

GRANT APPLICATION FORM¹

1. Project title	Rwanda Horticulture Export Standards Initiative (RHESI)
2. Requesting government/agency or private body	Rwanda Horticultural Development Authority (RHODA) in the Ministry of Agriculture and Animal Resources (MINAGRI)
3. Collaborating government(s)/agency	Rwanda Bureau of Standards (RBS) in the Ministry of Commerce, Industry, Investment Promotion, Tourism and Cooperatives (MINICOM)
4. Project objectives <u>Attach</u> description of project background and rationale.	See details attached, pages 1-7.
5. Project activities Itemise main elements here and <u>attach</u> a detailed work plan, dissemination plan and evaluation plan.	<p>Project Kick-off Workshop</p> <p>Awareness Raising</p> <ul style="list-style-type: none"> Development of horticulture SPS awareness raising materials Implementation of awareness raising activities <p>Promotion of Good Practices</p> <ul style="list-style-type: none"> Development of horticulture GAP training materials Draft code of Good Practices for horticulture Implementation of GAP training activities Curriculum development at KIST, ISAE and/or NUR <p>Legal/Regulatory Reform</p> <ul style="list-style-type: none"> Inter-agency working agreement in place TA and training in plant health/pesticides regs Draft Rwanda plant health/pesticides legislation <p>Other Institutional Capacity Building in SPS</p> <ul style="list-style-type: none"> Training in plant health, SPS, pest/disease risk assessment and management Strengthening the IPPC Focal Point <p>Information and Database Development</p> <ul style="list-style-type: none"> Phytosanitary capacity evaluation Establish horticulture pest list/database 3-track study of horticulture exports requirements <p>Action Plan for SPS Standards Compliance</p> <ul style="list-style-type: none"> Establish SPS Horticulture Stds Coord. Committee Draft Action Plan for future SPS compliance Coordinate with donors on priorities & funding <p>Monitoring and Evaluation</p> <ul style="list-style-type: none"> Establish indicators Assess progress against indicators Draft final report Submit tri-annual progress and financial reports <p>See details attached, pages 7-12.</p>

¹ List of acronyms used in this proposal can be found in Annex 4.

<p>6. Private/public sector co-operation Detail the arrangements for public/private sector cooperation, if any, in the project.</p>	See details attached pages 12-13.
<p>7. Partner institutions involved If appropriate, identify STDF partner institutions who will be involved and describe the nature of that involvement.</p>	To be determined. See covering letter from Michigan State University
<p>8. Project outputs Specify outputs clearly and in detail and show relationship to key STDF objectives including capacity enhancement, improved market access and trade opportunities, poverty reduction, linkages to country or regional program development priorities, public-private co-operation, innovativeness, demonstration effects, etc.</p>	See details attached pages 14-15.
<p>9. Project impact Specify the expected impact the project will have on market access, the SPS situation and poverty reduction. Identify how the project will fit with existing bilateral or multilateral donor projects and programmes, examine the sustainability of the proposed action and, where possible, suggest where the project may be replicated</p>	See details attached pages 16-19.
<p>10. Project inputs Specify total project cost. <u>Attach</u> detailed breakdown of proposed uses of funds.</p>	Total project budget: \$579,347. See Budget Narrative, page 19, and Detailed Budget, Annex 3.
<p>11. Non-STDF contributions If appropriate specify any financial contributions expected from sources other than STDF.</p>	
<p>12. Timetable Show proposed commencement and conclusion dates (maximum project duration two years)</p>	Two year timetable beginning March 2007. See Detailed Timetable attached, page 20.

1. Project Title

Rwanda Horticulture Export Standards Initiative (RHESI)

2. Requesting Government/Agency or Private Body

Rwanda Horticultural Development Authority (RHODA) in the Ministry of Agriculture and Animal Resources (MINAGRI).

3. Collaborating Government(s)/Agency

The Rwanda Bureau of Standards (RBS) in the Ministry of Commerce, Industry, Investment Promotion, Tourism and Cooperatives (MINICOM) will be an important collaborating agency in the implementation of RHESI. RBS will be the co-recipient of, and contributor to, capacity building and other technical activities of the proposed initiative.

In an exciting parallel development to RHESI's focus on horticulture plant health and export standards development, the European Union has embarked on an initiative with RBS/MINICOM that will support the enhancement of institutions and systems to ensure development of commercially driven export standards and to facilitate potential exporters in attaining these standards. The specific objectives of the EU-sponsored initiative with RBS are summarized in Section 9 under the subheading: How will the RHESI fit with existing bilateral or multilateral donor projects and programs?

Together, the proposed Rwanda Horticulture Export Standards Initiative based in RHODA and the collaborating EU-sponsored program in RBS, as described above, will constitute an unusual opportunity to improve Rwanda's ability to meet both public and private standards for exports of food and agricultural products.

4. Project Objectives

This section begins with a summary of the proposed project background and rationale, including a description of how RHESI fits institutionally and within the context of the Integrated Framework. It concludes with a discussion of the proposed objectives of the initiative.

4.1. Project Background and Rationale

Over ninety percent of Rwanda's population lives in rural areas and nearly all rural households farm for a living. Rwanda's population density is among the highest in Africa. Virtually all arable land is used for agriculture; marginal lands once set aside for pasture or left in long-fallow are now under more intensive cultivation. Farm holdings are fragmented into many smaller plots. On average, households cultivate less than 0.75 hectares of land. The vast majority of landholdings are owner-operated.

Beans, sorghum, sweet potatoes, and cassava are the main food staples, and coffee, tea, bananas, and potatoes are the main domestic cash crops. Farming is labor-intensive; women's labor is particularly important in food crop production, while men's labor is crucial in cash crop production and animal husbandry. Hoes and machetes are the basic farm implements; animal traction is nonexistent. Livestock husbandry is integral to the farming system, but the progressive conversion of pasture into cropland has caused an overall reduction in livestock production in recent decades, accentuated by losses during the 1994 war and genocide. There has been a parallel decline in the amount of manure available for improving soil fertility. Most households own a few small ruminants; less than a quarter own cattle. Chemical fertilizers are used in very small proportions (0.5 kg/ha and almost exclusively on coffee, tea, potatoes, and a few other cash crops). Non-farm income (wages from hired agricultural and non-agricultural work plus own-business income) constitutes over one third of total income, and over two-thirds of households earn some non-farm income and the proportion continues to grow as the constraints on traditional agricultural production systems intensify.

Rwanda's rural population is caught in a downward spiral of poverty characterized by declining/degrading resources, low inputs use, declining productivity, subsistence-oriented food crop production and high entry barriers to off-farm employment. Breaking the downward spiral of rural poverty is one of Rwanda's primary challenges in achieving the Vision 2020 goals of US\$ 900 per capita GDP and a poverty rate of 30% by the year 2020.

After twelve years of post-war and post-genocide rebuilding, Rwanda finds itself in a position of economic transformation and is now a member of the Common Market for Eastern and Southern Africa (COMESA). In May, 2005, the second COMESA Business Summit was held in Kigali and focused its deliberations on mechanisms to promote regional investment and export competitiveness. The shift from a subsistence driven agriculture to a market driven agriculture is at the core of the country's new economy and participation in COMESA.

Rwanda has placed a high priority on horticulture exports in its *1994 Strategic Plan for Agricultural Transformation in Rwanda (PSTA)*, a plan that aims to facilitate the sector's transformation from subsistence towards a modern, market-oriented rural economy and to enhance productivity in all subsectors of the agricultural economy. As a first step toward this end, the Government of Rwanda (GOR) has constituted a horticulture exports task force to develop a roadmap for horticulture export promotion in Rwanda. Meeting export SPS and quality standards for fruits, vegetables and flowers is an essential, though yet to be developed, aspect of this roadmap.

Though Rwanda holds considerable potential for fruits and vegetables (F&V) production and exports due to a favorable agro-climate and low-cost labor, the country lags behind its neighbors such as Kenya and Uganda in accessing lucrative export markets.

These important planning developments are consistent with the country's established Integrated Framework for Trade Related Technical Assistance to Least Developed Countries. The Integrated Framework is a multi-agency, multi-donor program established to promote the integration of the least developed countries into the global economy. The participating agencies are the IMF, the ITC, UNCTAD, UNDP, the World Bank and the WTO. The Integrated Framework in Rwanda maintains a

Secretariat in the Ministry of Commerce and is guided by the IF National Steering Committee. Priorities for technical assistance under the IF are summarized in the Integrated Framework Rwanda Action Matrix. Especially germane to the objectives of the present STDF grant proposal is the emphasis placed by the IF on meeting public and private standards for exports.

An important step in the implementation of the Integrated Framework in Rwanda is the recent completion of the *Diagnostic Trade Integration Study (DTIS)*.² Submitted in November 2005, the DTIS aims to assist the Government of Rwanda to take a strategic, integrated approach to building regional and global trade linkages. The study focuses on constraints to trade, both in Rwanda and in foreign markets, and on measures required to alleviate the identified constraints. A key output from the DTIS will be a highly focused action plan that will provide a prioritization of *realistic* policy measures, investment and technical assistance that will be needed to address the key constraints to trade. Standards for product safety and quality and opportunities for increasing horticultural exports from Rwanda are sections that figure prominently in the DTIS.

Building on these institutional and planning developments, the IF Steering Committee in collaboration with the WTO organized a national stakeholder workshop and follow-on fieldwork on Rwanda Horticulture Export Standards. The workshop constitutes an important step toward expanding capacity in export standards for horticultural products. The workshop was held February 28 to March 2, 2006 in Kigali and engaged a broad cross-section of stakeholders in the country's horticulture exports subsector, including: government officials from the Rwanda Bureau of Standards, the Ministry of Agriculture and the Ministry of Commerce, private sector producers and exporters, and representatives from higher education institutions and donor agencies.

The three-day program covered a range of topics, beginning with an introduction to the WTO Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement), implementation of the SPS Agreement, risk analysis issues, the dispute settlement process, concepts of equivalence and differential treatment, transparency obligations, national enquiry points, and notifications. A second stage in the workshop, supplemented by follow-on fieldwork, focused specifically on Rwanda and the constraints faced by stakeholders in meeting SPS trade requirements and in implementing SPS management functions at all levels. These SPS constraints and needs have been prioritized in the Rwanda Horticulture Export Standards Fieldwork Report and formally presented and discussed with the horticulture standards stakeholder group at the RBS offices in Kigali on May 2, 2006. They constitute the conceptual and empirical basis for the present Rwanda Horticulture Export Standards Initiative (RHESI) proposal.

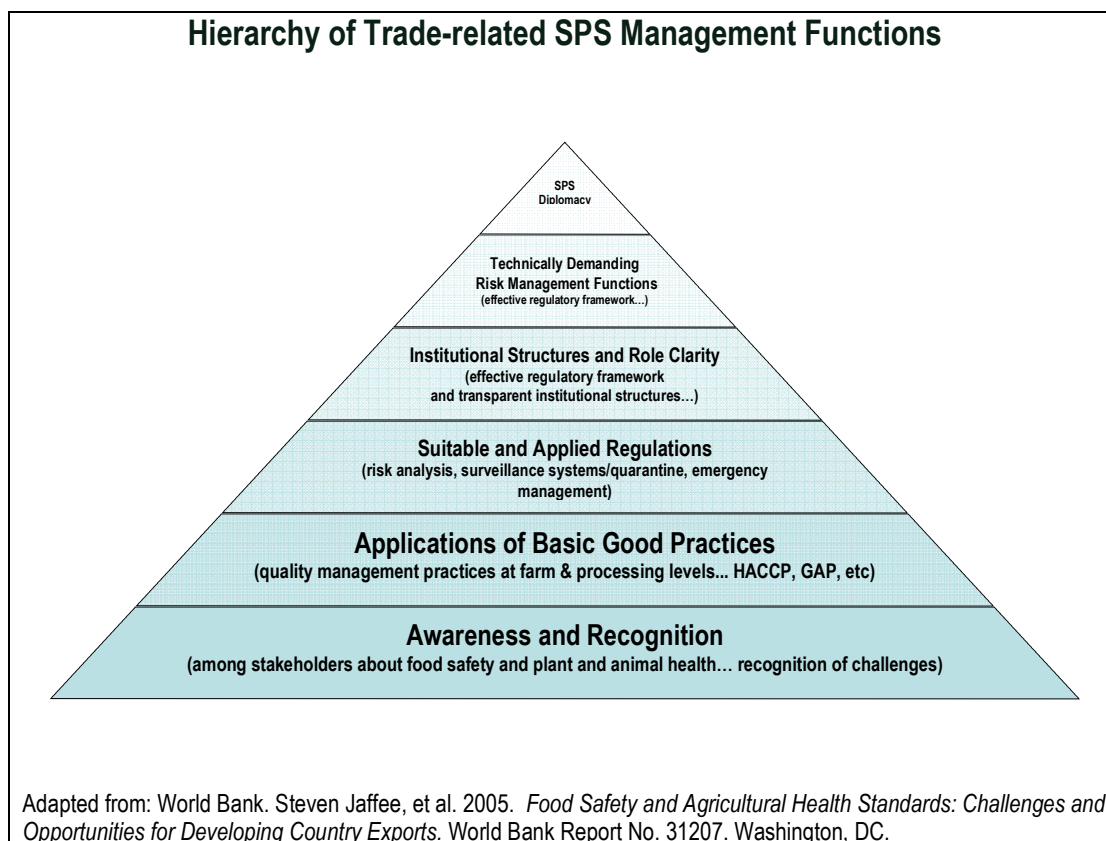
4.2. Project Objectives

While each of the stakeholder groups in Rwanda's horticulture sector holds its own unique set of interests and concerns, all of these stakeholders share the same overarching goal for the proposed STDF project: To expand Rwanda's presence in international and regional export markets for fruits, vegetables and flowers and

² URL for DTIS and Action Matrix: <http://www.integratedframework.org/countries/rwanda.htm>

thereby bring greater prosperity to the country's producers, cooperatives and agribusinesses.

It is broadly recognized that a most important step to increasing horticultural export market access is establishing a sound SPS management system that will ensure plant health management domestically and that, in turn, will instill confidence among trading partners that the fruits, vegetables and flowers shipped from Rwanda will be free from pests and diseases, safe for human health and safe for the environment. Rwanda Horticulture Export Standards Initiative is committed to addressing the priority SPS capacity building needs identified by stakeholders in the sector. Achieving this objective will require strengthening activities and measures at several levels, starting as follows at the base of the hierarchy of SPS trade-related SPS management functions as shown in the figure below.



Objective: Sensitization/Raising Awareness. RHESI activities will help to raise stakeholder awareness of SPS issues and requirements for trade in plant products, one of the prerequisites to building a “culture of quality” and recognition that meeting external grades and standards creates an opportunity for expanding exports. While Rwanda is eager to improve standards for horticultural exports, it is starting from a very low level in terms of human and institutional capacity. Stakeholders, particularly small scale horticulture producers and cooperatives, are not well informed on what the standards are, how they are enforced and the benefits (and costs) that can accrue to those able to comply. Where this basic level of awareness is weak the system of enforcement is likely to be overwhelmed and thus ineffective.

RHODA and RBS both understand the need to raise public and stakeholder awareness in official and commercial standards and through RHESI will have an opportunity to

develop the capacity to address fundamental aspects of this problem. This will occur at several levels: senior plant health and trade officials responsible for programmatic oversight and public expenditures, owners and managers of agribusinesses that are producing, processing and exporting plant products from Rwanda. These key industry groups are especially important as they make the investments, hire large numbers of workers and make other decisions that determine the direction of Rwanda's exports. Third, are the many farmers, cooperatives and farm laborers who produce, process, handle and transport plant products prior to their export.

Objective: Promotion of Good Practices. A second early stage development supported by RHESI that will help Rwanda's horticulture producers, exporters and government agencies to comply with the SPS standards required by their trading partners is the adoption of Good Practices at all levels of the value chain. Most notably this will include risk and quality management practices such as HACCP and good agricultural practices (GAP) at the farm and processing levels. Operating under cGLP (current Good Laboratory Practices) is an important step for testing laboratories both in the public and private sectors, including appropriate laboratory management practices and the development and implementation of training materials and other documentation consistent with GLP. In addition to training in these areas it is envisioned that RHESI will develop a *code of good practices* for a small number of targeted supply chains: for example, passion fruit, bird's eye chilies and roses.

