Bikash Bhavan, Salt Lake, Behala CESC Office, Karl Marx Sarani Dent Mission Rd), railway stations and dock areas (Sealdah, Bidhan Nagar, Khidderpore Dock), Hospital (NRS, CMRI, R.G.Kar Medical College), schools and colleges (Minto Park, Barisha High School Behala, Karl Marx Sarani, Maharaja Manindra Ch College, Bagbazar Multipurpos), temples and Approach Roads (Dakshineshwar) and entertainment centres. While food vending is still considered illegal it is tolerated. Vendors want a licence as that would facilitate the trade and the vendors are willing to pay money to this effect. Vendors in the central Dalhousie area have since 1985 seen a shift in their political stance with them going for the All India Trade Union Congress (AITUC) membership from CITU membership. The vendors in the said area are presently under the Hawker Sangram Samiti (HSC). Affiliations to the HSC to most of the vendors are beneficial. While vendors receive little support from environmental health officers (EHO's), they are no longer subject to previous harassment in the likes of police excesses, jail, fine (often to the tune of Rs. 50 each day) torture by local thugs, extortion by Kolkata Municipal Corporation. Most vendors were male (a contrast to female vendors in Ghana, Zambia and Zimbabwe) and saw vending as their primary source of income. There were however, concerns regarding food hygiene and hence risks to consumer health. Most issues were regarding access to clean water, lack of washing utensils, uncovered foods, and personal hygiene. Consumers prefer street food for saving time, cost, proximity with place of work and buy from known vendors due to long acquaintance, Most are satisfied with food quality and most of them frequent the stalls daily. Interestingly if they are aware of hazard potential ;still consume. Consumers were ready to pay more for infrastructure improvement and adoption of better kitchen practices and consequential price rise.
- The India coalition partners (Professor Roy, JU and Saktiman Ghosh, Hawkers Sangram Committee, attended a meeting in Delhi organised by Ministry of Urban development and poverty alleviation to evaluate a draft governmental document 'National Policy for Urban Street Vendors' on 19 October 2005. At the meeting, Professor Roy and Mr Ghosh were able to share experiences from this project with national and state representatives. The National Policy document was discussed during coalition project meetings;
- India coalition has requested and received appropriate promotion material from the coalitions in Zambia, Zimbabwe and Ghana;
- Key lessons learnt in developing the India coalition was the transfer of responsibility to all project partners. This was best achieved if partners participated on their initiative without any immediately observable financial gains. This was usually because of the organisations mandate or their understanding the need. However, some partners may require to be induced. This applied to very crucial ones given their position and implementing capability. However, their busy schedule needed to be factored in on the agenda of the Managing Partner; latter to maintain constant liaison with the former(e.g. Civic Authority, Enforcement Agencies, Government etc.) Certain partners required inducing in a subtle manner, constantly trying to strengthen the trust factor; (lesson: this may yield positive results; e.g. Vendor- Jadavpur University liaison has yielded vital results such as JU researchers gained access to records of past vendor movements, Vendors got support from researchers in

documentation and preparation of presentation, training materials, ; vendors' cause got more visibility and publicity)

International outputs of the India coalition

Partners from the India coalition attended two international meetings which were in Accra, Ghana (27 to 30 June 2005) and Lusaka, Zambia (14 to 18 November 2005) to participate in the development of the international modules (see section on International modules – Stage IV).

Vendors at BBD Bagh (formerly Dalhousie Square), Kolkata



Vendors at Sealdah



Project seminar with street vendors in Kolkata (Hawker Sangram Committee)



Coalition meeting of India Coalition, Jadavpur University, Kolkata, 15 Sept 05



Stage III: National Modules

The national modules were developed by the coalitions in Ghana, Zambia and Zimbabwe which had been developed from outputs from earlier projects. These modules gave these countries the opportunity and freedom to explore management and control issues that were unique to their own situation and culture. In addition, India, although new to the project developed a national module for partnership building.

The purpose of the modules was to bring together the information and experiences using a systematic and logical approach. Because the issues concerning the improvement of vendor livelihoods and consumer health are complex and wide ranging, they were broken down into a series of modules to simplify the approach. The idea was to enable other towns and cities in each nation to use similar approaches to deal with common problems.

Each national partnership was given freedom in the approach used to develop the national modules.

An additional reason for developing the national modules was that it enabled each national coalition to explore issues in developing modules to facilitate the development of the international modules.

Ghana

National modules developed in Ghana are given below:

1. Building partnerships
2. Training and promotion
3. Consumer awareness
4. Food vendor livelihoods
5. Infrastructure and utilities
6. Food safety, inspection, law and regulation
7. Supply chain

Ghana project activities have concentrated mainly on the development of 4 of the 7 modules. Several meetings were held by the different sub-groups between March and November 05. The Sub-group for Module 2 appears to have advanced most with the development of the modules. Members for Module 2 have been able to document all the typical physical, chemical and biological hazards associated with the preparation and vending of 21 popular foods sold on the streets of Ghana. Also documented are the possible control measures that could be adopted and implemented by the street food operators. These documents are targeted mainly for use by Environmental Health Offices (EHOs) and other research persons. Out of these 2 draft technical documents, 3 draft user- friendly teaching documents with annotated diagrams and/or pictures on *personal hygiene, food hygiene and environmental hygiene* have been developed. The latter 3 documents are targeted for the street food associations and NGOs like the GTCA. Module 2 has also examined the bye-law enforcements by the EHOs of AMA for the practices associated with each of the 21 popular street foods sold in Ghana. Again out of these, food safety inspection checklist that could be used by EHOs for monitoring the activities of street vendors has been developed. On enforcement of byelaws for ensuring food safety, it was detected that most of present bye-laws are either not stringent enough or do not adequately cover food safety issues related to street foods in Ghana.

The infrastructures used in vending different types of street foods in Ghana have also been assessed. Recommendations for improvement have been discussed and documented. Developments of modules on livelihoods, consumer interaction and supply chain are on-going.

The draft documents included:

- Report on stakeholders workshop for the development of modules for the street food vendors in Ghana
- Types, possible sources and control measures for food hazards associated with street foods in Ghana.
- Simple notes on good kitchen practices and personal hygiene for street food vendors and handlers.
- Checklist for inspecting traditional catering facilities.
- Law enforcement on street foods in Ghana
- Infrastructure for street foods in Ghana
- Street Food Vendor Livelihoods
- Topics on food and environmental hygiene for training workshops for street food vendors
- Sensitizing the consumer on food safety issues
- Supply chain management manual for street food vendors in Ghana

Zambia

Modules developed included:

1. Application of the coalition approach for management & control of IVF
2. Training for EHO's
3. Vendor to vendor training
4. Development of appropriate policies and regulations
5. Public advocacy, awareness creation and promotion
6. Provision of micro-finance
7. Market infrastructure
8. Good hygienic practice for preparation and vending of prepared and cooked foods
9. Inspection, advice and enforcement
10. Monitoring of compliance

A meeting was held in Lusaka on 11-12 May 2005 in Lusaka to develop them and a report written (appendix 4; stakeholder workshop).

