



Project Evaluation Report: Improving Management and Containment Liberation Pesticides POPs in Nicaragua



PAÍS: NICARAGUA

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OBJETIVOS ESTRATÉGICOS GEF: POPs-SP1 y POPs SP2

PROGRAMA OPERATIVO GEF: OP 14

iii. / Acronyms and Abbreviations

AE	Agencia Ejecutora (Executing Agency)
AI	Agencia Implementadora (implementing agency)
ANIFODA	Asociación Nicaragüense de Formuladores y Distribuidores de Agroquímicos (Nicaraguan formulators and distributors association of agrochemicals)
BCIE	Banco Centroamericano de Integración Económica (Central American Bank for Economic Integration)
CAS	Estrategia de Asistencia al País (Marco de Asistencia de la ONU para el Desarrollo) / Country Assistance Strategy (United Nations Assistance Framework for Development)
COPs	Contaminantes Orgánicos Persistentes (Persistent Organic Pollutants)
CIEMA	Centro de Investigaciones y Estudios de Medio Ambiente (Centre for research and studies of the Environment)
CIRA/UNAN	Centro de Investigaciones de Recursos Acuáticos de la Universidad Nacional Autónoma de Nicaragua (National autonomous University of Nicaragua Research center for Aquatic resources)
CDM	Comité Directivo del Proyecto (Project Executive Committee)
DDT	<i>Dicloro-Difenil-Tricloroetano</i> (Dichloro-Diphenyl-Trichloroethane)
DGCA	Dirección General de Calidad Ambiental de MARENA (MARENA department of Environmental Quality)
DPP	Documento de Programa de País del PNUD (UNDP country program document)
FAO	Organización de Naciones Unidas para la Agricultura y la <i>Alimentación</i> (<i>Food and agriculture organization of the United Nations</i>)
GEF	Fondo para el Medio Ambiente Mundial (Global Environmental Facility)
Hercasa	Hércules de Centro América, S. A. (private company)
MANUD	Marco de Asistencia de Naciones Unidas para el Desarrollo (United Nations Development Assistance Frameworks)
MAGFOR	Ministerio Agropecuario y Forestal (Ministry of Agriculture and Forestry)
MARENA	Ministerio del Ambiente y los Recursos Naturales (Ministry of Environment and Natural Resources)
MDM	Metas del Milenio (Milenium goals)
MED	Ministerio de Educación (Ministry of Education)
MIFIC	Ministerio de Fomento, Industria y Comercio (Ministry of Development, Industry and Commerce)
MINREX	Ministerio de Relaciones Exteriores (Ministry of Foreign Affairs)
MINSA	Ministerio de Salud (Ministry of Health)
MITRAB	Ministerio del Trabajo (Ministry of Labour)
MTI	Ministerio de Transporte e Infraestructura (Ministry of Transport and infrastructure)
ONGs	Organizaciones No-Gubernamentales (Non-Governmental Organization)
OMS	Organización Mundial de la Salud (World Health Organization)
PAPP	Plan de Acción del Programa de País del PNUD (UNDP country action plan program)
PAN	Plan de Aplicación Nacional de País del PNUD (UNDP country national implementation plan)
SINIA	Sistema Nacional de Información Ambiental (National environmental information system)
UNAN	Universidad Nacional Autónoma de Nicaragua (National Autonomous University of Nicaragua)
PNUD	Programa de Desarrollo de las Naciones Unidas (United Nations Development Programme)
UNI	Universidad Nacional de Ingeniería (National University of Engineering)
UNICEF	Programa de las Naciones Unidas para la Infancia (United Nations Children's Fund)

ID NUMBER OF THE PROJECT :(s) GEF: 3645

ORGANISM(S) GEF: PNUD

IMPLEMENTING AGENCY: DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES OF NICARAGUA.
(MARENA)

DURACION: 30 months

FOCAL AREA GEF: POPs

STRATEGIC OBJECTIVS GEF: POPs-SP1 y POPs SP2

PROGRAMA OPERATIVO GEF: OP 14

Evaluator:

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Recognition

To MARENA officials and UNDP for their support during the evaluation process.

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1. Introduction

In accordance with the UNDP-GEF policies and procedures for monitoring and evaluation (M & E), all medium and large Project in the country, supported by UNDP with GEF and others funding, shall require a Final Evaluation (FE) at the end of its implementation. Based on this guideline evaluation process was performed. Terms of Reference establish the frame of reference for the execution of evaluation and define evaluation purpose:

- Evaluate the overall performance against the project objectives as established in the Project Document and other related documents.
- Evaluate the relevance of the Project regarding national priorities as well as regarding UNDP and GEF strategic objectives.
- Evaluate effectiveness and efficiency of the Project.
- Make a critical analysis of the implementation arrangements and project management.
- Evaluate the sustainability of project interventions.
- Documenting lessons learned and best practices on design, implementation and project management that might be relevant to other projects in the country or elsewhere in the world.

The evaluation covers six main criteria: **relevance, effectiveness, efficiency, results, sustainability and impact**. These evaluation criteria were analyzed about all aspects of intervention executed by the project. The methodology used in the evaluation included the use of secondary information and the collection of primary information. For the use of the secondary information, were analyzed relevant documents from the project, these include those listed in the ToR¹:

- Project Document “Improving the Management and Containment of Pesticides Release POPs in Nicaragua” initial and approved version on September 2010.
- Project annual operating plans.
- Project implementation review reports (PIR) as well as other annual and quarterly reports
- Reports of the consultancies made.
- Promotional material produced by the project
- MARENA and UNDP annual financial reports
- Final Project report developed by MARENA
- Project internal correspondence supporting management decisions and coordination effected by the project

Other additional documents consulted in the review of secondary sources were, UNDP Country Program Document (DPP), UNDP Country Program of Action Plan (PAPP) and United Nations Development Assistance Frameworks (MANUD), National Implementation Plan (PNA) of Stockholm Convention about persistent organic pollutants (2006 – 2026), Law 290: Organization, Competency and Procedures Law of Executive authority; Proposed Law 274; Law 423, General Health Law; Law 217, General Environment Law and its amendments in the Law 476: Basic Law for Regulation and Control of Pesticides and Toxic and dangerous substances.

¹See ToR, page 25.

To obtain primary information visits were made directly to contaminated sites (Aerodromes “Fanor Urroz” –Leon- y “El Picacho” –Chinandega-; as well as ENIA warehouses –Chinandega-). Three focus group were conducted with producer and people from neighborhoods and districts in three different municipalities (Tipitapa, Chinandega and Leon); fieldwork was complemented with interviews to relevant stakeholders from the implementation process, MARENA, UNDP, Municipalities governments, producers, local people and leaders (members of “citizen power”); besides is included the National Autonomous University (Leon) for being the academic institution located in one of the most polluted by POPs department (Leon) and very close to another equally problematic (Chinandega). In total 30 people were interviewed and a total number of people surveyed were 48 (See Annex 5.3).

Is worth noting that the methodological application of interviews to key actors and focus group was used for the verification process of achievements and lessons learned, for this we proceeded with a comparative and triangulated process in which some of the questions were identical to, MARENA, Municipal Governments and group engaged in the execution, in the project management context the same process was used for MARENA and UNDP. From the similarities of responses of different actors can be estimated if there is the same opinion of what was achieved, what was learned and level of appropriation.

In short the proposed methodology had the following steps:

The process of collecting information (primary and secondary), the systematic evaluation of information. Once the collecting and systematizing phase were finished, we proceeded to analyze the information and then the formulation of the preliminary report, which, after revise and feedback of the corresponding instances, was further revised to integrate corrections and recommended contributions.

2. Description of the project: Home development context and project duration.

As a result of the importation and the extensive use of Persistent Organic Contaminants pesticides (POCs) in the export crops since the fifties until the early nineties, the agricultural regions of Nicaragua, waterbodies, estuaries and coastal ecosystems that received runoff of pesticides are somehow pollute by POCs. POCs represent a global problem for they are toxics substances, that bioaccumulate and biomagnified in food chains, thus they can go further and end up affecting new generation since conception and polluting breast milk.

Nicaragua signed the Persistents Organic Contaminants (POCs) covenant in Stockhomon May of 2001 and ratified it in December of 2005. During the conference the guides for the elaboration of the National Plans of Implementation for the Stockholm covenant were approved, also an agreement on the way of evaluating the progress of the covenant in diminishing the levels of POCs in the environment was achieved. Nicaragua developed its Plan of National Implementation between 2004 and 2006; it was endorsed by the government and submitted to the Convention Secretary in April of 2006.

