Building capacity to eliminate POPs pesticides stockpiles in Vietnam

Mid Term Evaluation Report

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| GEF Project ID | 3105 |
| UNDP PMIS ID | 3578 |
| Funding Source | GEF Trust Fund |
| Project Name | Building Capacity to Eliminate POPs Pesticides Stockpiles |
| Country | Vietnam |
| Region | Asia and the Pacific |
| Focal Area | POPs |
| Operational Program | 14 |
| Strategic Program | POPS-3; POPS-2 |
| Pipeline Entry Date | 2006-03-30 |
| PIF Approval Date | 2007-09-27 |
| PDF-B Approval Date | 2006-03-30 |
| Approval Date | 2007-11-16 |
| CEO Endorsement Date | 2008-12-15 |
| GEF Agency Approval Date | 2011-05-06 |
| Project Status | IA Approved |
| Executing Agency | Ministry of Natural Resources and Environment |
| Description | The proposed project will provide assistance to Vietnam to eliminate POPs pesticides stockpiles, and carry out pilot treatment of sites that are contaminated with POPs pesticides. |
| PDF B Amount | 350,000 USD |
| GEF Project Grant | 4,300,800 USD |
| GEF Grant | 4,650,800 USD |
| Cofinancing Total | 6,540,110 USD |
| Project Cost | 11,190,900 USD |
| GEF Agency Fees | 465,080 USD |
| GEF Project (CEO Endo.) | 4,300,800 USD |
| Cofinancing Total (CEO Endo.) | 6,540,110 USD |
| Project Cost (CEO Endo.) | 11,190,900 USD |
| GEF Agency Fees (CEO Endo.) | 465,080 USD |

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# Executive summary

1. The Project “Building capacity to eliminate POPs pesticides stockpiles in Vietnam” as originally approved has the objective “To remove barriers to the sustainable elimination of POP pesticides in Vietnam”. It consists of three operational component Outcomes: Outcome 1 - Improved capacity facilitates elimination of POPs pesticides stockpiles; Outcome 2 - All known stockpiles are destroyed and impacts on human health relieved; and Outcome 3 - Improved chemicals management prevents importation and use of POPs pesticides. Outcome 2 is the main Project focus in terms of GEF funding and Outputs relative to global environmental benefit with a targeted impact of eliminating 1,140 t of POPs pesticide stockpiles in five sites. Portions of Outcome 1 involve Outputs intended to provide the preparatory technical support for Outcome 2. Outcome 3 has fewer linkages with Outcomes 1 and 2, and it is intended to increase capacity building and awareness in the field of Pesticide legislation and management.
2. Although the evaluators have been contracted, for administrative reasons, under UNDP, they strove to conduct an independent evaluation with the objective to facilitate project success. The evaluators were aware of the agreement existing among FAO and UNDP concerning the requirement to carry out a coordinated evaluation (1), and arranged therefore meetings with both the agencies. In the course of the evaluation 2 meetings at UNDP Hanoi, (briefing and de-briefing), three meetings with FAO in Hanoi, a meeting with FAO in Rome plus a conference call with FAO staff were held.
3. At project inception (2) it was clear that the initial project estimates had to be revised, as some of the site to be treated within the project resulted, at that time, at least partially cleaned; moreover the inventory carried out by the Governmental program identified around 1153 burial or contaminated sites of obsolete POPs pesticides mixed at different extent with soil, instead of the “known” 5 burial POPs stockpile sites. Instead of the 1140 tons of pure POPs pesticides stored in stockpiles, the inventory revealed an indefinite amount (possibly much higher) of POPs pesticide waste scattered in a large number of sites, and mixed with other materials (soil, clay). In other words, it became clear that the project was rather a “dig and clean up” than a “re-packing and send for dispose”, and indeed even the project document reported that only a very small amount (<5%) of the estimated POPs pesticide were stored above ground. The use of the term “POPs pesticide stockpile” throughout the project document created probably some initial misunderstanding, as this term in Vietnam refers to contaminated sites where waste pesticide had been buried, whilst its common meaning in the SC and BC context leads straight to actions addressed toward the management of the last portion of the pesticide lifecycle (in simple words, pack and treat).
4. Notwithstanding the above, the main objective of the project, with reference to GEF focal area objectives, is even more valid than at project start. There is an increase in country commitment and ownership on the issue of POPs contaminated sites testified by the recent approval of the National Target Plan (3), which now – and partially also thank to the technical contribution of the project – is dedicating more technical and financial resources to the issue of POPs waste and contaminated site. Therefore it may be affirmed that the project scope, resulted from the limited rearrangement of the project outputs as proposed at the project inception, is more targeted at the true country needs and may even achieve, in the medium term, a bigger impact in term of the amount of POPs destroyed. This will largely compensate the fact that, within project term, the absolute amount of “pure” POPs destroyed is going to be lower than the initial amount planned, as now the project is mainly addressed toward the destruction of POPs waste (i.e. soil contaminated by POPs at a concentration higher or much higher than 50ppm) whilst the project document envisaged the destruction of POPs stockpiles (pure pesticides or mixtures containing POPs chemicals).
5. In December 2010 the government of Vietnam (4) issued the decision 1946 /QĐ-TTg, “*Approving the Plan to treat and prevent environmental pollution caused by pesticides stockpiles all over the nation*”. In September 2012, right before the starting of this MTE, the National Target Plan, signed by the government with the decision 1206/QD, allocated 100 billion Vietnamese Dong (48.475 million USD) for the disposal of obsolete pesticide and cleanup of sites contaminated by pesticides. From the several interviews and collection of evidences carried out in the course of the evaluation mission it emerged clearly that the government of Vietnam – at the central and provincial level – has great and urgent expectations on the guidance and outcomes which will be generated by the project, to implement a plan for the optimal use of the above financial resources. It has also to be noted that the co-financing amount which has been made available by the country exceeds the amount committed at project endorsement. The above offered an opportunity – to be properly exploited - to mitigate the negative consequences of the project delay by linking the project with other undergoing projects in Vietnam, with an overall positive impact on the overall delivery of the PDO.
6. The project, and its Project Management Unit, are at the crosslink of important initiatives carried out by governmental bodies in charge of planning and financing actions aimed at POPs waste management and cleaning up contaminated sites (Ministry of Natural Resources and Environment, WEIND, Ministry of Agriculture and Rural Development, PPD). Therefore, even in comparison with similar projects, the project constitutes a unique opportunity, which evidently should not be missed, to provide a substantial input toward the implementation of the Country’s policy on POPs waste management and disposal. In this sense, the project may have a true catalytic role in ensuring the proper management of POPs waste and POPs contaminated sites, and its expected impact in the near future may be high.
7. Notwithstanding the above, the project is at a critical stage of its implementation. The disbursement rate in the first 2 years after inception was very low. The project activities require PMU to coordinate with several governmental authorities, at provincial and central level and two implementing agencies, and to receive and provide inputs from all of them for any administrative or technical step.
8. Considering the linkage among different project activities, one of the main risks the project is facing is therefore related to the difficulty to complete within the project deadline cleanup and disposal activities, including procurement, bidding and contracting. Although PMU at the beginning of the evaluation mission provided the MTE with a time frame envisaging the completion of project activities within the original project deadline, after a thorough examination of project documentation, of the result achieved, and on the basis of site visits it was evident that the original time frame (an extension of which was however proposed at project inception) is no longer practicable. Some of the activities that should have been completed before Mid Term Evaluation (in particular, procurement and bidding for transport, cleanup and disposal services) did not even started, an time is specifically required for building the needed storage infrastructures, removing POPs waste from the sites, establishing and testing the technologies or services for POPs disposal. It should however be noted that the delay brought some benefit s as there was a better coordination with MONRE which based on inventory results and the inputs received from the project allocated a substantial fund specifically dedicated to POPs waste. The prolonged implementation had also benefits in ensuring technical coordination, completing environmental management plans, consolidating sharing of knowledge and capacity.
9. The project mostly completed important substantial technical assistance tasks in the field of site cleanup and POPs waste disposal. However, dissemination of technical guidance and of know-how is still limited and to improve communication and to share project outcomes and documents has been requested by several parties (PPD, MARD, WEIND, DONRE). Only by ensuring that the relevant technical guidance and the project know-how are disseminated and propagated among all the project beneficiaries who will have to implement the National Target Plan on pesticide contaminated sites, the impact and sustainability of the project can be secured.
10. One of the most severe risks the project is currently facing is related to the selection of the technology for disposal of POPs waste and POPs contaminated soil. This was complicated by the delay in completing EMP and the preparation of bidding documents for a large bid, approximate US$1.0 million. The project needs to focus its effort to achieve outputs of the component 2, including good estimates of the overall amount of POPs waste that need to be destroyed / decontaminated, clear criteria for selection of most appropriate technology taking into account potentials for technology transfer and capacity building.
11. The annexes to the Project Document state that *“it is strongly recommended to treat the POPs and obsolete pesticides in Vietnam”* because *“there is already a lot of capacity built in Vietnam and it is now the issue to bring that capacity on the necessary level of Environmental Sound Management”.* To assess the capacity (from the cost and technical standpoint) to perform environmental sound disposal of POPs in Vietnam was clearly beyond the scope of the mid-term evaluation. However it is quite obvious that whilst exporting pure POPs (like PCBs or pure pesticides) for disposal may be a cost-effective option, this is not the case of of POPs contaminated soil, which indeed are usually not exported.
12. Currently it seems that there is only one licensed plant with the technology capable to ensure an environmentally sound disposal of contaminated soil (Holcim) which therefore is acting as a monopolist. Incineration in cement kiln proved very effective for destroying pure pesticides, however it is clear that for the decontamination or destruction of POPs pesticide contaminated (up to few thousand ppm) waste, this option, though effective, is not efficient.
13. To solve the issue of disposal technology, the project is currently coordinating with the UNDP project “Environmental Remediation of Dioxin Contaminated Hotspots in Vietnam” to see whether the technology demonstrated under that project is suitable for the disposal of POPs pesticides contaminated soil, and at the same time is ensuring assistance to other companies who applied to MONRE for an integrated license for transport and disposal of hazardous waste.
14. However the issue of technology selection for disposal / decontamination of POPs pesticide waste will continue to represent a serious risk for the project in the incoming few months, and is recommended to carefully monitor the available options in the incoming weeks/months.
15. The project is currently being managed and monitoring with reference to three different logical frameworks: the original logical framework; the logical framework approved at the project inception, which was not formally submitted to GEF; and the logical framework, with separate project indicators, included in the “FAO project document”. There is obviously the need to harmonize the three logical frameworks into a single logical framework to be formally approved, for facilitating the management, monitoring and evaluation of the project in its final and most critical phase.
16. The mechanism for ensuring effective coordination between FAO, PMU at MONRE and UNDP was not included in the overall project design. This resulted in ad-hoc arrangements developing which lead to some duplication and confused lines of communication. This was overcome in June June 2011 an agreement between agencies finally clarified the respective roles of PMU, UNDP and FAO and their coordination modalities. It is likely that, due to the complexity of the case and changing of project managers in the IAs, not all the M&E requirements established in that agreement were formally satisfied. From the substantial point of view however all the information provided by the different project stakeholders were channeled through the PMU, and finally conveyed to GEF through UNDP. These issues seems now mostly settled and are not affecting the project implementation; most of the capacity building activities have been completed, the PMU consolidated its operational procedures, the activities envisaged under the separate FAO budget are almost completed.
17. Therefore at this stage, for preserving the operational effectiveness of PMU, it is recommended not to introduce further complexities by modifying the current management structure or respective role of IAs and other stakeholders with regard to the three different project outcomes. This role was established in the original project document, successively confirmed in the inception report, ratified in June 2011 in the agreement between UNDP and FAO, and in another separate agreement between FAO and MONRE: therefore it should be considered sufficiently consolidated. There could be however the need to ensure international consultancy on specific items like completing EMPs and drafting and reviewing bidding documents for site cleanup and POPs waste disposal: it is necessary to verify that the budget under outcome 2 or 3 can cover these needs.

# Description of the evaluation methodology

According to TOR requirements, the evaluation has been carried out both as a descriptive assessment and on the basis of a scoring system.

The evaluation required meetings (in Hanoi and at the FAO offices in Rome) with all the most relevant stakeholders involved in project implementation, review of most of the technical and administrative documents, mission reports, meeting minutes produced in the course of project activities, and visit to the POPs contaminated sites.

In few cases, when it was not possible to arrange meetings, the interviews were arranged by means of Skype or telephone calls.

Questionnaires based on the list of questions required by the TORs were used only as a memo for carrying out interviews and were filled by interviewers. In only one case the questionnaire was filled by the interviewed persons (PMU) however that was only for confirmation of the outcome of the interviews carried out in several meetings. FAO submitted a Project Implementation Progress Briefing (5) note which was considered in the evaluation.

Concerning ranking, the following 6 level score proposed in the TOR for project outcomes and outputs has been adopted, with the numeric values associated to each level:

|  |  |
| --- | --- |
| **Rating criteria** | **Associated numeric value** |
| **Highly satisfactory (HS).** The project had no shortcomings in the achievement of its objectives in terms of relevance, effectiveness, or efficiency. | **5** |
| **Satisfactory (S).** The project had minor shortcomings in the achievement of its objectives in terms of relevance, effectiveness, or efficiency. | **4** |
| **Moderately satisfactory (MS).** The project had moderate shortcomings in the achievement of its objectives in terms of relevance, effectiveness, or efficiency. | **3** |
| **Moderately unsatisfactory (MU).** The project had significant shortcomings in the achievement of its objectives in terms of relevance, effectiveness, or efficiency. | **2** |
| **Unsatisfactory (U).** The project had major shortcomings in the achievement of its objectives in terms of relevance, effectiveness, or efficiency. | **1** |
| **Highly unsatisfactory (HU).** The project had severe shortcomings in the achievement of its objectives in terms of relevance, effectiveness, or efficiency. | **0** |

Ranking were subjectively assigned by the evaluators; however, to ensure consistence, the following criteria has been adopted:

All the project outcomes has been evaluated with 3 different scores with value from 0 to 5 based respectively in the criteria of relevance (R ), Efficiency (Eff) and Effectiveness (Ect).

The three criteria were evaluated considering that:

1. Relevance implies close logical relationship with, and importance to, the matter under consideration. As the main objective of the project is “*to remove barriers to the sustainable elimination of POP pesticides in Vietnam*”, a high relevance score was assigned to these activities which if correctly implemented are directly related to the objective, whilst a lowest relevance score has been assigned at activities indirectly related.
2. Effectiveness is the degree to which objectives are achieved and the extent to which targeted problems are solved. In contrast to efficiency, effectiveness is determined without reference to costs and, whereas efficiency means "doing the thing right," effectiveness means "doing the right thing.". Therefore, a high value of effectiveness has been assigned to outputs/outcome which reached their original objective, whereas low value has been assigned to outputs/outcome which reached only partially their intended objective.
3. Efficiency is the comparison of what is actually produced or performed with what can be achieved with the same consumption of resources (money, time, labor, etc.). Efficiency is an important factor in determination of productivity, therefore a high value has been assigned to activities which have been carried out in due time and which are expected to be carried out without delay.

The three scores obtained with the criteria summarized above were averaged within each outputs, and then the average score was averaged within outcomes among all the outputs of each outcome. Finally, the numeric values were translated in to the nearest rating criteria.

# Evaluation scope and objectives

## General objectives of the evaluation

The mid term evaluation has been performed in compliance with the objectives listed in the Term of Reference for the Mid Term Evaluation Consultant, namely:

* To review of the project design, planning and implementation;
* To review project performance;
* To assess project impacts
* To assess sustainability of project outcomes;
* To formulate recommendation and analyze lessons learnt.

## Specific objectives of the evaluation

The inventory activities carried out before the inception report make it clear that whilst “pesticide stockpiles”, in their literal meaning, were limited to very few tons, the bulk of pesticides were still in form of contaminated soil and POPs waste scattered among more than 1000 sites (instead of the 5 initially listed in the PD).