Zimbabwe

Modules developed included:

1. Developing partnerships
2. Training of EHO's
3. Training of vendors
4. Policy framework (finance, vision)
5. Consumer awareness & advocacy
6. Social and cultural context of vending
7. Infrastructure and utilities
8. Food safety and food hygiene - Role of analytical labs
9. 5. Legal framework and inspection
10. Monitoring & evaluation

Based on outcomes of the Ghana meeting, the Zimbabwe partners agreed to develop 10 modules. More detail on these modules and their development is given in appendix 5. The approach adopted by the coalition was discussed in a series of meetings and partners were assigned modules to develop. Members prepared modules independently and presented to the whole group. A common format was then adopted which included an introduction, purpose, objectives, definitions, key issues, recommendations, priority actions and appendices. The definition section was later moved to appendix section

India

The national module for partnership building is given in appendix 6. It is based on experiences gaining in developing the coalition during the project.

Stage IV: International Modules

The international modules were developed from the national modules in Ghana, Zimbabwe, Zambia and India.

Using a knowledge management approach the project sought to:

- Bring together knowledge and experiences from earlier projects on informal / street foods in Ghana, Zambia and Zimbabwe and extend the approach to India;
- Develop a systematic approach for management and control of food vending, broken down into a series of modules, so that other cities can adopt similar approaches to address common problems.

To achieve this, two international meetings were held by the project to bring together key partners from Ghana, Zambia, Zimbabwe and India. The meetings were in Accra, Ghana (27 to 30 June 2005) and Lusaka, Zambia (14 to 18 November 2005).

The 1st International workshop was held at the Miklin Hotel, Accra, Ghana from 26 to 30 June 2005. It was attended by 67 participants from stakeholder organisations in Ghana, Zambia, Zimbabwe, India and the UK.

The opening ceremony for the International Meeting was held on Monday, 27th of July; 2005. Nearly 100 participants attended the opening ceremony. The participants were mainly project members, policy makers and stakeholders from the participating countries. The workshop continued from Tuesday 28th until Thursday 30th. The main aim of the International Meeting was to deliberate on progress made by respective countries on the development of modules, share ideas, strengthen and improve the coalitions in Ghana, Zambia, Zimbabwe and India. In addition, the international meeting was to also enable the four national coalitions to agree and formulate universal modules which will apply internationally for the systematic improvement and management of the informal/street foods sector for the benefit of vendor livelihoods and consumer health.

A vendors' training workshop on food hygiene was organised, by the Ghana Coalition, on the 28th June to illustrate the approach adopted in Ghana. In addition, the vendors' training workshop was an opportunity for the meeting participants especially the international participants to share their experiences with vendors in Ghana. In the evening of 28th June a field trip was organised for the international participants to witness street/informal food vendors' activities in a suburb of Accra. This was to create an avenue for the international participants to learn some acts of vending in Ghana.

Each country gave presentations on progress on project activities followed by question and answer sessions.

Mr K Tomlins gave a presentation on a possible radio component to the current which will be funded by the CPHP. The activities will take place in Zambia but have wider applicability.

Professor J Roy gave a presentation on the economics of food vending and implications for the current project.

Following this, ten International modules were suggested by the international partnership. The issues considered when developing the modules were:

- Why develop the module?
- Who will benefit from the modules and who will implement it?
- How will the module programme be developed?
- How will the module be sustained?
- How do you monitor progress and compliance

The modules and the countries responsible for leading the development of the modules were as follows:

India	Zambia	Zimbabwe	Ghana
Partnerships	Training	Advocacy/Awareness	Food safety and inspection
	Policy	Infrastructure	Monitoring
	Livelihood	Framework	Supply Chain

A detailed report on the workshop is given in appendix 7 parts 1 to 8.

Photographs taken during the first international project meeting in Accra are shown in figure 2.

Figure 2: Photographs taken of activities during the first international project meeting in Accra (27 to 30 June 2005)

Participants at the opening ceremony of the international meeting in Accra, Ghana (copyright Dr A Graffham)



International participant (Dr Rodah Zulu) learning the art of pounding fufu, a Ghanaian street food during a field visit



Professor Joyashree Roy, India, sharing experiences with vendors from Ghana (copyright Dr A. Graffham)



Vendors participating in a training meeting on food hygiene organised to illustrate the approach in Ghana (copyright Mr K Tomlins)



Dr Rodah Zulu receiving posters from Mr Agyarko, Chief Executive, Food and Drugs Board of Ghana on behalf of the International participants. (copyright Mr K Tomlins)



Ms Josephine Mulenga, Zambia, sharing experiences with vendors from Ghana (copyright Mr K Tomlins)



Mr Dombo Chibanda, Zimbabwe, sharing experiences with vendors from Ghana (copyright Dr A Graffham)



The modules were further developed during a second international project meeting held in Lusaka, Zambia from 14 to 18 November 2005. This was attended by over 80 participants from Zambia, Zimbabwe, Ghana, India and the UK.

The purpose of the international meeting concerning the international modules in Lusaka was to:

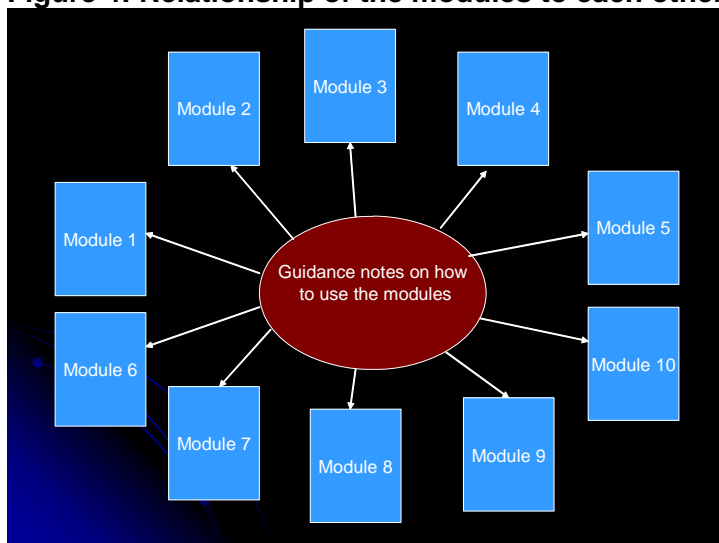
- Further develop the draft international modules
- Share experiences and provide an opportunity for participants to visit vendors in Lusaka.

Issues that the partners from Ghana, Zimbabwe, India, Zambia and the UK had to consider were the:

- format of the international modules;
- that they should be based on experiences gained by the coalition partners in each of the partner countries;
- how the assembled modules will be packaged together to create a management & control system;
- development of guidance notes to explain to users in other cities and towns how to use the modules;
- real life stories from our projects that can be included to support the understanding of the modules by outside parties;
- how to promote the modules on the website.

Figure 4 shows the centre theme for the modules. The oval box in the centre shows the relationship of the guidance notes on how to use the modules.

Figure 4: Relationship of the modules to each other and the guidance notes.



