

Annex I: Scope of Work and Terms of Reference: RWANDA
for a
**PESTICIDE EVALUATION REPORT & SAFER USE ACTION PLAN
(PERSUAP)**
for
**Field Crop Production and Protection Programs
Supported in Rwanda by
USAID/Rwanda Strategic Objective 3 - Rural Household Food Security
and
Title II Food for Development Activity Programs in Rwanda
(World Vision, CRS and ACDI -VOCA)**

1. INTRODUCTION

World Vision Rwanda was selected to take the lead in developing the TOR and organizing the implementation of a Pesticide Evaluation Report and Safer Use Action Plan (PERSUAP) for field crop production and protection activities of the USAID/Rwanda agricultural development, economic growth, and food security programs covered within its Strategic Objective Three¹. This includes the three Title II Food for Development Activity Programs funded by USAID in Rwanda (World Vision, CRS and ACDI-VOCA).

The PERSUAP is expected to provide guidelines for pesticides use for the storage of commodities to reduce the damages caused by pests during storage, and crop protection to control the incidence of pest and diseases in the field.

Crops in the farms are highly infested and damaged by pests and diseases. The damages range between 60-80% or above. This situation is a serious obstacle to the achievement of the objectives of the programs and needs immediate attention.

However it is important to mention that the use of pesticides was deferred in the respective programs' IEEs pending completion of a appropriate PERSUAPs for crop production and commodity storage and transport. This deferral is consistent with USAID's Environmental Procedures, and specifically the provisions governing pesticide use (Reg. 216, 22 CFR Part 216.3(b)(1)).

The IEEs covering USAID/Rwanda typically have deferred approval of activities that implicate the use of pesticides. For example, The WV IEE conducted in 1999 for Gikongoro has serious restrictions in the use of pesticides. The IEE amendment in 2001 for Ruhengeri, Byumba, Butare and Gikongoro indicates high crop damage due to severe infestations by various pests and diseases. The Agronomists in the World Vision DAP have identified Irish potato wilt, bacterial blight, and high losses caused by potato scab.

¹ SO 3 -- Increased Ability of Rural Families in Targeted Communities to Improve Household Food Security

Irish potato is very sensitive to infestations by these pests, unlike beans and wheat. The pests are widespread in Gikongoro, Ruhengeri, Byumba and Butare in the areas of operation of World Vision. Many alternatives are developed to address the problems described above. *Among the alternatives to be considered should be shifting to less a vulnerable crop.* The use of pesticides and IPM are well known and widely used in agricultural production.

The USAID Environmental Procedures for pesticide procedures (as provided by USAID Environmental Procedures: Text of Title 22, Code of Federal Regulations Part 216, Reg. 216), suggest that all projects involving assistance for the procurement or use, or both, of pesticides shall be subject to the procedures prescribed in §216.3(b)(1)(i) through (v).

The USAID pesticide procedures also indicate that when a project includes assistance for procurement or use, or both, of pesticides registered for the same or similar uses by USEPA without restriction, the initial Environmental Examination for the project shall include a separate section evaluating the economic, social and environmental risks and benefits of the planned pesticide use to determine whether the use may result in significant environmental impact.

The rationale for a PERSUAP- type environmental review (as opposed to a full-scale environmental Assessment) is that the affected projects were reviewed and Initial Environmental Examination approved for all other activities in the programs. The IEE approved Categorical Exclusions and Negative Determinations with Conditions as appropriate to each case, with deferrals for pesticide use pending completion of PERSUAPs. The other rationale is that the pesticides are used under tight management, with well laid conservation practices, guided by trained and experienced members of staff.

Programs covered:

Under USAID/Rwanda Strategic Objective 3, the Mission promotes the “increased ability of rural families in targeted communities to improve household food security.” Through its strategic approach, USAID seeks to advance three intermediary results: the ability of farmers to produce and market targeted crops; expanded agribusiness and private sector development; and creation of a conducive, enabling policy environment. Through promoting the shift from subsistence agriculture to commercial agriculture, USAID is working to improve people’s access to food through improved economic opportunity.

Under the programmed integration of FFP and DA resources, partners and activities include:

ACDI/VOCA – The DAP aims to foster increased agricultural production of target crops, increased household incomes of targeted populations, increased access to important imported food commodities through monetization and strengthened capacity of local institutions and associations in agriculture.

Catholic Relief Services – The DAP aims to increase the ability of smallholder farm families to achieve food security through the increase of lowland productivity, reduction of soil erosion from steep lands, increasing productivity through enhancing technologies, development of farmer’s associations and improvement of their access to markets.