At inception this situation was acknowledged and a new logical framework, which basically have been since then used as reference for project management and monitoring, was proposed.

It was therefore crucial in carrying out the evaluation to establish whether the project has still to be evaluated making reference to the original logical framework or using the logical framework approved in the project Inception.

In making such a decision it should be considered that, although not formally approved by the GEF, the new wordings for project outcomes and objectives, and the new logical framework have been approved by the all the project parties and by the implementing agencies (UNDP and FAO) as a result of the project inception.

Anyway, in compliance with TOR requirements, an analysis of the two logical frameworks, and of the grounds and motivations for the changing of the original project logical framework was carried out. The analysis leaded to the conclusion that the original logical framework cannot be the basis for evaluating project performance, and that the modified logical framework at inception, which however needs few modification in wording to the reflect the changed situation, may be used for evaluating project progresses.

The MTE had also the purpose to clarify whether the two main objectives (destroy known POPs pesticide stockpile and build capacity) may be fulfilled by project end given the time remaining and outcomes achieved at mid term, or if corrective actions (for instance: extending project timeframe; improving management methods; reassessing objectives; redefine technical standards) for securing project objectives would be necessary.

Specific objectives of the evaluation are summarized in the question list required by the TOR for Mid Term Evaluation (annex 1).

# Analysis of the situation with regard to outcome, outputs, resources, partnerships

## Assessment of project design

### Do the project problems to be solved still stand, project responses strategies and project adaptive management measures remain relevant to national priorities and GEF strategies, considering possible changes in context?

**Project problems to be solved.** Based on the project rationale detailed in the original Project Document (4), the project would eliminate “*all known stockpiles of POPs pesticides in Vietnam, for an overall amount of 1140 tons*”. However the project document did state that ***“****the destruction of known stockpiles is an incomplete response as it is clear that there are a potentially large number of additional, as yet unknown stockpiles; and furthermore there is a major continuing problem of illegal importation of pesticides which may contain substantial amounts of POPs. Consequently, as important as the destruction of known stockpiles, is the need to build capacity both to destroy additional stockpiles as they are discovered, and to eliminate continued importation of illegal POPs pesticides.”*

**Possible change in the context.** From the project inception report (2): *“The project document was submitted in 2007 and approved at the end of 2009. The project implementation was prepared early 2010. Between 2007 and 2010, more information on the actual situation concerning the number and environmental hazard of POP pesticides sites with buried pesticides was revealed, sites were (partly) cleaned-up and the legal framework changed.”*

Indeed, the inventory activity carried out by the Governmental Program called for a substantial and lexical revision of the project scope. In very few words, instead of the 5 “known” POPs stockpile burial sites containing an estimated amount of 1140 tons of POPs pesticides, the project faced an inventory of 1153 POPs waste burial and contaminated sites, with an overall amount of POPs waste very likely exceeding by several times the 1140 tons initially estimated, but mixed with soil or other media at a concentration ranging from few ppm to almost pure.

The country legal and financial context of the project also changed. From the project scope standpoint, the most important – and beneficial - change in legal context were the following:

* In October 2010 government of Vietnam (4) issued the decision 1946 /QĐ-TTg, “Approving the Plan to treat and prevent environmental pollution caused by pesticides stockpiles all over the nation”.
* In September 2012, right before the starting of this MTE, with the decision 1206/QD the government approved the National Target Plan (NTP) (6) and allocated 1010 billion Vietnamese Dong (around 48.475 million USD) specifically for the purpose of the disposal of obsolete pesticide and cleanup of sites contaminated by pesticides.

Thank to the approval of the NTP, the project was capable to secure more co-financing resources than committed at the project signature, and to increase the number of site to be treated.

Beside the changing in the context summarized above, it is evident that the widespread use of the expression “POPs pesticide stockpile” through the project document caused some misunderstanding.

Whilst the literal meaning of the word “stockpile” is “*a gradually accumulated reserve of something*” (7), or “*a large store of supply accumulated for future use*” (8), in term of pesticide management this word clearly recalls actions that are more addressed toward the management of chemicals rather than disposal or cleanup of contaminated sites.

That had even some practical implication: for instance, the Communication Strategy (9), the Guidance on Pesticide Container Managenent (10) and finally also the Pesticide Storage Management System (PSMS) are outputs which have no direct relationship with the issue of phased out POPs pesticides, POPs waste or POPs contaminated soil.

However, it was the project document itself that clarified that the issue of “stockpiles” (in its practical meaning) concerned only a small minority of the initially estimated 1140 tons of POPs pesticides “*An inventory of POPs pesticides stockpiles undertaken during the preparatory process of the project revealed that,…a total of only 70 tonnes of POPs pesticides were found in above-ground stockpiles.”* In the view of the evaluators, already at the time of drafting of the project document, the word “POPs waste” should have been used instead of “POPs stockpile” to better reflect the situation in the country – a situation in which wasted POPs pesticides were mostly buried bulk in unsafe bunkers or even in pits. From pilot activities carried out by the project at one of the biggest burial site, (12), it resulted evident that pesticides are not buried in their original containers; instead they were buried mixed with soil, organic material, clay, lime.

In addition, the term “stockpile” in POPs management concerns now activities and regulations addressed at the ESM management of waste, defined by the by the Basel Convention (13) as *“substances or objects which are disposed of or are intended to be disposed of or are required to be disposed of by the provisions of national law”.* After the entering into force of the Stockholm Convention on POPs (14), all the POPs stockpiles in the signatory countries became instantaneously POPs waste.

Therefore it is clear that the main scope of the project, since the very beginning and from the point of view of both substantial and legal standpoint[[1]](#footnote-2), concerns POPs waste and POPs contaminated sites, and not POPs pesticide stockpile.

As explained in section 5.1.2, the use of the word “stockpile” had also consequences in the definition of indicators that need now to be updated. However, even if (and perhaps because) the main scope of the project has to be readdressed to POPs waste, clearly the project is without any doubt relevant to the strategies listed in the GEF 4 (15). and GEF 5 (16) Focal Area Strategy for POPs.

**GEF strategies.** The Strategic Objective of GEF 4 is “To reduce and eliminate production, use and releases of POPs”. The expected impacts, in comparison with project achievement at mid term and project activities to be completed after mid term are reported below:

|  |  |  |
| --- | --- | --- |
| Expected GEF 4 impacts | Main GEF 4 indicators | Project relevance |
| GEF-supported countries have strengthened capacity for POPs management and consequently strengthened capacity for the general sound management of chemicals | Regulatory and enforcement capacity in place | Several activities related to building capacity and prevention of illegal import of pesticides already carried out in Outcome 1 and 3. More activities related to building capacities in the field of POPs waste management and disposal, currently undergoing or to be started in Project Outcome 2 |
| Dangerous obsolete pesticides that pose a threat to human health and to the environment are disposed of in an environmentally sound manner | Obsolete pesticides disposed of | The main objective of the project is to dispose POPs waste removed from the burial sites. This objective is confirmed and strengthened at the light of new inventory data available. (Project Outcome 2) |
| The risk of adverse health effects from POPs is decreased for those local communities living in close proximity to POPs wastes that have been disposed of or contained | Reduced risk of exposure to POPs of project-affected people | The rearrangement of some project activities from the “re-pack and dispose” approach usually adopted for POPs stockpile, to the Environmental Management Plan for the removal of POPs waste from burial sites will reduce the risk of exposure to POPs of the surrounding population. This aspect is of outstanding importance for Vietnam. The evaluators observed personally, in the course of visits to sites how severe is the exposure of local people living in the vicinity of burial sites. Although epidemiological evidences are limited, some of the villages in the vicinity of pesticide burial sites have been nicknamed “cancer villages” (17), (18), |

By any evidence, the project is of great importance also for achieving objective listed by Objective 1 of the GEF 5 Chemical strategy, as following:

|  |  |
| --- | --- |
| (c) POPs releases to the environment reduced; | The removal of POPs waste from the burial sites, and the Environmental Safe Management of these sites will reduce POPs releases to the environment (Project Outcome 2) |
| (d) POPs waste prevented, managed, and disposed of, and POPs contaminated sites managed in an environmentally sound manner; and | The main objective of the project is to dispose POPs waste removed from the burial sites. This objective is confirmed and strengthened at the light of new inventory data available. (Project Outcome 2) |
| (e) Country capacity built to effectively phase out and reduce releases of POPs. | Several activities related to building capacity and prevention of illegal import of pesticides already carried out in Outcome 1 and 3. More activities related to building capacities in the field of POPs waste management and disposal, to be done in Project Outcome 2. |

In conclusion, the evaluators consider that the answers to the evaluation question 5.1.1 above are all positive and that the activities to be carried out, which are still relevant to the GEF strategies, are even more significant for addressing the country’s need.

### Are the project specific outputs and their corresponding indicators as defined in the project logical framework and design and its modification in the Inception report still relevant in the light of the project experience to date? Pinpoint any aspects of the “logframe” that shall be revisited and updated, and, if necessary, provide suggestion for timely changes or adjustment to activities and time-bound targets.

**Relevance of project specific outputs and corresponding indicators.**

The evaluators in the course of several meetings and interviews discussed the issue of the rearrangement Logical Project Framework with the Project Management Unit, UNDP, FAO, International consultants. The evaluators also analyzed in detail the Project Document (4), the Project Inception Report (2), the Review Report (19), the agreements among IAs and the government (1) and other reports on this issue.

As a result of the Project Inception, “*…based on the baseline information, the site visits and the experiences of the project team the project logical framework was updated. The main outcomes, the capacity building activities and the cleanup of five to six POP sites, including the destruction of 1,140 tons POP, remain unchanged*.”. The main issue here is that the changes proposed at Inception were never formally approved, whilst substantially the project since then was managed in reference with the new logical framework proposed. An analysis of the new logical framework in comparison with the previous logical framework was also conducted in the Review Report (19). In this respect, the tasks carried out by the evaluators were as following:

1. To evaluate whether the change to the original logical framework proposed at inception (from hereinafter referred as “new logical framework”) may be considered acceptable;
2. To verify whether the new logical framework and related indicators requires further improvement;
3. To assess how to integrate in the project logical framework the indicators proposed by FAO in the logical framework of the “FAO Project Document”
4. to propose, on the basis of 1) 2) and 3), amendment to the new logical framework inclusive of indicators to be formally approved and used as reference from Mid Term to project completion.

Considering the negative impact that a substantial rearrangement of the logical framework could have at this project stage, limited amendments of outcome / outputs are proposed in this report, and only when strictly necessary or for the purpose facilitating project implementation and measurement of project performance.

In general, the new logical framework reduced the number of project outputs of the original framework (from 12 to 10 for Outcome 1; from 6 to 4 for Outcome 2). Few ambiguities, which may lead to a difficult measurement of project performance, still remain in the logical framework proposed at inception. More specifically, in all the outcomes and outputs were reference is made to “POPs stockpile” it is suggested to add the words “and highly contaminated POPs waste”, for the reason that is better detailed below; a revision of the wording of Outcome 2 is proposed, to ensure that project objectives are realistic and measurable; minor amendment to output 2.1 are proposed, to clarify what is the technical assistance which has to be provided for . Finally, it is proposed to add to the description of Output 2.2 the words “"by removing highly contaminated POPs waste from the sites and disposing them in an Environmentally Sound Way"

No significant amendment / rearrangements of Outputs under Outcome 3 are deemed necessary by the evaluators.

Rewording of some of the output indicators proposed in the new logical framework, for ensuring project performance measurability is instead considered necessary. In the “Annex I. Proposed revision of the Logical Framework”, a comparison between the original and new logical framework, and a proposed amended Logical Framework is attached.

**POPs stockpile and POPs waste.**

One significant aspect to be considered in amending the project indicators is again related to the issue of POPs waste and POPs stockpiles, as previously mentioned in section 5.1.1

The reason for recommending the use of both “highly contaminated POPs waste” and “POPs stockpile” in the formulation of the Logical Framework is as following.

1. The Vietnamese Legislation still refers to burial site of POPs waste as “POPs stockpile”; therefore this term must be preserved throughout the project documentation, having in mid however that a “POPs” stockpile, by definition of the Basel convention, is a POPs containing waste;
2. The use of the word “POPs pesticide” and “POPs pesticide stockpile” instead of “POPs pesticide waste” in the project logical framework generated the misleading expectation that the amount which is going to be destroyed is measured as pure pesticide. This because a pesticide stockpile, made of pesticides intended for future use or stored in their original containers pending disposal, would be in the common sense mostly made of containers filled with pure pesticides or mixtures (preparations) with substantial concentration of the active principle, whilst a POPs waste– and particularly a buried waste – intended since the beginning as a temporary way of disposal, would be very likely mixed intentionally or unintentionally, in different extent, with other materials (very often the common practice of burying pesticides in Vietnam was by mixing them with soil or clay).
3. It is the understanding of the evaluators that the Project Document authors intended the amount (1140 tons) of POPs pesticide stockpile to be destroyed in the sense of POPs pesticide waste, as it is very clear from the reading of the Project Document that the authors were aware at the very poor conditions of burial sites of pesticides.

Obviously the question arises whether the destruction of 1140 tons of POPs pesticides may have the same global benefit of the destruction of the same amount of POPs waste.

It is clear that 1140 tons of POPs waste – to be here operationally defined as waste containing a POPs at a concentration ranging from 50 ppm to pure pesticide[[2]](#footnote-3) – have a total amount of pure POPs which is smaller than the same amount of pure pesticide, therefore the destruction of 1140 tons of POPs pesticide would theoretically have a much bigger potential global benefit than the destruction of the same amount of POPs waste.

Practically, given the situation of the burial sites in Vietnam, destruction of 1140 tons of pure POPs pesticide is not realistic.

The impact (positive or negative) should however be always intended as the product of intensity of the event by the event probability. In this case, compared to the less probable release of pure POPs from a well confined stockpile (which do no exist anymore in Vietnam), we have the almost certain release of POPs from abandoned high concentration POPs waste. The quantitatively smaller potential global benefit may be moreover considered compensated by:

* a much greater probability and higher rate at which POPs waste buried unsafely are released in the general environment – making the removal of POPs from the burial site a very urgent objective;
* a much greater local benefit in term of exposure reduction of the neighboring population;
* finally, the fact that the expected impact of the project is much more higher than originally thought, as Vietnam is now facing the issue of 1153 POPs contaminated sites, with around 120 sites considered of high priority, in comparison of an initial estimate of 5-6 POPs stockpiles sites.

In the Project Review Report (19), a tentative estimate of 700 tons of POPs waste to be disposed, instead of the 1140 tons of pesticide stockpile originally envisaged by the PD. The project review suggests to change the wording of Outcome 6 as following: *“Up to 700 t of POPS pesticide waste destroyed and 10,000 m3 of POPs contaminated soil contained or under remediation at up to 5 sites”.* The evaluators consider that the proposed change is reasonable, as long as more precise information concerning the amount of POPs pesticide waste is available (very likely 700 t is a conservative estimate) and that it is made clear that the containment should only concern contaminated soil which concentration of POPs pesticide is smaller than 50 ppm, because for a greater concentration, non destructive technologies are not allowed by the Stockholm Convention.

**Relevance of outcome under The FAO “Project document”**

In June 2011, an agreement on project activities and M&E was jointly signed by FAO and UNDP (1) . That agreement was based on a “Project Document” (20) drafted by FAO (the “FAO PD”) and providing details on the activities that in the original Project Document where under the responsibility of FAO. For the sake of clarity it should be highlighted that in this MTE, for Project Document it has to be intended the Project Document signed by GEF and the government of Vietnam (4). The “FAO PD” underlying the agreement between FAO and UNDP should be therefore considered as a technical specification for the activities supported by the FAO budget rather than a separate “Project Document”, and indeed the GEF number reported in the FAO PD is the same of the original UNDP/FAO project document 3105.

The FAO PD contains a Project Result Framework with indicators which add to the ones already defined in the Logical Framework of the original project document. The numbering of outputs and outcome is based on the original Logical Framework, although it contains reference to the new Logical Framework revised at inception.