The participants at the Lusaka meeting need to consider the following issues:

- a common format when writing the modules;
- each module should be stand alone – self contained;
- each module to have their own guidance notes;
- set of guidance notes for the management & control system (all modules together);
- must be based on experiences gained during the projects. The modules are not intended to be a text-book;
- include real life stories. Real life stories from our projects can be included to support the understanding of the modules by outside parties
- Priorities (when funds are limited);

- Critical factors (success & failure).

The participants were divided into groups to develop the modules using a common agreed format as follows:

- Title
- Acknowledgements
- Summary
- Contents
- Introduction
- Objectives
- Key issues
- How to do it
- Priorities
- Critical factors for success
- Critical factors for failure

The new agreed modules and leading countries were:

United Kingdom	India	Zambia	Zimbabwe	Ghana
Overall system guidance notes for all modules (appendix 8)	Partnerships (appendix 9)	Training (appendix 10)	Consumer Awareness (appendix 13)	Food safety (appendix 16)
		Policy (appendix 11)	Infrastructure (appendix 14)	Food Inspection (appendix 17)
		Livelihood (appendix 12)	Legal Framework (appendix 15)	Monitoring and evaluation (appendix 18)
				Supply Chain (appendix 19)

These modules are still in draft form but are currently being further refined and developed.

Vision for the future

At the international meeting in Lusaka, participants were invited to comment on a vision for the future based on the experiences gaining during the current and previous CPHP funded projects.

General comments

- Participants strongly felt the need to continue this cross-regional policy network so that it can be tested and ownership transferred. Associated with this was the requirement to identify sources of funds to take this forward in each of the countries;
- Test India National street food policy in Africa;
- Continuous evaluation of the vendor activities to inform policy makers;
- Extend to other cities and towns in India and Africa;
- Assess impact on policy makers, e.g. legal framework, infrastructure;
- Research issues – chlorine in water, maintaining water quality (simple technologies), other contaminants, and more dissemination and on how to do it and how to reach policy maker.

Each country was invited to give comments on their vision beyond this project.

Zambia vision

- Lusaka City Council representative felt it was important to extend the approach to other markets and towns;
- Ministry of health representative stated that they have programmes already running and this project is not stand alone and so will continue. Have yearly programme for EHO's. Have WHO trust fund (US\$2,000) for food safety. Is sustainable;
- Ministry of Commerce Trade and Industry representative mentioned that they have 3 year budget for food safety for inspection which can continue the project approach;
- Zambia vendors vision
 - Vendors want to extend food safety training to the whole of Zambia and would like the knowledge to reach rural areas.
 - Vendors are keen to see informal vendors becoming more formal and business like.
 - Share experience with other countries.
 - Need to receive more training materials for those who are new to the vending business with a time frame for meeting these requirements. Need visual and training booklets. Lack enough training aids. New vendors do not appreciate importance. EHO's can help support this.
 - Looking forward to receiving assistance from local authorities. Toilets not meeting hygiene standards. Authority needs to act promptly. Need financial support
 - Need to improve vendor management in markets, especially for new members entering the markets as they require more support.

Zimbabwe vision

- Ministry of Health & Min of Small & Medium Enterprises have encouraged food marts and vendors must work within these places. All vendors should be vetted. Include canteen & kitchen facilities for vendors.
- Harare Metropolitan leader will ensure infrastructure for informal vendors.
- Will extend to other cities and take on interest of FAO and WHO (looking for money). Issue of infrastructure is at the forefront.
- Informal should not be synonymous with chaos. Need to make vendors more under govt control.

Ghana vision

- Coalition and KAP (knowledge Attitude Practice) study has indicated what is on the ground.
- Food and drugs laws need to be reviewed so that each institution that controls foods has a clear mandate with no overlaps. Governmental health officers and FDB health officers are doing the same thing and need to clarify capacities and roles.
- KAP indicated that EHO's need to be strengthened and need to have more say over where vendors work.
- Intend to duplicate the training and approach in Kumasi and Tema (already involved). These will become new pilot projects.
- Food safety has become a key issue for the Food and Drugs Board. Have national food safety week and include informal vending. FDB has budgetary support.

India vision

- Ministry of central government has drafted policy for the informal street sector and has a budget for this. Implementation rests at state government level. The Central Ministry in consultation with state government about informal sector policy.
- Also trying to set up regional centres for training and capacity programmes for the informal sectors. Need documents on informal food sector to feed into this (modules). Modules will help government. Government and NGO's are interested in these modules.

Photographs illustrating project activities during the meeting in Lusaka are shown in figure 5.

Figure 5: Project activities during the international meeting in Lusaka

**Participants at international meeting in Lusaka
(copyright Dr A Graffham)**



**Participants working in groups to develop the international modules
(copyright Mr K Tomlins)**



Participant visit to vendor market (copyright Prof. J. Roy)



Stage V: Knowledge Attitude Practice study

Ghana

As part of the validation of the draft modules developed in the 2nd quarter was used in KAP study to evaluate the effectiveness of training given to street food vendors belonging to the Ghana Traditional Caterers Association (appendix 20). The survey carried out over a period of 2 weeks assessed vendors KAP in relation to raw material supply and reception, location, nature of and state of fabric, equipment and utensils, general level of sanitation, water supply, pest control, personal hygiene, records and documentation and knowledge of legal requirements. The study covered 50 food vendors; selling kenkey, fufu, waakye, fried yam, banku. The survey was carried out in seven zonal areas in Accra. The Module 2 Checklist for Inspecting Traditional Catering Facilities developed during the second quarter was used in the assessment. Overall, the KAP study established that previous training has proved very beneficial. Knowledge in food safety issues among food vendors had improved significantly. Most vendors indicated that the promotion materials have been very useful to them.

Stage VI: Development of a Radio Component in Zambia – ‘Eating out Safely’

Zambia

In Zambia, the project is using radio to inform both consumers and informal food vendors about simple food safety messages. The importance of radio as a means of information and

knowledge sharing, and of discussion and debate, is widely recognized in relation to most parts of the world. In Africa, where there is a lively growth of local FM radio, this is particularly true. Radio can also be very effective in 'personalising' the message for consumers. This component involved the making of a series of radio programmes which will reach listeners by appealing to people's interest in food, its preparation and its tastiness. These have the objective of heightening awareness about project successes in improved safe practices in the preparation and handling of informally vended foods, as well as highlighting the importance of these foods in relation to local nutrition and livelihoods. The main target audience will be the general public (i.e. consumers) with the aim of encouraging a greater appreciation of the importance of vendors adopting safe practices as well as a greater willingness to eat informally vended foods which they know to be safe.

