



REQUEST FOR CEO APPROVAL

PROJECT TYPE: FULL SIZE PROJECT

TYPE OF TRUST FUND: GEF TRUST FUND

For more information about GEF, visit TheGEF.org

PART I: PROJECT INFORMATION

Project Title: Viet Nam POPs and Sound Harmful Chemicals Management Project			
Country(ies):	Viet Nam	GEF Project ID: ¹	5067
GEF Agency(ies):	UNDP	GEF Agency Project ID:	5154
Other Executing Partner(s):	Ministry of Environment and Natural Resources (Viet Nam Environmental Protection Authority) Ministry of Industry and Trade (Viet Nam Chemicals Agency)	Submission Date:	9/8/2014
GEF Focal Area (s):	POPs	Project Duration(Months)	36
Name of Parent Program (if applicable): <ul style="list-style-type: none"> ➤ For SFM/REDD+ <input type="checkbox"/> ➤ For SGP <input type="checkbox"/> ➤ For PPP <input type="checkbox"/> 		Project Agency Fee (\$):	242,250

A. FOCAL AREA STRATEGY FRAMEWORK²

Focal Area Objectives	Expected FA Outcomes	Expected FA Outputs	Trust Fund	Grant Amount (\$)	Co financing (\$)
CHEM-1(select)	Outcome 1.4 POPs waste prevented, managed, and disposed of, and POPs contaminated sites managed in an environmentally sound manner.	Output 1.4.2 Countries receiving GEF support for environmentally sound management of obsolete pesticides, including POPs.	GEFTF	530,000	4,000,000
CHEM-1(select)	Outcome 1.5 Country capacity built to effectively phase out and reduce releases of POPs.	Output 1.5.1 Countries receiving GEF support to build capacity for the implementation of the Stockholm Convention.	GEFTF	1,390,000	6,310,000
CHEM-3(select)	Outcome 3.1 Country capacity built to effectively manage mercury in priority sectors.	Output 3.1.1 Countries receiving GEF support for mercury management and reduction, on a pilot basis.	GEFTF	315,000	160,000
CHEM-3 (select)	Outcome 3.2 Contribute to the overall objective of the SAICM of achieving the sound management of chemicals throughout their life-cycle in ways that lead to the minimization of significant adverse effects on human health and the environment.	Output 3.2.1 Countries receiving GEF support to implement SAICM relevant activities, including addressing persistent toxic substances and other chemicals of global concern (other than mercury), on a pilot basis.	GEFTF	315,000	580,000

¹ Project ID number will be assigned by GEFSEC.

² Refer to the [Focal Area Results Framework and LDCF/SCCF Framework](#) when completing Table A.

(select)	(select)			(select)		
(select)	(select)			(select)		
(select)	(select)			(select)		
(select)	(select)			(select)		
Total project costs					2,550,000	11,050,000

B. PROJECT FRAMEWORK

Project Objective: Continued reduction of environmental and health risks through POPs, mercury and harmful chemicals release and exposure reduction achieved by provision of an integrated institutional and regulatory framework

Project Component	Grant Type	Expected Outcomes	Expected Outputs	Trust Fund	Grant Amount (\$)	Confirmed Cofinancing (\$)
Project Component 1. Policy framework for sound chemicals management, including POPs/PTS developed and implemented.	TA	Outcome 1.1. Overall policy framework and specific regulatory measures covering environmentally sound management of POPs and PTS through life cycle management developed and implemented	<p>Output 1.1.1 Detailed review and gap analysis of Laws on Chemicals and Environmental Protection with respect to coverage of POPs, PTS and environmentally damaging chemicals management including mercury, conducted. A regulatory improvement plan developed.</p> <p>Output 1.1.2 Decree/regulation applicable to the Stockholm Convention amendments on “new” POPs including bans where not yet in place, developed.</p> <p>Output 1.1.3 Enacted legal instrument in the form of amended Laws or Decrees/regulations defining linkage between these laws and the regulatory instruments in place.</p> <p>Output 1.1.4 Guidelines integrating environmental control of POPs and PTS within the overall chemicals management</p>	GEF TF	455,000	1,000,000

			<p>framework, including coverage of: i) general environmental protection for chemical activities, ii) scheduled wastes containing toxic chemicals, iii) environmental emergency and response, environmental risk assessment of waste containing toxic chemicals methodology, iv) health risk assessment for chemical wastes procedures.</p> <p>Output / Activity 1.1.5 Establishment and enforcement of the regulatory framework for POPs/ PTS tracking tool and a PRTR system through support in drafting the PRTR regulation, by establishment of an inter-ministerial coordinating group on PRTR regulation, Integrating POPs / PTS requirement in the database design, drafting guidelines for PRTR enforcement and implementation</p>			
	TA	<p>Outcome 1.2 Key institutions have knowledge and skills to formulate and implement necessary chemicals and environment policies, consistent with sound chemicals management principles and international convention requirements</p>	<p>Output 1.2.1 Active participation of Viet Nam in the International Conference on Chemicals Management.</p> <p>Output 1.2.2 30 representatives from VEA, VINACHEMIA, Department of Water Resources Management, national customs authorities and</p>			

			<p>industrial stakeholders trained in implementation of chemicals classification and labeling in global harmonized system and adaptation of the EU REACH/ROSH approach for application in Viet Nam</p> <p>Output 1.2.3 Strengthened application of chemical risk assessment approach for environmental and health risk assessment and release reduction enforcement including training of 30 professionals from VEA, VINACHEMIA and Ministry of Health will be implemented.</p> <p>Output 1.2.4 Market based policy initiative developed to promote reduction in POPs releases and POPs disposal through development of national POPs management service provider capability on a commercial basis through private public partnerships</p>			
Component 2. Monitoring and report of POPs and PTS	TA	Outcome 2.1. National institutions provide comprehensive and coordinated ambient environment and receptor POPs /PTS monitoring that is consolidated into a national database and utilized for high quality reporting to the GoV/National	<p>Output 2.1.1 ambient environment (air, water, soil) and receptor (human, biota, food) POPs and PTS baseline established against which future monitoring can be measured and reported.</p> <p>Output 2.1.2 Inventory of ambient environment and receptor monitoring capability</p>	GEF TF	600,000	5,450,000

		Assembly and the Convention.	including a gap analysis identifying where strengthening is required. Output 2.1.3 Upgraded monitoring programs in key areas where strengthening is required and developed.			
	TA	Outcome 2.2 National POPs/PTS laboratory network for support of ambient environment and receptor monitoring certified/accredited.	Output 2.2.1 Up to 2 laboratories accredited to international standards to support POPs/PTS monitoring Output 2.2.2 Up to 40 relevant national and provincial government staff will be trained on POPs/PTS monitoring and reporting following international standards and requirements Output 2.2.3 A POPs/PTS database developed at provincial level and PRTR reporting system operational and linked to the POPs tracking tool and data submitted to Convention Secretariat.			
Component 3. Management of POPs contaminated sites	(select)	Outcome 3.1 Key policies, regulations and technical guidelines for management of POPs contaminated sites are in place	Output 3.1.1 Supporting regulations and standards for contaminated sites covering requirements for: i) contaminant levels to trigger action, contaminant POPs levels; ii) future land use cleanup level requirements for POPs contamination in soil and water; iii) reporting; and iv) care/custody and liability assignment, developed.	GEF TF	1,000,000	3,800,000

			<p>Output 3.1.2 Risk management procedures and guidelines for contaminated sites developed.</p> <p>Output 3.1.3 National consolidated POPs contaminated sites inventory developed and prioritized.</p>			
	(select)	<p>Outcome 3.2 Provincial Management Plan for the Demonstration Provinces..</p>	<p>Output 3.2.1 Detailed planning based on the existing and upgraded database on POPs contaminated sites in the two provinces.</p> <p>Output 3.2.2 Fifty (50) technical and regulatory professionals from national level and 10 provinces will be trained on contaminated sites management, site assessment, risk reduction and remediation practice taking into account lessons learnt from GEF4 POPs projects.</p> <p>Output 3.2.4 Measures taken for the public awareness raising, proper risk communication and participation, including involvement in reporting contaminated sites and POPs stockpiles, aimed at a better implementation of all risk management measures, risk</p>	(select)		

			reduction and emergency responses, and health and safety protection, with active participation of the population			
Component 4. National mercury baseline inventory and release reduction.	(select)	Outcome 4.1. Mercury inventory results contribute to the development of awareness raising materials and the identification of national activities to ratify and implement Minamata Convention.	<p>Output 4.1.1 Identification of main industrial process which may lead to mercury release</p> <p>Output 4.1.2 Questionnaire survey, process analysis, site visits for a number of possible mercury release sources</p> <p>Output 4.1.3 Identification of main manufacturing products which may contain mercury.</p> <p>Output 4.1.4 Road Map on sound mercury management.</p>	GEF TF	300,000	250,000
		Outcome 4.2 Increased knowledge and awareness of mercury source and releases	Output 4.2.1 Information outreach workshops (2 nos) conducted to provide information on source and release of inventory			
Component 5. Monitoring, Learning, Adaptive Feedback & Evaluation	(select)		Output 3.2.4 Measures taken for the public awareness raising, proper risk communication and participation, including involvement in reporting contaminated sites and POPs stockpiles, aimed at a better implementation	GEF TF	70,000	

			of all risk management measures, risk reduction and emergency responses, and health and safety protection, with active participation of the population			
			Subtotal		2,425,000	10,500,000
			Project management Cost (PMC) ³	GEF TF	125,000	550,000
			Total project costs		2,550,000	11,050,000

C. SOURCES OF CONFIRMED CO-FINANCING FOR THE PROJECT BY SOURCE AND BY NAME (\$)

Please include letters confirming co-financing for the project with this form

Sources of Co-financing	Name of Co-financier (source)	Type of Co-financing	Co-financing Amount (\$)
Bilateral Aid Agency	Japan International Cooperation Agency (JICA)	In kind	3,000,000
National Government	MONRE	In kind	7,900,000
National Government	MOIT	In kind	150,000
(select)		(select)	
(select)		(select)	
(select)		(select)	
(select)		(select)	
(select)		(select)	
Total Co-financing			11,050,000

D. TRUST FUND RESOURCES REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY¹:

GEF Agency	Type of Trust Fund	Focal Area	Country Name/Global	(in \$)		
				Grant Amount (a)	Agency Fee (b) ²	Total c=a+b
UNDP	GEF	POPs	Viet Nam	2,550,000	242,250	2,792,250
Total Grant Resources				2,550,000	242,250	2,792,250

¹ In case of a single focal area, single country. Single GEF Agency project. And single trust fund project, no need to provide information for this table. PMC amount from Table B should be included proportionately to the focal area amount in this table.

² Indicate fees related to this project.

F. CONSULTANTS WORKING FOR TECHNICAL ASSISTANCE COMPONENTS:

³ PMC should be charged proportionately to focal areas based on focal area project grant amount in Table D below.

Component	Grant Amount (\$)	Co-financing (\$)	Project Total (\$)
International Consultants	533,100	1,500,000	2,033,100
National/Local Consultants	541,900	2,500,000	3,041,900

G. DOES THE PROJECT INCLUDE A “NON-GRANT” INSTRUMENT? No

(If non-grant instruments are used, provide in Annex D an indicative calendar of expected reflows to your Agency and to the GEF/LDCF/SCCF/NPIF Trust Fund).

PART II: PROJECT JUSTIFICATION

A. DESCRIBE ANY CHANGES IN ALIGNMENT WITH THE PROJECT DESIGN OF THE ORIGINAL PIF⁴

1. The overall budget and the partition of the budget among project components remained unchanged.
2. There was minor change in component 1 to better implement the PRTR tool as a specific output activity. Therefore the guidelines on PRTR have been removed from output 1.1.4, and a specific output activity 1.1.5 dedicated to the regulatory framework and the guidance on PRTR has been added, as below:
 - Output / Activity 1.1.5. Establishment of the regulatory framework for POPs/ PTS tracking tool and a PRTR system through support in drafting the PRTR regulation, by establishment of an inter-ministerial coordinating group on PRTR regulation, Integrating POPs / PTS requirement in the database design, drafting guidelines for PRTR enforcement and implementation
3. There were changes in the strategy and scope envisaged for project outcome 3.2, aimed at avoiding overlapping with other ongoing projects and at ensuring that the project would achieve more ambitious objectives. The outcome scope has changed and widened, envisaging now the development of a Provincial Management Plan for contaminated sites in 2 demonstration provinces, instead of capacity building of key institution; training however is maintained (as output 3.2.1 on training remain unchanged). An output activity on planning of site contamination in 2 provinces has been added as below:
 - Output / Activity 3.2.1: Detailed Provincial Management Plan based on the existing and upgraded database on POPs contaminated sites in the two provinces.
4. Therefore the outcome 3.2 incorporates and widens the scope of the previous outcome 3.3, which was limited to the assessment of 10 contaminated sites.

A.1 National strategies and plans or reports and assessments under relevant conventions, if applicable, i.e. NAPAS, NBSAPs, national communications, TNAs, NCSA, NIPs, PRSPs, NPFE, Biennial Update Reports, etc

5. The main regulations and national plan which are relevant to project implementation are listed below.
 - The National Target Program, signed in September 2012 by the government with the decision 1206/QĐ, allocated 1010 billion Vietnamese Dong (48.475 million USD) for the disposal of obsolete pesticide and cleanup of sites contaminated by pesticides
 - Decision 1946 /QĐ-TTg, “Approving the Plan to treat and prevent environmental pollution caused by

⁴ For questions A.1 –A.7 in Part II, if there are no changes since PIF and if not specifically requested in the review sheet at PIF stage, then no need to respond, please enter “NA” after the respective question.

- pesticides stockpiles all over the nation”. signed by the government with in December 2010
- Decision 155/1999/QĐ-TTg of the Prime Minister of the Government on promulgating regulation of hazardous waste management.
 - Decision No 64/2003/QĐ-TTg of the Prime Minister of the Government approving the plan for thoroughly handling establishments which cause serious environmental pollution.
 - Law on Environmental Protection (2014) (LEP). The 2014 LEP regulates environmental protection for various sectors and individuals. Key environmental protection requirements for chemicals and hazardous waste management are mainly specified under following chapters:
 - *Chapter II: Environmental protection planning, strategic environmental assessment (SEA), environmental impact assessment (EIA) and environmental protection commitment (EPC);*
 - *Chapter III: Environmental protection in natural resources exploitation and uses*
 - *Chapter IV: Respond to climate change*
 - *Chapter V: Marine and Island Environmental Protection*
 - *Chapter VI: Water, soil and air environmental protection*
 - *Chapter VII: Environmental protection in manufacturing, business and services activities;*
 - *Chapter IX: Waste management;*
 - *Chapter X: Environmental pollution remediation, rehabilitation and improvement*
 - *Chapter XI: Environmental technical regulations and environmental standards*
 - *Chapter XII: Environmental monitoring;*
 - *Chapter XIII: Environmental information, indicators, statistics and reporting*
 - *Chapter XIV: Responsibilities of state administrative bodies in environmental protection;*
 - *Chapter XV: Responsibilities of Viet Nam Fatherland Front, Social – political organizations, social – professional organisations and communities in environmental protection,*
 - *Chapter XVIII: Inspection, dealing with Breaches resolution of complaints and denunciations related to environment, and compensation of environmental damages; and*
 - *Chapter XIX: Compensation to environmental damages*
 - Law on Plant Protection and Quarantine (LPPQ). The LPP&Q regulates activities associated to plant protection and quarantine including pesticides used for plant protection.
 - Law on Environmental Protection Tax (LEPT) – 2010. The LEPT takes effect from May 2012 to cover nine (09) groups of products that have to pay environmental tax
 - Sub-law documents and guidelines for Environmental protection. A series of sub-law documents have been issued under LEP as well as LPP&Q and LEPT to provide technical specification for their enforcement.
 - Law on Chemical (LOC) Chemical safety is regulated under the Law on Chemical (2008). In addition, also Labour Law (2012), Law on Food Safety (2010), Law on Railway (LR) also establish some provision on chemical safety related issues.
6. The project is consistent with the Objective 1 of the Chemical strategy: “POPs waste prevented, managed, and disposed of, and POPs contaminated sites managed in an environmentally sound manner” where it is clearly established that inventories and development of management plans for contaminated sites, including risk assessment and prioritization; and, where warranted by pressing health or environmental concerns, supporting partnerships for remediation and piloting remediation technologies.
 7. The project is also consistent with the Objective 3 “Pilot sound chemical management and Mercury reduction” for the components related to inventory of mercury, mercury reduction roadmap, implementation of support to the implementation of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) in partnerships with the private sector; and development and implementation of pollutant release and transfer registers (PRTR).
 8. In the table below, the international conventions signed or ratified by Viet Nam are listed:

TABLE 1. INTERNATIONAL CONVENTIONS AND MULTILATERAL AGREEMENTS SIGNED, RATIFIED AND ACCEDED TO BY VIET NAM

Multilateral Environmental Agreement	Participation/ Signing Status	Ratification/ Accession (a)	Responsible National Institution
Stockholm Convention on Persistent Organic Pollutants	23.05.2001	22.07.2002	MONRE
Basel Convention on the Trans-boundary Movement of Hazardous Waste and their Disposal		13.03.1995 (a)	MONRE
Rotterdam Convention on Prior Informed Consent for Certain Chemicals and Pesticides in International Trade		07.05.2007 (a)	MOIT/VINACHEMIA (for industrial chemicals) MARD (for pesticide)
Minamata Convention on Mercury	11.10.2013		MOIT
Global Harmonized System of Classification and Labeling of Chemicals		13/02/2013	MOIT
Vienna Convention		26.01.1994 (a)	MONRE
Montreal Protocol		26.01.1994 (a)	MONRE
– London Amendment to the Montreal Protocol		26.01.1994 (a)	MONRE
– Copenhagen Amendment to the Montreal Protocol		26.01.1994 (a)	MONRE
– Montreal Amendment to the Montreal Protocol		03.12.2004	MONRE
– Beijing Amendment to the Montreal Protocol		03.12.2004	MONRE
Development of a National Profile on chemicals management, (SAICM implementation)	In process		MOIT/VINACHEMIA
UN Framework Convention on Climate Change			
– Kyoto Protocol	3.12.1998	25.09.2002	MONRE
UN Convention to Combat Diversification			
Convention on Biological Diversity	28.05.1993	16.11.1994	MONRE
– Cartagena Protocol on Bio-safety			MONRE
Convention on Chemical Weapon		1998	MOIT/VINACHEMIA

A.2. GEF focal area and/or fund(s) strategies, eligibility criteria and priorities.

9. Viet Nam ratified the Stockholm Convention on 22 July 2002, participated in SAICM in 2008 and signed Minamata Convention in 2013. It's therefore eligible to receive funding from UNDP and GEF.
10. The project is consistent with the following GEF strategic objectives:
- Applicable GEF Strategic Objective and Program:
 - Objective CHEM -1: Phase out POPs and reduce POPs releases
 - Objective CHEM -3: Pilot sound chemicals management and mercury reduction
 - Applicable GEF Expected Outcomes:
 - Outcome 1.4: POPs waste prevented, managed, and disposed of, and POPs contaminated sites managed in an environmentally sound manner;

- Outcome 1.5: Country capacity built to effectively phase out and reduce releases of POPs. Pilot sound chemicals management and mercury reduction
 - Outcome 3.1: Country capacity built to effectively manage mercury in priority sector
 - Outcome 3.2: Contribute to the overall objective of the SAICM of achieving the sound management of chemicals throughout their lifecycle in ways that lead to the minimization of significant adverse effects on human health and the environment
- Applicable GEF Outcome Indicators:
 - Indicator 1.4.1: Amount of PCBs and PCB-related wastes disposed of, or decontaminated; measured in tons as recorded in the POPs tracking tool.
 - Indicator 1.4.2: Amount of obsolete pesticides, including POPs, disposed of in an environmentally sound manner; measured in tons.
 - Indicator 1.5.1: Progress in developing and implementing a legislative and regulatory framework for environmentally sound management of POPs, and for the sound management of chemicals in general, as recorded in the POPs tracking tool.
 - Indicator 3.1.1: Countries implement pilot mercury management and reduction activities.
 - Indicator 3.2.1: Countries implement SAICM relevant activities that generate global environmental benefits and report to the International Conference on Chemicals Management

A.3 The GEF Agency's comparative advantage:

11. As from the GEF Council Document on "Comparative Advantages of the GEF Agencies, "UNDP's comparative advantage for the GEF lies in its global network of country offices, its experience in integrated policy development, human resources development, institutional strengthening, and non-governmental and community participation. UNDP assists countries in promoting, designing and implementing activities consistent with both the GEF mandate and national sustainable development plans. UNDP also has extensive inter-country programming experience."
12. On the basis of the above it can be affirmed that, beside the technical aspects of the project, the competitive advantages of UNDP perfectly fit the developmental and multi-country features of the project.
13. Activities in the field of POPs are listed as one of UNDP comparative advantages (Comparative Advantages of the GEF agencies, GEF Council June 12-15 2007). Concerning POPs, GEF considers that "In addition to UNDP's core sound management of chemicals program, this priority area brings together the work of UNDP as an Implementing Agency supporting the compliance objectives of the Montreal Protocol on Substances that Deplete the Ozone Layer and the Stockholm Convention on Persistent Organic Pollutants.
14. As from the GEF website, in the focal area of POPs UNDP has a portfolio totalling US \$ 154.5 million, active in 71 in countries to support the reduction and elimination of releases of persistent organic pollutants (POPs) under the Stockholm Convention.
15. At the country level, UNDP plays an important role in rendering assistance to Government of Viet Nam (GoV) to fulfil its obligations with international environmental conventions/ agreements the country has ratified/acceded to. Regarding POP focal area, UNDP Viet Nam provides technical assistance to the Government to strengthen its capabilities and legislative framework for environmentally sound management of POPs, PTSs and chemicals. Since 2003, UNDP Viet Nam has supported the Government in development of the NIP and a series of POPs/chemicals projects that are under implementation. These include GEF projects on "Building Capacity to Eliminate POPs pesticides stockpiles", "Environmental Remediation of Dioxin Contaminated Hotspots in Viet Nam", "Demonstrating and Promoting Best Techniques and Practices for Reducing Health-care Waste to Avoid Environmental Releases of Dioxin and Mercury", and a SAICM project on "Partnership Initiative for the Integration of Sound Management of Chemicals into Development Planning and Processes". The implementation of these projects will provide lessons learnt and experience for future management of POPs and chemicals issues in Viet Nam and particularly to this proposed project.
16. Within the UNDP Country Office in Viet Nam, the Sustainable Development Cluster (SDC) at present is the unit responsible for portfolios of a four POP chemical projects associated to Environment and Energy sector. The SDC team consists of 10 national staff (seven are full time programme officers who have more than 7 years of experience in project/programme management and four programme associates), four international technical

specialists and one international policy advisor. The team has extensive experience in implementation of GEF funded projects, including those in the chemicals focal area.