In general and from the substantial standpoint, all the outcomes under the FAO PD are relevant to the general objective of pesticide management and some of these also to the specific issue of POPs waste management; more specifically, Output 1.1 from original project document (Output 1.5 in revised Log Frame from inception report) “Qualified agencies selected to provide excavation, re-packaging, temporary storage, transportation and sampling/testing services”, Output 1.11 from original project document (Output 1.4 in revised log frame from inception report) “Technical and managerial guidelines are prepared governing treatment of contaminated sites” are highly relevant to the issue of POPs pesticide waste stockpiles and also to pesticide management in general.

Concerning output 1.7 (1.2 in revised log frame from inception report) It is clear that the Pesticide Stock Management System to be originally established at MONRE, suitable for the management of pesticide management, was not the proper tool for the management of contaminated sites. The FAO PD states that “*Discussion with the crop protection service in MARD has confirmed that they welcome the installation of PSMS to allow them to track the amounts and types of pesticides entering the country. PSMS will therefore be installed at MARD to assist in the long term management of pesticides and as a pesticide registration tool for the future*”.

Output 1.10 (Communication and awareness) and output 1.12 (Design for an empty container management system approved) under the FAO PD may be theoretically relevant to both the general issue of pesticide management and to the issue of POPs pesticide waste. Based on the reports produced under this activities, (9) (10), it seems however that these outputs were more addressed toward pesticide management in general, with no references to the issue of phased out POPs pesticides.

In general, outcomes under the FAO PD are relevant to the core objective of the Project (*To remove barriers to the sustainable elimination of POP pesticides in Vietnam)* and supplement the needs of important stakeholders like MARD and PPD, which are more on the side of pollution prevention than on the side of POPs elimination.

### Do the project purposes and objectives remain valid and relevant, or are there items or outcomes in the project design that need to be reviewed an updated?

The project obiective is “**to remove barriers to the sustainable elimination of POP pesticides in Vietnam“.** The evaluators consider this objective still valid and relevant, and broad enough to include the limited changes in the scope of the Project Outcome recommended in the previous chapter (answer to Question 5.1.2.) and in the “Annex I. Proposed revision of the Logical Framework”, as well as the changes introduced by the revision of the Logical Framework carried out at Project Inception. The evaluators recommend to keep unchanged the original project objective instead of the project objective indicated at Inception (“To support sustainable development in Vietnam through the elimination of POPs from the environment”. )

### How is level of coherence an inter-link between and amongst project outcomes in terms of supporting each other towards achievement of the project objectives?

Compared to the original Logical Framework, changes in the project outcomes / outputs were introduced at Project Inception (2) to enhance the internal coherence of the project, the consistency of project activities with the objective to eliminate acute risk and reduce long term risk at POPs contaminated sites, and to increase project feasibility and measurability.

In general these changes are reasonable and intended to simplify project management and avoid overlapping among activities. The new logical framework revised at inception may be considered more interrelated and coherent than the original one. The few amendments which may be proposed by are listed in “Annex I. Proposed amendment of the Logical Framework”, and are mostly on the wording side, to take in due account the situation which emerged with the new inventory data made available at the time of inception, and will not affect the level of coherence or inter-link among project outcomes.

Beside the two logical frameworks above, a further degree of complexity was introduced with the already mentioned agreement between FAO and UNDP based on the “FAO PD”

Practically, there are currently 3 reference documents with different logical framework, indicators and project outcomes that would introduce unnecessary complexities in project management, monitoring and evaluation:

* The original project document and its logical framework
* The logical framework approved at the inception report
* The FAO PD and its logical framework (5), and agreed among UNDP and FAO on June 2011 (1)

All the above need to be clarified and rearranged in only one Logical Framework, to be submitted to GEF, and which should be the Logical Framework revised after project inception, with the few editorial changes aimed at clarifying the concept of “POPs waste” against “POPs stockpile”, and integrated with the indicators specifications reported in the FAO PD. A proposed amendment of the logical framework is therefore proposed in Annex I.

## Outcome and Outputs

### s the project on track to achieve its goal of “support to sustainable development in Vietnam through the elimination of POPs from the environment”?

First of all, it is recommended to keep the original wording of the goal “*To remove barriers to the sustainable elimination of POP pesticides in Vietnam*”, because it is more concrete and measurable, yet wide enough to cover all the project specific outcomes. Therefore, question 5.2.1 should be reworded as following:

*Is the project on track to achieve its goal “To remove barriers to the sustainable elimination of POP pesticides in Vietnam”?*

The GEF PMS specifies an official implementation start date of October 15, 2009, the official implementation completion date June 30, 2013 and final closing date (completion report and disbursement closure) as December 2013.

However, the project inception meeting of the project took place only in 5th April 2010. The Project Workplan attached to the inception report therefore assumed as starting date 01 March 2010, and a closure date of the project 4 years later (March 2014) which however has been never formally approved.

In Annex 9.1 an analysis of the project timeframe based on a Gantt chart and achieved result, is reported.

In Annex 9.2 a summary of project achievements at MTE is summarized. This summary is based on the direct analysis of project reports, interviews with project managers and consultants, site visits.

The main conclusions emerging from the analysis are:

1. All the activities based mainly on the effort of international consultants have been completed or almost completed. There is still the need to ensure international consultancy for the completion of EMPs and for drafting and reviewing bidding documents of site cleanup and POPs waste disposa.
2. Most of the activities listed under Outcome 1, with the exception of Outcome 1.10, have been completed. Of these, the update of the inventory and the prioritization of sites are the two most important activities, constituting a key pre-requisite for the other project activities. The updated inventory on POPs pesticide burial sites and contaminated sites (listing more than 1100 sites) constituted also the basis for the establishment, by the Government of Vietnam /MONRE of the National Target Plan. Therefore it may be affirmed that the project already achieved a significant impact in term of securing the government commitment far beyond the project boundaries. The project now faces the needs of continuing to provide catalytic support to the government actions in destroying POPs waste and remediating POPs contaminated sites.
3. Activities listed under Output 1.10 have been started, but their most important achievements are still to come. These activities basically include the work leading the contracting of companies who will be in charge of removal of POPs waste from the contaminated sites and POPs destruction. More specifically, whilst most of the preparatory activities (Environmental Management Plan for contaminated sites) are ongoing, there is apparently a big effort to be done for the compilation of realistic Bill of Quantities for the activities related to the contaminated sites; therefore all the procurement process for the activities at the sites is still to be started. This process (bill of quantities clarified, Term of Reference drafted and approved, bidding, evaluation and contracting will probably require not less than 6 months from this MTE, probably more.
4. The drafting of Term of Reference for destruction of POPs waste is only apparently in a more advanced state. A Draft Term of Reference (21) for the destruction of around 1000 tons of POPs waste has been drafted by the PMU, and it is now under the peer review of the IAs. From a very quick look at this TORs following issues may be highlighted:
   1. To carry out the destruction activity, two collection points have to be arranged. In the course of one of the visits, the evaluators went to one of areas in Ha Tinh where the collection point has to be built, which was flooded due to a recent rain. All the preliminary activities (feasibility analysis, technical specification, procurement) relative to the collection point did not start yet.
   2. The timing indicated in the TOR (from December 2012 to June 2013) is probably not feasible as the required collection points will be in no way ready by December 2012, and because in any case some preliminary steps indicated in the TOR would also require a substantial amount of time.
5. The activity 2.1.1 “Assist selected company obtaining the license. Asses performance and issue license when in compliance” is also an activity which is usually long and of uncertain results. Similar activities (the conduction of the proof of performance (PoP) test) conducted in other similar projects lasted for more than one year, and required: preparation of the PoP plan, bidding and contracting for supervision and laboratory work, preparation for the test, conduction of (one or more) tests, PoP test report drafting and submission, rearrange for a new test in case of test failure (not unlikely). Legal issues may also affect this activity if – as it seems – the consequences of licensing and the proof of performance test are not properly specified in the TOR. The successful (means positive outcome of the proof of performance test and licensed obtained) completion of this activity is a mandatory prerequisite for all the site cleanup and POPs waste destruction activities.
6. Activities under outcomes 2.2 and 2.3, where the bulk of the project’s financial resource would be spent, are far from starting because they are linked to the successful completion of activities under outcomes 1.10 and 2.1.
7. The project is therefore not in track to achieve the desired goal by the planned deadline of June 2013. Several activities under outcome 1.10 and 2.1 which indeed should have been already completed from one year to six months ago did not yet started.
8. There is the obvious need to reschedule all the activities under outcome 1.10; giving them high priority; these activities should be completed at latest by February 2013 to allow the subsequent activities enough time to be completed.
9. There will be probably the need to redesign activity 2.1. Proof of Performance test or similar activities should be moved under the company responsibilities as part of their services (therefore moved to activity 2.2.1). Proof of performance tests should be limited to the aspects strictly relevant to the compliance with the SC BAT/BET guidance, assuming that other aspects are covered by national legislation, and that in any case they can be regulated in the technical specification of the relevant bidding document. P.o.P. test should be required only if the specific plant where the POPs pesticides have to be destroyed is not in possess of the result of recent similar tests conducted with POPs substances or with highly chlorinated organic substances.
10. Very likely, outcome 2.2, 2.3 and 2.4 will be completed not before June 2014, considering their complexity and the time required for the preparation of preliminary activities not explicitly mentioned in the logical framework like the preparation of temporary storage facilities and collection areas.
11. In annex 9.2, the expected “realistic” time frame for the project is reported.

### What were the major factors influencing the achievement/non-achievement of the project objectives/results?

The following reasons for project delay were ascertained on the basis of meeting and reviewing of documents:

1. The Project, approved by GEF in November 2008, envisages an implementing period of 4 years, with closure at the end of 2012.
2. Because of the institutional restructuring of Vietnam Environmental Administration from the department level to department general level, and due to time-consuming procedure for project approval by Ministry of Planning and Investment, the Ministry of Finance and the Government Office, the approval of the project was delayed.
3. It was only in October 2009 that MONRE, UNDP and FAO signed the project. the PMU was established with a decision signed in November 2nd, 2009 at WEPA. The Department of Waste management and environmental improvement completed the recruitment of project staff and started the operation in March 2010. The inception workshop was held in April 5th 2010, 18 months after GEF approval.
4. The UN's HPPMG was introduced in May 2010 and became effective on June 1st 2010. By HPPMG the project procurement procedures have to follow at the same time the Vietnamese Law on Public Procurement and regulations in HPPMG. The procurement steps, not taking into account the time required for drafting and reviewing the bidding documents, require not less than 3 months to be completed.
5. According to Public Procurement law, the project has to develop an annual procurement plan, and to submit it to VEA and MONRE for approval. This procedure requires usually not less than 3 months.
6. For each package, the project has to submit Draft Tender Documents (or Request for Proposal) for approval
7. In June and July 2012, the VEA moved the office, so that the first contract was signed only in August.

It seems now that, except for procurement which will still continue to be a time consuming process, the main factor causing project delay have been removed..

### What are factors that have facilitated or deterred the achievement of project objectives;

**Factors facilitating the achievement of project objectives.**

One of the aspects greatly facilitating the achievement project objectives is the commitment of the Government in the field of contaminated sites. Contamination of sites and land by pesticides indeed represents a serious threat for the Vietnamese environment, and the government is placing significant resources to address this issue. By the government commitment it will possible to increase the number of site contaminated by POPs pesticide waste which will be treated within project (see chapter 4.3.2) and to ensure larger co-financing for project activities.

It should also be noted that PMU was very effective in dealing with the project complexity, by implementing practical rules which although not well defined in the project document, in some cases prevented the overlapping and duplication of efforts deriving from a project structure involving two separate Implementing Agencies and several Governmental stakeholders.

**Factors hindering project objectives.**

Few companies licensed at national level exist for carrying out the destruction of POPs waste. Initially, the license was granted separately for transportation and disposal of hazardous waste. Presently companies have to apply for an integrated license, which means that a company applying for transportation of hazardous waste shall prove to be in possess of disposal capabilities, and vice-versa. Only Holcim is in possess of the integrated license. Through the implementation of the project, two Companies have awarded and are now applying for license. The Project is now supporting WENID in the issue of granting of integrated license at central level.Integrated license can be also released for companies operating at the provincial level. In this case the license is only effective in the Province where the company has applied.

Licensing required more time than estimated originally, when the project expected that by publishing outlines more companies would submit their expression of interest and the project would help them acquiring license. Indeed the project activity to assist two companies in obtaining the license proved to be very time consuming.

Beside the licensing and permitting aspect, however, the availability of Environmentally Safe disposal technologies (i.e. compliant with the requirements of the Stockholm Convention BAT/BEP) for destroying POPs is quite limited in Vietnam. Indeed, the annexes to the Project Document state that *“it is strongly recommended to treat the POPs and obsolete pesticides in Vietnam”* because *“there is already a lot of capacity built in Vietnam and it is now the issue to bring that capacity on the necessary level of Environmental Sound Management”.* Currently, the project is exploring the possibility to use the Mechano Chemical Disposal technology, demonstrated under the UNDP “Environmental Remediation of Dioxin Contaminated Hotspots in Vietnam” project, to dispose POPs pesticide contaminated waste. In case the analysis is successful, that would reflect on an increased competition among possible providers of waste disposal services, leading to significant saving and the possibility to dispose a greater amount of waste.

To assess the capacity (from the cost and technical standpoint) to perform environmental sound disposal of POPs in Vietnam was clearly beyond the scope of the mid-term evaluation. However it should be made clear that, if a cost calculation is made on the basis of the cost per tons of pure POPs destroyed, whilst exporting pure POPs (like PCBs or pure pesticides) for disposal may be a cost-effective option (and it is indeed a preferred option when there are no local technologies are available), this is never the case of of POPs contaminated soil, were the transport and disposal cost are almost the same of the cost of pure POPs, whilst the amount of POPs destroyed is several hundred times lower. Indeed, the evaluators cannot recall any case of packaging and transport of POPs contaminated soil to another country for disposal.

Currently it seems that there is only one licensed plant with the technology capable to ensure an environmentally sound disposal of POPs contaminated soil / waste (Holcim) which consequently is asking “monopolist” fees. Incineration in cement kiln proved very effective for destroying pure pesticides, however it is clear that for the decontamination or destruction of POPs pesticide contaminated (up to few thousand ppm) waste, this option, though effective, is not efficient. The waste to be disposed will be probably soil or waste with an average contamination of POPs pesticides from few hundreds to few thousands PPM. The heath energy required to destroying the contaminants contained in the soil/ waste however does not depend upon the concentration of that contaminant, but instead upon the need to ensure that the temperature of the overall soil / waste mass amount is kept at the 1000-1100°C required.

Indeed, for soil contaminated by pesticides like DDT or Lindane, with a boiling point respectively of around 260°C and 320°C, low temperature, indirect thermal desorption should be considered a more economical and efficient option than incineration. Thermal desorption allow for the extraction from soil of these contaminants (in form of liquid condensates or filter cakes), which may be subsequently disposed (by chemical or thermal destruction processes) in a more efficient way. The cleaned soil may then be for reused. Unfortunately, ITD plants are not available in Vietnam.

To solve the issue of disposal technology, the project is however currently coordinating with the UNDP project “Environmental Remediation of Dioxin Contaminated Hotspots in Vietnam” to see whether the technology demonstrated under that project is suitable for the disposal of POPs pesticides contaminated soil, and at the same time is ensuring assistance to other companies who applied to MONRE for an integrated license for transport and disposal of hazardous waste.

Another factor hindering the project objective is the limited dissemination of the methodologies demonstrated with the assistance of international experts working in the project. More specifically, it seems that a double standard is currently adopted for treating contaminated sites funded by the government, and sites falling within the GEF budget. This shortcoming should be obviously avoided by means of a better coordination and dissemination of the methodologies developed under the project.