The series of radio programmes was entitled 'Eating Out Safety' and comprised twelve 60 min programmes, incorporating food safety messages which were identified by coalition partners in Zambia. These are:

1. Response to inspectors
2. Uniforms for staff
3. Management of illness among staff
4. Personal cleanliness of staff
5. Handling of money
6. Display of food
7. Managing space
8. Disposal of waste
9. Water for customers
10. Washing utensils and plates
11. From the laboratory
12. Safe surfaces for preparation, cooking and serving

Interviews at Lusaka markets to gather material for the pre-recorded spots which formed part of the series occurred between 5th Sept and 14th Sept 05. The team consisted of the Managing partner, a Local Producer from ZNBC, Ms. Rosina Mbewe,, a BBC producer (Kaz Janowski), the Team leader (Dr Monica Janowski), a celebrity (singer Angela Nyirenda) and her Manager. Mornings were appropriate for the interviews because the vendors were cooking and customers patronising. People interviewed during the making of the spots included:

- Vendors from different pilot markets (Buseko, Soweto, Mtendere, Chelston, and Chachacha markets)
- Market leaders and customers from the same markets
- Laboratory personnel from NISIR and FDCL
- Environmental Health Officers from Ministry of Health

The radio series took the form of live magazine programmes lasting for one hour, made up of the following parts:

- Pre-recorded 10 minutes spots presented by the singer/celebrity Angela Nyirenda
- 10 minute dramas. The dramas were based on the messages identified for the pre-recorded spots. 12 dramas were written and produced (by Francis Magiya Manda). There were four actors in the drama.
- Live discussions in the studio by two to three panellists at a time. People invited to participate in the panels for the live programmes were drawn from a wide audience that included UN organisations, environmental health personnel, vendors, market leaders, service providers such as for water and waste disposal and food caterers from hotels and training institutions for food handlers. The panel in the first programme, for example, was made up of an

Environmental Health Specialist from the Ministry of Health, a Vendor and the Managing Partner.

- A quiz was included to stimulate interest. Three questions were asked and the winner given a T-shirt.

The radio programmes were transmitted over a three month period on Radio 2 of the Zambia National Broadcasting Corporation from 7th October to 23rd December 05. The programmes were launched on 7th Oct 05 at the Holiday Inn hotel. The Minister of Science, Technology and Vocational Training (MSTVT) was the Guest of Honour. A total of 62 invited guests attended and these included Permanent Secretaries from MSTVT and Local Government, the Deputy Mayor, Directors from the Ministry of Health, Lusaka City Council, ZNBC, , the National Food and Nutrition Commission, Managing Directors from private companies, the FAO representative in Lusaka, vendors and market leaders.

Feedback was received through the phone-ins and through ZNBC staff comments. The indications were that the series was very welcome and could be extended to community radio stations in different parts of the country and presented in different languages. The varied magazine format was considered good and kept audience interest and attention.

A mini-consumer survey of 20 to 25 vendors was carried out by Dr. Janowski and Ms. Mbewe while the programmes were being broadcast. The preliminary findings were as follows:

- Some vendors say the programmes has made them change their practices;
- All consumers interviewed welcome the series;
- The structure and format of the programmes were liked by all those interviewed;
- The features with Angela Nyirenda were liked and were felt to be good ways to attract an audience;
- The dramas were very much liked and were felt to be very appropriate to the Zambian context;
- The quiz was considered to be a useful addition to the programmes;
- The discussions and phone-ins were felt to be very useful to allow debate, discussion and audience participation
- Many of those interviewed said they would like to see the programmes also broadcast in local languages;
- A number of people have told us that they would like to see the programmes broadcast on other stations.

A copy of a report by Dr Monica Janowski is given in appendix 21.

CD of the radio series

A total of 150 copies of a double CD of the radio series were produced which were distributed to organisations in Zambia, Ghana, Zimbabwe, India and the UK at the international meeting in Lusaka and elsewhere. Figure 6 shows a picture of the back cover of the double CD. Copies of the CDs can be obtained from Dr Rodah Zulu, National Institute for Scientific & Industrial Research, International Airport Road, Lusaka, Zambia, Tel: (office) 00 260 1 28, 24 88, (mobile) +260 97761993, Fax: 00 260 1 28 10 84, email: rmzulu@zamnet.zm and Dr Monica Janowski, Natural Resources Institute, University of Greenwich, Central Avenue, Chatham Maritime, Kent, ME4 4TB, United Kingdom, Tel +44 1634 883052, Mobile +44 7967 505688, Email m.r.janowski@gre.ac.uk.

Further dissemination of the radio series 'Eating out Safely'

The series is also being promoted through websites including Livelihoods Connect at the Institute of Development Studies at the University of Sussex in the UK, the Communication Initiative website and One World radio. Meetings and email correspondence are currently

underway (January 2006) between Dr. Janowski and the managers of these websites to arrange for this.

Figure 6: Cover of double CD of the radio series 'Eating out Safely'.



Figure 7: Pictures taken during the making of the radio series 'Eating out Safely'.

Angela Nyirenda, well known Zambia singer who presented the programmes, tasting a sample of informal food



Vendors with Dr Rodah Zulu, Mr Kaz Janowski and Angela Nyirenda during the making of the series

Rosina Mbewe, ZNBC, interviewing Angela Nyirenda



Angela Nyirenda discussing food hygiene with food microbiology staff at NSIR

Interviewing vendors in Lusaka





Project R8433 in the national and global media and other promotion

In addition to the radio component ‘Eating out Safely’, the project has been reported on radio and TV both nationally and globally. These were:

- BBC World TV – ‘Fufu for thought’ as part of the Earth Report series broadcast during August 2005;
- BBC World Service Radio – ‘Food borne illnesses and food safety’ as part of the Health Matters series broadcast on BBC World Service Radio, 22 August 2005;
- Zambia National Broadcasting Corporation - Dr Rodah Zulu and Mr Keith Tomlins were interviewed by journalists at the Zambian National Broadcasting Corporation (ZNBC) about the Informally vended food project. The interview appeared on national TV in Zambia on 8th June 2005.
- Ghana TV – the 1st international project meeting Accra, Ghana was reported during the evening news bulletin on national TV in Ghana on 27 June 2005.
- Zambia National Broadcasting Corporation – the 2nd International project meeting in Lusaka, Zambia was reported during the evening news bulletin on national TV in Zambia on 14 November 2005;

Filming of the project in Ghana for showing on BBC World TV’s ‘Earth Report’

TVE who produce a BBC World TV series called ‘Earth Report’ visited the project in Ghana in March 2005 to make a 5 minute ‘spot’ as part of a 30 minute programme that shows how projects are contributing to poverty alleviation worldwide. For more information visit www.tve.org. The storyline was from the street vendors view point and about how the project sought to support them by improving food safety. It was broadcast on BBC World TV during August 2005. Figure 8 shows pictures taken during the filming of the 5min spot.

Figure 8: Filming of ‘fufu for thought’ for BBC World TV in Ghana

Interviewing a vendor at a market in Accra (copyright K Tomlins)



Interviewing a consumer (copyright K Tomlins)



Vendors dancing at a food safety training day organised by a street food vendor NGO (copyright K Tomlins)



Cameraman filming microbiological analysis in a laboratory at FRI (copyright K Tomlins)



Training outputs

Informal food vendors receive certificates in food safety awareness in Zambia

52 informal food vendors received certificates in training in food safety awareness at vendors markets in Lusaka during January and February 2005 (figure 9).

Figure 9: Zambia vendor receiving training certificate



On-site vendor to vendor training in Zambia

On-site training of vendors was conducted by the trained vendors with the backing of the EHOs at Mtedere and Buseko market on 26th July and 13th August 2005 respectively. A total of 15 vendors and 27 vendors attended the training at the two markets respectively. Managing Partner was present at Buseko market training.

