INCEPTION REPORT

Developing a Combined e-Learning Curriculum and Information System on Food Standards as a Contribution to Up-grading the Quality Infrastructure in Developing Countries

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Introduction

Challenges in today's competitive global environment is ample proof of the need to provide needed support to integrate small-scale farmers (final beneficiaries) into local, regional and global markets of fresh and processed fruit and vegetables to ensure pro-poor growth and enhance sustainable livelihoods. Access to competitive markets implies that suppliers have to meet mandatory regulations set by legislators and comply with voluntary standards introduced by industry and trade, respectively, in target markets. Recognizing that standards play an important role to achieving food security, assuring public health and facilitating consumer protection, developing countries are introducing ever-more stringent Sanitary and Phytosanitary Measures (SPS) both for imported and locally produced foodstuffs.

Since the status of the final product corresponds to the capacities of the weakest link in the value chain, food safety and quality have to be managed at the source, instead of costly withdrawal of unsafe and wastage of unsold food from the market. Food safety and quality hence have to be managed along the entire value chain. Consequently, information has to be made available and capacities of producers, processors, traders and consumers have to be built to ensure that produce offered in markets is safe and meets consumers' requirements. However, currently fragmented linkages impede the extension of knowledge on standards down the chain. To that effect, mechanisms are needed to communicate standards to all chain actors, especially to small-scale farmers as essential means to facilitate market access.

The underlying rationale of this project is to strengthen the quality and safety of food by ensuring more competent and cost-effective compliance with local, regional and global standards by:

- improving the education of future staff of public and private organisations in Ghana that are involved in setting, enforcing, certifying and/or adopting and applying mandatory and voluntary standards; and
- setting up timely and credible information sources and hence access to information on mandatory and voluntary standards applied in potential target markets.

By adopting innovative methods of education to improve access to information on food standards, and by linking the quality and safety of food within value chains, the project will improve the capacities of practitioners to cope with rapidly changing regulations, to pro-actively influence standard setting, to identify adequate policy and enforcement responses, to adapt education, research and extension services to value chain needs and to take strategic and more cost-effective decisions on appropriate marketing and technological solutions.

In summary, the objective is to contribute to pro-poor growth by facilitating the integration of small-scale farmers (final beneficiaries) and food processors into local, regional and global markets by:

- enhancing the capacity to improve food quality and safety systems through the provision of better qualified young professionals for the government administration, for research and extension and for food companies;
- introducing an innovative approach to developing a combined e-learning curriculum and modules, as well as a web-based information platform for food quality and food safety standards as part of enhancing food quality assurance systems enabling
  - the public sector to realise sovereign tasks more effectively and efficiently (negotiation in standard setting organisations, harmonisation of national laws with international standards, enforcement of standards, accreditation);

- the private sector to increase value chain competitiveness (compliance and certification, adaptation of marketing and technology decisions to market access requirements).

The project builds on three main pillars: (i) the 'Practitioners' Reference Book on Food Quality and Safety Standards' developed by GTZ in 2007; (ii) curricula for 'Value Chain Development' and 'Food Safety and Quality Assurance' recently prepared by the University of Cape Coast for accreditation in Ghana; and (iii) the International Portal on Food Safety, Plant Health, Animal Health and Food Safety (IPFSAPH).

Project Implementation

The project is being implemented by the University of Cape Coast, Ghana. The following development partners have agreed to provide technical support and advice – including on food safety regulations, curriculum development, e-learning approaches – to the implementing organisation:

(1) the 'Food Quality and Standards Service (AGNS) of the United Nations Food and Agricultural Organization (FAO) will provide an additional major source of information and expert knowledge to be used for the development of the curriculum and the information platform, and for the integration of the project into activities of other international institutions;

(2) the 'Market Oriented Agriculture Programme' implemented by the German Technical Cooperation in Ghana will provide on-the-ground support during project implementation, including regular monitoring of activities.