Objective: Legal/Regulatory Reform. The recent restructuring of the Ministry of Agriculture and the creation of the Rwanda Bureau of Standards are important first steps in creating an enabling policy and institutional environment that is conducive to meeting SPS standards for horticultural exports. RHESI will be instrumental to achieving a set of next steps in the legal and regulatory reform process. These will include the drafting of legislation in the following areas: 1) plant protection, including pest control and quarantine 2) pesticide control, and 3) specific seed and plant variety protection legislation. These basic pieces of plant health/pesticide legislation drafted under RHESI will then feed into Rwanda's development of a draft food law and regulatory framework envisioned as an output of the parallel EU program. This larger initiative will, *inter alia*, provide a blue print for: 1) assigning institutional functions and powers for setting, implementing/certifying and enforcing SPS standards, including the responsibilities of the designated focal points for IPPC, Codex and OIE, 2) establishing a national code of regulations, bylaws and ordinances for safe food and plant and animal products for domestic consumption, and 3) harmonization of food laws with international standards.

Objective: Other Institutional Capacity Building in SPS Measures. RHESI will address several other horticulture sector capacity building needs that figure high on the priority list for the RHODA, the plant health/pesticide implementing agency and technical training institutions (KIST, ISAE and NUR). These include: 1) targeted training in plant health and pesticides management, and 2) strengthening Rwanda's IPPC Focal Point.

Objective: Information and Database Development. There are significant information gaps in SPS standards compliance in the horticulture sector in Rwanda that RHESI will help to address. These are gaps that can be filled over the course of the proposed two-year program and will be critical to the development of a horticulture standards action plan in the longer term under the leadership of the joint EU program.

- ❖ **Phytosanitary Capacity Evaluation.** Rwanda's focus on horticulture exports places relatively greater emphasis on addressing plant health issues. Inadequate phytosanitary capacity resulting in unreliable certification and inspection carries the high risk of failing to meet the requirements of trading partners and the introduction of exotic pests. RHESI will work with Rwanda's plant protection staff in RHODA to complete a systematic analysis of its phytosanitary systems to assess needs and options for improving these systems.
- ❖ **Establish a Horticulture Pest List/Database.** The last time Rwanda's Pest list was updated was in 1992. Credible management of plant health through inspections and certification will require an up-to-date list of pests both in Rwanda and in the region. It will also identify those pests and diseases controlled in key importing countries. RHESI will assist in creating a horticulture pest list/database.
- ❖ **Knowing Market Requirements, Cost of Compliance and Cost/Benefit Analysis.** Participation in regional and global horticulture exports markets requires assurances of the safety and quality of fruits, vegetables and flowers exported. Meeting public and commercial standards carries with it significant costs as well, particularly those associated with reforming and upgrading plant health/pesticides control systems, including the implementation of new plant health/pesticides legislation and establishing within MINAGRI/RHODA the appropriate authorities to enforce legislation. In the context of Rwanda, these costs are elevated in the absence of food laws, weak regulatory infrastructure (e.g., laboratories), and a lack of trained human resources required to implement food safety systems. Communicating to Rwanda's horticulture producers and exporters the regional and global market requirements, the cost of plant health/pesticides compliance, and the cost-benefit of compliance will provide a needed informational jolt to the subsector.

RHESI will conduct with RHODA (and jointly with RBS under EU funding) a three-track study of horticulture (including floriculture) export requirements, cost of compliance and benefit of compliance.³ Documenting market requirements, estimating the cost of compliance and assessing the cost-benefit of potential investments needed to achieve compliance are three interrelated steps that Rwanda needs to take at this early stage in the development of a horticulture exports sector.

Objective: Action Plan for Horticulture SPS Standards Compliance. One of the priority outcomes of the Rwanda Horticulture Export Standards Workshop was a broad recognition that Rwanda needs to develop a national strategy/action plan for SPS standards compliance. The action plan is needed to identify, prioritize, and facilitate the steps necessary to build an SPS management system that will serve the country's interests in expanding horticulture and other exports.

Guided by the baseline three-track cost of compliance study and experiences in the proposed capacity building activities, RHESI will over the course of its two-year implementation bring together stakeholder groups to develop a horticulture export standards action plan for the medium (3-5 years) and longer-term (5-10 years). It is

³ The cost of compliance component of this study will also feed into a larger multi-country comparative study, *Costs of Agri-food Safety and SPS Compliance United Republic of Tanzania, Mozambique and Guinea: Tropical Fruits*, currently being conducted by UNCTAD.

anticipated that this activity will complement and fit into the broader national strategy for SPS standards compliance that will be developed as an output of the EU standards project described in Section 9.

5. Project Activities

This section presents in sequential order an implementation plan and an evaluation/ dissemination plan for the proposed two year duration of RHESI. A timetable for the activities described here below is contained in Section 12 and the resources required to achieve the proposed activities are estimated in Section 10 and Annex 3.

5.1 Implementation (Work) Plan

The approach of the implementation plan is straightforward in that it describes the specific actions proposed to accomplish, in order, each of the principal objectives identified in the previous section. One of the underlying principles that is infused in all of the activities proposed under RHESI is that much can be learned from Rwanda's immediate regional neighbors such as Kenya and Uganda, and more distant African nations such as South Africa, all countries that hold significant experience and expertise in what it takes to develop horticulture export standards.

Sensitization/Raising Awareness for Targeted Value Chains. Initial priority steps for improving public and stakeholder awareness of horticulture SPS standards are needed at several different levels and must involve multiple agencies in Rwanda. Much can be done at the producer level through horticulture producer associations and cooperatives (e.g., COVEPAR) in connection with efforts to disseminate Good Agricultural Practices as discussed in the following subsection.

While there are relatively few of these producer groups in Rwanda at present, particularly for the targeted value chains such as passion fruit, bird's eye chilies and roses, it will be highly beneficial to expanding the industry if RHESI can be successful in raising awareness among these leading groups. Just as the PEARL project succeeded in assisting a small number of specialty coffee cooperatives to pave the way in just 4 years to nearly 50 cooperatives and private enterprises today, helping the leading producer groups in this way can have a much larger impact over time.

Instruction on best practices and related costs must be presented in terms of SPS requirements and the benefits of complying with these standards. Specific awareness raising steps will include:

- ❖ Support will be provided to RHODA in the development of horticulture SPS training materials and other awareness raising approaches for targeted subsectors such as passion fruit, bird's eye chilies and roses. The focus of agricultural communications technical assistance and in-country operational resources will include:

- Development of information and bulletins/pamphlets on basics of horticulture SPS standards including benefits and potential costs of compliance. These materials will focus on targeted horticulture subsectors.
 - Preparation of instructional guides to meeting standards in these priority value chains. What is required? Where to go for testing and inspections? What are the costs?
 - Development of an internet site at RHODA to provide the basic information from bulletins/pamphlets, instructional guides and archived radio broadcasts.
- ❖ RHESI will implement training programs using materials above and targeting a modest number of exporters, cooperative managers, extension personnel and other potential “trainers.”

Promotion of Good Practices. There are numerous opportunities for improving SPS management through the implementation of good practices in production and processing and Good Laboratory Practices in public testing institutions. The priority activities proposed for implementation with technical training and support under RHESI are to:

- ❖ Identify and document Good Agricultural Practices recommended by IPPC that have particular relevance to horticulture exports from Rwanda, notably in selected value chains such as passion fruit, bird’s eye chillies and roses.
- ❖ Develop codes of good practices and application throughout the value chain (farm to fork). This will entail the development and delivery of training materials (pamphlets, posters, internet pages).
- ❖ Disseminate good practices documentation and recommendations to policymakers.
- ❖ Strengthen MINAGRI/RHODA and RBS through targeted technical assistance and training to ensure appropriate dissemination (including in local languages) and training in good practices of extension personnel, certifiers/ inspectors, laboratory personnel, producers, processors and exporters.
- ❖ Develop training materials for Best Practices in meeting horticulture SPS requirements (tied to priority export markets and products). For horticulture products this requires training the producer group managers who in turn will train farm workers in areas such as basic hygiene in handling products and packing materials, correct use and storage of pesticides and other potentially hazardous substances, and improved record-keeping related to pesticide use and other production practices.
- ❖ Strengthen KIST, ISAE and NUR through targeted technical assistance and training in curriculum development that integrates good practices and promotes technologies that help to meet codes of best practices.

Legal/Regulatory Reform. The establishment of a basic food law in the medium term will benefit from the initial steps to be taken under RHESI to develop an appropriate legislative framework for plant health and pesticide management. Focused technical assistance and training will be provided to help set the stage and put the process in motion. These preliminary developments include the following:

- ❖ MINAGRI (including RHODA and RARDA), MINICOM/RBS need to establish a provisional understanding/elucidation/interpretation of institutional functional responsibilities concerning SPS standards management, particularly concerning

testing and certification for exports. This will be coordinated by the Integrated Framework National Steering Committee and will take the form of a memorandum of understanding, inter-agency working agreement or other arrangement that serves as a provisional basis for addressing the country's practical needs for successful SPS standards management.

- ❖ Technical assistance from an expert in plant health and pesticides regulation with experience with establishing regulatory frameworks in developing countries.
- ❖ Review of plant health/pesticides legislation in other horticulture exporting countries in the region and elsewhere.
- ❖ Drafting of legislation in the following areas: 1) plant protection, including pest control and quarantine 2) pesticide control, and 3) specific seed and plant variety protection legislation. New plant protection legislation will take into account recent legal trends and ensure that the legislation uses the new definitions from the IPPC. National plant protection legislation will include: definitions, administration, authorities attributed to the Rwanda National Plant Protection Office (NPPO), relations with other government bodies such as the customs department, imports, exports, containment and eradication of pests, compensation, pest free areas, enforcement and penalties. New pesticides legislation will take into account the FAO Pesticides Management Guidelines and other international agreements such as the PIC Convention and the POPs Treaty. It typically includes provisions as to their registration and use and includes lists of pesticides that are prohibited or allowed, among others.

Other Institutional Capacity Building in SPS Measures. Additional areas proposed for horticulture export capacity building under RHESI include: 1) targeted training in plant health and pesticides management, and 2) strengthening Rwanda's IPPC Focal Point.

- ❖ Targeted training and technical assistance in plant health and pesticides management. This training and assistance will be provided for MINAGRI/RHODA plant protection inspectors, certifiers and laboratory heads and senior technicians.
 - Provide training in plant pest surveillance techniques.
 - Research/document quarantine pests for importing countries (see pest list/database development in following subsection).
 - Identify and disseminate appropriate pest management/quarantine treatments.
- ❖ Strengthen the IPPC Focal Point. Expanding horticulture exports from Rwanda will require across the board strengthening of the country's IPPC Focal Point in MINAGRI/RHODA. Strengthening Rwanda's ability to comply with IPPC standards for plant health will help to instill confidence among trading partners that Rwanda is committed to controlling plant pests and effectively managing risk. Priority activities planned with technical support under RHESI and aimed at achieving these goals through RHODA and the IPPC Focal Point will include the following:
 - Train Focal Point personnel in Integrated Pest Management (IPM) techniques.
 - Provide exposure through a study tour (and possible internships) to introduce key officials to IPPC functioning and procedures, including standards setting and dispute settlement.

- Coordination among stakeholders to identify and articulate Rwanda's needs and concerns regarding IPPC participation.
- Work with RHODA to apply for and use trust fund resources to participate in IPPC.

Information and Database Development. Supplementing the program of training and other capacity building described above, RHESI will assist in addressing several significant information gaps in SPS standards compliance in the horticulture subsector in Rwanda. These are gaps that will be filled over the course of the proposed two-year program and will in turn be critical to the development of an action plan for building SPS management systems in the longer term. There are several areas that will receive specific attention.

- ❖ **Phytosanitary Capacity Evaluation.** RHESI will support Rwanda's plant protection staff in RHODA to complete a systematic analysis of its phytosanitary systems using the FAO's Phytosanitary Capacity Evaluation (PCE) tool. This instrument has been employed successfully elsewhere in Africa, the Caribbean, Central Asia, the Middle East and Latin America as a means for identifying the strengths and weaknesses of national phytosanitary systems and for elucidating the strategic options and activities required to improve these systems.

The PCE tool is comprehensive and covers many areas identified by stakeholders in the Rwanda horticulture subsector as needing improvement, including: phytosanitary legislation, institutional issues, pest diagnostic capabilities, pest risk analysis, surveillance, exotic pest response, on-going pest eradication campaigns, inspection systems, export certification, and pest reporting.

- ❖ **Develop/update Horticulture Pest List/Database for Rwanda.** This will be developed in coordination with neighboring countries and with support of technical assistance.
- ❖ **Knowing Market Requirements, the Cost of Compliance and Cost/Benefit Analysis.** Documenting market requirements, estimating the cost of compliance and assessing the cost-benefit of potential investments needed to achieve compliance are three interrelated steps that Rwanda needs to take at this early stage in the development of its horticulture exports sector. With technical support coming from Michigan State University, RHESI will conduct a three-track study of horticulture exports requirements, cost of compliance and cost-benefit jointly with the Ministry of Agriculture and MINICOM/RBS. It is anticipated that the EU parallel project will provide resources to expand this three-track study to include commercial standards as well.

The study will work through a framework that will facilitate estimation of the costs of SPS compliance at two levels. The first is for horticulture producers and exporters and addresses the additional costs they incur in meeting regulatory requirements in targeted importing countries, for example in one European country and one East African country. The second level of compliance involves costs incurred at the public institution level such as investments in facilities and procedures for phytosanitary certification, establishing and implementing appropriate legislation and a campaign to raise stakeholder awareness of SPS requirements for targeted value chains such as passion fruit, chili peppers or other targeted products, initially for regional markets.

Documentation of market requirements will engage horticulture industry experts from regional markets (e.g., buyers from Shoprite and Uchumi) and international markets (e.g., Royal Ahold, Sainsbury's) to advise Rwanda (private sector and public sector) on opportunities and technical improvements that will help to build capacity in fruit, vegetable and flower export markets. This will include improvements in cold chain, packaging and labeling.

Action Plan for SPS Standards Compliance. Looking to the future, and in coordination with key stakeholder groups, RHESI will support the development of the plant health/pesticides components of a horticulture export standards action plan or roadmap for the medium (3-5 years) and long-term (5-10 years), guided by the baseline three-track cost of compliance study and technical support. It is anticipated that this activity will complement parallel efforts from the EU project (described in Section 9) which will focus on the food safety and animal health components of the action plan.

- ❖ Compile information needed on plant health/pesticides export standards – through market/ product/value chain approach and consultation with stakeholders.
- ❖ Establish a Horticulture Standards Coordinating Committee – including MINICOM/RBS, MINAGRI (and agencies) KIST, Horticulture Authority, private sector and others. This committee may be a subset of the Horticulture Authority and is expected to serve the same function for horticulture initiatives under the parallel EU program.
- ❖ Appoint a strategy/action plan facilitator.
- ❖ Draft the plant health/pesticides components of the horticulture standards action plan in coordination with the Horticulture Standards Coordinating Committee and with stakeholder input.
- ❖ Establish a plant health/pesticides working group to develop time lines, plans and budgets for implementation of those aspects of the action plan.
- ❖ Coordinate with donors for prioritization and funding of follow-up projects.

5.2 Evaluation and Dissemination Plan

This proposal places emphasis on evaluation as a tool for better planning and dissemination of results. Our vision for the RHESI evaluation draws on the concepts of participatory investigation—an evaluation that energizes the partners involved in the project activities, that addresses critical issues facing Rwanda's plant health/pesticides export standards management system, asks the right questions, and assists RHODA and other institutions in making planning decisions for future programs. It will be an evaluation with both formative and summative dimensions and will be grounded in the evaluation standards set by the Joint Committee on Standards for Educational Evaluation (<http://www.eval.org/EvaluationDocuments/standards.html>).

The core evaluation methodologies for measuring results in terms of institutional goals and the MINAGRI 1994 Strategic Plan for Agriculture (PSTA) are threefold: 1) the establishment and use of an internal monitoring system to document progress against proposed outcomes of the initiative, 2) a set of ongoing formative evaluation activities to maintain task orientation, monitor evolving partner relationships and provide feedback for administrative oversight, and 3) a combined internal and external impact assessment procedure.