- Vendor to vendor training has been on going at the markets. New vendors are oriented on the requirements in terms of hygiene, type of utensils to use, good sources of raw materials etc.

Chachacha Market which was not part of the pilot market requested for training. They indicated that their market was strategically located and that they served a lot of customers being in the centre of the town. A total of 16 vendors attended the training on 16th August 2005.

Vendor to Vendor training in Ghana (funded by Ghana Tourism Board)

Say that up to 3000 vendors have received training through the GTCA with support and funding from the Ghana Tourism Board during March 2005 (figure 10).

Figure 10: Informal food vendor receiving certificate in food safety awareness



Summary of lessons learned

- It is important that key policy stakeholders understand the positive contribution that vending can make to the urban economy and livelihoods so that supporting systems can be developed to help the sector.

- Genuine interest by local authorities and vendors in the modular approach for developing a management and control system for improving the livelihoods on street / informal food vendors and the health of consumers
- Vendors (beneficiaries) saw their inclusion at the centre of the project activities as a positive improvement
- Coalitions for improving the safety of street or informal vended foods and the health of consumers can be led by partners with differing skills and expertise provided the approach is inclusive. For example, the coalitions in Ghana and Zambia were initiated and managed by research organisations with expertise in food safety, in Zimbabwe it was the municipal authority and in India it was an academic organisation with expertise in economics and urban development.
- Vendors from different countries and cultures were keen to share experiences. For example, vendors in Zambia formed an organisation with the encouragement and support from a vendor organisation in Kolkata. Vendors in Kolkata and Zambia were keen to learn about how vendors in Ghana have gained support and training from commercial companies with common interests.
- The partnership approach was vital for breaking down negative barriers and developing new positive ones. For example, vendors in Zambia and Ghana saw food inspectors as a threat. After food inspectors had received training in how to work with vendors, they were able to provide effective training and advice because vendors saw the benefit. At the international meeting in Lusaka, the Hawkers Association in Kolkata was keen to address this issue in the Kolkata situation.

Issues affecting the project outputs in Zimbabwe

In July 2005, the Zimbabwe Government embarked on an exercise to remove all illegal vendors from the city centre and the suburbs. According to current laws, street food vending is illegal in Zimbabwe and anyone intending to conduct food vending operations has to obtain permission from the local authority. This exercise therefore meant that the vendors at Chinhoyi Street, Gazaland, and Workington could not return to their original sites. However, bonafide informal food vendors at Mereki and Mupedzanhamo have since returned to their vending sites, but have to adhere to municipal bylaws on hygienic handling of food such as availability of running water, adequate toilet facilities and the need for licensing. The vendors are keen to comply and will be the key players in the food hygiene awareness campaign scheduled for January 2006..These vendors are now included during routine inspections by health inspectors. The newly constructed Siyaso market has informal food vendor stalls/canteen which are currently operational and will become an additional project site.

The devaluation of the Zimbabwean currency continued throughout 2005. Shortages in basic food staples have increased uncertainty in the informal food sector.

The status of vendors remained uncertain throughout the project. An informal head count estimated that the number of vendors operating on 1 October was about 100, a significant decline from over 8,000 in an earlier survey in 2003. City Health Department has sought permission for vendors to operate braai stands: Goche Goche Kanyama Karipi Association Stand 5659 Warren Park D shopping centre. Under the terms, the vendors should have within a period of 6 months from 1st October 2005, complied with the following conditions:-

- (i) Have constructed a block of toilets facilities for use by its male and female patrons.
- (ii) Have provided three (3) additional water points for use by operators.

In view of the above CHD has no objection for continued operation of the Association given conditions set out by various officials at the said meeting.

There was no change in any of the other partner countries

Publications

Reference Type (as in NRIL green citation guidelines)	Citation Details	YES/NO**
Internal Reports	C. TORTOE, P-N. T. JOHNSON, E. T. QUAYSON, R. O. NYUMUAH and J. A. LAMPTY (2005) 1 st international meeting on the development of modules for street / informal food vending in Ghana, India, Zambia and Zimbabwe, held at Miklin Hotel, East Legon, Accra, Ghana from the 27 th to 30 th June 2005, , Food Research Institute, Ghana.	
Books, manuals, handbooks	K. TOMLINS, P-N. T. JOHNSON and C. TORTOE (2005) <i>Street-catering: A guide for Environmental Health Officers, NGO's, Street food vendors and Food Caterers</i> , col-DB Publishers, Accra, Ghana, 30pp, ISBN: 9900-0-3399-0,	
Factsheets, booklets, information leaflets	ANON (2005) Fufu for thought - Series 6: Programme 1 (of 6) - 'Africa Works' http://www.handsontv.info/series6/01_africa_works_reports/report2.html	
Radio programmes	Rosina MBEWE, Kaz JANOWSKI, Monica JANOWSKI, Rodah ZULU, Eating out safely, Zambia National Broadcasting Corporation, A series of twelve 60min weekly radio features to promote good food preparation practices, focusing on food stalls in the markets of Lusaka in Zambia [radio series] [Lusaka, Zambia] [English]	
TV programme	Sarina GASCON and Robert GOULD (2005), Fufu for thought, BBC World TV / TVE Ltd, part of the BBC World TV series 'Hands-on Earth Report – Africa Works', August 2005, 30min, Global. [TV programme] [Global] [English] http://www.bbcworld.com/content/template_clickpage.asp?pageid=2085	
TV programmes	Zambia: Dr Rodah Zulu and Mr Keith Tomlins were interviewed by journalists at the Zambian National Broadcasting Corporation (ZNBC) about the Informally vended food project. The interview appeared on national TV in Zambia on 8 th June 2005.	
Radio programme	Vineeta DWIVEDI and Andrew LUCK-BAKER (2005) Food borne illnesses and food safety as part of the 'Health Matters' series broadcast on BBC World Service Radio, 22 August 2005, 30mins, Global [Radio Series] [Global] [English] http://www.bbc.co.uk/worldservice/programmes/health_matters.shtml	
Poster	Keith TOMLINS, Andrew GRAFFHAM, Rodah ZULU, Domb	

	CHIBANDA, Paa-Nii JOHNSON and Joyashree ROY (2005) Improving the Livelihoods of Street and Informal Food Vendors in Africa and Asia (Projects R7403, R8270, R8272 & R8433) – appendix 22	
Conference paper	Henry GADAGA (2005) Informal food distribution sector in Africa (street foods): importance and challenges, FAO/WHO Regional Conference on Food Safety for Africa, Harare, Zimbabwe, 3-6 October 2005, 11pages – appendix 23	

Section D - Outputs (max 5 pages)

What were the research outputs achieved by the project as defined by the value of their respective OVIs? Were all the anticipated outputs achieved and if not what were the reasons? Your assessment of outputs should be presented as tables or graphs rather than lengthy writing, and provided in as quantitative a form as far as is possible.