Prior Preparations

Meeting in Rome

In anticipation of the project receiving funding, a meeting was held in Rome, Italy on October 12, 2009 to discuss the Project Proposal on Food Quality & Food Safety Standards e-Learning Curriculum and Information System which had been submitted to STDF: The participants in this meeting were:
1. Renata Clarke (FAO-AGNS)
2. Mary Kenny (FAO-AGNS)
3. Vittorio Fattori (FAO-AGNS)
4. Christina Petracci (FAO-KC – Knowledge Exchange and Capacity Building)
5. Masami Takeuchi (International Portal on Food Safety, Animal and Plant Health, IPFSAPH)
6. Pascal Lin (Trade and Markets Division)
7. Joe A. Kwarteng (Dean, School of Agriculture, University of Cape Coast, Ghana)
8. Jan F. Moltmann (Consultant for gtz, Germany)

The meeting clarified some issues about the project and agreed that it was necessary to have a follow-up meeting in Ghana in the early part of the year to, among others, discuss the details of the project as it will be implemented on the ground at UCC.

Meeting in Cape Coast

The meeting at the University of Cape Coast was held between 18th – 19th February 2010. Participants paid a courtesy call on the on the Vice-Chancellor to brief her, as the Executive Head of the University of Cape Coast, about the meeting and introduce the expert visitors to her and her administrative team comprising the Pro Vice Chancellor and the Registrar. Following this, the meeting by the participants over the next two days discussed key issues related to the project objectives, scope, target groups, baseline survey, curriculum and project activities and outputs set out in the STDF approved project. There were also discussions on project implementation and approach as well as roles and responsibilities of each partner and allocation of resources. The outcome from these discussions was used to improve the project document.

Participants to the Cape Coast meeting included:

- Prof. J. A. Kwarteng   School of Agriculture, UCC
- Prof. B. A. Osei   School of Agriculture, UCC
- Prof. F. N. A. Odoi   School of Agriculture, UCC
- Rev. Dr. J. D. Owusu-Sekyere   School of Agriculture, UCC
- Dr. Annor-Frempong   School of Agriculture, UCC
- Mr. Albert Sackey Rhule   School of Agriculture, UCC
- Mrs. Mary Owusu-Obimpeh   School of Agriculture, UCC
- Mr. John K. E. Edumadze   Computer Centre, UCC
- Mr. Daniel Essel   Computer Centre, UCC
- Dr. Lucia Anelich   Food Safety Initiative Consumer Goods Council South Africa
- Mary Kenny   Food and Agriculture Organization (FAO)
- Johann F. Moltmann   GTZ
- Mary Lau Forward   Open Courseware Consortium
- Mr. Isaac Eshun   Innovatives Ltd., Cape Coast

Implementation Steps Undertaken

Acquisition of Space for Project

The University of Cape Coast Authorities have donated space in a brand new modern Distance Learning facility to house the project. The air conditioned space is ideal for the project and will accommodate the computers, server, seating for 20 students at a time and a cubicle for e-tutors and systems supervisor. The facility also houses an office for visiting experts.

Contact with Stakeholders

Some key stakeholders have been contacted. Contacts are still being made.The following stakeholders have been contacted and briefed about the project:

No.	Institution
1.	The University of Cape Coast
2.	Food and Drugs Board
3.	Ghana Standards Board
3.	The University of Ghana
4.	The University for Development Studies (UDS)
5.	The University of Education (UEW), Mampong Campus
5.	Kwame Nkrumah University of Science and Technology
6.	University of Ghana
7.	Ministry of Food and Agriculture - WIAD-MoFA
8.	GTZ-MOAP
9.	Private Sector e.g. SPEG (Seafreight pineapple exporters of Ghana)
10	Farmer Based Organization (FBO) Rep.

Contacts are on-going and additions to the list of stakeholders will continue as project progresses.

Needs Assessment Survey

Needs assessment questionnaires have been face-validated and content-validated and sent to some of the following institutions with whom contacts have been made. Additional mailings will be done. Prof. J.A. Kwarteng and Dr. Albert Obent Mensah are leading this effort. A sample of the questionnaire is attached as Appendix II.

