

**NATURAL RESOURCES SYSTEMS PROGRAMME**  
***FINAL TECHNICAL REPORT<sup>1</sup>***

**DFID Project Number**

**R 8364**

**Project Title**

Promoting an holistic approach to agrochemical management in the Caribbean (CAMP)

**Project Leader**

Hyacinth Chin Sue

**Organisation**

Pesticides Control Authority

**NRSP Production System**

Land Water Interface

**Date**

November 2005

---

<sup>1</sup> This document is an output from a project funded by the UK Department for International Development (DFID) for the benefit of developing countries. The views expressed are not necessarily those of DFID.

## Contents

<b>1</b>	<b>EXECUTIVE SUMMARY.....</b>	<b>1</b>
<b>2</b>	<b>BACKGROUND .....</b>	<b>2</b>
<b>3</b>	<b>PROJECT PURPOSE.....</b>	<b>4</b>
<b>4</b>	<b>OUTPUTS .....</b>	<b>5</b>
<b>5</b>	<b>RESEARCH ACTIVITIES.....</b>	<b>21</b>
<b>6</b>	<b>ENVIRONMENTAL ASSESSMENT.....</b>	<b>23</b>
<b>7</b>	<b>CONTRIBUTION OF OUTPUTS .....</b>	<b>24</b>
<b>8</b>	<b>PUBLICATIONS AND OTHER COMMUNICATION MATERIALS.....</b>	<b>28</b>
<b>9</b>	<b>REFERENCES CITED IN THE REPORT, SECTIONS 1-7.....</b>	<b>30</b>
<b>10</b>	<b>PROJECT LOGFRAME .....</b>	<b>31</b>
<b>11</b>	<b>KEYWORDS.....</b>	<b>33</b>

### ANNEXES

ANNEX A: Lessons Learnt

ANNEX B: Paper presented to CARICOM January 2005

ANNEX C: Regional Level Proposals

Project Proposal (i) The design and set up of a regional database to facilitate harmonised registration and improved management of agro-chemicals in the Caribbean

Project Proposal (ii) Establishment of a regional database for maximum residue levels (mrls) for agrochemicals on foods produced in the CARICOM region

Project Proposal (iii) Monitoring for residual agrochemicals in the land water interface in CGPC member countries

Project Proposal (iv) Public health monitoring for improvement and evaluation of agrochemical management in the Caribbean

Project Proposal (v) Achieving certification in good agricultural practices in the Caribbean

Project Proposal (vi) Assisting Caribbean producers and exporters to access the European markets through provision of relevant information

ANNEX D Donor Support for Implementation of the Strategy

Assistance (i) COLEACP funding for assisting Caribbean producers and exporters to access the European markets through provision of relevant information

Assistance (ii) UNEP support for sub-regional workshop on the implementation of chemical conventions for English speaking Caribbean countries

Assistance (iii) UNEP/FAO support for consultation on the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade

ANNEX E: Regional Promotion Materials

Policy Brief: Agro-Chemical Management: Agricultural and Rural Development

AgroChemical Management: Health and Environment

Agrochemical Management: The Legal Environment

Agrochemicals Management: Facilitating Increased Agricultural Trade]

Policy Briefs Distribution list

DVD protecting our region Agrochemical management

Poster, Everyone has a role to play in Improving Agrochemicals Management for a safer Caribbean

Newspaper articles,)

ANNEX F: Jamaica National Plan of Action

ANNEX G: National promotion materials

Jamaica

DVD Careful with pesticides

posters Food Safety is everybody's business

Public Relations Report on TV, Radio and Newspaper articles, supporting the launch of the NPA)

ANNEX H:

St Lucia

DVD,

Poster Managing pesticides and toxic chemicals for a safer environment

Proper management of pesticides and toxic chemicals for a safer Caribbean environment

ANNEX I: The 'Tool-kit'

NPA Toolkit Volumes I and II Development Implementation and Monitoring and Evaluation of a NPA for Agrochemicals management in the Caribbean

ANNEX J: National Plan of Action (NPA) Tool Kit Training Workshop

## **Abbreviations and Acronyms**

CAHFSTA Caribbean Agricultural Health and Food Safety Agency  
CARDI Caribbean Agricultural Research and Development Institute  
CARICOM Caribbean Community and Common Market  
CEHI Caribbean Environmental Health Institute  
CGPC Coordinating Group of Pesticides Control Boards  
COHSOD Council for Human and Social Development  
COLEACP Europe-Africa-Caribbean-Pacific Liaison Committee  
COTED Council for Trade and Economic Development  
EUREPGAP Euro Retailers Produce Good Agriculture Practice  
IICA Inter American Institute for Cooperation on Agriculture  
MRAG Marine Resource Assessment Group Ltd (UK)  
MRL Maximum Residue Limit  
NPA National Plan of Action  
OECS Organisation of American States  
PCA Pesticides Control Authority  
PCB Pesticides Control Boards  
PIC Prior Informed Consent  
PIP Pesticides Initiative Project  
UNEP United Nations Environment Programme

## 1 Executive Summary

The purpose of NRSP Project R8364 was to promote uptake of recommendations of a strategy to improve agrochemicals management in the Caribbean. This activity was a follow on from the previous NRSP Project R7668 which examined the impact of agrochemicals and the management systems existing in St. Lucia and Jamaica. Uptake of the recommendations should improve the livelihoods of poor populations in the Caribbean who depend largely on agriculture and tourism for employment. The project focused on raising awareness at the regional and national level.

At the regional level the following policy briefs were prepared;-

- (i) Agro-Chemical Management: Agricultural and Rural Development
- (ii) AgroChemical Management: Health and Environment
- (iii) Agrochemical Management: The Legal Environment
- (iv) Agrochemicals Management: Facilitating Increased Agricultural Trade

Policy briefs along with a regional video, poster and project proposals were distributed to stakeholders identified at the beginning of the project.

The project relied on the membership of the Coordinating Group of Pesticides Control Boards (CGPC) to promote the strategy and an holistic approach in developing National Plans of Action (NPA) The CGPC membership however represented approximately 65% of CARICOM and a lobby workshop was necessary to obtain support from other members of CARICOM and regional organisations such as the Inter American Institute for Cooperation on Agriculture (IICA), Organisation of Eastern Caribbean States (OECS) and the Regional Negotiating Machinery.

The project succeeded in getting the Strategy on the agenda of the Council for Trade and Economic Development (COTED) meeting in January 2005. At the Nineteenth Meeting of COTED, and the 14th Meeting of the Community Council of Ministers in May 2005 (Annex B), the strategy was adopted. This was the first time that agrochemical management was discussed at CARICOM.. CGPC members were exposed to the process that facilitated policy adoption at CARICOM and opened the opportunity for future proposals. The strategy did not appear on the CARICOM agenda for the Council for Human and Social Development (COHSOD), where two ministers with responsibility for agrochemicals would participate.

With regards to implementation of the strategy, the CGPC developed and approved a Regional Plan of Action at its 9<sup>th</sup> meeting in 2004. A Core Group developed six project proposals (Annex C). As a result of seeking additional resources the United Nations Environment Programme (UNEP) Chemicals sponsored two sub regional workshops for the English Speaking Caribbean August 18-22 and September 5-8, 2005 in Jamaica and Trinidad respectively. These workshops provided additional opportunities to involve the CARICOM Secretariat in developing plans of action and to identify priority areas for collaboration to implement Multilateral Environmental Agreement. (Annex D).

Progress made to develop mechanisms for National Plans of Action was greater in Jamaica than in St Lucia. In Jamaica a National Plan of Action focusing on Monitoring Pesticides Residue in Foods and the Environment (Annex F) was initiated after a comprehensive media campaign (Annex G). This sparked three additional inter-ministerial National Plans of Action. The NPA in St. Lucia was not developed, however, there were extensive promotional

activities. St. Lucia chaired CGPC and the Minister of Agriculture gave full support to strategy. The PCB also succeeded in making a submission to Cabinet for full time employment of a Registrar. Other major progress as a result of uptake of the strategy was a decision in St. Kitts to impose an import license fee of EC\$50, thus achieving the 'sustainable financing' aspect of the Strategy at the National level.

Based on the experiences of Jamaica and St Lucia and drawing on guidance for action plan development from United Nations Institute for Training and Research (UNITAR) a Tool Kit was developed to assist countries in the wider Caribbean to develop and implement National Plans of Action. Two training sessions were held on the Tool Kit (Annex J).

## 2 Background

There is a need to improve agrochemical use and management throughout the Caribbean given that agriculture and tourism are major sources of employment, yet are threatened by misuse of agrochemicals, and that global trade demands that exporting countries provide proof that they have systems to ensure the production of safe foods for export.

Furthermore, the Caribbean billion dollar dive tourism is under threat from coastal and marine pollution. UNEP Caribbean Environmental Outlook 2005 reported the Caribbean as attracting US\$5.7 m of the world's US\$10 m scuba divers citing that diving activities could generate US\$1.2 b annually (Jamaica Observer August 17, 2005). Given that agrochemicals misuse contributes to coral reef damage, and adds costs to agricultural production through soil contamination, phyto-toxicity and pest resistance there is potential loss of market share in tourism and agriculture produce and the resulting unemployment of rural poor.