Narrative Summary	Objectively Verifiable Indicators	Means of Verification	Assessment
Outputs			
1: Improved project impact within each coalition (in Ghana, Zambia and Zimbabwe) by evaluating and documenting knowledge demands within the partnership.	1.1. Exchange of food safety management information between partners and stakeholders identified (by end of June 05).	1.1. Coalition meetings and reports. Email correspondence.	<p>Zambia Project inception and coalition meetings were held at NISIR on 3rd and 18th March 2005 to inform the coalition partners about the project and to identify the stakeholders. A total of 22 stakeholders were identified.</p> <p>Ghana Project inception and coalition meetings were held at FRI on 8th March to inform the coalition partners about the project and to identify the stakeholders. Coalition partners are keen to further develop the project approach. A stakeholders' meeting was held on the 10th of March at the Ange Hill Hotel, Accra which was attended by over 50 people.</p> <p>Zimbabwe A project inception and coalition meeting was held on 10 June at the City Health Department offices, Rowan Martin Building, where partners were informed of the project approach and agreed on the project activities. A stakeholders' meeting was held at Rowan Martin Building, Harare on 14 June 2005, and was attended by 19 participants from the City Health Department, Kutsaga Research Station, Government Analyst Laboratory, Crops Post Harvest Programme, University of Zimbabwe, Standards Association of Zimbabwe, Ministry of Health and Child Welfare, Municipal Police, Urban Councils Association of Zimbabwe, Consumer Council of Zimbabwe and Ministry of Small and Medium Enterprise Development.</p> <p>India The inception meeting of the India Coalition was held at the University of Jadavpur, Economics department on 18 April 2005. It was attended by 18 people from JU (Economics Department, School of Water resources, Food Technology), Consumer Association of Kolkata and the private sector (Shrimon, Bio-tech). It was also attended by the managing partners (NRI) and a representative from CPHP (NRIL).</p>
	1.2. Packages developed and appraised by the	1.2. Reports, packages	Ghana Modules, based on a systematic approach to food

	<p>coalition regarding the management of food safety systems (by end of June 05).</p>		<p>safety, vendor livelihoods and consumer health, identified were.</p> <ul style="list-style-type: none"> • Building partnerships • Training and promotion • Consumer awareness • Food vendor livelihoods • Infrastructure and utilities • Food safety, inspection, law and regulation • Supply chain <p>Zambia A meeting was held in Lusaka on 11-12 May 2005 in Lusaka.</p> <p>Modules developed included:</p> <ul style="list-style-type: none"> • Application of the coalition approach for management & control of IVF • Training for EHO's • Vendor to vendor training • Development of appropriate policies and regulations • Public advocacy, awareness creation and promotion • Provision of micro-finance • Market infrastructure • Good hygienic practice for preparation and vending of prepared and cooked foods • Inspection, advice and enforcement • Monitoring of compliance <p>Zimbabwe Modules developed included:</p> <ul style="list-style-type: none"> • Developing partnerships • Training of EHO's • Training of vendors • Policy framework (finance, vision) • Consumer awareness & advocacy • Social and cultural context of vending • Infrastructure and utilities • Food safety and food hygiene - Role of analytical labs • Legal framework and inspection • Monitoring & evaluation
	<p>1.3. Packages developed by the coalition on the ways that the coalition partnership was developed and managed (by end of July 05).</p>	<p>1.3. Reports, packages</p>	<p>Ghana The Crop Post-harvest Programme (CPHP) held a 2 day workshop (12 -14 April, 2005) at the Miklin Hotel, Kumasi on reflection and lesson learning by the Coalition. The lessons and workshop were viewed as positive by the coalition in Ghana.</p>
	<p>1.4. Food safety promotion approach modified to incorporate improved understanding of partners needs. This will be tested on selected groups of vendors (by end of November 05).</p>	<p>1.4. Coalition meetings, reports, meetings</p>	<p>Appendices to include national modules developed by each country partner</p> <p>BBC World TV – 'Fufu for thought' as part of the Earth Report series broadcast during August 2005;</p> <p>BBC World Service Radio – 'Food borne illnesses and food safety' as part of the Health Matters series broadcast on BBC World Service Radio, 22 August 2005;</p> <p>Zambia: Dr Rodah Zulu and Mr Keith Tomlins were interviewed by journalists at the Zambian National Broadcasting Corporation (ZNBC) about the Informally vended food project. The interview appeared on national TV in Zambia on 8th June 2005.</p> <p>1st international project meeting in Accra, Ghana</p>

			<p>appeared on national Ghana TV on 27 June 05</p> <p>2nd international project meeting in Lusaka, Zambia appeared on national Zambia TV on 14 November 2005</p>
<p>2: Synthesis of knowledge at the regional and cross-regional levels to produce information packages for wider application of the food safety and coalition management approaches.</p>	<p>2.1. Experiences in improving livelihoods of street and informal food vendors and consumer health in Ghana, Zambia and Zimbabwe compared and combined (by end of August 05).</p>	<p>2.1. Reports, meetings</p>	<p>The 1st International workshop was held at the Miklin Hotel, Accra, Ghana from 26 to 30 June 2005. It was attended by 67 participants from stakeholder organisations in Ghana, Zambia, Zimbabwe, India and the UK.</p> <p>The opening ceremony for the International Meeting was held on Monday, 27th of July; 2005. Nearly 100 participants attended the opening ceremony. The workshop continued from Tuesday 28th until Thursday 30th. The main aim of the International Meeting was to deliberate on progress made by respective countries on the development of modules, share ideas, strengthen and improve the coalitions in Ghana, Zambia, Zimbabwe and India. In addition, the international meeting was to also afford the four national coalitions to agree and formulate universal modules which will apply internationally for the systematic improvement and management of the informal/street foods sector for the benefit of vendor livelihoods and consumer health.</p> <p>Each country gave presentations on progress on project activities followed by question and answer sessions.</p> <p>Mr K Tomlins gave a presentation on a possible radio component to the current which will be funded by the CPHP. The activities will take place in Zambia but have wider applicability.</p> <p>Professor J Roy gave a presentation on the economics of food vending and implications for the current project.</p> <p>Following this, ten International modules were developed by the partnership and countries responsible for leading the development were as follows:</p> <p>Module 1- Partnership-India Module 1- Training – Zambia Module 3- Policy- Zambia Module 4- Advocacy/Awareness- Zimbabwe Module 5- Livelihood- Zambia Module 6- Infrastructure- Zimbabwe Module 7- Food safety and inspection-Ghana Module 8- Framework-Zimbabwe Module 9- Monitoring- Ghana Module 10- Supply Chain- Ghana</p> <p>Quarterly coalition meetings occurred on: Ghana – 16 June 05 Zambia – 10 May 05 Zimbabwe – 9 June 05 (inception and coalition meeting). India – 19 April 05 Zambia - 29th August 2005</p> <p>Zimbabwe - 30th August 2005, 8th September 2005</p> <p>Ghana - 10th August, 5th, 11th, 12th and 13th October 2005</p> <p>India: 15th September 2005. All India Institute of Hygiene and Public Health became a new stakeholder</p>
	<p>2.2. Food safety management packages developed from experiences gained by coalitions in Ghana, Zambia, Zimbabwe and India (by end of October 05).</p>	<p>2.2. Coalition meetings, Reports, meetings and packages</p>	
	<p>2.3. Packages produced on ways of developing and managing street food and informally food safety coalitions from experiences in Ghana, Zambia, Zimbabwe and India (by end of October 05).</p>	<p>2.3. Coalition meetings, Reports, meetings and packages.</p>	
	<p>2.4. Material exploring the coalition approach for improving the livelihoods of street vendors and the health of consumers produced in consultation with the coalitions, to promote the approach at an institutional and policy level in each partner country (by end of October 05).</p>	<p>2.4. Outputs from project</p>	