Meeting with GIZ and GIZ-MOAP

An initial meeting was held with GTZ (now (GIZ) on 21 January 2011 to discuss and clarify roles, especially local supervisory role. After the meeting all participants to the meeting visited and inspected the space allocated for the project. Everyone expressed satisfaction with the space and the facility. Participants included:

Prof. J.A. Kwarteng	Project Leader
Dr. Albert Obeng Mensah	e-tutor (UCC)
Prof. F.N.A. Odoi	e-tutor (UCC)
Rev. Dr. J.D. Owusu-Sekyere	e-tutor (UCC)
Dr. Susann Hoefs	GIZ
Mr. Kofi Biney	GIZ
Mrs Mary Owusu Obimpeh	UCC (Administrator)
Mr. John. K.E. Edumadze	Head, Computer Centre, UCC

Start-Up Meeting in February

A start-up meeting of stakeholders has been arranged to take place at UCC from 28th Feb to 2nd March 2011. This meeting will bring together the experts to be involved as well as the UCC team to move the project forward. The meeting, among others, will discuss implementation details, curriculum details, needs assessment report (if study is completed) and all other aspects of the project.

Compilation of Sources of Information

A meeting of the local team is planned in the second week of February to compile relevant information resources for the project.

New Developments at UCC that will Enhance the Project

The following recent developments at UCC will positively affect and significantly impact the implementation of the project:

1. The National Communication Authority has promised to give $ 250,000.00 for ICT Infrastructure development at our Network Operating Centre (NOC) at UCC.
2. Google Corporation has promised 25 Mbps of Internet connectivity for 3 years.

3. The World Bank has promised to give $ 400,000.00 to expand our fibre backbone and NOC development
4. The World Bank and Google are in talks with PC manufacturers to sell laptops to students and staff at affordable reasonable prices.
5. UCC is investing $ 125,000.00 to increase the Wi-Fi coverage from 50% to 100% to provide Internet access from 2,000 users to 20,000 users.
6. Two additional ICT Centres are to be established for Students' Internet browsing at premises of Socket Works and the rear of LLT to be controlled by the UCC Computer Centre. This facility will run 24 hours a day all week (24×7).
7. The Ghana government has completed the installation of a Wimax tower near VALCO hall that will give students and staff of UCC living a radius of 50 Km access to Internet controlled by the UCC Computer Centre.

Workplan for First Six Months : January –June 2011

No.	Activity	Month					
		J	F	M	A	M	J
1.	Identification and securing of Office Space for Project	▓					
2.	Identification of Stakeholders and Needs Assessment	▓	▓				
3.	Start-Up Meeting at UCC		▓				
4.	Curriculum Development Workshop- Develop Curriculum Content on Food Standards			▓	▓		
5.	Design and Develop Information Platform on Food Standards				▓	▓	
6.	Preparation of Curriculum Materials in Suitable Online Format					▓	▓

APPENDIX I

Table 1: Names and Roles of participants from UCC

No.	Name	Role
1.	Prof. J.A. Kwarteng	Project Manager: Dean of the School of Agriculture: Expert in Agricultural Value Chains
2.	Mr. John Edumadze	Computer programmer and expert; Head of the Computer Unit of the University of Cape Coast
3.	Prof. F.N.A. Odoi	Food Safety and Food Quality Assurance expert; Vice Dean and Head of the Department of Animal Science; Nutritionist
4.	Dr. J.D. Owusu Sekyere	E-tutorAgricultural value chains, food safety and food quality assurance; Head of the Department of Agricultural Engineering
5.	Mr. Albert Obeng Mensah	Agricultural value chains, food safety and food quality assurance;
6.	Mr.	Computer and IT support person
7.	Mr. Isaac Kwamena Eshun	Full time IT person and Computer Expert-- Networking and hardware
8.	Prof. Naana Jane Opoku-Agyeman	Vice Chancellor of UCC and Chairperson of the Project Board
9.	Mr. Isaac Ohene	Registrar of UCC and member of the Project Board
10	Mrs Mary Owusu Obimpeh	Secretary to the project; Administrative Officer of the School of Agriculture

Needs Assessment Questionnaire

SURVEY AND NEEDS ASSESSMENT IN FOOD QUALITY AND FOOD SAFETY STANDARDS FOR E-LEARNING CURRICULUM AND INFORMATION PLATFORM DEVELOPMENT

Please, indicate the extent to which you consider the following components of Food Safety and Quality Standards as