World Vision – The DAP aims to increase household food security among targeted households through the increased yield of targeted crops, adoption of improved cultivation techniques, increased income from sales of agricultural products and increased soil fertility.

Agribusiness Project (ADAR) – Implemented by Chemonics, International, the purpose of the project is to revitalize agribusiness in Rwanda and establish and strengthen linkages between the rural sector and private sector traders, processors and markets.

Partnership for Enhancing Agriculture in Rwanda through Linkages (PEARL) – Implemented by TAMU and MSU, this activity seeks to advance and integrate teaching, research and community outreach towards improving incomes and livelihoods in rural communities.

Raising Rural Incomes and Improving Livelihoods – Implemented by The Mitchell Group in local collaboration with the Rwanda Women’s Network, the project aims to increase incomes through agricultural-based activities across the commodity chain from production to processing to marketing.

Agriculture Technology Development and Transfer Project (ATDT) – Implemented by CIAT, the project works in close collaboration with the national agriculture research institute in the development and transfer of improved, productivity-enhancing technologies.

Small, Medium and Micro-Enterprise Sector (SMME) – Implementing partners including IESC, WOCCU and the Rwanda Micro-finance Network are engaged in supporting enterprise and strengthening on-farm and off-farm linkages.

The SO 3 team would like the various activities to be in compliance with USAID’s Regulation 216 (22 CFR 216.3 (b)) while at the same time enabling rural farmers to increase their incomes. It is therefore, desirable to expedite an environmental review of the programs, of the PERSUAP scale, and not a full environmental review of “pesticide use” (note that USAID interprets “use” broadly). This will however, precede any consideration of pesticide procurement in any case.

Country Overview (Rwanda)

Rwanda is a small and mountainous, landlocked and densely populated Central African country. With a total area of just over 26 000 square kilometers, it is one of the most densely populated countries in Africa. With a natural population growth of 3% per year,

the population has grown from 6.3 million people in June 1996 to 7.9 million in June 1997.

Rwanda is bounded by the Democratic Republic of the Congo (D.R.C) to the West, Uganda to the North and Tanzania to the East. Its terrain has led to settlement patterns where families of households live in individual homesteads on hillsides or 'collines'. The populous central plateau – from Ruhengeri in the North to Butare in the South – lies between 1500 and 200 meters above sea level. West of this plateau, altitudes rise to above 2500 meters. The highest peak reaches 4507 meters and forms part of the Virunga mountain chain. Lake Kivu, which separates Rwanda and the D.R.C, is the highest lake in Africa at 1460 meters above sea level. Abundant, well-distributed rainfall and reasonably good volcanic soils in the North make this area the breadbasket of the country. This area has in recent times been under - productive due to insecurity in the region

The respective IEEs of the various affected programs in SO 3 and the Title II programs are appended to this PERUAP's TOR.

II. TERMS OF REFERENCE

Purpose

These Terms of Reference (TOR) describe the services requested for two Integrated Production and Pest Management Specialists (IPPMSs), with pesticide expertise, one international, one local, who will perform services for USAID/Rwanda's SO 3 agricultural development, economic growth and food security programs. The services described herein will enable the above-mentioned projects to respond to and comply with the requirements of 22CFR 216.3(b), USAID's pesticide procedures. These services will make it possible for various components of the SO 3 programs which implicate crop protection actions to comprehensively contribute to production and marketing of income-generating crops, like white potatoes.

The IPPMSs will be responsible for conducting a pest management and pesticide evaluation report to be called *USAID/Rwanda Crop Production Pesticide Evaluation Report and Safer Use Action Plan (Rwanda Crop Production PERSUAP)* for the production of high value crops, to:

- Ensure compliance with the Agency's pesticide procedures;
- Ensure compliance with the government of Rwanda pesticide registration and regulations (including requirements of the Ministries of Agriculture and Environment of Rwanda);
- Identify and recommend appropriate mitigative actions for incorporation into the projects' activities;
- Facilitate development and/or application of Integrated Pest Management (IPM), with a view of avoiding or reducing unnecessary pesticide risk and maximizing crop productivity; and

Identify and address key pesticide use issues in Rwanda, particularly those that impact on pesticide utilization by small-scale producers.

This TOR requires that the PERSUAP produce:

Documentation on the specific uses of pesticides that will comply with 22 CFR 216.3(b)(1)(i)(a through l) for each SO 3 and Title II activity concerned with procurement or use of pesticides, including promoting the adoption of particular pesticides and pesticide use technologies supported by USAID.

A plan for the appropriate introduction of Integrated Production and Pest Management practices.