Thus, the evaluation of RHESI will rely on a triangulation of methods to investigate project outcomes using concise and measurable indicators that are closely aligned with project objectives for improved SPS management. It will include personal interviews and site visits, focus group interviews, case studies of specific technological developments, technology dissemination, and possibly a series of small-scale surveys or measures imbedded in ongoing evaluation activities. Data will be gathered to represent the views and opinions of the major SPS management stakeholders in the horticulture sector including RHODA, RBS, producer cooperatives, agribusinesses, educational institutions, and NGOs.

The STDF will be provided with monitoring reports at four-month intervals during the life of the project, an interim report after one year from the start of the project, and a final project report.

6. Private/Public Sector Co-operation

Private/Public sector co-operation will be one of the defining characteristics of the Rwanda Horticulture Export Standards Initiative. RHESI builds on an established pattern of public-private engagement in the preparation of the Integrated Framework, the DTIS, the roadmap for horticulture export promotion developed by the horticulture exports task force and the Horticulture Authority that is currently under development. The fieldwork and Stakeholder Workshop on Horticulture Export Standards were also characterized by cooperation among representatives of the public and private sectors. It is recognized that both private sector agribusinesses and public institutions are essential elements in Rwanda's SPS management system for horticulture products.

Many of the activities implemented under RHESI will require close co-operation between government agencies and private sector groups. For example, all SPS awareness campaign materials will be developed collaboratively, as will the Good Agricultural Practices training materials. Similarly, the preparation of the Horticulture Export Standards Action Plan will require contributions from both sectors.

Finally, as a practical matter, RHODA is understaffed both in the ministry and in the field and thus application of key functions such as pest quarantine and surveillance programs cannot be effectively implemented without maintaining trust and good working relationships with producers and businesses throughout the country. It is known from current quarantine events such as the Banana bacterial wilt quarantine in northwest Rwanda that containment depends entirely on the sound instruction of the RHODA plant protection staff and the cooperative volunteer efforts of producers in the affected districts. The same principle holds true regarding RHODA's limited export inspections and testing capacity which requires close producer cooperation to ensure that plant exports from Rwanda are pest-free. RHESI is committed to enhancing this necessary partnership in all of its activities.

7. Project Outputs

Project outputs will be many and varied, but all will contribute to the overarching goal of greater market access and trade opportunities for fruits, vegetables and flower exports, resulting in higher rural incomes and lower rates of poverty. More

specifically the outputs associated with each of the RHESI objectives can be summarized as follows:

Sensitization/Raising Awareness. RHODA and RBS will receive support in the development of plant health and pesticides standards training materials for the horticulture sector and other awareness raising approaches using printed materials, radio broadcasts and website development. Training programs will be implemented using materials above and targeting exporters, cooperative managers, extension personnel and other potential “trainers.”

Promotion of Good Practices. Good plant health and pesticides management practices, including a code of good practices, will be identified, drafted and disseminated to policymakers and other stakeholders. MINAGRI/RHODA will be strengthened through targeted technical assistance and training to ensure appropriate dissemination (including in local languages) and training in good practices for extension personnel, certifiers/inspectors, laboratory technicians, cooperative and agribusiness managers and exporters. Training materials for Good Agricultural Practices in meeting horticulture SPS requirements (tied to priority export markets and products, such as passion fruit, bird’s eye chilies and roses) will be developed. And to ensure institutionalization, KIST, ISAE and/or NUR will be strengthened through targeted technical assistance and training in curriculum development that integrates the code of good agricultural practices and promotes affordable technologies that help to meet code of GAP standards for the horticulture sector.

Legal/Regulatory Reform. Steps toward the establishment of an overall food law (EU project) and plant health/pesticides regulatory framework (RHESI) for Rwanda will begin by developing a provisional understanding of institutional functional responsibilities concerning SPS standards management among MINAGRI (including RHODA and RARDA), MINICOM/RBS and MINISANTE. Stakeholders in the horticulture sector in government (MINAGRI/RHODA), educational institutions (KIST, ISAE, NUR) and other key institutional stakeholders contributing to Rwanda’s plant health and pesticides regulatory development will receive training and technical assistance in these areas. Finally, documents outlining the parameters of a Rwanda food law (from the EU project) and a draft of a plant health/pesticides regulatory framework (from RHESI) will be prepared with technical assistance from an expert in international plant/animal/food laws and regulations.

Other Institutional Capacity Building in SPS Measures. MINAGRI/RHODA plant protection inspectors, certifiers and laboratory heads and senior technicians will receive targeted training and technical assistance in plant health and pesticides management. Specifically this training and assistance will: expand capacity in plant pest surveillance techniques, document quarantine pests for importing countries, and identify and disseminate appropriate pest management/quarantine treatments.

The IPPC Focal Point in MINAGRI/RHODA will be strengthened through training and technical assistance in Integrated Pest Management (IPM) techniques, a study tour (and possible internships) to introduce key officials to IPPC functioning and procedures, including standards setting and dispute settlement, and coordination among stakeholders to identify and articulate Rwanda’s needs and concerns regarding IPPC participation. RHESI will also support RHODA to apply for and use trust fund resources to participate in IPPC.

Information and Database Development. RHESI will assist in addressing several significant information gaps in SPS standards compliance in the horticulture subsector in Rwanda. First, a systematic analysis of the strengths and weaknesses of Rwanda's phytosanitary systems will be completed using the FAO's *Phytosanitary Capacity Evaluation (PCE)* tool. The PCE tool will help to respond to many of the areas identified by stakeholders in the Rwanda horticulture subsector as needing improvement, including phytosanitary legislation, pest diagnostic capabilities, pest risk analysis, surveillance, exotic pest response, on-going pest eradication campaigns, inspection systems, export certification, and pest reporting.

A second information/database output from RHESI will be the development of and updated horticulture pest list/database for Rwanda. This will be done coordination with neighboring countries and support of technical assistance.

A third output will be a three-track study of horticulture export market requirements, cost of compliance and cost-benefit. The study will focus on plant health/pesticides standards and will complement the EU project contribution focusing on the commercial standards for these export markets. Estimates will be made of the costs incurred by producer groups and exporters as well as government institutions in meeting regulatory requirements of a selected European and one regional market for passion fruit, bird's eye chilies and/or roses as potential plant products for the focus of the study. The study will engage horticulture industry experts from regional (e.g., buyers from Shoprite and Uchumi) and international markets (e.g., Royal Ahold, Sainsbury's) in determining the requirements, costs and potential benefits of accessing these markets.

Action Plan for SPS Standards Compliance. By the end of year two, the primary output from RHESI in this domain will be a draft action plan for the medium-term (3-5 years) and long-term (5-10 years). The RHESI action plan will address plant health/pesticides components of a broader strategy and action plan for meeting food and agricultural export standards under sponsorship from the EU, as described in Section 9. The in-country coordinator will work with potential donors to address priority steps and future funding of the plan's implementation.

8. Project Impact

One of the most sudden and dramatic changes brought by the expanding global economy has been the transformation of food procurement systems around the world, particularly the rapid rise of regional and multinational supermarkets. Over the coming decade, Rwanda will be enveloped by this transformation and will find itself even farther behind if does not move swiftly to position itself as a player in these markets. Unless Rwanda's producers of fruits, vegetables and flowers make a quantum leap in their levels of productivity and awareness of how supermarket procurement systems operate, their share of these important regional and international (and eventually domestic urban) markets will be minimal.

Perhaps the most exciting opportunity for Rwanda's horticulture sector in the coming years will lie in its ability to build export supply chains that will feed into these regional and international markets. Establishing the relationships, enhancing its access to market information, and meeting the stringent SPS and commercial standards for plant and animal health and food safety as well as the level of product

quality required by these regional and multinational retailers will be the key. Looking at the larger picture, supermarkets are just the initial phase. Equally important are supply chains for the rapidly growing food service industry, including restaurants, hotels and caterers, among others. As food service expands in the region so, too, will the opportunities for trade in food of plant origin.

RHESI is designed specifically put Rwanda on track to improve horticultural food safety and plant health standards with an eye toward greater access to these growing regional and international markets. The long term impact of the activities proposed under RHESI will be increased incomes to Rwanda's producers, cooperatives and enterprises and a reduction in the country's levels of poverty.

RHESI is designed specifically to enhance Rwanda's access to these growing regional and international markets by focusing on a small number of horticulture products/subsectors with export potential and building that potential through targeted training and technical assistance in raising awareness, promoting good practices and developing the regulatory framework that will enable horticulture producer groups and agribusinesses to be successful in this competitive arena. Achieving these goals will have a parallel beneficial impact on domestic human and environmental health.

How will the RHESI fit with existing bilateral or multilateral donor projects and programs?

RHESI is closely tied to existing government initiatives in Rwanda. First, it is fully in line with the high priority placed on horticulture exports in its 1994 Strategic Plan for Agricultural Transformation in Rwanda. The PSTA aims to facilitate the sector's transformation from subsistence towards a modern, market-oriented rural economy and its implementation will receive significant funding from the donor community. The GOR, with assistance from the OTF Group has taken initial steps by putting in place a task force to develop a roadmap for horticulture export promotion in Rwanda. An essential piece of this new strategy is to take necessary actions to meeting export SPS and quality standards for fruits, vegetables and flowers.

Second, an important step in the implementation of the Integrated Framework in Rwanda is the recent completion of the *Diagnostic Trade Integration Study*. The study focuses on constraints to trade, both in Rwanda and in foreign markets, and on measures required to alleviate the identified constraints. Standards for product safety and quality, specifically as they apply to increasing horticultural exports from Rwanda, are areas of special concern in the DTIS.

Third, as an important step toward expanding capacity in export standards for horticulture and other food and agricultural products the Integrated Framework Steering Committee in collaboration with the WTO organized in February-March of 2006 a national stakeholder workshop and follow-on fieldwork on *Rwanda Horticulture Export Standards*. These two activities constitute the basis of the present RHESI proposal.

Fourth, RHESI will have a positive impact on other projects and programs aimed at increasing Rwanda's exports of food and agriculture products. These include:

- ❖ The European Union has identified Rwanda's need to develop capacity to meet food and agricultural export standards as a programming priority. In working

principally with RBS/MINICOM the EU has approved funding for an initiative that will support the enhancement of institutions and systems to ensure the timely development of export standards and to facilitate potential exporters in attaining these standards. The specific objectives of the initiative closely parallel those proposed under RHESI, and are strategically important to RHESI, but the standards, products and institutions targeted are different, though highly complementary, as summarized below.

While both projects are capable of standing alone and accomplishing their own respective goals independently, they have been well integrated by design to minimize overlap and maximize coverage of the full gamut of SPS management concerns in Rwanda. Key distinctions between these two programs include:

- The EU project, following from the DTIS, will address the development of food and agriculture standards across the board but with an emphasis on food safety and animal health. RHESI will emphasize plant health systems and targeted horticulture exports.
 - The EU project will focus on meeting commercial standards (EurepGAP, ISO, etc.) for food and agricultural products. RHESI will focus principally on public SPS standards for exports of plant products.
 - The EU project will include value chains for processed foods (e.g., fruit juice, coffee) and products of animal origin, such as hides and skins. RHESI will include only horticulture/plant products, specifically fruits, vegetables and flowers with an emphasis on selected value chains such as passion fruit, bird's eye chilies and roses.
 - The Codex and OIE Focal Points will be the target for strengthening under the EU project, while RHESI will provide support to the IPPC Focal Point.
 - Capacity Building activities will be tied to RBS under the EU project. RHESI capacity building will be primarily in MINAGRI/RHODA.
- ❖ The USAID-funded Partnership to Enhance Agriculture in Rwanda through Linkages (PEARL) which develops coffee and horticultural value chains in Rwanda.
 - ❖ The USAID-funded Agribusiness Development Assistance in Rwanda (ADAR) has supported horticultural/floriculture exports, particularly passion fruit, roses. Bird's eye chilies and tomatoes.

Sustainability of the Proposed RHESI Project

RHESI is a project that will have a lasting impact on the horticulture sector. It addresses the objectives of raising stakeholder awareness, promoting good practices, implementing legal and regulatory reform, building institutional capacity in plant health/pesticides management and horticulture exports, generating a database and developing an action plan for future steps in achieving horticulture SPS standards compliance. These are all fundamentally sound investments that are not simply working with a handful of cooperatives or enterprises. RHESI is a program that is aimed at structural change and building institutions, activities that will have a long term and sustainable impact.

This is also a project that looks to the longer term future through the development of a horticulture export standards compliance action plan with an eye toward priority needs, costs, and potential contributors. This is a plan that will be developed with

stakeholder input, giving it ownership, and in cooperation with the donor community, giving it maximum consideration for future funding.

Finally, the most important aspect affecting the sustainability of RHESI is its focus on stakeholders and helping to expand export markets for Rwanda's horticulture products. This, in turn, puts income in the pockets of producers, cooperatives and enterprises in the sector. To be sure, if improved horticulture standards compliance leads to higher incomes for Rwanda in the long run then it will ultimately be self-financing, just as it is in so many of the emerging economies around the world.

Can RHESI be replicated in other countries?

The RHESI model builds capacity in areas of serious need. It is stakeholder driven and is a model that contains elements that have already proven to be highly successful through the PEARL and Partnerships for Food Industry Development -- Fruits and Vegetables (PFID-F&V) projects described elsewhere in this proposal. It addresses needs that are not unique to Rwanda; in varying degrees they are common to nearly every nation in Africa. This is not to say that RHESI provides a "cookie-cutter" approach for other countries, only that it will potentially provide an adaptable model for plant health and horticulture export standards compliance in countries demonstrating roughly comparable levels of need.

9. Project Inputs

The total STDF project estimated cost is \$579,347 over the two year period (see detailed budget in Annex 3). Its implementation calls for a full-time Project Coordinator based in Rwanda with expertise in SPS management systems and the COMESA region.

The local MINAGRI budget will be established as a subgrant to the Ministry and its oversight will be the responsibility of the in-country Coordinator in collaboration with the designated MINAGRI program leader.

Technical assistance in key areas targeted in this proposal such as horticulture good practices, SPS cost of compliance, risk assessment, plant protection including pest control and quarantine, pesticide management, seed/plant variety protection and export inspection and certification will be recruited. Other consultants will also be engaged as needed.

Focused training/capacity building will take place in Rwanda, in Kenya/South Africa and in Europe (IPPC). All airfares budgeted and used will be excursion economy class fares.

The program coordinator and administrative assistant will be housed in MINAGRI and provided with the same level of support available to the MINAGRI/RHODA staff counterparts on RHESI.

ICT and evaluation expertise called for under RHESI will be procured locally through the Rwanda RHESI project office.

10. Timetable

The implementation of RHESI activities is anticipated to take two years, beginning May 2007. The timetable below identifies the approximate timing and intervals for the main project activities.

