

NATURAL RESOURCES SYSTEMS PROGRAMME
PROJECT REPORT¹

DFID Project Number

R8364

Report Title

Agrochemical management: Facilitating increased agricultural trade.
Annex E of the Final Technical Report of project R8364.

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Date

2004

NRSP Production System

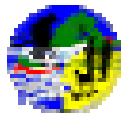
Land Water Interface

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



DFID Natural Resources Systems Programme

Policy Brief



Agro-Chemical Management: Facilitating Increased Agricultural Trade



CGPC



AGRO-CHEMICAL MANAGEMENT: FACILITATING INCREASED AGRICULTURAL TRADE

Agricultural products make up a high proportion of the goods traded on a global scale. Low crop productivity and decreasing soil fertility have encouraged the use of agro-chemical to support agricultural production world wide. However, excessive use of agro-chemicals could lead to build up of toxicity and salinity of soils rendering them infertile. More and more agro-chemicals are added to increase productivity while at the same time reducing competitiveness. Cost of production in the region is often higher than in larger countries where mechanization facilitates economies of scale.

Selection of pesticides through registration is critical to reduce the level of toxicity and pesticide residue on food entering international trade.

One alternative to reduce the use of agro-chemicals is the promotion of integrated pesticides management (IPM).

The Caribbean region has sought to reduce its dependence on traditional agricultural crops like coffee, sugar and banana to non-traditional such as yam, hot peppers, callaloo and ackee. The major problem faced by the non-traditional exports is the stringent rules on pesticide residue. There are no developed marketing systems that allow the exporter to trace the product to a farmer. For that reason, the farmer is not usually aware of the problems in the international market.

Jamaica has some 187,000 small farmers that will need to be trained to meet international standards and these standards must also be applied locally. High levels of agro-chemical pesticide residues can act as non-tariff barriers to trade, particularly for small island states.

Consumers have become increasingly conscious about food quality and safety. Food safety, plant and animal health and sustainable development are among the priority issues which engage the attention of the Caribbean Community (CARICOM) Council for Trade and Economic Development (COTED).

AGRO-CHEMICAL MANAGEMENT AND USE IN THE CARIBBEAN

A recent study which was completed as part of a project funded by the Department of International Development (DFID) and conducted in collaboration with several regional institutions, indicated that pest and disease control for agriculture was done almost entirely by chemical applications in the two case study islands - St Lucia and Jamaica. The study also indicated that farmers would use more agro-chemicals if they had the resources.

There is need for adequate funding to support the accreditation and maintenance of laboratories to serve the region. Implementation of scientifically sound surveillance programmes becomes the basis for reporting on the effectiveness of the food safety system including reports on levels of residue on local and imported foods.

Participation in International agreements such as the Application of Sanitary and Phytosanitary Measures (SPS Agreement) that place importance on Codex standards demand that such systems be implemented to support trade. The Codex Standards are elaborated under the FAO/WHO Food Standards Programme by the Codex Alimentarius

Commission (CAC) and defines an importing country's Maximum Residue Limit (MRL) of an agro-chemical. The Maximum Residue Level as it is called in Europe and the Tolerance Level in the United States, consider factors including the level of consumption of the food in the local diet, the application of good agricultural practice and the dosage of the pesticide that is safe for consumption among others.

Even higher standards are established by supermarket chains in these countries. Caribbean exporters are expected to meet these standards or lose the market and the resulting unemployment of rural farmers.

The Coordinating Group of Pesticide Control Boards of the Caribbean (CGPC), in collaboration with regional inter-governmental agencies such as the Caribbean Agriculture and Research Development Institute (CARDI) and Caribbean Environmental Health Institute (CEHI) and its international collaborators, is proposing an approach to the current situation.

The CGPC Strategy for Improved Agro-Chemical Management in the Wider Caribbean outlines the 10 key prioritised management recommendations that have been developed. These recommendations are grouped in the four principal priority areas of Harmonised Agro-Chemical Management, Support for the System for Agro-Chemical Management, Good Agricultural Practices (GAP) and other Good Practices related to the mitigation of pollution and, the use of Monitoring and Research to inform Management Decisions.

A TEN-POINT STRATEGY FOR HARMONISED AGRO-CHEMICAL MANAGEMENT

Harmonised agro-chemical management

Harmonised procedures for agro-chemical management should be adopted throughout the Wider Caribbean:

- Regionally acceptable (or local) standards for Maximum Residue Limits should be established, in the absence of which the Food and Agriculture Organisation (FAO)/ World Health Organisation (WHO) Codex Alimentarius standards should be applied where possible.
- A locally owned and managed database should be developed for harmonised administration and information sharing.
- Model legislation on Pesticides and Toxic Chemicals should be ratified and adopted. This will dictate the administration, use, and monitoring of agro-chemicals.
- Regional environmental reference sites need to be established.
- Administrative procedures should reflect the requirements of the harmonised legislation and be promoted.

Supporting the system for agro-chemical management

- Sustainable financing and cost recovery mechanisms must be investigated and, where necessary, novel and creative means found to develop capacity, and to fulfill all the functions of the various institutions involved in all aspects of agro-chemical management. External sources of funding must be explored and fully utilised.
- Communications experts should be engaged for communication, education, and training purposes; change-management concepts should be applied.
- Undertake an institutional analysis and evaluation of the capacity and resource needs of Pesticide Control Boards (PCBs) and other relevant executing agencies (e.g. extension services, monitoring and research agencies, medical laboratories) throughout the Wider Caribbean. Duplication of effort should be rationalised.
- PCBs must be adequately staffed and financed to administer and implement national legislation relating to agro-chemicals. There should be a dedicated full-time staff. The composition of the Board of Directors should include representation from the private sector and persons with experience in ecological issues and the fate of agro-chemicals in the environment.

GAPs and other good practices (Mitigation of Pollution)

- GAP and other good practice codes of conduct for agro-chemical use need to be implemented, particularly for domestic products not already covered by existing arrangements.

Informing management decision (monitoring and research)

- Promote implementation and further research on Integrated Pest Management (IPM) and Integrated Management of Pests and Pesticides (IMPP) as a means of improved management of use of pesticides.
- Socio-economic analyses, including cost-benefit analyses, should be conducted for different farming practices, including options for agro-chemical use (e.g. Integrated Pest Management (IPM)).
- Carefully designed public health monitoring plans must be developed. Ensure adequate analytical capacity to enable monitoring for compliance with standards for public health (i.e. medical and food residue monitoring laboratories).
- Carefully designed long-term environmental monitoring plans must be developed (from the farm to the sea).

THE WAY FORWARD

It is vitally important that issues of capacity and financial resources in the relevant organisations are investigated to see what further research and long term monitoring programmes are possible at both the national and regional levels.

Governments, NGOs, and chemical companies should investigate sustainable financing mechanisms to support laboratories.

A comprehensive surveillance programme for monitoring pesticide residue levels on locally produced and imported food must be undertaken.

Training of farmers in good agricultural practice and certification of agricultural produce to ensure lower levels of pesticide residue.

Additional information is available on the following websites:

- PCA website: <http://www.caribpesticides.net>
- MRAG website: <http://www.mragltd.com>
- CEHI website: <http://www.cehi.org.lc/agrochemical.htm>