Underegulated or poorly managed agro-chemical use is also a threat to the environment and public health. Developing countries use only 10% to 25% of the world's pesticides, but suffer up to 50% of the reported cases of acute poisoning, and between 73% and 99% of the reported fatalities among pesticide applicators. Studies in Jamaica on human health effects, for example, have shown that 50% of people poisoned are under the age of five years..

Although there is no organised environmental monitoring programme, studies carried out by postgraduate students and the previous project have indicated that agrochemicals may be contaminating the environment including soils, water ways, reservoirs and coastal waters. For example sampling in the Roseau Valley in St Lucia revealed that over 75% of water samples were found to contain pesticide residues higher than the European Community general guideline for individual pesticides in drinking water (0.1µg/l). Many of the rivers where these samples were taken are sources of drinking water. This area is an intensive agriculture zone, where soil erosion from the steep slopes is thought to contribute to the risk of environmental contamination.

Despite the problems associated with the misuse of agrochemicals there is a lack of awareness of the short and long term impacts of agrochemicals among the policy makers and agrochemical users.. In a survey conducted in the previous study, 70% of farmers felt that agrochemicals improved yields and 46% felt agrochemicals improved the appearance of the crop. As a result only 13.4% were willing to use an alternative to chemical pesticides. Also 75% of farmers applied excess pesticide mixture to the soil as a means of disposal.

A need for improved use and management of agrochemicals in the Caribbean was therefore identified and addressed through a series of NRSP projects. This current project builds on previous work (R7668) which undertook a situation analysis of agrochemical use and management in St Lucia and Jamaica and worked with the Coordinated Group of Pesticide Control Boards of the Caribbean (CGPC) to develop a strategy for management of agrochemicals for improved public and environmental health. The CGPC and national stakeholders agreed to the need for more support from Government in light of increasing demands from global markets and multilateral environmental agreements. The CGPC was initiated in 1987 as an informal grouping of the Chairpersons of the Pesticides Boards from each Caribbean island. The group meets annually to share information and experiences and agreed upon areas of collaboration. Secretariat is provided by the Inter American Institute for Cooperation on Agriculture (IICA). IICA therefore supports the development of regulations under the Pesticides Control Act and the administering of the provisions in the Act.

The CGPC has an advisory relationship with the Alliance for Sustainable Agriculture and through it to COTED and other arms of CARICOM. The relationship will be primarily but not exclusively with respect to the formulation of regional policy positions, programmes and projects in the area of pesticides and toxic chemicals in the context of agricultural health and food safety and preservation of the region's environment and its natural biodiversity.

Functions of CGPC are

- Harmonized registrations of chemicals;
- Disposal of chemicals;
- Harmonized Prior Informed Consent (PIC) decision-making system;
- Information flow and networking;
- Training, education and public awareness;
- Coordination of existing laboratories engaged in pesticides and toxic chemical analyses;
- Interfacing with other regional and international organizations; and
- Development of projects for funding.

The objective of this project was to build on the work in R7668 and to promote the Strategy at the Regional and National levels. The implementation of the recommendations of the strategy is expected to result in improved management systems for production in coastal zones and to facilitate a holistic approach to maximize the use of limited human and financial resources.

The support of all stakeholders, from the consumer to CARICOM is needed for Policy Reform in the short and long term. The CARICOM Secretariat houses offices of the Secretary-General, Deputy Secretary-General and General Counsel

**There are Directorates for** Foreign and Community Relations, Regional Trade and Economic Integration and Human and Social Development

#### **Functions**

- service meetings of the Organs and Bodies of the Community and take appropriate follow up action on determinations issuing from such meetings
- initiate, organise and conduct studies on issues for the achievement of the objectives of the Community

- provide, on request, services to Member States of the Community on matters relating to the achievement of its objectives
- collect, store and disseminate to Member States of the Community information relevant for the achievement of its objectives; assist Community Organs in the development and implementation of proposals and programmes for the achievement of objectives of the Community
- co-ordinate in relation to the Community the activities of donor agencies, international, regional and national institutions for the
- achievement of objectives of the Community
- prepare the draft budget of the Community for examination by the Budget Committee
- provide, on request, technical assistance to national authorities to facilitate implementation of Community decisions
- conduct, as mandated, fact-finding assignments in Member States, and
- initiate or develop proposals for consideration and decision by competent Organs in order to achieve Community objectives

Countries need to become parties to multilateral agreements such as the Rotterdam and Stockholm Conventions to assist to exclude imports of chemicals already known to be very hazardous and to implement Global Harmonised Custom Codes for identifying chemicals through their classification on labels. Focused effort on promotion of the strategy was considered the best approach to drive these actions forward.

### **3 Project Purpose**

The purpose of NRSP Project R8364 was to promote uptake of best practice management options for prevention of agrochemical pollution in the Caribbean where poor people depend on agriculture and tourism for employment. This involved building awareness of the need for improved agrochemicals management and obtaining government commitment to support systems for improved use as outlined in the recommendations of the strategy. It was envisioned that a decision to adopt the strategy proposed by the Project would signal the adoption and implementation of the recommendations derived from the previous research project which was the ultimate goal.

Using advocacy and communication, the project will promote the uptake and adoption of the R7668 strategy nationally and regionally through targeted communication materials. Applying the main elements of the Strategy (Good Agricultural Practices, Environmental & Public Health Monitoring, Harmonised agrochemical management regulations and sustainable supporting systems) would reduce agrochemical run off while careful selection of pesticides would help to sustain overseas agricultural markets while reducing negative impacts on the environment and public health that could ultimately impact tourism. The resulting reduction of the agrochemical threat to trade and tourism would ensure greater levels of job security among rural poor where most of the agriculture production occurs. Adoption of the strategy will help implementation of international obligations (e.g. for land based sources of pollution, through the Cartagena Convention).

The previous project cited limited resource availability for agrochemicals management and fragmentation in the activities by the agencies working on agrochemicals. Through the development of National Action Plans, an holistic approach is promoted

## 4 Outputs

This project had four Outputs designed to achieve the project Purpose OVI related to the uptake of best practice management options for the prevention of agrochemical pollution both regionally and nationally. The progress of the project towards achieving uptake at both these levels was also monitored.

### Lessons Learnt

Perhaps the most important lesson that was learnt was the need for support from nearly all participants at the CARICOM meetings in order to achieve endorsement of a proposal. The CGPC which was familiar with the contents of the strategy, represented approximately 65% of the CARICOM member states and this hampered communication in non-member states. Once this was recognized, a one day workshop was organized to facilitate interaction with all member states as well as additional regional organizations participating in CARICOM meetings. During the workshop, the CARICOM Secretariat verified that there was support at the level of national governments and provided guidance on how to present the paper to CARICOM.

The need for strengthening relationships among national and regional support organization was underscored. At the national level technocrats and consumers make demands however, other matters such as health, poverty and education seemed to outweigh in importance. Technocrats concluded that policy makers were more influenced by economists, political or legal minds that were too far removed from implementation.

CGPC members were now empowered to recommend policy change on behalf of the rural poor with whom they work closely from day to day.

Much more can be achieved at the national level where there is an agency with full time staff to promote the strategy than in countries where only part time focus is given to agro chemical management. This accounts for slower development of the National Plan of Action in St. Lucia than in Jamaica. At the national level also, the promotion is better handled by professional communicators who are familiar with press releases as was the case with the Jamaica Information Service in Jamaica.

Communication among the states of the CARICOM can be expensive, especially for conducting surveys. The project attempted a survey using the fax as the source of contact. High level policy makers were slow to respond to questionnaires and often passed the questionnaires to lower level technocrats who were the implementers of the project. In this project, response from technocrats would not be a true evaluation of the project since they were fully aware of the strategy and could not write on behalf of policy makers.