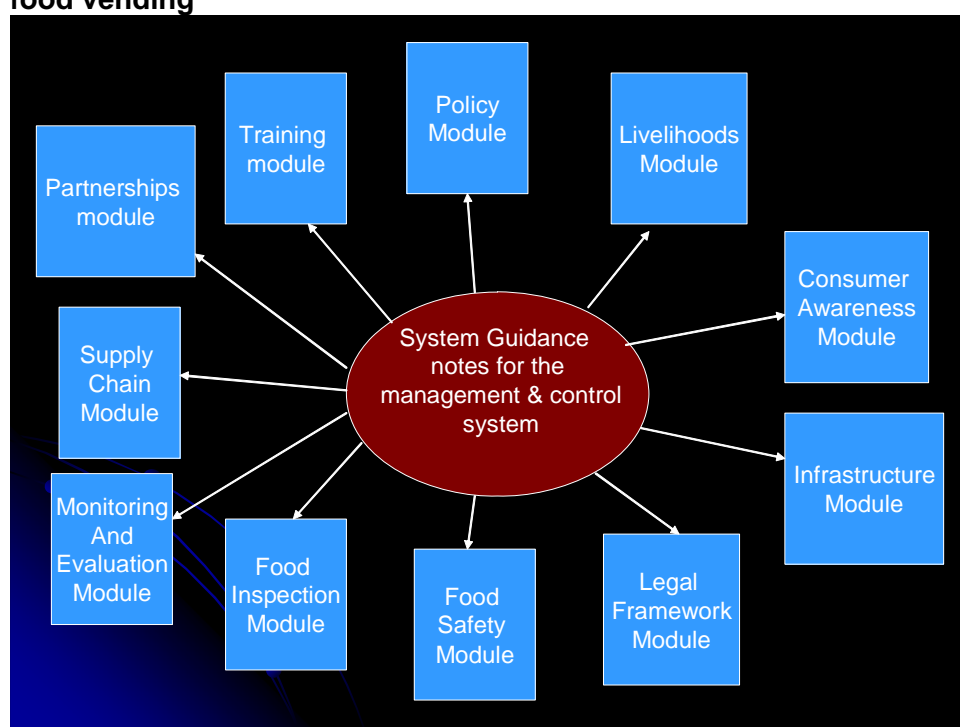
			Dr Henry Gadaga, University of Zimbabwe, attended a joint FAO/Consumer international street food in Malawi from 15 to 17 June entitled 'Eastern and Southern African Regional Workshop on Street Vended Foods – Balancing Safety and Livelihoods'. It was attended by representatives from 13 different countries.
3: Transfer and evaluation of knowledge packages in food safety and quality management developed in output 2 by a newly formed partnership in Kolkata, India	3.1. Baseline investigations of current status in Kolkata, India with respect to food safety management, national food control systems and existing institutional linkages (by end of March 05).	3.1. Reports	Report from Joyashree The India coalition partners (Professor Roy, JU and Saktiman Ghosh, HSC, attended a meeting in Delhi organised by Ministry of Urban development and poverty alleviation to evaluate a draft governmental document 'National Policy for Urban Street Vendors' on 19 October 2005.
	3.2. In collaboration with coalition partners in Ghana, Zimbabwe and Zambia, develop an approach for improving street and informal vended food safety, vendor livelihoods and consumer health (by end of November 05). (Original OVI 3.2 deleted)	3.2. Coalition meetings and documentation	Refer to attendance at international meetings and meetings in Delhi and contribution to national street vendor policy
4. Innovative approaches for creating consumer awareness developed in Zambia through the production of a series of radio programmes to be broadcast on Zambia national radio.	4.1. Radio programmes produced in close partnership with the coalition in Zambia and broadcast nationally.	4.1. Radio broadcaster's schedules.	ZAMBIA: The messages were identified through a meeting which was held at Holiday Inn on 2nd September 05. Four people from Lusaka City Council, one person from Zambia National Broadcasting Co-operation, The Managing Partner, NRI and BBC. The following messages making up 12 programmes were identified Title of the radio series; Eating Out Safely 1. Response to inspectors (Broadcast on 7th October at 21.00 hrs) 2. Uniforms for staff 3. Management of illness among staff 4. Personal cleanliness of staff 5. Handling of money 6. Display of food 7. Managing space 8. Disposal of waste 9. Water for customers 10. Washing utensils and plates 11. From the laboratory 12. Safe surfaces for preparation, cooking and serving ZAMBIA: The radio programme will be transmitted in 3 months on Radio 2 of the National radio every Fridays from 7th October to 23rd December 05 at 21.00 to 22.00 hours. Programme was Launched at a Cocktail party held on 7th Oct 05 at 18.00 hours at Holiday Inn hotel. The Minster Science, Technology and Vocational Training (MSTVT) was the Guest of honour. A total of 62 invited guests attended and these included Permanent Secretaries from MSTVT and Local Government, Deputy Mayor, Directors from MOH, LCC, ZNBC, Bureau, National Food and Nutrition Commission, Managing Directors from private companies, FAO representative, vendors and market leaders.
	4.2. Consumer response to broadcasts evaluated.	4.2. Feedback from Zambia National Broadcasting Corporation and KAP study	Refer to Monica's presentation

For projects aimed at developing a device, material or process, and considering the status of the assumptions that link the outputs to the purpose, please specify:

- a. How the outputs have been made available to intended users?
- b. What further stages will be needed to develop, test and establish manufacture of a product by the relevant partners?
- c. How and by whom, will the further stages be carried out and paid for?
- d. Have they developed plans to undertake this work? If yes, what are they? If not, why?

The project sought to develop a series of modules to facilitate the management and control of the street and informal food sector through a partnership approach. The modular system and design is illustrated in figure 9.

Figure 9: Modular approach for the management and control of informal and street food vending



The modules will be made available to intended users through the internet and through the production of a limited number of glossy paper-based copies.

The modules produced through this project are in a draft version and have not been tested on new partnerships in towns and cities elsewhere. This was very much a time limitation since 10 months (March 2005 to January 2006) was only sufficient for preparing draft versions. The advantage of an internet based method of availability is that subsequent modifications and changes will be straightforward and become rapidly available.

The testing of the modules is suggested as a possible future way in that the partnership can collaborate and work together. This is proposed at two levels:

- National testing – coalitions in Zambia and Ghana have already begun to test and extend elements of the modules to other towns and cities and will be financed from local resources. The coalition in India is currently having discussions at national and state level regarding extension of the modular approach.
- International collaboration – a proposal has been jointly developed by the five-country partnership. It has been submitted to donors elsewhere who are interested

in promoting national and international trade. The partnership is waiting for the donor to evaluate the proposal later in 2006. If funded, this would be an excellent opportunity to build on the linkages (institutional, national, and international) and test and evaluate the modules.