Mechanisms for capacity building of the SO 3 partners. This should specifically include design of a Safe Use Action Plan including mitigation and training to ensure that procedures required under 22 CFR 216.3 (b)(1) are disseminated and understood by all partners.

2. Scope and Application of PERSUAP

Scope

Pesticides are synthetic or natural product-derived chemical products intended to kill, control, or repel insects, plant diseases, weeds, and other pest organisms. Plant-derived insecticides and those restricted, cancelled, or suspended by the USEPA are listed in Appendix C of the Africa Bureau's "*Environmental Guidelines for small-scale activities*" (1996, Appendix C). The analysis will cover those pesticides proposed for use by SO 3 and Title II programs that are:

Registered by USEPA for the same or similar uses without restrictions;
Also registered by the government of Rwanda; and
Available in Rwanda

The study will cover activities under all applicable SO 3 activities & projects that may involve assistance for the procurement or use of pesticides. Under this TOR, assistance for the procurement or use of pesticides is defined broadly (see Appendix C of the small-scale) and includes recommending the procurement or use of the pesticides and conducting training programs in pesticide handling/use.

Application of study

The projects' activities described in II above have existing Initial Environmental Examinations (IEEs) in which pesticide procurement/ use has been deferred. The IEEs shall be amended, drawing on the observations and recommendations of the PERSUAP, evaluating the economic, social, and environmental risks and benefits of the planned pesticide use to determine whether the use may result in significant environmental impact. If the PERSUAP determines that a specific indispensable pesticide use will

significantly affect the environment, an environmental Assessment (EA) will normally need to be conducted.

3. Roles

USAID/Rwanda

USAID/Rwanda through its SO3 Team Leader and the MEO will take an active role in working with the contracted pest and pesticide management specialists (IPPMSs) in the conduct of the study. The MEO will provide specific technical guidance and direction, review progress and other draft materials produced by the IPPMSs, and perform liaison functions, as needed, with REDSO and USAID/W AFR BEO. The Regional Environmental Officer (REO) will collaborate with the IPPMSs at the initiation of the study to provide information and perspective and links to USEPA, as might be necessary. The REO will review and approve the results of this TOR – the PERSUAP.

SO 3 activities and Title II programs.

Each relevant activity /project/program will assign a contact person or persons to work with the IPPMSs. The contact person will assist the IPPMSs in developing the study by providing information about uses and conditions of use for all pesticides, types of activity implementation, roles and responsibilities of implementing farmers and extension officers with the purpose of ensuring that all relevant pesticides are covered and to help the IPPMSs design training for those in the field. Each project, through the contact person will be responsible for reviewing and providing comments on the study.

[Each of the three DAPs will share the budgetary requirements of supporting this study.]

IPPMSs

The IPPMSs will be responsible for: 1) acquiring and synthesizing information on Rwanda's ability to regulate or control the distribution, usage, storage and disposal of pesticides; 2) restrictions on use of pesticides (e.g. information from the Environmental Council of Rwanda); 3) acquiring from appropriate persons information on the conditions under which various pesticides will be used (climate, flora, fauna, geography, hydrology, soils, near water bodies etc); and 4) acquiring from the contact persons information on the extent to which the pesticide use is part of an integrated pest management program.

4. IPPMSs Tasks and Responsibilities

Specific tasks and responsibilities for the IPPMS will be assigned by the IPPMS Team Leader, using the TOR as a guide, and with the clearance of the MEO. IPPMS tasks include:

Prior to coming to Rwanda, review **list of potential pesticides [to be provided]** to be procured/used under partner activities, and review US EPA status of the pesticides. Acquire electronic or hard copy information relevant to all pesticides that are not registered for same or similar uses and not restricted. Develop network of EPA and other professional contacts for coordination with, and for future contact with USAID/Rwanda and collaborators (Team Leader only).

Prior to coming to Rwanda, contact USAID/AFR and USAID/EGAT and the REDSO REO to review compliance requirements and pest management options and to develop an agreed upon definition for "assistance for procurement or use..." of pesticides (Team Leader only).

Once in Rwanda, review partners' activities with them to understand conditions and situations of use. Organize with partners visits to representative sites and discussions/contacts with extension agents or other direct implementers. Review the list of pesticides to develop a complete list of all pertinent pesticides to be addressed in the study (Team).

Assess the overall capabilities and limitations of the partners' pest/pesticide management relative to the more common pest and pesticide use problems affecting those targeted for assistance under SO 3. Review method of delivery of assistance (Team).

Finalize the complete list of pesticides to be procured/used/recommended per each commodity, based on results of previous tasks, and ensure that only those pesticides that are registered for the same or similar uses by the USEPA, without restriction, are included. Recommend any additional, suitable pesticides for use against vectors targeted (Team).