As a result, no meaningful analysis of the survey was possible at the end of the one year project. However, there were indicators of uptake of the strategy which included, the cabinet submission in St. Lucia, implementation of import fees in St. Kitts, revision of regional registration of pesticides and initiation of National Plans of Action in Jamaica (Annex A)

*Outputs*

Output	Results/Findings	Impacts (For Section 7.2) : Attainments against OVIs a
<p>1. The promotion of the strategy for agrochemical management is coordinated regionally through the CGPC.</p>	<p>A CGPC core group was developed to coordinate the Regional Plan of Action</p> <p>CEHI in collaboration with the CGPC circulated the strategy document to key stakeholders within member countries. A Regional Priority Plan of Action (RPOA) was developed (Annex I) at the 9<sup>th</sup> CGPC meeting in 2004 and proposals to implement the plan were developed (Annex C). The proposals were submitted to</p>	<p>The proposals to support the Regional Plan of Action are presented in Annex C and include (i) Design and set up of a regional database to facilitate harmonised registration and improved management of agrochemicals in the Caribbean (September 2004) (ii) Establishment of a regional database of maximum residue levels for agrochemicals on food produced in CARICOM region (October 2004) (iii) Monitoring for residual agrochemicals in the land water interface in CGPC member countries (December</p>

		<p>The strategy was not presented to CARICOM COHSOD meetings as planned. It was envisioned that all ministers with responsibility for pesticides would be given the opportunity to endorse the strategy at the highest level i.e. CARICOM. Only two ministers of Health would not have been present at the COTED meeting. One of these ministers was instrumental in supporting the promotional activities in one case study country Jamaica.</p>
<p>2. Key national decision makers with responsibility for agrochemical sensitised to the need for a holistic approach to management in two case study countries St. Lucia and Jamaica</p>	<p>NPA focusing on Health and environmental monitoring launched by project in Jamaica in June 2004 with the involvement of several government and quasi-government agencies that are normally involved with aspects of agrochemical management</p> <p>In Jamaica the following stakeholders have been involved in NPA formation: Ministry of Agriculture- (Good Agricultural Practice), Ministry of Commerce (Certification of Agricultural Produce), Ministry of Health (Pesticide Residue Monitoring Committee) and Ministry of Education (Caribbean Poison Information Network). The Pesticide Control Authority (PCA) is involved in all the NPAs.</p> <p>Future plans are to consolidate the NPAs towards the holistic management of agrochemicals</p>	<p>A multiplier effect resulted from the launch of the NPA with four National Plans of Action initiated in Jamaica. All four NPAs have adopting an inter-ministerial approach and address the recommendations of the strategy</p>
<p>3. Relevant user groups sensitised to participate in the local mechanism for developing national plans of action for improved agrochemical use.</p>	<p>National DVDs and posters in St. Lucia and Jamaica were used to lobby participation in the mechanism for developing national plans of action. Jamaica's approach to developing the DVD differed from that of St. Lucia's because it was intended for television promotion and needed to be as short as possible (2.5 minutes) for airtime to be affordable. St. Lucia's video was more of a documentary and was better suited for use at exhibitions</p>	<p>Increased awareness of the CGPC Strategy and National Plan of Action within St Lucia and Jamaica</p> <p>Following the launch of the Jamaica NPA development process laboratories including the University of the West Indies, Food Storage and Prevention of Infestation Division, Polydiagnosis and the Bureau of Standards were engaged in</p>

	<p>and training session (15 minutes)</p> <p>One to one meetings and presentations of policy briefs were undertaken with Permanent Secretaries, Chief Technical Directors and Ministers in Jamaica and St Lucia throughout the project</p> <p>A Tool Kit was developed to assist countries from the wider Caribbean to participate in developing National Plan of Action (Annex I and J)</p> <p>Senior government officials who could influence policy and were involved in aspects of chemicals management were invited from 15 CARICOM countries to a workshop in July 2005</p>	<p>consultation meetings where the needs and capabilities were identified.</p> <p>A memorandum of Understanding was signed with the UWI lab to undertake analysis of pesticide residue on foods and the PCA board approved funds for the monitoring programme.</p> <p>Monitoring of pesticide residue on imported foods is expected to reduce food imports and allow greater market access to poor farmers</p> <p>Distribution of posters on food safety (see locations where posters are distributed) should help farmers to improve management of pesticides and reduce residue so that local produce are acceptable to the hotel trade</p> <p>Other relevant groups indicated their commitment to continue the process to develop the NPA. Stakeholders who would be affected included the Jamaica Exporters Association, Consumer Affairs Commission, the Jamaica Agricultural Society and the Pesticides Distributive Trade. Other stakeholders included the Rural Agricultural Development Authority, Poison Information Center, Hotels, Supermarkets, University of the West Indies, and producers. The plan was spearheaded by interested parties namely the Natural Products Institute, Food Storage and Prevention of Infestation Division, Ministry of Agriculture Veterinary Division, the Caribbean Agricultural Research and Development Institute, the Pesticides Control Authority and the Bureau of Standards. (Annex F)</p>
<p>4. Mechanism for monitoring and evaluating progress towards uptake and adoption of the strategy and its recommendations developed.</p>	<p>A mechanism for monitoring uptake was developed at the beginning of the project. Questionnaires were designed and sent to Policy Makers including Permanent Secretaries. The response to the survey has been slow causing delay in completion of this study</p>	<p>Situation analysis on current knowledge, attitudes and practice carried out by September 2004. A repeated survey undertaken and written up by September 2005.</p> <p>Guidelines on Monitoring and Evaluation were included within the Tool Kit completed by September 2005</p>

		September 2005.
--	--	-----------------

*Discussion on Outputs not achieved and future priorities*

With regards to Output 1 the main components were achieved. The CGPC met and agreed on the regional plan of action, identified a core group, developed priority proposals for implementing the strategy (Annex C). Communication tools to national PCBs to build awareness on the recommendations of the strategy and the need for holistic approach to improved agrochemicals management. The project was successful in presenting the strategy document at two meetings of COTED, however, the project was unsuccessful in engaging the Secretariat of CARICOM Council on Human and Social Development (COSHOD). In light of the effort required to obtain CARICOM endorsement, the decision was made to focus on COTED. COSHOD was seen as less significant because only two ministers with responsibility for pesticides were not represented by COTED and the involvement of one of these two health ministers clearly indicated his support in Jamaica.

Output 2 was partially achieved. In Jamaica the mechanism for developing NPA progressed but the process was slower in St. Lucia because of the late appointment of the Pesticides Control Board. In Jamaica, the Minister of Agriculture, InterAmerican Institute for Cooperation on Agriculture, Agricultural Support Services Project, University of the West Indies, Caribbean Agricultural Research and Development Institute and the Bureau of Standards were among decision makers participating in NPA and endorsing an holistic approach by collaborating in NPA.

For St. Lucia and other CARICOM member states national stakeholders were sensitised to participate in NPA through exposure to the toolkit workshop and this is expected to allow for the mechanism to be developed.

In recognition of the need for an holistic approach, St. Lucia has submitted a proposal to Cabinet for approval of a full time Registrar to manage agrochemicals and to coordinate the efforts of agencies involved in agrochemicals management

No revision was done to the communication tools.

The relevant user groups were identified in the workshop to plan the project as

- government and statutory bodies,
- non-governmental groups and organizations,
- private sector groups directly involved in use of agro-chemicals,
- regional bodies based locally,
- international bodies based locally,
- civil society groups and associations

Priority groups included Ministers with portfolio for agro chemicals and who were important in the implementation of policies that would support the management of agro chemicals for improved public and environmental health. In St. Lucia Ministry of Agriculture, Ministry of Health, Ministry of Planning and the Environment and Ministry of Community Affairs and to a lesser extent Ministry of Finance, Office of Attorney General and Ministry of Legal Affairs

Senior technocrats and Administrators in priority areas included Permanent Secretaries, Chief Technical Directors and relevant Department Heads.

The Jamaican poster was developed to support the NPA which addressed monitoring for residues. In St. Lucia the poster addressed improved management.

Through the use of posters, toolkit, videos and radio, all user groups were sensitised to participate in NPA (Output 3). In the two case study countries, different approaches were employed for national promotion. For example, in St. Lucia, a schools competition attracted youth involvement in poster preparation while Jamaica developed and distributed several copies of the national poster. The Jamaica Information Service provided subsidized support for the radio, television and news releases that supported the launch of the NPA.

The NPA experience was captured in Jamaica and included in the Tool Kit

The monitoring and evaluation survey (Output 4) was conducted however; the report was not completed on schedule because of the slow response to questionnaire. The guidelines for monitoring were developed and distributed and are available for future work. The guidelines were documented in the Toolkit.

The indicators have been developed and were incorporated into the KAPB survey dealing with Improved Agro-chemical and the development of NPAs in the region. There have been some delays in the receipt of the completed Survey Forms which were administered throughout the region including the case study countries Jamaica and St. Lucia. To date 95 completed forms have been received 33 from St. Lucia, 13 from Jamaica and 46 from the rest of the Caribbean. Analysis of the data has begun and the preliminary report is due by the second week of October. Work on the manual has also started.

Three activities have been supported by international donors in response to proposals to implement the Regional Prioritised Plan of Action. CGPC should continue to seek funding and to be involved with activities that were started during the project such as the regional harmonised registration. All National Plans of Action will be completed to ensure best use of resources among agencies and stakeholders involved on agro chemicals at the national level. Technocrats will continue to take agrochemical policies to CARICOM for regional and national endorsement and implementation.

CARICOM member states are presently involved in developing policies for a national food safety agency and a regional body to be known as the Caribbean Agricultural Health and Food Safety Agency (CAHFSTA). The involvement of CARICOM in this project provided CGPC members with a framework for the management of agrochemicals within the context for CAHFSTA. Improved CGPC capacity to develop National Plans of Action will also provide a framework for collaboration with multilateral environmental agreements. These frameworks are important to achieving support from national governments for agrochemical management.

### *Project products*

The main project products were

#### **i) The Facilitators Tool-kit**

Based on the experiences of Jamaica and St Lucia and drawing on guidance for action plan development, a Tool Kit was developed to assist countries in developing and implementing National Plans of Action in support of the Strategy to improve Agrochemical management in the Caribbean.