In correspondence with the context presented above, Ministry of Environment and Natural Resources promotes the implementation of this project pointing to strengthen the institutional capacity to manage POPs life cycle in Nicaragua. This includes strengthening the POPs legal and regulatory framework. For this legal framework is intended to make amendments to Law 274 (Basic Law for Regulation and Control of Pesticides, Toxic dangerous substances and similar), this amendments proposal are still in consultation process. To strengthen the capacity to

implement existing laws on POPs and not POPs chemical substances, the project propose a training program for environmental inspectors, customs officers and agriculture promoters.

One of the expected outcomes of the project is to upgrade the current inventory of pesticides, this study will have coverage en the entire country, now we can count with a more current inventory in the country. The Project included in its implementation proposal systematic extension activities to producers. An important outcome, is the interinstitutional coordination for the proper management of Chemical Substances, this was done in order to align the effort of public institutions in the management and control over POPs and not POPs chemical substances.

The development objective of the project is to minimize the risk of exposure to POPs pesticides on humans and the environment through strengthen governmental capacities, institutional and stake holders to manage the chemicals life cycle.

The Formulated action plan responded to the expected results, schedule proposed was doable, it counted with the programmed and approved resources (budget) for the project².

Project implementation was on charge of Ministry of Environment and Natural Resources (MARENA) and the implementation agency at GEF was the United Nation Development Program for Nicaragua.

The project defined as *" stakeholders and beneficiaries include the Ministry of Environment (MARENA) , Health (MINSA) , Agriculture and Forestry (MAGFOR) , Labour , particularly in the agricultural sector (MITRAB) , farm workers and their families , the Ministry of Transport and Infrastructure (MTI) departments and territories of Nicaragua , to the poor (through increased capacity of food security) , the economy of Nicaragua (indirectly , eg through improved access to markets for export crops access , and a nascent private sector ecosystem services , for example , grants to collect waste toxic pesticides , independent environmental inspectors) . NGOs and civil society would benefit through access to a formalized advisory body for the project, which would provide input on POPs pesticides and other issues of toxic and hazardous chemicals and through participation in training and as participants / recipients outreach and awareness"*

3. Findings

This chapter will present the different situations encountered in the project , however it must be remembered that the project is a dynamic instance itself , with an origin set out in its design, which in the case of this project it presented two moments: initial conception , and then another, revision and adaptation. The activities developed to meet outputs, outcomes and indicators will be analyzed in this chapter, to conclude on the efficiency, effectiveness and impact achieved , but must always keep in mind that all actions are developed in the framework of processes dealing generate new conditions change the stated goal seeking .

The evaluator expects that in this chapter all change efforts to the project are evident and these remain documented as lessons learned, and those have been successfully developed will be assessed as best practices.

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²Improving the Management and Containment of the Liberation of Pesticides POPs in Nicaragua. Document of the Project. August 2008. Pages 11 to 35

3.1 Design / Project formulation

•Logical Framework Analysis (Logic/project strategy; indicators)

The project document was formulated in response to the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants , so it is consistent with the country strategy , the National Development Plan and environmental policies and health plans and Nicaragua . Four components were proposed, of which the first was aimed at building institutional capacity to manage the life cycle of POPs pesticides to allow Nicaragua to meet their obligations of the Stockholm Convention, set out the second and third components correspond each other and trying to reduce the risk of people and the environment to POPs pesticides, promoting an awareness of the population and the last component was to ensure the monitoring of project activities.

At project document level a consistency between the proposal and the proposed objective was achieved: "To minimize the risk of exposure to POPs pesticides to humans and the environment through a strengthening governmental, institutional and stakeholders to manage the life cycle of chemical capabilities."

The implementation strategy of the project included four components and seven expected results. (See Table 1).

Table 1.Components and Expected Results of the Project

Components	Expected Results
Component 1. Increase of the national capacity to manage the life cycle of POPs pesticides to allow Nicaragua to meet their obligations of the Stockholm Convention.	(A) Strengthening of the legal and regulatory framework for POPs
	(B) Capacity building of law enforcement on POPs and other chemicals
	(C) Strengthening public institutions for the proper management of chemicals management
Component 2. Reduced risk of exposure to humans and the environment from POPs pesticides, including contaminated sites.	(D) Improve the management for storage of pesticides, update the inventory of POPs and other obsolete pesticides and its due and elimination strategy "
	(E) Improving management for the identification and remediation of contaminated sites
	(F) Study for food alert in the most vulnerable areas of the shores of Lake Managua exposed to pollution.
Component 3. Increased awareness of stakeholders and organized communities to reduce exposure to pesticides COP.	(G) Government officials, Citizen Power, and the general public aware of the environmentally sound management of POPs substances, no COP and other chemicals
Component 4. Project Management and Monitoring	

Source: Logic Marc of the Project³.

The indicators proposed in the project document were linked to the components⁴ as follows:

³Idem. Pags. 8 and 9.

⁴Idem. Pag. 7.

- I – 1 Legal and regulatory frame installed to manage POPs and the appropriated Sound Management of Chemicals generally supported countries (part 1)
- I - 2 strengthened and sustainable administrative capacity, including management of chemicals management in central government in supported countries (part 1)
- I - 3 strengthened and sustainable capacity for the implementation of rules and regulations in the countries supported (component 1) and
- II - 1 Reduced Risk of exposure to POPs, measured in number of people living near landfills or discarded POPs content (Component 2 & 3).

Its important to say that the indicators related to the components are "brief descriptions of studies, training and physical facilities provided by the project. The description must specify quantity, quality and time⁵. "Based on this theoretical methodological recommendation we can say that the proposed indicators were incompletely formulated, which leads to the problem of their evaluation for compliance.

- *Assumptions and Risks*

The Project Document states in its pages 9 y 106three basic risks to project implementation, risk is expressed as a course that must be completed to advance to the next level in the hierarchy of objectives⁷. "The assumptions (or risk) of the project are important features: the risks are defined as they are beyond the direct control of project management." For all cases, the formulation phase should ensure that components and planned activities are indicated. If the components indicated then the Project purpose was achieved planned. The project conducted its analysis of risks and key assumptions, which are outlined in the following table:

Table 2:Risks and mitigation measures proposed in the project document

Risk	Measure to mitigate the risk.	Component of the Project to minimize the risk
The Government will not approve new laws, regulations or Updates	- Awareness among decision makers on the need to pass laws to comply with the obligations of the Stockholm Convention.	Component 1: Enhanced institutional framework to manage the life cycle of POPs and allow Nicaragua to meet their obligations under the Stockholm Convention
The Government will not approve additional funding for the management of chemicals and future inspections	- - The project will document the positive economic and environmental effects of the Sound Management of Chemicals in Nicaragua to influence decision makers.	Component 3: Promoting awareness among stakeholders and civil society.

⁵ Latin American and Caribbean Institute for Economic and Social planning.(ILPES). Projects and investments programming area. Pacheco Juan Francisco, Ortégón Edgar, Prieto Adriana: Methodology of the logical framework for planning, monitoring and evaluating projects and programs,. Santiago de Chile, july of 2005. Pag. 26.

⁶ Taken from: Improving the Management and the containment of the release of POP's pesticides in Nicaragua.Documento of the Proyecto. August 2008.

⁷ Taken from EVO - Evaluation: A management tool to improve the performance of the Project. (Frame work)-3/97. Anex1: The logical framework matriz. Office of evaluation and monitoring. Interamerican Banc of Development.(BID). <http://www.iadb.org/ove/spbook/lamatrix.htm>

Planning for the remediation of contaminated sites will not stimulate investment from the owners of the sites.	The pilot sites were selected according to the will of the owners to take responsibility for the future of their sites. Shell Nicaragua has set aside funds for the remediation of the contaminated site Coquinsa / Shell, and CABEL previously funded the destruction of stored toxaphene in contaminated site Hercasa.	Component 2: Reduced risk of humans and the environment Component 3: Promoting awareness among stakeholders and civil society.
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Source: Prepared on the basis of information of the Project Document. Pages. 8 and 9.

The cases represents a judgment of probability of success that the project design team shares with the project, the Executing Instance (MARENA) and the Implementing Agency (PNUD) as the funder of the initiative, however, if the assumptions for implementation, project management can not anticipate, try to influence and / or deal with suitable emergency plans, their effect on the results and objectives are very likely, which limits the effectiveness of the project, its scope and impact. Raised above in connection with Table 2, it is necessary to emphasize that the fact established a correspondence between the risks (of course) and components of the program does not provide complete assurance of compliance with the results, but must be interpreted as a warning to managerial project management during implementation.