Concerning plans to undertake the work while plans have been developed this is at an early stage. At the national level, the coalitions in Ghana, Zambia and India are actively seeking ways of integrating the modular approach into the national systems.

Section E - Purpose (max 2 pages)

Based on the values of your purpose level OVIs, to what extent was the purpose achieved? In other words, to what degree have partners/other users adopted the research outputs or have the results of the research been validated as potentially effective at farmer/processor/trader level?

How has this project contributed to generating and/or promoting new understandings/insights into how national innovation systems can be mobilised to sustain uptake and adoption of crop post-harvest knowledge for the benefit of the poor?

The purpose is 'New knowledge is generated and promoted into how national and regional innovation systems can be mobilised to sustain uptake and adoption of CPH knowledge for the benefit of the poor'.

The CPHP has four themes within the purpose. This project has contributed to the purpose, within the themes as follows:

Theme 1

Objective 1: **Knowledge of food safety outputs made more accessible by identifying bottlenecks affecting information supply and utilisation.** The project approach has contributed to improved food safety of street vended foods in Ghana, Zambia, India and Zimbabwe. The development of a management and control system, broken down into a series of modules, has been keenly developed by the partners and elements adopted.

Theme 2.

Objective 2: **Impact of food safety outputs of earlier CPHP street food projects in Ghana, Zambia, India and Zimbabwe made more self-sustaining and extended into national programmes to benefit livelihoods and consumer health.** Food safety and vendor livelihood improvement programmes were made more sustainable by integrating into a management and control system specifically developed for the informal food vending sector. The partnership component has contributed to the sustainability of the approach in Ghana, Zimbabwe, Zambia and India.

Theme 3

Objective 3: **Maximising CPHP impact by Action Research to synthesis and promote proven research outputs generated to other collaborate coalitions.** The coalition approach developed in Ghana, Zambia and Zimbabwe has been successfully extended to Kolkata, India, where street vending makes an important contribution to the urban economy. The management and control system, broken down into a series of modules, is currently being discussed by the Indian partners who are seeking ways of promoting it both nationally and at state level.

Theme 4

Objective 4: **New knowledge on safety issues of street food through the coalition approach in Ghana, Zambia, Zimbabwe and India will be repackaged and promoted to**

vendors and EHO's. The development of modules and use of a radio series 'Eating out Safely' have been considered to be a success.

Section F - Goal (max 1 page)

What is the expected contribution of outputs to Project Goal?

The goal is 'National and international crop-post harvest innovation systems respond more effectively to the needs of the poor'.

This project has contributed at international and national levels.

Considering the international level, the project has forged linkages between 22 organisations spanning India, Ghana, Zimbabwe, Zambia and the United Kingdom.

At the national level the project will, in part, improve the livelihoods of 60,000, 16,000, 8,000 and 130,000 vendors in Accra, Lusaka, Harare and Kolkata respectively. The impact on consumers has not been evaluated but consumers of street and informally vended foods come from all sectors of society. In the respect the number of consumers in these cities in total is approximately 9 million; population estimate are Accra (1,551,200), Lusaka (1,084,703), Harare (1,903,510)and Kolkata (4,580,544).

Section G Project effectiveness

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

	Rating
Project Goal	3
Project Purpose	3
Project Outputs 1.	1
2.	2
3.	1
4.	1

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

Section H – Uptake and Impact (2 pages)

Organisational Uptake (max 100 words)

What do you know about the uptake of research outputs by other intermediary institutions or projects (local, national, regional or international)? What uptake by which institutions/projects where? Give details and information sources (Who?What?Howmany?Where?)

- Some outputs of the research have been taken up by FAO through project partners attending meetings in Malawi and Zimbabwe.
- In India, the modular approach was liked by the national and state members who are implementing the Indian National Policy for Urban Street Vendors

End user uptake (max 100 words)

What do you know about the uptake of research outputs by end-users? Which end-users, how many and where? Give details and information sources

- Project partners (local authorities) in Ghana, Zambia and Zimbabwe stated at the international meeting in Lusaka that they intend to implement the modules developed by the project;
- Consumers have taken up the knowledge through radio (Eating out Safely in Zambia and BBC World Service Radio Globally), posters and TV (BBC World globally);
- In Ghana, local authorities in Kumasi, Tema and Takoradi and in the process of working with the Accra coalition to extend the project outputs

Knowledge (max 100 words)

What do you know about the impact of the project on the stock of knowledge? What is the new knowledge? How significant is it? What is the evidence for this judgement?

The main impact of this project is the bringing together of knowledge from previous cph projects into a systematic approach for the management and control of the street food and informal food sectors in Ghana, Zambia, Zimbabwe and India. The breaking down of the systematic approach into a series of modules was considered especially important.

The use of radio for disseminating food safety messages to consumers was considered important in Zambia

Institutional (max 100 words)

What do you know about the impact on institutional capacity? What impact on which institutions and where? What change did it make to the organisations (more on intermediate organisations). Give details and information sources.

Yes the project has had an institutional impact (vendor organisations, local authorities, research, laboratory, private, academic, research) through:

- National coalition meetings in Ghana, India, Zambia and Zimbabwe;
- International meetings in Ghana and Lusaka

Policy (max 100 words)

What do you know about any impact on policy, law or regulations? What impact and where? Give details and information sources

The modules developed included policy as one of the issues. This is having an impact of law policy, law and regulations in each partner country and as agreed as one of the visions coming out of the international meeting in Lusaka.

Poverty and livelihoods (max 100 words)

What do you know about any impact on poverty or poor people and livelihoods? What impact on how many people where? Give details and information sources.

Impact on poverty of poor people and livelihoods is still too early to confirm. Many vendors and consumers have been reached through posters, billboards, radio and TV. Potential impact is:

- Health of consumers in Accra (population 1,551,200), Lusaka (population 1,084,703), Harare (population 1,903,510) and Kolkata (population 4,580,544);
- Improved livelihoods of vendors in Accra (60,000), Lusaka (16,000), Harare (8,000) and Kolkata (130,000)

- Vendors in Zambia have formed a vendors organisation as a result of attending the international project meeting in Lusaka (November 2005)
- Vendors in Zambia are considering commercial sponsorship after learning of experiences from partners in Ghana.

Environment (max 100 words)

What do you know about any impact on the environment? What impact and where? Give details and information sources.

The potential impact on the environment will occur in urban marketplaces and streets. This will be though:

- Improved refuse collection organised by local authorities in collaboration with vendors;
- Improved sanitation organised by local authorities;
- Improved water supply organised by local authorities;
- Relocation of vendors to more appropriate sites (should be in consultation with vendors).

Signature	Date
Core Partners
Managing Partner

ANNEXES

- I Project Logical Framework
- II Partner (user) organisations workplan for adopting project outputs
- III Copies of diaries, coalition meeting reports etc
- IV Feedback on the process from Partners(s) and users (where appropriate)
- V Tabulated description of disseminated outputs (format from green book) – same as given in the PCSS and should include all published, unpublished and data sets. If any of the reports included in this annex has not been submitted to the programme previously, please include a copy (preferably an electronic copy or if not available a hard copy)