The indicators for evaluating the project were developed during the first months of the project. The guidelines are presented in the toolkit.

The Facilitators Tool Kit (Annex I) is split into two parts. Volume I provides a step-by-step approach to prepare for, develop, implement and monitor a National Plan of Action. Volume II contains reference material.

<b>Volume I</b>	<b>National Plan of Action Guidelines</b>
Chapters 1-5	Development, Implementation and Monitoring of a National Plan of Action
<b>Volume II</b>	<b>National Plan of Action Guideline Annexes</b>
Annex a	A- 1 Undertaking a Stakeholder Analysis A- 2 Developing a Communications Plan A- 3 Conducting a Situation Analysis A- 4 Further Reading
Annex b	B- 1 Indicators for the CAMP Project B- 2 Monitoring Forms designed to measure indicators
Annex c	C- 1 CGPC Strategy for Improved Agrochemical management in the Caribbean C- 2 Regional Plan of Action for Agrochemical Management C- 3 LBS Protocol
Annex d	D- 1 Communications Material from CAMP Project
Annex e	E- 1 Training slides of the NPA Tool Kit E- 2 Working session instructions

The tool kit is supported by a Training of Trainers course and resource material. A training course on the Tool Kit was held in Jamaica in July 2005 with 15 representatives from different Caribbean Countries.

Participants were drawn from PCBs and national planning agencies in Belize, Barbados, Antigua, Suriname, Jamaica, St. Kitts, St. Lucia, Montserrat and Dominica. This was a follow up to the first ToT workshop held in St. Lucia in April when participants from the above countries and in addition Bahamas, Guyana and Trinidad and Tobago were trained in how to develop national plans of action..

Participants reported that they were now able to develop national plans to meet the obligations of multilateral environmental agreements and to incorporate the best practice of the agrochemical management strategy.

## ii. Regional uptake promotional material,

Regional uptake promotional materials were prepared and delivered as described below (Annex E).

Activity	Outcome
Develop policy papers on Trade, Environment, Rural Development and Legal Environment	Policy papers were made developed May 2004 and made available to Pesticides Control Boards in Case Study countries for use with face to face meetings. They were also distributed to CGPC members for use during Pesticides Awareness Week. Target groups included Ministers, Permanent Secretaries and Chief Technical Directors in relevant ministries and donor agencies. These materials served to sensitise policy makers to the elements of the strategy enabling the Ministers of COTED to support its endorsement at the level of CARICOM
Develop regional video	A Regional video was developed by CEHI. It was copied and distributed to PCBs throughout the Caribbean. Regional institutions participated in the video expressing their awareness of the problems with agro chemical management.

	<p>lyrics and voicing were done by a popular musician (See lyrics in Annex G). The DVD was 2.5 minutes long covering the main elements of the strategy and calling for CARICOM support of the strategy. It featured members of staff of the PCA in Jamaica, shots of food for export, pollution and tourism. The Minister of Health was seen promoting the strategy with the Team Leader.</p> <p>The St. Lucian DVD was done both in English and Creole. Government officials' presented the problems with agrochemical management and how the strategy can address them. It demonstrated the increased awareness of decision makers within the government. The DVD was 15 minutes long</p> <p>DVDs were shown on national television and at local exhibitions in both case study countries</p>
National Posters	<p>In St. Lucia, the national poster was decided through a school competition. The Project awarded prizes for the best posters raising awareness among the youth on the need for improved agrochemical management</p> <p>The national poster in Jamaica focused on Maximum Residue Levels in keeping with the focus of the National Plan of Action.</p> <p>Posters in both countries were distributed to schools, farm stores and government buildings</p>
News item and radio interviews on several radio stations	<p>During Pesticides Awareness Week, national funds were used in Jamaica and St Lucia to supplement funds from the project to air radio announcements and interviews.</p>
Television	<p>DVDs were shown on television in time allowed for public broadcast. PCA launch of National Plan of Action was aired in JIS magazine July 1. Interviews on CVM at Sunrise June 30</p>
Lobby support for national plan of action	<p>In Jamaica a public awareness campaign was launched to garner support for the National Plan of Action. The campaign covered newspaper, several radio stations and Jamaica Information Service television and radio news. The campaign included a press conference, eight news releases, six captioned photos, four radio news and features, one television news feature and one press advisory issued to 12 media houses. The stories reached a wide audience through all commercial media</p>

	<p>houses, Jamaica magazine produced by JIS radio and JIS television, JIS bulletin published in the Sunday Herald, JIS website and JIS e-newsletter. The releases were entitled “PCA moves to collect data on environment and food poisoning,”(June 21) ‘PCA launch Plan of Action’ (June 30) ‘Wider range of chemical residue found on imported vegetables’ (June 28) ‘farmers commended for low use of chemicals’ (June 29) ‘Junor calls for regional approach to management of pesticides:’ (June 30) ‘Certification of agricultural produce coming’ (July 16) ‘PCA working to reduce pesticide residue on food’ (July 16) . A comprehensive report is presented in Annex G</p>
--	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

#### iv. Regional Plan of Action

The Regional Plan of Action was an important output of the project (see Tool Kit). It resulted in a series of proposals as described below (also see Annex J).

Activity	Output
Regional Prioritised Plan of Action	<p>The Terms of Reference were developed for a Regional Prioritised Action Plan. The Plan was endorsed at the CGPC meeting and a core group comprised of Everton Ambrose (CGPC), Hyacinth Chin Sue (PCA Jamaica), Philmore Isaacs (PCB St. Vincent) and Jerome Thomas (PCB St. Kitts) met to review the project profiles. Project Proposal (i) The design and set up of a regional database to facilitate harmonised registration and improved management of agrochemicals in the Caribbean</p> <p>Project Proposal (ii) Establishment of a regional database for maximum residue levels (mrls) for agrochemicals on foods produced in the CARICOM region (Chris Mees)</p> <p>Project Proposal (iii) Monitoring for residual agrochemicals in the land water interface in CGPC member countries</p> <p>Project Proposal (iv) Public health monitoring for improvement and evaluation of agrochemical management in the Caribbean</p> <p>Project Proposal (v) Achieving certification in good agricultural practices in the Caribbean (Everton Ambrose)</p>

	<p>Project Proposal (vi) Assisting Caribbean producers and exporters to access the European markets through provision of relevant information (Hyacinth Chin Sue) (Annex C)</p> <p>Other profiles were developed that were not completed at the end of the project e.g. Assessing Institutional Capacity (Richard Brathwaite) and Change Management Training (CEHI and Malverne Spencer)</p>
Regional Lobby Workshop	<p>A special workshop was held to lobby all Pesticides Control Boards in CARICOM member states and the regional institutions participating in CARICOM COTED meetings. This was necessary to respond to the request of CARICOM Secretariat for additional national consultations after the first presentation of the strategy in January. The meeting held on April 29, 2005 was attended by 14 CARICOM members and resulted in a signed declaration of support for the Strategy. The workshop was critical in the process of lobbying CARICOM support by providing a forum for questions and answer and exchange of experiences. Member states requested copies of the videos and expressed their interest in becoming members of the CGPC. CARICOM Secretariat explained the steps needed to achieve acceptance of a document by CARICOM. The workshop was held in St. Lucia and allowed for the participation of key government decision makers.</p>
Submission of project proposals	<p>Proposals prepared by the core group from the CGPC were submitted to FAO, UNEP and White Water Blue Water and PIP for funding. Favourable responses were obtained from UNEP and FAO for Good Agricultural Practice and database respectively (Annex C). It was agreed that the proposal for Sustainable financing and institutional arrangement could be implemented with national funds by the PCB. Accordingly, some countries agreed to have full time staff such as St. Lucia and St. Vincent while St. Kitts implemented a tax on importation of pesticide. In terms of external financial support, UNEP Chemicals implemented two regional workshops with the participation of CARICOM Secretariat. The first workshop identified priority problems and aimed to develop regional projects to</p>

	address them (Annex D).
Pesticides Awareness Week Activities	During pesticides awareness week the two case study countries (St. Lucia and Jamaica) as well as the wider Caribbean focused the public awareness campaigns on the strategy. This was based on the use of the regional poster and video and national videos. Two versions of the national video were made in St. Lucia based on the two national languages while only one video was made in Jamaican. In addition, based on the relevant user groups that were determined at the start of the project, the regional policy briefs and strategy documents were circulated to them to seek their support. Media packs were also sent out to relevant newspapers and the videos sent to the major television stations of countries that were non-CGPC members

#### **v. Jamaica National Plan of Action**

The Jamaica Plan of Action was intended to provide a clear basis for the implementation of a component of the strategy that was considered the priority problem by the interested parties attending the National Plan of Action workshop. The NPA involved representatives from agencies that were not accustomed to working together and to foster an holistic approach.

Interested parties identified the main problem as the poor use of agrochemicals and the resultant high levels of pesticide residue on foods and in the environment. These stakeholders decided to establish a monitoring programme for pesticide residue on food and in the environment and to take corrective action where possible.