17. In addition, UNDP since its establishment in Viet Nam has developed a strong partnership and cooperation with various institutions, including ministries, businesses, and local authorities in an efforts to environmental protection and sustainable development. Such strong and growing partnerships will help delivering the project results successfully.

A.4. The baseline project and the problem that it seeks to address:

BASELINE ANALYSIS

a. Environmental legislation and its links with legislation on management of chemicals

18. **Law on Environmental Protection (2014) (LEP).** The LEP has been recently reviewed and the updated law will become effective in January 1st, 2015. Although the LEP indicates that pollution prevention is one of the key principles for environmental protection, pollution control and/or treatments, i.e. “end of pipe treatment measures” are still dominating in this law. In addition, other important requirements such as application of risk assessment and management, Best Available Techniques (BAT) and Best Environmental Practices (BEP) are still missing or not fully developed under the law.
19. The LEP specifies requirement of environmental protection for many sectors and includes requirements on management of GHGs and ODS. However, other international conventions including the Stockholm Convention are not specified directly under the law.
20. The following secondary linked to LEP (decrees, circulars, technical regulations, standards) establish rules which are relevant to the Stockholm Convention:
 - QCVN 56: 2013/BTNMT – national technical regulation on waste oil recycling with allowable limit set for total PCB and various types of PCB.
 - QCVN 54:2013/BTNMT - remediation targets value for POP pesticide in soils
 - QCVN 45:2013/BTNM - allowable limits set for dioxin in the soil of various type of lands
 - QCVN 44:2012/TNMT- off-shore water quality with allowable limits set for POP pesticide and PCB;
 - QCVN 51: 2013/BTNMT - air emission from steel industry with allowable limits set for total dioxin/furan;
 - QCVN 50:2013/BTNMT on hazardous thresholds for sludge from Water Treatment Process with allowable limits set for lindan, endrin, heptaclo;
 - QCVN 43:2012/BTNMT on sediment quality with allowable limits set for DDT, dieldrin, endrin, haptachlor epoxide, lindan, total PCB, dioxin and furan;
 - QCVN 30:2012/BTNMT on industrial waste incinerator with allowable limits set for total dioxin/furan (PCDD/PCDF);
 - QCVN 02:2012/BTNMT on solid Healthcare waste incinerator with allowable limits set for total dioxin/furan (PCDD/PCDF);
 - QCVN 40/2011/BTNMT on industrial wastewater with allowable limits set for pesticide containing organic chlor (cl) and total PCB;
 - QCVN 41:2011/BTNMT on co-processing of hazardous waste in cement kiln with allowable limits set for total dioxin/furan (PCDD/PCDF).
21. Under LEP are also the decrees concerning environmental impact assessment (EIA), strategic environmental assessment (SEA) and environmental protection plan (EPP) (*in LEP 2005, call as environmental protection commitment (EPC)*). However, although the scope in the decree is quite comprehensive, their level of enforcement is low.
22. In practice EIA is considered poorly implemented after the investment license has been granted to the investors. One of reasons for this is that “economic benefits” are more important than “environmental protection” from the

investor side while lack of monitoring of EIA implementation from the government side and low sanction when violation happened. Poor implementation of environmental management plan (EMP) has led to serious environmental consequences, among which the contamination at industrial sites, listed in section “c” below, is an example.

23. In Item 3 of article 75 of the new LEP, is now allowed to import old marine ships to Viet Nam for recycling. There will therefore the need to ensure the proper management of hazardous waste generated from the ship recycling activity to avoid any harm to the environment or the human health.
24. **Law on Plant Protection and Quarantine (LPP&Q).** It establishes general requirements such as state management on plant protection and quarantine, communication for safety use of pesticide, institutional system for plant protection and quarantine, inspection, etc.
25. Chapter IV of the LPP&Q specifies requirements for pesticide management along all steps of its life cycle, i.e. registration, testing, production (conditions for pesticide production, right and obligation of pesticide production facilities) trade (condition for pesticide trade, right and obligation of pesticide trade facilities); pesticide import/export, use of pesticide, transportation, storage, pesticide advertisement; packaging and labelling, revocation, disposal and handling of pesticide, packaging.
26. **Law on Chemicals (LOC).** The LOC focuses on three groups of chemicals: conditional chemicals, restricted chemicals, and banned chemicals. POPs are not always classified in the right place, as POPs which should be banned are sometime under the restricted list. Requirements for chemical safety, incident prevention and emergency preparedness and response, granting license, declaration, etc. vary among groups.
27. Environmental protection requirements with regard to chemical related activities are not specified under the LOC but referred to environmental legislation.
28. The LOC does not stipulate safety requirements for any specific chemical group such as those of global concerns such as POPs, mercury, persistent toxic substances (PTS), etc. Requirements for risk assessment and management are also missing in the LOC. Requirements for chemicals related international MEAs are not clearly reflected in the LoC either. Most of the POPs which belong to annex A of the Stockholm Convention are listed under annex II (list of chemicals restricted from production and trading) of the decree 26/2011/ND-CP. In some cases that is not the correct places as POPs should be banned and not restricted.
29. The newly added chemicals in the POP convention’s annexes (09 POPs in 2010, 01 in 2011; and 01 in 2013) are not yet updated in the Law on Chemical (LOC) and its related secondary legislation.
30. Based on the above, although a significant number of regulations/legal documents have been adopted in recent years to ensure environmental protection and chemical safety, especially POPs and mercury related regulations, the legal system for environmental protection and chemical safety appears still fragmented and somehow inconsistent. Legal documents have been developed and enacted mainly for specific sectors and for part or a step of chemical life cycle management, rather than for the entire chemical life cycle.
31. In addition, the enforcement of legislation related to the safe chemical management is extremely low. Nearly 50% of the enterprises, for instance, do not comply with emergency preparedness as required by the law; 41 cases of hydrocarbon spills in the environment occurred since 2009 prove the limited capacity of enterprises in prevention and emergency preparedness and response to chemical incidents.
32. Key needs to be considered for the improvement of sound chemical management with specific reference to POPs and PTS are listed below:
 - There is the need to coordinate both LOC and LEP with the key environmental protection requirements for chemicals, especially for toxic chemicals and POPs, to ensure mutual effects and synergy between environmental protection and chemical safety; this may be done with the adoption of proper secondary legislation to be jointly drafted by MOIT and MONRE;
 - There is a need to adopt consistent risk assessment criteria when drafting chemical legislation, with specific concern to establishment of emission levels, cleanup target concentration, safe concentration in foods and goods, waste management. In addition, capacity building for risk assessment for all sectors involved in chemical and POPs is necessary.
 - Environmental quality limits for POPs and PTS in environmental media and emissions should be completed, with the strict coordination and joint effort of ministries involved in their management.
 - There is an evident need for establishing capacity and procedures for chemical accident prevention, emergency preparedness and response to chemical accidents need to be integrated and enforced in the

relevant legislation, including the licensing of new plants or the renewal of license of existing plants, including waste disposal facilities.

- According to MOIT, technical support for the development of a legal requirement (possibly a circular) for safety distance of hazardous facilities from populated areas or other facilities is needed
- Strengthening monitoring capacity of POPs in industrial emissions, environment, goods is key for the sound enforcement of the legislation.
- The establishment of a reliable management information system (MIS) of industrial emissions source, industrial processes, and storage of chemicals, with the purpose to facilitate enforcement of the relevant legislation, implementation of BAT/BEP and reporting, planning of monitoring activities following a PRTR model, is absolutely needed and is considered a key step toward the reduction of POP / PTS releases.
- There is the need to establish a BAT/BEP regulatory framework for industries, starting from the largest industrial facilities (including waste disposal plants) and progressively covering medium enterprises;
- Clear rules for the identification and management of contaminated sites are needed, including land use restrictions for contaminated sites, standardized site assessment methods, risk based cleanup criteria.
- Requirements for “new” POPs must be included in all the legislation secondary to LEP and LOC in a consistent way.
- The LOC focuses on three groups of chemicals: conditional chemicals, restricted chemicals, and banned chemicals. POPs are not always classified in the right place, as POPs which should be banned are sometime under the restricted list. Requirements for chemical safety, incident prevention and emergency preparedness and response, granting license, declaration, etc. vary among groups.

b. POP Monitoring capability in Viet Nam

33. There have been several POPs monitoring programs or activities carried out in Viet Nam as cooperative research projects between Viet Nam and international research institutes in the last 15 years. These include :
- The Viet Nam – Japan cooperation on the analysis of POPs pesticide residues in birds, fish, mussels (1997-1999);
 - Analytical activities of the OCP residues in water and sediment in some areas such in Viet Nam implemented by the Centre for Chemical Technology and Sustainable Development (Hanoi National University, Viet Nam) within the framework of environmental monitoring of hydrosphere in West Asia supported by United Nations University (1998);
 - Research on DDT and PCBs residues in sediment and water of some canals in Hanoi and some Northern coastal areas (1994-1999), supported by Monaco, Portugal and organized by the International Atomic Energy Agency.
 - A ministerial research project on "Investigating the POPs pollution situation in the Hanoi area" (Ministry of Science and Technology), carried out by the Analytical Laboratory of the Quality Assurance and Testing Centre 1, Directorate for Standards and Quality.
 - Some research projects on POPs residues in soil and plants and pesticide residues, implemented by the Institute of Plant Protection, MARD.
 - A national research project (KHCH.07.15) on identification of toxic pollutants released from industrial and urban activities and development of appropriate treatment technologies, implemented by the Viet Nam-Russia Tropical Center.
 - A project assessing Dioxin stockpiles in military airport areas which were used as chemicals storage areas in the war in Viet Nam, implemented by the Viet Nam-Russia Tropical Center.
 - An analysis task under Program 33, implemented by the Viet Nam-Russia Tropical Center, in cooperation with other agencies such as VEPA, the Institute of Biological Technology, the Center for Environmental Treatment Technology - Chemical Military Headquarters, etc.

- Some cooperative projects with the United States, Canada, the Netherlands and others on the movement and adverse impacts of Dioxins derived from toxic chemicals used by the American Army during the war in Viet Nam.
 - In Viet Nam, the existence of monitoring of POPs environmental concentration data pertains mostly to the activities carried out in the framework of remediation of dioxin contaminated sites, coordinated by Office 33, and carried out with the technical and financial support of international donors (USAID; the Bill and Melinda Gates Foundation, the Czech Government, the GEF with the UNDP/GEF project “Environmental Remediation of Dioxin Contaminated Hotspots in Viet Nam” and of POPs pesticide contaminated sites (including the monitoring and site characterization activities carried out under the UNDP/GEF project “Building capacity to eliminate POPs pesticides stockpiles in Viet Nam”).
 - Sampling and analysis of PCB in dielectric oil is being carried out countrywide under the GEF/WB project “Management of PCBs in Viet Nam”. For PCB, as a national official method is missing, the labs usually adopt the international methods of their choice. None of the Vietnamese laboratories have the technical capability to carry out analysis of new POPs such as hexabromobiphenyl, hexabromodiphenyl ether and heptabromodiphenyl ether, pentachlorobenzene, perfluorooctane sulfonic acid, its salts and perfluorooctane sulfonyl fluoride, tetrabromodiphenyl ether and pentabromodiphenyl ether.
34. Throughout the country, 3 labs perform dioxin and analysis of contaminated soil on a regular basis, the VEA dioxin laboratory (supported by Bill & Melinda Gates Fund), the Viet Nam – Russia Tropical Center Lab, and Center for experiment and analysis belonging to Ho Chi Minh DOST. There are however a number of laboratories which can perform PCDD/F analysis but not all of the labs is equipped with HR GC/MS.
35. There are a certain numbers of laboratory and universities with POPs analytical capability. Laboratory for the analysis of PCBs with GC/MS, GC/ECD and spectitive analysis with chlorine-specific electrode are available both in Hanoi and Ho Chi Minh City.
36. Although in general, each provincial DONRE has its own environmental monitoring program, only a minor part is assigned to pesticide monitoring and analysis, due to high analytical costs, lacking of analytical equipment and skilled staff. There are 4 official analytical standards of which 2 can be applied for chlorinated and phosphorous pesticides.
37. Based on the outcome of the NIP report the POPs monitoring effort in Viet Nam are not adequately sustained by proper regulations and availability of financial resources. Priority programs 7 and 9 of the NIP seek to rectify this situation through the strengthening of existing capacity and the systematization of processes for monitoring POPs.
38. To partially overcome this limitation, Viet Nam is currently one of the participant countries in the regional GEF / UNEP project “Implementation of the POPs monitoring plan in the Asian region. By means of this project, the existing POPs laboratories in the participating countries (Cambodia, Indonesia, Lao PDR, Mongolia, Philippines, Viet Nam) will identify their capacity to contribute to the monitoring program for all the 22 POPs; will receive training; a network of sampling stations for the monitoring of air, water, and human samples with respective protocol will be established; POPs laboratories will be tested for their capacity in intercalibration studies; and a regional report on analytical capacities will be prepared. The UNEP project will also develop detailed guidelines, protocols and manuals as well as training of staff in participating laboratories and strengthening the performance of sampling and analysis will enable the national laboratories to improve their ability to analyse POPs according to international standards. One national Vietnamese laboratory will participate in the exercise.
39. In Viet Nam, several laboratories are certified following ISO 17025. Only in few cases, if any, the certification includes analysis of new POPs. The list of laboratories with potential capability on POPs analysis is reported in Table below:
- 40.

Table 2: List of laboratories with potential capability on POPs analysis (Source: MONRE, 2014)

No	Lab/Institution	Owner	Main functions	Instrumentation	Certificate	PCB	Pest.	Dioxin/ furan	Other POPs
1	Environmental Lab. - Institute of Environment & Resources – Ho Chi Minh University of Technology	State	National monitoring network	GC/ECD-FID, GC/FPD, GC/MS, HPLC		O	o	o	o

No	Lab/Institution	Owner	Main functions	Instrumentation	Certificate	PCB	Pest.	Dioxin/ furan	Other POPs
2	Environmental department - Ho Chi Minh University of Technology	State	Research, training	GC/FID, GC/MS, HPLC	ISO 17025	X	o	x	x
3	Hoan Vu Company	Private	Services	GC/FID, GC/MS, HPLC, HPLC/MS	ISO 17025	O	o	x	o
4	Research Institute of Biology & Environment - Ho Chi Minh City University of Agriculture and Sylviculture	State	Research, training, services	GC/FID, GC/ECD, GC/MS	ISO 17025	O	o	o	o
5	Hai Dang Company	Private	Training, services	GC/FID-ECD, GC/MS, HPLC, HPLC/MS		o	o	x	o
6	Center Analytical Services on Environment	State	Services	GC/FID-DFPD-ECD, GC/MS, GC/HR-MS		o	o	o	o
7	Center of Environmental Technology – Ho Chi Minh Branch – Institute of Environmental Technology	State	Research, training, services	GC/FID-ECD, GC/MS, HPLC	ISO 17025	o	o	x	o
8	Center of Environment and natural Resources - Can Tho University	State	Research, training, services	GC/FID, GC/MS		x	x	x	x
9	Advance Lab. - Can Tho University	State	Research, training, services	GC/FID, GC/FPD-ECD, GC/FID-ECD, GC/MS, HPLC, HPLC/MS,		x	o	x	o
10	QUATEST 3	State	Services	GC/FID-ECD, GC/MS, HPLC, HPLC/MS-MS	ISO 17025	o	o	x	o
11	QUATEST 2	State	Research, training, services	GC/MS-ECD-FID, GC/FPD-ECD	ISO 17025	o	o	x	o
12	KTTV TTB	State	Research, training, services	GC/FID-ECD-NPD	ISO 17025	o	o	x	o
13	Company Limited for Research and Application of Technology on Environment	Private	Research, training, services	GC/ECD/MS	ISO 17025	o	o	o	o
14	Center of Environmental Technology – Da Nang Branch – Institute of Environmental Technology	State	Research, training, services	GC/ECD, GC/MS		x	o	x	o
15	Chemical Faculty – Hue University	State	Research, training, services	GC/FID, GC/MS-ECD		x	x	x	x
16	Center for testing of drug & food – Hue Province	State	Services	GC/FID, GC/MS, HPLC, HPLC/MS	ISO 17025	x	o	x	o
17	National Refinery Lab.	State	Research, training	GC/FID-ECD, GC/MS	ISO 17025	x	x	x	x
18	Center for pesticides analysis	State	Services	GC/ECD/FPD, GC/MS	ISO 17025	x	o	x	o
19	Lab. for agricultural analysis – Institute for Agricultural Environment	State	Research, monitoring network, training, services	GC/ECD, GC/MS, HPLC		x	o	x	o
20	Lab. for toxicity analysis - Institute of Environmental Technology	State	Research, monitoring network, training, services	GC/FID-NPD-FPD-ECD, GC/MS, GC/MS-MS	ISO 17025	o	o	o	x
21	Hanoi Center of Environmental Monitoring	State	Monitoring network, training, services	GC-ECD, GC/MS, HPLC		o	o	x	o
22	Center of Environmental Monitoring (VEA)	State	National monitoring network, training, services	GC/ECD, GC/FPD, GC/MS, GC/HR-MS, HPLC,	Inter calibration comparison	x	o	x	x

No	Lab/Institution	Owner	Main functions	Instrumentation	Certificate	PCB	Pest.	Dioxin/ furan	Other POPs
				HPLC/MS					
23	Department of Chemistry – Hanoi University	State	Research, training, services	GC/FID-ECD, GC/MS-MS, HPLC, HPLC-MS	ISO 17025	o	o	o	o
24	CETASD	State	Research, training, services	GC/FID-FTD, GC/ECD, GC/MS, GCxGC/TOF-MS, HPLC		o	o	x	o
25	QUATEST 1	State	National monitoring network, training, services	GC-ECD, GC/MS, HPLC	ISO 17025	o	o	x	o
26	Food safety department- Institute of Nutrient	State	Research, training, services	GC/MS	ISO 17025	o	o	x	x
27	National Institute of Food Control	State	Research, training, services	GC/FID-ECD-NPD, GC/MS, GC/MS-MS, HPLC	ISO 17025	o	x	x	o
28	ECD	State	Research, training, services	GC-FID, GC-ECD	ISO 17025	x	o	x	o
29	Toxicity screening Lab – 108 hospital	State	Research, training, services	GC/FID-ECD, GC/MS, HPLC		o	o	x	o
30	VietRus Center (VRTC)	State	Research, training, services	GC/ECD, GC/MS, HPLC	ISO 17025	o	o	o	o
31	Center for environmental treatment – Chemical Command	State	Research, services	GC/FID-ECD, GC/MS, HPLC	ISO 17025	x	o	o	o
32	Plant Protection Research Institute	State	National monitoring network, training, services	GC-ECD-FPD, GC/MS		x	o	x	o
33	Environmental Lab. – Viet Nam Institute of Meteorology, Hydrology and Environment	State	National monitoring network, training, services	GC/FID-ECD, GC/MS, HPLC	EANET	x	x	x	x
34	Center for Environment and Cleaner production	State	Research, services	GC/ECD, HPLC	ISO 17025	o	o	x	x
35	Institute of Environmental technology (INEST), University of Engineering and Technology	State	Research, training	GC/FID-ECD, GC/MS, HPLC		x	o	x	o
36	Station of monitoring of labour environment - National Institute of Labour Protection	State	Research, services	GC/MS, GC/FID-NPD-ECD-TCF		x	o	x	o
37	Lab. for environmental monitoring – Institute of Ocean	State	Research, services, national network	GC/FID, GC/ECD	ISO 17025	o	o	x	o
38	Dioxin Lab - VEA	State	Research, services, national network	GC/FID-ECD, GC/MSToF, LC/MS/MS	ISO 17025	o	o	x	O

Please note: ISO 17025 certification concerns in only few cases analytical methodologies for POPs pesticides in water and soil, whilst in all the cases it concerns the basic analytical procedures and is not related to POPs.

c. Contaminated sites

Current inventory of contaminated sites.

- In Viet Nam, there is a large number of areas contaminated by harmful chemicals, including organic pesticides, POPs pesticides, PCBs and substances which were used in the Viet Nam war by the US Army. Based on recent investigations, 1153 pesticide contaminated sites in 39 provinces/cities including 864 contaminated soil sites and 289 storage sites have been identified and their data entered in an initial inventory database. Further, 383 contaminated sites, not yet included in the inventory of contaminated sites, have been identified in 2013. The three large dioxin contaminated sites identified (Bien Hoa, Da Nang and Phu Cat airports), are currently the object of several monitoring and cleanup activities funded by the Vietnamese Government, USA NGOs, USAID, the GEF and other donors. In addition to these 3 hotspots, a number of other Dioxin contaminated areas are known but not officially confirmed yet, as investigation and monitoring is still being conducted.