For the first risk set, the evaluation found that, for example, Law 274 (Basic Law for the Regulation and Control of Pesticides, Toxic Hazardous and Similar) are still in the approval process. Regardless of the causes of delay in approval, we can say that this action could undermine incomplete compliance (effectiveness and efficiency) of the project, however more in a more holistic analysis of the indicator and processes involving compliance should also mention that there is a proposal of the Ministry of Environment and Natural Resources, allowing high levels of country to decide on its approval and influence better handling of hazardous chemicals (no POP's). Also add the fact that approval is further to the proposal, which is undertaking the project process.

For the second risk assessment asked about others, after project completion, or in the case of MARENA, or the mayors Mayors of respondents (Leon and Chinandega) will have immediate financing financial resources of public funds for continuing any action initiated by the project. This affects the sustainability of many of the actions that have to do with long-term processes, such as training, awareness, remedial actions, among others.

The third risk is directly related to proposed remedial actions. Indeed, the evaluation process is not recording any information about the stimulation of private investing in measures after completion of the remediation project. Aerodrome managers were asked directly by the evaluator Investment for environmental remediation measures and the response was that their budgets just maintaining facilities is contemplated.

A level formulation can be noted that the assumptions were correct and were actually project risks, but during the execution the managerial exercise needed to mitigate their effects on the project was made, if these risks have a bearing on the implementation and results expected, as indeed happened. Measures of risk mitigation required an operationalization that included direct management for mitigation measures come true.

- *Lessons from other relevant projects (eg, same focal area) incorporated into project design*

Nicaragua, after signing the Stockholm Agreement, received funding for a project . MARENA executed preparatory technical assistance funds (NIC 10-50192) for a period of 6 months (2007) , during this period the development of the first proposal "Improving Project Management and Containment of Liberation was achieved POPs pesticides in Nicaragua . "The experiences were incorporated into the new project, and institutional experience of the Division of Environmental Quality obtained from this project and that I take on this project. The project document contains a comprehensive description of the situation known to those dates on COP'sy their polluting impacts. However, it should be mentioned that t proposed project was reformulated. The new version, approved in September 2010 raised outreach, awareness and training of the population broadly and also included training in the territories of officials of state institutions in municipalities , as well as the Municipal Units environmental , incorporating them into project management.

The project document outlined in Table 3 as described Interested organizations and their expected participation in the project. Ratings of this assessment regarding the role played by organizations in the process of implementing the project are included in the last column of the table.

Table 3. Assessment of Stakeholder Participation

Interested Part	Part	Responsability	Valoracions of the Evaluation
Ministry of Environment and Natural Resources - MARENA	Beneficiary	Driving projects	Responsible for achieving the objective, outcomes and indicators of the project. In the execution of its substantive support for the execution units. Technical: Environmental Quality and Planning, a financial administrative level: Administration and Finance. Met their driving. The implementing capacity COP's activities on the issue has only been possible through the funding of the project.
Ministerio de Salud - MINSA	Beneficiary	Competitor	Project coordination with MINSA was maintained throughout the process of implementing the project, specifically with the toxicology unit. The MOH remained el Comité de Dirección del Proyecto.
Ministry of Agriculture and Forestry - MAGFOR	Beneficiary	Participants	The MAGFORT actively participated at the territorial level in training and information material generated by the project allows you to better fulfill its role of Technical Assistance in the field of agrochemicals. The MAG remained in the Project Steering Committee.
Ministry of Transportation and Infrastructure - MTI	Beneficiary	Participants	MTI should be considered a beneficiary of the project, particularly at the level of training conducted and informative

			generated by the project (eg techniques for transporting chemicals guides) facilitates the exercise of their functions material.
Ministry of Labour - MITRAB	Beneficiary	Participants	In the evaluation process could not determine participation or direct responsibility between the project and these ministries.
Ministry of Development, Industry and Trade - MIFIC	Beneficiary	Participants	
Customs Department - DGA	Beneficiary	Participants	
Municipalities (Managua for The pilot study on food security, municipal associations for centralized collection of obsolete stocks of pesticides).	Beneficiary	Participants	The fieldwork demonstrated these Municipalities of Leon, Quezalguaque, Chinandega, La Paz Centro, Managua were participants of the project as beneficiaries and project partners were also in the territorial coordination. The training of technicians Municipal Environmental Units is a major success of the project, allowing to maintain the validity of the actions and sensitivity training by the project to villagers
Academic Word	Beneficiary	Participants	In the evaluation process could only checked the participation of teachers as individual consultants, such as CIRA dela studies conducted water quality and Professor of Chemistry Department of the Unite-León performed the national assessment of contaminated sites. Academy Participation am very weakly present in the project.
Public in General	Beneficiary (Healthier Environmeent)	--	The total number of trainees was 5,032 people being trained 2,204 women, representing 44 percent and the total being 2,828 trained men, representing 56 percent of the total. Importantly, the project properly take advantage of existing spaces citizen participation in neighborhoods and counties to call work and skill development.
Agricol Industry (plantacions	Beneficiary	Participants	The participation of farmers in the municipalities of Leon, Quezalguaque, Chinandega and Managua was found in the assessment. Although there is no quantitative information of the participating producers during field interviews it was found a high niel handling agrochemicals topic and dangerousness in the management and impact to the environment as well as a great satisfaction with the training received .

Source: Own Elaboration from the document of the Project.

•*Replication approach*

The project was conceived with the intention to be replicable, in other regions of the country, as in other countries in Central America. These intentions are expressed in the following project document:

" The project approach to planning for remediation , which includes strengthening chemical safety interim until remediation and capacity building to best practices in sampling and awareness to reduce exposure by channels in the environment and food , will be incorporated into national rules and guidance for replication . That may be usefully replicated elsewhere with a pragmatic approach , adapted to the context of developing country . The deliberate emphasis on project activities and synergies with poverty reduction , including food security in the context of the protection of the most vulnerable groups , sustainability, health , environment and economy represents a feasible and applicable model other planning activities (environmental or other focal areas) project, and could also be applied in a broader chemical context.

The pilot study on food security would, by itself, as a national training exercise in the collection of fish samples and analysis procedures for POPs and other toxic and hazardous substances in fish pesticides, and the development of communications risk to mitigate exposure through ingestion of food. "

The evaluation found in the analysis of primary and secondary information to be developed by the project experiences that can be subject to systematic estimate its replicability. For the short time of the project (scheduled for 30 months effective implementation and with a break of 7 months) is risky for the assessor to make a judgment direct (finding or recommendation) on the shares offered guarantee success in a replica execution we must also add that this particular situation has its own conditions and any replicable experiences must have adaptability that success can be reversed to failure. However, the systematization of the sensitization process conducted suggested , as well as the methodology of the inventory of contaminated sites , on this last point , it is important to consider the possibility that urban or rural residents , under the guidance and mentorship of experts to perform a task of data collection , this would allow an inventory process inexpensive and can be part participatory environmental audits.

•*PNUD comparative advantage*

As noted by the Project Document "UNDP is the GEF Implementing Agency. His focus is on Technical Assistance, Capacity Building and Governance. Additionally, UNDP is actively promoting the Sound Management of Chemicals. For UNDP is a priority to promote the inclusion of the Sound Management of Chemicals in the plans and strategies of developing countries. "

The functions of the Technical Assistance and support for capacity building for improved environmental governance correspond with the defined framework of the United Nations Assistance to Nicaragua.

Under the previous reference frame, UNDP played an active role in implementing the project in the following functions:

Technical Assistance: Assistance in formulating ToR different consultancies and co - review of the final products.

Track: Welcome and periodic review of progress reports generated by the MARENA (Executing Agency). Processing information and making reports to the donor (GEF).

Responsible for external evaluation.

Management and Control of Funds: Funds Donor Reception, Disbursements MARENA, receipt of financial reports, reviewing financial reporting and control, information processing and issuing reports to the donor (GEF).

Importantly, in the management of technical assistance from UNDP lacked promotion to develop operational synergies with other initiatives, in which UNDP is the implementing agency . There is also an empty internal synergy to the United Nations System , the POPs project generated a national assessment of contaminated sites, information certainly important to integrate the information systems of other agencies working with health and water safe for the population , for example WHO and UNICEF. According to the information and observation UNDP provided on synergies to intern Systems United Nations, you will be encouraged effectively from the formulation of the new five-year plans of the agencies , which will integrate the information generated by this project .