Consumers' awareness of the potential effects of pesticides on human health and the environment caused them to require data on the level of pesticide residue on foods. The NPA will start with monitoring fresh fruits and vegetables mainly those imported and those produced under the Certification of agricultural produce NPA. The Consumer Affairs Commission has shown great interest in the results of the monitoring programme.

It was not expected that the National Plan of Action would have been completed during the life of the project. Through a series of meetings with the laboratories, it was decided that there was a need for accreditation of laboratories; the monitoring would be limited by the availability of standards and that access to maintenance services for the lab equipment need to be improved. The basic foundation of the Plan is included in Annex F.

Poor farmers were represented in the core group overseeing the NPA for the Certification of Agricultural Produce. Seventeen farmers participated in producing crops and documenting the procedure as outlined in the modified EUREPGAP standards. These farmers represent the Jamaica Agricultural Society (JAS) which is the main farmers association in Jamaica.

The Caribbean Poison Information Network (CARPIN) initiated a data collection network to garner additional information on poisoning. Farmers, medical personnel and householders are expected to report poison cases that would not become hospitalized cases.

The indicators have been developed and were incorporated into the KAPB survey dealing with Improved Agrochemical and the development of NPAs in the region. There have been some delays in the receipt of the completed Survey Forms which were administered throughout the region including the case study countries Jamaica and St. Lucia. To date 95 completed forms have been received 33 from St. Lucia, 13 from Jamaica and 46 from the rest of the Caribbean. Analysis of the data has begun

The National Plan of Action was not initiated in St. Lucia because of the late appointment of the Board

## **5 Research Activities**

This section should include description of all the research activities conducted to achieve the outputs of the project. Information on any facilities, expertise and special resources used to implement the project should also be included. Indicate any modification to the present research activities, and whether planned inputs were achieved. Highlight any special activity achievements

This project was not a traditional research project. The focus was to lobby the support of government officials for improvement in agrochemical management based on research findings of a previous project R7668. Activities supported the development of a Regional Plan of Action (RPOA) and National Plans of Action to include development of Terms of Reference and identification of lead agencies and stakeholders. The RPOA (See Toolkit) was discussed at the CGPC 9<sup>th</sup> Annual meeting to determine what priority recommendations should be included within the plan. The plan was agreed on and a core team was drawn from CGPC members and partners such as the University of the West Indies, Inter-American Institute for Cooperation on Agriculture and the Caribbean Environmental Health Institute. Implementing the plan involved writing a series of proposals and seeking funds to continue to work after the end of the current project. Concept notes for the project proposals were prepared and sent to the Core Team for comment and in advance of identifying the most appropriate donors. Once suitable donors were identified full proposals were developed, for example for the Regional Database the proposal targeted funds from the Food and Agriculture Organisation (FAO), and the Good Agriculture Practices proposal targeted the Inter American Institute for Cooperation on Agriculture (IICA) and National Ministries of Agriculture.

Lobbying activities aimed to raise the level of awareness among consumers, government officials, farmers, laboratories and exporters and to apply both a top down (from the level of CARICOM Ministers) and a bottom up (from the consumer) approaches to address the problem. Prior to the start of this project, there were concerns about advisors on technical policies; however by the end of the project the capacity for CGPC members to influence policy was vastly improved.

A special workshop towards the end of the project, to lobby technocrats who were responsible for advising the Ministers proved very successful in convincing CARICOM secretariat of national support for the strategy. Participation of the CARICOM secretariat helped to direct participants on how best to present the strategy and ensured that it was endorsed at the 19<sup>th</sup> meeting held in Guyana in May 2005.

After the strategy was endorsed by CARICOM, the secretariat participated in regional workshops funded by UNEP and helped to promote and integrate the strategy into

regional plans and projects.

The lobbying activities involved the use of a series of different communications materials to target different stakeholders. Initially a communications plan was prepared to determine the most effective promotion targets and to plan what materials needed to be prepared. The policy briefs (Annex E) were prepared by CEHI and commented on by the CGPC at the 9<sup>th</sup> annual meeting (2004) before they were finalised. Regional and national level videos and posters were also prepared and used during Pesticides Week throughout the Caribbean to raise awareness of the issues of agrochemical management and the need and value of the Strategy.

Developing the mechanism for development of a NPA in Jamaica was achieved through discussions between the Pesticides Control Authority and other relevant stakeholders. It was agreed that a series of meetings would be the best way to firstly explain the objective of having a National Plan of Action, and then agree on the priority problems it should address.

In Jamaica, two meetings were held specifically for the NPA with support from the project. The Jamaica Information Service which is owned by the government provided the expertise needed for effective communication at the national level. They launched an intensive campaign to support the NPA (Annex G). Through these discussions and meetings stakeholders from the laboratories, universities, consumer groups, agreed that the Jamaica National Plan of Action should focus on environmental and health monitoring and in particular, monitoring the residue of pesticides on agricultural products. A monitoring programme was developed and funding identified from the lead institution the PCA. The promotion of the NPA in Jamaica resulted in the mushrooming of NPAs spearheaded by other agencies such as the Bureau of Standards, Ministry of Agriculture and University of Technology. These three additional action plans are expected to be coordinated through the PCA and ultimately will represent a comprehensive NPA addressing several recommendations of the Strategy.

The launch of the National Plan of Action in Jamaica and the promotional programme that supported it attracted and sustained consumers' interest in the results of monitoring studies. Like consumers worldwide, consumers were interested in agrochemical residue on the foods they consume and it can be expected that consumers will demand more careful use of pesticides.

A Toolkit was developed through a review of lessons learned through the project and other available guidance on developing national plans of action (Annex I). The Toolkit particularly built on the experience developed by the United Nations Institution for Training and Research in their publication *Guidance on Action Plan Development for Sound Chemicals Management*, Draft Guidance Document from the Chemical Waste & Environmental Governance. The toolkit is therefore compatible with the requirements to develop action plans for the Stockholm and Rotterdam Conventions to manage persistent organic pollutants (POPs) and hazardous chemicals and pesticides in international trade.

The Toolkit was made available to CGPC members and representatives from government planning agencies and representatives to Stockholm Convention, through a toolkit training programme held in July 2005. The 4-day training workshop gave the members an understanding of the guidance within the toolkit but also allowed for recommendations and comments to be taken into consideration when finalising the Tool Kit. The Tool Kit consists of two parts: volume I – step-by-step guidance and Volume II: References, examples from Jamaica and St Lucia, Detailed guidance on some tools and

Communication and monitoring materials are also presented

A series of indicators, surveys and monitoring forms were designed to undertake the monitoring for the project. The survey to monitor awareness levels of policy makers before and after the project was implemented but the analysis was not complete at the end of the project. However, the level of awareness was visibly low at the start of the project. Some countries especially non-CGPC members and regional groups were only familiar with the elements of the strategy at the lobby workshop.

## **6 Environmental assessment**

### **6.1 What significant environmental impacts resulted from the research activities (both positive and negative)?**

As a result of the project activities ministers from CARICOM member states were informed about the strategy and agreed to support its implementation. Policy makers in the Ministries with responsibility for agrochemicals became aware of the need to develop plans for chemical management including pesticides. In Jamaica both the Minister of Agriculture and the Minister of Health gave instructions for NPA on aspects of agrochemicals management.

During the life of the project, a Memorandum of Understanding was signed by four Ministers in Jamaica (Health, Agriculture, Commerce and Technology and Development) to reduce overlaps in their responsibilities in order to implement food safety systems. This MOU signalled the adoption of a holistic approach to agrochemical management within the food safety system. Significant savings are expected and more resources will be available for focused agrochemical management. Less time will be spent negotiating among agencies and the most suitable agencies will be assigned to carry out the functions thereby reducing existing overlaps. .

Through the implementation of NPAs, there is better coordination among stakeholders involved in agrochemicals management and greater priority given to agrochemicals management.

### **6.2 What will be the potentially significant environmental impacts (both positive and negative) of widespread dissemination and application of research findings?**

Increased awareness of agrochemicals as a potential pollutant and their effect on tourism could mean increased monitoring of water quality in rivers where high amounts of agrochemicals are used and greater linkages between the Ministry of Tourism and Agriculture resulting in more finances allocated to Agriculture

Improved agrochemical use and management should reduce potential detrimental impacts of agrochemicals on the environment. The improved monitoring will also improve understanding of the impacts on the environment and will provide data to guide management decisions.

Pesticide importers may experience reduction in sale of more toxic pesticides placing more demand for them to register new products and to find safer alternatives.

Cooperation between pesticide importers and the regulatory bodies improved as they seek to work together for safe management of pesticides and less negative publicity on the dangers and poison incidences.

The major manufacturers and distributors should play a bigger role in stewardship. Presently distributors provide training in selection and application for pest control with little emphasis on potential dangers. With a strengthened regulatory framework, improvement is expected in the stewardship programme.

One of the problems faced however, is the relatively small quantities of pesticide products marketed in the region and the cost of stewardship when compared to larger markets where more toxic pesticides are being applied.