42. The decision 1946 /QĐ-TTg, “Approving the Plan to treat and prevent environmental pollution caused by pesticides stockpiles all over the nation”. Issued in December 2010 by the Government of Viet Nam, is currently under revision with the purpose to extend the plan until 2025, make it plan more realistic and sustainable.
43. The annex to the decision 1946 /QĐ-TTg, contains a list of 335 sites contaminated by POPs pesticides for cleaning up in the period 2011- 2020. A summary of these sites by province and year of planned clean-up is reported in the following tables.
44. Numbers of extremely serious POP- pesticides contaminated sites, that need to be remediated within 2015 by province (source: MONRE inventory of sites contaminated by pesticides)

Name of provinces	Quantity of cont-sites	Name of provinces	Quantity of cont-sites
Hagiang	1	Haiduong	1
Tuyenquang	3	Namdinh	2
Yenbai	2	Quangninh	3
Thainguyen	5	Thanhhoa	7
Bacgiang	2	Nghean	189
Bacninh	1	Hatinh	7
Langson	2	Quangbinh	7
		Quangtri	7

Numbers of serious POP- pesticides contaminated sites, that need to be remediated within 2020 by province (Source: MONRE inventory of sites contaminated by pesticides)

Name of provinces	Quantity of cont-sites	Name of provinces	Quantity of cont-sites
Laichau	1	Thanhhoa	3
Diebien	1	Nghean	78
Namdinh	1	Hatinh	3
Thainguyen	2	Quangbinh	4
		Danang	1

45. 267 of these sites are located the Nghe An province . In addition, in this province, there are further 10 sites to be verified for inclusion in the Prodoc annex. For the 267 sites which have been confirmed, the cleanup should have already been started in 6 sites; in 181 sites the cleanup is planned to be started within 2015, and in 80 sites by 2020. For 225 sites out of the 267, the list contains information related to the concentration with respect to the national standard either as a single substance or for all the pesticides.
46. For 41 sites the database contains the concentration in soil for single substances. In 38 cases, the National Standards are exceeded by POPs substances (mainly DDT, in few cases Lindane and other substances).
47. In all the remaining cases, the standards are exceeded by pesticides in general, without information as to which specific substances exceeds the limit. In 143 cases the concentration of the substances exceed by 5 times the limit/threshold; in 105 cases the concentration is exceeded by 20 times; in 91 cases the concentration of the substances exceed by 100 times of the concentration limit/threshold.
48. Of the 91 sites, for which the concentration of pesticides exceed by 100 times of the concentration limit/threshold, the land use in the surrounding of 52 sites is residential, for 7 sites is agricultural crop, for 9 sites is commercial/ degraded or arid, and for 23 sites the land use is not declared.
49. Out of all the sites for which the pollution is confirmed, 97 results polluted by DDT or by other POPs. Of these 97 sites, 60 sites are residential land (including some very sensitive land use purpose like kindergartens or schools), 2 sites are agricultural land, 12 sites are either abandoned or industrial zone, and for the remaining the land use is not declared.
50. The 10 sites yet to be confirmed are reportedly all polluted by POPs;

51. On the basis of the above, it is quite evident that the pollution by POPs pesticide largely affects sensitive residential areas. There is, therefore, an urgent need to carry out a management plan at the provincial level so that safety measures to prevent people exposure and cleanup activities can be prioritized and started in the shortest time as possible.

Lacking of information on industrial contaminated sites.

52. Although the legacy of sites contaminated during the war, or by the improper use and storage of pesticides is now progressively been addressed, there is still little understanding concerning the emerging situation of industrial contaminated sites, which may be contaminated simultaneously by several contaminants and which, in addition, may pose additional challenges for their cleanup, due to the existence at these sites in industrial areas which have enterprises in operations. There were a number of contaminated sites originated from mismanagement of industrial wastes, of which the following are significant examples:

- Pollution caused by a cluster of industries in Phu Tho Province (Lam Thao Super Phosphate Plant, Phu Tho Battery Plant, Bai Bang Pulp and Paper plant) have been suspected to result in incidence of cancer in nearby Thach Son village or the so called “cancer village” (106 people in the village have been dead since 1991) ;
- Thi Vai River as an illustration for the so called “Dead River” in Viet Nam due to discharging of untreated domestic waste water and waste water from manufacturers in industrial zones located along two sides of the rivers. A critical case of pollution source of Thi Vai River is Taiwan’s Monosodium Glutamate Producer Vedan Viet Nam. The company illegally discharged thousands of cubic meters of untreated toxic wastewater into Thi Vai River for more than decade without noticed by local authority. At critical point, Vedan has to pay VND 267 million fine. The fine if considered against its revenue in the first 6 month of 2007 (US\$182.7 millions) is very low;
- Another recent critical case is the one of Thanh Thai Nicotex Joint Stock Company in Thanh Hoa province, who has illegally buried more than 843 tons of expired pesticide and its waste in the areas within the company premise. Findings from inspection of provincial function agencies show that Thanh Thai Nicotex Company has violated environmental protection legislation, i.e. not fulfilment all requirements of the approved EIA report, monitoring are done only two times/year while required by legislation are four times/year, improper management of hazardous waste, etc. 957 people living around Thanh Thai Nicotex Company have been reported to be contracted to cancer, deformities or eye damage as consequences.

53. In the Binh Duong province, although an inventory of contaminated sites is not available, there is an amount of information⁵ leading to the conclusion that sites contaminated by hazardous chemicals and waste represent a priority:

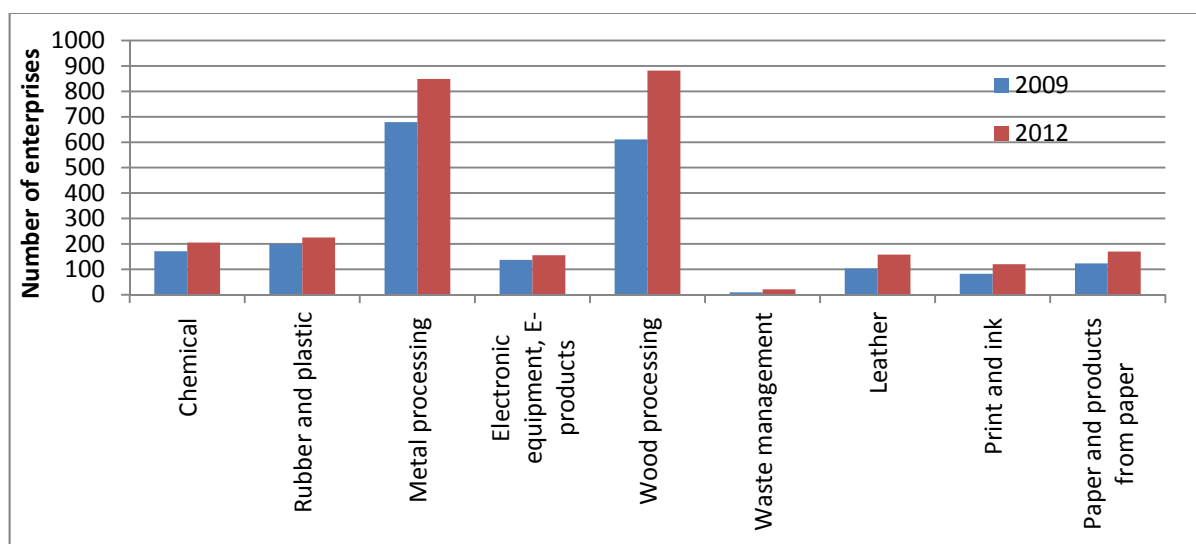
- *The number of industrial facilities using chemicals:* So far, the province has 8,138 industrial facilities including 1,527 investment projects in industrial zones and outside industrial zones. These industries focus primarily on sectors such as wood; chemicals; rubber and plastic products; paper manufacturing and metal processing; electronic, waste treatment; leather. The development of these industry led to increasing demand for chemicals used for manufacturing, waste disposal, and fire prevention, as well as for handling of hazardous waste in the province.
- *Amount of hazardous waste generated in the province:* Based on statistics provided by DONRE the amount of industrial waste generated daily is 10,440 tons, of which 310/day are of hazardous waste. Waste is currently processed by 25 units having the registration of hazardous waste management. They include 12 enterprises registered on the basis of the province and 13 units based in the neighbouring provinces such as Dong Nai, Ba Ria -Vung Tau, Ho Chi Minh City. Moreover, there are more than 200 units of scrap collectors involving in the collection of non-hazardous industrial waste.
- *Evidences of improper waste management:* it is reported that a certain number of collectors sometimes collect or dispose in an improper way non-recyclable- industrial waste and hazardous waste. Dumping sites of hazardous waste are quite common in the province.
- *Besides landfill,* the most common disposal process is incineration in quite basic static ovens with a total nominal capacity of 8.98 tons / hour. If operated for 16hr/day, these incinerators would be able to dispose a

⁵ Shortcomings in the management of toxic chemicals (POPs / PTS) in Binh Duong Province and proposed solutions- Nguyen Ngoc Chau – Binh Duong Division of Environment Protection (Hanoi, July 1st 2014, report delivered for the Project consultation workshop)

maximum of 144 tons/day, less than half of the amount of hazardous waste generated in the province. In addition, considering that the incinerators need to be upgraded to meet the requirements of regulations 30-2012 / MONRE, it is likely that the PCDD/F amount emitted by these incinerators in the air, or contained in the ashes is significant. These incinerators may therefore generate ashes to be still considered as hazardous waste (very likely POPs containing waste due to their content of PCDD/F) at a rate of roughly one-tenth of the amount of waste processed (an estimated amount of 14tons/day, roughly 5000 tons/year).

54. Based on the above, is quite evident that contaminated sites in Binh Duong (sites were uncontrolled dumping of hazardous waste occurred) would represent an amount of POPs / PTS containing waste in the order of several thousand tons.
55. The list of existing industries in Binh Duong – coupled with information on waste management– may be used as indication on the risk of contamination. In the table below, a statistic of industries by sector, based on data provided by Binh Duong DONRE, is provided:

Industrial sector	Number of industries in 2009	Number of industries in 2012
Chemical	171	205
Rubber and plastic	200	225
Metal processing	679	849
Electronic equipment, E-products	137	155
Wood processing	611	882
Waste collection, treatment and recycling	9	21
Leather and related products	103	158
Print and ink	82	120
Paper and products from paper	123	170



56. Among industries which may generate POPs containing waste, or use POPs in their processes, there are 205 chemical industries, 225 plastic manufacturing industries, 170 industries related to paper production, and 155 electronic industries.

Continuously update inventory of the existing contaminated sites under decision 1946 /QĐ-TTg.

57. Information on polluted sites is continuously changing based on the new evidences collected at local level. A recent report provided by the Nghe An DONRE⁶ states that an estimated 913 contaminated sites may exist in the province. Out of which, the 267 sites listed in the 1946 /QĐ-TTg have been confirmed as heavily contaminated and need to be remediated by 2020 listed under the decision 1946 /QĐ-TTg.
58. In many cases, the information reported in the inventory of contaminated sites is very basic and is not enough for sound planning purposes: therefore the first urgent action is to perform a systematic upgrading of the information concerning POP contaminated sites to understand the resource needed for site cleanup and waste management, and to start undertaking urgent measures on a priority basis, and to make sound environmental planning and allocation of resources for long term countermeasures.
59. In addition, the plan is currently lacking technical and economic norms for selection of remediation techniques in the bidding processes, and is not yet based on risk assessment / risk priority criteria. The plan is also currently lacking clear rules for establishing land use restrictions, especially in the cases where cleanup has to be delayed (e.g. for technical or administrative reasons), or where cleanup is not technically feasible. This is important to avoid human exposure pending remediation of contaminated sites. The technical responsibilities for the implementation of the remediation plan are scattered among ministries, with MONRE in charge of overall control and supervision.

d. The situation of Mercury in Viet Nam

Source of mercury emission in Viet Nam:

Overall coal consumption in Viet Nam and content of mercury in coal.

60. *Emission of coal from the electric power generation:* Based on IEA data⁷, in 2010, Viet Nam produced 94,903 GWh of electricity, out of which 19,687 GWh were produced using coal and peat. IEA also reports that Viet Nam consumed around 7, 95 million metric tons of coal for electric power generation. The concentration of mercury in different coals in Viet Nam ranges from 0.06 to 0.18mg/kg (MONRE, 2009). This is consistent with figures for coal in other countries (for instance, USGS⁸ reported an average concentration of mercury in coal from 0.04 to 0.24 mg/kg. Based on the above figures, the amount of mercury which can be released in the environment by the electric power sector would range from 0.48 to 1.44 tons per year. This amount is thought to increase due to the availability of coal in the country and the expected increase in electricity demand: According to QĐ 110/2007/QĐ-TTg: electricity demand by 2020 compared to 2005 is expected to increase of 17-20%
61. *Mercury from the cement industry*⁹: Levels of mercury in limestone in Viet Nam ranges from 0.01 to 0.12mg/kg, in cement products from 0.02 to 0.08mg/kg. Coal is the main fuel used in the cement industry. There are about 30 large and medium-sized cement plants. According QĐ 108/2005/QĐ-TGG, the estimated average cement demand in Viet Nam until 2010 was 68 to 70 million tons. Mercury release in cement industry over the years has estimated as from 1, 03 tons in 2005 to around 1, 66 tons in 2010. 80% of this amount is released into the atmosphere, whilst the remaining part is associated with final products (cement, clinker).
62. *Small and artisanal gold mining (MONRE, 2008):* around 500 gold mines and others mines containing small gold amount have been identified in almost every province in Viet Nam. It has been assessed that of the above, 30 sites contain around 300 tons of gold: Kim Boi, Hoa Binh (10 tons), Thai Nguyen, Cao Bang, Bac Can (Khau Au, Bo Cu and others: 30 tons), The Na Pai, Lang Son (30 tons). Assuming 3kg mercury emission for each kg of gold extracted, the yearly extraction of around 600kg would imply yearly mercury emissions of mercury of 1800kg / year.

⁶ Discussion on difficulties in addressing pollution caused by POPs, PTS and proposed solutions in Nghe An province. Nghe An Department of Natural Resources and Environment Protection Agency. (Hanoi, July 1st 2014, report delivered for the Project consultation workshop)

⁷ <http://www.iea.org/>

⁸ <http://pubs.usgs.gov/fs/fs095-01/fs095-01.html>

⁹ MONRE-VEA- Department of Pollution control: Report on the Monitoring on Mercury sources in Viet Nam, 2009.

63. *Mercury in e-waste:* E-waste is the main source of mercury contamination in municipal waste. Based on UN estimations¹⁰, the amount of e-waste is expected to increase yearly of 33% until 2017. It is estimated that 400 tons of end of life mobile phones, containing toxic metals such as lead (Pb) and mercury (Hg)^[14], are discharged yearly in Viet Nam. Mercury release in the environment is also caused by the improper disposal of fluorescent bulbs, compact fluorescent light bulbs (LFLs) and others mercury-containing bulbs. Each compact fluorescent light bulb contains from 2 to 5 mg of mercury. Every year, in Viet Nam millions of fluorescent lamps are discharged: based on available statistics., every year electric companies such as Dong Da, Orion, Sumitomo Bakelite, Giang Vo, Canon Viet Nam, Hanel, discharge around than 7,260 tons of waste, of which 4.8 tonnes of fluorescent body, 6 tons of lead compounds, 18.1 tons of damaged printed circuit board, 23.8 tons of parts, 1331.8 tons of other metals. Orion Hanel produces yearly by itself 4300 tons of waste.
64. *Healthcare waste.* In the framework of the GEF/UNDP “Global Healthcare Waste Management Project”, a survey on the use of mercury containing devices was conducted (separately with the baseline survey). A guideline on safe handling and disposal of phased-out mercury devices was developed and approved. Non mercury equipment was delivered to pilot hospital for the complete replacement of mercury thermometers and sphygmomanometers.
65. *Other sectors.* Although it is known that mercury is used in or released by several other industrial (chloralkali plants, automotive industry, brick factories, or civil activities, like medical devices (thermometers and sphygmomanometers) the information on amount of mercury used and wasted are lacking.

Monitoring data on mercury in Viet Nam.

66. Studies on the environmental monitoring of Mercury in Viet Nam are quite limited. The report of the Pollution Control Department, VEA, General Department of Environment confirmed that mercury can be released from the operation of cement industries, thermal power plant, mining and processing of gold tailings and solid waste recycling. The survey results indicated the presence of mercury in raw materials, fuel, emissions and solid waste. Due to technical limitations on the sampling and analytical side the study results are considered only indicative and useful for designing further monitoring campaigns. The study also revealed that the waste water released from gold mining activities has a mercury concentration of around 0.0345 mg/L, 3 times higher than the TCVN allowed standards.

Specific legislation on Mercury in Viet Nam.

67. There is no specific regulation on mercury in Viet Nam. Mercury containing waste is considered hazardous waste, however no specific provisions for the disposal of mercury waste has been established. This adds to the issues related to the management of hazardous waste in general.
68. There are legislations and guidance documents that, although theoretically beneficial for the environment, are not easily implementable in the absence of specific provisions for the management of Mercury waste.
69. In this respect, legislation on energy saving¹¹, establishes a road-map for the replacement of around 40 million incandescent bulbs and obsolete fluorescent bulb with high efficiency and mercury free fluorescent lamps. However, a sound plan for the management of the obsolete lamps possibly contaminated by mercury is still missing.
70. Similarly, the initiatives and policies on phasing out mercury containing devices used in healthcare facility needs to be complemented by the development and adoption of environmentally sound management procedures of mercury waste, to avoid that phased out mercury devices are improperly disposed.

Awareness on Mercury issues in Viet Nam

71. Based on a preliminary questionnaire survey conducted by MONRE involving 53 enterprises revealed that the awareness of general population as well as authority and industrial stakeholders on mercury issues is very limited. In summary, the result showed that:
72. All the respondent are aware that mercury is very toxic;

¹⁰ Current mercury management in Viet Nam: Vinachemia Workshop on the activities for preparing to signing Minamata convention, 14/3/2013: www.vinachemia.gov.vn

¹¹ the Prime Minister Directive dated 02/6/2005 and number 19/2005/CT-TTg and the Decision 80/2006 QD-TTg on saving electricity, as well as the Decision No 03/CT-BCN dated 7/3/2007

73. 15% of the industries reported that their production, raw materials and fuel used may be related to mercury emissions, whilst the remaining 85% are not aware of potential mercury emissions of their activities;
74. 50% of the industries think that fuel containing mercury cannot be replaced by other fuel due to cost or technological issues;

BASELINE PROJECT

a. Upgrade of the environmental and chemical management policies

75. LEP has been amended to include two new chapters: soil protection and environmental rehabilitation of contaminated sites.
76. Studies for a preliminary PRTR circular have been undertaken by VEA. There is the need to carry out further technical assessment, stakeholder consultation and impact assessment of the policy.
77. Circular on occupational safety in chemical environment is at its initial stages and the information is being reviewed by Department of Occupational Safety (MOLISA)
78. A Decree and circular guiding implementation of a number articles of the LPP&Q including provision of pesticide management is expected to be issued in 2014 to support the LPP&Q implementation (LPP&Q has been adopted by the end of 2013)
79. A technical guideline which includes risk assessment of the POP pesticide contaminated sites, as well as criteria for environmental management plan for POP contaminated sites is being introduced in Viet Nam by UNDP/GEF “Building capacity to eliminate POPs pesticides stockpiles in Viet Nam” project.
80. A draft on National technical regulation concerning acceptable limits/threshold of PCB in land has been drafted by Department of Pollution control, VEA.
81. MOIT has planned to revise chemical law since the law and its sub-law documents have been adopted since 2008. Revising the law is needed to update new requirements for chemical management, both national and international.
82. National action plan for sound chemical management has been developed under “Viet Nam/UNDP/UNEP Partnership initiative for the integration of sound management of chemicals in development planning and processes”. This is to facilitate Viet Nam to follow SAICM approach, i.e. sound management of chemicals, with particular reference to compliance with international standards and system on chemical classification and registration.

b. Monitoring of POPs

83. Ongoing activities on POPs monitoring are mostly the ones being carried out with international supports through projects, like :
 - GEF funded projects on POPs: GEF- UNDP project on “Environmental Remediation of Dioxin Contaminated Hotspots in Viet Nam”, GEF -UNDP/FAO project on “Building capacity to eliminate POPs pesticides stockpiles in Viet Nam”, the GEF/WB “PCB management in Viet Nam”, GEF-UNEP regional project;
 - Bilateral project like the monitoring of PCDD/F contaminated sites supported by the Bill and Melinda Gates foundation, the Czech Republic.
84. According to information provided by VEA (Viet Nam Environment Agency), there are 38 laboratories that have enough equipment to carry out analysis of POPs (as presented in Table 2), among which 24 laboratories are certified according to ISO 17025, and 4 are private laboratories. Few laboratories can perform analysis of pesticidal POPs; none of them is currently analyzing new POPs and the capacity to perform sampling of PCDD/F in industrial facilities (e.g. stacks) is still limited to very few labs. There is, therefore, a significant potential for improving the analytical capability of the country by introducing standard methodologies, providing guidance and implementing round-robin test among labs on the determination of POPs. Due to the availability of laboratories and laboratory equipment, limited investment in training, laboratory accreditation and intercalibration on POPs analysis will have a significant catalytic effect.

c. Contaminated sites

85. Viet Nam Government is carrying out activities related to the management and treatment contaminated sites already under Decision No.64/2003/QĐ-TTg of April 22, 2003 approving the “Plan for thoroughly handling establishments which cause serious environmental pollution”.