Timetable of RHESI Activities

Activity	Year 1												Year 2											
	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A
Project Kick-off Workshop	■																							
Awareness Raising																								
Development of SPS training materials		■	■	■	■	■																		
Implementation of training activities							■		■				■		■				■			■		
Promotion of Good Practices																								
Development of SPS training materials			■	■	■	■	■	■																
Draft code of good practices for horticulture						■	■	■																
Implementation of training activities							■		■				■		■				■			■		
Curriculum development: KIST, ISAE and NUR										■	■	■												
Legal/Regulatory Reform																								
Inter-agency working agreement in place			■																					
TA and training in plant health/pesticides regs						■	■	■	■	■								■	■	■	■			
Draft plant health/pesticides legislation																			■	■	■	■	■	
Other Institutional Capacity Building in SPS																								
Training in plant health/pesticides management			■				■			■	■	■										■	■	
Strengthening the IPPC Focal Point					■			■			■		■		■					■				
Information and Database Development																								
Phytosanitary capacity evaluation (PCE)			■	■	■																			
Establish horticulture pest list database						■	■																	
3-track study of hort exports requirements			■	■			■	■			■	■												
Action Plan for Horticulture SPS Standards Compliance																								
Establish Hort Stds. Coord. Committee		■																						
Draft Action Plan for hort SPS compliance																				■	■	■		
Coord w/donors on priorities & funding																							■	■
Monitoring & Evaluation and Reporting																								
Establish performance indicators		■																						
Assess progress against indicators											■												■	
Draft final report																								■
Project progress and financial reporting				■				■			■					■				■				■

Line Item		Year 1	Year 2	Total
<u>PROJECT COORDINATION/SUPPORT</u>				
	<u>Rate</u>			
In-country Coordinator	65,520	65,520	67,486	133,006
Technical Coordinator/Trainer	96,551	9,655	9,945	19,600
Administrative support	111,542	11,154	11,489	22,643
TOTAL PROJECT COORDINATION/SUPPORT COSTS		86,329	88,919	175,248
<u>SUBGRANT WITH RWANDA MINISTRY OF AGRICULTURE</u>				
	<u>Rate</u>			
In-Country Operational Costs				
In-country Project Assistant/Accountant	12,000	12,000	12,360	24,360
Project Asst, Severance (4 mos. salary, GOR required)	4,120	0	4,120	4,120
In-country Coordinator	3,724	3,724	3,836	7,560
In-country travel (transportation, per diem, lodging)	740	8,880	9,146	18,026
Communications	250	3,000	3,090	6,090
Printing GAP and other training information for dissemination	200	2,400	2,472	4,872
Materials and supplies	350	4,200	4,326	8,526
Traning and Other Technical Activities Costs				
Plant Safety Internship (South Africa or Kenya)				
Travel costs (airfare, travel per diem, misc.)	3,340	3,340	3,440	6,780
IPM Short Course				
Travel costs (airfare, travel per diem, misc.)	2,900	2,900	2,987	5,887
Hort GAP/Sensitization Workshops (materials, communication, etc.)	1,000	2,000	2,060	4,060
Website Devel w/ RHODA and RBS for Hort GAP, procedures, etc.	2,000	2,000	2,060	4,060
Study tour to Kenya or So. Africa for Hort Stds Committee	1,500	0	7,725	7,725
IPPC particip. training for IPPC Focal Point (travel costs)	3,600	0	7,416	7,416
Project Evaluation (local consultant and costs)	1,500	1,500	3,090	4,590
TOTAL SUBGRANT WITH MINAGRI		45,944	68,128	114,072
<u>TECHNICAL ASSISTANCE (all costs include overhead)</u>				
	<u>Rate</u>			
Awareness Raising Plan and Materials Development				
Consultant (15 in Rwanda, 3 tvl, 4 prep = 21 days)	630	13,230	0	13,230
Airfare	3,276	3,276	0	3,276
Other Travel (lodging, per diem, local transp., misc.)	6,137	6,137	0	6,137
Communications	189	189	0	189
		22,832	0	22,832
Development of SPS GAP Plan and Training Materials				
Consultant (15 in Rwanda, 3 tvl, 4 prep = 21 days)	630	13,230	0	13,230
Airfare	3,276	3,276	0	3,276
Other Travel (lodging, per diem, local transp., misc.)	6,137	6,137	0	6,137
Communications	189	189	0	189
		22,832	0	22,832
Regional/Int'l Market Requirements Study + Training				
Consultant (15 in Rwanda, 3 tvl, 4 prep = 21 days)	630	13,230	0	13,230
Airfare	3,276	3,276	0	3,276
Other Travel (lodging, per diem, local transp., misc.)	6,137	6,137	0	6,137
Communications	189	189	0	189
		22,832	0	22,832
SPS Cost of Compliance + Cost-Benefit Analysis				
Consultant (15 in Rwanda, 3 tvl, 4 prep = 21 days)	630	13,230	0	13,230
Airfare	3,276	3,276	0	3,276
Other Travel (lodging, per diem, local transp., misc.)	6,137	6,137	0	6,137

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Communications	189	189	0	189
		22,832	0	22,832
PCE Tool + Develop Pest List/Database				
Consultant (15 in Rwanda, 3 tvl, 4 prep = 21 days)	630	13,230	0	13,230
Airfare	3,276	3,276	0	3,276
Other Travel (lodging, per diem, local transp., misc.)	6,137	6,137	0	6,137
Communications	189	189	0	189
		22,832	0	22,832
Training in Plant Health & Pesticides Management				
Consultant (15 in Rwanda, 3 tvl, 4 prep = 21 days)	630	0	13,627	13,627
Airfare	3,276	0	3,374	3,374
Other Travel (lodging, per diem, local transp., misc.)	6,137	0	6,322	6,322
Communications	189	0	195	195
		0	23,517	23,517
Assistance in Drafting Plant/Pesticides Legislation				
Consultant (15 in Rwanda, 3 tvl, 4 prep = 21 days)	630	0	13,627	13,627
Airfare	3,276	0	3,374	3,374
Other Travel (lodging, per diem, local transp., misc.)	6,137	0	6,322	6,322
Communications	189	0	195	195
		0	23,517	23,517
Assist in Devel of Hort Export Standards Action Plan				
Consultant (15 in Rwanda, 3 tvl, 4 prep = 21 days)	630	0	13,627	13,627
Airfare	3,276	0	3,374	3,374
Other Travel (lodging, per diem, local transp., misc.)	6,137	0	6,322	6,322
Communications	189	0	195	195
		0	23,517	23,517
TOTAL TECHNICAL ASSISTANCE		114,162	70,552	184,715
TRAINING/WORKSHOPS				
		<u>Rate</u>		
IPM Short Course	4,095	4,095	4,218	8,313
TOTAL TRAINING/WORKSHOPS		4,095	4,218	8,313
TRAVEL				
		<u>Rate</u>		
Program Director (travel to Rwanda)	6,037	6,037	6,218	12,254
For IPPC participatory training for Focal Points	4,599	4,599	4,737	9,336
In-country office set-up, admin training, and closeout	6,699	6,699	6,900	13,600
TOTAL TRAVEL		17,335	17,855	35,190
MATERIALS & SERVICES				
		<u>Rate</u>		
Office supplies	32	378	389	767
Communication (phone, express mail, fax, copying)	76	907	934	1,842
TOTAL MATERIALS & SERVICES		1,285	1,324	2,609
GOVERNMENT CONTRIBUTION (IN-KIND)				
Provision of meeting rooms		5,000	5,000	10,000
Vehicles/transportation		5,000	5,000	10,000
MINICOM/MINAGRI/RBS coordination (staff time)		10,000	10,000	20,000
Office supplies		3,350	3,350	6,700
Communication		3,000	3,000	6,000
TOTAL GOVERNMENT CONTRIBUTION		26,350	26,350	52,700
GRAND TOTAL		302,001	277,346	579,347

List of Acronyms

ADAR	Agribusiness Development Assistance in Rwanda
cGLP	current Good Laboratory Practices
COMESA	Common Market for Eastern and Southern Africa
COVEPAR	Coopérative pour la Valorisation des Exportations des Produits Agricoles au Rwanda
DTIS	Diagnostic Trade Integration Study
EU	European Union
F&V	Fruits and Vegetables
FAO	Food and Agriculture Organization
GAP	Good Agricultural Practices
GDP	Gross Domestic Product
GOR	Government of Rwanda
HACCP	Hazard Analysis and Critical Control Points
ICT	Information and Communications Technology
IF	Integrated Framework
IMF	International Monetary Fund
IPM	Integrated Pest Management
IPPC	International Plant Protection Convention
ISAE	Institut Supérieur d'Agriculture et d'Élevage
ISO	International Organization for Standardization
ITC	International Trade Commission
KIST	Kigali Institute of Science, Technology and Management
MINAGRI	Ministry of Agriculture and Animal Resources
MINICOM	Ministry of Commerce, Industry, Investment Promotion, Tourism and Cooperatives
MINISANTE	Ministry of Health
MSU	Michigan State University
NGO	Non-Governmental Organization
NPPO	National Plant Protection Organization
NUR	National University of Rwanda
OTF Group	On the Frontier Group
PCE	Phytosanitary Capacity Evaluation
PEARL	Partnership to Enhance Agriculture in Rwanda through Linkages
PFID-F&V	Partnerships for Food Industry Development -- Fruits and Vegetables
PIC	Convention on international trade and hazardous chemicals and pesticides (Prior Informed Consent Procedure)
POPs	Persistent Organic Pollutants (treaty)

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PSTA	Strategic Plan for Agricultural Transformation in Rwanda
RHODA	Rwanda Agricultural Development Authority
RARDA	Rwanda Animal Resources Development Authority
RBS	Rwanda Bureau of Standards
RHESI	Rwanda Horticulture Export Standards Initiative
RIEPA	Rwanda Investment and Export Promotion Agency
SPS	Sanitary and Phytosanitary Measures
STDF	Standards and Trade Development Facility
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Program
USAID	United States Agency for International Development
WTO	World Trade Organization

Fieldwork Report

Rwanda Horticulture Export Standards⁴

May 3, 2006

1. Background and Objectives

Background. Rwanda has placed a high priority on horticulture exports in its Strategic Plan for Agricultural Transformation in Rwanda (or PSTA), a plan that aims to facilitate the sector's transformation from subsistence towards a modern, market-oriented rural economy and to enhance productivity in all subsectors of the agricultural economy. As a first step toward this end the Government of Rwanda has constituted a horticulture exports task force to develop a strategy/roadmap for horticulture export promotion in Rwanda. Meeting export SPS and quality standards for fruits, vegetables and flowers is an essential, though yet to be developed, aspect of the new strategy.

These important developments are consistent with the country's broader Integrated Framework for Trade Related Technical Assistance to Least Developed Countries, otherwise known simply as the Rwanda *Integrated Framework*, or IF. The Integrated Framework is a multi-agency, multi-donor program established to promote the integration of the least developed countries into the global economy. The participating agencies are the IMF, the ITC, UNCTAD, UNDP, the World Bank and the WTO. The Integrated Framework in Rwanda maintains a Secretariat in MINICOM and is guided by the Integrated Framework National Steering Committee. Priorities for technical assistance under the IF are summarized in the Integrated Framework Rwanda Action Matrix. Especially germane to the objectives of the present fieldwork is the emphasis placed by the IF on meeting public and private standards for exports.

Implementation of the Integrated Framework involves several early steps, the *Diagnostic Trade Integration Study (DTIS)* being among them. Completed in November 2005, the goal of the DTIS is to assist the Government of Rwanda to take a strategic, integrated approach to building regional and global trade linkages. The study focuses on constraints to trade, both in Rwanda and in foreign markets, and on measures required to alleviate the identified constraints. A key output from the DTIS will be a highly focused action plan that will provide a prioritization of *realistic* policy measures, investment and technical assistance that will be needed to address the key constraints to trade. Standards for product safety and quality and opportunities for increasing horticultural exports from Rwanda are sections that figure prominently in the DTIS.

Objectives of Fieldwork Report. The purpose of this Fieldwork Report is not to repeat any of the fine background work done to this point on horticultural export standards already found in the Integrated Framework, in the DTIS, or in the numerous reports listed in the attached Bibliography. Rather, this report is an explicit attempt to add value to these baseline documents by focusing more specifically on a program for SPS standards development, particularly in support of building Rwanda's horticulture

⁴ List of acronyms used in this report can be found in Annex 3.

exports and in a way that provides the necessary elements for the drafting and submission of a grant proposal to the *Standards and Trade Development Facility (STDF)*. STDF is a program jointly sponsored by FAO, OIE, World Bank, WHO, and WTO that aims to assist developing countries in developing the expertise and capacity to implement sanitary and phytosanitary standards, particularly for agricultural products destined for international markets. STDF supplements existing initiatives of the five sponsoring organizations to build developing country capacity in the areas of food safety and plant and animal health.

The fieldwork reported herein is comprised two interrelated parts. The first is the Stakeholder Workshop on Horticulture Export Standards; the second is an extensive set of pre- and post-workshop interviews and visits with the key stakeholders focusing on constraints to meeting SPS standards for horticulture exports from Rwanda. The results of these two aspects of the fieldwork are described sequentially in the following two sections of this report and are combined with secondary information from the documents cited in the Bibliography. The fieldwork report also includes a discussion, based on recent market research, of emerging trends in global and regional food procurement systems and opportunities for horticulture exports from Rwanda if extant constraints to meeting public and commercial standards for safety and quality can be adequately addressed. The report concludes with a summary of recommended priority actions for inclusion in the STDF grant proposal for building SPS capacity in Rwanda.

2. Rwanda Horticulture Export Standards Workshop

Rwanda's deficiencies in meeting public standards for food and agricultural exports are broadly recognized. As a telling example of this need, the *New Times* newspaper recently reported (June 13-14, 2005) that a program in Sanitary and Phytosanitary (SPS) measures was called for in response to Rwanda's non-compliance with the WTO SPS Agreement, citing implementation of SPS as a major obstacle to Rwanda's exports. The 2004 report also underscored the limited participation in multilateral trade negotiations. In this context the GoR has asked for assistance in building up its capacity in understanding and complying with SPS measures and enhancing its effectiveness in ongoing trade negotiations.

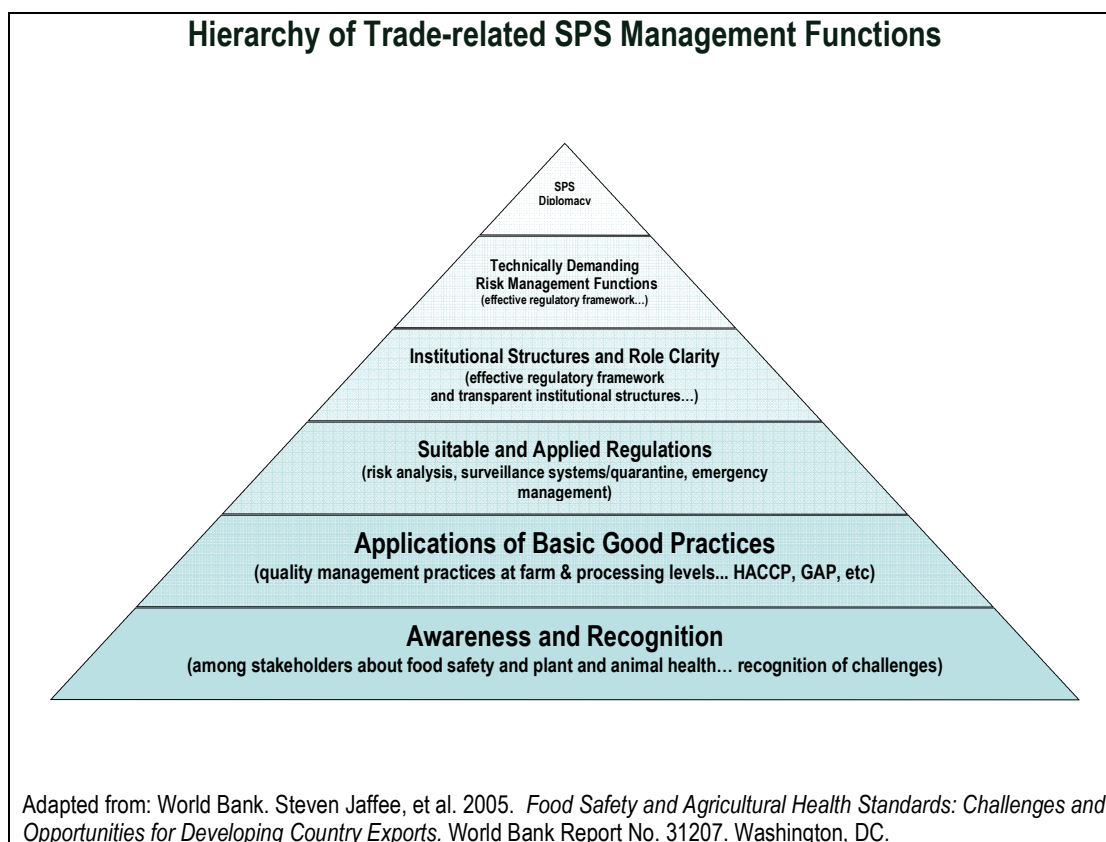
The Rwanda Horticulture Export Standards Workshop is an important step toward building capacity in export standards for horticulture and other food and agricultural products. The workshop was held February 28 to March 2, 2006 in Kigali with local institutional support from the Secretariat of the Rwanda Integrated Framework for Trade Related Technical Assistance to Least Developed Countries. The workshop engaged a broad cross-section of stakeholders in the country's horticulture exports subsector, including: government officials from the Rwanda Bureau of Standards, the Ministry of Agriculture and the Ministry of Commerce, private sector producers and exporters, and representatives from higher education institutions and donor agencies. A complete list of stakeholders participating in the workshop and pre-/post-workshop interviews can be seen in Annex 1.

The three-day program (see Annex 2) covered a broad range of topics, beginning with an introduction to the WTO Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement), implementation of the SPS Agreement, risk analysis issues, the dispute settlement process, concepts of equivalence and

differential treatment, transparency obligations, national enquiry points, and notifications.