Finally it should be considered that once the activities on sites and waste disposal will start, the present configuration and staff of the PMU, which until now was performing (though very effectively) mainly office work with few missions in the province, could possibly be not enough for conducting all the project activities. PMU will need to conduct supervision work at the sites where cleanup / containment of activities are going on, and to continue a more intensive administrative and technical activity at office. Very likely, PMU would need additional staff and technical support from international consultants on the specific issues of EMPs completion and drafting of bidding documents. It is therefore recommended to assess carefully the tasks PMU will be required to carry out to avoid that an overload of PMU would have as a consequence the entire project slowing down in its final stage of implementation.

### To what extent the project objectives have been met, taking into consideration the “achievement indicators” specified in the project document/inception report and logical framework

Only preliminary activities aimed at “removing barriers to the sustainable elimination of POP pesticides in Vietnam” have been presently completed by the project.

These activities however included aspects that constitute the founding blocks of the project and will ensure its future sustainability of the project, like:

* The establishment of a well prepared PMU which represents now a core team of technical competences which will represent a significant resource for continuing the task related to the cleanup of POPs pesticide contaminated sites and POPs pesticide disposal even after project end;
* The development of tool for priority setting of contaminated sites, which, although not used for prioritization of site in Vietnam, had the effect to raise awareness on the issue of contaminated sites.
* The setting of methodologies for the Environmental Management of Sites and POPs waste disposal which has been demonstrated in practical cases, like the activity carried out at Nui Cang (11):
* The disposal of 25 tons of highly contaminated POPs waste in the Holcim cement kiln.
* The project is currently entering its more concrete stage, with EMP of contaminated sites being completed, term of references and bidding document for site cleanup and POPs waste disposal being drafted and reviewed, disposal technology being individuated and tested.

### To what extent have project results (outcomes and outputs) been achieved to date? And how have they been achieved in terms of inputs, timeliness, and cost-effectiveness?

A detailed analysis of the project results (in term of outcome and outputs) of the project is in the Table 1 reported below. The analysis is based on both information provided by the PMU and consultation of relevant technical documents. In addition to technical reports, quarterly reports and annual reports available for the year 2010, 2011 and 2012 were considered (22), (23), (24), (25), (26), (27) and integrated with information provided by PMU.

Further, the analysis of project results provided by FAO (5) for the activities carried out under the FAO separate budget was duly considered.

Table 1. Rating of the Relevance, Efficiency and Effectiveness of Project Outcome and Outputs

| **Outcome output** | **Description** | **Status** | **Time frame in project doc/inception (Take start at 1/2010)** | **Realistic Time frame** | **Notes** | **Rating** | R | Eff | Efct | Tot |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **1** | **Improved capacity facilitates elimination of POPs pesticides stockpiles** |  | **International standards met in management of pesticide stockpiles** | **Management and destruction of POPs pesticides follows no set standards** |  | **MS** | 4 | 2 | 3 | 3 |
| **1.1** | List of POPs pesticides disposal and soil remediation companies | Done | Oct-10 | 2011 | The only listed licensed company was Holcim. The information as of today seems not complete or useful as it does not includes companies that may have been authorized at provincial level, or other international companies/technologies. This study should also have clearly identified permitting procedures for establishing disposal plants in the country. | MU | 3 | 2 | 2 | 2 |
| **1.2** | One data set with all available inventory data | Done | Oct-10 | 2011 | In total 1,153 sites are recorded as POP pesticide sites from 4 different inventories.(see inception report, para 2.1) (2) *“A clear distinction between sites with pits with pesticides and sites with stockpiles is difficult to make with the available data.”* Additional surveys provided information for site prioritization, and a preliminary estimate of pesticide stockpiles and waste The sites were recorded in one single data set The site inventory carried out for the PDF-B project used hard copies of the field forms of Pesticide Stockpile Management System (PSMS), but the information on the field forms was not digitalized and uploaded into PSMS, which, being designed for the inventory of sites with POP stockpiles, was not suitable for the management of contaminated sites. PSMS was instead installed in MARD and people in MARD trained in its use. | S | 5 | 4 | 5 | 4 |
| **1.3** | List with priority sites in categorizes | Done | Jan-11 | 2011 | The ranking was carried out based on the information collected in the xls file (1.2) using a rapid risk assessment algorithm for Prioritization and Ranking . Reportedly the ranking was the main basis for subsequent decisions on the site: therefore it was useful and not biased by “non scientific” considerations | S | 5 | 3 | 4 | 4 |
| **1.4** | Technical guidelines and managerial guidelines on POPs waste management | Done (guideline implementation and evaluation of their applicability is ongoing) | Jul-11 | 2012 | A review of methodologies for Risk Assessment drafted by the Blacksmith institute under contract with FAO.Draft of the technical guideline by international and local consultants prepared with the joint effort of FAO international experts and TAUW company which drafted the guidance. (28) Technical guideline on POPs waste management. Draft guidelines are currently under review of MONRE (that would require perhaps some months).. It is critical that guidelines will actually be used in a consistent way both on GEF funded site and on Govnm't co-funded sites, therefore the validation being carried out by MONRE is essential. It seems that right now few dissemination of the guidelines at provincial level has been arranged. | S | 5 | 3 | 4 | 4 |
| **1.5** | Specifications of tender document including detailed CSM, rehabilitation plan with budget estimates of a limited number of priority sites (FAO input as de 1.1) | On-going Tender document and Cleaning of 1 site completedCSM, EMP for 12 sites completed | Jan-11 | 2012 | Delay due to larger scope of contamination, increased price for incineration, need to assess new disposal technologies. The EMPs still do not contain bill of quantities and cost estimates. It is very critical to have reliable bill of quantities and bid documents completed for a number of sites as soon as possible..Drafting of bidding documents for site cleanup not started yet, except for the Nuicang site and related POPs waste removed which was a successful pilot (25 tons treated) | MS | 5 | 3 | 3 | 3 |
| **1.6** | Staff of government agencies is trained by experienced trainer(s) on POPs pesticides site cleanup | CSM, PSMS, disposal, safety trained | Jun-11 | Sep-13 | Regional personnel were trained in the development of site specific methodologies and their implementation at field level via an international consultant mission. Two trainings were organized in November in Ha Tinh (39 participants from 5 provinces) and in Thai Nguyen (39 participants from 10 provinces. The project, under the FAO budget, supported two government persons from WENID to participate in a training trip to Australia to visit treatment facilities and rehabilitated sites. More training on on new guidelines on EMP approach is needed once these are gets approved. This task is critical for ensuring project sustainability and for the consistent application of the methodologies developed under the project. | MS | 5 | 3 | 3 | 3 |
| **1.7** | Legal document revision and development | Done for legal gap analysis, drafting of National Implementation Plan | Oct-10 | Jun-13 | National consultant has submitted the report on Initial review of legal documents related to the POP pesticides contaminated sites.  Three workshops in Nghe An, Da Nang and Ha Noi. The workshop were organized (Nghe An, Da and Hanoi). Feedbacks on the EMP have been be considered by the Tauw consultants for finalizing the EMP to be part of tender documents. The implementation plan of the national plan was approved.  The development of technical annex containing a remediation target value for contaminated sites is is ongoing. This task is very important as the current target values, not based on risk assessment concepts, are unrealistic and not enforceable. | MS | 5 | 2 | 3 | 3 |
| **1.8** | Monitoring plan for disposal of stockpiles | Done for draft plan as part in EMP and SOP | Oct-12 | Dec-12 | FAO consultant developed the monitoring plan for disposal of the Thai Nguyen site (11). The plan was later reviewed by Tauw consultants and implemented at Nui Cang, Thai Nguyen site and verified with many practical details. This plan can be adapted for other sites and implemented as part of EMPs. | S | 5 | 4 | 4 | 4 |
| **1.9** | Communications plan including awareness raising (FAO 1.10 design phase) in activity as stated in original project document confirmed in FAO results framework to GEF | On-going. FAO part is done | Dec-12 | Jun-13 | A FAO strategy communication document delivered (9). More communication activities await major disposal and remediation work. Communication plan developed was more on the use of pesticide than to facts related to POPs pollution. Implementation of communication plan upon PMU (ongoing) | MU | 4 | 2 | 3 | 3 |
| **1.10** | Two EOI and Tender Documents, TORs short lists of competent companies, RFPs and Two companies are contracted | On-going | EOI June 2011 | EOI dropped | The work package for Nui Cang site in Thai Nguyen province was put in the tendering plan for 2011. By April 2011 it became clear that it would be better to have two contracts, one for transportation and incineration and the other for excavation and safe packaging.  Other sites could not be quantified during surveys of 2011 because of complicated treatment methods for different grades of contamination. During those surveys it was again confirmed that buried pesticides were no more in pure form but mixed with soils and rocks at random levels. Only few sites have pure pesticides in small quantities.  EOI dropped because there was only one company qualified and licensed  Bidding document for disposal of 1000 tons already drafted under review by UNDP (21)  Drafting of bidding document for excavation and transportation currently ongoing. This activity is badly late and is very critical. It should be assigned with the highest priority.  Estimated UN procurement period = 6 months. | MU | 5 | 2 | 2 | 3 |
| Tender documents January 2012 | Tender documents drafted | MS | 5 | 2 | 2 | 3 |
|  | Contractor for packaging will be selected in Dec 2012 | MU | 5 | 2 | 2 | 3 |
|  | Contractor for disposal will be selected in April 2013 | MU | 5 | 2 | 2 | 3 |
| **2** | **At least 5 sites with a minimum of 1140tons of POPs pesticides stockpiles and pits are rehabilitated, stocks are destroyed and impacts on human health relieved at these sites within budget limitations** |  | **Evaluation site reports and aftercare and monitoring confirm the results** | **Stockpiles slowly destroyed and buried pesticides continuing forming a environmental treat by not applying International standards** | Instead of 1140 tons of POPs pesticide an equivalent goal of 1140 tons of POPs pesticide waste should be used as relevant indicator. It is important to consider that POPs waste with a concentration greater than 50 ppm can only be disposed by means of destructive methods. The number of contaminated sites should be increased to take into account activities which are being carried out with co-financing funds. | **MU** | 4 | 1 | 1 | 2 |
| **2.1** | Selected company is licensed to handle and destruct POPs pesticides | On-going | Jan-13 | Jun-13 | Presently, only Holicm has license to handle and destruct POPs pesticides. Two more companies are testing and applying after test. This activity is critical | MU | 4 | 1 | 1 | 2 |
| **2.2** | Acute risks are eliminated at selected priority sites on the short term | On-going | Dec-13 | Jun-14 | Only one pilot site has been completed. | MU | 5 | 2 | 1 | 2 |
| **2.3** | Potential and latent risks are reduced and contained and aftercare and monitoring program is delivered for the selected priority sites | On-going | Dec-13 | Jun-14 | Draft tender documents submitted (21). | MU | 5 | 1 | 1 | 2 |
| **2.4** | Mid and long term actions are allocated for the coming 10 years and implemented | On-going | Dec-13 | Jun-14 | One package for mid term remediation is being drafted. Transfer of monitoring responsibilities discussed with local governments. | MU | 5 | 1 | 1 | 2 |
| **3** | **Improved chemicals management prevents importation and use of POPs pesticides** |  | **Volumes of pesticides illegally imported** | **At least 10 tonnes per month** | **By the end of the project, the volumes of illegal pesticides confiscated are no more than 2 tonnes per month (based on equal level of effort)** | **MS** | 3 | 2 | 3 | 2 |
| **3.1** | National chemicals safety standards | Done | Done before project start | The Law on Chemistry has been ratified in 2007, the Decree 108/2008/ND-CP has been adopted in 2008. Circular 28/2010/TT-BCT adopted in 2010. | Co-financed activity | S | 4 | 4 | 4 | 4 |
| **3.2** | Line agency staff trained in management of POPs pesticides. FAO can support if required | On-going | Jun-12 | Jun-13 | Consultants selected and waiting for MONRE approval . Training on safe handling of POPs pesticides (completed in july) Two training courses, totally 2 days courses Lao Cai 75 + Dong Nai 55 people trained. Security border guards people. Training report available | MS | 3 | 3 | 4 | 3 |
| **3.3** | A compendium of legal documents on POPs pesticides management | Done | Dec-11 | Jun-12 |  | MS | 3 | 4 | 4 | 3 |
| **3.4** | Task forces between Vietnamese border provinces and their Chinese, Laos and Cambodian counterparts | Not started | Dec-12 | Jun-13 | Customs agreed to put the issue in annual meetings, not make a separate meeting. | MU | 4 | 1 | 1 | 2 |
| **3.5** | Facilities for handling and storage of confiscated pesticides at key border sites | On-going | Dec-12 | Dec-13 | Survey of storage and status completed. On-going negotiations with provinces on storage ownership. | MU | 4 | 1 | 2 | 2 |

### Do the outcomes/outputs complement and enhance one another, and if yes, to what extent?

It is obvious that in term of project design, outcomes and outputs have been thought to be complementary and that, more specifically, the capacity building outcome/output (outcome 1) have been properly designed to prepare for conducting activities envisaged under Outcome 2. In the course of project implementation, some minor misalignment or duplication of activities has been observed in output 1.1 (priority setting) as the sophisticated tools developed for priority setting have been subsequently replaced by more simple tools (ranking by means of algorithms implemented in an electronic worksheet).

In general, outcome 1 and 2 are strictly interrelated, in the sense that the completion of capacity building and administrative activities under outcome 1 is a pre-requisite for starting the disposal activities envisaged under outcome 2; and this is indeed was one of the reason of the slow start of Outcome 2.

Outcome 3 is less strongly interconnected with the other activities, although the revision of legislation on pesticide, and the definition of target level for site cleanup is something to which to outcome 2 is expected to provide important inputs.

### Given the level of achievement of the outputs and activities to date, is the project likely to achieve its objectives and overall target by the end of the project?

The project is at risk of not achieving its objectives and overall target at the project end if the closure date considered is 4 years after project signature (November 2013)

The project very likely will achieve and even overcome its original objectives assuming the project closure is 4 years after inception (June 2014).

It is therefore suggested to strictly monitor project implementation in the incoming months, to decide if it would be necessary to apply for a project extension.

## Resources and budget

### GEF Budget balance (October 2012)

The situation of budget disbursement as of October 2012, with reference with the overall GEF budget available is reported below (data provided by UNDP Vietnam).

The disbursement level for activities 2 and 3 is quite low (respectively 10% and 8%), whilst for component 1 more than 70% of the available GEF budget has been disbursed.

The data do not include the FAO budget which was not made available to the evaluators by FAO.



### What is level of co-financing mobilized to the project till date?

A detailed cofinancing table is reported below. By the end of the project, it is expected that almost 7,0 Million USD of in kind or cash cofinancing would have been secured to the project. This will largely exceeds the amount of co-financing committed at project signature which amounted to 6.4 Million USD. The co-financing provided within the year 2011amounted to around 1,9 Milion USD.

The co-financing listed below pertains mainly to site cleanup / disposal projects and activities funded by MONRE. Only a minor part pertains to in kind cofinancing related to the participation of government staff into project activities. Considering the number of sites which cleanup is being funded by the government, the evaluators consider that a strong technical coordination mechanism, to ensure that both the cleanup of sites funded by GEF and the cleanup of sites funded by the Vietnamese government are carried out in a consistent and environmentally safe manner, sharing the same methodology developed under the project.

As the evaluator are not required to provide a financial audit, the data reported in the table below are the result of an elaboration produced by the PMU rather then of direct examination of original financial accounting data. It has been however reported that the accounting system allow for the verification of all the evidences resulting in the budget below.