86. In December 2010, the Government of Viet Nam issued the decision 1946 /QĐ-TTg, “Approving the Plan to treat and prevent environmental pollution caused by pesticides stockpiles all over the nation”.
87. According to the implementation of that decision, 240 very high priority contaminated sites will be treated by 2015, 95 high priority contaminated sites will be treated by 2020 and the remaining contaminated sites will be treated by 2025.
88. The government is currently allocating funds for the period 2015 – 2025.
89. In September 2012, the “National Target Program On Pollution Mitigation And Environment Improvement For The Period 2012 – 2015” (NTP PMEI) was signed by the government with the decision 1206/QĐ, allocating 2500 billion Vietnamese Dong from the central government (around 118 million USD) for the following activities with timeframe 2012-2015:
- a. Pollution mitigation and improvement of environment of seriously polluted craft villages;
 - b. Improvement and recovery of environment at sites seriously contaminated by obsolete pesticide/herbicides;
 - c. Collection and treatment of waste water from cities with urban level II and above directly discharging into the catchments of Nhue-Day river, Cau river and DongNai river system
90. On 25/12/2013 the Minister of Natural Resources and Environment signed the circular 43/2013/TT-BTNMT prescribing national cleanup standards for lands contaminated by pesticides, with values differentiated on the basis of land use. The circular is adopted with support from the UNDP/GEF pesticide project. This regulation is very new and experiences on its application are not reported yet; in addition, the inventory of POPs pesticide contaminated sites need to be reassessed at the light of the new cleanup standards.
91. Although the amount of resources placed on site and land remediation is substantial, and notwithstanding cleanup targets are available for some POPs, at local level, and mainly in the cases of small pesticide storage sites and industrial facilities, there are still a general lacking of capacity concerning site-cleanup technologies, risk based corrective actions, site assessment and monitoring, procedures for the implementation of risk management measures pending the remediation of sites.
92. In this framework the GEF/UNDP project “Environmental Remediation of Dioxin Contaminated Hotspots in Viet Nam” and the GEF/UNDP/FAO project “Building capacity to eliminate POPs pesticides stockpiles in Viet Nam are paving a first way toward the standardisation of cleanup activities.
93. The Dioxin project achieved important outcomes both in the field of standard limit setting and technology evaluation as following:
94. Under direction of the Office No 33 implementing the project on Dioxin hotspots, the standard TCVN 8183:2009 – establishing target concentration for of Dioxin in soil and sediments was issued.
95. The project, by demonstrating a PCDD/F destruction technology and establishing containment infrastructures in Bien Hoa and a safe landfill in Phu Cat, contributed significantly to the knowledge and the increased technological capacity of the relevant stakeholders for problem analysis and remediation of dioxin contamination.
96. However, as emerged from the MTE reports of both the projects, there is still the need to adopt in a consistent way technology selection criteria in cleanup projects. The testing and establishing of technologies for the sound treatment of soil contaminated by POPs is an urgent need for the Vietnamese government.
97. Through the Pops pesticides stockpiles project, an inventory of the sites contaminated with POPs pesticide has been established, which will be maintained and updated even after project completion. Under the project, methodologies for preliminary site assessment, and site Environmental Management Plan following risk assessment approach have been developed and tested in a limited number of contaminated sites, where contaminated soil is also being excavating and treated, mostly by means of thermal technologies (cement kilns).
98. Both the projects are being concluded within the year 2014. The translation into legal instruments of the methodologies developed and tested, with special reference to environmental management plan of contaminated sites, is envisaged before the end of the projects as an additional task initially not included by these projects.
99. Being the sites contaminated by PCDD/F or pesticides the main priorities in Viet Nam, procedures and knowledge to deal with other category of contaminated sites, for instance industrial sites or PCB storage area are currently missing. Likewise, an inventory of industrial contaminated sites is still missing.
100. Although the GEF projects are demonstrating sound approach for site cleanup and environmental management in selected sites, the very high number of sites identified calls for a different approach to substantially reduce the release of POPs in the environment and the exposure of people to these contaminants. Indeed, the GEF projects are currently addressing a dozen of sites (including 2 dioxin sites and 10 POPs sites), bilateral activities are taking care of the Da Nang sites contaminated by Dioxin, and the government is currently remediating 40 sites. It must

be noted that more than 1500 POPs pesticide sites have been identified so far and the issue of industrial and PCB contaminated sites has been not touched yet.

101. At most of these sites, the unawareness of the population living in their proximity, lack of clear procedures for risk management, is one of the causes of the continuing exposure of people to pollutants, including POPs.
102. Although exposure prevention and reduction are among the objectives of the decision 1946 QĐ-TTg, no measures are being adopted for preventing the dispersion in the environment of POPs and other chemical from sites which remediation is delayed the second stage of target plan implementation (2015-2025) or which is considered not technically feasible.
103. There is, therefore, the need of an approach based on high level planning at provincial level on one side and on a greater involvement of local communities on the other side. A provincial site management plan is needed to identify and adopt the most urgent risk reduction measures, including safe storage, adoption of behavioural precautions and raising awareness in the local population to ensure that exposure to toxic pollutant is minimized. The widespread nature of the pollution call for a more de-localized and participatory approach which has to be catalyzed possibly by market based mechanisms or incentive schemes which may actually make local authorities and local people willing to actively cooperate, instead of waiting actions from the central government.

d. Ongoing activities on Mercury

104. Viet Nam has been one of the first signatory of the Minamata treaty on Mercury. MOIT signed the Minamata convention on 11/10/2013.
105. Although not yet in force, the Minamata convention establish a number of obligation for parties
 - Establish a sound Mercury inventory, including the main sources of Mercury;
 - Establish a management plan for the reduction of Mercury emissions, for existing and new sources;
 - Establish limit control values for mercury emissions, and identify and implement measures and strategies (including BAT/BEP) for the reduction of mercury release;
 - Draft and implement a National Action Plan on artisanal and small-scale gold mining
 - Conduct training covering all the relevant aspects of Mercury management.
 - Cooperate in developing strategies and implementing activities for identifying, assessing, prioritizing, managing and, as appropriate, remediating contaminated sites.
106. The Vietnamese Agency for Chemicals (VINACHEMIA) established under Ministry of Industry and Trade is the focal point for the implementation of the Minamata convention. Its main role is to participate in the negotiation and Conference of the Parties of the convention. In addition, VINACHEMIA is at the first stage of implementation of the activities envisaged by the Minamata convention. There is the obvious need of technical support to ensure that these activities will be carried out successfully and in a sustainable way. On its side, MONRE already carried out a preliminary inventory on industrial sources of mercury.

A. 5. Incremental/ Additional cost reasoning:

107. As detailed in the Baseline analysis and in the Baseline project of this project document, several activities aiming at establishing sound management of chemicals are ongoing in Viet Nam; at the same time, a certain number of GEF projects are already providing assistance to the countries in sensitive activities like the assessment and cleanup of POPs contaminated sites, remediation and demonstration of technologies for Dioxin contaminated hotspots, PCBs management, sound management of healthcare waste. The Law on Environmental Protection is currently being revised to include two new chapters: soil protection and environmental rehabilitation of contaminated sites; A PRTR circular has been drafted by VEA; a circular on occupational safety is at initial step reviewing by Department of Occupational Safety (MOLISA). A substantial capacity for testing dioxin and pesticides in soil has been implemented in the last year. All these activities testify the outstanding commitment of the Vietnamese government in improving environmental regulation.
108. However, these activities are being carrying out separately under different Ministries without the necessary coordination for ensuring that the requirements of the Stockholm Convention are properly enforced. The project will be catalytic in ensuring that SC requirements (for instance, banning of POPs substances including new POPs; concentration limits for waste to be dumped; maximum allowable concentration in environmental matrixes; DE/DRE evaluation of disposal facilities) are considered and properly implemented anytime a new regulation or procedure is drafted.

109. Without the project, there is no guarantee that environmental limits and targets with special reference to POPs will be decided following a sound risk-assessment procedure, based on hazard characterisation, exposure assessment, and risk quantification. This may lead in one case to too permissive limits, and in other cases to overambitious limits which cannot be practically implemented. The issue is particularly serious for contaminated sites for which the Stockholm convention does not set specific standards. The project will build on the significant experience achieved under the previous POPs projects being concluded in Viet Nam, (mainly the “Dioxin hotspots” and the “POPs pesticide” projects which demonstrated the implementation of cleanup activities in POPs contaminated sites, and which provided key technical and regulatory tools for the development of environmental management plan, site cleanup, storage and disposal of POPs contaminated soil.
110. In addition to upgrading the regulatory framework, the project will also ensure that concrete steps on enforcement are worked out, basically by making data on POPs and PTS sources available and by assigning clear responsibilities on gathering and managing data relevant to POPs and PTS sources. In this context, under the PRTR related activities, a set of databases will be established and made available to the control authorities to facilitate enforcement of the environment related laws, planning for POPs and PTS reduction, ensuring emergency response, prioritization of industrial sectors for the adoption of BAT/BEP.
111. Without the project, there will be no synthesis and harmonisation of the site assessment as well as the technology selection and testing criteria which have been so far implemented in the UNDP/GEF and governmental projects related to the cleanup of POPs contaminated sites. The project will therefore establish a platform for drafting an official guidance on site assessment and technology selection, which will be demonstrated in a number of POPs contaminated sites.
112. Although the implementation of remediation/cleanup activities is beyond the scope of this project, by demonstrating the proper site assessment, cleanup design and technology selection in a number of sites it will be possible to ensure that the remediation activities which will be subsequently implemented at that sites will achieve significant and practical goal in term of reduction of POPs in the environment.
113. Based on the data available on POPs contaminated sites, it is possible to anticipate that the provincial site management plan will cover
- around 270 sites in the Nghe An province, out of which around 51 have been identified as POPs contaminated sites;
 - all the contaminated sites found from the survey which will be conducted in industrial sites in the Binh Duong province.
114. It should be stressed that until now, no activity aimed at addressing the issue of industrial sites contaminated by POPs has been undertaken. There are, however, evidences that as much as 5000 tons year of ashes contaminated by PCDD/F may be unsafely disposed; in addition, a large part of the over 300 t/day of hazardous waste is dumped without significant environmental protection. Without the project, a plan addressing the issue of POPs contaminated sites in industrial settlement would not be drafted and no resource would be allocated.
115. The provincial plans, including risk management measures and release prevention design will speed up and increase the remediation and disposal of a large amount of POPs waste and soil contaminated by POPs, which will be properly treated, contained or disposed once the risk reduction measures have been implemented. This is particularly crucial considering that funds for practical remediation activities in the period 2015-2020 have been already allocated by the government, but a site management plan inclusive of cleanup criteria, technology selection, and implementation timeframe is still missing.
116. On mercury, although a limited activity on mercury inventory has been carried out, without the technical and financial assistance of the project this will be limited in the scope and will not result in a mercury management plan as required by the Minamata convention.
117. The project will therefore bring substantial global benefit as it will establish a sustainable management system for the reduction of POPs and the removal of POPs from contaminated sites, which will therefore will go well beyond the demonstration at specific sites

118. Detail of incremental reasoning are reported in the table below:

GEF Outcome/Atlas Activity	Baseline project activities	Baseline activities and co-financing (certified by co-financing commitment letters)	Co-financing (USD)	Incremental activities bringing POPs reduction and global benefits	GEF (USD)
Component 1:					
Policy framework for sound chemicals management, including POPs/PTS developed and implemented.	<p>All the activities below are planned with limited integration of SC requirements on POPs, if any:</p> <ul style="list-style-type: none"> • Law on Environmental Protection (LEP) is being revised and is expected to be promulgated in 1st quarter of 2014 to include two new chapters: soil protection and environmental rehabilitation of contaminated sites. • A PRTR circular has been drafted by VEA • Circular on occupational safety in preparation by Department of Occupational Safety (MOLISA) • Technical regulation on environmental limit for PCB under preparation. • Law on chemicals at the preliminary stages of its revision. • National Action Plan for Sound Management on Chemicals (not eligible as co-financing but need to be coordinated) 	<ul style="list-style-type: none"> • MONRE: personnel dedicated to regulatory development and update; (USD 700,000) • MONRE: office space and equipment, workshops, communication. Support to PMU staff; (USD 300,000) 	1,000,000	<ul style="list-style-type: none"> • Gap analysis of LEP and of secondary legislation to integrate POPs requirements • Integration of the "new POPs" amendments into LEP, Chemical Law and all the downstream regulation. • Guidelines for the specific implementation and enforcement of POPs requirements • Strengthening of PRTR circular to ensure proper individuation of POPs and U-POPs sources and its feasible for implementation and sustainability. • Training on risk assessment methods and on BAT/BEP with specific reference to POPs and PTSs. 	455,000
Component 2:					

GEF Outcome/Atlas Activity	Baseline project activities	Baseline activities and co-financing (certified by co-financing commitment letters)	Co-financing (USD)	Incremental activities bringing POPs reduction and global benefits	GEF (USD)
Institutional Capacity Monitoring and reporting of POPs and PTS strengthened.	<p>All the activities below are scheduled for the period 2015-2020 with no integration of POPs / SC requirements and needs:</p> <ul style="list-style-type: none"> • Project for strengthening Chemicals Management, implemented by VINACHEMIA (MOIT) with JICA funds (limited to the conceptual design for management and database of industrial chemicals and aimed at establishing a risk-assessment approach). • NIP (2006-2010) establishes the need for "Build capacity for POPs monitoring and analysis, initially develop and implement a monitoring program on POPs pollution, including unintentionally produced POPs" • NIP (2010-2015) "Strengthen POPs monitoring activities" • The Viet Nam Five Year National Action Plan for Sound Management of Chemicals establishes a road map 	<ul style="list-style-type: none"> • JICA: Design of chemical management system; inventory compilation; conceptual design of the database; survey of industrial chemicals; data analysis and awareness raising (USD3,000,000) • MONRE: will invest (USD 2,250,000) on POPs monitoring in the period 2015-2018 years. • MONRE: will invest (USD 200,000) in parallel activities related to on the development of a PRTR database 	5,450,000	<ul style="list-style-type: none"> • Ambient environment and receptor (human, biota, food) POPs and PTS baseline established ; • Detailed inventory of POPs analytical determination capacity in the country • Updated monitoring program for POPs • Laboratory accreditation procedure for POPs established; • Training and accreditation for 2 labs, an accreditation plan established, a round robin test for POPs carried out; • Pilot POPs/PTS PRTR database established in a pilot province. 	600,000
Component 3:					
Management of POPs contaminated sites	<ul style="list-style-type: none"> • Activities on contaminated sites do not include specific provision on POPs contaminated sites and are not based on a sound risk based approach. • Activities related to the management and treatment contaminated sites already under Decision No.64/2003/QĐ-TTg of April 22, 2003 approving the "Plan for thoroughly handling establishments which cause serious environmental pollution. • In December 2010 the government of Viet Nam (4) issued the decision 1946 /QĐ-TTg, "Approving the Plan to treat and prevent environmental pollution caused by pesticides stockpiles all over the nation • According to the implementation of that decision, 240 very high priority contaminated sites 	<ul style="list-style-type: none"> • Activities related to the 95 high priorities contaminated sites to be treated by 2020 in the provinces; (USD 3,300,000) • Activities related to the implementation of the circular 43/2013/TT-BTNMT prescribing national cleanup standards for lands contaminated by pesticides (USD 500,000), 	3,800,000	<ul style="list-style-type: none"> • Further supporting of development regulation and standards for contaminated sites with specific reference to POPs; • Risk assessment procedures and guidelines for POPs contaminated sites developed. • Selection of 10 priority sites contaminated by POPs; demonstration of risk based site assessment and cleanup design in 10 sites; technology options recommended with active involvement of local communities. • Training and 	1,000,000

GEF Outcome/Atlas Activity	Baseline project activities	Baseline activities and co-financing (certified by co-financing commitment letters)	Co-financing (USD)	Incremental activities bringing POPs reduction and global benefits	GEF (USD)
	will be treated by 2015, 95 high priority contaminated sites will be treated by 2020 and the remaining contaminated sites will be treated by 2025.			awareness raising on POPs	
Component 4:					
National mercury baseline inventory and release reduction strategy	The Vietnamese Agency for Chemicals (VINACHEMIA) established under Ministry of Industry and Trade is the focal point for the implementation of the Minamata convention. Its main role is to participate in the negotiation and COP of the convention. In addition, VINACHEMIA is at the first stage of implementation of the the activities envisaged by the Minamata convention. There is the obvious need of technical support to ensure that these activities will be carried out successfully and in a sustainable way	<ul style="list-style-type: none"> • MOIT: Personnel, office space, site visits for the preliminary inventory on Mercury (USD100,000) • Participation in international conferences on Minamata Convention (USD50,000) • MONRE activities on inventory of mercury sources and environmental monitoring of mercury (USD 100,000) 	250,000	<ul style="list-style-type: none"> • Mercury baseline source and release inventory developed. • Questionnaire survey, process analysis, site visits for a number of possible mercury release sources • Mercury reduction strategy will be drafted and submitted for approval 	300,000
Component 5:					
MONITORING, LEARNING, ADAPTIVE FEEDBACK & EVALUATION	Not relevant under the baseline project			Mid-term and terminal evaluation conducted by independent national and international evaluation experts	70,000
Project management unit		MONRE: personnel, office space, site visits, arrangement of meetings for facilitating evaluation activities (USD 500000) Personnel, office space, equipment, communications, meetings for the ordinary monitoring	550,000		125,000

GEF Outcome/Atlas Activity	Baseline project activities	Baseline activities and co-financing (certified by co-financing commitment letters)	Co-financing (USD)	Incremental activities bringing POPs reduction and global benefits	GEF (USD)
		of the project (APR, QPR, PIR) (USD 50000)			
Total			11,050,000		2,550,000

A.6 Risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and measures that address these risks

#	Description	Date Identified	Type	Impact (L, M, H) & Probability (L, M, H)	Countermeasures / Management responses	Owner	Submitted, updated by	Last Update	Status (compared with previous evaluation)
1	Lack of coordination of the relevant institutions and ministries	3/07/2014	Institutional	M/M	Coordination and solution of conflicts among different stakeholders will be solved by involving them in the project steering committee and/or in specific project activities and establishing a well-staffed PMU for project management. A “POPs regulation coordination office” will be established at MONRE which will interact with PMU and will coordinate with all governmental bodies involved in POP regulatory work.	PM GOV	UNDP	3/07/2014	N/A at this stage
2	Conflicting objectives of different ministries / stakeholders which may render difficult the negotiation on an integrated regulation.	3/07/2014	Institutional	M/M	As for #1	PM GOV	UNDP	3/07/2014	N/A at this stage
3	Lack of commitment of relevant stakeholders	3/07/2014	Institutional	L/M	As for #1	PM GOV	UNDP	3/07/2014	N/A at this stage
4	Timing and complexities of procedures for the examination, voting and adoption of new	3/07/2014	Management	M/H	The selection of the proper procedure and type of regulatory instruments (i.e. decree instead of laws, or official guidance documents annexed to existing laws) for POPs – related legislation will ensure that regulation	PM	UNDP	3/07/2014	N/A at this stage

#	Description	Date Identified	Type	Impact (L, M, H) & Probability (L, M, H)	Countermeasures / Management responses	Owner	Submitted, updated by	Last Update	Status (compared with previous evaluation)
	technical regulations.				is adopted within project deadline.				
5	Complexities related to the establishment of a public/private partnership, or no market for services in the POPs sector.	3/07/2014	Management / Financial	L/L	Market based policies will be developed since the very starting of the project, on sectors where the sustainability is more likely (for instance, hazardous waste or sampling/analysis activities where a substantial amount of governmental funding already exist) so that the risk of failure is minimal.	PM	UNDP	3/07/2014	N/A at this stage
6	Agreement among stakeholders on baseline and environmental quality targets not achievable within the project timeframe.	3/07/2014	Institutional / Technical	M/L	The establishment of a PMU with high skilled professionals with experience on environmental monitoring, together with assistance from national and international experts on Environmental Quality Standards, in cooperation with representatives from all the relevant governmental, non-governmental and private stakeholders will ensure that agreement on environmental quality standard may be achieved within project deadline, and that data validation of the existing information is carried out in the proper way.	PM / GOV	UNDP	3/07/2014	N/A at this stage
7	Scientific complexity of establishing baseline and environmental standards for monitoring reference is too high to be addressed within the project	3/07/2014	Technical	L/L	The work on ambient environment and receptor (human, biota, food) POPs and mercury baseline and environmental quality standard will build on international existing standards already set by authoritative agencies (WHO, USEPA, ECHA),	PM	UNDP	3/07/2014	N/A at this stage

#	Description	Date Identified	Type	Impact (L, M, H) & Probability (L, M, H)	Countermeasures / Management responses	Owner	Submitted, updated by	Last Update	Status (compared with previous evaluation)
	timeframe.				and adapted to Vietnamese specific situation where necessary and feasible. By recruiting international and national experts with outstanding experience in the field, in strict cooperation with relevant stakeholders, it will be possible to identify within project framework a scientific and sustainable set of environmental quality standards for all POPs and for mercury.				
8	Non-availability of data, or difficulties in data validation due to different sampling and analytical methodologies and lack of information on monitoring condition	3/07/2014	Technical	H/M	Although it is expected that there will be substantial data gaps concerning potential industrial source of pollutants, by starting from areas where monitoring data are more reliable and complete, and relying on existing guidance on POPs, it will be possible to set methodologies and standards for the establishment of a database structure and a reporting system covering all POPs and environmental sectors.	PM	UNDP	3/07/2014	
9	Industries and data owners unwilling to share data and relevant process, storage, and monitoring information.	3/07/2014	Technical / Institutional	M/L	The drafting, communication, and enforcement of the PRTR decree, linked to permitting and licensing of industrial activities, will ensure willingness of stakeholder to communicate the relevant information. Data owners are basically governmental institutions or private/public laboratories working within governmental projects; their interest in sharing data will be	PM	UNDP	3/07/2014	N/A at this stage

#	Description	Date Identified	Type	Impact (L, M, H) & Probability (L, M, H)	Countermeasures / Management responses	Owner	Submitted, updated by	Last Update	Status (compared with previous evaluation)
					ensured by directly involving them in project activities.				
10	Laboratories unwilling to participate in accreditation program, and/or unwilling to share data on their capability, equipment, methodology, technical capacity.	3/07/2014	Technical	L/L	By providing assistance and training on accreditation and certification scheme to labs-their interest in joining an accreditation scheme – otherwise missing substantial business opportunities in the future – will be insured		UNDP	3/07/2014	N/A at this stage
11	Scientific complexity of establishing risk assessment methodologies and clean-up standard is too high to be addressed within the project timeframe.	3/07/2014	Technical	M/L	Scientifically sound risk based methodologies and clean-up standards have been developed and extensively tested by a number of authoritative international institutions, and are continuously upgraded. Rather than developing new methodologies and standards, the work on risk assessment and clean-up criteria will build on international existing standards and methodology by establishing cooperation with the relevant international institution who developed these standard. (WHO, USEPA, ECHA, ISO, ASTM), and adapted to Vietnamese specific situation where necessary and feasible. By recruiting international and national experts with outstanding experience in the field, in strict cooperation with relevant stakeholders, it will be possible to identify within project framework a scientific and sustainable set of risk	PM	UNDP	3/07/2014	N/A at this stage

#	Description	Date Identified	Type	Impact (L, M, H) & Probability (L, M, H)	Countermeasures / Management responses	Owner	Submitted, updated by	Last Update	Status (compared with previous evaluation)
					based standards and methodologies for all POPs and for mercury.				
12	There is a substantial risk of overlapping with other site-clean-up related activities with further site-assessment work not providing substantial added value.	3/07/2014	Management	L/L	There is a substantial need of capitalizing the work carried out – sometime with different methodologies -by a number of actors in the framework of previous GEF, international and national activities on contaminated sites. The project will build from success stories and lesson learned, interacting with the main governmental stakeholders (MONRE, MOD, MOH, MARD) for identifying a sustainable strategy of general applicability to be proposed as the national standard for site assessment and technology selection. This standard methodology will be demonstrated and validated in a number of sites contaminated by different POPs.	PM	UNDP	3/07/2014	N/A at this stage
13	There is a substantial risk of overlapping of training activities with previous training carried out in other projects.	3/07/2014	Management	L/L	There is a substantial need of collating and systematizing the training carried out actors in the course of previous GEF, international and national activities on contaminated sites.	PM	UNDP	3/07/2014	N/A at this stage
14	Training effectiveness limited or not properly assessed due to limited participation or limited quality control.	3/07/2014	Management	M/M	The project will build from success stories and lesson learned, interacting with the main governmental stakeholders (MONRE, MOD, MOH, MARD) for identifying an official training package for on site	PM	UNDP	3/07/2014	N/A at this stage