•Vinculations between the Project and other intervencions inside the sector

The project operated as a standalone unit (with own staff and a coordinator) led and technically supported by the attached Environmental Quality MARENA. It was found that technical actions were carried out with a strong coordination of regional offices. On coordination with other initiatives there was no documentation available to allow evaluation of this testing. However, Ms. Hilda Espinoza (interview) mentioned level coordination with Environmental Quality similes regional institutions in Central America.

•Agreements of the managment or gerency

The project document states that "the project will be executed and implemented by the Ministry of Environment and Natural Resources (MARENA) . The project components will be implemented directly under the responsibility of the Department of Environmental Quality MARENA " .

This arrangement for the implementation of the project is supported by Article 28 of the Law on the Organization , Competence and Procedures Executive states that the Ministry of Environment and Natural Resources is responsible, among others, the following function:

- Check polluting activities and oversee the national register of chemical substances that affect physical or environmental damage . "
- This obviously leaves MARENA is mandated by the State of Nicaragua to exercise jurisdiction over the control of pollutants. The internal organization of MARENA has a unit (at Technical Division) for the management of Environmental Quality .
- In Accordance With the Project Document signed by the Parties for the Following Were Implemented project Management: The Government of Nicaragua implemented the project under the National Execution modality (NEX) of UNDP. As the implementing agency, the Ministry of Environment and Natural Resources (MARENA)

was responsible for directing the project , in compliance with the immediate objectives and projected products , making effective and efficient use of resources allocated under the Project Document.

- UNDP accompanied the direction and guidance of the project in order to contribute to the maximization of the scope, impact and quality of their products. Moreover, as a GEF implementing agency , was also responsible for the management of resources in accordance with the immediate objectives of the Project Document , and to observe their own governing principles of transparency, competitiveness, efficiency and economy.
- MARENA Annual Work Plans prepared that reflected the project activities and results to be achieved through its implementation. The Plan indicated periods of implementation of each activity and the parties responsible for their implementation.
- The project office was established with a National Project Director (NPD) , a Technical Coordinator (TC), a Technical Assistant and an Administrative Assistant .
- The approval of the operational plan of the project and your financial budget:
- In the Project Document the formation of a Steering Committee, which would act as an operating entity to implement the project and adopt strategic decisions indicated.

3.2 Implementation of the Project

•Adaptive Management (changes in project design and project outputs during implementation)

During the evaluation it was found that the project was approved in December 2008 and launched in June 2009, his execution was interrupted after 7 months of implementation (January 2010). In September 2010 MARENA submitted a proposal, which began the implementation in February 2011, in a reformulated project completion by June 2012 were approved. Before the end of the project an extension of 3 months of implementation, which will be completed in September 2012 (see Table 4) was negotiated. It is noteworthy that the Ministry of Environment and Natural Resources said the start of operations was determined by the first disbursement of the financial resources of the project.

Table 4. Periods of approval and execution of the two versions from PRODOC

	Approved	Starts	Executed untill	Scheduled to
First PRODOC	DIC/2008	JUNIO/2009	ENERO 2010	DIC. 2011
Reformulation	SEPT./ 2010	FEBRERO / 2011		DIC. 2011
Agenda				JUN. /2012
Extension				3 more months (SEPT.2012)

Source: Own elaboration.

The second proposal of the Project Document changes was made to the products and activities of components 1 and 2 with a bearing on the proposed outcomes of these components (see Table 5). For Component 4 (Project Management and Monitoring) financial changes are proposed to strengthen coordination operations , financial management and project management including external financial audits and final independent evaluation , as well as a short consultancy for the design and implementation of a monitoring and evaluation should ensure compliance with the project Operational Plan and updating baseline of the project document .

Regarding the changes MARENA informed the evaluator that " The review and update of the Project Document was essential for the effective implementation of the project activity , as their adjustment to established procedures and lines of work of the Government of Nicaragua was necessary , as to directly involve people working with pesticides in the territories. " proposed in the evaluator, changes mainly tried to extend the intervention strategy at the national level and also get more of an awareness campaign aimed at population . This change in strategy, the evaluator, brought risks to the sustainability of the activities , outputs and outcomes of the project , for time for dissemination and awareness raising of the population was relatively short . The restart project in February 2011 and officially ended in September 2012.

The documentation consulted on the proposed changes and approval of these in the project show that these changes were made by MARENA and submitted for approval and then to the UNDP GEF. The participation of the Project Steering Committee in this process is not found in the revised documentation. In this respect the process of review and reformulation of the Project Document is worth quoting clarifications MARENA about " Regarding the involvement of the Steering Committee of the Project on the development of project changes , not deign to be involve in this process is shaped by many actors and early consultations failed to reconcile . Furthermore, we assume that it was the responsibility of MARENA (Planning, Directorate General of Environmental Quality, Chemical Safety Directorate) review and settings PRODOCs . "

Importantly, the reformulation was approved in September 2010 and resumed activities in February 2011 , despite the downtime of the project (about 7 months in total) , funding by the GEF remained .

As to the risk assumed by the change in strategy, it is worth mentioning the following example:

Outcome 1B: " Design and implementation of a national , comprehensive and ongoing training program , aimed at all levels involving government officials , Citizen Power Councils , Companies and Distributors Importers Pesticide Producers Associations , Municipalities , Members Population of pesticides and generally on the proper and safe handling of pesticides, chemicals and pesticides banned POPs wastes and other wastes " substances.

The change proposed expansion of beneficiaries entails risks that should be analyzed by the executor and should therefore again review its results map and try to identify any significant risks that may affect the achievement of results. These risks should be recorded alongside the assumptions for each level of performance.

In relation to this position evaluator MARENA replied: " As for the risks, if for Evaluating the change in strategy is identified as a risk, as it was accepted because it complied with the officially approved procedures (reach direct) and commitments to the Stockholm Convention to continue the development and implementation of the communication strategy , awareness and training to the rural population on POPs and meet the project , despite the difficulties that people got ... " .

It should be noted that the risks are likely (to be assessed on its likelihood of occurrence) and this procedure was not performed in the reformulation of the project. Example of Outcome 1B to define risk as the possibility of appropriating little offer learning as well as unsustainable by the runtime of the project itself . In this sense the strategy states: " This strategy is designed to

take place in three phases: Awareness, Support and Reinforcement or Completion . These phases are pursuing a logical order , first, my positioning in the minds of the target audience the information necessary to know basic information about the COP , its characteristics, health effects and ways of eradicating them go . Once acquired the basic knowledge of the COP , the medium-term strategy has a change of attitude in the population relative to the COP , and induce long-term production and implement best practices that contribute to behavior prevent environmental damage and health effects of these pollutants and is aimed at the gradual eradication of the same . "; making it clear that the strategy should be implemented in 3 phases, the first of 1 year duration , the second phase of two years and the 3rd . Phase 4 years. Comply with the implementation of the strategy in the context of this project is not possible.

Table 5. Changes made in the Matrix of Planification of the Project, at the level of expected Products and Activities.