A second stage in the workshop focused on Rwanda and the constraints faced by stakeholders in meeting SPS trade requirements and in implementing SPS management functions at all levels. To help conceptualize the various levels of SPS management the stakeholders adopted the World Bank “pyramid framework” (see figure below) that establishes a hierarchy of functions from basic public and stakeholder awareness of standards to high level “SPS diplomacy,” including participation in international standards-setting processes and dispute settlement. Particularly active discussion emerged between government representatives and private sector producers/exporters regarding the roles and responsibilities of various government agencies (notably RBS and MINAGRI) in the implementation of SPS management functions.

Hierarchy of Trade-related SPS Management Functions



In the final stage of the workshop the participants again used the pyramid framework to work through a set of priority areas and actions in building SPS management capacity in Rwanda. The following section contains the PowerPoint bullets collectively developed during the second and third stages of the workshop.

Results of the Rwanda Horticulture Export Standards Workshop

Awareness & Recognition

- ❖ Awareness of importance & benefits of standards – producers, industry (processors), ministries (national and local level): MINAGRI, MINICOM, MINISANTE and related agencies RBS, RIEPA, RHODA, RARDA, RPSF, customs, banks, transporters, civil society
- ❖ Clarity & Awareness of the institutional process for standards and certification
- ❖ Standards to be recognized as policy tool – ministries need to understand this and harmonize standards implementation
- ❖ Culture of Quality – development and focus, awareness of benefits & increased profits
- ❖ Awareness of specifics of market regulatory systems – Why? What? How?
- ❖ Commitment of producers and processors to investing in standards and quality
- ❖ Awareness and commitment of private sector to actively partner in the process & push development of process; partnership with public sector
- ❖ Recognition of private sector needs by government
- ❖ Awareness of changing nature of standards industry and awareness of need to be adaptive, changeable, etc.

Applications of Basic Good Practices

- ❖ Identification & implementation of appropriate best practices (e.g. good hygienic practices, pre- and post-harvest handling/processing)
- ❖ Involve Community Health Centers in capacity building; institutions of higher education (KIST)
- ❖ Capacity building (best practice visits, consultants, training, technology transfer, etc) along value chain
- ❖ Partnership with private sector and public sector (extension services & training) at all stages of value chain
- ❖ “Ownership” of Basic Good Practices by private sector
- ❖ Focus of government control on domestic producers
- ❖ Information and sensitization of population from public sector
- ❖ Support for Basic Good Practice attainment from government
- ❖ Development of Codes of Practice and training on codes, dissemination of information

Suitable and Applied Regulations

- ❖ Basic food safety, animal health and plant protection provisions
- ❖ Development of a Food Law for Rwanda
- ❖ Need to work within existing government structures
- ❖ Legal basis: harmonization with international standards
- ❖ Involvement of all actors in the production chain to understand and apply laws and standards
- ❖ Development of legislation and support for adoption of standards
- ❖ Development of legal & regulatory framework (building capacity in international food laws and regulations)
- ❖ Membership in IPPC/OIE/Codex
- ❖ Application of IPPC/OIE/Codex provisions: personnel, infrastructure, etc.

Institutional Structure and Role Clarity

- ❖ Recognition of roles and responsibilities of different agencies
- ❖ Coordination of roles
- ❖ Clarity of different roles and functions
- ❖ Capacity building for all institutions (information, training, etc)
- ❖ Understanding of market requirements (voluntary and involuntary, including social standards) and structuring of standards institutions around those requirements
- ❖ Absence of and access to pest lists, etc. Basic databases of all pesticides, pests, technical information
- ❖ Absence of holistic approach throughout plant protection

Technically Demanding Risk Management Functions

- ❖ Import & export
- ❖ Applying risk analysis
- ❖ Low border controls for standards
- ❖ Lack of personnel (currently 5) for 9 borders
- ❖ Moving towards a common customs process for control, inspection and standards – how to best develop (2008)

SPS Diplomacy

- ❖ Achieve as much as possible at the “base of the pyramid” – previous steps in place
- ❖ Understanding of market access requirements (regional and international)
- ❖ Facilitation from government for local industries by providing standards and certifications required by their export markets
- ❖ Strengthening inquiry points
- ❖ Confidence & credibility for trading partners
- ❖ Participation by well-trained and well-informed people in international bodies (IPPC/OIE/Codex)

First Steps toward a National Strategy for Horticultural Exports Standards

- ❖ Identification of information needed on export standards – through market/product/value chain approach and consultation with stakeholders
- ❖ Identification of stakeholders and their information needs
- ❖ Collection and compilation of information
- ❖ Baseline survey of capacity needs
- ❖ Assess cost of compliance for government and private sector
- ❖ Prioritisation of needs

Development of a National Strategy and Action Plan for Horticultural Export Standards

- ❖ Identification of information needed on export standards – through market/product/value chain approach and consultation with stakeholders
- ❖ Establishment of new standards co-ordination committee -- including MINICOM/RBS, MINAGRI (and agencies) KIST, Horticulture Board, private sector and others
- ❖ Official establishment of committee to update legal framework
- ❖ Appointment of facilitator
- ❖ Consideration and approval of national standards strategy
- ❖ Prioritisation of actions internally and with donors

Elements of the National Strategy and Action Plan for Horticulture Export Standards

Raising Awareness

- ❖ Identification of information needed on export standards – through market/product/value chain approach and consultation with stakeholders
- ❖ Collection and compilation of information
- ❖ Preparation of training materials
- ❖ Identification of appropriate channels (e.g. ministry or organization) and media (e.g. radio, print etc) for dissemination

Application of Basic Good Practices

- ❖ Identification of good practices (SPS) – OIE, IPPC, Codex
- ❖ Identification of good practices (Quality etc) – ISO, EurepGAP, etc
- ❖ Dissemination to policymakers
- ❖ Development of codes of practices and application throughout the production chain – from farm to

fork!

- ❖ Strengthening of RBS and MINAGRI (RHODA/RARDA) to ensure appropriate dissemination (including in local languages)

Development of Appropriate Regulatory Framework

- ❖ Clearly defined responsibilities (national, regional, local)
- ❖ Regulatory framework founded on good regulatory practice and strong scientific foundation – including risk assessment
- ❖ Revision of outdated legal framework (updating of horizontal legislation, e.g., Food Law, and vertical legislation, e.g. approved pesticides, quarantine pests) including definition of institutional roles
- ❖ Incentive-based enforcement

Strengthening SPS Diplomacy

- ❖ Coordination among stakeholders to identify and articulate Rwanda's needs and concerns
- ❖ Application for and use of trust funds to participate in Codex, OIE, IPPC
- ❖ Participants to report back on standards development/priorities for Rwanda

3. Review of Primary Stakeholders' Responsibilities, Constraints and Activities

Development of Rwanda's horticulture exports involves a broad range of stakeholder groups, each of which carries with it a unique set of interests and concerns. But all of these groups share the same overarching goal, and that is to expand Rwanda's presence in international and regional export markets for fruits, vegetables and floriculture. Meeting this goal is an essential step in the implementation of the country's Strategic Plan for Agricultural Transformation in Rwanda (PSTA); it is fundamental to its efforts to tap into global markets and most of all to its overarching desire to bring greater prosperity to the rural poor.

3.1 Key Government Institutions

Particularly in the setting and enforcement of public standards for food and agricultural trade, appropriate government ministries and implementing agencies must play a lead role. From the SPS point of view, their first responsibility is to ensure the safety of food and agriculture (plant and animal) products entering Rwanda and to certify the health of such products exported to other countries, according to the standards required. A second priority is the government's responsibility to create a legal and policy environment that is conducive to trade and able to serve the practical needs of the private sector through an efficient and transparent regulatory system.

For horticultural products specifically, these two sets of institutional priorities fall primarily in the domain of the Rwanda Bureau of Standards (RBS), under the tutelage of the Ministry of Commerce (MINICOM), and the Rwanda Agricultural Development Agency (RHODA) under the Ministry of Agriculture (MINAGRI). The Stakeholder Workshop and follow-on fieldwork revealed that the roles and responsibilities of these two groups is less than adequately clear at present as observations made below will suggest.

Cabinet level Rejection of RAAQC, the Rwanda Agriculture Agency for Quality Control and Certification

The lack of clarity in food and agricultural exports responsibilities is tied in large measure to the confusion created when the proposal to create the Rwanda Agriculture Agency for Quality Control and Certification (RAAQC) was not approved by the Government of Rwanda in January 2006. RAAQC was among the trilogy of agencies in the Ministry of Agriculture (along with RHODA and RARDA) that was proposed for the implementation of food and agricultural services. While RHODA and RARDA were approved, RAAQC was not on the argument that RAAQC's services could be delivered through existing agencies, most notably RHODA, RARDA and RBS.

The establishment of RAAQC had been proposed as a key unit for helping to move products through their value chains by meeting grades and standards for product safety (e.g., SPS standards) and quality (such as taste, colour, packaging and environmental friendliness). Its primary responsibilities were to:

- ❖ Develop, document, promote and disseminate knowledge to Rwanda's farmers, cooperatives and enterprises on standards for food and agricultural safety and quality.
- ❖ Provide quality control services in the areas of: agricultural products (along their supply chains), imported agricultural products and inputs, animal feeds and their production processes, and agricultural production technologies.
- ❖ Advise the Government of Rwanda on: policies relating to quality and safety issues affecting agriculture products, and priority investments needed in agricultural quality and safety (SPS) management.
- ❖ Develop national certification programs for organic farming.
- ❖ Provide quality and organic certification services in support of agricultural producers.
- ❖ Carryout quality auditing services as needed by national laboratories and other private and public institutions providing certification services to agriculture producers, cooperatives, enterprises and institutions involved in the promotion of agriculture.
- ❖ Advise the Rwanda Bureau of Standards and other standard-setting institutions on priority standards needed in agriculture production and for food and agricultural products.
- ❖ Develop, document and carryout risk analyses as needed in the agricultural sector.
- ❖ Foster collaboration between RAAQC and national stakeholders and regional and international organisations.

RAAQC was to contain six units covering the following functional areas: administration and finance, certifications, inspections, national laboratory for quality control, mechanization and quality control, information (including training, documentation, data base management and extension).

However when the agency was not approved this list of functions and specific responsibilities were not clearly allocated to one or more of the other agencies. For the time being, the MINAGRI has been instructed to continue the specific certifications and inspections for which it has been traditionally responsible, but other functions that were introduced by the RAACQ Task Force have not been clearly addressed. There is now a proposal circulating from the Rwanda Bureau of Standards to take on some portion of these functions in RBS but it appears that there is considerable debate surfacing as to the logic/appropriateness of the proposal.

Meanwhile the frustration has been mounting on the part of the private sector exporters as to where to go to meet regulations and how to get the support they need.

Rwanda Bureau of Standards (RBS). The RBS was established in 2002 in response to the country's desire to become more engaged in trade. Special attention has been given to food and agricultural standards for export and food safety on the domestic side. The agency conducts training to raise awareness of standards and the functions of the RBS. HACCP and Quality Control are among the primary topics of training seminars. One notes that in most other countries standards agencies are primarily concerned with other goods such as cement, textiles, toys and electronic consumer goods -- and not with food/agricultural standards, which is a complex area and requires specific expertise.

The Rwanda Bureau of Standards currently maintains a staff of approximately 40 professionals (university graduates), mostly scientists. There is no RBS presence in the provinces but this is planned for the future. There are plans to increase the agency's staffing to 200 persons in the next two years, admittedly a tall order, especially for a very young agency.

RBS officials believe that their job is especially difficult because Rwanda has not had a history of standards setting and implementation, unlike Kenya which has had a standards agency for 30 years. As a result, enterprises feel harassed by the RBS when it does its job, rather than understanding that maintaining standards will in the long run raise the level of quality for Rwanda's goods and services and help businesses to succeed.

Key divisions in RBS are: the Standards Development Unit, the National Standards Documentation Center, the Quality Assurance Unit the Testing Unit (including laboratories), the Metrology Unit, and Administration and Finance. Following the government's decision not to create the quality control agency in the MINAGRI, a proposal has been developed (though evidently not yet officially approved) that will add two new units to RBS: 1) an Agricultural and Livestock Certification Unit and 2) a Standards Education Unit. It has also been proposed that the existing Testing Unit would take on SPS testing functions in the absence of RAAQC. It is important to note that for animal and plant health certification, importing countries often require the involvement/signature of the Chief Veterinary Officer and the Chief of the Plant Protection Office, both of which are currently located in MINAGRI (RARDA and RHODA). This underscores the need for Rwanda to carefully review and harmonize the functional responsibilities of its standard-setting and standard-enforcement agencies.

The proposed creation of the Agricultural and Livestock Certification Unit would include: a unit Director, two Plant Certifiers, two Animal Certifiers, and two Organic Certifiers.

MINAGRI and the Rwanda Agricultural Development Agency (RHODA). RHODA is the national focal point for IPPC in Rwanda. Mr. Leon Hakizamungu heads the Crop Protection Unit in RHODA. Previously the unit had a staff of three: the head, an inspector and a surveillance and control expert. Under the recently restructured unit a fourth position has been added with responsibilities in the RHODA laboratory. Currently the head of the unit is the only person on staff in the Crop Protection Unit, but recruitment for the other positions is under way.

One area where there is need for expertise in RHODA is in Pest Risk Assessment (PRA) but Rwanda does not have a program to provide PRA training. Moreover, the country's official pest list has not been updated since 1991. There are serious pest problems such as banana bacterial wilt in Rwanda and virtually no expertise to address them. The office is doing the best it can with its limited resources. Facilities at the National Seed Laboratory are also limited in terms of equipment and supplies.

There is an expressed need for training in how to conduct plant inspections in the field and for exports. Currently 70-100 phytosanitary certificates are issued each week during the coffee harvest season but the reduced staff is not able to fully inspect these shipments. There have been efforts to work with OCIR-Café, Rwanda's coffee board, to train producers to ensure that shipments are pest free. Last year there was at least one rejection of coffee to the United States for phytosanitary reasons. Horticulture exports are far fewer, numbering only 4-5 per week at present. Principal exporters are Rwanda Flora, FLORIS, COVEPAR, and Tugambire.

MINAGRI has underscored the need for the Rwanda Bureau of Standards to develop closer links to MINAGRI and other ministries. There are tensions due to the fact that the ministries are in the field and implementing projects and programs while RBS is not, so they do not have an adequate level of appreciation for the constraints and problems. It is said that RBS cannot work in isolation. There is need for better communication with RHODA, particularly the seed certification laboratory. SPS certification is also in RHODA. There is a shared belief in MINAGRI that RBS should focus on inspections and certification for food safety as the Codex focal point and for domestic markets.

Major constraints identified by MINAGRI to increasing exports of horticulture products include the following:

- ❖ Production constraints. Farms are very small and polyculture is the norm. There is a need for consolidation and specialization in production systems. Producers do not have the time to focus on quality.
- ❖ Transportation. The main problem is in the low level of investment, which is linked to difficulties in obtaining financing for transportation.
- ❖ Export. Low volumes from small farms make it difficult to fill containers for export and for making cold chain infrastructure affordable.
- ❖ Need to consolidate laboratories. Avoiding duplication in laboratory services could lower costs.

Rwanda Investment and Export Promotion Agency (RIEPA). RIEPA has also been recently established as an independent agency under the tutelage of the Ministry of Finance and Economic Planning. RIEPA is an important institution in the development of a supportive business environment; it is a public body charged with promotion and facilitation of trade and investment in Rwanda. The major objectives of the agency include:

- ❖ Promoting investment opportunities with local and foreign investors.
- ❖ Facilitating investor business interests. The Agency operates for local and foreign investors a One-Stop Centre aimed at streamlining enterprise startup and other investment projects.

- ❖ Providing advice the GoR on policies and initiatives needed to create a supportive business investment climate in Rwanda.