#	Description	Date Identified	Type	Impact (L, M, H) & Probability (L, M, H)	Countermeasures / Management responses	Owner	Submitted, updated by	Last Update	Status (compared with previous evaluation)
					assessment and technology selection..				
15	Difficulties related to the involvement of proper stakeholders on mercury sources.	3/07/2014	Institutional	L/M	Viet Nam signed the Minamata convention, therefore already demonstrated high commitment in addressing environmental and health problems related to mercury. The project will involve the governmental institutions in charge of Minamata convention which are familiar with the stakeholders involved in mercury reduction.	PM / GOV	UNDP	3/07/2014	N/A at this stage
16	Complexity to address and agree to a release reduction strategy in case it will affect economic interests of private industries.	3/07/2014	Technical	L/M	At this stage, the project will mainly identify a road map which will be elaborated in a strategy after project end. The Minamata convention establishes however a progressive timeframe which will ensure enough time to solve all the economy-related issues associated with mercury reduction. Therefore, a strategy on mercury reduction will build on the Minamata convention requirements and timeframe.	PM	UNDP	3/07/2014	N/A at this stage
	Overall Rating			M/L					

A.7. Coordination with other relevant GEF financed initiatives

The project will seek coordination with the following ongoing GEF initiatives related to POPs and chemicals:

GEF project launched or implemented in Viet Nam

GEF #	Project title	Agency	GEF grant (USD)	Cofinancing amount (USD)	Project status
3011	Introduction of BAT and BEP methodology to demonstrate reduction or elimination of unintentionally produced POPs releases from the industry in Viet Nam	UNIDO	750,000	1,590,000	Completed
2974	PCB Management Project	IBRD	7,000,000	10,500,000	Under Implementation
3105	Building Capacity to Eliminate POPs Pesticides Stockpiles	UNDP	4,300,800	6,540,110	Under Implementation
3032	Environmental Remediation of Dioxin Contaminated Hotspots in Viet Nam	UNDP	4,977,270	25,350,000	Under implementation
1802	The global project on “Demonstrating and Promoting Best Techniques and Practices for Reducing Health-care Waste to Avoid Environmental Releases of Dioxins and Mercury”	UNDP	10,326,500	13,544,400	The Vietnamese component completed
4894	Implementation of the POPs Monitoring Plan in the Asian Region	UNEP	3,936,000	11,870,000	Council Approved
4838	Updating Viet Nam National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants	UNDP	225,000	160,000	Under Implementation

B. ADDITIONAL INFORMATION NOT ADDRESSED AT PIF STAGE:

B.1 Describe how the stakeholders will be engaged in project implementation

119. In the course of project preparation activities, a detailed mapping of the project stakeholders has been developed.
120. The main beneficiaries of the project activities are the general public, consumers and communities which may be exposed to chemicals (POPs, other persistent and toxic chemicals, mercury) possibly contained in products, articles, food and the general environment. Health risk for people will decrease once a proper legislation regulating environmental and goods quality are in place and enforced. The chemical and manufacturing industry are also beneficiaries and interested stakeholders, as they will receive benefit in term of technical assistance and – being among the addressee of the regulatory tools to be developed under the project - will have the opportunity to have their views and needs considered in the course of law making activities related to the implementation of the Stockholm convention, the Minamata convention and SCM.
121. On the governmental side, the two main stakeholders of the project are the Ministry of Natural Resources and Environment (MONRE), which is in charge of the state management of the environmental protection, as well as setting environmental quality standards, environmental monitoring, remediation and prevention and Ministry of Industry and Trade (MOIT) which is the focal point for the legislation on chemicals, including the implementation of GHS and the coordination with international legislation like REACH and ROHs. MOIT is in charge also of setting appropriate emission limits for industries. MONRE, through VEA is the focal point for the implementation of several international conventions including the Stockholm Convention, the Basel Convention, Montreal Protocol; MOIT, through VINACHEMIA; is the focal point for the negotiation, ratification and

implementation of the Minamata convention on mercury.

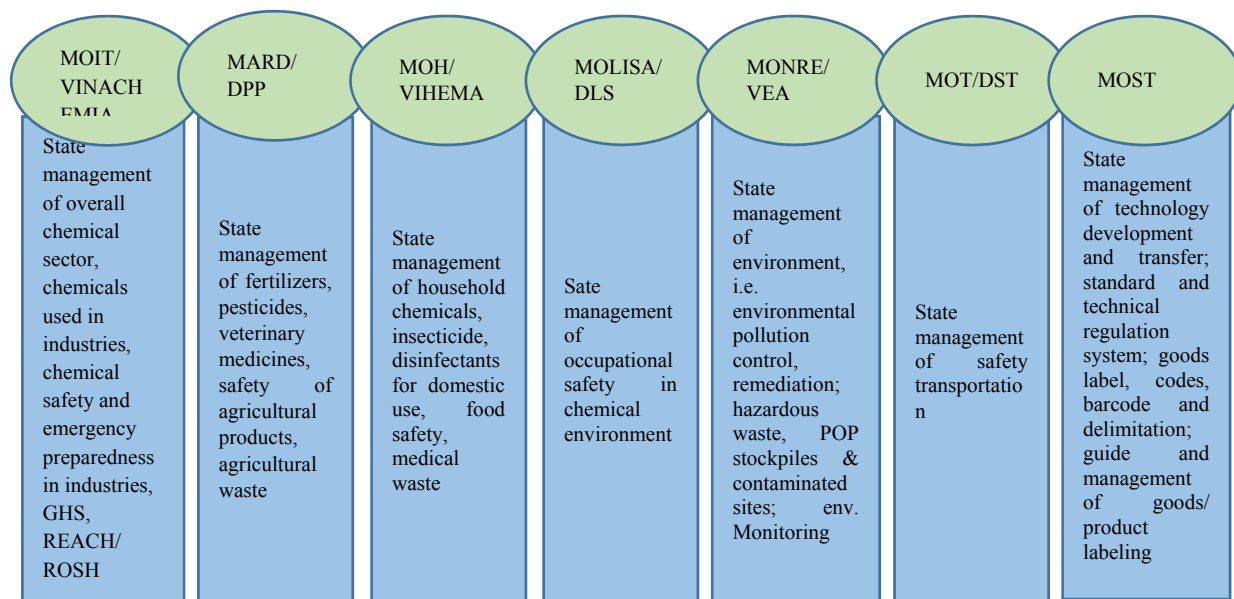
122. In addition to MOIT and MONRE, in the table below the list of the main governmental stakeholders of the project, with their respective roles, is reported. Both these 2 stakeholder will be involved in project implementation and coordination, participating with key roles in the main project management structures like the project steering committee and in the Project Management Unit.
123. In addition to the above, in the table below the list of the main governmental stakeholders of the project, with their respective roles, is reported. Coordination with these stakeholders will be established by means of workshops, training, dedicated meetings, and dissemination of the relevant project information.

Government Agencies	Key function and mandate	Common responsibility/duties
MONRE	<ul style="list-style-type: none"> i) State management of environment, climate change, etc. ii) Environmental prevention and control, remediation of environmental incidents and degradation, etc. iii) Hazardous waste and POP stockpile & contaminated site management iv) Revise and add the list of facilities that are seriously environmental polluted v) Set up and manage national environmental monitoring system 	<ul style="list-style-type: none"> 1) Draft laws, resolution, decree, national target programs, etc. to be submitted to the Government for approval
VEA/MONRE	<ul style="list-style-type: none"> i) State management of environmental pollution control ii) Control preparation of lists of environmentally polluted facilities of various sectors and provinces iii) Organize implementation of prevention measures, emergency and preparedness plans, environmental remediation plans, etc. iv) Monitor environment quality v) Waste management including hazardous waste and environmental enhancement vi) Organize implementation of national environmental monitoring and information vii) Lead preparation of national environmental report and NIP update viii) National focal point of Stockholm convention on POP, Basel Convention and Montreal Protocol on ODS <p>There are 2 departments under VEA : Pollution Control Department (PCD) and Waste Management & Environment Improvement Department (WMEI) that responsible to implement above mentioned duty. PCD is assigned for duty of i, ii, iii, iv in air, vi, vii, viii with Stockholm convention. WMEI is assigned for duty of iv in soil and water, v, vi, viii with Basel Convention</p>	<ul style="list-style-type: none"> 2) Issue circular, decisions, direction, guidelines, national technical regulations, and other legal documents under each ministry's jurisdiction 3) Lead, instruct and organize implementation of legal documents, strategies, plans, national target plans, etc.
MOIT	<ul style="list-style-type: none"> i) State management of overall chemical management, chemicals used in industries, consumer products, scheduled chemicals of the chemical Weapon convention (CWC), including inorganic fertilizers ii) Lead and coordinate with other ministries to prepare national chemical list of prohibited, restricted and conditional chemicals; list of declaration chemicals; list of hazardous chemicals required to prepare emergency and preparedness plans; list of chemical prohibited to use in household and consumer products 	

	<ul style="list-style-type: none"> iii) Chemical handling and safety, iv) GHS, REACH & ROSH 	
VINACHEMIA/ MOIT	<ul style="list-style-type: none"> i) National Focal Point of Chemicals Weapon Convention, Rotterdam Convention (industrial sector); Minamata Convention on Mercury. ii) Grant permissions for trading and production of toxic chemicals used for special aims iii) Grant licenses for import/export of chemical precursors, chemical limited and prohibited in production and trade, industrial explosive materials iv) Approve emergency preparedness and response plan 	
Industrial Safety Technique and Environment Agency (ISEA)/MOIT	<ul style="list-style-type: none"> i) State management over safety techniques, environmental protection in industry and trade ii) Guiding, instructing and inspecting the implementation of the legal provisions on labour safety iii) Propose a list of machines, equipment's and materials subject to strict labour safety requirement within scope pf MOIT iv) Develop and organize implementation of programs, planning, projects on environmental protection in industry and trade v) Guide, manage and control wastes, noises, environmental incidents, environmental pollution, remediation and restoration in industry, etc. 	
MARD	<ul style="list-style-type: none"> i) State management of agriculture, forestry, sea products, aquaculture, rural development including pesticides and veterinary medicine used in the above areas; safety of agricultural and sea products ii) Direct implementation of state management of food safety regarding agricultural, forestry and sea – products iii) Instruct implementation of state management of environmental protection regarding production, business and services under the ministry iv) State management of organic fertilizers v) National focal point for Rotterdam convention on pesticides 	
Department of Plant Protection (DPP)/MARD	<ul style="list-style-type: none"> i) Sate management over plant protection and quarantine, pest prevention, pesticides used in agriculture ii) Leading and Guiding implementation of plant protection activities iii) Propose a list of pesticides, plant protection medicines allowed or restricted to use in Viet Nam iv) Organize plant protection chemicals registration, v) Instruct and guide implementation of plant protection chemicals management, collection and disposal of pesticide empty containers, vi) Grant permit for production, trade, processing, packaging of plant protection chemicals, etc. 	
MOH	<ul style="list-style-type: none"> i) State management of healthcare sector including household chemicals, insecticides and disinfectant for domestic and medical use, cosmetics including their safety use ii) State management of food safety in food production facilities, business, etc. including food additives, etc. iii) Environmental protection in healthcare sector including medical waste 	
Health	<ul style="list-style-type: none"> i) Sate management over health environment, quality of drinking 	

Environment Management Agency (VIHEMA)/MOH	<p>and potable water, occupational health, prevention of occupational diseases and injuries, domestic chemicals, household insecticides and disinfectants, environmental protection associated to healthcare activities</p> <p>ii) Leading and guiding implementation of legal requirements, preparation of health impact assessment for investment projects, management of medical wastes, environmental remediation and restoration,</p> <p>iii) Organize appraisal of EIA reports of MOH projects</p> <p>iv) Grant permission for circulation/trade of domestic and healthcare chemicals, etc.</p>	
MOLISA	i) State management of labour sector including occupational safety in chemical environment	
Department of Labor Safety (DLS)/MOLISA	<p>i) State management of occupational safety</p> <p>ii) Guiding procedures for registration, control of machines, equipment's and materials that strictly require labor safety</p> <p>iii) Adoption of list of hard, toxic and dangerous jobs/occupations</p> <p>iv) Guiding and controlling implementation of national regulations on occupational safety</p>	
MOST	<p>State management of</p> <p>i) technological development, innovation and transfer;</p> <p>ii) National standard and technical regulation system;</p> <p>iii) labels, codes, bar codes, and delimitation of goods and products and goods</p> <p>iv) guiding and state management of good labeling national wide</p>	
MOT	i) State management of transportation sector including safety transportation and environmental protection in transportation area	
PPC/CPC	<p>(1) Prepare overall provincial social- economic development plan, sector development plan and rural and urban development plans</p> <p>(2) Together with national agencies, prepare national /sectoral programs located in the province and organize and control the implementation of these plan/ programs</p> <p>(3) Direct implementation and control of production and use of pesticide, fertilizers, veterinary medicines and other biological products to server for agriculture</p> <p>(4) Direct implementation and control and inspection of technical safety of transportation means</p> <p>(5) Direct and organize implementation of environmental protection and enhancement; environmental degradation and pollution and responsibility of polluter to remediate polluted environment</p> <p>(6) Control and manage transportation of hazardous substances in accordance with legislation</p>	
DOIT	<p>(1) Advise and assist PPC in State management of industries and commerce, including chemical sector in the province/city</p> <p>(2) Lead and cooperate with relevant agencies in controlling management, use, storage, and transportation of chemicals, industrial explosive material, liquid gases, mining, import/export, etc. including safety issues and emergency and preparedness plan</p>	<p>(1) Advise and assist PPC in state management of the area the Department is responsible for</p> <p>(2) Draft decision, direction, local regulation to be submitted to PPC for approval</p>
DARD	<p>(1) Advise and assist PPC in State management of agriculture, forestry, sea products, aqua-culture, rural development including safety of agricultural and aqua products</p> <p>(2) Control use of pesticide in agriculture</p>	

DOH	(1) Advise and assist PPC in State management of Healthcare sector, food safety and hygiene, insecticide and disinfectants for domestic and medical use (2) Organize implementation of medical waste management plan	(3) Instruct, control and organize implementation of legal documents, plans, etc. under the department's authority (4) Periodically report the management situation to PPC and respective ministry (5) A vertical link to line Ministries at central level, eg MONRE-DONRE
DOLISA	(1) Advise and assist PPC in State management of labour sector including occupational safety in chemical environment	
DONRE	(1) Advise and assist PPC in State management in natural resources and environment; (2) Organize investigation of contaminated sites, preparation of list of serious environmentally polluted facilities (3) Lead or cooperate with relevant agencies in implementing mobilization plan to respond to emergencies and environmental pollution remediation (4) Instruct preparation and organize implementation of environmental monitoring and monitoring database in the province	



Key stakeholder involved in state management of chemical industry.

B.2 Describe the socioeconomic benefits to be delivered by the Project at the national and local levels, including consideration of gender dimensions, and how these will support the achievement of global environment benefits (GEF Trust Fund/NPIF) or adaptation benefits (LDCF/SCCF):

124. The main project objective is to prevent and reduce health and environmental risk related to POPs and through POPs and harmful chemicals release reduction achieved by provision of an integrated institutional and regulatory framework covering management and reporting of POPs and Mercury within a national sound chemicals management framework and targeted development of POPs contaminated sites management capacity
125. Therefore the socio-economical benefit of the project is mostly a consequence of the improvement of environmental quality and the reduction of health risk. In the medium (project implementation) and long term (after project closure) there will be significant social benefits in term of reduced rate of disease including cancer, and improved quality of life.

126. A substantial social and economical benefit will also come from the planning of the contaminated site management in 2 demonstration province (Nghe An and Binh Duong). This will facilitate and speed-up the government actions aimed at remediating contaminated sites, which will eventually result in a better use of resources and in an anticipated recovery of contaminated sites, with an obvious increase in their value.
127. In addition, by carrying out an intensive activity on training and awareness raising, the project will create the demand for a free-POPs environment and will provide sensitive population (the persons with the greatest risk to be exposed to POPs and mercury, both at workplace and at home) with simple and cost-effective methodologies to reduce their exposure to POPs. This is specifically true for women which may be exposed to POPs following specific ways like the use of obsolete pesticide in agricultural activities, the use of recycled pesticide container, etc.
128. On the side of mercury reduction in products and from industrial sources, the social and economical benefit will be a balance between the incremental cost for industries and importers, which will have to establish measure to prevent mercury release or to replace mercury in products with alternative substance, to the increased quality of life and reduced health risk associated to the reduced exposure to mercury.
129. In addition, by carrying out an intensive activity on training and awareness raising, the project will create the demand for a free-POPs environment and will provide sensitive population (the persons with the greatest risk to be exposed to POPs, mainly in the communities which are close to contaminated sites) with simple and cost-effective methodologies to reduce their exposure to POPs. This is specifically true for women which may be exposed to POPs following specific ways like the use of obsolete pesticide in agricultural activities, the use of recycled pesticide container, growing of vegetables in polluted lands, POPs contaminated clothes like work suits improperly brought to home

B.3. Explain how cost-effectiveness is reflected in the project design:

130. Cost effectiveness will be ensured at all stages of the project by adoption of proper procurement procedures for all the activities, including selection of services and equipment based on the best quality/cost ratio. The implementation of a sound Monitoring and Evaluation plan will ensure that cost effectiveness criteria are properly fulfilled at any stage of project implementation.
131. In the course of project implementation, specific attention will be paid to avoid duplication / overlapping with other ongoing projects, maximizing at the same time the synergy with ongoing projects. processes will be designed to ensure that the budget spent per unit of output is minimized to extent feasible without compromising on effectiveness

C. DESCRIBE THE BUDGETED M & E PLAN:

The project will be monitored through the following M& E activities.

132. A Project Inception Workshop will be held within the first 6 months of project start with assigned roles in the project organization structure, UNDP country office and where appropriate/feasible regional technical policy and programme advisors as well as other stakeholders. The Inception Workshop is crucial to building ownership for the project results and to plan the first year annual work plan.
133. The Inception Workshop should address a number of key issues including:
 - Assist all partners to fully understand and take ownership of the project. Detail the roles, support services and complementary responsibilities of UNDP CO and RCU staff vis à vis the project team. Discuss the roles, functions, and responsibilities within the project's decision-making structures, including reporting and communication lines, and conflict resolution mechanisms. The Terms of Reference for project staff will be discussed again as needed.
 - Based on the project results framework and the relevant GEF Tracking Tool if appropriate, finalize the first annual work plan. Review and agree on the indicators, targets and their means of verification, and recheck assumptions and risks.

- Provide a detailed overview of reporting, monitoring and evaluation (M&E) requirements. The Monitoring and Evaluation work plan and budget should be agreed and scheduled.
- Discuss financial reporting procedures and obligations, and arrangements for annual audit.
- Plan and schedule Project Board meetings. Roles and responsibilities of all project organisation structures should be clarified and meetings planned. The first Project Steering Committee meeting should be held within the first 12 months following the inception workshop.

134. An Inception Workshop report is a key reference document and must be prepared and shared with participants to formalize various agreements and plans decided during the meeting.

135. Quarterly Progress Report: Contents of the QPR include:

- Progress made as reported in the Standard Progress Report (SPR) and monitored in the UNDP Enhanced Results Based Management Platform;

Table 6: M&E Work Plan and Budget

Type of M&E activity	Responsible Parties	Budget US\$ <i>Excluding project team staff time</i>	Time Frame
Inception Workshop and Report	<ul style="list-style-type: none"> Project Manager UNDP CO, UNDP GEF 	Indicative cost: 15,000	Within first four months of project start up
Measurement of Means of Verification of project results.	<ul style="list-style-type: none"> UNDP GEF RTA/Project Manager will oversee the hiring of specific studies and institutions, and delegate responsibilities to relevant team members. 	To be finalized in Inception Phase and Workshop.	Start, mid and end of project (during evaluation cycle) and annually when required.
Measurement of Means of Verification for Project Progress on <i>output and implementation</i>	<ul style="list-style-type: none"> Oversight by CTA with support from the Project Manager Project team 	To be determined as part of the Annual Work Plan's preparation.	Annually prior to ARR/PIR and to the definition of annual work plans
ARR/PIR	<ul style="list-style-type: none"> Project manager and team UNDP CO UNDP RTA UNDP EEG 	None	Annually
Periodic status/ progress reports	<ul style="list-style-type: none"> Project manager and team 	None	Quarterly
Mid-term Evaluation	<ul style="list-style-type: none"> Project manager and team UNDP CO UNDP RCU External Consultants (i.e. evaluation team) 	Indicative cost: 24,000	At the mid-point of project implementation.
Final Evaluation	<ul style="list-style-type: none"> Project manager and team, UNDP CO UNDP RCU External Consultants (i.e. evaluation team) 	Indicative cost : 24,000	At least three months before the end of project implementation
Project Terminal Report	<ul style="list-style-type: none"> Project manager and team UNDP CO 	0	At least three months before the end of the project
Audit	<ul style="list-style-type: none"> UNDP CO Project manager and team 	Indicative cost per year: 7,000 for 3 years	Yearly
Visits to field sites)	<ul style="list-style-type: none"> UNDP CO UNDP RCU (as appropriate) Government representatives 	For GEF supported projects, paid from IA fees and operational budget	Yearly

Type of M&E activity	Responsible Parties	Budget US\$ <i>Excluding project team staff time</i>	Time Frame
TOTAL indicative COST	Excluding project team staff time and UNDP staff and travel expenses	70,000 (+/- 5% of total budget)	

- Based on the initial risk analysis submitted, the risk log shall be regularly updated in ATLAS (if applicable otherwise outside ATLAS). Risks become critical when the impact and probability are high;
- Project Progress Reports (PPR) as generated in the Executive Snapshot and based on the information recorded in Atlas; and,
- Other ATLAS logs that are used to monitor issues and lessons learned. The use of these functions is a key indicator in the UNDP Executive Balanced Scorecard.