Components	Expected results	Expected Products	Changes included in the new project	Commentaries of the Evaluation
Component 1. Increased national capacity to manage the life cycle of POPs pesticides to allow Nicaragua to meet their obligations of the Stockholm Convention.	(A) Strengthening the legal and regulatory framework for POPs	Updating existing laws to close the gaps in the life cycle management of intentionally produced POPs. Evaluation of the prosecution system in chemical safety within Centraljuihu	The second expected product was deemed unnecessary to have this product as this is a national project, however, is proposed to be included within the activities of the current consultancy Roger Rivera, who develops updating national laws and legal regulations for POPs, so that these funds can be allocated to capacity building in legal matters in the territorial delegations of MARENA	If the project in its overall objective the strengthening of government, institutional capacities and stakeholders to manage the life cycle of chemicals, it seems right to remove the product 2.
	(B) Strengthening capacity of law enforcement on POPs and other chemicals	(B) Strengthening capacity of law enforcement on POPs and other chemicals.	However, it is proposed to give an approach of direct monitoring so the scope of the product would be: "Design and implementation of a national, comprehensive and ongoing training program, aimed at all levels involving government officials, Advice Citizen Power Companies importers and Distributors of pesticide Producers Associations, Municipalities, Members of pesticides and population in general, about the proper and safe handling of pesticides, chemicals and pesticides banned POPs wastes and other wastes "substances.	Redefining the product sought expanded coverage of beneficiaries in the process of information and public awareness. The reformulation of the product has hit for the effectiveness and efficiency of the project
	(C) Strengthening of public institutions for the proper management of chemical products			This product was integrated into the above product. In carrying officials from different institutions were

				included locally in raising awareness and training
Component 2. Reduced risk of exposure to humans and the environment from POPs pesticides, including contaminated sites.	(D) Improve management for storage of pesticides, update the inventory of POPs and other obsolete and expired pesticides and their elimination strategy "	referred to the completion of a feasibility study for the warehouse that stores pesticides confiscated at the MAGFOR	Development of standards and technical and administrative services for government institutions with competence in pesticide management procedures. The new product will be developed by two of the consultants.	The proposed new product responds and is successful in its content with the project objective
		Development and dissemination of technical guidelines for the handling, storage and safe disposal of POPs and other pesticides.	No change.	Development of standards and technical and administrative services for government institutions with competence in pesticide management procedures. The new product will be developed by two of the consultants.
		Updated national waste inventory of POPs and other obsolete pesticides waste and losers	In addition to updating the inventory, this component supporting the identification of contaminated sites are known and new features. In this inventory as defined in the original Prodoc, the activity of preparing a proposal for monitoring and tracking for territorial authorities to update the inventory of waste and contaminated sites is added. These activities include running in consulting Dr. Marquez Argentina	Proposed change is an extension of the proposed product and allows it to be more comprehensive and after the life of the project implementation, which gives sustainability to the product obtained.
		Updated Strategy disposal of pesticides	Sin cambio	
	(E) Improving management for the identification and remediation of contaminated sites	Identification of new potentially contaminated sites nationwide.	Remains: it is proposed to be developed by the consultant who updates the national inventory of waste pesticides as this activity coincides with the national inventory.	

		feasibility studies for the remediation of private sites (El Picacho, Coquinsa, Penwalt)	The new product is: Economic assessment for environmental remediation of the contaminated site ENIA PROAGRO State. ENIA selection winery because priority was given was used to store all waste pesticides purchased by the State and was one of the sites identified with potential contamination. This winery still has pesticide waste that could not be removed in previous years.	With the proposed new product is reduced and concretized the product depending on the result, which is a sensible proposal.
			The new product is: Determine the extent of contamination and to identify alternatives to short and medium term for the communities surrounding contaminated sites in Chinandega and León: "Aerodrome El Picacho"	This proposal fully linked to the result and product use after the project duration.
			The new product is environmental recognition program for sectors that perform actions remediation of contaminated sites	The interpretation of the content of this new product is that the project would encourage (somehow) sectors (actors?) Performing remedial actions. It is certainly very positive recognition or incentive for performing remediation, but this action must be institutionalized otherwise be an isolated case of

				recognition.
	(F) Studio for food alert in the most vulnerable areas of the shores of Lake Managua exposed to pollution.		unchanged There were no substantial changes. But the focus remains on strengthening community networks to promote alternative foods with low risk of affecting chemical contamination in fish and vegetables, the diet of poor people especially emphasized. Different manuals community risk communication, diet replacement will be developed, among others.	
Component 3. Increased awareness of stakeholders and organized communities to reduce exposure to pesticides and no COP COP.	(G) Government officials, Citizen Power, and the general public aware of the environmentally sound management of POPs substances, not POPs and other chemicals	has three products that did not change its overall goal, but in the name and effective implementation by MARENA	No changes	
Component 4. Project Management and Monitoring			No changes	

• *Association Agreements (with relevant stakeholders involved in the country / region)*

The Project Document states that the national executing agency of the project is MARENA , " The project will be executed and implemented by the Ministry of Environment and Natural Resources (MARENA) . The project components will be implemented directly under the responsibility of the Department of Environmental Quality MARENA. Although the responsibility for implementation rests with the MARENA , various components of the project will be implemented in close cooperation with other ministries (especially the Ministry of Health and Ministry of Agriculture). In fact , the success of progress and sustainability depends heavily on close cooperation between various ministries and institutions as well as private sector partners such as Shell and CABI Nicaragua . " For purposes of the executive coordination of a Steering Committee Project, which , according to the Project Document should include " representatives of other relevant ministries to the various project activities, such as the Ministry of Agriculture and the Ministry of Health " was proposed. During execution, was convened to MAG, MoH , MTI , MITRAB , MED to integrate the Project Committee .

The Project Committee did not work as defined in the design phase and reflected in the Project Document. Only the MOH and the MAG actively participated in the activities implemented by the project.

In the view of Ms. Hilda Espinoza changes in activities and products, as well as the budget of the executed version of the project provided opportunities for coordination to these ministries and the municipal governments.

In the field phase of this assessment it was confirmed the high degree of participation and ownership of the mayors in whose territories the project was active . The evaluation found MARENA written communications to different state and municipalities in which support for different actions in the implementation of activities was sought, but no agreement signed between organizations was found.

• *Feedback from M & E activities used for adaptive management. Monitoring and evaluation: design and implementation (S)*

UNDP is the GEF Implementing Agency for this project and MARENA the Executing Agency. The project proposed for Monitoring and Evaluation the following process (see Table 6).

Table 6 . Plan Monitoring and Information System Project

Type of M & E activity Responsible Party main Timeline Assessment Observations	Initial Report of the Project Implementation Team At the beginning of the project implementation there information on an initial workshop and technical and financial reports on what was executed in 2010 reports.	Development of the M & E project team , executing agency of government the beginning of the project implementation A system of internal reports including the annual MARENA monthly reporting , quarterly and semi-annual progress and financial implementation of the	Baseline and monitoring variables and updated concorded project team M & E expert , Project Steering Committee First Quarter implementation Baseline date with variables and indicators project does not exist .
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		project. The financial information for the AE to AI was performed quarterly, semiannually and annually.	
Evaluation of the Implementation Project (RIP) The Government , Country Office Implementing Agency (IA) , National Implementation Manager , Project Team , Project Manager of the IA and Target Groups Each year , at the latest by July PIR reports 2009 - 2010 , 2010 - 2011 and 2011 - 2012 made .	Annual Reports of the Implementing Agency (IA) The Government , Country Office Implementing Agency (IA) , Bureau of National Execution , Project Team , Project Manager of the IA and Target Groups Each year reports AI to GEF made . (see reports PIR)	Frequent progress reports Project Manager will be determined by the Executing Agency Information System Institutional MARENA allowed the presentation of monthly, quarterly , semi-annual and annual reports.	Final evaluation , including lessons learned GEF Secretariat , project team based AI and Project Manager , Country Office AI NEX Agency at the end of project implementation
running	Final Report of the Country Office IA , Project Manager of the IA , Project Team At least one month before the end of the project Made by AE	NEX Audit Agency , Country Office AI Project Team annually audit reports were not submitted by the AE in the evaluation.	
Type of M & E activity Responsible Party main Timeline Assessment Observations	Initial Report of the Project Implementation Team At the beginning of the project implementation there information on an initial workshop and technical and financial reports on what was executed in 2010 reports.	Development of the M & E project team , executing agency of government the beginning of the project implementation A system of internal reports including the annual MARENA monthly reporting , quarterly and semi-annual progress and financial implementation of the project. The financial information for the AE to AI was performed quarterly, semiannually and annually.	Baseline and monitoring variables and updated concorded project team M & E expert , Project Steering Committee First Quarter implementation Baseline date with variables and indicators project does not exist .
Evaluation of the Implementation Project (RIP) The Government , Country Office Implementing Agency (IA) , National	Annual Reports of the Implementing Agency (IA) The Government , Country Office Implementing Agency (IA) , Bureau of National Execution , Project Team , Project Manager of the IA and Target Groups Each year reports AI to GEF made . (see	Frequent progress reports Project Manager will be determined by the Executing Agency Information System Institutional MARENA allowed the presentation of	Final evaluation , including lessons learned GEF Secretariat , project team based AI and Project Manager , Country Office AI NEX Agency at the end of project implementation