Table Information on co-financing provided by the Government of Vietnam. Source: PMU (29)

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Destruction campaign in 2007-2008** | **USD** | **Status / time of completion** |
| 1 | Mai Hac De, Nghe An, 11 tons | 22,000 | Destroyed |
| 2 | Dai Hue, Nghe An, 6 tons | 12,000 | Destroyed |
| 3 | Nghia Trung, Nghe An, 4 tons | 8,000 | Destroyed |
| 4 | Ha Tinh City, Ha Tinh, 2 tons | 4,000 | Destroyed |
| 5 | Le Thuy, Quang Binh, 2 tons | 4,000 | Destroyed |
| 6 | HCMC store, HCMC, 30 tons | 45,000 | Destroyed |
|  | **Subtotal 1** | **95,000** |  |
|  | **Treatment projects** |  |  |
| *7* | Tuyên Quang 2008 (500m3 heavy contaminated soil, 500m3 light) | 112,500 |  |
| *8* | Nghệ An POP Pesticides Survey 2009 | 75,000 |  |
| *9* | Nghệ An Plant Protection Dept destroyed pesticides stockpiles in Hon Tro (3 tonnes) | 9,709 | Completed  10/2011 |
| 10 | SEMLA confined Mau 2 in Nghe An 2008 | 13,813 | Completed |
| 11 | Confinement in Núi Căng, Thái Nguyên 3/2011 (QD 64) | 87,179 | Completed  3/2011 |
| 12 | Confinement in Phúc Trìu, Thái Nguyên, 10/2011 (QD 64) | 66,667 | Completed  10/2011 |
|  | **Projects listed by Decision QD 1946** |  |  |
| 13 | Treatment, confinement and rehabilitation of DDT and other Pesticide contaminated land in Brigate 204 - Artillery command, Vinh Phuc | 242,718 | 2009 |
| 14 | Treatment, confinement and rehabilitation of 2,4D and pesticides contaminated site of Tan Binh store, provincial military command, Thái Bình | 194,175 | 2009 |
|  | Collection, treatment and disposal of pesticides stockpile in Nghe An province | 106,311 | 2009. May include line 9 |
|  | Treatment of DDT contaminated land area in Nghĩa Trung commune, Nghĩa Đàn, Nghệ An | 226,942 | 2011 |
|  | Environmental treatment of pollution caused by stockpiled pesticides in thôn Bèo, commune Vĩnh Long, huyện Vĩnh Lộc. Thanh Hoa province | 565,388 | 2011 |
|  | Treatment, cleaning and environmental rehabilitation of the contaminated site by stockpile pesticides in commune Long Đống, huyện Bắc Sơn, tỉnh Lạng Sơn | 280,534 | 2012 |
|  | Environmental treatment of pollution of pesticide contaminated site at Ghềnh Giềng, Xóm 1, commune An Tường, Tuyên Quang city,Tuyên Quang province | 194,175 | 2012 |
|  | Environmental treatment of pollution of pesticide contaminated at PPD store in commune An Tường, Tuyên Quang city, Tuyên Quang province | 146,893 | 2012 |
|  | Complete treatment of pollution caused by stockpiled pesticides at village Vạn Diệp, commune Nam Phong, Nam Định city | 396,359 | 2012 |
|  | Environmental treatment of pollution caused by stockpiled pesticides store at Viên Thái village, commune Nghĩa Thái, huyện Tân Kỳ, Nghệ An province. | 267,718 | 2012 |
|  | Environmental treatment of pollution caused by stockpiled pesticide store in Giang village, commune Nghĩa Thái, huyện Tân Kỳ, Nghệ An province | 407,087 | 2012 |
|  | Complete treatment of environmental pollution caused by stockpiled pesticides in agriculture store, village Thái Lai, Thiệu Tâm commune, Thiệu Hóa district, Thanh Hoa province | 111,262 | 2012 |
|  | Environmental treatment of pollution caused by stockpiled pesticides in elementary school of Khánh Lộc commune, huyện Can Lộc, Ha Tinh province | 485,437 | 2013 |
|  | Remediation of Cam Thang site, Cam Thang commune, Cam Xuyen district. Ha Tinh province | 485,437 | 2013 |
|  | Environmental treatment of pollution caused by stockpiled pesticides in Trung Trạch commune, Bố Trạch district, Quảng Bình province | 348,447 | 2012 |
|  | Environmental treatment of pollution caused by stockpiled pesticides in village Mốc Định, Hồng Thủy commune, Lệ Thủy district, Quảng Bình province | 334,854 | 2012 |
|  | Treatment and rehabilitation of environment at the stockpile pesticides at cooperative store in Thủy Tây, Quang Tri province | 416,553 | 2012 |
|  | **Subtotal 2** | **5,575,159** |  |
|  |  | | |
|  | Contribution by government staff participating in the project. By 20 persons with equivalent salary of 9.5 million/person/month | 110,680 | for 1 year period |
|  | Annual check of hazardous chemicals | 125,000 | for 1 year 2010 |
|  | Expenses for development of Chemical law and sub-law documents | 56,250 | Competed on 11/2007. Thêm QĐ 1946 |
|  | Investment in technology and equipment for treatment of pesticides stockpiles | 1,000.000 | Holcim Updated |
|  | **Subtotal 3** | **1,291,930** |  |
|  | **Grant Total** | **6,962,088** |  |

## Partnership

### Whether the designed institutional arrangement for POP Pesticide Project has been performing effectively during the project implementation and allocated responsibilities among key stakeholders are still relevant;

The original institutional design of the project was as following:

* MONRE is the implementing partner of the project.
* For the GEF budget portion granted through UNDP, MONRE will be responsible for financial management and apply the NEX modality for project implementation.
* For the GEF budget portion granted through FAO, the FAO’s direct management modality will be applied, and FAO will be responsible for financial management and reporting as required legally.

The project management is constituted by:

* A Project Executive Board (PEB), chaired by the The NSC member representing MONRE;
* The National Project Director (NPD): MONRE will appoint a senior official at directorial level of VEA to be the NPD. The NPD will be responsible to the PEB for overall management and implementation of the project.
* Project Management Unit (PMU): The PMU is be responsible for the overall organization and implementation of all project activities and will be accountable to the NPD. The Project office will be located in the main building of VEA and equipped as needed by the project.

In the course of the inception workshop, a detailed RACI matrix, (Responsibility, Accountability, Consultation, Information) was developed to better clarify the management modalities.

In June 2011an agreement was signed between FAO and UNDP clarifying the coordination arrangements between agencies and providing technical specification for the activities to be carried out under the separate FAO budget (1).

In that agreement it was also specified that *“the National Project Steering committee included only representatives from government with neither GEF agency being represented. The principal forum for discussion on project implementation is via the Project Management Unit (PMU). It is via communication with this body that the two GEF Agencies formally meet with government to review progress and future work plans.”*

Further management arrangements, specifying coordination modalities in the preparation of the milestone reports to be submitted to GEF were defined in the agreement

A separate agreement among FAO and MONRE , based on the FAO PD, was signed on July 2011 (30)

Based on interview outcomes and evidence gained in the course of the evaluation, it is opinion of the evaluators that the current arrangement performed and is still performing effectively, thanks also to the efforts of the PMU which acted as a coordination center receiving inputs from the IAs. Therefore no significant rearrangement of the project management is needed.

It is evident that the different contribution coming from international experts have been properly integrated with the coordination of PMU into guidance tools which are now being used in Outcome 2

PMU benefitted from the technical experience and on site and international training provided by the international experts, and is now ready to operate almost independently with limited further support from the international experts. Therefore, in the view of the evaluator, there is no need to modify the current project management structure, whilst possibly there could be the need to make available international expertise in limited fields (like the definition of more feasible cleanup target, the supervision of disposal proof of performance tests when needed, the drafting of technical specification and bidding documents).

In the course of all the meetings with the evaluators, starting from the very first meeting of the evaluation mission (5), FAO proposed to hire a full time Chief Technical Advisor (role to be reduced to part time as counterpart capacity is developed) for a better implementation of the project. In addition, the need ot displacing further budget from outcome 2 and 3 to the separate FAO budget is explicitly mentioned in the Objective Verifiable Indicator of the FAO – PD (20) (Output 2.1-2.6; 3.3, 3.4, 3.5).

FAO motivated this request with the need to provide a better international support to PMU.

This option was considered carefully by the evaluators, which however came to the conclusion that for the following reasons it cannot be considered the best option for ensuring project success at this stage:

1. A limited international support on specific issue identified by PMU can be in any case secured within the budget of the component 2, without need of any budget reallocation. Indeed, the activities carried out in output 1.2 and 1.4 finally resulted in the installation at MARD of the PSMS software, differently – and providing a less relevant outcome - from what initially envisaged by the project.
2. In spite of the only apparently large budget allocated under component 2, there is very little room for increasing the budget for general purpose international consultancy under that component, as most of that budget would go for disposal fee, which due to the situation increased significantly;
3. As pointed out by the Review Report (19), “*a substantial amount of additional resources originally assumed to come from Outcome 1 are required to address the current information barriers discussed above related to i) finalizing EMPs, remediation plans, associated cost estimates, and civil design work to make final Outcome 2 priority site selection, resource allocations, and proceed with tending of containment/remediation work, and ii) complete feasibility assessments, qualification and commercial selection of POPs waste disposal option(s).* Indeed, at project review, a funding shortfall was identified at least in the funds available from the UNDP/PMU allocation for completing the preparatory activities necessary for starting the practical work of site cleanup and POPs waste disposal.
4. A significant part of the FAO contribution were addressed to the general issue of pesticide management (see for instance the issues emerged with the PSMS (inception report , the “Communication Strategy”, the “Container management guidelines”). Instead, component 2 is mostly addressed at the practical implementation of POPs cleanup and disposal activities;.
5. The 2 agreements signed in 2011 substantially ratified the allocation of FAO responsibilities established in the original project document and subsequently amended at inception; after inception the management structure and procedures were – with some coordination issues – consolidated, and a further change in the management would again slow down the implementation of the project.

The evaluators consider that the involvement of two agencies with complementary competences would have been more successful if a better integration of the role of the two agencies was ensured since the stage of project design. Indeed, the cooperation among FAO and UNDP seems to have been not properly engineered as even the separate budget with a separate report obligation directly to GEF created rather than solved project implementation issues.

## Project impact and sustainability

### Short-term and long-term impacts of the project, including efficiency of the project and cost-effectiveness of the project on POP pesticide stockpiles elimination in Vietnam, replication and dissemination of project results within and outside project areas; awareness raised of POP pesticide among the general public and decision makers.

There is an increase in country commitment and ownership on the issue of POPs contaminated sites testified by the recent approval of the National Target Plan (3), which now – and partially also thank to the technical contribution of the project – is dedicating more technical and financial resources to the issue of POPs waste and contaminated site. Therefore it may be affirmed that the project may have, in the medium term, a great impact in term of the amount of POPs destroyed.

In December 2010 the government of Vietnam (4) issued the decision 1946 /QĐ-TTg, “*Approving the Plan to treat and prevent environmental pollution caused by pesticides stockpiles all over the nation*”. In September 2012, right before the starting of this MTE, the National Target Program, signed by the government with the decision 1206/QD, allocated 1010 billion Vietnamese Dong (48.475 million USD) for the disposal of obsolete pesticide and cleanup of sites contaminated by pesticides. From the several interviews and collection of evidences carried out in the course of the evaluation mission it emerged clearly that the government of Vietnam – at the central and provincial level – has great and urgent expectations on the guidance and outcomes which will be generated by the project, to implement a plan for the optimal use of the above financial resources.

The project constitutes a unique opportunity to provide a substantial input toward the implementation of the Country’s policy on POPs waste management and disposal. In this sense, the project may have a true catalytic role in ensuring the proper management of POPs waste and POPs contaminated sites, and its expected impact in the near and midterm may be high.

The project also generated awareness on the issue of POPs pesticide by means of the several training workshops dedicated to management of pesticides, EMPs, customs issues. There is the need to address better the effort related to the implementation of the “communication strategy” as this strategy seems more addressed toward the general use of pesticides rather than the issue of POPs pesticide contaminated sites, which is a serious issue in Vietnam. Simple information could be provided on this respect to the general public to provide guidance on how to reduce exposure to POPs, and how to report to the authorities cases where POPs pesticide contamination could be suspected.

### To determine how the intervention seeks to mainstream gender in development efforts.

The project did not actively mainstream gender in development effort. Although the composition of PMU is balanced in term of gender participation, it seems there is no specific policy in place for mainstreaming gender. The evaluators consider that Governments should allocate adequate resources to enhance gender equality in the environmental work.

### To determine synergies with other similar projects, funded by the government or other donors.

The project is currently exploring the option of using a ball milling or mechano-chemical destruction (MCDTM) process that is marketed and operated by EDL of New Zeeland . This is currently being used in a demonstration funded by the GEF/UNDP TCCD project at Bien Hoa airbase. The current status of this work is that the demonstration scale equipment to process 100 m3 is in the country and will be installed and commissioned on a pre-prepared and serviced site at Bien Hoa in the first half of July 2012 and will operate for a 6-8 week period followed by decommissioning in parallel with results assessment.

Under the TCDD project A TOR was launched to evaluate the performance capabilities and limitations of the MCDTM technology being demonstrated in Viet Nam for dioxin contaminated soil. Using these results as an evidence base, the technology will be assessed for more general use in Vietnam inclusive of recommendations on suitability for such use.

The technology evaluation as been assigned to an international consultant (Mr. Rick Cooke) and is currently undergoing.

### Has the current project management strategy exploited all opportunities for strengthening collaboration and substantive partnerships with other government bodies, institutes, different associations, other donors, financial sectors with aim to maximizing achievement of projects’ immediate results, and extending the project impacts in the long run beyond the end of the project timeframe?

One of the main results achieved by the project was the increased awareness of MONRE on the issue of POPs pesticide waste and contaminated sites. There is a continuous interchange among PMU staff and MONRE on the management, technical and regulatory issues concerning this aspect. In the course of the meetings held at MONRE (reference – date), the following areas of collaborations, for a better implementation of the Master Plan and of the National Target Program, MONRE have been identified:

* Through the project, an inventory of the sites contaminated with POPs pesticide has been carried out, which will be maintained and updated even after project end.
* The project is developing and consolidating methodologies for priority setting, site assessment and site cleanup,
* Methodologies for the assessment of disposal technologies, and for carrying out and supervising proof of performance tests, to be used in the permitting procedure of waste disposal facilities;
* Improving of the current regulation on site cleanup, with special reference with the identification of remediation target value suitable for the country.
* The project is working closely for assisting companies in obtaining the integrated license for waste disposal, therefore ensuring at the same time that the disposal facilities are in compliance with national and international regulation, and that a greater disposal capacity is available.

MARD and PPD, which is the main counterpart of FAO in implementing activities under MARD;is also a significant beneficiary of project outputs, mainly of the following activities carried out under the separate FAO budget.

* The Pesticide Stockpile Management System (PSMS), which was designed for the inventory of sites with POP stockpiles, has been installed at MARD;
* A Feasibility study on Container Management in Viet Nam (10);
* the Communications Strategy for pesticide management (9);
* The “Post Harvest loss management”, currently in the final stage of technical clearance.

It has also to be recalled that the project is delivering training to all the main governmental stakeholders, including MARD (PPD) and MONRE (WEIND) DONDRE and PPSD staff at the provincial level.

### Risks and assumptions that likely affect the persistence of the project outcomes, including financial, socio-political, institutional and environmental risks.

The main risk which the project is facing is the environmental risk of POPs waste located at contaminated sites being further dispersed due to accidental causes (i.e. flooding in some areas) or to land use (excavation, building). This risk affects not only the project sites, but in general all the POPs contaminated sites in Vietnam. The assumption underlying this risk is that the priority ranking has correctly individuated the most contaminated sites, which are currently being monitored and surveyed pending their clean up and containment.

Any delay in the project activities will therefore result in the increase in the environmental risk.

Another significant risk affecting the persistence of project outcome is related to the difficulty in individuating a suitable plant for disposing POPs waste in an environmental sound way and at a competitive price. Currently, it seems that only Holcim is licensed to carry out the task; its “monopolist” position in that field however has caused a substantial increase of disposal fee, making currently the option of exporting for disposal the highly contaminated soil more competitive than before. The project is providing assistance to other waste disposal firms in achieving the integrated license, and is exploring the feasibility of other technologies already existing in the country (the MCD technology by EDL). The assumption here is that enough disposal capacity will be made available in the country within the project timeframe, to ensure POPs waste can be disposed at a competitive price. As discussed in chapter 4.2.3, in case of failure of identification of the proper technology at an acceptable cost, a “Plan B” should be developed. Considering that the project is dealing with POPs contaminated soil and waste, the option of packaging an sending abroad for disposal is not considered feasible.