Address USAID Pesticide Procedures. After describing the proposed usage and expected benefit of the requested pesticides, address each of the following factors listed under 22 CFR 216.3(b)(1)(i). Factors to be considered in such an evaluation shall include, but not limited to the following:

- The USEPA and Rwanda registration status of the requested pesticides;
- The basis for selection of the requested pesticide (s);
- The extent to which the proposed pesticide use is part of an integrated pest management program (IPM);
- The proposed method of application, including availability of appropriate application and safety equipment;
- Acute or long term toxicological hazards, either human or environmental, associated with the proposed use, and measures available to minimize such hazard;
- The effectiveness of the pesticide for the proposed use;
- Compatibility of the proposed pesticide with target and non- target ecosystems;

The availability and effectiveness of other pesticides or non chemical control methods;
Provisions made for monitoring the use and effectiveness of the pesticide;
Rwanda's ability to regulate or control the distribution, storage, use, and disposal of the pesticide; and
Provisions made for training of users and applicators, and outline a training plan for participants and extension officers;

Training plan. The IPPMSs, technical representatives, USAID/Rwanda staff and partners will jointly outline a training program, including a plan to train all partners who will be required to implement the recommendations of the Study. This outline should recommended training for GoR, for applicator training for those not only involved in implementing USAID SO 3 programs, but looking beyond at training for all those in Rwanda involved in pest management and pesticide application, management, environmental and safety reviews. (Team Leader)

Draft a preliminary report, informed by the format used for the Zambia CLUSA PERSUAP done by Brian Hirsh and Walter Knausenberger (Annex ..). The team will write a clean draft PERSUAP, and submit it to SO3, MEO and REO electronically before departing Rwanda. All three will review the draft concurrently. Edits will be made within one week and transmitted to the team leader for rectification. The REO will then either approve the first draft or wait for the revised draft from the team leader. PERSUAP is then sent by the MEO to the MD for approval, then the MEO will send the approved version to the BEO for final approval.

III. QUALIFICATIONS OF THE PEST MANAGEMENT SPECIALIST (IPPMS) TEAM LEADER

Responsible for conducting, preparing, writing and revising to produce a final product, "The USAID/Rwanda Pesticide Evaluation Report and Safe Use Action Plan." The IPPMS Team Leader will possess the following skills and expertise:

At least 10 years experience in international pest and pesticide management, including assessment of effects of pesticides on humans and the environment, and vector management.

Familiarity with USAID's Pesticide Procedures.

Strong professional background in one of the pest management disciplines.

Substantial experience (at least 10 years) in pest and/or vector management practices appropriate to LDCs, preferably with experience applicable to Rwanda or east Africa; and commitment to least-toxic pest management.

Practical field experience in designing and conducting training programs in pesticide regulatory compliance.

In-depth familiarity with international, regional, and national institutions involved in pest management in Africa.

Ability to access and interpret the U.S. Environmental Protection Agency's (EPA) most recent pesticide registration data.

Knowledge of French is not essential, but useful.

IV. LEVEL OF EFFORT

This TOR assumes that for the final document, the IPPMS will be analyzing approximately 5-10 pesticides, according to the requirements in 22 CFR 216.

IPPMS Team Leader will be required for 25 days:

2 days at home base (establish USAID and USEPA, etc., contacts; establish a work plan.)

14 days (two weeks) in Rwanda (assumes six day work week for IPPMS Team Leader)

Present findings and first draft to Mission

3 days at home base to respond to Rwanda comments and prepare final draft report for submission to BEOs and to USAID/Rwanda (for the second time).

1 day at home base to respond to more Mission and BEO comments and prepare final report.

The IPPMS Team Leader will spend 14 days (2 weeks) in-country working with USAID, Ministry, private sector and other USAID collaborators, local pesticide and IVM experts, the local consultant, etc. During this period, the consultant will be working with collaborators in Kigali as well as going to the field, as necessary.

The IPPMS Team Leader will spend 4 days at home base incorporating comments and preparing a review-ready draft to submit to USAID/Rwanda and other partners.

Upon receipt of any additional comments from Rwanda, the IPPMS Team Leader will revise the study accordingly and present to USAID/Rwanda and to AFR BEO a final report for review by all partners (2 days).

V. DELIVERABLES

Final Report: *USAID/Rwanda Crop Production Pesticide Evaluation Report and Safer Use Action Plan (Rwanda Crop Production PERSUAP)* identifying Action Plan for IPM and Capacity Building.

VI. PERIOD OF PERFORMANCE

25 days starting 11/19/2002; international expert: 25 days, Rwandan expert 15 days.