



REQUEST FOR PROPOSAL (RFP)

firms/institutes/organizations

Dear Sir / Madam:

We kindly request you to submit your Proposal for National Consultancy Firm to review and propose high risk pesticides contaminated sites and promote the implementation of “Target program of the Government on treating serious polluters and contaminated sites in 2016-2020”

(Ref. B-190304)

Please be guided by the form attached hereto as Annex 2 (a-b-c), in preparing your Proposal.

Proposals may be submitted on or before **5pm Tuesday, April 02, 2019** (Hanoi time) by the following methods:

<p><u>By email: For green environment, this is preferred submission method</u></p> <p>E-mail address for proposal submission: quach.thuy.ha@undp.org</p> <p>Separate emails for technical and financial proposal.</p> <p><u>With subject line: (Ref. B-190304) RFP for POPs and Sound Harmful Chemicals</u></p> <p>Maximum size per email: 30 MB. Bidders can split proposal into several emails if the file size is large)</p>	<p><u>By hard copy: (within working hours 8.00 am - 5.00 pm Monday - Friday only)</u></p> <p>Address for proposal submission:</p> <p>Procurement Unit UNDP Vietnam 304 Kim Ma Street, Hanoi, Vietnam</p> <p><u>With envelop subject: (Ref. B-190304) RFP for POPs and Sound Harmful Chemicals</u></p> <p>When submitting hard copy proposals, please call one of the following staff to receive hard copy proposal:</p> <ol style="list-style-type: none">1. Ms. Quach Thuy Ha, Procurement Assistant Tel: +84-24-385001432. Mr. Nguyen Thai Duong, Procurement Assistant Tel: +84-24-38500195 <p>The bidder is requested to sign a bid submission form when delivering proposal.</p>
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Note:

- *For both submission methods, please send separate email (without attachment) to procurement.vn@undp.org notifying that you already submitted proposal and the number of email submitted (in case submitted by email). Notification emails should be sent to above address by submission deadline or right after you submit proposals).*
- *UNDP will acknowledge receipt of the proposals within 2 working days from the submission deadline. In case you do not receive acknowledgement, please contact us within 3 working days after submission deadline.*

Your Proposal must be expressed in the English language, and valid for a minimum period of 120 days from the date of bid submission.

In the course of preparing your Proposal, it shall remain your responsibility to ensure that it reaches the address above on or before the deadline. Proposals that are received by UNDP after the deadline indicated above, for whatever reason, shall not be considered for evaluation. If you are submitting your Proposal by email, kindly ensure that they are signed and in the .pdf format, and free from any virus or corrupted files.

Services proposed shall be reviewed and evaluated based on completeness and compliance of the Proposal and responsiveness with the requirements of the RFP and all other annexes providing details of UNDP requirements.

The Proposal that complies with all of the requirements, meets all the evaluation criteria and offers the best value for money shall be selected and awarded the contract. Any offer that does not meet the requirements shall be rejected.

Any discrepancy between the unit price and the total price shall be re-computed by UNDP, and the unit price shall prevail and the total price shall be corrected. If the Service Provider does not accept the final price based on UNDP's re-computation and correction of errors, its Proposal will be rejected.

No price variation due to escalation, inflation, fluctuation in exchange rates, or any other market factors shall be accepted by UNDP after it has received the Proposal. At the time of Award of Contract or Purchase Order, UNDP reserves the right to vary (increase or decrease) the quantity of services and/or goods, by up to a maximum twenty-five per cent (25%) of the total offer, without any change in the unit price or other terms and conditions.

Any Contract or Purchase Order that will be issued as a result of this RFP shall be subject to the General Terms and Conditions attached hereto. The mere act of submission of a Proposal implies that the Service Provider accepts without question the General Terms and Conditions of UNDP, herein attached as Annex 3.

Please be advised that UNDP is not bound to accept any Proposal, nor award a contract or Purchase Order, nor be responsible for any costs associated with a Service Providers preparation and submission of a Proposal, regardless of the outcome or the manner of conducting the selection process.

UNDP's vendor protest procedure is intended to afford an opportunity to appeal for persons or firms not awarded a Purchase Order or Contract in a competitive procurement process. In the event that you believe you have not been fairly treated, you can find detailed information about vendor protest procedures in the following link: <http://www.undp.org/procurement/protest.shtml>.

UNDP encourages every prospective Service Provider to prevent and avoid conflicts of interest, by disclosing to UNDP if you, or any of your affiliates or personnel, were involved in the preparation of the requirements, design, cost estimates, and other information used in this RFP.

UNDP implements a zero tolerance on fraud and other proscribed practices, and is committed to preventing, identifying and addressing all such acts and practices against UNDP, as well as third

parties involved in UNDP activities. UNDP expects its Service Providers to adhere to the UN Supplier Code of Conduct found in this link : http://www.un.org/depts/ptd/pdf/conduct_english.pdf

Thank you and we look forward to receiving your Proposal.