Socio-political and institutional risk are relatively low, as the project is currently operating for solving one of the recognized country’s priorities, financial and regulatory framework have been recently secured, and moreover no significant change in government structure are expected within project timeframe as the last elections occurred in may 2011. The Governance Index (31) elaborated by the World Bank for the country in 2011 is moderately low ( - 0.28 out of a scale ranging from -2.5 for poor performance to 2.5 for very good performance), but it experienced a significant improvement in the last 10 years ( it was -044 in the year 2000).

Another risk for the last phase of the project implementation is related to the capacity of PMU to face a significant increase in the workload which will occur when all the practical project activities (site cleanup, transportation, disposal, monitoring, on-field supervision) will be operational. Indeed PMU represents in this stage the main driving force and the main bottleneck for the project, therefore ensuring it is provided with enough qualified staff and resource for facing the expected increase in the workload is an essential condition for the success of the project.

### How strong is the level of ownership of the results by the government?

The project, and its Project Management Unit, are at the crosslink of important initiatives carried out by governmental bodies in charge of planning and financing actions aimed at POPs waste management and cleaning up contaminated sites (Ministry of Environment, WEIND, MARD, PPD). Therefore, even in comparison with similar projects, the government ownership of the project is high. The project constitutes a unique opportunity, which evidently should not be missed, to provide a substantial input toward the implementation of the Country’s policy on POPs waste management and disposal. In this sense, the project may have a true catalytic role in ensuring the proper management of POPs waste and POPs contaminated sites, and its expected impact in the near future may be high.

### Availability of financial and economic mechanism to ensure the ongoing flow of benefits once the assistance ends;

In December 2010 the government of Vietnam (4) issued the decision 1946 /QĐ-TTg, “Approving the Plan to treat and prevent environmental pollution caused by pesticides stockpiles all over the nation”. In September 2012, right before the starting of this MTE, the National Target Plan, signed by the government with the decision 1206/QD, allocated 1010 billion Vietnamese Dong (48.475 million USD) for the disposal of obsolete pesticide and cleanup of sites contaminated by pesticides. From the several interviews and collection of evidences carried out in the course of the evaluation mission it emerged clearly that the government of Vietnam – at the central and provincial level – has great and urgent expectations on the guidance and outcomes which will be generated by the project, to implement a plan for the optimal use of the above financial resources. It has also to be noted that the co-financing amount which has been made available by the country exceeds the amount committed at project endorsement.

### Policy and regulatory framework that will support continuation of benefits

The National Target Plan mentioned above constitutes the main policy and regulatory framework which will support the continuation of the benefits. Indeed, the project is strictly interrelated with NTP, as several project activities will be of direct relevance for a better implementation of the NTP: definition of technical guidelines for contaminated site cleanup; assessment of disposal technology, etc.

With the purpose to ensure a better implementation of the NTP, some of the project activities aim at assisting the government in the review the legislation related to the management and disposal of POPs waste. One of the outputs under Outcome 1.7 (Legal document revision and development ) consists in the development of technical annex containing a remediation target value for contaminated sites. This task is very important as the current values are unrealistic and not enforceable. As pointed out in the Project Review document *“The site prioritization applied for the National Action Plan and National Targeted Program utilized a highly conservative soil contamination standard. Application of this criteria and classification of such sites as serious and extremely serious in fact appears to capture a lot of sites that by international standards would be considered far less serious”.*

Therefore it may be affirmed that there is a mutual synergy between existing regulatory framework and the .project: the first already ensuring a favourable condition for the continuation of benefits, and the second providing practical tools for ensuring the implementation and enforcement of the regulation.

### How the subjects fit into the partner Government’s strategies and priorities; international and country development goals and priorities; and UNDP/FAO global, regional or country programmes as appropriate

As explained in other part of the document, the subject is strictly integrated in the Government strategies, with specific reference to the needs of MONRE toward a sound implementation of its National Target Plan on contaminated sites; the project is also aligned with MARD and PPD needs on the side of pesticide management, though these aspects are less strictly related to POPs and POPs waste issues.

# Analysis of the management and working methods

### How effective is the project monitoring and evaluation process to ensure the relevance and effectiveness of the activities and expected results in relation to TORs (RFP) issues, different level of work plans (AWPs an QWPs), and the required outputs? How has APR/PIR process helped in monitoring and valuating the project implementation and achievement of results?

The PMU made available to the evaluators all the AWP and the QWPs for the years 2011 and 2012. In the perspective of the PMU, AWP and QWP are effective tool for planning project process effectively. The APR/PIR forms are perceived less useful to communicate all the project progress and issues, although they allow for a significant standardisation of reporting and monitoring.

### Does the project take into consideration the likely risks in preparing AWP an QWP with the aim of mitigating negative impacts that could result from unexpected situation or change in the project environment?

In general, the view of PMU is that annual work plans prove rather optimistic, whilst a shorter view allow for a more realistic planning. The integration of annual and quarterly workplans seems therefore appropriate for managing the possible risks for the project.

### Is the project management arrangement appropriate to the extent of management functions, processes and procedure, in accordance with the staff capacity and reasonable workload?

Coordination and implementation of activities was good until now, although PMU faced some initial issues in understanding how to coordinate the sometime overlapping activities carried out by international experts. In some cases, it was evident to the evaluators that several coordination and communication tasks have been carried out by PMU on a voluntary basis rather than after official obligation or in compliance with clear directions. Nevertheless, most of the preparatory and capacity building activities envisaged under component 1 were completed and thank to the increased capacity the needs for international assistance is reduced to few specific issues in the operational stage the project is entering now.

The entering of the project in a more operative stage will however imply a significant increase of workload for the PMU. The PMU have to coordinate with the provincial staff where contaminated sites are located to ensure that the proper methodologies are adopted; to carry out periodical supervision of the activities at each site; to ensure coordination with the IAs and with the Government; to implement in an effective way, all the administrative tasks (reporting, procurement, etc,); to facilitate the mission of international consultant, etc. It is recommended to assess quickly the expected workload, both from a quantitative and qualitative perspective, to decide whether there is the need of additional staff or resources for the PMU.

### Is the project organization chart efficient for conducting and managing the whole project on the technical and administrative perspective?

There were evidently some difficulties related to the management of two separate budgets with different reporting obligations. As the activities carried out under the FAO component are however now almost completed, these difficulties do not affect the project management anymore.

Currently, the project organisation chart, as it emerged at inception and subsequently from the bilateral agreement between IAs is considered efficient at the central level. No actions / countermeasures for rearranging the organization chat, of for modify the assignment of outcomes to different actors / stakeholders are deemed necessary at this stage. At the peripheral level there is probably the need to clarify the official involvement of DONRE and PPSD.

### Financial accountability – extent to which the financial management has been an integral part of achieving project results, with particular reference to adequate reporting, identification of problems and adjustment of activities, budgets and inputs; and

Both the financial accountability of the UNDP CO and PMU seems adequate. The evaluators were provided by UNDP CO with summary budget arranged by component and PMU was capable to provide information and show evidence on all the expenses under its administrative control.

FAO report on budget directly to the GEF. The evaluator were not provided by FAO with the budget concerning its component.

### Whether timeframe of the project is feasible and practicable?

Considering the significant delay in project inception, it is quite evident that a substantial risk exists that the project would not achieve its objectives by the formal closure date (November 2013), due to the reasons listed in section 5.2.7. Therefore, the timeframe of the project is not realistic anymore. It is suggested to facilitate as much as possible the activities related to the procurement of services for site cleanup and disposal, and to monitor carefully the progress of these activities in the incoming months to quantify as precisely as possible the length of a possible project extension.

# Key findings and lessons learnt

## Success stories

The Government of Vietnam, thank also to the advice provided by the project, conducted an extensive inventory of POPs pesticide contaminated sites which constitute the starting point and the main reason for the promulgation of the National Target Program and of the Master Plan (6), which will made available around 50 M Usd for the cleanup of contaminated sites. The commitment of the Government however is not only on the financial side: there is a real mutual interchange between Government (which is drafting regulatory instruments, displacing financial and staff resources) and the Project (which is providing guidance and know how ): This interchange will result in enhanced sustainability of the project, better implementation of the Vietnamese legislation on POPs waste, and an increased co-financing in the project compared to the initial commitment.

FAO consultant developed the monitoring plan for disposal of the Nui Cang, Thai Nguyen site (11). The plan was later reviewed by Tauw consultants and implemented at Nui Cang Thai Nguyen site.. This activity was the result of the joint collaboration of several international experts, who made available their knowledge to the Government of Vietnam, demonstrating in a very practical way the benefits of a scientifically sound, environmentally safe management of POPs contaminated sites. The experience gathered during that activity, not only from the technical or scientific standpoint, but also from the purpose of drafting bidding documents, constitutes now a pillar for the continuation of the project.

## Lessons learnt

The issue of proper assessing the project objective in term of amount of POPs to be destroyed affects probably all the project submitted in the focal area of POPs, Nevertheless, is important in the course of preparatory activities, to properly identify and secure POPs waste to limit as much as possible the need of rearrangement of project objectives and logical framework

For the specific project under evaluation, not having completely identified in the original project document the real problem to be solved (POPs waste instead of POPs stockpile) had both substantial and management consequences, as some resources mobilised and some outputs delivered were more addressed toward a pesticide lifecycle management than toward environmentally safe management of contaminated sites.

A further consequence was obviously on the disposal technology side. Whilst the disposal technology identified at project endorsement (co-incineration in cement kiln) is both efficient and effective for destroying pure pesticides, it is still effective but not efficient for destroying soil contaminated by POPs at a concentration lower than some hundreds ppm. Identifying the proper technology is now one of the most urgent project tasks.

The involvement of separate agencies can be a key for the success of the project when the specific competences of the agencies are better integrated and coordinated starting from the early steps of project lifecycle. The synergy between the outstanding specific knowledge of FAO on the side of Pesticide management and of UNDP on the side of sound disposal of POP, if properly exploited, could ensure the successful achievement of pesticide related projects and of their future sustainability. It would be important to strengthen the collaboration among these two agencies in Vietnam, in future projects involving pesticidal POPs, since the stage of project proposal and design.

# Conclusions and recommendations

## Recommendations

Because of

* The strong commitment of the Government;
* The high sustainability of the project due to the establishment of financial and regulatory instruments;
* The severity of the problems that the project intend to solve;
* The relevance of the project with the GEF focal area strategic objectives;
* The capacity already created by means of successful training, demonstration of site cleanup guidelines and of disposal technologies.

it is considered that the project is still very valuable and it is important to ensure the achievement of its objective.

To maximize the probability of the successful completion of the project, the following is suggested:

1. Consolidate the logical framework revised at inception by submitting it for formal approval. A limited rearrangement of the logical framework is needed to improve project monitoring and measurement of objectives. A proposed rearrangement, mainly involving rewording of some outcome and outputs, and clarification of the Objectively Valuable Indicators, is reported in Table 2 of Annex I. "Proposed amendment of the Logical Framework”. By formally approving a new logical framework the management and monitoring difficulties related to the co-existence of different logical frameworks will be solved.
2. The following activities are urgent and should be considered highest priority at this stage:
   1. Drafting of sound bidding documents for site cleanup for the sites for which EMP and CSM have been completed;
   2. Review of the bidding document for the disposal of contaminated soil
   3. Ensure that the potential bidders are compliant with bid requirement and facilitate the achievement of the necessary license by contract signature; with this respect the need to conduct Proof of Performance (PoP) tests for demonstrating compliance with the SC BAT/BEP requirements has to be carefully assessed. It must be considered that a sound PoP test of a new plant, from its design to its conduction, may require one year.
3. It is necessary to secure the fund for completing EMP, preparation of bidding documents, and supervision of PoP tests time, allocating financial resources for international consultancy if needed.
4. It is necessary to plan and monitor carefully the ongoing project activities to verify, by the end of 2012, if an extension would be needed. Based on the information gained in the course of the evaluation, an extension of 9 to 12 months would be very likely necessary to achieve project objectives.
5. There is the need to ensure that a single standard is adopted for treating the sites, no matter their cleanup is covered by project or governmental budgets

Annexes To the Evaluation

# Annex I. Proposed amendment of the Logical Framework

The table in this annex contains the review and proposal for amendment of the logical framework based on:

1) the original Project document (4)

2) the Inception Report (2)

3) the “FAO Project Document” (20) and agreement between FAO and UNDP (1)

4) the Project Review (19)

Table . Analysis of Project Logical Framework and proposed amendments.