Hazard assessment data provided for registration varies from one island to another again depending on size of market and strength of regulatory programme. A regional approach to registration and becoming parties to international conventions would increase access to additional information needed to improve risk assessment when selecting agrochemicals that are appropriate for the region.

**6.3 Has there been evidence during the project’s life of what is described in Section 6.2 and how were these impacts detected and monitored?**

Laboratories involved with monitoring have increased the number of samples received from government, consumers and the PCA.

Laboratories responded with faster turn around time on analysis

Level of collaboration between Tourism and Agricultural ministries increased

Pesticides industry satisfied with programme of PCA Jamaica and accepted increased cess from 1% to 2% in October 2004.

**6.4 What follow up action, if any, is recommended?**

Follow up on the development and implementation of National Plans of Action within Caribbean Countries in support of the Strategy for Management of agro-chemicals for improved public and environmental health is needed.

Continued monitoring of the level of uptake of the recommendations of the strategy after the end of the project

Assist lobbying and awareness raising in Caribbean countries on the need for National Plans of Action

Identification of external resources to implement regional projects as part of the CGPC Regional Plan of Action in support of the Strategy.

**7 Contribution of Outputs**

**7.1 NRSP Purpose and Production System Output**

**Contribution to NRSP’s Purpose**

NRSP Purpose	Contribution of Outputs
--------------	-------------------------

<p>To test the uptake of best practice management options for prevention of agrochemical pollution within pro-poor ICZM in the Caribbean</p> <ul style="list-style-type: none"> <li>•</li> </ul>	<p>CARICOM COTED will serve to direct future policies that will be taken into consideration as the Caribbean Single Market and Economy (CSME) develops.</p> <p>Following the presentation of the Strategy to COTED in January 2005 CGPC and CEHI revised their approach to respond to the concerns of CGPC Secretariat. In May the meeting achieved endorsement of the Strategy by CARICOM. Given that this was the first time that agro-chemicals were a highlighted issue within CARICOM, CGPC and project partners opened the avenue for further dialogue with CARICOM</p> <p>In practice only three countries within CARICOM have PCBs situated within the Ministry of Health. Jamaica being one of those countries had the full support of the Minister of Health. Therefore COSHOD were not considered as important target as COTED and would not significantly affect uptake of the strategy</p> <p>Donor support already obtained in support of harmonised legislation for agrochemicals management and maximum residue standards across the Caribbean should facilitate intra-regional trade for poor farmers under the CSME and help sustain trade with Europe</p> <p>A new approach to integrated natural resource management through the implementation of cross-sector National Plans of Action was developed and applied in Jamaica. Initial progress in NPA development was achieved in St Lucia.</p> <p>In Jamaica, several government institutions which previously worked in isolation on agrochemicals related issues were working together on the National Plan of Action. The Bureau of Standards, Ministry of Agriculture, Pesticides Control Authority, Scientific Research Center and National Environment and Planning Agency all work together to certify agricultural produce to meet the needs of poor farmers who are members of the Jamaica Agricultural Society. This activity will train farmers and provide them with the guidelines for producing foods that are suitable for local and export markets while protecting them from exposure to agrochemicals.</p> <p>The capacities of local laboratories have improved to respond to the increased need for monitoring residue under the NPA</p> <p>Under the NPA, a memorandum of understanding was signed between the PCA and the UWI laboratory promising to provide results of analysis within 48 hours and to analyse a minimum of 100 samples per year at the expense of the PCA.</p>
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

	<p>The tool kit has equipped the wider Caribbean to initiate NPA towards an holistic approach at the national level. The fact that the NPA responds to the needs of chemical conventions and that focal points for the various chemical conventions participated in the Tool Kit workshop should definitely lead to less pollution and the pooling of resources available through the conventions.</p> <p>Exposure of Caribbean population can be expected to be reduced during farmer application, childhood exposure at home and polluted drinking water.</p>
--	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

<b>Output</b>	<b>Contribution of Project</b>
Promotion of agrochemical management is coordinated regionally through CGPC	Six proposals were prepared by a core group of CGPC members and research partners to address priority areas of the RPOA. During the project positive responses were obtained from UNEP and COLEACP. UNEP supported a synergistic approach to chemicals management and the development of NPA to efficiently apply national resources. COLEACP supported training for the implementation of regional harmonised registration and maximum residue levels. Implementation of the conventions is expected to reduce risks of adverse impacts on tourism/coral reef activities, through selection of more appropriate agro-chemicals.
Key national decision makers involved in agrochemicals management sensitized of the need for an holistic approach to management,	<p>National decision makers participated in Toolkit workshop and endorsed the need for holistic approach and balancing the environmental aspects and food safety aspects of agrochemicals management.</p> <p>Jamaica initiated National Plans of Action and implementation has begun Jamaica initiated a National Plan of Action in June 2005 with the main objectives to monitor pesticide residue on foods and in the environment. An advisory committee with interested parties who design the survey each year review the results and decide on what action to take to remedy negative results. This is the first time that different Ministries in Jamaica have agreed on a coordinated plan for agrochemical management. In St. Lucia, the process of developing a National Plan of Action was delayed due to the late appointment of the Pesticide Control Board (PCB). However despite these delays the PCB has succeeded in making a submission to Cabinet for full time employment of a Registrar. It has also been possible to ensure that the new Board</p>

	<p>members are fully aware and supportive of the CGPC Strategy.</p> <p>St. Lucia PCB will be better able to meet its obligation under international chemicals agreements</p>
--	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

## 7.2 Impact of outputs

<b>Project Purpose level OVI</b>	<b>Attainment of OVI and evidence of uptake / favourable Outcomes</b>
<p>Relevant user groups sensitised to participate in the local mechanism for developing NPA for improved agrochemicals use</p>	<p>Jamaican consumers became aware of the impact of agrochemicals on their health through presentation of data on pesticide residue in foods.</p> <p>An extensive campaign in support of the NPA in Jamaica should translate in farmers becoming more careful in applying pesticides to food and reduced exposure to consumers through foods and reduced threats to human health</p>
<p>By July 2005 key staff in CGPC member countries provided with materials (Facilitators Toolkit) enabling them to facilitate the development of national plans of action to implement the strategy for improved agrochemical use and management nationally.</p>	<p>The PCBs through the workshops and presentations to policy makers have developed project profiles and disseminated policies to improve agro chemical management throughout the Caribbean. There is greater sharing of information and increased membership of the CGPC. Belize became the newest member of CGPC. During the life of the CAMP project, the National Food Safety Policy of Jamaica cited and addressed overlaps among government agencies and signed a MOU among four Ministers to address the overlaps and gaps. The PCA was given overall responsibility for pesticide.</p> <p>Training in the Facilitators Tool Kit was held in July 2005. A few countries were unable to attend the meeting due to travel problems. Participants felt that they were now able to use the toolkit to write NPA for agro chemicals and National Implementation Plans for the Stockholm Convention. It raised their awareness on the need for holistic plans of action and cooperation across a number of ministries or departments.</p> <p>Caribbean chemical companies are also members of CGPC and have expressed an interest in involvement with the development of National Plans of Action.</p>

## 7.3 Uptake Promotion

The main objective was to get endorsement of the strategy by the policy makers at national and regional level. This was achieved and national policy makers have already begun to implement the recommendations of the strategy.

CGPC members agree that some elements can be implemented with funds already available to the PCBs. One such recommendation is sustainable financing and moves have already been made to initiate fees in some countries. Regional harmonised systems can also be done through sustainable financing and appropriate fee structures are being investigated.

A review of the communications plan reveals that a number of the objectives were achieved in particular at the regional level through the endorsement of CARICOM. However there is still scope at the regional level to obtain funding for the Regional Plan of Action through promotion to development partners. There is also scope to continue raising awareness of the Regional Plan of Action to CGPC member countries (through a review at each CGPC annual meeting).

At the national level promotion has focussed on stakeholders within Jamaica and St Lucia and effective lobbying has led to the development of an NPA in Jamaica, and some progress in St Lucia. There is an opportunity to continue advocacy efforts in these two countries to secure funds for the coordination and implementation of NPA. There is also scope within the other Caribbean countries to promote the Strategy through one-to-one meetings with policy level and partner stakeholders and approaching development partners at the National level for support. There is scope to raise awareness of improved agrochemical use and management to the general public and chemical users across the Caribbean, for example through targeted activities during Pesticides Awareness Week (held annually in September). The media should also be used to get a number of the key messages across.

## 8 Publications and other communication materials

### 8.1 Books and book chapters

None

### 8.2 Journal articles

#### 8.2.1 Peer reviewed and published

None

#### 8.2.2 Pending publication (in press)

None

#### 8.2.3 Drafted

None

### 8.3 Institutional Report Series

None

### 8.4 Symposium, conference and workshop papers and posters

**Caribbean Environmental Health Institute (CEHI). 2005.** *A Strategy for Improved Agrochemical Use and Management for the Wider Caribbean.* 18<sup>th</sup> Meeting of the Council for Trade and Economic Development, 4-7 January 2005, Georgetown, Guyana. Castries, St. Lucia: CEHI. 5pp.

