

<b>PWR:</b> Barbados	<b>TCC PROJECT FINAL REPORT</b> <b>INFORME FINAL DE PROYECTO CTP</b>	03/04-05 No. 69	<b>Date:</b> <b>Fecha:</b> December 14, 2005
<b>Pan American Health Organization/Organización Panamericana de la Salud</b> <b>TCC FINAL REPORT / INFORME FINAL DE PROYECTO CTP</b> <b>SUMMARY SHEET / RESUMEN</b>			
<b>Report Date / Fecha del Reporte:</b> .....			
<b>1. GENERAL INFORMATION / INFORMACIÓN GENERAL</b>			
<b>Project title/ Título del proyecto:</b>		<b>Country Leader / País Líder:</b>	
CRITERIA FOR WATER QUALITY MONITORING FOR PESTICIDES RESIDUES		Martinique & Guadeloupe	
<b>Participating countries/ Países participantes</b>		<b>Start date / Fecha de inicio:</b>	
<b>Barbados, St. Lucia, Dominica</b>		March 2003	
		<b>End date / Fecha de finalización</b>	
		June 2005	
<b>2. PROJECT BACKGROUND AND ORIGIN / ANTECEDENTES Y ORIGEN DEL PROYECTO</b>			
<b>a) Context/ Contexto</b>			
<p>Improper handling and extensive use of chemicals in agriculture for the control of vectors and mosquitoes in the public sector, as well as in households, has led to contamination of soil and water. In Barbados, St. Lucia, and Dominica, there is recognition of a great need for the monitoring of the environmental, biological and health impact of residues of toxic chemicals often caused by the increasing use of pesticides in agriculture and among households. Monitoring is particularly needed to determine drinking water quality.</p> <p>A total of some 2800 tons of more than 200 different kinds of pesticides is used in Martinique annually, amounting to approximately 7 kg per capita. A study of water resources in Guadeloupe revealed presence of pesticides and contamination of water supplies by three organo-chlorides at levels surprisingly higher than allowed in Europe, resulting to closure of three water sources.</p> <p>To assess the nature and level of exposure of the population of Guadeloupe and Martinique to pesticide residues in air, water and food, CIRE (Cellule InterRégionale d'Epidémiologie d'Intervention), which is a specialized Environmental Health Agency for France, through its branch in Martinique, sought to take remedial action by carrying out studies of traceability of pesticides in sources of the drinking water supply, with the testing of the supply for the most commonly used pesticide in the islands. Direct studies of exposure and risk assessment were conducted to seek to establish the health impact of consumption of pesticide residues in drinking water sources.</p>			
<b>b) Purpose/ Propósito</b>			
To reduce mortality and morbidity rates associated with inadequate management of pesticides through an improved capacity for water quality monitoring.			
<b>c) Expected results/ Resultados esperados</b>			
Competency developed in Barbados, Dominica and St Lucia for monitoring of pesticide residues in drinking water.			
Role of pesticides and their residues in drinking water as a contributory factor to the increased incidence of specific diseases in Barbados and St. Lucia reviewed.			
<b>3. PROJECT EXECUTION / EJECUCIÓN DEL PROYECTO</b>			
<b>a) Achievement of the expected results / Logros de los resultados esperados</b>			
The first expected result was fully achieved in Barbados and Dominica. However, the project was not successful in St Lucia, as the basic data for establishing the criteria were not compiled. This was constrained by organizational and leadership challenges in that country.			
There is evidence that the second expected result was not achieved. It was perhaps too ambitious to have undertaken that component, considering the limited duration of the project and the fund available in the project.			
<b>b) Specific products / Productos específicos</b>			
Water quality professionals from Barbados (2 persons), St Lucia ( 2 persons), Dominica (1 person) and CEHI (1 person) got acquainted with the SIRIS protocol (methodology for establishing criteria for assessing presence of pesticide molecules in water) during a one-week visit to Martinique and Guadeloupe.			
Inventory of pesticides and establishment of database in Barbados, Dominica and St Lucia were achieved.			
Establishment of criteria and sampling protocol as well as the scheduling for monitoring of pesticide in drinking water in Barbados and Dominica were achieved.			

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<b>c) Additional achievements / Logros adicionales</b> The project ensured that the knowledge was shared with CEHI staff to provide them with the ability to facilitate similar future activities in other countries in the Eastern Caribbean, by assisting those countries to develop their monitoring protocol for water quality monitoring for pesticides. CEHI participated in all the events and technical meetings organized in the context of this project.			
<b>d) Limitations / Limitaciones</b> Project time-frame was limited to allow the achievement of the second expected result.			
<b>e) Total budget and amount spent / Presupuesto total y ejecutado</b> Resourced : US\$ 18,319.00 Obligated : US\$ 17,157.14 Un-obligated : US\$ 1,161.86			
<b>4. STAKEHOLDERS INVOLVED, E.G. MINISTRIES, INSTITUTES, FOUNDATIONS, NGOS / ACTORES INVOLUCRADOS, EJ: MINISTERIOS, INSTITUTOS, FUNDACIONES, ONGS.</b>			
Ministry of Health of St. Lucia, Ministry of Labour of St Lucia, Ministry of Health of Barbados, Water Authority of Barbados, Ministry of Environment of Barbados, National Analytical Laboratory of Barbados, Ministry of Health of Dominica, Ministry of Agriculture of Dominica, Caribbean Environmental Health Institute.			
<b>5. LESSONS LEARNED / LECCIONES APRENDIDAS</b>			
The issue of pesticide can be a serious problem for water resources in the Caribbean. The extent of contamination of ground water is unknown. The methodology for monitoring water quality for pesticide molecule is new among the English-speaking Caribbean countries. Therefore, the involvement of CEHI in the pilot project was very important, so that as a CARICOM institution, CEHI can take the lead in addressing the deficiencies in the CARICOM Member States.  Language had not been an obstacle in the project execution. However, executing a TCC project with the French Department can be difficult and time consuming, and language can become an issue during the negotiating process to set the schedule of activities and to secure the participation of the French nationals.			
<b>6. CONCLUSIONS AND RECOMMENDATIONS / CONCLUSIONES Y RECOMENDACIONES</b>			
Though not initially a part of the TCC project, the participation of Dominica in the TCC project proved to be fruitful in the absence of St. Lucia. The support to Dominica was funded from the Dominica BPB allocations. For Barbados and Dominica, the project activities for the first phase of the project were completed. The evaluation activity of the project, however, was not achieved as the designated French counterparts were not available to carry out that evaluation.  It is however recommended to extend this experience to other OECS countries of the Eastern Caribbean if the commitment to carry out the prerequisite and implementation activities exists.			