| **2009 Project Document Objective / Outcome / Outputs** | **2010 Inception Report Objective / Outcome / Outputs** | **Comparative Notes on Inception Changes (from the Review Report)** | **Proposed amendment at MTE, if any** | **Indicators as from IR**  **Indicators for activituesproposed under FAO budget (in reverse text)** | **Proposed amendment at MTE , if any** |
| --- | --- | --- | --- | --- | --- |
| **Objective: To remove barriers to the sustainable elimination of POP pesticides in Vietnam** | **Objective: To support sustainable development in Vietnam through the elimination of POPs from the environment (see Note 1)** |  | **Objective: To remove barriers to the sustainable elimination of POP pesticides in Vietnam** |  |  |
| **Outcome 1. Improved capacity facilitates elimination of POPs pesticides stockpiles** | **Outcome 1. Improved capacity facilitates pesticides stockpile disposal** | Essentially the same, stockpile oriented but extended to all pesticides | **Outcome 1. Improved capacity facilitates disposal of POPs waste and POPs stockpiles** |  |  |
| Output 1.1. Qualified agencies selected to provide excavation, re-packaging, temporary storage, transportation and sampling/testing services | Output 1.1 List of POPs pesticides disposal and soil remediation companies | Covers original Output 1.1 |  | Existence of potential qualified and licensed National and International companies besides Holcim Expression of interest received from potential qualified and licensed National and International companies | At least three of potential qualified and licensed Provincial, National and International companies. At least three expression of interests received from potential qualified and licensed Provincial, National and International companies |
| Output 1.2. Staff of government agencies trained in appropriate technologies and application of standards and guidelines. | Output 1.2: One data set with all available inventory data | Partially covers original Outputs 1.6 and 1,7 |  | Data sheets of sites and a data system that is easy for uploading data, to extract information and to store data. To be used in next phase of the project and in the future to store all new and update site data  Project Management Unit confirm that they do not wish to use the FAO Pesticide Stock Management System (PSMS) (as set out in the original project document) to consolidate inventory data and complete risk profile based on assessment data. PSMS will be installed within MARD as a tool for management of future pesticide stocks imported into Vietnam. GoV to develop a separate tool for assessment of contaminated sites not focusing on a specific waste sector such as pesticides. | Data sheets of sites and a data system that is easy for uploading data, to extract information and to store data, suitable for the use during and after project end to store and update site data  PSMS system installed at MARD. |
| Output 1.3. A monitoring plan for disposal of stockpiles. | Output 1.3: List with priority sites in categories | Generally covers what would have come from original Output 1.7 |  | Site data base contains data on environmental and human health risks and risks of migration of contaminants Data base with all the POPs pesticides sites is accessible and data are stored consistent | A data base is made available to the relevant operators and authorities, which contains relevant and reliable data for the characterization of environmental and human health risks and for planning site cleanup |
| Output 1.4. Testing and licensing of destruction facilities | Output 1.4: Technical guidelines and managerial guidelines on POPs waste management | Covers original Outputs 1.4, 1.11, 1.12 and 2.2 but generalized to POPs mgt from being testing and licensing and contaminated site specific |  | Appropriated and cost effective short, mid and long term actions  Description of the standard rehabilitation plan for each category that can be used for budgeting and time planning for each POPs pesticide site category ; existence of feasibility reports.  Development of system for categorisation of contaminated sites (tool kit) based on a combination of existing methods including Hatfield Assessment, FAO site assessment and Conceptual Site Modelling developed by TAUW.  Development of site-specific remediation methodologies across all affected sites via the application of site characterisation tool with PMU on sites identified in Vietnam to (training and practical application workshop).  Contaminated sites remediated via Implementation of the remediation strategies based on risk reduction and national budget availability. (Not FAO activity– supported through Govt contribution)  Feasibility study published for container management needs in Vietnam. | Appropriated and cost effective short, mid and long term actions identified and described.  A standard rehabilitation plan for each category that can be used for budgeting and time planning for each POPs pesticide site category made available; existence of feasibility reports  A practical system tailored for the Vietnam situation for priority setting of POPs pesticide contaminated sites developed, tested and made available to the relevant stakeholders.  Feasibility study published for containere management needs in Vietnam. |
| Output 1.5. MONRE/ VEA establishes an effective consultation and coordination mechanism to oversee management of POPs in Vietnam. | Output 1.5: Specifications of tender document including detailed CSM, rehabilitation plan with budget estimates of a limited number of priority sites (FAO input as de 1.1) | Not explicitly covered under original Outcome 1 but would have been in original Outcome 2 |  | Complete CSM per site including pictures, drawings and analytical data and last but not least a detailed risk assessment Filled in standard rehabilitation plan supplemented with site specific rehabilitation aspects, an estimated budget for each site. A contractor should be able to make a bid, and cost estimate.  Training in development of tender technical specifications completed by FAO personnel  Tender specifications for hot spot remediation and remediation of lower risk sites developed based on review of risk profile and prioritisation of affected sites. | Training in development of tender technical specifications completed by FAO personnel  Complete CSM per site including pictures, drawings, analytical data and a detailed risk assessment. Bidding Documents containing technical specifications, site specific rehabilitation plan, and estimated bill of quantities for each site / group of sites with enough detail to allow a bidder to make a bid.  Bidding documents for POPs contaminated sites developed. |
| Output 1.6. A regular and systematic monitoring programme covers POPs pesticides inventories. | Output 1.6: Staff of government agencies is trained by experienced trainer(s) on POPs pesticides site cleanup | Same as original Output 1.2 |  | Training certificates issued for 10 national staff - systems for management of disposal projects (theory)  Training certificates issued for 10 national staff - systems for management of disposal projects (field training) |  |
| Output 1.7. Establishment of a POPs pesticide management information system. | Output 1.7: Legal document revision and development | Covers original Output 1.5 but broaden |  | Contribution to the legal document revision and development is issued and appreciated by MONRE |  |
| Output 1.8. Specific activities associated with sound management, reduction and elimination of POPs incorporated in development strategies and programmes of key ministries and sectors. | Output 1.8: Monitoring plan for disposal of stockpiles | Same as Output 1.3 | Output 1.8: Monitoring plan for removal and disposal of POPs waste / stockpiles drafted, approved and disseminated | Existence of Monitoring plan  (FAO system for M&E of project implementation can be made available upon formal request and allocation of funds to cover cost of development of component level M&E plans to meet GEF reporting requirements) | Existence of Monitoring plan in Vietnamese.  Monitoring plans adopted by the relevant stakeholders |
| Output 1.9. Communications strategy covering responsibilities of communities and the business sector. | Output 1.9: Communications plan including awareness raising (FAO 1.10 design phase) in activity as stated in original project document confirmed in FAO results framework to GEF | Same as original Output 1.9 and partially Output 1,10 |  | A communication plan that is feasible and effective.  Regular (quarterly) coverage of project events covering responsibilities of communities and the business sector  Development of communications and awareness strategy | Existence and dissemination of a communication plan on both the issues of pesticide management and contaminated sites, to allow possible population exposed to contaminated sites to adopt countermeasures to reduce exposure.. |
| Output 1.10. Awareness of the legal provisions governing importation and use of POPs pesticides among government officials and the general public supports efforts to prevent importation and use. | Output 1.10. Two EOI and Tender Documents, TORs short lists of competent companies, RFPs and Two companies are contracted | Not explicitly covered under original Outcome 1 but would have been in original Outcome 2 |  | Letters of EOI of at least five companies for each contract | Successfull bidding following relevant national or international rules accomplished, companies contracted. |
| Output 1.11. Technical and managerial guidelines are prepared governing treatment of contaminated sites. |  |  |  |  |  |
| Output 1.12: Stakeholder commitment for a nation-wide empty container management programme |  |  |  |  |  |
| **Outcome 2. All known stockpiles are destroyed and impacts on human health relieved** | **Outcome 2: At least 5 sites with a minimum of 1,140 tons will be treated, impact on human health relieved** | Adopts more realistic Outcome by defining the limitation to 5 to 6 sites and eliminates the reference to stockpiles implying the volume would include contaminated soil eliminated and remediated | **Outcome 2: At least 10 sites with a minimum of 1,140 tons of highly contaminated POPs waste / stockpiles will be treated, impact on human health relieved** | **Evaluation site reports and aftercare and monitoring confirm the results** | **Evaluation site reports and aftercare and post cleanup monitoring confirm the results** |
| Output 2.1 Buried POPs pesticides are excavated, where needed separated from contaminated soil and deposited for repackaging | Output2.1: Selected company is licensed to handle and destruct POPs pesticides | New Output is effectively redundant given the re-allocation of resources to Outcome 1 and specifically Outputs 1.5 and 1.10 above. Should be part of Output 2.2 below | Output 2.1 Supervision and independent monitoring of the technical requirements for licensing, including when needed the proof of performance test | Company is performing a test for obtaining license | Proof of Performance test reports reviewed and made available for obtaining a license.  Plant Operating Conditions established on the basis of Proof of Performance test result. |
| Output 2.2. POPs pesticides in degraded containers are re-packaged on-site in preparation for transportation and disposal. | Output 2.2: Acute risks are eliminated at selected priority sites on the short term | Covers portions of original Outputs 2.2, 2.3, 2.4, 2.5. 2.6 | Output 2.2: Acute risks are eliminated at selected priority sites on the short term by removing POPs waste from the site | Approved completion document in line with project document | Approved completion document in line with project document Evidences of POPs waste / stockpile removed, transported and disposal as per national and international rules (hazardous waste manifests, waste analysis, disposal certificates) |
| Output 2.3. Stocks are tested for destruction. | Output 2.3: Potential and latent risks are reduced and contained and aftercare and monitoring program is delivered for the selected priority sites | Partially Covers original Output 2.6 |  | Approved completion document in line with project document | Approved completion document in line with project document Evidences of activities carried out at project sites. Monitoring results. Minute of site visits and interviews |
| Output 2.4. Stocks are transported to the destruction facility (ies) | Output 2.4: Mid and long term actions are allocated for the coming 10 years and implemented | Partially Covers original Output 2.6 but adds long term considerations beyond the project life that would not be practically applicable. Assume it means planning for post project activities. | Output 2.4: Monitoring mid and long term plan for the sites drafted, approved by MONRE and disseminated. | Transfer documents are singed and local comptent staff is trained | Existence of Monitoring plan in Vietnamese. Monitoring plan adopted by the relevant stakeholders |
| Output 2.5 Stocks are destroyed |  |  |  |  |  |
| Output 2.6. Related contaminated media will be treated using bio-remedial and phyto-remedial technologies |  |  |  |  |  |
| **Outcome 3: Improved chemicals management prevents importation and use of POPs pesticides** | **Outcome 3: Improved chemicals management prevents importation and use of POPs pesticides** |  |  |  |  |
| Output 3.1: National chemicals safety standards | Output 3.1: National chemicals safety standards | Same as original Output |  | Adoption of national chemical safety standards |  |
| Output 3.2: Line agency staff trained in management of POPs pesticides. | Output 3.2: Line agency staff trained in management of POPs pesticides. | Potential overlaps with Output 1.6 |  | Completion of training courses  National workshop report on status of post registration enforcement of regulations in Vietnam published  Action plan developed and Training of Trainers completed | CV details are in line with the TOR for the trainer Staffs of government agencies are trained in appropriate technologies and application of standards and guidelines for site assessment including topsoil survey. Project Team and PM are also equipped to manage site cleanup campaigns  National workshop report on status of post registration enforcement of regulations in Vietnam published  Action plan developed and Training of Trainers completed |
| Output 3.3: A compendium of legal documents on POPs pesticides management for use by Customs and other key agencies involved in management and destruction of POPs pesticides. | Output 3.3: A compendium of legal documents on POPs pesticides management for use by Customs and other key agencies involved in management and destruction of POPs pesticides. | Same as original Output but decreased funding |  | Dissemination of compendium |  |
| Output 3.4: Bilateral task forces between Vietnamese border provinces and their Chinese counterparts | Output 3.4: Bilateral task forces between Vietnamese border provinces and their Chinese counterparts | Same as original Output but decreased funding t |  | Task forces functioning | MOU with neighbouring countries signed:  Task forces functioning |
| Output 3.5: Facilities for handling and storage of illegal pesticides developed at key border sites | Output 3.5: Facilities for handling and storage of illegal pesticides developed at key border sites | Same as original Output but decreased funding |  | Volume of storage facilities at selected sites |  |

## Project timeframe at inception



## Realistic project timeframe



## Questionnaires

Questionnaires were not used in this evaluation. Interviews were based on the list of questions required by the TOR.

## List and time-table of stakeholder consulted and Minutes of meetings

## Agenda of the mission in Hanoi.



## Meeting Minutes

### Meeting with FAO, Bao Son Hotel, Saturday 6 October 2012, 13:00 – 14:00

Persons met: mr Richard Thompson, FAO HQ; Ms. Huong FAO CO

1. FAO activities are regulated by a grant agreement / MOU and by a FAO "Project Document"; a copy of these two documents will be provided by FAO to the evaluation team.
2. FAO has to coordinate with its own evaluation team. However, it is clarified by Mr. Lupi that the Mid Term Evaluation is being carried out by UNDP, as specified in the project document.
3. Mr. Thompson kindly proposed to submit a short briefing report summarizing FAO activities.
4. The submission of a briefing report from FAO is considered extremely useful by Mr. Lupi, who asked to be provided also with reports and budget from FAO, as in this way it will be possible to fully acknowledge the FAO contribution to the project.
5. It has been agreed that as one hour meeting in Hanoi would  be probably not enough for an exhaustive discussion, a further meeting could be held at FAO in Rome, on October 22nd.  In addition, Mr. Lupi will also contact Mr. Kevin Helps for further details on the technical aspects of FAO contribution.
6. The meeting at FAO in Hanoi will only cover coordination and management purposes, as most of the technical activities are provided directly by the experts from FAO HQ
7. The one hour meeting at FAO in Hanoi on tuesday 9 october should be probably rescheduled to another date. The mission agenda has been forwarded to Ms Huong so that she can coordinate with Mr. Vinh on a possible alternative date.

### Meeting with mr. Lai, UNDP (Monday 8 october, 9:00 - 10:00) (UNDP Building, Hanoi)

Persons met: Mr. Dao Xuan Lai, ACD/Head of Sustainable Development Cluster; Ms. Pham Minh Nguyet , Programme Associate

1. Briefing. Introduction to the project situation; Introduction to MTE and practical arrangement
2. The former project officer resigned; no new person assigned from UNDP yet.
3. Delay mainly due to change of the context
4. GEF not formally informed about the change in LF and timing introduced at the inception.
5. Activities started only in 2010
6. Need to coordinate with the UNDP dioxin project to assess where the MCD technology is suitable for POPs pesticides. Currently an evaluation of an independent test is underway.
7. Holcim destroyed 25 tons of pesticides
8. Risk in case of export from Vietnam – the government is not willing to export pesticides abroad
9. FAO activities are conducted independently and are funded directly by GEF. Therefore MTE requires meeting with FAO to be carried out.

### Meeting with MONRE (mr. Nguyen Hoa Binh) (Monday 8 october, 10:45 - 11:30) (MONRE Building)

Persons met: Mr. Nguyen Hoa Binh, Director, Director of the Waste Management and Environment Improvement Department (WENID), deputy National Project Director.

Mr. Hoang Thanh Vinh (Project Management Unit, Head)

1. We will provide help to evaluate the achievement of the project.
2. Importance of the national plan
3. WENID has been assigned by the ministry to coordinate the project. WENID formulated the inception reports. In the past we achieved results but we faced delay. Delay have been reported by UNDP. More information will be passed to you by PMU staff.
4. Plans and strategy of the government – we have investigated the environmental pollution caused by POPs pesticides – more than 1000 – based on that we submitted a master plan which has been approved in 2010 by MONRE.
5. The last year the National Assembly ratified the National Target Program
6. Through the implementation of the pilot activities to be carried out under the GEF project we expect to increase our capacity and understanding for a sound implementation of the National Target Program.
7. The Master Plan and National Target Program started in this year (2012)
8. One important point is to identify the remediation target value which in our view are too conservative. We are developing a circular on technical regulation providing new cleanup target value. We expect technical assistance in the definition of remediation target value and technology suitable to treat pesticide. We have experience on containment of the pesticides. We are exploring which technologies can be used to decontaminated sites. The experience obtained by the project will be used for drafting national technical guidelines.
9. Concerning Permitting and Licensing: before the license system was granted separately for transport an disposal; currently, the transportation and disposal license is an integrated one. Only Holcim has an integrated license .
10. We are working closely in completing the procedure for granting the license to other companies. Two companies applied .The procedure is the same already adopted for Holcim.
11. Cofinancing: National Target Program (144b dong) 600 b/y MONRE DONRE has done quite many containment activities.
12. Our recommendation: the project is a 4 years project but the implementation only started in March 2010. Therefore we need some project extension to complete successfully the activities. Pesticide contamination in Vietnam has been an issue for the past several decades, and to clean up the country Is not a matter of two years.
13. Additionally, by an extension the project more cofinancing can be secured to the project by increasing coordination with the National Target plan and with the Master Plan
14. Digging at contaminated sites is not regulated by any licensing system the project should provide model procedures also on that aspect.

### Meeting with the PMU at project office, Monday 08 October, afternoon (MONRE Building, Hanoi)

Persons MET

Mr. Hoang Thanh Vinh, Project Manager, Project Management Unit (PMU)

Mr. Dao Nhat Dinh, Technical Specialist, Project Management Unit (PMU)

Ms. Tran Thi Thu Huong, Project Assistant, Project Management Unit (PMU)

Ms. Bui Bach Yen, Accountant, Project Management Unit (PMU)

1. The interviews was carried out on the basis of the questions listed in the TOR (see Annex …..).
2. Introduction to Mid Term Evaluation (Carlo Lupi)
3. General introduction to project activities and outcome by component (PMU) – activities carried out component by component on the basis of logical framework; PMU budget figures provided on each activity based on documentary evidences.
4. Assessment of project design: views on the need of change were collected.

### Meeting with FAO at FAO Office (Tuesday 9 October, 8:30 - 9:45) (FAO Building, Hanoi)

Persons met:

Mr. Vu Ngoc Tien, Assistant FAO Representative

Ms. Nguyen Thi Huong, National Programme Officer

Introduction to Mid Term Evaluation (Carlo Lupi)

1. We activated the Fao componet only in 2011 – we needed some time to restructure the project. We had a technical support . We agree on component 1 and component 3
2. From 2011 until now we conducted some activity there are some responsibility assigned to MARD and to MONRE FAO was requested to support either MARD or MONRE on specific activity and so far most of activity are completed. for
3. Integration with the FAO pesticide reduction project
4. FAO contribution is only 10% of the overall project budget therefore resources mobilised are very small.
5. We are very glad to contribute with the PMU – however under the Project Steering Committee FAO is not represented
6. PMU has always technical coordination with FAO – no role of FAO in the project administration.
7. Under this project there are parts dedicated to lifecycle of pesticides.
8. The recommendation is to ensure that the technical contribution provided by the international expert is consistent, and to to ensure a better coordination among FAO and UNPD

### Meeting with MARD- PPD. (Tuesday October 9, 10:30 – 11:30)

Persons met

Dr. Vuong Truong Giang, Head of Pesticide Management Division, PPD

Mr. Do Van Hoe, Senior Officer, Pesticide Management Division, PPD

The interview focused on activities carried out on pesticide management and under the FAO budget, as MARD was mostly involved in that activities.