**Caribbean Environmental Health Institute (CEHI).** 2004 *Regional Poster Need for Agro Chemicals Management Strategy.* Facing up to Food Safety: Challenges and Opportunities for the Caribbean: November 22 – 24, 2004 Port of Spain, Trinidad

**Caribbean Environment Health Institute 2005** Author or Authors, Initial. Year. Strategy for Improved Agrochemicals Use and Management for the Wider Caribbean Council for Trade and Economic Development, CARICOM Georgetown Guyana January 4-7 2005 Details of workshop/conference. Publisher/Institution. XXpp. (Page numbers)

## 8.5 Newsletter articles

**Author or Authors, Initial. Year. Title.** Publisher/Institution. XXpp. (Page numbers)

**Author or Authors, Initial. Year. Title.** Publisher/Institution. XXpp. (Page numbers)

## 8.6 Academic theses

None

## 8.7 Extension leaflets, brochures, policy briefs and posters

**Pesticides Control Authority 2005** *Food Safety if Everyone's Business.* Poster

**Pesticides Control Board St. Lucia. 2005** *Proper Management of Pesticides and Toxic Chemicals for a Safer Caribbean Environment.*

**Pesticides Control Board St. Lucia. 2005.** *Managing pesticides and toxic chemicals for a safer environment*

Caribbean Environmental Health Institute 2004 *Agrochemical Management : Agriculture and Rural Development* 4 Pages

**Caribbean Environment Health Institute 2004 Agrochemical Management; Health and the Environment** 5 Pages

**Caribbean Environment Health Institute 2004 Agrochemicals Management ; The Legal Environment** 6 Pages

**Caribbean Environmental Health Institute 2004 Agrochemical Management ; Facilitating Increased Agricultural Trade** 4 Pages

**Caribbean Environment Health Institute 2005** *Everyone has a role to play* Poster

## 8.8 Manuals and guidelines

Gopaul, H; Howard, C; Isaacs, A & Mees, Chris (2005) National Plan of Action Guide lines to implement the CGPC Strategy for Improved Agrochemical Management Volumes I and II. NRSP, UK < CGPC, St Lucia; CEHI, St Lucia, MRAG, UK.

## 8.9 Media presentations (videos, web sites, TV, radio, interviews etc)

Radio transcript for jingles, TV transcript for Jamaica interview

**Chin Sue, H. 2004.** *PCA moves to collect data on Environmental and Food Poisoning.* Kingston, Jamaica PCA Interview.

**Chin Sue, H. 2004.** *PCA to launch National Plan of Action.* Kingston, Jamaica, PCA News Release.

**Chin Sue, H. 2004.** *Wider Range of Chemical Residue Found on Imported Vegetables.* Kingston, Jamaica: PCA Interview.

**Chin Sue, H. 2004.** *Farmers Commended for Low Use of Chemicals.* Kingston, Jamaica. PCA Interview.

**Junior, J. 2004.** *Junior calls for Regional Approach to Management of Pesticides.* Kingston, Jamaica. JIS Press release.

**Jamaica Observer. 2004.** *Pesticides Authority Appeals for Data on Food Poisoning.* Kingston, Jamaica JIS Newspaper article, 26 June 2004.

**Sunday Herald. 2004.** *PCA moves to collect data on Environment and Food Poisoning.* Kingston, Jamaica JIS Newspaper article, 27 June - 3 July 2004.

**Jamaica Observer. 2004.** *Certification of Agricultural Produce Coming.* Kingston, Jamaica; JIS Newspaper article, 30 July 2004.

**Gleaner. 2004.** *Farmers warned against high pesticide use.* Kingston, Jamaica. JIS Newspaper article, 3 August 2004.

**The Week That Was. 2004.** *Farmers warned against high pesticide use.* Kingston, Jamaica. JIS Newspaper article, 8 August 2004.

**Gleaner. 2004.** *Improper use of pesticides costing Jamaica Millions.* Kingston, Jamaica: JIS Newspaper article, 10 August 2004.

## 8.10 Reports and data records

### 8.10.1 Project technical reports including project internal workshop papers and proceedings

Coordinating Group of Pesticides Control Boards 2004 Regional Proposals for Implementation of a Strategy for Agrochemical Management in the Caribbean, CGPC, St Lucia; CEHI, St Lucia, MRAG, UK 80 pages

Coordinating Group of Pesticides Control Board 2005 Donor Support for Implementing the Strategy ; CEHI, St Lucia, MRAG, UK 19 pages

Coordinating Group of Pesticides Control Board 2004 National Promotion Material, CGPC, St Lucia; CEHI, St Lucia, MRAG, UK

Howard C 2005 *National Plan of Action Tool Kit Training Workshop.* UK < CGPC, St Lucia; CEHI, St Lucia, MRAG, UK 33 pages

### 8.10.2 Literature reviews

Author or Authors, Initial. Year. Title. Publisher/Institution. XXpp. (Page numbers)

### 8.10.3 Scoping studies

Author or Authors, Initial. Year. Title. Publisher/Institution. XXpp. (Page numbers)

Author or Authors, Initial. Year. Title. Publisher/Institution. XXpp. (Page numbers)

### 8.10.4 Datasets

None

### 8.10.5 Project web site, and/or other project related web addresses

MRAG website: [http://p15166578.pureserver.info/MRAG/Projects\\_R7668.htm](http://p15166578.pureserver.info/MRAG/Projects_R7668.htm)

PCA website: <http://www.caribpesticides.net/>

CEHI website: <http://www.cehi.org.lc/agrochemical.htm>

Web site address

Web site address

## 9 References cited in the report, sections 1-7

Enter text in this row .....

## 10 Project logframe

### SECTION B.

<b>R8364</b>		<b>LW 1.3.3 bii</b>	
<b>Narrative summary</b>	<b>Objectively verifiable indicators</b>	<b>Means of verification</b>	<b>Important assumptions</b>
<b>Goal</b>			
Improved resource-use strategies in coastal zone production systems developed and promoted	<ul style="list-style-type: none"> <li>• By 2005, new approaches to integrated natural resource management, including prevention of pollution, which explicitly benefit the poor validated in two target areas</li> <li>• By 2005, these new approaches incorporated into strategies for the management of coastal resources and adopted by target institutions in one target region</li> </ul>		<p>Target beneficiaries adopt and use strategies</p> <p>Enabling environment exists</p> <p>Budgets and programmes of target institutions are sufficient and well managed</p>
<b>Purpose</b>			
To promote the uptake of best practice management options for the prevention of agrochemical pollution within pro-poor ICZM in the Caribbean.	<p>By January 2005 CARICOM Ministers responsible for agriculture and trade (COTED) introduced to the CGPC strategy for improved agro-chemical use and management with endorsement in May 2005</p> <p>By May 2005 CARICOM Ministers responsible for health endorse the CGPC strategy for improved agro-chemical use and management</p> <p>By end of March 2005, St Lucia and Jamaica have implemented mechanisms for broad based participation in the development of a National Plan of Action for improved agro-chemical use and management.</p> <p>By July 2005 key staff in CGPC member countries provided with materials (Facilitators Toolkit) enabling them to facilitate</p>	<p>Minutes of the COTED Ministers meeting (Appendix ).</p> <p>Minutes of the Ministers of Health meeting.</p> <p>Minutes of the National Coordinating committee for the NPA. )</p>	<p>Project is successful in placing strategy on the Ministers (Regional Ministers of health and agriculture and trade) agendas.</p> <p>Sufficient political will is generated through the project at a national level</p>

	the development of national plans of action to implement the strategy for improved agrochemical use and management nationally.		
<b>Outputs</b>			
1. The promotion of the strategy for agrochemical management is coordinated regionally through the CGPC.	<p>By June 2004 CGPC members agree a prioritised plan of action for regional activities.</p> <p>By December 2004 at least 2 proposals addressing priority areas in the regional plan of action are prepared and submitted for future funding.</p> <p>By January 2005 Policy paper to CARICOM placed on the agenda of the Council of Agriculture and Trade Ministers (COTED) and by May 2005 on the Ministers of Health Agenda.</p> <p>By September 2004 communications materials delivered to National PCBs for the promotion of the strategy to National governments.</p>	<p>Minutes of the CGPC Meeting.</p> <p>Project proposals documents and submission slips</p> <p>Copy of the COTED and Ministers of Health Meeting Agenda</p> <p>Copy of the strategy and delivery slips or email correspondence with CARICOM.</p> <p>Records of shipping documents</p>	<p>CGPC meeting occurs as planned.</p> <p>Lobbying of Ministers for both meetings has been successful.</p>
2. Key national decision makers involved in agrochemical management sensitised to the need for an holistic approach to management.	By end of June 2004 in Jamaica and end of August 2004 in St Lucia National decision makers endorse the need for an holistic approach to agro-chemical management and agree locally relevant mechanisms for the development of NPA.	Minutes of the national co-ordinating committee of the NPA /	Lobbying of Ministers and other key decision makers is successful.
3. Relevant user groups sensitised to participate in the local mechanism for developing national plans of action for improved agrochemical use.	<p>In Jamaica and St Lucia, target user groups sensitised to the impact of poor agrochemical use and management on their health and the environment from July 2004 throughout the life of the project.</p> <p>By July 2004 in Jamaica</p>	<p>Project quarterly and final technical reports (comparison of results of baseline study with monitoring results)</p> <p>Records of inputs from</p>	<p>Project is successful in diffusing the public awareness and information material amongst the target groups.</p> <p>A willingness to participate exists</p>