Implementation Manager , Project Team , Project Manager of the IA and Target Groups Each year , at the latest by July PIR reports 2009 - 2010 , 2010 - 2011 and 2011 - 2012 made .	reports PIR)	monthly, quarterly , semi-annual and annual reports.	
running	Final Report of the Country Office IA , Project Manager of the IA , Project Team At least one month before the end of the project Made by AE	NEX Audit Agency , Country Office AI Project Team annually audit reports were not submitted by the AE in the evaluation.	
Type of M & E activity Responsible Party main Timeline Assessment Observations	Initial Report of the Project Implementation Team At the beginning of the project implementation there information on an initial workshop and technical and financial reports on what was executed in 2010 reports.	Development of the M & E project team , executing agency of government the beginning of the project implementation A system of internal reports including the annual MARENA monthly reporting , quarterly and semi-annual progress and financial implementation of the project. The financial information for the AE to AI was performed quarterly, semiannually and annually.	Baseline and monitoring variables and updated concorded project team M & E expert , Project Steering Committee First Quarter implementation Baseline date with variables and indicators project does not exist .
Evaluation of the Implementation Project (RIP) The Government , Country Office Implementing Agency (IA) , National Implementation Manager , Project Team , Project Manager of the IA and Target Groups Each year , at the latest by July PIR reports 2009 - 2010 , 2010 - 2011 and 2011 - 2012 made .	Annual Reports of the Implementing Agency (IA) The Government , Country Office Implementing Agency (IA) , Bureau of National Execution , Project Team , Project Manager of the IA and Target Groups Each year reports AI to GEF made . (see reports PIR)	Frequent progress reports Project Manager will be determined by the Executing Agency Information System Institutional MARENA allowed the presentation of monthly, quarterly , semi-annual and annual reports.	Final evaluation , including lessons learned GEF Secretariat , project team based AI and Project Manager , Country Office AI NEX Agency at the end of project implementation
running	Final Report of the Country Office IA , Project Manager of the IA , Project Team At least one month before the	NEX Audit Agency, Country Office AI Project Team annually audit	

	end of the project Made by AE	reports were not submitted by the AE in the evaluation.	
Type of M & E activity Responsible Party main Timeline Assessment Observations	Initial Report of the Project Implementation Team At the beginning of the project implementation there information on an initial workshop and technical and financial reports on what was executed in 2010 reports.	Development of the M & E project team , executing agency of government the beginning of the project implementation A system of internal reports including the annual MARENA monthly reporting , quarterly and semi-annual progress and financial implementation of the project. The financial information for the AE to AI was performed quarterly, semiannually and annually.	Baseline and monitoring variables and updated concorded project team M & E expert , Project Steering Committee First Quarter implementation Baseline date with variables and indicators project does not exist .

It is a general characteristic Systems Planning, Monitoring and Evaluation (PSE) understand processes of collection and use of information generated evidence of change strategies to guide towards the desired impact , this means that monitoring and evaluation should have instruments to collect information from and with beneficiaries, mechanisms and information flows as well as mechanisms and processes that enable the measurement of changes are reached and , if necessary , feedback that keeps the right strategy to achieve the expected impacts.

In the evaluated project successfully recognize an efficient intra institutional information and the AE to AI , but missed an update to the baseline , revision and adaptation of indicators (both Project and the Existing Situation POPs) . Developing Baseline was scheduled to be executed in the first quarter of the project life and had budget for this purpose .

The model used for tracking (based on progress reports on the implementation) can recognize compliance (forward) of the activities of the project, but does not provide the necessary references for an analysis of change (impacts) and achieved level of ownership and managed by the project beneficiaries .

With the information provided by the project on its information system for monitoring not managed to show that there was a participatory process for measuring progress , participate in the Steering Committee of Project or beneficiary groups. If it was obvious the flow of information between the AE and AI . This included the participation of AI on feedback from individual products consulting or strategic documents for the implementation of the project as Communication Strategy Project .

The AE meet the formulation and submission of progress reports to the AI , but are not able to establish project-level information system that would measure and analyze progress and achieved performance. The lack of a baseline is a strong limitation to better analyze the achievements in terms of results and goal set by the project. The reports primarily reflect the

level of operational progress and this progress has not been analyzed on the basis of performance indicators that allow a systematic way to evaluate continuously the products made according to expected results and the planned objective. It lacked ongoing assessment for this type of financing projects under one million dollars does not apply the guideline of an interim evaluation .

Despite having planned tasks and responsibilities for the establishment of a tracking system that included the development of the baseline and sufficient budget for the implementation of monitoring have been established , it was not performed in correspondence to plan.

•Financial Planning

The total amount of the project was for the amount of \$ 919,901.26 . Of this amount, 97.84 % was funded by GEF funds and the remaining 2.21 % was contributed by the Nicaraguan private sector, specifically the Pellas Group . MARENA 's contribution is not quantified . It is noteworthy that the project received technical support (Unit of Environmental Quality , Planning) financial and administrative (Management, Accounting , Procurement, Transportation, etc. .), But these supports are not quantified , therefore are not included in the budget.

The project executed 100 % of the planned amount. According to data from the National Bureau of UNDP (see Table 7) amounts disbursed were performed with slight differences in the payout period or year . However it is clear that there was a heavy weight on the performance during the last two years of the project (2011 - sept 2012 .), In this period of financial execution of the budget 75 % is reported, compared to 25 % in the period running from 2009 to 2010 . The financial performance reflects the pause period the project remained in the start year and remained until reboot (cf. Table 4).

At the level of lump sums can be executed observing efficiency in spending, especially in the last two years of implementation.

Table7. Cost data and project financing, including the annual expenses

Financiamiento Conjunto (tipo/fuente)	US\$	PNUD (Millones de US\$)		Gobierno (Millones de US\$)		Agencia Asociada (Millones de US\$)		Total en US\$	
	Presupuesto aprobado	Planeado	Real	Planeado	Real	Planeado	Real	Real	Real
Donaciones	900,000.00								
2009			0.085					84,700.17	84,700.17
2010			0.129					129,274.42	129,274.42
2011		0.496	0.497					495,910.21	496,879.32
2012		0.190	0.189					190,115.20	189,146.09
Préstamos/Conseciones									
Apoyo en especies									
Otros (Sector Privado)	19,901.26								
2009		0.011	0.01					10,626.08	10,626.08
2010									
2011		0.01	0.009					9,275.18	8,603.24
2012			0.001						671.94
Totales	919,901.26	0.71	0.911					919,901.26	919,901.26

Source: Own elaboration with information of the PNUD

•Operational issues, coordination and implementation of the UNDP and the Executing Agency (AS)

The executor is the National MARENA and internally the project is technically advised by the Division of Environmental Quality, in the previous chapter information system determined by the AI and AE for monitoring the implementation described . A level of administrative and financial aspects specifies that " the project will be implemented by UNDP - Nicaragua under Scheme NEX , in accordance with the rules and regulations of UNDP " , this means that MARENA assumes management and control project funds and must subsequently held financial and technical Nicaragua UNDP Office reports. This execution mode determines the high degree of alignment of UNDP Nicaragua in compliance with international conventions for Harmonization and Alignment of International Cooperation.

Since its inception, the project was executed by MARENA using the standards and procedures specified in the laws of the Republic of Nicaragua, with HACT (Harmonized Approach to Cash Transfer) approach, responding to donor commitments and international cooperation in the Paris Declaration , however MARENA had the option to request additional support from UNDP to make direct payments .

The rating of this chapter are based on the assessments made in the implementation of the project , conducted , using as reference the Project Planning Matrix (see Annex 5.2).

• Overall results (achievement of objectives) (MS)

Following an analytical review of the expected results, based on the successful implementation of the project is done.

Expected results and their valoration
Legal and normativ Marc for POP's MARENA managed to introduce a proposal for approval of amendments to the Law 274 (Law Dangerous Pesticides and Toxic Substances . Moreover, the process of revising the legal framework for handling chemicals (POPs COP'sy not) done by the MARENA legal experts determined that a specific law for the management of POPs was not necessary, it was suggested that Act 476 (amending the General Environmental Law) a chapter on chemical safety to be included, which was performed. Now, the proposed amendment to Law 274 established the need for the management of POPs legal framework. However, the process for approval of amendments to laws , new regulations, etc. require more time than the duration of the project . This means that the corresponding instances approval is still pending. The project failed to meet its outcome , it should be clear that lobbying for approval of the Legal Framework was not scheduled in the project. The proposed changes and adjustments in Act 274 should be considered a managed project is a momentum , which should continue institutional lobbying the National Assembly.
Capacity of law application on POP's Through the trainings conducted and executed public awareness has increased the ability of law enforcement chemicals (not COP'sy COP's). Evaluation can not quantitatively determine the level of change in the building, but we managed to find a level of all persons contacted in field visits to all of them, there is a new awareness of the problem and deal with it as best. Another significant contribution was made different guidelines, which are a current instrument for public and private institutions.
C Sostenibilidad del manejo de los productos químicos instituciones públicas aumentada To the evaluator, the project achieved very little around create sustainability . Here are some relevant criteria on which this opinion is based are as follows: The policy and regulatory frameworks that support the continuation of benefits . (Systems , structures, people , skills , etc. .) . Regard legal proposals (see Outcome A in this table) is made , which is an element for sustainability.