Major constraints faced by RIEPA in developing agricultural exports include:

- ❖ Infrequent cargo flights.
- ❖ Lack of cold storage.
- ❖ Inefficient exports regulation (need for one-stop centers that include forms and requirements from MINAGRI, MINICOM and the Bureau of Standards in the same place).
- ❖ Poorly organized warehouses (takes over a week to export many products).
- ❖ Limited market access due to absence of certification services.
- ❖ Taxes on inputs.
- ❖ Access to market information

Market Information. A priority in creating an enabling environment for business development is the availability of reliable and up-to-date market information including domestic market prices for key agricultural commodities as well as international market prices and standards for targeted export commodities. Rwanda currently has no formal system for providing data on either of these markets, meaning that the country's producers, traders and exporters are at a distinct disadvantage to their competitors in these markets. Previously the Ministry of Economic Planning and Finance (MINECOFIN) implemented a bi-monthly market information system for major food crop markets in Rwanda with the financial and technical support of the EU and other donors. One of RIEPA's functional responsibilities is the provision of a market information system (MIS) for key export products of interest to Rwanda. To date, no such system has been established though RIEPA is planning to invite an expert consultant to help assess needs and contribute to the establishment of a data base. It is not anticipated that RIEPA will play a significant role in the dissemination of official standards but can make a contribution in the area of commercial agrifood standards (EurepGAP, ISO, etc) and access to certification services.

3.2 Donors

European Union (EU). The EU has identified Rwanda's need to develop capacity to meet food and agricultural export standards as a programming priority and have begun discussions with MINICOM and the Rwanda Bureau of Standards to define a program that will help to meet the country's needs. Currently under development is an EU-sponsored initiative that will support the enhancement of institutions and systems to ensure the timely development of commercial/TBT export standards and to facilitate potential exporters in attaining these standards. The specific objectives of the initiative are to:

- ❖ Identify current constraints to the attainment of commercial/TBT export standards for food and agricultural products
- ❖ Produce a strategy that sets out the means of overcoming these constraints
- ❖ Support the initial implementation of this strategy with funding for training, awareness raising, accreditation, risk assessment, certification, and testing and laboratory equipment.

Funds for the proposed initiative have been approved and are soon to be available for program implementation. It is anticipated that this project, focusing on commercial

standards (e.g., EurepGAP and ISO), will complement and integrate with a potential parallel initiative in SPS standards for horticulture export funded through the STDF.

The European Union has also assumed a leadership role in cooperation with Ministry of Commerce in the development and implementation of the Integrated Framework for Trade Related Technical Assistance to Least Developed Countries (IF), currently funding a consultant in the role of Coordinator of the Rwanda Integrated Framework Secretariat.

United States Agency for International Development (USAID). USAID currently supports two initiatives with strong horticulture sector development components to them: The Partnership to Enhance Agriculture in Rwanda through Linkages (PEARL) project and the Agribusiness Development Assistance in Rwanda (ADAR) project. Both projects and the constraints they face are described later in this section. While PEARL and ADAR are scheduled for completion this year, USAID is planning to launch a new project October 1, 2006 that will contain elements of both projects. The emphasis will be on the coffee value chain but horticulture and other value chains may be a secondary emphasis.

A second new initiative funded by USAID is a Global Development Alliance (GDA) with World Relief to develop and essential oils production and export operation. The growers (95% widows) will be minority owners. The plan is to import new planting material (geranium) for production. There will be two distillation units. EurepGAP and organic certification are essential steps. The National University of Rwanda (NUR) will be involved in laboratory testing needed to meet required standards. Good Agricultural Practices (GAP) will be established for both the farm and processing levels.

World Bank. The World Bank is in the middle stages of developing its agricultural policy note (APN) as the basis for development programming in the agriculture sector in Rwanda. Food and agricultural exports and the standards required to participate in these export markets are expected to figure into the policy note in a significant way, though it is not clear at present whether the World Bank will target this area in its action plan for 2007. The World Bank has indicated that it sees the implementation and enforcement of SPS-related standards as an important function of the public sector.

The World Bank anticipates that it will continue to support the development of horticulture and other agricultural products through the Rural Sector Support Project (RSSP) in the form of loans to enterprises and producer groups making investments to improve supply chains for both domestic and export markets. Also, through its Competitiveness and Enterprise Development Project (CEDP), the World Bank has supported the reform of the telecommunications sector and the privatization of the current telephone monopoly, and tea factories and assisted the government in carrying out the rest of its privatization program. Another key component of the CEDP has targeted private sector development of enterprises, associations and institutions that support private sector development including investment promotion and improvement of the business environment in Rwanda. RIEPA has been an important recipient of CEDP funding. Specifically on SPS and other standards, this Bank project has also assisted the Rwanda Bureau of Standards through the purchase of testing equipment for its laboratories.

Netherlands (RNE). RNE supports a number of initiatives either directly or indirectly tied to improving horticulture exports from Rwanda. The most significant investment is in the construction of a cold storage facility at the Kigali airport. This began with a feasibility study in 2004, followed by the engagement of an architect to do the design work and develop the tender document. Proposals have been received and a short list is soon to be identified. One of the obstacles faced in the process has been the need to carefully coordinate with three governmental agencies, including the Ministry of Agriculture, MAGERWA (Magasins Généraux du Rwanda—the agency responsible for warehousing), and the Civil Aviation Authority.

While there is a belief that the new cold storage facility should be private sector owned and operated in the long term, RNE has agreed to play a role in its management for the first three years on declining basis (e.g., 90% - 60% - 30%). It is estimated that the facility will be ready for use in June, 2006. It's management will also be put out for bid. The next step will be regional cold storage facilities and transport.

A second RNE initiative is known as the CAPMER (Centre d'Appui Petite et Moyennes Entreprises du Rwanda) program that supports small and medium sized cooperatives and enterprises in Rwanda through an array of business services. Horticulture and floriculture are two of the targeted value chains in the Center.

RNE is also an important source of support for the development of key educational institutions that contribute to the human resource base for agriculture and agribusiness, including exports. The Institut Supérieur d'Agriculture et d'Élevage (ISAE) in Busogo is the primary recipient of this support. ISAE currently offers an A1 diploma (technician level) in a number of agricultural fields including plant protection. The institution is now planning to expand it's programs to offer an A0 diploma, or "agricultural engineer" level training. This program is seen as the country's primary training ground for plant protection inspectors and other specialists in Rwanda.

One final initiative supported by the Dutch Embassy has aimed at assisting ISAR to build its laboratory capacity for plant protection testing and research.

Belgian Technical Cooperation (BTC). The Belgian Embassy is a strong supporter of value chain development and is now in the process of designing a major initiative that will be rolled out in 2007 in support of selected value chains. An important component of this initiative is a proposal for a set of pilot extension system interventions, including a set of commodity chain activities. The BTC has proposed a two-phased, seven year project whose principal goal will be to contribute to the "professionalization" of producers and the adoption of effective innovations by producer associations, reinforcing producer capacities, promotion of participatory adaptive research driven by producers and other subsector actors, and the provision of quality "agri-services" (e.g., inputs supply, credit, and consultative services). It also calls for the creation of Agricultural Development Support Centers, or CADAs,⁵ possibly one or two per province that would provide the kind of platform necessary for the delivery of extension services envisioned.

⁵ Referred to in French as Centres d'Appui au Développement Agricole (CADAs).

Department for International Development (DFID), UK. Approximately two-thirds of DFID’s assistance is directly tied to the broader agenda of the Government of Rwanda. MINICOM and MINAGRI are important ministerial partners. DFID sees agriculture as an important driver of growth. The remaining one-third of the agency’s funding will be used in a way that retains greater flexibility but will likewise be in line with ministry strategy. Meeting standards for safety and quality also will figure into the matrix of DFID funding. Given the emphasis placed on developing horticultural exports by the Ministry of Agriculture it stands to reason that a significant portion of DFID funding will ultimately be attributed to initiatives in this domain.

3.3 Private Sector

There exists only a small handful of exporters of fresh fruits, vegetables and cut flowers from Rwanda. Some of the leading exporters were present and highly vocal at the workshop and provided additional observations and insights in one-on-one interviews. Their views from both sources are summarized below. At present, production and marketing of horticulture products for export is organized on one of two ways. The first is where many smallholders organize into cooperatives, such as COVEPAR (see below), that pool their harvested products for purposes of more efficient processing and market access. The second is the individual entrepreneur or agribusiness such as Rwanda Flora (see below) that owns the land and employs the labor it needs or produce and/or process horticultural/floricultural products for export.

Rwanda Flora. Rwanda Flora is a two year old enterprise that “grows roses on the ashes of genocide.” On approximately eight hectares, six of which are under greenhouses this enterprise is focused on the European cut flower market for nearly all of its production. RF employs between 150 and 200 employees and is looking to expand operations. The CEO of Rwanda Flora contends that Rwanda’s warm days and cool nights are conducive to flower production and can grow roses faster (36 days, 7 less than Kenya and much less than Central America) and of higher quality than in Kenya. Were it not for a set of continuing constraints RF believes that they can be competitive with Kenya in cut flowers. Major constraints include:

- ❖ Low volume prohibits Rwanda Flora from achieving much needed economies of scale in transport and other areas. Currently at six hectares under greenhouses, RF anticipates expanding to 8 on land already owned and then to 10 on adjacent properties that they hope to acquire. It is believed that 12 hectares of greenhouses is the level required to break even. Currently RF operates at negative profit but hopes to turn the corner in 2007.
- ❖ High transport costs make cut flower exports from Rwanda less competitive. Rwanda can’t compete with Kenya in this area. It is especially in product quality that Rwanda has an edge over Kenya. Transport costs are high because there are few flights and these are mostly passenger flights. Rwanda Flora must export to Kenya and then use connecting flights to Amsterdam. Once volume is up, dedicated cargo flights will provide lower cost and more regular transport.
- ❖ One of the top priority problems for horticulture/floriculture exports is the lack of clarity in the export regulatory process. There is a need to spell out the steps required for export of horticultural products, where to go, how long it takes, and so on. The lack of harmony in the official roles and responsibilities attributed to RBS, RHODA, RIEPA and other government agency is currently and enormous source of frustration for Rwanda Flora.

- ❖ Lack of plain and simple information (e.g., in pamphlets) on each major export crop/product identifying key pests, how to control pests, pesticides that are acceptable in which markets and at what levels, packaging and labeling requirements, etc. An accessible data base containing this kind of basic information is badly needed.
- ❖ Absence of trained technical and managerial human resources is one of the key constraints to becoming more competitive in international markets for cut flowers. There is a clear need for Rwanda's institutions of higher education to fill this growing void, and it is not just for horticulture/floriculture. The specialty coffee sector as reported by the PEARL and ADAR projects suffers continuously from this shortage. And like the specialty coffee sector, Rwanda has been reduced to a position of having to hire Kenyan expertise to get the job done right. Rwanda Flora currently employs 5 Kenyans in key roles, including: accounting, production, plant management, fertility and irrigation, quality control and breeding. There is also a Canadian expert in plant pathology employed at RF. Rwanda Flora has made the point that Kenya has five university level degree programs in horticulture; Rwanda has none.
- ❖ EurepGAP and other types of certification are costly as it requires that experts be flown in from other countries.

Shema Fruits. Shema Fruits was established in 1997 as a business venture of three Rwandans living in Europe and Canada with a desire to have an impact on rural communities in the Butare area devastated by the war. Key horticulture products exported include fresh passion fruit, apple banana, mango, loquat (prunes du Japon), cape gooseberries and processed passion fruit pulp. They have been able to export high quality passion fruit pulp, once even taking first place awards at the annual SIAL convention (Salon International d'Alimentation) in Paris. Targeted markets have been principally ethnic markets in Europe in volumes of 200-300 kg every week or two. They also produce nectar, jams and jellies and other fruit products for the domestic market. Key constraints to meeting and expanding export demand include:

- ❖ Product export volumes demanded by the higher end European markets are far greater than this small company can supply. Shema Fruits exports approximately one ton of product every month. For sales in the mainstream European markets they have been told they must export 10 tons per week. The smaller ethnic markets and individual (cottage industry) artisans accept the smaller shipments that SF is prepared to deliver.
- ❖ They have not managed to obtain the certification needed to capture the premium paid in export markets for organic and Fair Trade products. The cost of bringing certifiers from Europe (e.g., ECOCERT International) has been prohibitive. The low volume does not justify the cost of certification. They tried to organize other growers to help defray the cost of third-party certification but there was not enough interest to make it work. Most producers think only in terms of the local market where certification does not command a premium price.
- ❖ Regulatory problems and bureaucracy have been another set of obstacles. Shema needs an export system that is clear and supportive. Because there are so few producers and such low volumes there still is no "regulatory framework or process to fit into."
- ❖ There are basic agronomic problems caused by draught and plant disease and insects. ISAR has tried to help at the margins with IPM options. They have been exporting only organic product so far which limits the ways in which

pests can be controlled. There is not enough information available to producers on how to control pests.

- ❖ Cost of transport is very high at €1.50/kg.
- ❖ Cost and limited availability of power is a significant constraint.

FLORIS. Horticultural exports from FLORIS include passion fruit, apple bananas, and pineapple. FLORIS operates on a model that works in cooperation with 538 producers under a contract arrangement. They started small in 2001 but are growing. They want to increase volume. They are exporting primarily to the UK, last year including 110 tons of banana and 26 tons of passion fruit and other fruits.

While Rwanda has good soils and a very good climate FLORIS identifies major constraints to increasing exports, including:

- ❖ Transport: not enough cargo planes and no cold storage chain. Too few flights contributes to the high cost of export at \$2.60/kg.
- ❖ Farmers need training in best practices. They don't know what it takes to sell on the export market. FLORIS invests in training the farmers but there are no training materials to use or share. They bring farmers together in an association and train. They try to work through the Agronome de District (extension system). Most important is teaching farmers how to meet export standards. There is a need to bring to horticulture exports what Rwanda is doing now in coffee.
- ❖ Financing is another big obstacle. Interest rates charged by the banks are at 14% and require 100% collateral, both of which are too high for most farmers.
- ❖ Lack of personal relationships with buyers. Uganda has direct relationships with buyers in Kenya; Rwanda does not. She has relationships with partners in Europe (Tanganyika Nature) which are necessary. Export markets are very undeveloped. She feels she needs to make more contacts and direct relationships. Buyers don't need to invest.
- ❖ Certification is another problem area. It is very costly, even though it is not hard to get organic certification because farmers mostly do not use chemicals anyway.
- ❖ Basic infrastructure is a problem: can't have cold storage because there is no power and there is no water to clean with. Thus FLORIS back-hauls water from Kigali in empty trucks after delivering products at the airport.

URWIBITSO Enterprise (Gerard Sina). URWIBITSO exports include passion fruit and apple bananas. Currently passion fruits cannot be exported due to a quarantine placed on the region due to disease. They are exploring exports of juice concentrate.

Key constraints include:

- ❖ High transport costs, especially for perishable products. There are few flights and even they are mainly for passenger transport. Kenya does have some cargo flights. The cost is \$2.60/kg to Brussels. By overland and sea, the cost by truck to Mombassa is double the cost from Mombassa to Brussels (\$160/ton).
- ❖ There is a great need for a cold storage chain. The Dutch project to install a facility at the airport will be an important step.
- ❖ Organic certification is needed to really add value, 20-30% more. There is a European company, ECOCERT International that comes from Germany to

certify at the farm and factory levels. They need ISO Certification as that is the international standard. Local options are training from Sulfo-Rwanda, a Rwandan export company and UgaTech, based in Uganda.

- ❖ There is no local packaging capacity. Packaging materials (boxes, crates and bottles) have to come from Uganda, Kenya and Europe. Sulfo-Rwanda has plastic packaging for the local market but cannot meet the higher quality packaging standards for the export market.
- ❖ Equipment for processing is rudimentary, does not have quality assurance, and its production is too low. Modern equipment is needed.
- ❖ Because of these constraints, 85% of Sina's passion fruit is sent to Uganda where it is processed and exported. While this represents an important market for Sina, he would rather his company be in a position to capture the value added from processing and export.

Opportunities/advantages for increased horticulture business include:

- ❖ Good climate, fertile soils and sun all year round
- ❖ There is also a good local market. Sina can't meet urban demand. His plant can produce 600 liters/hr but the demand is 1500 liters/hr. Sina produces 93% for the local market and 7% for export markets.

COVEPAR. COVEPAR is a cooperative of small producers established in 2000 and made up of 34 smaller associations and totaling approximately 500 members. They are based in the Butare area and have received technical start-up support from the USAID PEARL project (discussed below) and USAID financial support through ACIDI-VOCA. Their product focus has been primarily on the export of organically grown dried birds eye chilies and cassava products.