136. Annual Project Review /Project Implementation Reports (APR/PIR): APRs/PIRs are key reports prepared to monitor progress since project start and in particular for the previous reporting period (30 June to 1 July). The APR/PIR combines both UNDP and GEF reporting requirements, and includes, but is not limited to, reporting on the following:

- Progress made toward project objective and project outcomes, each with indicators, baseline data and end-of-project targets (cumulative);
- Project outputs delivered per project outcome (annual);
- Lesson learned/good practice;
- AWP and other expenditure reports;
- Risk and adaptive management;
- ATLAS QPR; and,
- Portfolio level indicators (i.e. GEF focal area tracking tools) that are used by most focal areas on an annual basis.

137. Periodic Monitoring through site visits: UNDP CO and the UNDP RCU staff will conduct visits to project sites based on the agreed schedule in the project's Inception Report/Annual Work Plan to assess first hand project progress. Other members of the Project Board may also join these visits. A Field Visit Report/BTOR will be prepared by the CO and UNDP RCU and will be circulated no less than one month after the visit to the project team and Project Board members.

138. Mid-term evaluation of project cycle: The project will undergo an independent Mid-Term Evaluation at the mid-point of project implementation. The Mid-Term Evaluation will determine progress being made toward the achievement of outcomes and will identify course correction if needed. It will focus on the effectiveness, efficiency and timeliness of project implementation; will highlight issues requiring decisions and actions; and will present initial lessons learned about project design, implementation and management. Findings of this review will be incorporated as recommendations for enhanced implementation during the final half of the project's term. The organization, terms of reference and timing of the mid-term evaluation will be decided after consultation between the parties to the project document. The Terms of Reference for this Mid-term evaluation will be prepared by the UNDP CO based on guidance from the Regional Coordinating Unit and UNDP-GEF. The management response and the evaluation will be uploaded to UNDP corporate systems, in particular the UNDP Evaluation Office Evaluation Resource Center (ERC). The relevant GEF Focal Area Tracking Tools will also be completed during the mid-term evaluation cycle.

139. End of Project: An independent Final/Terminal Evaluation will take place three months prior to the final Project Board meeting and will be undertaken in accordance with UNDP and GEF guidance. The final evaluation will focus on the delivery of the project's results as initially planned (and as corrected after the mid-term evaluation, if

any such correction took place). The final evaluation will look at impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental benefits/goals. The Terms of Reference for this evaluation will be prepared by the UNDP CO based on guidance from the Regional Coordinating Unit and UNDP-GEF.

140. The Final/Terminal Evaluation should also provide recommendations for follow-up activities and requires a management response which should be uploaded to PIMS and to the [UNDP Evaluation Office Evaluation Resource Center \(ERC\)](#). The relevant GEF Focal Area Tracking Tools will also be completed during the final evaluation. During the last three months, the project team will prepare the Project Terminal Report. This comprehensive report will summarize the results achieved (objectives, outcomes, outputs), lessons learned, problems met and areas where results may not have been achieved. It will also lay out recommendations for any further steps that may need to be taken to ensure sustainability and replicability of the project's results.
141. Learning and knowledge sharing: Results from the project will be disseminated within and beyond the Project intervention zone through a number of existing information sharing networks and forums. In addition:
- The Project will participate, as relevant and appropriate, in UNDP/GEF sponsored networks, organized for senior personnel working on projects that share common characteristics;
 - The Project will identify and participate, as relevant and appropriate, in scientific, policy-based and/or any other networks, which may be of benefit to project implementation through lessons learned; and,
 - The Project will identify, analyze, and share lessons learned that might be beneficial in the design and implementation of similar future projects. Identifying and analyzing lessons learned is an on-going process and the need to communicate such lessons as one of the project's central contributions is a requirement to be delivered not less frequently than once every 12 months. UNDP/GEF shall provide a format and assist the project team in categorizing, documenting and reporting the lessons learned. To this end a percentage of project resources will also need to be allocated for these activities;
 - This GEF-funded Project will endeavor to compile and share its development results within a monitoring framework that is designed to meet the goals of the UN One Plan outcomes.


PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT(S) AND GEF AGENCY(IES)

- A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT(S) ON BEHALF OF THE GOVERNMENT(S):**
 (Please attach the [Operational Focal Point endorsement letter\(s\)](#) with this form. For SGP, use this [OFP endorsement letter](#)).

NAME	POSITION	MINISTRY	DATE (MM/dd/yyyy)
Dr. Nguyen Van Tai	Director General of ISPONRE_Viet Nam Operational Focal Point	Ministry of Natural Resources and Environment	17/02/2012

B. GEF AGENCY (IES) CERTIFICATION

This request has been prepared in accordance with GEF/LDCF/SCCF/NPIF policies and procedures and meets the GEF/LDCF/SCCF/NPIF criteria for CEO endorsement/approval of project.

Agency Coordinator, Agency Name	Signature	Date (Month, day, year)	Project Contact Person	Telephone	Email Address
Ms. Adriana Dinu UNDP-GEF Executive Coordinator and Director a.i.		09/08/2014	Mr. Jacques Van Engel	+1 (212) 906-5782	jacques.van.engel@undp.org

ANNEX A: PROJECT RESULTS FRAMEWORK (either copy and paste here the framework from the Agency document, or provide reference to the page in the project document where the framework could be found).

<p>This project will contribute to achieving the following Country Programme Outcome as defined in UN ONE PLAN III (2012 – 2016):</p> <ul style="list-style-type: none"> OP III Outcome 1.4: By 2016, national and sub-national Agencies, in partnership with the private sector and communities, implement and monitor laws, policies, and programmes for more efficient use of natural resources and environmental management, and implement commitments under international conventions.
<p>Country Programme Outcome Indicators:</p> <ul style="list-style-type: none"> OP III Indicator 1.4.3: Number of tonnes of (POPs—obsolete pesticides, pesticide contaminated soils and dioxin contaminated soil - contained and remediated in accordance with international environmental requirements
<p>Primary applicable Key Environment and Sustainable Development Key Result Area (same as that on the cover page, circle one): 1. Mainstreaming environment and energy OR</p> <ul style="list-style-type: none"> 2. Catalyzing environmental finance OR 3. Promote climate change adaptation OR 4. Expanding access to environmental and energy services for the poor.
<p>Applicable GEF Strategic Objective and Program:</p> <ul style="list-style-type: none"> Objective CHEM -1: Phase out POPs and reduce POPs releases Objective CHEM -3: Pilot sound chemicals management and mercury reduction
<p>Applicable GEF Expected Outcomes:</p> <ul style="list-style-type: none"> Outcome 1.4: POPs waste prevented, managed, and disposed of, and POPs contaminated sites managed in an environmentally sound manner; Outcome 1.5: Country capacity built to effectively phase out and reduce releases of POPs. Pilot sound chemicals management and mercury reduction Outcome 3.1: Country capacity built to effectively manage mercury in priority sectors Outcome 3.2: Contribute to the overall objective of the SAICM of achieving the sound management of chemicals throughout their lifecycle in ways that lead to the minimization of significant adverse effects on human health and the environment
<p>Applicable GEF Outcome Indicators:</p> <ul style="list-style-type: none"> Indicator 1.4.1: Amount of PCBs and PCB-related wastes disposed of, or decontaminated; measured in tons as recorded in the POPs tracking tool. Indicator 1.4.2: Amount of obsolete pesticides, including POPs, disposed of in an environmentally sound manner; measured in tons. Indicator 1.5.1: Progress in developing and implementing a legislative and regulatory framework for environmentally sound management of POPs, and for the sound management of chemicals in general, as recorded in the POPs tracking tool. Indicator 3.1.1: Countries implement pilot mercury management and reduction activities. Indicator 3.2.1: Countries implement SAICM relevant activities that generate global environmental benefits and report to the International Conference on Chemicals Management

Results	Indicator	Baseline	Targets End of Project	Source of verification	Risks and Assumptions
Project Objective Continued reduction of environmental and health risks through POPs, mercury and harmful chemicals release and exposure reduction achieved by provision of an integrated institutional and regulatory framework	<ul style="list-style-type: none"> Progress of POP/PTS regulations developed and integrated into the newly established legal framework in Viet Nam, and in compliance with requirement of the Stockholm and other relevant international conventions Level of institutional capacity strengthened to manage, monitor, and remediate POP/PTS, including Mercury Level of environmental and health risks reduction. 	<p>SC requirements are not yet completely integrated in the existing regulation on chemicals/POP management.</p> <p>Lacking of a comprehensive POPs/PTS Management Information System following a PRTR Scheme which prevent good planning and reporting</p> <p>Limited national capacity and knowledge on industrial contaminated site management.</p> <p>A substantial experience has been achieved from bilateral and GEF POP/chemical related projects. However the results are still project based, not well integrated to support the GoV having a comprehensive regulation system on POPs/PTS management</p>	<p>Policy framework for chemicals/POPs management improved meeting with the Stockholm Convention and other related international conventions, and expressing close links between environmental protection policies with chemical management policy.</p> <p>National Monitoring capacity improved to track POPs/PTS including mercury</p> <p>A POPs tracking tool, database and PRTR system established and demonstrated in at least one province.</p> <p>Establishment of provincial – level planning for the cleanup of POPs contaminated sites in two provinces.</p>	<p>Documents of the developed regulations/guidelines</p> <p>Monitoring related documents PRTR database system at the two piloted provinces</p> <p>Mercury inventory database and related reports</p>	<p>The project steering committee which comprises the representative of various ministries/state agencies helps to addressing project problems</p> <p>Well established PMU will ensure effective implementation of the project activities on schedule</p> <p>Experienced and professional experts are engaged in the implementation of the project activities</p>
Project Component 1. Policy framework for sound chemicals management, including POPs/PTS developed and implemented.					
Outcome 1.1. Overall policy framework and specific regulatory measures covering environmentally sound management of POPs and PTS through life cycle management developed and implemented.	<p>-Availability of regulations in Viet Nam integrated to take into account in a consistent way the requirements of the Stockholm Convention on POPs</p> <p>-Availability of a regulatory framework to ensure monitoring and reporting of POPs is established,</p>	<p>The existing national regulations on chemicals are based on the GHS and include provisions of international conventions. However the existing regulations are not fully compliant with the SC requirement, still fragmented and not fully harmonized due to issue by different Ministries.</p> <p>Provisions of new POPs as</p>	<p>-The key regulations in Viet Nam are integrated to take into account in a consistent way the requirements of the Stockholm Convention on POPs.</p> <p>-A regulatory framework to ensure monitoring and reporting of POPs is established,</p>	<p>-Regulatory improvement plan report and related approval documents.</p> <p>-Text of proposed and adopted regulatory instruments on POPs and mercury,</p> <p>-Text of proposed and adopted regulatory instrument on PRTR.</p>	<p>Risks:</p> <ol style="list-style-type: none"> 1) Lack of coordination of the relevant institutions and ministries 2) Conflicting objectives of different ministries / stakeholders which may render difficult the negotiation for upgrading regulation on POPs. 3) Lack of commitment of relevant stakeholders. 4) Timing and complexities of procedures for the examination, voting and adoption of new technical regulations.

Results	Indicator	Baseline	Targets End of Project	Source of verification	Risks and Assumptions
		required by the SC are also not yet included in the chemical and environment policy framework		-Minute of meetings, conferences and workshop.	Assumptions: 1) 2) and 3) Coordination and solution of conflicts among different stakeholders may be solved by involving them in the project steering committee and/or in specific project activities and establishing a well staffed PMU for project management. A “POPs regulation coordination office” will be established at MONRE which will interact with PMU and will coordinate with all governmental bodies involved in regulatory work. 4) The selection of the proper procedure and type of regulatory instruments (i.e. decree instead of laws, or official guidance documents annexed to existing laws) for POPs – related legislation will ensure that regulation is adopted within project deadline.
Outputs for outcome 1					
Output 1.1.1 Detailed review and gap analysis of Laws on Chemicals and Environmental Protection with respect to coverage of POPs, PTS and environmentally damaging chemicals management including mercury, conducted. A regulatory improvement plan developed.	Completed and comprehensive gap analysis. Completed and approved regulatory improvement plan	A thorough analysis of the downstream laws and regulation affected by the POPs convention and their relationship has never been carried out. Environmental protection and chemical safety policies are not well linked. Risk assessment criteria are absent in the POP/PTS legislation and guidelines	Gap analysis completed within 12 months from project starting. Regulatory improvement plan completed and submitted within 14 months from project starting.	Intermediate and final review reports of gap analysis Regulatory improvement plan Minutes of meetings, consultation workshops reports, etc. Formal acts related to the submission/ approval of the regulatory improvement plan	
Output 1.1.2 Regulation applicable to the Stockholm Convention amendments on “new” POPs including bans where not yet in place, developed.	Number of new or upgraded regulatory acts to take into account in a consistent manner the provisions of the SC convention on POPs, with respect to the overall number of relevant regulatory tools identified in the gap analysis and regulatory improvement plan.	Some provisions of Chemical Law and its secondary regulations are not fully compliant with the SC. The new LEP mentions in general toxic, persistent and accumulative chemicals but not specifically POPs.	The key regulation/s (Law on Environmental Protection, Law on Chemicals, Waste regulations, and Pesticide law) or their associated norms are amended for compliance with the SC requirements.	Text of new or amended regulatory instruments. Formal acts related to the approval / submission of regulatory instruments.	
Output 1.1.3 Enacted legal instrument in the form of amended Laws or Decrees/regulations defining linkage between these laws and the regulatory instruments in place .	Same as for output 1.1.2	Regulations from different sectors are not integrated each other and there is the need to upgrade and harmonize the regulatory system (chemical, agrochemicals, environment, waste,	By the end of the project, a legal document in the form of decree or circular developed/amended to coordinate the enforcement of SC provisions among different Ministries.	Text of new or amended regulatory instruments. Minutes of meetings, consultation workshops Formal acts related to the approval / submission of regulatory instruments	

Results	Indicator	Baseline	Targets End of Project	Source of verification	Risks and Assumptions
		occupational health, consumer exposure) not only to include provisions of the SC convention on POPs, but also to better integrate SAICM and the risk management approach into the environmental related legislation			
Output 1.1.4 Guidelines integrating environmental control of POPs and PTS within the overall chemicals management framework, including coverage of: i) general environmental protection for chemical activities, ii) scheduled wastes containing toxic chemicals, iii) environmental emergency and response, environmental risk assessment of waste containing toxic chemicals methodology, iv) health risk assessment for chemical wastes procedures.	Existence/availability of technical guidelines on POPs/PTS covering environmental protection and chemical safety following their life cycle management	POPs Guidelines which only cover limited sectors (PCBs, Dioxin contaminated sites, POP pesticide stockpiles) are under preparation and have not been officially adopted yet. Presently there exist only requirement for “Environmental emergency preparedness and response to chemical incidents” for industrial sector. The requirement is still absent in other sectors. Environmental protection requirement are not well integrated under the overall chemicals management framework; poor sound management of chemicals including scheduled wastes containing toxic chemicals	A comprehensive technical guideline developed covering : i) general environmental protection for chemical activities, ii) scheduled wastes containing toxic chemicals, iii) environmental emergency and response, environmental risk assessment of waste containing toxic chemicals methodology, iv) health risk assessment for chemical wastes procedures.	Intermediate and final draft of the technical guideline Minutes of meetings, report of consultation workshops Formal acts related to the adoption of the technical guidance document	
Output 1.1.5. Establishment and enforcement of the regulatory framework for POPs/ PTS tracking tool and a PRTR system	Regulatory tool for the implementation and enforcement of POPs / PTS reporting and PRTR established	Poor data on chemicals and POPs/PTS that disturbs their management planning and reporting. Yet existing data of chemicals, POPs/PTS are not	By the end of the project, a circular drafted and submitted to GoV for approval related to implementation and enforcement of POPs monitoring and PRTR system to ensure sustainability of the PRTR related activities carried out	Training need assessment report Training materials. Training reports (pre-selection, pre- and post-training evaluation,	

Results	Indicator	Baseline	Targets End of Project	Source of verification	Risks and Assumptions
through support in drafting the PRTR regulation, by establishment of an inter-ministerial coordinating group on PRTR regulation, Integrating POPs / PTS requirement in the database design, drafting guidelines for PRTR enforcement and implementation		consistent among state management agencies Database systems for POPs/PTS management are very poor or not existed at both national and local level.	under Outcome 2. Demonstration of an Information Management System to support PRTR.	training feedbacks, final tests)	
Outcome 1.2 Key institutions have knowledge and skills to formulate and implement necessary chemicals and environment policies, consistent with sound chemicals management principles and international convention requirements	Achievement of active participation of Viet Nam in the ICCM / SAICM. Evidences of increased adoption of chemical risk assessment criteria in lawmaking and decision making. Number of institutions / staff successfully trained. Availability of market based policy in one or two sectors relevant to POPs.	A certain number of POPs training initiatives have been carried out and is being carried out in the framework of previous GEF4 projects There is the need to build on the experience of these training activities and to establish a training system which consistently increase capacity on POPs, management of hazardous chemicals and hazardous waste in the perspective of ensuring consistency and coordination of environmental related regulation with SC.	By the end of the project Viet Nam has consolidated its participation to ICCM / SAICM to benefit for international knowledge and have its issues and arguments on chemical management brought at the international level. A procedure for risk assessment is adopted in lawmaking and decision making processes related to chemicals and hazardous waste. Relevant institution skills on POPs management, risk assessment, international regulation on chemicals and their relationship with Vietnamese situation increased by means of certified training. A market based policy on waste and chemicals management and public / private partnership established.	Minutes and proceedings of the International Conference on Chemicals,, text of speeches and presentations of the Vietnamese delegation. Text of the national procedure on management of chemicals. Training material, training minute, outcome of pre and post assessment of the participants. Preliminary and final reports on the implementation of market based policies; Text of rules / norms related to market based policies in sectors relevant to POPs	Risks 1) Lack of coordination of the relevant institutions and ministries 2) Conflicting objectives of different ministries / stakeholders which may render difficult the coordination for a procedure on risk assessment. 3) Lack of commitment of relevant stakeholders. 4) Training effectiveness limited or not properly assessed due to limited participation or limited quality control. 5) Complexities related to the establishment of a public/private partnership, or no market for services in the POPs sector. Assumptions: 1) 2) and 3) Coordination and solution of conflicts among different stakeholders may be solved by involving them in the project steering committee and/or in specific project activities and establishing a well staffed PMU for project management. A "POPs regulation coordination
Outputs for Outcome 1.2					
Output / Activity 1.2.1 Active participation of Viet Nam in the International Conference on Chemicals	Number of government officials who actively participated in ICMMs	GoV has limited opportunities to participate into ICCM conference.	By the end of the project 2 representatives of GoV participated in ICCMs (for 2 years) to provide GoV more opportunities to exchange and discuss on country specific issues of	Speeches/ presentations/ articles prepared by the Vietnamese participants. BTORs (Back to Office Reports) of the delegation.	

Results	Indicator	Baseline	Targets End of Project	Source of verification	Risks and Assumptions
Management.			chemical management.		office” will be established at
Output 1.2.2 30 representatives of VEA, VINACHEMIA, Department of Water Resources Management, national customs authorities and industrial stakeholders trained in implementation of chemicals classification and labeling in global harmonized system and adaptation of the EU REACH/ROSH approach for application in Viet Nam	Number of professionals successfully trained on implementation of chemicals management with specific reference to POPs in downstream legislation, GHS and EU legislation on chemical management.	Limited capacity on chemical classification and labelling following international approaches Very limited and uncoordinated training on POPs regulatory issue, and in the interconnection of Viet Nam chemical management with international regulation performed.	By the end of the project, at least 30 professionals from various government agencies (VEA, VINACHEMIA, Department of Water and Resource Management, national customs authorities, etc.) trained on the implementation of chemicals management with specific reference to POPs in downstream legislation, GHS and EU legislation on chemical management.	Text of the national procedure on management of chemicals. Training reports (pre-selection, training material, training feedbacks, final tests)	MONRE which will interact with PMU and will coordinate with all governmental bodies involved in regulatory work. 4) To access the training session on site assessment and cleanup standards, candidate will have to pass an initial test which will serve also as baseline; and a final test, which will demonstrate the progress achieved and hence effectiveness of the training. The trainees passing the final test will receive an official certificate issued by (identify) . The above will ensure at the same time willingness to attend training course and quality/effectiveness of the training
Output 1.2.3. Strengthened application of chemical risk assessment approach for environmental and health risk assessment and release reduction enforcement including training of 30 professionals from VEA, VINACHEMIA and Ministry of Health will be implemented.	Evidences of increased adoption of chemical risk assessment criteria in lawmaking and decision making. Number of professional trained on implementation of national procedures on risk assessment and management of chemicals.	Risk assessment criteria are not consistently adopted in decision making and law-making processes. A procedure for taking into account risk assessment criteria on chemical management is missing. So far training on risk assessment limited to specific issues (e.g. contaminated sites)	By the end of the project: Guidance on risk assessment and training material for chemical environmental and health risk assessment and release reduction adopted; At least 30 professional from VEA, VINACHEMIA and Ministry of Health trained on risk assessment and implementation of national procedures on risk assessment and management of chemicals, with specific focus on POPs and new POPs.	Document of the adopted common national procedure. Training reports (pre-selection, pre- and post-training evaluation, training material, training feedbacks, final tests)	5) Market based policies will be developed since the very starting of the project, on sectors where the effectiveness on POPs reduction is higher and sustainability is more likely (for instance, POPs contaminated sites or sampling/analysis activities where a substantial amount of governmental funding already exist) so that the risk of failure is minimal
Output 1.2.4 Market based policy initiative developed to promote reduction in POPs releases and POPs disposal through development of national POPs management service provider capability on a	-Market based policy initiative in place to promote hazardous chemicals / hazardous waste management. -Private - public partnership on the matter established/developed.	Weak compliance and enforcement of legislation on environmentally sound chemical and hazardous waste management leading to increasing in chemical incidents and environmental pollution. Market based mechanisms are not sufficient and	Within the first year of the project a market based policy initiative aimed at ensuring sustainability of hazardous waste and hazardous chemicals management developed and approved, and • By the end of the project, a public private partnership for the reduction or monitoring of POPs releases and for promoting POPs disposal established and	Draft and final text of the market based policy instrument on waste and/or chemical management. Signed public private partnership agreement on chemical and/or waste management.	