Another important criterion that the project had to develop and consulting is a sustainability strategy that includes capacity building of key stakeholders in the country, for further development and implementation , as well as financial and economic mechanisms to ensure that they continue producing benefits once the assistance ends .

Working together with producers and awareness training was both effective, however the level of continuity actions no planning was done , on this subject have been very important approach to guilds of producers to provide continuity of shares in a partnership private audience.

D. Better handling and disposal of obsolete pesticides

The project contributed to this outcome to highlight two important activities:

→ Environmental Management Plans for two highly contaminated sites were made, which implies an important procedural experience to improve the management of sites. This experience can establish a tool for managing storage sites of obsolete pesticides.

→ The implementation of two remedial actions can be monitored in their effectiveness and complement the experimental process and mitigating pollution was achieved. This achieved (along with PGA) provides an opportunity to interest in the immediate future to other public and private actors (mayors, government ministries, Airports Administration Company) to promote other investments for mitigating the effects of POPs insecticides.

The project did not perform actions for waste disposal.

E Better planing of remediation of contaminated sites

The contribution of the remediation project was already mentioned in relation to the result D for the case of this result also applies. The contributions of the project to achieve this result are modest.

F Managua Pilot study on food security in the area of Lake Managua.

This result is quite innovative, it was expanded in its execution with the revised project. Although the evaluator could not have before it the report of study on fish in Lake Xolotlan and documents training and awareness, during the field visit that printing was successful in its dimension was obtained. As noted in the analysis of the logical framework of the project (see Annex 5.2), the lack of a monitoring system on the diet of at least one sample of beneficiaries, makes it impossible to quantify its impact.

G Increased awareness of stakeholders and civil society

The project will work with farmers and villagers in selected municipalities. A target population benefited from the training and awareness program increased awareness and knowledge was achieved. Also the authorities and municipal bodies better known as the problem and address it. Reiterate the above, the various technical guides are an ongoing support tool to better address the management of chemicals (not COP'sy COP's).

•Relevance, Effectiveness and Efficiency (S)

These criteria are discussed in terms of expected results and raised target.

Minimize the risk of exposure to POPs pesticides to humans and the environment through a strengthening of government, institutional capacities and stakeholders to manage the life cycle of chemical

Legal and regulatory framework for stenghtened POP's

Relevance	Effectiveness	Efficiency
It is a result that is fully consistent with the project objective. High relevance.	The due diligence process conducted which led to generate proposals for amendments to Law 274, is an example of the effectiveness of the project on this result. high effectiveness	Average efficiency. The evaluation process mentioned that the adoption of proposed legislation goes beyond the project period, especially with the delays in the implementation that were taken. This situation

		must be provided in the same formulation of the project or the second review conducted.
B law enforcement capacity on POPs / chemicals strengthened		
Relevance	Effectiveness	Efficiency
It is fundamental to achieving the goal, therefore membership is high result.	High effectiveness. Significant contributions of the project to strengthen existing capacities in law enforcement at the level of a group of concerned public institutions, local governments and residents and producers beneficiaries.	Average efficiency. The project was successful products reached some public institutions, however coverage should be broader.
C Sustainability management of chemicals increased public institutions		
Relevance	Effectiveness	Efficiency
This result is the product of a process of capacity building. His connection to target is direct, is more a product of a process of medium and long term that exceeds the period of project implementation. It is fairly relevant.	The effectiveness is medium. The effectiveness in the performance of this result is affected by the extent of its formulation.	Average efficiency. Importantly, the type of formulation of the result, efficiency developed by the project for this result could have been low and always would impact positively on sustainability.
D. Better handling and disposal of obsolete pesticides		
Relevance	Effectiveness	Efficiency
High relevance. The evaluator was a very ambitious outcome to the characteristics of the project including the runtime and especially the amount that was available	Despite the own efforts of the project in the formulation of the PGA Aerodrome Picacho and Fanor Urroz and mitigation measures carried out, it is considered that the project lacked an aggressive strategy that would integrate the efforts of private entrepreneurs other experiences in management and mitigation. Low effectiveness.	Average efficiency. The project did not have an aggressive strategy of integration of other private actors to achieve the result as planned.
E: Better planning of remediation of contaminated sites		
Relevance	Effectiveness	Efficiency
It is a result that should generate experience for the country in terms of methods of planning and implementing the remediation of contaminated sites. Highly relevant.	Average effectiveness. Compare with previous result. The project strategy should consider more the public-private partnerships as a working tool in this result.	High efficiency. The evaluation recognizes high efficiency of the project have achieved run two remediation project with its own resources.
F Estudio Piloto sobre Seguridad Alimentaria en la zona del Lago de Managua		
Pertinencia	Efectividad	Eficiencia
Este resultado en relación al objetivo planteado tiene alta	Efectividad alta. Implementación muy bien dirigida para alcanzar el	Efectividad alta. Aun cuando se carecen de indicadores para

pertinencia	resultado.	determinar la eficiencia en la cobertura y alcance de este resultado, la evaluación considera que el proyecto alcanzó logros (productos) suficientes en este resultado.
G Increased awareness of stakeholders and civil society		
relevance	effectiveness	efficiency
At the actions to achieve this outcome and ownership thereof must add satisfaction shown by the participants benefited from the training and awareness processes. High relevance.	Moderate effectiveness. The project did not include in its target group sectors of large agrochemical producers and entrepreneurs. We consider the project as an opportunity to engage these sectors in the area and the problems, the opportunity did not become actions.	Average effectiveness. The communication strategy is very well made, however, this in itself delimited and restricted groups served by the project in this result. They were out of the actions of other relevant actors project also involved the problem and could be involved (beneficiaries) of these processes of sensitization and training.

•*Pertinence of the country*

The project document was formulated in response to National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants, so it is consistent with the country strategy, the National Development Plan and environmental policies and health plans and Nicaragua . Four components, of which the first was aimed to increase the institutional capacity to manage the life cycle of POPs pesticides to allow Nicaragua to meet their obligations of the Stockholm Convention, set out the second and third components correspond each other and trying to reduce the risk of people and the environment to POPs pesticides, promoting an awareness of the population and the last component was to ensure the monitoring of project activities.

A project document level consistency between the proposal and the proposed objective achieved was achieved: To minimize the risk of exposure to POPs pesticides to humans and the environment through a strengthening governmental, institutional and stakeholders to manage the life cycle of chemical capabilities. "

The objective of the project responds to the priorities of the partnership approach defined in the UNDAF , through which the United Nations system supports progress towards meeting the MDGs , in particular MDG 7: ensure sustainability environment , and this Target 7.A : Integrate the principles of sustainable development into country policies and programs and reverse the loss of environmental resources , as well as MDG 5 : Improve maternal health Goal of this 5.A: Reduce by 75 % the rate of maternal mortality between 1990 and 2015.

•*Sustainability (MI)*

The terms of the sustainability of project actions are strongly incised by two elements of the implementation process, closely interrelated:

Period total running very short in relation to the proposed results.

Break in the implementation for review and reformulation of time established a cut that affected the initiation and development of processes for the project.

The above situations came together in different ways to limit and define the time of the processes generated by the project actions. Perhaps the most relevant example is the process of sensitization. The same strategy identifies three phases for implementation, taking the third phase, a forecast horizon of four years. It is correct that such process involving changes in knowledge and behavior of people is requiring medium and long term for its realization.

Another important element to mention is that the projects rather their management , should provide the sustainability strategy under implementation, sustainability of actions and processes are not the result of spontaneous generation , but processes to be generated parallel to implementation of actions planned in the logical framework of the project. In the case of this project , it lacked a sustainability strategy.

At the institutional level MARENA , even when the unit Environmental Quality addresses the issue and internalized into his work lacks resources for continuity of action , another actor inquired about the possibilities to continue promoting activities were the mayors of León , Chinandega and Peace Center , in every case the answer was , that lack resources for this purpose.