	<p>and by March 2005 in St. Lucia the process of NPA development is initiated with relevant target user groups, importers and distributors.</p> <p>By July 2005 lessons learned from applying strategy in Jamaica and St Lucia incorporated into materials (i.e. Facilitators Toolkit) for use by other CGPC members, and their promotion co-ordinated through CGPC</p>	<p>Records of inputs from participants / List of participants at NPA planning meetings.</p> <p>Finalised Facilitators tool kit and minutes of CGPC meetings.</p>	<p>participate exists amongst the target groups.</p> <p>New Pesticides Control Board activated in St. Lucia</p>
<p>4. Mechanism for monitoring and evaluating progress towards uptake and adoption of the strategy and its recommendations developed.</p>	<p>By end of April 2004 detailed situation analysis conducted in Jamaica and St Lucia, and a focus analysis conducted at the wider regional level, to enable future monitoring and evaluation of the uptake promotion of the strategy.</p> <p>By February 2005 guidelines for monitoring uptake promotion integrated into the draft Facilitators Toolkit</p> <p>By July 2005 guidelines distributed to wider CGPC project partners within the Final Facilitators Toolkit.</p>	<p>Project quarterly and final technical reports, and report of analysis within Facilitators Tool Kit.</p> <p>Copy of the guidelines and distribution slips.</p>	
<b>Activities</b>	<b>Budget (see financial section) and milestones</b>		
<b>Output 1</b>	£26323.51		
1.1.1 Develop ToR for developing a prioritised regional plan of action.	By 15 April		
1.1.2. Establish a core group of CGPC members to develop a prioritised plan of activities for regional level activities in support of the strategy.	Group members identified		CGPC Members are willing to assist in the development of the plan.
1.1.3. At CGPC meeting hold work-shop to finalise the regional plan of action.	Prioritised plan of Action endorsed by CGPC in July 2004.		

1.2.1. Appoint CGPC members to co-ordinate the development of project proposals related to regional plan.		CGPC members are willing to participate.
1.2.2. Develop ToR for project proposals.	TOR developed and approved by CGPC	
1.2.3. Identify and engage relevant individuals/institutions to assist in project proposal development		Relevant individuals/institutions identified and willing to participate in proposal development
1.2.4. Review and submit project proposals to relevant donor agencies	At least two project proposals submitted by December 2004.	
1.2.5. Revise and submit the current proposal to additional donor agencies for supplementary funding.	Proposal to WW2BW submitted for March 26 Meeting	Proposal is accepted on agenda of WW2BW.
1.3.1. Develop a policy paper to CARICOM seeking support for regional and national actions in support of the strategy.	Draft policy paper endorsed by CGPC members by mid May 2004.	CGPC is able to endorse policy paper via e-mail round robin.
1.3.2. Lobby Chairperson and other key stakeholders of COTED/ Ministers of Health Meeting re endorsement of policy.		
1.3.3. Lobby CARICOM to include policy for improved agro-chemical management on COTED/ Ministers of Health Meeting Agenda.		
1.3.4. Present policy paper to CARICOM for endorsement	Strategy for improved agrochemical management is on the agenda of COTED and Ministers of Health Meeting in May 2005 and May 2005 respectively.  Policy paper tabled at COTED and Ministers of Health Meeting in January 2005 and September 2004 by CGPC.	
1.4.1. Enable national promotion of the strategy beyond CGPC members.	Provide communication material and financial resources for promotion of communication material beyond CGPC members to the wider Caribbean	
1.4.2. Lobby Chairperson and other key stakeholders of COTED/ (Ministers of Health Meeting) re endorsement of strategy	One day workshop to lobby regional Regional distributors of pesticides, 15 member states of CARICOM and CARICOM participants that are not target groups but normally attend COTED and COHSOD meetings (e.g. Regional Negotiating Machinery, CrossQ, CARICOM Secretariat April 2005	

1.4.3. Develop new promotional materials based on the review, and deliver to PCB members for national promotion.	Draft materials available to CGPC members by 15 May 2004 Promotional materials delivered by CGPC members to national governments by end of May 2004.	
1.4.4. During pesticides awareness week, all CGPC member countries implement appropriate national level events to sensitise the general public to the need for an holistic approach to agro-chemical management.	Video and poster delivered to national CGPC members by end of August 2004.	
<b>Output 2</b>	£2,659.91	
2.1.1. Review and adapt to local conditions existing communications materials (Strategy document, Information briefs, Reports) and promote them to key national decision makers.	Briefs and other materials for key target audience available by mid May 2004	
2.1.2. Produce new materials for three other influential stakeholders in each country	Briefs and other materials for three additional influential stakeholders available by mid May 2004.	
2.1.3. Review and develop a mechanism for the development of a NPA in case study countries.	Mechanism (approach) for the development of the NPA documented by end of February 2005 in both Jamaica and St Lucia	PCB in St Lucia is operational by March as planned.
2.1.4. Lobby key decision makers and present materials for an holistic approach and the mechanism for the development of a NPA for endorsement.	Letter of endorsement for the holistic approach and mechanism for development of the NPA received by PCA in Jamaica by end of June 2004 and by PCB in St Lucia by end of March 2005.	Buy-in by target audience occurs.
<b>Output 3</b>	£37781.92	
3.1.1. Relevant user groups identified in case study countries	Achieved during project planning workshop.	
3.1.2. Experience within case study countries of current promotional activities for best practice reviewed to inform the communication approach adopted within the project.	Process initiated during planning workshop to be completed by end of April 2004.	
3.1.3. Targeted communication material for raising public awareness is developed and tested by the national PCB/A for broad based dissemination.	Tested communications materials available by September 2004	

3.1.4. Targeted communications materials to promote one example of best practice within each case study country developed and tested.	Tested communications materials integrated within the draft Facilitators Tool Kit by end of February 2005.	
3.1.5. Communication materials disseminated, including events linked to pesticides week.	Materials are employed during throughout the month of September 2004 including pesticides awareness week  Final communication materials disseminated with the final Facilitators Took Kit by end of July 2005.  Workshop held at CGPC meeting June 2005	
3.2.1. Initiate the implementation of the locally relevant mechanism for broad based participation in the development of a NPA.	Launch of the approach to develop a NPA in Jamaica in July 2004 and in St Lucia in March 2005.	Endorsement of the development of the plan has been received as scheduled
3.2.2. Capture experience in the development of NPAs in case study countries, including progress relative to the baseline situation identified in 4.1.2, to inform NPA facilitation material for CGPC.	Lessons documented in draft Facilitators tool kit by February 2005.,	
3.2.3. Facilitation materials (Facilitators tool kit) developed and sent to CGPC members on 'How to facilitate a NPA'	Draft facilitators tool kit available for distribution by CGPC by end February 2005.	
3.2.4. Toolkit validated by CGPC members and finalised for CGPC meeting in June 2005	CGPC members respond electronically with comments on draft Facilitators tool kit by end April 2005.  Initial CGPC comments incorporated into the Draft Facilitators Toolkit by end May 2005	
3.2.5. Workshop / training group session held at CGPC meeting in use and implementation of Facilitators tool kit for the development of national plans of action	Workshop held at CGPC meeting in St Lucia in April 2005 to review the Draft Facilitators Toolkit and suggest final changes. (Regional distributors of pesticides are represented at CGPC member meetings)  Final Facilitators Toolkit complete and distributed to CGPC members by end of July 2005. .	
<b>Output 4</b>	£9,422.13	
4.1.1. Develop indicators and a mechanism for collecting information on awareness levels and the status of NPA development.	Indicators and mechanism for collecting data documented by Mid April 2004.	

4.1.2. Conduct a situation analysis in case study countries to indicate the baseline situation with respect to current levels of awareness of the need for improved agro-chemical management.	Report of analysis available by 15 January 2005.	
4.1.3. Conduct a situation analysis in case study countries to indicate the baseline situation with respect to current development of NPA for improved agro-chemical management.	Report of analysis available by 15 January 2005	
4.1.4 Repeat situation analyses for awareness in order to inform activities 3.2.2 and 3.2.3.	Comparative analysis and evaluation of uptake of strategy included in FTR and guidelines documented in Facilitators tool kit by June 2005.	
4.2.1. Develop Guidelines for monitoring uptake promotion.	Guidelines documented in Facilitators tool kit by December 2004	
4.2.2. Disseminate guidelines to CGPC project partners	By end of January 2005.	
	£10,575.42 (Management, reporting, backstopping, other communications)	
	<b>Pre-condition</b>	

## 11 Keywords

Agrochemicals, Pesticide, Integrated natural resource management, Pollution, Good agriculture practice, information systems, environmental and public health monitoring, harmonised agro-chemical management, promotion, national action plan, regional action plan and strategy.