1. Training for custom: PMU arranged the training; PPD deployed trainers. The training concerned the assessment of pesticide quality, technical regulation and labelling. After training there was an assessment of trainees.
2. PPD provided assistance in drafting tender on improving pesticide management .The first package of the tender is to improve capacity of pesticide management in provinces; the second package concerns the management of empty containers. Pilot study on this issue (3 pilot areas in 3 provinces- north, central and south Vietnam) is being carried out.
3. PPD provided assistance in drafting and evaluation of tenders. ENSA Vietnam Limited company won the bid for empty container and improved capacity (the contract will be completed by June 2013) – PPD will provide inspection and supervision.
4. MARD is carrying out the following activities with FAO:

* Assistance on drafting of the law on plant protection (pesticide management inside the PPL) In February 2 specialist from FAO HQ spent 3 weeks for assisting on the comments of the law and (Dr. Harry and Wandrup; Ms. Carmen) the draft of the law has been already send to PPD. In April or May 2013 the law will be submitted to the parliament for approval. Mostly based on FAO guidance.
* Second activity with FAO for formulating new projects on pesticide strategy: survey to be conducted for project preparation; in POP project they have very small budget.
* Communication and awareness; (FAO drafted the communication guidance. This component is related to use of pesticides, not to the stockpile)
* Management of empty containers; (Finished in April)
* Minimize post harvest loss; (Finished in April)
* Software and Pesticide Stock Management System; (training finished in October)
* Assessment of pesticide lifecycle. (will be implemented from October to December) and farmer training approach will be implemented in October and december.

1. Every time after finishing a component PMU was informed and invited to the meeting (Bui Si Doanh deputy director of PPD is part of the Project Steering Committee). FAO also participated in the meetings.
2. In general PPD confirm that the project objective is good. Linkage among components is sometime missing and there is some overlapping; they wording of the component often is not very clear or easy o implement.
3. Deputy director general + 3 people at central level + persons at the provincial side are working on part time basis on several aspects of the project.

### Meeting with Ha tinh Department of Natural Resources and Environment (DONRE) (10 October, 9:00 - 10:00) in Ha Tinh, DONRE building

Persons met:

Mr. Dang Ba Luc, Direcor, Environment Protection Agency (EPA)

Mr. Phan Van Binh, Deputy Director, EPA

Mr. Pham Ngoc Ha, Senior staff, EPA

Mr. Pham Xuan Duc, Senior staff, EPA

Ms. Nguyen Thi Giang, Senior staff, EPA

**Report on the situation of pollution of pesticide (mr Luc)**

1. The province has one of the land most polluted by pesticides. There are 31 contaminated site by pesticide (POPs pesticide) distributed all over the 30 district. 11 sites have been included in the Master Plan. For institutional arrangement they already had some containment activities – Tach Lu site already confined – they have approved the treatment for 2 sites. There is a 50% / 50% local-central budget partition for treatment of the sites, corresponding to 26 and 28 billions VD. The 2 sites will be finished in around 2 years.

**Difficulties met.** View of DONRE on the issue of pesticide stockpiles/burial sites

1. The government plan is to spend 1000 billion of which 50% should go to the province. We are seeking other partner for cofinancing as we have not enough money to fill the governmental cofinancing request.
2. We have lack of technology and more sites being discovered in the countryside.
3. Collection point: one site has been selected. Classification of contaminated sites: survey result, testing and sampling. For each site we are spending around 100 million in sampling and analysis. We usually send the samples to a laboratory in Hanoi.
4. There are serious resettlement pronlems. We moved 11 houses and invested for water supply.
5. Local coordination issues – we have to coordinate Public Health, Agriculture and Environment.
6. Specific regulation at the provincial level – Target levels are based on the national regulation. We also participated in the workshop carried out under the project on the revision of target levels.
7. We allocated collection points. Quite a number of personnel is involved in the issue. Every year we carry out a new inventory of pesticides – there is a lot of illegal import from China and Lao however there are no evidence of import of POPs pesticides.

**Question from the evaluators: how the project contributed to the provincial activities?**

1. We need a treatment center and a treatment plan. We participated in the site surveys conducted by the project.
2. The Environment Management Plan has been only partially translated. The guideline from FAO has been translated recently. The TAUW EMP have already partially translated in Vietnamese. Only treatment options have been translated in Vietnamese. EACH province presented EMP in the workshop.
3. We got the circular N° 12 in 2011 – if a company apply at provincial level they will work only at the provincial level. Only one company licensed that can do both the transportation and disposal. (Technology Transfer and Environment Treatment Company).
4. Ordinary people cannot differentiate between illegal pesticide, legal pesticide, POPs. Import from foreign country is an issue.

### Meeting at MONRE/VEA Thursday 11 October, Morning

Persons met:

Mr. Ho Kien Trung, Head of Environment Improvenment Division, WENID, VEA

Mr. Nguyen Duc Tho, Senior staff, Environment Improvenment Division, WENID, VEA

1. Cofinancing arranged under the Ministry of Environmental Improvement Division.
2. With the support of the project WEIND and the POPs pesticide project worked together very effectively. The activities are greatly appreciated by the prime minister.
3. Master plan – plan of treatment of contaminated site. WEIND is the focal point to manage that and to develop the project. In specific, based of the classification of sites, WEIND developed the master plan for contaminated sites to be treated. In order to implement the plan the government will use a lot of financial resources (more than 200 sites to be treated from 2010 to 2015). Before the master plan approval, 20 sites were already treated.
4. In the year 2011 50 billion VD have been spent for these activities.
5. The National Target Plan was approved by the assembly in 2011 and the detail plan was approved by the prime minister in 2012.
6. The content of the NTP target 3 target the points:

* Handicraft villages
* Pesticide contaminated sites 1000 Billion (500BVD central + 500BVD)
* Wastewater treatment

1. Funds is based on submission of projects. Any entity can develop the project and submit to WEIND for obtaining cofinancial contribution.
2. Further breakdown of the 500 B VD not completed yet, as the NTP was signed just last month. The allocation has not been done yet.

**Question from the evaluators: what is the relationship between our project and WEIND?**

1. The Budget from the local government is considered as budget from the country. Some sites are completely paid by the government and some others are completely paid by GEF.

**Point raised by the evaluators: It is very important to document which are the sites that are cofinanced by the government under the project, and to establish a technical coordination so that a common approach for government funded sites and GEF funded sites can be ensured and “double standard” is avoided (after the discussion PMU provided a detailed table of sites funded by the government)**

1. In order to implement the project, both on NTP and GEF, it is very important that they are provided with technical guidance standards, etc.
2. For further technical issues, we are keen to fully accept the project proposals and methodologies on Risk Assessment which were not existing before project started.
3. Regarding the technical standards, we request the project to develop new target values.
4. We need to introduce new technologies for treating pesticide and pesticide contaminated soils. After the MTE we would like to boost the project activity on the side of disposal technology.
5. Our needs are: test and establish technologies; training to staff; equipment for fast survey; risk assessment / environmental planning of contaminated sites.
6. In general we appreciate the contribution of the project; in the next phase we would like to have more specific contribution. First one is to introduce more technical guidance to implement master plant; development of human resource; technologies.

Recommendation provided:

1. Need to improve coordination with PMU
2. We would like to have an extension of the project.
3. We need a re-assessment of the 100 priority sites identified in the NTP.

### Meeting with Custom Office (Friday 12 October, 8:30 - 9:30) at Bao Son Hotel

Department of enforcement and custom.

Persons met:

Mr. Duong Minh Duc, vice-chief, Department of Enforcement

Mr. Nguyen Van Ha, Senior staff, Division 2, Department of Enforcement

Briefing from Vinh (PMU).

The view of Custom Office on the project

1. Operation of custom in Vietnam. A lot of cooperation activities are undergoing between custom and Ministry of Environment. According to the law, the general department of custom belongs to the Ministry of Finance. We have the following activities:

* Investigating the goods importing and exporting to perform activities aimed at preventing smuggling and movement across the border.
* Collecting taxes based on Vietnamese law.
* the organization is in 3 level: general department , provincial level, subdepartment at the border gate.According to this structure, goods and other products will achieve custom clearance at such department at border gate.

1. According to the Vietnamese law Custom is an “enforcing agency” – means that department implement the law and regulation established by the government.
2. Customs have to enforce regulation issued by over 20 ministries, therefore their task is rather complex. Cooperation and coordination with other ministries is a prerequisite for carrying out our task. There is therefore a strong need for tight cooperation. Cooperation has been ensured since many years.
3. In the past 2 years there was a better focus on the cooperation of custom with Environmental Authorities. 5 activities for cooperation have been set out in the MOU under development among Custom and MONRE:
4. The first purpose of MOU is to help both side in achieving their task.
5. The second target of the MOU is to promote exchange of information. In the MOU also the focal point for each party and each field are established. MOU establishes capacity building needs. In 2012 the project supported Custom with training courses in the south and in the north. The subject of the training course was to training Custom on the control of pesticides across the borders.
6. The third purpose is to promote international activities aimed at controlling international trafficking of pesticides, specifically with China and Cambodia. For these activities Custom established significant cooperation relationships with Cambodia and China. Annual meeting on anti-smuggling forces between countries. We have technical meeting with neighbouring authorities on pesticides.
7. The fourth cooperation activity aims at developing harmonized system on classification of goods. Vietnam is member of the South-East Asian union for harmonizing goods. For each type of good there is a different tax level. Each kind of good has to be analyzed to see the content of the good (physical, chemical, etc.). For that reason the custom really needs support from the project.
8. Regarding pesticides it’s very hard to classify allowed pesticides. We need to send sample to PPD. The list of pesticides allowed to be imported is issued by the Ministry of Agriculture; this list sometime is not in line with the HS code. Information on pesticide is a kind of basis for stopping the importation.
9. The Fifth cooperation activity concerns the establishment of an environment center for disposal, and support to the custom to improve stocks at borer gates. The custom only manages goods at border gate. The areas managed by the custom are at ports, airports, industrial and processing areas, borders. At those areas we have state management looking at goods to be imported or exported; therefore there is the need for storing and keeping the pesticides, and the need to build appropriate storage and establishes PPE for workers. We are facing a lot of challenges on these aspects. For this reason custom officers may be reluctant to confiscate pesticides. There is therefore a strong need to invest in appropriate storage and safety equipment for custom officers.
10. Custom highly appreciate training performed by the project on capacity building. Our expectation is to promote this capacity building in the next stage.
11. How is the sustainability of training.
12. The training course was very useful – however the legal document are not properly established – there is a need for improving exchange mechanism among ministries. The training cannot cover all the custom officers. In the training course training material was provided and lessons by national experts. There is the need to update.
13. Storage: for separate storage the issue is that there is no separation between pesticides and other goods. The facility and infrastructure does not meet the regulation.
14. For our experience, pesticides are temporarily allowed to move the goods to the client. In case they cannot achieve the clearance, the good will have to be exported back to the original country, or to be disposed: the cost will have to be covered by the company.
15. Bilaterally agree it is not possible to have separate storage for pesticides. Better to agree procedures for management of chemicals at the storage.
16. Do they have a data base of the chemicals they have to destroy?
17. The issue is that: there are 2 ways to import pesticide: legal way – for the formal importation there are no problems; illegal way: very small amount from former people across border (in 2012 around 10 tons, of which there is no evidence of POPs).

### Debriefing Conference at UNDP (Friday 12, afternoon)

Persons met:

Mr. Balaji Natarajan, Regional Advisor (UNDP Bangkok)

Mr. Dao Xuan Lai, ACD/Head of Sustainable Development Cluster (UNDP Hanoi)

Carlo Lupi provided a short briefing of the activities carried out and on the preliminary result of the MTE. Mr Balaji raised the issue of disposal process of industrial pops contaminated stocks, and coordination with other project carrying out in Vietnam.

Mr. Balaji informed that the deadline for the MTE is around 20 November. Advice: talk with TAUW; provide insights into the technology selection.

### Debriefing meeting with FAO (FAO Building, Hanoi) (Friday 12, afternoon)

Persons met:

Mrs. Yuriko Shoji, FAO Representative

Mr. Vu Ngoc Tien, Assistant FAO Representative

Ms. Nguyen Thi Huong, National Programme Officer

Carlo Lupi provided a short briefing of the activities carried out.

FAO raised the issue of the need of a greater involvement in the next steps of the project.

Carlo Lupi informed that a further meeting with FAO technical experts and the FAO evaluation unit is planned at the FAO offices in Rome.

### Meeting at FAO office in Rome (Monday 22, morning)..

Persons met:

Richard Thompson, FAO

Bernd Bultemeier, FAO evaluation office.

1. Carlo Lupi provided a short briefing of the activities carried out and of the preliminary result of the evaluation, and asked to be provided with further detail on the agreement between FAO and UNDP.
2. Mr. Bernd provided Carlo Lupi with a copy of the “FAO project document”, which contain a list of indicators specially aimed at evaluating the project activities being carried out under the FAO budget.
3. Carlo Lupi pointed out the need to reassess the logical framework taking into consideration also the indicators established in the “FAO project document”
4. Carlo Lupi asked to be provided on the budget of FAO activities, arranged by outcomes, to complete the report with expenditure situation on all the components.
5. It was recommended to arrange a further conference call with Kevin Helps, who carried out several technical activities in the project.

### Conference call with FAO (Tuesday 22, morning).

Persons met

Richard Thompson, FAO

Kevin Helps, FAO.

(unfortunately the connection was very bad and for that reason the conversation not very fruitful)

1. Carlo Lupi asked how the different technical contribution provided by the international experts from the two agencies were integrated in the project, with special reference to the Environmental Management Plans.
2. Mr Helps raised several concerns on the capability of the TAUW company and raised the issue of greater involvement of FAO in the remaining project activities. He also recalled that FAO offered to be CTA of the project, and that in the absence of an international CTA he thinks the project would be in trouble.
3. There is the willing to overcome past difficulties and work toward a successful conclusion of the project.

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7. **Merriam-Webster.** *Merriam Webster online dictionary.* [Online] [Cited: 11 October 2012.] http://www.merriam-webster.com/dictionary/stockpile.

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11. —. Site remediation plan - Review Visit. Nui Cang, Diem Thuy, Thai Nguyen. November 2011.

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13. Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal.

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15. **GEF.** Persistent Organic Pollutants Focal Area Strategy and Strategic Programming for GEF 4.

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20. **FAO.** Project Document - Building Capacity to Eliminate POPs Pesticide Stockpiles in Vietnam - FAO Component. *http://www.fao.org/fileadmin/user\_upload/faovn/docs/1\_Project%20document.pdf.* [Online] April 2011.

21. **Project Management Unit.** Terms of Reference for a Special Service Agreement. September 2012.

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23. —. *Building capacity to eliminate POPs Pesticides stockpiles in Vietnam - Annual Project Progress Report.* 2011.

24. —. *Building capacity to eliminate POPs Pesticides stockpiles in Vietnam - Quarterly Project Progress Report.* Quarter 1 - 2012.

25. —. *Building capacity to eliminate POPs Pesticides stockpiles in Vietnam - Quarterly Project Progress Report.* Quarter 2 - 2012.

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27. —. *Building capacity to eliminate POPs Pesticides stockpiles in Vietnam - Quarterly Project Progress Report.* Quarter 3 - 2012.

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29. **Project Managenent Unit.** Communication by mail after interview with mr. Dinh and mr. VInh conducted in Hanoi. *Electronic mail.* November 11, 2012.

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1. It has to be recalled the fact that in the Vietnamese legislation, the term “pesticide stockpile” is widely used to refer to the storage of pesticide waste. [↑](#footnote-ref-2)
2. The limit of 50 ppm is used by the Basel convention for discriminating between low and high concentration POPs pesticides, and categorizes the waste for which the Stockholm Convention does not allow disposal with non destructive methods like landfilling or containment. [↑](#footnote-ref-3)