Despite the success in the implementation, despite the inactivity period of the project products and results achieved are not sustainable over time the immediate future

•Catalytic role and impact

The impact achieved by the project activities should be exposed in the immediate impact, medium and long term.

The immediate impact has the sensitization processes undertaken by the project , participation in these processes included 3367 people, of which 42% are men and 58% are women. The participation of the population and small farmers is evident. The producers interviewed during the field phase of this assessment indicated the importance of the training received and the practical application that give the knowledge received . Same level of satisfaction was identified in participating in training on food safety , it is noteworthy that in this activity the issue of food safety combined with preventive lessons are lowered risks of consuming contaminated by agrochemicals used agricultural products . The information received by the people and producers and in handling hazardous chemicals (no COP'sy COPS) contains information that are implementing in their daily work .

The impact of short and medium term will be generated by the training process made in strengthening the management of the institutions in handling hazardous chemicals (no COP'sy COPS) . The above training processes are complemented by legal action taken (Act 427 Act

hazardous chemicals) , the training to officials of the institutions , as well as guides and information management support of officials in handling chemicals dangerous . Also included in the medium-term impacts of the methodology for updating inventories of contaminated sites. This effect will be achieved to the extent that it continues implementing its methodology and can be institutionalized by STATE, authorities , municipal governments and to civil society .

The long-term impact they succeeded the remedial measures taken. A condition of this impact is the maintenance to be performed, they are civil works which deteriorate over time.

4. Conclusions, Recommendations and Lessons

4.1 conclusions

- The interruption of the project adversely affected its performance. Although changes were redesigned in the matrix of project implementation, the runtime they decreased considerably with strong impacts on the effectiveness and sustainability of the project.
- The project was formulated with certain deficiencies in the Logical Framework Matrix , the formulation of the results is flawed drafting and some are over sized for the project. Besides the formulated indicators did not meet the basic characteristics for formulation (be achievable, measurable , measurable and testable), that hindered the process of analysis and synthesis in the evaluation. Also, most importantly, keeps the project shows compliance obtained through means of verification.
- The Project Baseline not updated. This situation prevented establishment of a permanent reference in the progress of the project and found initial situations.
- The Monitoring System Project existed intra institutional level. There was a good flow of information on the performance, this task was performed with support of the substantive unit MARENA Planning.It is noteworthy that the project scheduled sufficient funds for this activity but the activity was performed centrally at the Ministry.
- Shares of the monitoring and management of the Monitoring System require specialized staff training and the time to perform this function. Such human recurs not part of the project team.
- The project developed an effective coordination in the implementation of activities with state institutions, municipalities, Producers and Residents of geographical areas of interest for the project.
- The Project Steering Committee managed only MAG joint MOH and the Project Steering Committee. It lacked the participation of other State Ministries as MTI,MED,MITRAB. The operation of the Project Steering Committee members indicated was just walking and not documents their participation.

- Coordination with the municipal government, mostly through technicians Municipal Environmental Units, facilitated the articulation of project activities to the actions they perform in their territories and formed the basis for a task on the subject of waste chemicals in the municipalities. This action is an important project experience.
- In carrying out the coordination carried out by the project lacked officially planned and a link to the academy. It is also necessary to point out the lack of coordination with the unions or companies large producers of peanuts, soybeans and sugar cane in the departments of Leon and Chinandega , an example of these associations is the Nicaraguan Formulators and Distributors Association of Agrochemicals , formed by major national and multinational companies , manufacturers, formulators and distributors of products (ANIFODA) .
- The project was to strengthen the capacity of the country to meet the Stockholm Convention. Nicaragua has its National Implementation Plan of the Stockholm Convention on Persistent Organic Pollutants (PNA 2006 - 10-00014042 NIC Nicaragua 2025 2005. . . .) The joint project between the specified (Results, Products, Indicators and Activities) and the PNA was not established in the formulation, nor indicators of progress on the implementation of the implementation plan and the actions and results of the project were established.

4.2. Recommendations

- In case of interruptions in project implementation by disagreements content linked to differences in approach in government policies, between an outgoing and one incoming government, it is recommended total renegotiation of the project and a new approval. This would leave the institutional space required the country to better match their proposed policies work.
- It is important to have a baseline of the situation on which the project will impact. This greatly facilitates their subsequent monitoring and its intermediate (if any) and final evaluation.
- Monitoring systems project must exist, be functional, practical and continuous use for the performing organization. Baseline and Monitoring System must be necessary and mandatory actions for implementation funded agency. Although the executive institution has established monitoring processes to discuss harmonization in the implementation of monitoring and describe it in the project document.
- It is important that the country make an effort to develop an operational plan of the Plan of Implementation of the Stockholm Convention. This document shall be the instrument that provides working lines to formulate a medium-term project and should also serve as a basis for developing indicators of progress in the implementation of that plan.

- Ideally allow future funding proposals include other public and private organizations for the following reasons:
- Other institutions have mandates on this issue, for example the MAGFOR, MoH, among the most important, plus the mayors should and can develop a more direct role in different actions.
- The academy, which already works on the subject, should be part of a project and its financing.
- Large Manufacturers and Entrepreneurs and their unions (especially those who work for handling the problem) must be co - executors and co -financiers of the project.
- It is important to work on the integration of the private sector (especially medium and large) in the management of the problem and the solution of problems. Since the current Act 274 provides for the participation of traders in the task of chemical waste disposal. For integration and effective participation of these actors in the problem and its solution is recommended to apply the methodology of horizontal integration of actors in local development and value chains.
- It is necessary for UNDP and GEF promote the Nicaraguan authorities and civil society to establish a national program run permanent features that drive operational plan and schedule work of the Implementation Plan of the Stockholm Convention and Chemicals Management Plan hazardous (not POPs), another function of the program should be lobbying for the country to designate part of their funds from the treasury to the handling of hazardous chemicals (no POP's). Without the financial participation of Nicaragua on this issue, there is no guarantee of sustainability of any action taken by a project.
- Especially systematizing the processes of sensitization and training is recommended as well as the process of national inventory of contaminated sites. Both processes have characteristics that could be of great advantage in the replication of these. Processes in experiments carried out under similar conditions, whether in Nicaragua or other countries.

4.3 Lessons

•Best and worst practices in addressing issues relating to relevance, performance and success

As noted above (in different sections of this evaluation), the project has problems in meters around the sustainability of their actions , for various reasons and also analyzed , however, the quality process some practical and immediate impact will resume here for the analysis of best practices.

At the discretion of the evaluator was determined to qualify as an executed good practical experience, which is to be replicable, transferable, and can become a benchmark or model.

Thus we estimate the following criteria to determine good practice:

Impact: represents a demonstrable progress towards the objective (effectiveness) minimizing the use of resources (efficiency).

Realization: that are specific or tangible, are into evidence and verifiable facts, different thoughts, concepts, thoughts, intentions or desires.

Innovation: new solutions entail detection of new problems , improved methodologies , more effective planning, better targeting or coverage to groups not normally reach .

Sustainability: involves a lasting change over time, political commitment and ownership by those involved.

Equity: are equity-oriented, both gender and social inclusion.

Using the above as a frame of analysis the management model of the project and the process of empowerment and beneficiaries as part of the sustainability model implemented by the program are proposed as good practice.

Good Practice Case

Model Process Management Awareness and Information to beneficiaries and not chemicals Cop's

Impact	I managed to improve local knowledge about the dangers chemicals POP's not expressed as: Effective participation in calls for awareness and training events. • Participation levels of nitrates had ownership over information (hazard, risk reduction and prevention for families)...
Concrecion	The participants put in practice iun their agricultura work and with their families what the have learned.
Inovacion	• It is a model of planned awareness, guided by a plan specially formulated for this purpose. The formulation of the communication plan was participatory bases, ie, quantitative research was to generate the proposed plan. • The awareness program was accompanied by informative material. • Awareness actions were backed calls for citizen organizations Power, this contributed to the participation quantitatively. • The mayors actively participated in the call and with their presence at events, it has positive effects showing the participation of the Mayor against its people in the management of a problem little or no treaty at the level of municipal governments.
Sosteinable	• The actions taken were appropriate • The people have ownership of the actions taken. • The appropriation should be deepened so that the application of the learned knowledge can be permanently applied in their daily work. This task is

	required to be completed.
<i>Equity</i>	• Equity Shares executed succeeded in reaching poor people, who often have little academic level and the information is not properly formulated for assimilation. • The shares reached over 58% of women participating.