Results	Indicator	Baseline	Targets End of Project	Source of verification	Risks and Assumptions
commercial basis through private public partnerships		attractive enough for private sectors to involve in SCM and/or environmental friendly management of hazardous waste	operational.		
Component 2. Monitoring and report of POPs and PTS					
Outcome 2.1. National institutions provide comprehensive and coordinated ambient environment and receptor POPs /PTS monitoring that is consolidated into a national database and utilized for high quality reporting to the GoV/National Assembly and the Convention.	National POPs/PTS monitoring capacity assessed and POPs/PTS monitoring program upgraded to ensure POPs/PTS tracking	POPs Monitoring capability increased in the last years thanks to governmental initiatives, support of international donors, and GEF projects related to Dioxin contaminated sites, POP pesticide stockpiles, PCBs. However, the monitoring capability on U-POPs emitted from industrial sources and other POPs is still very limited. Existing POPs laboratories are mainly dedicated to sampling and analysis of POP pesticide, PCBs. Some labs are able to sample and analyze Dioxin. A target level for PCDD/F has been established in the course of the ongoing GEF project on Dioxin contaminated hotspot.	<ul style="list-style-type: none"> POPs/PTS baseline established for ambient environment (air, water, soil) and receptors (human, biota, food) At least two laboratory accredited for monitoring of new POPs and PTS and integrated in an intercalibration network of laboratories An upgraded POPs/PTS monitoring programme submitted for GoV approval 	POPs/PTS baseline reports Reports assessed abilities of labs able to monitor and analyze POPs/PTS Document of upgraded POPs/PTS monitoring programme	Risks 1) Agreement among stakeholders on baseline and environmental quality targets not achievable within the project timeframe. 2) Scientific complexity of establishing baseline and environmental standards for monitoring reference is too high to be addressed within the project timeframe. Assumptions. 1) The establishment of a sound PMU with high skilled professionals, together with assistance from national and international experts, in cooperation with representatives from all the relevant governmental, non-governmental and private stakeholders will ensure that agreement on the matter will be achieved within project deadline, and that data validation of the existing information is carried out in the proper way. 2) The work on ambient environment and receptor POPs and mercury baseline and environmental quality standard will build on international existing standards already set by authoritative agencies (WHO, USEPA, ECHA), and adapted to Viet Nam. By recruiting
Outputs for Outcome 2.1					
Output / activity 2.1.1 ambient environment (air, water, soil) and receptor (human, biota, food) POPs and PTS	Availability of baseline information for POPs and PTS (mercury) established on a risk-assessment basis.	The absence of environmental quality standards in many sectors limits the monitoring effectiveness and	A Baseline for all POPs and PTS (mercury) established for ambient environment (air, water, soil) and receptors (human, biota, food), based on the collection and review of existing	Draft and final POPs and PTS baseline reports.	

Results	Indicator	Baseline	Targets End of Project	Source of verification	Risks and Assumptions
baseline established against which future monitoring can be measured and reported.		relevance. There exist baselines for some POPs (POP pesticide, dioxin in contaminated sites, PCB, UPOP in some industries, etc.) and PTS	baseline and risk-based standards.		experts and establishing a strict cooperation with relevant stakeholders, it will be possible to identify within project framework a scientific and sustainable set of environmental quality standards for all POPs and for mercury.
Output 2.1.2. Inventory of ambient environment and receptor monitoring capability including a gap analysis identifying where strengthening is required.	Assessed and comprehensively inventoried monitoring capability, identified monitoring needs of POPs in key areas.	A detailed survey of POPs laboratory is missing. Existing POPs laboratories are mainly dedicated to sampling and analysis of Dioxin contaminated sites, POP pesticides and sampling/analysis of PCBs.	A list of laboratories which are able to monitor and analyse various POPs and PTS formulated to provide information on: <ul style="list-style-type: none"> • Sampling capacity and equipment for both environmental media and industrial sources; • List of POPs that can be analyzed with respective analytical methods; • List of POPs analyzed in the preceding years and respective analytical methods; • Number of certified professionals working at each lab; • Current accreditation; • Participation in national or international intercalibration. • Etc. 	Database containing survey of POPs / PTS monitoring capability in Viet Nam. Draft and final POPs / PTS survey reports of monitoring capability of Viet Nam	
Output 2.1.3 Upgraded monitoring programs in key areas where strengthening is required, developed.	Number of developed and approved plan, with allocation of governmental resources, monitoring program of POPs in key areas.	No POPs monitoring program existing. Monitoring data of PCDD/F and for some pesticides made available under current GEF or bilateral projects.	An official POPs monitoring program will be developed, with the aim to ensure monitoring of POPs nationwide in the following sectors: <ul style="list-style-type: none"> • POPs in ambient environment (air, water, soil) • POPs in receptor (human, biota, food) • U-POPs released from industrial sources. 	Draft and final POPs monitoring program, Official documents related to the approved of the monitoring program and allocation of funding by GoV.	
Outcome 2.2 National network of certified/ accredited POPs/PTS laboratory is	Availability of accredited laboratories on new POPs integrated in a POP/PTS laboratory calibration network. Level of piloting PRTR at provincial level	A certain number of private or public laboratories having capability to perform sampling and analysis of POPs (Dioxin, PCB, POP pesticides, etc.) is working.	<ul style="list-style-type: none"> • Two key laboratories on POPs analysis accredited following ISO 17025 and associated accreditation schemes • Up to 80 laboratories technicians and government staff trained on POPs monitoring related activities following international standards 	Accreditation plans and certificates Training material, training minute, outcome of pre- and post- assessment of the participants, final test and certificate	

Results	Indicator	Baseline	Targets End of Project	Source of verification	Risks and Assumptions
established that support monitor of ambient environment and receptors		Some of the above have participated in round-robin tests. However there are no national official analytical methods on the determination of POPs. Also a national plan for accreditation and certification of these labs to international standards is missing	<ul style="list-style-type: none"> and requirement A POPs/PTS database established to contain data related to industrial sources, and POPs contaminated sites in 2 provinces, and all the country-wide available data on POPs environmental monitoring. 	POPs/PTS database, PRTR reporting system, database and PRTR final and intermediate reports.	
Outputs for Outcome 2.2					
Output 2.2.1 Up to 2 laboratories accredited to international standards to support POPs/PTS monitoring	Number of laboratories accredited to international standards	A national official scheme for the accreditation of laboratories does not exist – international accreditation and inter-calibration mostly voluntary.	<ul style="list-style-type: none"> At least 2 laboratories accredited to international standards on the adoption for sampling and analysis on new POPs and PTs, following relevant ISO procedures (i.e. ISO/IEC 17025) and integrated into a laboratory calibration network; Up to 40 laboratory technicians received updating training 	Applications for accreditation. Quality Manual, Management system and internal audit reports. Accreditation surveillance reports. Accreditation certificates.	<p>Risks</p> <p>1) Unavailability of data, or difficulties in data validation due to different sampling and analytical methodologies and lack of information on monitoring condition</p> <p>2) Data owners unwilling to share data and relevant source and monitoring information.</p> <p>3) Laboratories unwilling to participate in accreditation program, and/or unwilling to share data on their capability, equipment, methodology, technical capacity.</p> <p>Assumptions</p> <p>1) Although it is expected that there will be substantial data gaps on monitoring data, by starting from areas where monitoring data are more reliable and complete, and relying on existing guidance on POPs, it will be possible to set methodologies and standards for the establishment of a database structure and a reporting system covering all POPs and environmental sectors.</p>
Output 2.2.2 Up to 40 relevant national and provincial government staff will be trained on POPs/PTS monitoring and reporting following international standards and requirements	Number of laboratory staff successfully trained on POPs / PTS monitoring	Limited training provided to laboratory staff on POPs sampling and monitoring, and mostly of the trainings are within ongoing bilateral / GEF projects.	<ul style="list-style-type: none"> Up to 40 relevant national and provincial government staff trained on POPs/PTS monitoring and reporting following international standards and requirements. 	Pre-training selection, Pre- and post- training evaluation Training materials and report, training tests, etc.	
Output 2.2.3 A POPs/PTS database developed at provincial level and PRTR reporting system operational and linked to the POPs tracking tool and data submitted to Convention Secretariat.	Availability and coverage of a functional POPs/PTS database and PRTR reporting system for POPs / PTS deriving from industrial processes, storage, contaminated sites, and POPs / PTS monitoring	A POPs monitoring database is missing. Data related to industrial sources is generally obsolete and does not allow for an effective control and authorization of industrial emissions.	<p>A PRTR reporting system and associated database covering:</p> <ul style="list-style-type: none"> data for industrial sources in Binh Duong responsible to at least 20% of the priority sources in the province; all POPs monitoring data available countrywide; POPs from inventorised contaminated sites. 	POPs/PTS tracking tool; PRTR reporting system and associated database; Preliminary and final activity reports	

Results	Indicator	Baseline	Targets End of Project	Source of verification	Risks and Assumptions
	data				<p>2) The drafting, communication, and enforcement of the PRTR circular, linked to permitting and licensing of industrial activities, will ensure willingness of stakeholder to communicate the relevant information. The majority of laboratories are governmental institutions or private/public laboratories working within governmental projects; their interest in sharing data will be ensured by directly involving them in project activities.</p> <p>3) By providing assistance and training on accreditation and certification scheme to labs-their interest in joining an accreditation scheme – otherwise missing substantial business opportunities in the future – will be insured.</p>

Component 3. Management of POPs contaminated sites

Results	Indicator	Baseline	Targets End of Project	Source of verification	Risks and Assumptions
Outcome 3.1 Key policies, regulations and technical guidelines for management of POPs contaminated sites are in place	Availability of policies and guidelines on POPs contaminated sites management developed and enforced,	In the country, a number of separate initiatives on the management of contaminated sites are being carried out by governmental institutions, international donors, or under GEF projects. These effort are however still fragmented (project base) and not yet capitalized into an harmonized system of laws and guidance. The National Target Programme on Pollution	A broad policy and guidelines, established to support the implementation of legal and regulatory framework developed in component 1 for contaminated sites management.	Text of adopted regulations for contaminated site management. Text of risk assessment procedures and guidelines. Consolidated inventory of POPs contaminated sites.	

Results	Indicator	Baseline	Targets End of Project	Source of verification	Risks and Assumptions
		Remedies and Environmental Improvement (approved in 2011) sets an objective by 2015 to recover environment at 100 sites seriously contaminated by POP pesticide stockpile			
Outputs for outcome 3.1					
Output 3.1.1: Supporting regulations and standards for contaminated sites covering requirements for: i) contaminant levels to trigger action, contaminant POPs levels; ii) future land use cleanup level requirements for POPs contamination in soil and water; iii) reporting; and iv) care/custody and liability assignment, developed.	Availability of guidelines for supporting the enforcement of standards and regulations developed under Component 1 for contaminated sites drafted and adopted.	Technical regulations have been adopted by the GOV for soil contaminated by dioxin and POP pesticide under GEF4 projects' support No standardized reporting system existed in the country for POP contaminated sites Guidelines for contaminated sites management available to specific sites contaminated by pesticides.	Further technical regulation for industrial POPs, for which cleanup target levels in soil are needed, will be established.	Draft and final text of supporting guideline and standards, Official acts related to the adoption of such regulations.	Risks: 1) Scientific complexity of establishing risk management methodologies and cleanup standard is too high to be addressed within the project timeframe. Assumptions 1) Scientifically sound risk based methodologies and cleanup standards have been developed and extensively tested by a number of authoritative international institutions, and are continuously upgraded. Rather than developing new methodologies and standards, the work on risk assessment and cleanup criteria will build on international existing standards and methodology by establishing cooperation / contacts with the relevant international institution that developed this standard. (WHO, USEPA, ECHA, ISO, ASTM), and adapted to Vietnamese specific situation where necessary and feasible. By recruiting international and national experts with outstanding experience in the field, in strict cooperation with relevant
Output 3.1.2 Risk management procedures and guidelines for contaminated sites developed.	Availability risk management procedures and guidelines for contaminated sites developed	Risk management procedures have been developed for POPs pesticide storage site. Building on this experience there is the need to develop and adopt similar procedures for POPs contaminated sites	Within one year from project starting, risk management procedures for POPs contaminated soil, taking into account specific procedures for industrial sites and craft village contaminated sites, will be developed. A guideline for POPs contaminated sites developed to cover: <ul style="list-style-type: none"> • Clean-up requirements for specific land –uses; • Technology selection criteria; • Reporting requirements; • Care/custody and liability requirement 	Draft and final text of risk management procedures for contaminated sites.	
Outcome 3.1.3 National consolidated POPs	Availability Upgraded POPs contaminated sites	Currently an inventory data base of POP pesticide	An existing inventory database for POPs contaminated sites/stockpiles	Upgraded database of POPs contaminated sites.	

Results	Indicator	Baseline	Targets End of Project	Source of verification	Risks and Assumptions
contaminated sites inventory developed and prioritized.	inventory.	contaminated sites (for about 1,300 sites) have been established with support from UNDP/GEF4 POP pesticide project. Inventories of POP dioxin, PCB and U-POPs are partly done by GEF and other bilateral supporting projects. Inventories of contaminated sites from industries and craft villages are not yet done.	integrated and upgraded to comprise information of PCB, new POPs, POPs from industrial contaminated sites/craft village		stakeholders, it will be possible to identify within project framework a scientific and sustainable set of risk based standards and methodologies for all POPs and for mercury.
Results	Indicator	Baseline	Targets End of Project	Source of verification	Risks and Assumptions
Outcome 3.2 Detailed Provincial Management Plan for the pilot Provinces completed that contribute to the contaminated site management at large scale and the reduction of POPs/PTS release and emission in the pilot provinces.	Increased capacity of national and local staff measurable outcome of trainings and number of staff trained. Increased awareness of the local communities on POPs contaminated sites measurable by interviews and questionnaires. Developed plan for POPs contaminated sites management in 2 provinces. Amount of POPs release to the environment which will be prevented by the implementation of provincial level plan. Number of people benefitting from reduced exposure to POPs	A limited number of staff trained on disposal technology and site assessment in the course of previous Dioxin hotspot and Pesticidal POPs GEF/UNDP projects. Further training is needed for comprehensive contaminated site assessment, remediation, technology testing and selection Experience on contaminated sites gathered from the 2 GEF/UNDP projects: the Dioxin hotspots (3 large military sites at airbases) and several pesticidal POPs sites.	A site management plan for the provinces of Nghe An and Binh Duong developed, addressing an estimated amount of 300 POPs pesticide sites and 50 industrial contaminated sites, representing an amount of several thousand tons of POPs contaminated soil (to be quantified) of POPs / PTS contaminated soil and waste, which includes risk-based site prioritization; estimation of POPs amount and cleanup/disposal cost; logistic planning; GIS database; criteria for technology selection; financial plan; POPs release to the environment significantly reduced as a result of plan implementation after project completion. At least 50 staff trained on the management of POPs contaminated sites	Training material, training minute, outcome of pre and post assessment of the participants. Questionnaire surveys Awareness raising and workshop minutes, interviews with relevant stakeholders. Documents of Nghe An and Binh Duong site management plans	Risks a) The main risks are likely related to the uncertainties related to the exact number and size which may be discovered after upgrading the POPs contaminated sites in the 2 pilot provinces. b) In addition, improper prioritisation may lead to decisions not ensuring the highest global environmental benefit achievable with the available resources. c) awareness raising activities incomplete or not effective due to improper identification of targets Assumptions. a) This outcome intends to effectively overcome the concept of “pilot” activities going toward full scale implementation. A sound POPs contaminated management plan will be established to optimize the allocation of governmental resources and ensure timely implementation of

Results	Indicator	Baseline	Targets End of Project	Source of verification	Risks and Assumptions
Outputs for outcome 3.2					remediation activities. b) The management plan will be also aimed at identifying the best options for maximizing the global environmental benefit of the remediation given the amount of resource available within a specific timeframe. c) Awareness raising activities will be preceded by a sound awareness raising plans aimed at properly identifying target and the best communication media.
Output 3.2.1: Detailed planning based on the existing and upgraded database on POPs contaminated sites in the two provinces.	Availability of POPs contaminated sites management plans in 2 provinces	POPs contaminated sites management plan are missing either at national or provincial level	Within two year after project starting, two detailed POPs contaminated sites management plans developed for the 2 selected provinces (one for each province), i.e. Nghe an and Binh Duong Province to include: risk-based site prioritization; estimation of POPs amount and clean-up/disposal cost; logistic planning; GIS database; criteria for technology selection; financial plan, etc.	Draft and final site management plans of contaminated sites in 2 provinces Report of consultation workshop..	
Output 3.2.2. fifty(50) technical and regulatory professionals from national level and 10 provinces will be trained on contaminated sites management, site assessment, risk reduction and remediation practice taking into account lessons learnt from GEF4 POPs projects.	Number of national and provincial staff successfully trained on contaminated sites management	Limited trainings provided to government staff on contaminated site management including site assessment, disposal technology under the course of previous UNDP/GEF POP Dioxin hotspot and POP Pesticide stockpile projects. Further training is needed for comprehensive contaminated site assessment, remediation, technology testing and selection	By the end of the project, at least 50 technical and regulatory professionals at national and in 10 provinces trained on contaminated sites management, site assessment, risk reduction and remediation practice taking into consideration of lessons learnt from GEF4 POP project and cost-effective risk reduction measures for small contaminated sites that require involvement of local communities (e.g. management of contaminated water, management of empty pesticide containers, PPEs).	Training materials Training reports (pre- and post- training evaluation, training contents, final test, feedbacks from trainees, certificating, etc.)	
Output 3.2.4 Measures taken for the public awareness raising, proper risk communication and participation, including involvement in reporting contaminated sites and POPs stockpiles, aimed at a better implementation of all risk management	Percentage of local communities understanding about POP risks to human health and environment and involving in development and implementation of POP contaminated site management plans POPs exposure	Awareness of people and local authorities on the issues of POPs contaminated sites is still very low. Local communities in general do not involve in management of contaminated site, especially dispersed small contaminated sites, empty	Within 18 months after project implementation, about 80% of local communities close to POPs contaminated sites in 2 pilot provinces understanding about risks posed by POPs to human health and environment, risk reduction measures and emergency preparedness and response, and actively involving in development and implementation of contaminated site management plans	Reports of knowledge, attitude and practice (KAP) analysis Awareness raising programme Awareness raising materials Report of implemented communication campaigns including post KAP evaluation.	

Results	Indicator	Baseline	Targets End of Project	Source of verification	Risks and Assumptions
measures, risk reduction and emergency responses, and health and safety protection, with active participation of the population	reduction actions carried out with the involvement of the community after implementation of awareness raising initiatives	containers management, monitoring and reporting, etc.	At least 01 communication campaigns carried out at each of the communes and 02 trainings provided to key local authorities to facilitating for better implementation of all risk management measures, risk reduction and emergency responses, and health and safety protection, with active participation of the population		
Component 4. National mercury baseline inventory and release reduction strategy.					
Outcome 4.1. Mercury inventory results contribute to the development of awareness raising materials and the identification of national activities to implement Minamata Convention.	Availability of a national baseline mercury source and release inventory, and national mercury release reduction strategy adopted. Number of communication activities carried out and communication products disseminated.	Viet Nam is signatory of the Minamata convention on mercury. Limited demonstration of alternatives to mercury carried out under a GEF global project on healthcare waste. Demonstration activities on replacement of mercury carried out in 2 hospitals in the framework of the GEF global project on healthcare waste. Only demonstration activity carried out limited to mercury containing healthcare device Awareness raising activities on mercury carried out at 2 healthcare facilities	By the end of the project <ul style="list-style-type: none"> A preliminary mercury inventory and its database developed and implemented At least 03 activities on mercury related issues conducted to increase awareness and knowledge of mercury 	Report on Mercury baseline source and release inventory. A Mercury database Communication materials and reports of communication activities	Risks 1) Difficulties related to the involvement of proper stakeholders on mercury sources. 3) Limited participation in workshops. Assumptions. 1) Viet Nam signed the Minamata convention, therefore already demonstrated high commitment in addressing environmental and health problems related to mercury. The project will involve the governmental institutions in charge of Minamata convention which are familiar with the stakeholders involved in mercury reduction. 3) Similarly to the other training activities to access the training session on mercury inventory and reduction strategy, the candidate will have to pass an initial test which will serve also as baseline; and a final test, which will demonstrate the progress achieved and hence effectiveness of the training. The trainees passing the final test will receive an official certificate issued by (identify). The above will ensure at the same time willingness to
Outputs for outcome 4.1					
Output 4.1.1 Identification of main industrial process which may lead to mercury release	Availability of preliminary inventory on mercury sources and releases addressing main industrial sources.	Very few data on mercury sources and release existed. Preliminary data on mercury has been done during the project	The preliminary inventory source will cover an estimation of mercury from unintentional releases (i.e. atmospheric emission of mercury from combustion of coal), use of mercury in chemical plants (chloralkali processes, production	Draft and final mercury inventory.	