In terms of SPS standards, the cassava flour exports have been the most problematic of all for COVEPAR. Exports have focused on European markets (notably France) for ethnic products and have put in place the food safety and quality measures needed to capture an important piece of this market, a market formerly held by producers in Cameroon. However now that COVEPAR has this market they are in danger of losing it by not continuing to maintain rigorous standards put in place initially with support of PEARL and the National Agricultural Research Institute in Rwanda (ISAR). Previously, ISAR was a key partner in providing essential equipment for processing and needed testing for phytosanitary certification, most notably aflatoxin.

COVEPAR now needs to obtain the necessary equipment and human capacity to complete all of the essential processing steps as well as to find other means for product testing. It is reported that the Rwanda Bureau of Standards is not able to provide the testing service needed, although my visit to the RBS labs suggests that this may not be correct. It is possible that the testing fees required at RBS and the two hour drive required to deliver samples to RBS may be part of the problem. To meet current demand from the European market the cooperative must ship a container of cassava flour every three months, a volume that is proving to be difficult to sustain at the level of quality and safety required. COVEPAR is now in danger of losing the market they worked so hard to capture over the past year or more. Moreover, the desired French market is requiring that even more stringent SPS standards be met in the future. Every lot of cassava flour must be tested and there must be a system of traceability put in place before shipments can be made. COVEPAR is struggling to comply with these standards.

3.4 Others

PEARL. The Partnership for Enhancing Agriculture in Rwanda through Linkages (PEARL) is assisting rural communities in Rwanda in their efforts to rebuild from the devastation of the war and genocide of 1994. PEARL works with rural communities across Rwanda to improve livelihoods through agricultural product development and market linkages. Funded by USAID, the PEARL project is led by Michigan State University in partnership with Texas A&M University, the National University of Rwanda and the Agricultural Research Institute of Rwanda (ISAR). To date the focus of PEARL outreach efforts has been with smallholder owned cooperatives on the production and marketing of [specialty coffee](#), chili peppers and cassava products.

PEARL takes a value chain approach that aims at meeting standards for safety and quality at each and every step in the targeted value chains. Guiding principles of the project also underscore the importance of taking a demand-driven approach, developing market access, connecting with buyers. The ten guiding principles for PEARL's success can be found at: <http://www.iaa.msu.edu/pearl/pearl-guiding.htm>.

PEARL had been the catalyst for the development of specialty coffee in Rwanda, which has over the past 4 years radically transformed the country's coffee subsector. As of 2006, The PEARL partnership has expanded to 10 cooperatives with 17 washing stations across Rwanda, all of which are certified or seeking Fair Trade certification (subsidies have been curtailed as growers are now willing to invest in infrastructure). These cooperatives are not passive in any sense. They are now entrepreneurial actors in the global economy, writing contracts directly with western buyers. In addition, efforts to develop in-country markets for Rwandan specialty coffee have resulted in the emergence of Rwanda Roasters, a newly-established PEARL partner. Rwandans are for the first time being offered high quality Rwandan coffee in Rwandan cafes, hotels, and restaurants. Roasted beans are also available in local shops and in-country consumption of high quality coffee is growing, particularly in urban areas.

SPS standards issues have been particularly relevant to the PEARL project in its efforts to support the export of cassava flour in its support of the local producer cooperative, COVEPAR. The particular problems encountered are summarized in the COVEPAR section above.

ADAR. The Agribusiness Development Assistance in Rwanda (ADAR) is a USAID-funded project implemented by Chemonics International. Begun in 2000, the ADAR project is currently in its final phase and is scheduled for completion in September 2006. Horticultural/floriculture exports receiving ADAR support include passion fruit, roses and birds eye chilies and tomatoes. The project's direct involvement in meeting SPS export standards for these products has been relatively limited, though meeting safety standards is one step in the larger value chain process that ADAR addresses. Commercial standards for EurepGAP certification have been a more prominent focus for ADAR.

Key constraints to meeting official and industry standards for export identified by ADAR include:

- ❖ First and foremost, capable human resources, particularly in basic business management skills but also the technical skills needed along the value chain.
- ❖ A second need noted by ADAR is the absence of a third party certification system in Rwanda. Currently Rwanda is obliged to bring in EurepGAP, Fair Trade and other certifiers from Europe and Kenya, and always at very high cost.

OTF Group. The OTF Group is working in Rwanda through the Ministry of Commerce to assist in the development of a horticulture export promotion strategy/roadmap. They are actively involved in the horticulture exports task force and creation of a “Horticulture Authority,” basically an independent board of government, private sector and other representatives that will help to implement the strategy once it is finalized over the next few months. Meeting export standards is a central part of the strategy. Public awareness is another. Major constraints identified by OTF to expanding horticulture exports from Rwanda include:

- ❖ Lack of awareness regarding what exporters need to do, where to go for information, what kinds of standards and certification are necessary, etc.
- ❖ Absence of one-stop-shopping for information on how to meet SPS and TBT requirements for horticulture exports
- ❖ Lack of resources in RHODA and RBS to do an adequate job of supporting horticulture exports from Rwanda. This includes inadequate numbers of staff, needed personnel training, infrastructure, and information to build market awareness.
- ❖ No steps to follow to access the resources that exist in RIEPA. This was a point echoed by private sector exporters as well.

4. Understanding Emerging Trends in Global Food Procurement Systems and Opportunities for Horticulture Exports

It is clear from workshop comments, interviews with stakeholders and written documents concerning in Rwanda’s horticulture sector that there is a very strong orientation toward the European market for fruits, vegetables and flowers. This orientation comes from the fact that the European market has traditionally been the destination of other key exports from Rwanda, notably coffee and tea. It is also in Rwanda’s sights because the EU has historically been the predominant destination of exports from Kenya and other African nations. But global markets for horticulture products, both fresh and processed, are rapidly and profoundly changing. These changes, particularly those involving regional markets, present Rwanda and her competitors in the region with vast new opportunities for exports.

One of the most sudden and dramatic changes brought by the expanding global economy has been the transformation of food procurement systems around the world, particularly the rapid rise of regional and multinational supermarkets. Over the coming decade, Rwanda will find itself enveloped by this transformation and will find itself even farther behind if does not move swiftly to position itself as a player in these markets.

What kinds of changes can Rwanda expect over the next ten years or so? To answer this question a quick look at how supermarkets have emerged as increasingly important players in the urban retail markets of East and Southern Africa can offer

useful insights. Most notably in Kenya and South Africa, supermarkets have spread beyond their initial market niches into the food markets of lower-income groups. Neven and Reardon (2004) recently described the Kenya case as a dramatic example where supermarkets have grown (at a rate of 18% per year in turnover) from a tiny niche (e.g., 2% in Nairobi) in the early 1990s to 20% of the urban food retail sector and 4% of the urban fresh fruits and vegetables market in 2003.

These supermarkets are also expanding outwardly from the capital city where they first appeared, now into secondary cities and towns. As of 2003, 44% of supermarket sales and 58% of supermarket stores were located outside of Nairobi. Even more unexpected, over a third of sales and more than half of supermarket customers come from poor and low-income households. South Africa provides a second startling example of this transformation as supermarkets there (notably Shoprite and Pick 'n Pay) now account for over 70% of retail store turnover. Prices are low and quality is high—conditions that attract consumers from all socioeconomic level.

Thus, supermarkets are initially drawn to urban, higher income areas and then spread to the secondary towns and attract a lower income clientele as seen in Kenya and South Africa. Kigali is a city of over a million residents and is growing rapidly. Urban incomes are also growing, making Rwanda a large, untapped market. This is a market that will welcome the regional and international supermarket chains and the high quality, diversified food and agriculture products they will carry. Unless Rwanda's producers make a quantum leap in their levels of productivity and awareness of how supermarket procurement systems operate their share of this important domestic market will be minimal.

Looking at the supermarket transformation on a regional level, the major chains are well on their way, looking outward in search of less competition and higher profit margins. South Africa's leading supermarket chains (Shoprite, Pick 'n Pay, Metro Cash & Carry) are now present in Zimbabwe, Zambia, Namibia, Botswana, Swaziland, Madagascar, Mauritius, Angola, Mozambique, and more recently in Uganda and Tanzania. Local reports indicate that Shoprite will soon be opening a supermarket in Rwanda.

Similarly, on the East Africa front, Kenya's supermarkets have taken on a broader regional character facilitated by regional trade agreements COMESA (Common Market for Eastern and Southern Africa) and the EAC (East African Community). Indeed, since 1998 COMESA has outgrown the European Union as Kenya's most important export market. Uchumi opened its first branch outside Kenya in Kampala (Uganda) in December 2002. Uchumi's regional expansion plans for the next five years suggest that this is just the tip of the iceberg. In like fashion, Nakumatt plans to open branches in Uganda, Tanzania, Rwanda, Burundi, Zambia and Zimbabwe in the near future.⁶

Dramatic as these food procurement developments have been both regionally and worldwide, the question of how soon Rwanda's producers, consumers and markets will be integrated into these sweeping changes is an important one. In Rwanda income and production levels lag behind Kenya and South Africa by a significant margin, less so behind Burundi, Uganda, and Zambia, all of which have been shown by recent

⁶ Personal communication from Dr. David Neven, food industry development specialist, Michigan State University.

research to be well on their way to regional market integration. Overall, the absence of research on the subject, specifically from Rwanda's perspective, constitutes a critical knowledge gap that needs to be filled in the near term. Once filled, it will be highly useful for the country's strategic planning for agriculture. One thing that can be said at this time, however, is that Rwanda's integration into the COMESA market system will likely occur in stages as it has occurred elsewhere, starting with the installation of new supermarket retail stores in Kigali to meet local consumer demand.

Yet, perhaps the most exciting opportunity for Rwanda's agricultural sector in the coming years will lie in its ability to build export supply chains that will feed into these regional and international markets. Establishing the relationships, enhancing its access to market information, and meeting the required SPS and commercial standards for food safety and quality will be the key. Looking at Uchumi's Kampala store as a guide to where the system is moving, approximately 40% of the fresh fruits and vegetables that move through the store are sourced from Kenya and elsewhere. Imported products include carrots, cauliflower, herbs, and pre-cut Asian vegetables, all of which are produced at lower cost outside of Uganda. It seems likely that this pattern of development will be no different in Rwanda at least initially.

While the focus of the present fieldwork is on horticulture export markets, a note on expanding domestic/urban markets is also instructive. Growth in Rwanda's urban markets is expected to expand with population growth and accelerated inflow from rural areas. Economic prosperity in Kigali will also continue to change dietary preferences away from bulk commodities to higher-value products, particularly fruits and vegetables, dairy (milk and cheese) and meats. This year's scheduled arrival of regional supermarket giant, Shoprite, can be seen as Rwanda's bellwether for integration into the COMESA market. How much of the store's product will be locally sourced, particularly in these high-value categories, will be a function of Rwanda's capacity to quickly organize and adapt to the stringent standards for food safety and quality and volume of reliable supply that these regional and multinational retailers will demand.

Looking at the larger picture, supermarkets are just the initial phase. Equally important are supply chains for the rapidly growing food service industry, including restaurants, hotels and caterers, among others. As food service expands in the region so, too, will the opportunities for agricultural trade.

5. Conclusions and Recommendations

This fieldwork report is intended to build upon previous efforts under the Rwanda Integrated Framework, most notably those parts of the Diagnostic Trade Integration Study concerning standards capacity building in support of horticulture exports. The results of this fieldwork provide the basis for the development of a grant proposal for submission to the multi-sponsored Standards and Trade Development Facility (STDF) to enhance Rwanda's ability to meet SPS requirements for fruits and vegetables exports to regional and global markets. The fieldwork reported herein derives primarily from the Stakeholder Workshop on Horticulture Exports Standards and an extensive set of pre- and post-workshop interviews and visits with the key stakeholders in the horticulture subsector.

Priority recommendations for the STDF proposal fall into three main areas: 1) information & database development, 2) strategic planning for SPS standards compliance, and 3) general SPS capacity building and strategy implementation. Specific needs and recommendations in each of these areas, with specific attention to horticulture exports, are summarized here below.

5.1 Information/Database Development for National Strategy SPS Standards Compliance

There are significant information gaps in SPS standards compliance for horticulture exports from Rwanda. These are gaps that, as described below, need to be filled during the next year or two and will be critical to the development of a planning/strategy document for building SPS management systems in the longer term.

- ❖ **Meeting Biosecurity Requirements.** Rwanda has inadequate capacity to meet biosecurity requirements of international agreements that govern plant health and food safety and government officials have limited understanding of what kinds of capacity is needed to conform to the SPS agreement. This lack of capacity jeopardizes the country's ability to protect the health and well-being of its population, animals, plants and environment, and as a barrier to trade it threatens economic growth.

- **Recommendation.** To enhance its ability to comply with international agreements, regulations and requirements focused on sanitary, phytosanitary and zoosanitary measures it is recommended that Rwanda make use of the *Biosecurity Capacity Needs Tool*. This is a tool developed by FAO and other organizations to help developing countries to critically evaluate their existing biosecurity capacity through a seven step process, develop a medium-term biosecurity vision, conduct a gap analysis and assess the options and actions needed to close gaps in their biosecurity management systems.

Anticipated outcomes from implementation of the Tool include: improved biosecurity decision and policy making to enhance resource allocation and stakeholder satisfaction in the horticulture sector; enhanced protection of plant and human health and avoid/mitigate crises in these areas; and increased trade ensuing from the ability to comply with international SPS requirements concerning the export of products of plant origin. It is anticipated that the EU Standards project discussed in section 3.2 will employ this tool to assess Rwanda's biosecurity needs in the area of products of animal origin.

- ❖ **Phytosanitary Capacity Evaluation.** Rwanda's focus on horticulture exports places relatively greater emphasis on addressing plant health issues. Inadequate phytosanitary capacity resulting in unreliable certification and inspection carries the high risk of failing to meet the requirements of trading partners and the introduction of exotic pests.
- **Recommendation.** Within the broader context of the biosecurity assessment proposed above it is recommended that Rwanda's plant protection staff in the Rwanda Agricultural Development Agency (RHODA) complete a systematic analysis of its phytosanitary systems using the FAO's Phytosanitary Capacity Evaluation (PCE) tool. This instrument has been employed successfully elsewhere in Africa, the Caribbean, Central Asia, the Middle East and Latin

America as a means for identifying the strengths and weaknesses of national phytosanitary systems and for elucidating the strategic options and activities required to improve these systems.

The PCE tool is comprehensive and covers many areas identified by stakeholders in the Rwanda horticulture subsector as needing improvement including: phytosanitary legislation, institutional issues, pest diagnostic capabilities, pest risk analysis, surveillance, exotic pest response, on-going pest eradication campaigns, inspection systems, export certification, and pest reporting.

- ❖ Knowing Market Requirements, the Cost of Compliance and Cost/Benefit Analysis. The Government of Rwanda in its decision to promote fruit, vegetable and floriculture exports has recognized the opportunities for increasing the incomes of producers through the expansion of trade in high value food and agricultural products. But participation in global markets requires assurances of the safety and quality of products exported. Meeting these public and commercial standards carries with it significant costs as well, particularly those associated with reforming and upgrading food/plant/pesticide control systems, including the implementation of new plant health and food safety legislation and ensuring the capacity in the respective agencies to implement such legislation. In the context of Rwanda, these costs are elevated in the absence of food laws, weak regulatory infrastructure (e.g., laboratories), and a lack of trained human resources required to implement plant health and food safety systems.
 - Recommendation. Documenting market requirements, estimating the cost of compliance and assessing the cost-benefit of potential investments needed to achieve compliance are three interrelated steps that Rwanda needs to take at this early stage in the development of a horticulture exports sector. It is recommended that a three-track study of horticulture/floriculture export requirements, cost of compliance and cost benefit be conducted jointly by the Ministry of Agriculture and MINICOM/RBS.

The study should work through a framework that will facilitate estimation of the costs of SPS compliance at two levels. The first is for producers and exporters and additional costs they incur in meeting regulatory requirements in targeted importing countries, for example one European country and one East African country. The second level of compliance involves costs incurred at the public institution level such as investments in facilities and procedures for phytosanitary certification, establishing and implementing a national food law and phytosanitary/pesticides legislation, and a campaign to raise stakeholder awareness of SPS requirements.

It is recommended that documentation of requirements for regional markets also engage horticulture industry experts from regional (e.g., buyers from Shoprite and Uchumi) and international markets (e.g., Royal Ahold, Sainsbury's) to advise Rwanda (private sector and public sector) on opportunities and technical improvements in such areas as cold chain, packaging and labeling that will help to build the country's capacity to meet the demands of fruit, vegetable, and flower export markets.