1. **Important and**
2. **Relevant to your specific organisation**

for inclusion into the Food Quality and Food Safety Standards e-Learning Curriculum and Information Platform by ticking (√) in the appropriate column using the keys below:

IMPORTANCE: 1 = NOT IMPORTANT
                            2 = IMPORTANT
RELEVANCE: 1 = NOT RELEVANT
                            2 = RELEVANT
                            3 = VERY RELEVANT

	COMPONENT	IMPORTANCE		RELEVANCE		
		1	2	1	2	3
1	Definitions of Food Safety and Food Quality					
2	Food (Supply and Marketing) Chain					
3	Food Incidents					

#	COMPONENT	IMPORTANCE			RELEVANCE	
		1	2		1	2
4	Driving forces for food quality and safety standards					
5	Ensuring food quality along the food chain					
6	Ensuring food safety along the food chain					
7	Farm-to-Table Approach to Food Quality and Safety					
8	Explanation of food standards and food policy					
9	Categories of food standards					
10	International and national policies					
11	Institutions responsible for food quality and safety					
12	Global framework governing Food Quality and Safety Standards					
13	International Organization for Standardization (ISO)					
14	WTO Sanitary and Phyto-Sanitary (SPS) Agreement					
15	International benchmark: the case of the EU					
16	The EU Food Law					
17	National framework governing Food Quality and Safety Standards					
18	Selected statutory and regulatory bodies					
19	Compliance costs to public sector					

	COMPONENT	IMPORTANCE		RELEVANCE		
20	Food quality and safety management					
21	Risks, Systems, and Roles of Stakeholders					
22	Food hazards (Biological, chemical and physical agents)					
23	Quality Assurance Systems along the food chain					
24	Quality management systems along the food chain Good Agricultural Practice (GAP)					
25	Good Manufacturing Practice (GMP)					
26	Good Distribution Practice (GDP)					
27	Good Retail Practice (GRP)					
28	Good Slaughter Practices					
29	Good Post Slaughter Handling Practices					
30	Hazard Analysis Critical Control Point (HACCP)					
31	Steps to implementing HACCP					
32	Key Stakeholders in Food Quality Assurance Systems					
33	Key Stakeholders in Food Safety Assurance Systems					
34	Roles of stakeholders in food safety assurance					
35	Roles of stakeholders in food quality assurance					
	COMPONENT	1	2	1	2	3

36	The Public Sector (Official) Control Systems					
37	The principles underlying official control systems					
38	The Private Sector Industry Self-Control					
39	Best practice s for Industry Self-Control					
40	Coordinating Official and Industry Self Control					
41	Explaining concepts of accreditation and certification					
42	Relationship between Accreditation and Certification					
43	Bodies and Producers/Exporters or Processors					
44	Description of Accreditation and Certification Bodies					
45	Certification bodies active in Ghana					
46	Description of some major certification schemes					
47	Rationale for certification					
48	Private industry and trade standards (GlobalGAP)					
49	GlobalGAP certification status in Ghana					
50	Ethical (social and environmental) standards					
51	Social labelling (or social responsibility standards)					
52	Example for ethical certification schemes:					
53	Principles of Organic Agriculture					
54	Good land management practices					

55	Livestock production practices					
56	Controls of chemicals and other inputs					
57	Traceability systems					
58	The process to Organic Certification					

Please indicate other components not covered in the list above that you will like to see included in the Food Quality and Food Safety Curriculum.

1.
2.
3.
4.
5.
6.
7.
8.
9.
10.

Please indicate your most important information needs in Food quality and Food Safety
1………………………………………………………………………….
2………………………………………………………………………….
3………………………………………………………………………….
4………………………………………………………………………….
4………………………………………………………………………….
5………………………………………………………………………….

Is your organization adequately equipped or resourced to assess an e-learning facility?
……………………..Yes   ………………………No
Explain your answer above
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……………………………………………………………………………………………………….

Do you have the competencies needed in your organization to assess an e-learning facility?
………………………Yes   ………………………No

If you answered Yes to the question above , please explain your answer
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………………………………………………………….

Name of Your Organization: …………………………………………………………………….

Vision and Mission of Your Organization: ……………………………………………………
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