Results	Indicator	Baseline	Targets End of Project	Source of verification	Risks and Assumptions
		document preparation (PPG stage).	of pesticides), small gold mining		attend training course and quality/effectiveness of the training
Output 4.1.2 Questionnaire survey, process analysis, site visits for a number of possible mercury release sources	Completed questionnaire survey and site visits to at least 10 main mercury release sources	No questionnaire survey on mercury previously carried out.	A questionnaire aimed at establishing and consolidating a preliminary inventory of mercury source and release will be distributed to the main institutional and industrial stakeholders, which will also help identifying training and awareness raising needs.	Questionnaire form, address list, questionnaire filled questionnaires, survey report,	
Output 4.1.3 Identification of main manufacturing products which may contain mercury.	Availability of a database of mercury containing products developed.	Database on mercury added products is missing. Legislation on the replacement of mercury containing lamps	Database containing amount of products included in the Annex A of the Minamata convention.	Meeting reports, preliminary and final database reports, database	Risks: Scarcity of information related to the presence of mercury in products. Unwillingness of producer / importer to share information on mercury concentration in products. Complexity to address and agree a release reduction strategy in case it will affect economic interests of private industries.
Output 4.1.4 Road Map on sound mercury management.	Availability of a preliminary roadmap for the reduction of mercury release and replacement of mercury containing product drafted	A strategy for the reduction of mercury emission and replacement of mercury containing products is missing.	Roadmap and recommendation for the reduction of mercury emission and replacement of mercury containing products, including: assessment of mercury content in raw material and emission, assessment of amount of mercury in products, impact assessment of product reduction and phase out of mercury containing articles, waste management implication, and timeframe.	Meeting reports, preliminary and final strategy documents.	Countermeasures / assumptions. This activity will be carried out in coordination with MOIT has the largest potential to gather information on commercial products and to involve industrial partners. The Minamata convention establishes a progressive timeframe which will ensure enough time to solve all the economy-related issues associated with mercury reduction. Therefore, a strategy on mercury reduction will build on the Minamata convention requirements and timeframe.
Outcome 4.2 Increased knowledge and awareness of mercury source and releases.	Database of mercury containing products developed. Preliminary roadmap for the replacement of	Inventory of mercury added products in Viet Nam is missing. Strategy on Mercury related product is missing	A database of products containing mercury available in the Vietnamese market or produced by Vietnamese industries A roadmap for the management of	Database, preliminary and final reports, Preliminary strategy reports.	

Results	Indicator	Baseline	Targets End of Project	Source of verification	Risks and Assumptions
	mercury containing product drafted.	Legislation on mercury product limited to replacement of Hg containing light bulbs.	products and goods containing mercury will be developed		
Outputs for Outcome 4.2					
Output 4.2.1. Information outreach workshops (2 nos) conducted to provide information on source and release of inventory..	Number of communication materials developed and disseminated to increase awareness and knowledge on mercury of relevant stakeholders. Number of information outreach workshops conducted to provide information on sources of mercury and mercury alternatives in processes.	Under the GoV's legislation on chemical management, mercury is managed as all other heavy metals. No special requirement is existed. Low awareness and knowledge on mercury and its related risks, disposal technologies Awareness campaign on mercury issue limited to few pilot healthcare facilities carried out under the UNDP/GEF global project on healthcare waste management which focused on mercury containing waste, healthcare mercury devices and their alternatives	By the end of the project <ul style="list-style-type: none"> a leaflet summarizing mercury convention, mercury risks and possible mercury tailored and printed by the project and disseminated national wide. 02 information outreach workshops conducted at two locations to discuss on mercury sources, risks and practice mercury management in Viet Nam and experience in mercury management internationally 	Printed leaflet on mercury Reports of outreach workshops on Mercury	

ANNEX B: RESPONSES TO PROJECT REVIEWS (from GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF).

STAP Review dated March 1, 2013

Comments (Italics) and UNDP Responses	Reference
1) STAP PIF Review (March 1, 2013)	
<i>Comment</i> : No significant comments that require for a respond	
<i>Response</i> : Not applicable.	

Responses to GEF SEC comments dated September 7, 2012

Question	GEFSEC Review Comment	UNDP/VEA Response	Reference
10. Does the proposal clearly articulate how the capacities developed, if any, will contribute to the sustainability of project outcomes?	In the context of the inadequacy in the design of the project components described in section 14 below please address the sustainability dimension of the project.	<p>The various project outputs are generally linked to significant baseline programs and long term budget commitments by the State budget and donors and development partners with GEF funding facilitating and accelerating progress. Specifically, the proposed actions in this project on (a) having policies and regulations in place for controlling and monitoring harmful chemicals use and release, for example adoption of a new National Target Programme on Pollution Remedies and Environmental Improvement (2011) resulted in a total financial allocation commitment of US\$24 million for about 60 contaminated sites (mentioned in the Section A.2) (b) setting-up infrastructure for POPs monitoring which also includes capacity building of stakeholders including technical personnel and engagement of stakeholders in POPs management and (c) POPs management and disposal at contaminated sites, would result in long term sustainability of the project. These actions would integrate sound chemicals management in the national organisations, institutions and national processes.</p> <p>Importantly, more specifically, the project proposed activities on development of risk assessment and management capacity through the improvement of monitoring capacity, inventory and treatment/clean-up model of contaminated sites. This will significantly contribute to the sustainability of the project because of further and effective impacts of the outcomes on the reduction of risks of the legacy POPs pollution problems and also the potential/unavoidable issues associated with releases/accident regarding toxic chemicals.</p> <p>Furthermore, the project also builds on the actions already undertaken in Viet Nam in other projects as highlighted</p>	<p>CEO Endorsement Request:</p> <p>Change the design and approach for the 3rd component (outcome 3.2)</p> <p>Part II, Item A, p 9-10</p> <p>Table A, p 47-61</p>

Question	GEFSEC Review Comment	UNDP/VEA Response	Reference
		<p>Section A.2 and Section B on project design.</p> <p>Please also note that the project also includes mercury inventory components and information exchange with relevant stakeholders – an important stepping stone for future actions on mercury, including early signature and ratification of the future Global Mercury convention</p> <p>The above aspects underpin the inherent sustainability of the project. These aspects will be elaborated in detail in the Project Document</p>	
<p>11. Is (are) the baseline project(s), including problem (s) that the baseline project(s) seek/s to address, sufficiently described and based on sound data and assumptions?</p>	<p>No. The proposal has an in depth discussion of the barriers and current situation of Chemical Management in Viet Nam how it falls short on describing the activities that would be taken in the absence of GEF and GEF catalyzed funding. Please clearly describe the activities (baseline project) that would be taken without the GEF and GEF catalyzed funding.</p>	<p>The baseline project in absence of GEF funding would constitute the following</p> <p>Regulations on chemicals management. The revision of Viet Nam’s two most relevant regulative instruments, Law on Environmental Protection and the Law on Chemicals, are in the process of being revised. The overall revision, structure etc are a part of the baseline project. However for concerned global contaminants, the baseline project will only developed the generic and general legal framework. Therefore, a more detailed provision for implementation of POPs/PTS considerations under law is required by the Law (with focus on the safety use of chemicals).</p> <p>Viet Nam has started the revision of the 2005 Law on Environmental Protection and has an opportunity to include relevant provisions on POPs and other contaminated sites management. The baseline project will work on making the Law on Environmental Protection suitable for including provisions for POPs releases from these environmental media.</p> <p>Some general policies to improve environmental protection activities and waste management will also be developed in response to the pressing of the increasing pollution, including the prevention and treatment of chemical wastes.</p> <p>Some of the development of detailed regulations and especially on practical mechanisms and capacity building for regulation enforcement, under Law on Environmental Protection and Law on Chemicals will be undertaken in the Baseline project.</p> <p>The regulative development work, carried out in the Baseline Project at various ministries and agencies, will address some of the obvious gaps and also addressing fragmentation of regulations enforcement relating to chemicals as this would impact implementation of regulations and long term sustainability of chemical management regulations.</p>	<p>CEO Endorsement Request:</p> <p>Baseline analysis, p12-23</p> <p>Baseline Project, p23-27</p> <p>Incremental reasoning, p27-30</p>

Question	GEFSEC Review Comment	UNDP/VEA Response	Reference
		<p>Laboratory infrastructure: There are two existing laboratories. In the baseline project these laboratories will continue their current responsibilities and business funded out of respective budgets. In addition 2-4 additional provincial laboratories are to be set-up in the baseline project to correspond the current level of POPs/PTS analysis capacity in the existing laboratories in the country. The baseline project will not, however, address lack of human capacity, expertise and systems to monitor toxic chemicals. There is also weak coordination and linkages/exchange of information and lessons learnt among the labs and corresponding national monitoring mapping and consequent priority setting for action. This results in a less systematic and rigorous monitoring in labs.</p> <p>Therefore, technical capability upgradation for POPs/PTS monitoring and accreditation/certification at national level will still need to be completed for a variety of chemicals. As mentioned in Section B (vii), strengthening of integrated data management, tracking and monitoring system is required.</p> <p>In this respect it should be noted that the proposed UNEP GMP project proposes to increase the capacity of one-two selected national laboratories to deal with Stockholm Convention Global monitoring and effectiveness evaluation needs that are typically measured in matrices (human milk and maternal blood) that does not provide sufficient risk information on many important end-points at national level, including food and feed.</p> <p>Management of POPs/Pesticide contaminated sites: Current efforts under existing projects addressing pesticides/dioxins would continue. However, the extent of technology results demonstration is limited and affects knowledge base for management of POPs contaminated sites and scaled-up clean-up activities. More importantly, the more inventory/investment is carried out on addressing pesticides/dioxins, the more sites with different magnitude and scale in Viet Nam are being identified. For example, in 2006, an inventory found out around 10 obsolete pesticides stockpiles and some pesticide-contaminated soil sites, but by 2011 new inventory found more than 1,000 pesticide contaminated sites. This is partly due to a long and complicated history of development in Viet Nam, with long wars. The magnitude and scale of the need to deal with POPs contaminated sites require much more knowledge and technology to properly plan and management.</p> <p>Through the recent POPs and other chemicals projects, the Government recognized the problems with chemical/contaminated sites and adopted a program for the</p>	

Question	GEFSEC Review Comment	UNDP/VEA Response	Reference
		<p>cleanup activities. This National Target Programme on Pollution Remedies and Environmental Improvement (2011) resulted in a total financial allocation commitment of US\$24 million project will constitute the baseline program. However, little progress has been made due to limited capacity among institutions/stakeholders and processes for management.</p> <p>This proposed GEF project is expected to help building capacity, including technology and knowledge, and has put in place mechanisms to expedite the deployment of the national programme. More importantly, government programme was designed and allocated funding barely for clean up, but lack of risk management. This GEF project is expected to help the government programme to do better risk analysis and management guidelines and capacity building for better risk management.</p> <p>The national financial support would not be able to address the gaps in the current situation on Chemicals management explained in the PIF, especially to bring in international expertise and best practices.</p>	
13. Are the activities that will be financed using GEF/LDCF/S CCF funding based on incremental/ additional reasoning?	Unable to access due to inadequacy in the description of the baseline project.	See responses to comment 11 above. Based on this, one can see that the current GEF project would build on existing baseline project to accomplish the project objective.	CEO Endorsement Request: A5.Incremental reasoning, p26-30
14. Is the project framework sound and sufficiently clear?	<p>No. Please clarify and/or remove the following parts in the projects.</p> <p>1. Output 1.1.2 - How is the work being proposed here different to activities that are already covered in the recently approved National Implementation Plan Update? If it is not different please remove this part of the project.</p>	<p><u>1. Output 1.1.2 is proposed to be retained for the following reasons:</u></p> <p>This Output has been designed with careful consideration of the country needs, has taken into account the current legislation system of Viet Nam and practical experience during the implementation of the current NIP. The main reasons are highlighted below:</p> <p>+ The NIP is a policy and brief document to orient / direct the whole country's activities on POPs/ including new POPs. The NIP will be a general policy for multi-sectoral field of POPs management, with focus on POPs only. The NIP will be approved by a Decision of the Prime Minister, than submit to Stockholm Convention as Viet Nam's commitments to international community/Stockholm Convention and global environmental benefits.</p>	<p>CEO Endorsement Request:</p> <p><u>Part A, item A1, p 9-10</u></p> <p>Baseline analysis, p12-23</p> <p>Baseline Project, p23-27</p> <p><u>Annex , p47-61</u></p>

Question	GEFSEC Review Comment	UNDP/VEA Response	Reference
	<p>2. Output 1.1.3 - What is the relationship of this to the existing law on Chemicals in Viet Nam? Why is this not considered under the existing law? What would the cost implications for this be for implementing these proposed provisions under the Environment Law as compared to the Chemical Law? Overall the inclusion of chemical related issues should be done in the context of the existing chemical law.</p> <p>3. Output 2.2.1 to 2.2.3 - UNEP is proposing to strengthen the laboratory capacity in Viet Nam in the context of the Global Monitoring Program. Please clarify the need for this component. If there are overlaps with the GMP this component must be removed.</p> <p>4. Outputs 4.2.1 to 4.3.1 - These are not eligible activities, please remove them from the project.</p>	<p>+ Output 1.1.2 is different from the NIP outputs mentioned above. This Output 1.1.2 is to develop a “Decree” which is a strong and more specific Regulation for sound management of POPs. In Vietnamese legal system, the ‘Decree’ is issued by the Government (Cabinet) has much stronger legal weight for implementation and enforcement compared to that of a “Decision”. To adopt a decree, a process of public consultations to involve all relevant stakeholders, including all line Ministries, is required. To achieve this output, expertise outside the Government system (both national and international as required) would be made available to provide technical inputs best practices information. In addition, as mentioned above, development of regulations and specific policies for hazardous sites management, filling the gaps of risks management, technology knowhow and overall long-term capacity development require external support than available expertise within the government system. Thus, this is incremental the already existing efforts of the Government and is proposed for support from GEF</p> <p>+ In light of the above, this Output will increase the efficiency of POPs management activities in the whole political system of Viet Nam and shows a stronger commitment of the Viet Nam Government to the Stockholm Convention.</p> <p><u>2. Output 1.1.3 - This Output is considered an important outcome of the project because of the following reasons:</u></p> <p>+ The <u>existing Law on Chemicals</u> is more focusing on chemical use, not on Chemical Safety or Environmental management of Chemical activities. The current Law on Chemicals (issued in 2007) already stated that “Chemical activities have to be in compliance with the Environmental regulations”. Under the Law on Chemicals, there is a regulation on registration of new and current chemical use. Further, mechanisms to monitor and manage the environmental risks related to toxic chemicals are not in place and need to be developed.</p> <p>+ Further, the <u>existing Law on Environmental Protection</u> have no specific Chapters/Articles on environmentally sound management of toxic chemicals.</p> <p>Therefore, this project’s output will contribute to the development of a strong regulation, governing the multi-sectorial field of Chemical Safety Management and Environmental management of Chemical activities, including also environmental occupational health issues.</p> <p>+ In the Viet Nam legislation system, the best and cost effective option to improve sound management of chemicals is</p>	

Question	GEFSEC Review Comment	UNDP/VEA Response	Reference
		<p>to add a relevant part/chapter in to the Law on Environmental Protection which is under revision, and follow up with a more detailed and enforceable “Decree” on this issue. As mentioned above, a decree has high legal weight and strong enforcement and get good compliance</p> <p>Furthermore, Viet Nam in the process of revising the Law on Environmental Protection. The GEF support will be in a perfect timing to catalyze this internationally well recognized and important trend of development.</p> <p>+ Therefore, this output will focus on develop and upgrade “regulation” on “Environmentally Sound Management of Chemicals” to the top level of Viet Nam legislation system - amended Laws, and/or create a strong “linkage of environmental management of toxic chemicals” between the existing Law on Environmental protection and the Law on Chemicals, which is currently missing in the Viet Nam legal framework.</p> <p>+ This output is to (a) fill the gap of “Environmentally Sound Management of Chemicals” in Viet Nam legislation, including POPs and other concerned PTS/Toxic chemicals as well (b) to have the Country prepared legally for the adaptation to the changing POPs-List of Stockholm Convention which will apparently grow in the future, and (c) to help Viet Nam move towards international approach of Sound chemical management.</p> <p>3. Response to this comment is given below.</p> <p>+ These outputs on Capacity building for POP and PTS analysis, and therefore are only focus on POPs (as in the UNEP proposed Project on GMP) but for a variety of toxic chemicals including mercury towards a more general sound chemical management approach. Those chemicals of concern to be selected / monitored will be detailed during the Project development phase.</p> <p>+ The UNEP Project is to focus more on supporting the GMP activities. This includes monitoring of POPs contamination in matrices agreed to be included in the GMP, <u>i.e.</u> POPs contamination in air and human milk and maternal blood.</p> <p><u>This project is to build a sustainable capacity for continuous monitoring and reporting on POPs/PTS at national level (by developing a synergy for a national Labs network). This work covers a range of pollutants in matrices more relevant for national risk reduction, e.g. fish, food, sediments etc</u></p> <p>However, there is a need to ensure that there is no duplication</p>	

Question	GEFSEC Review Comment	UNDP/VEA Response	Reference
		<p>between this project and UNEP’s global Project on GMP, the budget proposed for this component would be reduced by US\$100,000, very clear delineation and details on these two projects are to be worked out during the PPG and presented at CEO endorsement.</p> <p>4. As requested Outputs 4.2.1 thru 4.3.1 has been deleted and the requested GEF funding has been reduced to US \$ 300,000 such that work is just confined to the baseline development. Under the current project, the focus will be on inventorisation and information outreach to national stakeholders on the inventory findings.</p>	
<p>16. Is there a clear description of: a) the socio-economic benefits, including gender dimensions, to be delivered by the project, and b) how will the delivery of such benefits support the achievement of incremental/additional benefits?</p>	<p>This section will need to be rewritten in order to address the comments in section 14 which question the eligibility of some of the activities particularly the monitoring capacity which is already being captured in another project.</p>	<p>This section has been reviewed and amended to be consistent with the above amendments. In this project, involvement of local communities who are living close to / who can come in contact with contaminated sites and women who are likely to handle activities which could result in possible contact with contaminated sites would be achieved in public consultations and capacity building initiatives. For example, local communities, especially woman who have daily contact with contaminated soil, living nearby the sites will be involved, consulted and will contribute to the design, demarcation, and preparation of management plan, monitoring and maintenance. The Government believes that this is very important for avoiding damage to human health. This aspect will be highlighted in PIF. Also this will be further strengthened during the PPG stage and included in the Project Document.</p> <p>Furthermore, a long term risk assessment and management capacity is much needed for reduction of adverse impacts for the people living on and near many POPs contaminated sites found recently, including vulnerable groups of women and children. This Project is to contribute for such needed capacity and sustainably add the incremental benefits.</p>	<p>CEO Endorsement Request:</p> <p>Change the design and approach for the 3rd component (outcome 3.2)</p> <p>Gender issues will be covered in the provincial master plan and communication activities, p47-61</p>
<p>17. Is public participation, including CSOs and indigenous people, taken into consideration, their role identified and addressed properly?</p>	<p>Yes, however at CEO endorsement detailed descriptions of the participation of the affected public and CSOs and indigenous peoples need to be provided.</p>	<p>The GEFSEC’s direction in this area is noted and the required detailed descriptions will be developed during the PPG stage and included in the Project Document.</p> <p>As mentioned in the point 16, local communities and CSOs will participate in the process of preparing management plans and making important decisions relating to hazardous sites.</p>	<p>CEO Endorsement Request:</p> <p>Will be included in the provincial master plan and communication activities, p47-61</p>
<p>18. Does the</p>	<p>Risks related to a</p>	<p>The document has been revised to acknowledge the potential</p>	<p>CEO</p>

Question	GEFSEC Review Comment	UNDP/VEA Response	Reference
<p>project take into account potential major risks, including the consequences of climate change and provides sufficient risk mitigation measures? (i.e., climate resilience)</p>	<p>changing environment have not been considered particularly the impact of climate change on long term storage of waste and contaminated material.</p>	<p>impact of climate change on situations involving long term storage of waste and contaminated material. In doing so, it is noted that the project itself has the effect of mitigating such impacts first by facilitating the remediation and elimination of contaminated soils and associated POPs waste, and by ensuring that containment and long term storage is hydraulically isolated. For example, project design would address POPs storage sites keeping in mind the vulnerability of geographic locations to floods, storms etc.</p> <p>In the cases highlighted above, this addresses situations where climate change impacts involve changes in hydraulic regimes (ground and surface water levels including seasonal variations and increasing frequency of extreme climatic events). The inclusion of climate change impact considerations will be specifically included in the development of site specific risk assessments. It is also anticipated that this will have an impact on how POPs contaminated site management is undertaken in North versus South Viet Nam.</p>	<p>Endorsement Request: A6, p31-36</p>
<p>24. Is the funding and co-financing per objective appropriate and adequate to achieve the expected outcomes and outputs?</p>	<p>Yes, however please note requested changes in section 14 which will change the funding levels of the project.</p>	<p>The Project funding allocations have been revised in accordance with the amended Project Framework an addition of recently approved national target program funding.</p>	<p>CEO Endorsement Request: Project objective, p2-8</p>

ANNEX C: STATUS OF IMPLEMENTATION OF PROJECT PREPARATION ACTIVITIES AND THE USE OF FUNDS¹²

A. PROVIDE DETAILED FUNDING AMOUNT OF THE PPG ACTIVITIES FINANCING STATUS IN THE TABLE BELOW:

PPG Grant Approved at PIF: 100,000 USD			
<i>Project Preparation Activities Implemented</i>	<i>GEF/LDCF/SCCF/NPIF Amount (\$)</i>		
	<i>Budgeted Amount</i>	<i>Amount Spent To date</i>	<i>Amount Committed</i>
1.1 Develop detailed definition of POPs/PTS legal and regulatory integration into the national SCM framework and implementation plan.	10,000	5,158	4,350
1.2 Develop detailed definition of SCM knowledge and skills requirements, and planning of their acquisition.	10,000	5,000	4,700
2.1 Develop detailed scope definition for consolidated national POPs/PTS data base, reporting system and monitoring network	7,500	3,050	2,000
2.2 Develop monitoring laboratory certification program	7,500	3,007	2,075
3.1 Prepare detailed scope definition for development of key policies and technical guidelines for POPs contaminated sites	5,000	2,000	3,000
3.2 Develop detailed definition of contaminated site knowledge and skills requirements, and planning of their acquisition.	5,000	2,000	1,750
3.3 Develop Scope definition for demonstration site assessment/clean up design activities	5,000	3,000	1,755
4. Develop detailed implementation plan for development of national mercury inventory and release reduction strategy	15,000	7,324	5,343
5. Development of the Consolidated Project Document/GEF CEO Endorsement Request including national stakeholder consultations and workshops on project content	35,000	10,231	34,257
Total	100,000	40,770	59,230

¹² If at CEO Endorsement, the PPG activities have not been completed and there is a balance of unspent fund, Agencies can continue undertake the activities up to one year of project start. No later than one year from start of project implementation, Agencies should report this table to the GEF Secretariat on the completion of PPG activities and the amount spent for the activities.

ANNEX D: CALENDAR OF EXPECTED REFLOWS (if non-grant instrument is used): N/A

Provide a calendar of expected reflows to the GEF/LDCF/SCCF/NPIF Trust Fund or to your Agency (and/or revolving fund that will be set up)