5.2 Develop National Strategy for SPS Standards Compliance

One of the priority outcomes of the Rwanda Horticulture Export Standards Workshop was a broad recognition that Rwanda needs to develop a national strategy for SPS standards compliance in the horticulture sector. The strategy is needed to identify, prioritize, and facilitate the steps necessary to build an SPS management system that will serve the country's interests in expanding horticulture exports. An extensive list of needs at every level of SPS standards management including basic stakeholder awareness and benefits of standards to producers and exporters, the absence of codes for best practices in compliance with SPS standards, the need for a basic food law for Rwanda, regulations concerning plant health, pesticide and food safety in support of that food law, clarity and harmonisation of institutional responsibilities in MINAGRI, RBS, RIEPA, MINISANTE and other government bodies, pest risk analysis and boarder controls, and the ability to participate/negotiate when necessary in international standards setting bodies such as IPPC and Codex.

- ❖ Recommendations for steps leading to a national strategy. The development of a national strategy for SPS standards compliance will be guided by the baseline three-track cost of compliance study. The following steps are recommended.
 - Compiling information needed on export standards – through market/product/value chain approach and consultation with stakeholders
 - Establishment of standards co-ordination committee -- including MINICOM/RBS, MINAGRI (and agencies) KIST, Horticulture Board, private sector and others
 - Official establishment of a committee in support of an updated plant health, pesticide and food safety legal framework
 - Appointment of strategy facilitator
 - Coordinating Committee drafts National Strategy with stakeholder input
 - Working groups established to develop time lines, plans and budgets for strategy implementation.
 - Coordination with donors for prioritization and funding of an action plan

5.3 General SPS Capacity Building and Strategy Implementation.

The national strategy will be essential for the longer-term development of supportive SPS management systems in Rwanda. However there are several immediate, high priority capacity building needs identified by the horticulture standards stakeholder group that should be given consideration in the proposed STDF program. These priority needs include:

- ❖ Sensitization/Raising Awareness. Raising stakeholder awareness of SPS issues and requirements for trade in food of plant origin and agriculture, including floriculture, is one of the prerequisites to building a “culture of quality” and recognition that meeting external grades and standards creates an opportunity for expanding exports. While Rwanda is eager to improve standards for food and agriculture exports it is starting from a very low level in terms of human and institutional capacity. Stakeholders, particularly small scale producers and cooperatives, are simply not informed on what the standards are, how they are enforced and the benefits (and costs) that can accrue to those able to comply. Where this basic level of awareness is weak the system of enforcement is likely to be overwhelmed and thus ineffective. The Rwanda Bureau of Standards

understands the need to raise public and stakeholder awareness in SPS standards but has not had the capacity to address this fundamental problem.

Awareness of major SPS challenges and opportunities is needed at several levels, including: senior agricultural and trade officials responsible for programmatic oversight and public expenditures, owners and managers of agribusinesses that are producing, processing and exporting food and agricultural products from Rwanda. These key industry groups are especially important as they make the investments, higher large numbers of workers and make other decisions that determine the direction of Rwanda's exports. Third, are the many farmers, cooperatives and farm laborers who produce, process, handle and transport food and agricultural products prior to their export.

Recommendations. Initial priority steps for improving public and stakeholder awareness of SPS standards are needed at several different levels and must involve multiple agencies in Rwanda. Much could be done at the producer level in connection with efforts to disseminate good SPS practices as discussed in the following subsection. Any instruction on best practices and related costs must be presented in terms of SPS requirements and the benefits of complying with these standards. Other specific awareness raising steps may include:

- Development of training materials such as:
 - Information and bulletins/pamphlets on basics of SPS standards including benefits and potential costs of compliance
 - Instructional guides to meeting standards. What is required? Where to go for testing and inspections? What are the costs?
 - Billboards and posters that link hygiene with safe food and safe exports
 - Radio interviews and instructional programming on SPS standards and how they are important for producers in Rwanda for both domestic and export markets
 - Development of internet sites (RHODA, RARDA and RBS) that provide all of the information from bulletins/pamphlets, instructional guides and archived radio broadcasts.
- Implement training programs using materials above and targeting exporters, cooperative managers, extension personnel and other potential "trainers."
- ❖ **Promotion of Good Practices.** A second early stage development that will help Rwanda's agricultural producer groups, exporters and government agencies to comply with the SPS standards required by their trading partners is the adoption of Good SPS Practices at all levels of the value chain. Most notably this will include risk and quality management practices such as HACCP and good agricultural practices (GAP) at the farm and processing levels. Operating under cGLP (current Good Laboratory Practices) is an important step for testing laboratories both in the public and private sectors, including appropriate laboratory management practices and the development and implementation of training materials and other documentation consistent with cGLP.

Recommendations. There are numerous opportunities for improving SPS management through implementation of good practices in production and

processing and Good Laboratory Practices in public testing institutions. Among the priorities recommended for immediate consideration are:

- Identify and document good SPS practices recommended by IPPC and Codex that have particular relevance to plant and processed food exports from Rwanda
 - Identify and document good practices for achieving quality standards (ISO, EurepGAP, etc.) for target products and export markets.
 - Disseminate good practices documentation and recommendations to policymakers.
 - Develop codes of good practices and application throughout the value chain (farm to fork). This will entail the development and delivery of training materials (pamphlets, posters, internet pages).
 - Strengthen RBS and MINAGRI (RHODA/RARDA) through targeted technical assistance and training to ensure appropriate dissemination (including in local languages) and training in best practices of extension personnel, certifiers/ inspectors, laboratory personnel, producers, processors and exporters.
 - Development of training materials for Best Practices in meeting horticulture SPS requirements (tied to priority export markets and products). For horticulture products this requires training producers and farm workers in basic hygiene in handling products and packing materials, correct use and storage of pesticides and other potentially hazardous substances, and improved record-keeping related to pesticide use and other production practices.
 - Strengthen KIST, ISAE and NUR through targeted technical assistance and training in curriculum development that integrates best practices and promotes food and agricultural technologies that help to meet codes of best practices.
- ❖ **Legal/Regulatory Reform.** The recent restructuring of the Ministry of Agriculture and the creation of the establishment of the Rwanda Bureau of Standards are important first steps in creating an enabling policy and institutional environment that is conducive to meeting SPS standards for food and agricultural including floriculture exports. Next steps in the legal and regulatory reform for managing plant health and food safety include the establishment of a food law and plant health/pesticide regulatory framework that will provide a blue print for: 1) assigning institutional functions and powers for setting, implementing/certifying and enforcing SPS standards, including the responsibilities of the designated focal point for IPPC and Codex, 2) establishing a national code of regulations, bylaws and ordinances for safe food and plant products for domestic consumption, and 3) harmonization of food laws with international standards.

Recommendations. The establishment of a food law and regulatory plant health and pesticides framework should be seen as a priority medium-term goal of the proposed horticulture standards strategy for the next 3-5 years. However, in leading up to this legal/regulatory reform there are a number of more immediate steps that can be taken that will help to set the stage and put the process in motion. These preliminary developments include the following:

- MINAGRI, MINICOM/RBS and MINISANTE need to establish a provisional understanding/elucidation/interpretation of institutional functional responsibilities concerning SPS standards management, particularly concerning testing and certification for exports. This can be coordinated by

the Integrated Framework National Steering Committee and can take the form of a memorandum of understanding, inter-agency working agreement or other arrangement that serves as a provisional basis for addressing the practical needs for SPS standards management.

- Training in international food laws and regulations for stakeholders in government (RBS, MINAGRI), educational institutions (KIST, NUR) and other key institutional stakeholders contributing to legal/regulatory reform of Rwanda's food laws. This can be accomplished in stages through on-line certificate programs in international food laws and regulations, through focused internships and study tours with standard-setting bodies (IPPC and Codex) and other organizations (e.g., universities and government agencies) engaged in food and agricultural product safety training and enforcement. The objective of this technical training will be to increase key stakeholder exposure in areas such as national food controls systems, the development of food and plant health/ pesticides law (procedures and history), initiation of legislation, scientific committees, co-operation procedure, early directives, harmonization programs, inspection programs, inspection visits, rapid alert systems, food imports, nutrition and other labeling requirements, issues relating to additives, contaminant regulation, etc.
 - Technical assistance from an expert in international food laws and regulations with experience in drafting food safety, plant health and pesticides laws and establishing regulatory frameworks in developing countries.
- ❖ Other Institutional Capacity Building in SPS Measures. There are several other capacity building activities that figure high on the priority list for SPS implementing agencies (RBS/MINAGRI) and technical training institutions (KIST, ISAE, NUR).

Recommendations. Three areas for capacity building in SPS include: 1) targeted training in food safety, SPS and biosecurity, 2) strengthening the National Standards Committee, and 3) strengthening Rwanda's SPS Focal Points. Specific recommendations include:

- Targeted training in food safety, SPS measures and biosecurity. This training will be for government unit heads, international organization focal points and instructors in training institutions. Excellent short term, intensive training programs exist as well as online certificate training. Both will be appropriate for building the needed capacity in Rwanda. Areas where such training may be especially useful for Rwanda include:
 - Food systems, food safety and international food trade
 - Regulatory issues/policy issues in food safety (as mentioned above)
 - Risk assessment, risk management and risk communication
 - Hazard analysis and critical control point (HACCP): Principles and practice
 - Microbial hazards, chemical hazards
 - Food safety issues with biotechnology products (growing importance in Africa especially regarding imports and food aid receipts)
 - Food preservation
 - Hazard detection systems
 - Information and training resources in food safety

- Strengthening National Standards Committee in MINICOM/RBS through a series of capacity building activities including an in-country workshop on standards in food and agriculture and a study tour to Kenya, Morocco, Egypt or South Africa, countries more experienced than Rwanda in standard-setting and compliance yet facing similar challenges in developing export markets.
- Strengthen IPPC and Codex Focal Points. Expanding horticulture exports from Rwanda will require across the board strengthening of the country's IPPC Focal Point in MINAGRI. Key responsibilities of the IPPO in Rwanda include: taking effective action to prevent the spread and introduction of pests of plants and plant products and promote appropriate measures for their control, issuance of phytosanitary certificates, surveillance of growing plants; inspection of consignments, conducting pest risk analysis, ensuring phytosanitary security of consignments, training and development of staff, distribution of information within the country regarding regulated pests, establishing/updating lists of regulated pests. With such limited staff and resources, it is a constant and growing challenge for Rwanda to meet even minimal expectations in these important areas. It is important to note that the same deficiencies also exist in the OIE National Focal Point in Rwanda.

Recommendations. Strengthening Rwanda's ability to comply with IPPC standards for plant health will help to instill confidence among trading partners that Rwanda is committed to controlling plant pests and effectively managing risk. A recommended short-list of priority activities aimed at achieving these goals through the IPPC Focal Point will include the following:

- Develop/update pest list database for Rwanda. This can be done in coordination with neighboring countries and support of technical assistance
- Provide training in plant pest surveillance techniques
- Research/document quarantine pests for importing countries
- Identify and disseminate appropriate pest management/quarantine treatments
- Train Focal Point personnel in Integrated Pest Management (IPM) techniques. There are excellent intensive international short courses available
- Provide exposure through study tours, internships and other means to IPPC and Codex functioning and procedures, including standards setting and dispute settlement.
- Coordination among stakeholders to identify and articulate Rwanda's needs and concerns regarding IPPC participation.
- Apply for and use trust funds to participate in IPPC, OIE and Codex. Participants will report back on standards development/priorities for Rwanda.

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Annex 2



WTO OMC

**NATIONAL SEMINAR
ON THE**

**WTO AGREEMENT ON SANITARY AND
PHYTOSANITARY MEASURES**

PROGRAMME

**28 FEBRUARY – 2 MARCH 2005
KIGALI, RWANDA**

Tuesday, 28 February

8.30 Registration

9.00 Opening

9.30-11.00 Introduction to the Sanitary and Phytosanitary Measures Agreement

Michael Roberts, Counsellor, WTO

- **SPS & TBT**
- **Basic principles**
- **Rights and obligations**
- ***Questions/Discussion***

11.00-11.20 Coffee Break

11.20-13.00 Introduction to the Sanitary and Phytosanitary Measures Agreement

Michael Roberts, Counsellor, WTO

- **Work of the SPS Committee**
- **Trade Concerns**
- **Disputes**
- ***Questions/Discussion of how developing countries can use the SPS Agreement***

13.00-14.15 Lunch break

14.15-15.15 Risk analysis exercise

15.15-15.30 Coffee Break

15.30-16.30 Presentation by Groups of Risk Analysis Exercise

16.30-17.10 Case Study of relevant WTO jurisprudence and explanation of Dispute Settlement procedures

17.10 17.30 *Questions/Discussion*

Wednesday, 1 March

9.30-11.00 Current issues in the SPS Committee

- **Committee work**
- **Specific trade concerns**
- **Equivalence**
- **Special and differential treatment**
- **Regionalization**

- *Questions/discussion*

11.00-11.15 Tea break

11.15-12.00 Transparency obligations:

- **National notification authority**
- **National enquiry points**
- **Notifications**
- **Exercises**

**12.00-13.00 SPS Concerns of Rwanda in regional and international trade
Presentation by local officials**

- *Questions/discussion*

13.00-14.15 Lunch break

14.15-16.00 Technical assistance needs of Rwanda in the SPS area

- **Overview of the Integrated Framework in Rwanda - Secretary General of Ministry of Commerce**
- **Presentation by local donor office**
- *Questions/discussion*

16.00-16.15 Coffee break

16.15-17.00 Technical assistance needs of Rwanda in the SPS area

- **The Integrated Framework and the STDF – Mr Panos Antonakakis**
- **Overview of the STDF project preparation activities – Professor Dan Clay**

17.00-17.30 *Questions/discussion*

Thursday, 2 March

- 9.30-10.45** **Explanation of STDF project preparation activities**
Dan Clay
- 10.45-11.00** **Tea Break**
- 11.00-12.45** **Presentations on horticulture sector strategy**
Ministry of Agriculture/Plant Protection
Presentation by donor representative
- 12.45-14.00** **Lunch break**
- 14.00-15.00** **Discussion of current issues in the horticulture sector**
- 15.15-15.30** **Coffee break**
- 15.30-17.00** **Identification of priority areas to address in plant health for the**
horticulture sector
- 17.00-17.30** **Final discussion of issues arising from the seminar**
- 17.30** *Closure of Seminar*

Annex 3

List of Acronyms

ADAR	Agribusiness Development Assistance in Rwanda
cGLP	current Good Laboratory Practices
COMESA	Common Market for Eastern and Southern Africa
COVEPAR	Coopérative pour la Valorisation des Exportations des Produits Agricoles au Rwanda
DTIS	Diagnostic Trade Integration Study
EU	European Union
F&V	Fruits and Vegetables
FAO	Food and Agriculture Organization
GAP	Good Agricultural Practices
GDP	Gross Domestic Product
GOR	Government of Rwanda
HACCP	Hazard Analysis and Critical Control Points
ICT	Information and Communications Technology
IF	Integrated Framework
IMF	International Monetary Fund
IPM	Integrated Pest Management
IPPC	International Plant Protection Convention
ISAE	Institut Supérieur d'Agriculture et d'Élevage
ISO	International Organization for Standardization
KIST	Kigali Institute of Science, Technology and Management
MINAGRI	Ministry of Agriculture and Animal Resources
MINICOM	Ministry of Commerce, Industry, Investment Promotion, Tourism and Cooperatives
MINISANTE	Ministry of Health
MSU	Michigan State University
NGO	Non-Governmental Organization
NPPO	National Plant Protection Organization
NUR	National University of Rwanda
OTF Group	On the Frontier Group
PCE	Phytosanitary Capacity Evaluation
PEARL	Partnership to Enhance Agriculture in Rwanda through Linkages
PFID-F&V	Partnerships for Food Industry Development -- Fruits and Vegetables
PSTA	Strategic Plan for Agricultural Transformation in Rwanda
RHODA	Rwanda Agricultural Development Authority

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RARDA	Rwanda Animal Resources Development Authority
RBS	Rwanda Bureau of Standards
RIEPA	Rwanda Investment and Export Promotion Agency
SPS	Sanitary and Phytosanitary Measures
STDF	Standards and Trade Development Facility
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Program
USAID	United States Agency for International Development
WTO	World Trade Organization