Sincerely yours,

Tran Thi Hong
Head, Procurement Unit
3/22/2019

Description of Requirements

Context of the Requirement	Please see information in the TOR
Implementing Partner of UNDP	Please see information in the TOR
Brief Description of the Required Services	National Consultancy Firm to review and propose high risk pesticides contaminated sites and promote the implementation of “Target program of the Government on treating serious polluters and contaminated sites in 2016-2020”
List and Description of Expected Outputs to be Delivered	Please see information in the TOR
Person to Supervise the Work/Performance of the Service Provider	Project Management Unit/Ministry of Industry and Trade (MOIT) and UNDP
Frequency of Reporting	Please refer to the TOR
Progress Reporting Requirements	Please refer to the TOR
Location of work	<input type="checkbox"/> Exact Address: <input checked="" type="checkbox"/> At Contractor Location, Hanoi and selected provinces but not limited to the following province: Hoa Binh, Thanh Hoa, Nghe An, Ha Tinh, Quang Binh, Quang Tri, Quang Nam
Expected duration of work	April – June 2019
Target start date	Before 30 June 2019
Latest completion date	30 June 2019
Travels Expected	Please refer to the TOR
Special Security Requirements	Not applicable
Facilities to be Provided by UNDP (i.e., must be excluded from Price Proposal)	<input type="checkbox"/> Office space and facilities <input type="checkbox"/> Land Transportation <input type="checkbox"/> Others <i>[pls. specify]</i>
Implementation Schedule indicating breakdown and timing of activities/sub-activities	<input checked="" type="checkbox"/> Required <input type="checkbox"/> Not Required
Names and curriculum vitae of individuals who will be involved in completing the services	<input checked="" type="checkbox"/> Required <input type="checkbox"/> Not Required
Currency of Proposal	<input type="checkbox"/> United States Dollars <input type="checkbox"/> Euro <input checked="" type="checkbox"/> Local Currency (Vietnam Dong) For the purposes of comparison of all Proposals: UNDP will convert the currency quoted in the Proposal into the UNDP preferred currency, in accordance with the prevailing UN operational rate of exchange on the proposal submission deadline.
Value Added Tax on Price Proposal	<input checked="" type="checkbox"/> must be inclusive of VAT and other applicable indirect taxes <input type="checkbox"/> must be exclusive of VAT and other applicable indirect taxes

Validity Period of Proposals (<i>Counting for the last day of submission of quotes</i>)	<input checked="" type="checkbox"/> 120 days In exceptional circumstances, UNDP may request the Proposer to extend the validity of the Proposal beyond what has been initially indicated in this RFP. The Proposal shall then confirm the extension in writing, without any modification whatsoever on the Proposal.
Partial Quotes	<input checked="" type="checkbox"/> Not permitted <input type="checkbox"/> Permitted
Payment Terms	As indicated in the TOR. Condition for Payment Release: Within thirty (30) days from the date of meeting the following conditions: a) UNDP's written acceptance (i.e., not mere receipt) of the quality of the outputs; and b) Receipt of invoice from the Service Provider.
Person(s) to review/inspect/ approve outputs/completed services and authorize the disbursement of payment	UNDP
Type of Contract to be Signed	<input checked="" type="checkbox"/> Contract for Professional Services
Criteria for Contract Award	<input checked="" type="checkbox"/> Highest Combined Score (based on the 70% technical offer and 30% price weight distribution) <input checked="" type="checkbox"/> Full acceptance of the UNDP Contract General Terms and Conditions (GTC). This is mandatory criteria and cannot be deleted regardless of the nature of services required. Non-acceptance of the GTC may be grounds for the rejection of the Proposal.
Criteria for the Assessment of Proposal	Proposal shall be considered technically qualified if it achieves minimum 70% of total obtainable technical points. Weight of technical and financial point: <u>Technical Proposal (70%)</u> <u>Financial Proposal (30%)</u> Financial score will be computed as a ratio of the Proposal's offer to the lowest price among the proposals received by UNDP. See detailed evaluation criteria in the below table.
UNDP will award the contract to:	<input checked="" type="checkbox"/> One bidder
Annexes to this RFP	<input checked="" type="checkbox"/> Form for Submission of Proposal (Annex 2a: Technical proposal; Annex 2b: Financial proposal; Annex 2-c: Submission check-list) <input checked="" type="checkbox"/> Detailed TOR (Annex 3) <input checked="" type="checkbox"/> General Terms and Conditions (Annex 4) ¹ <input checked="" type="checkbox"/> Institutional contract for service & Contract for Professional services (Annex 4)
Contact Person for Inquiries	Ms Quach Thuy Ha - Procurement Assistant, UNDP Vietnam Email: quach.thuy.ha@undp.org

¹ Service Providers are alerted that non-acceptance of the terms of the General Terms and Conditions (GTC) may be grounds for disqualification from this procurement process.

(Written inquiries only) ²	Any delay in UNDP's response shall be not used as a reason for extending the deadline for submission, unless UNDP determines that such an extension is necessary and communicates a new deadline to the Proposers.
Other information	

² This contact person and address is officially designated by UNDP. If inquiries are sent to other person/s or address/es, even if they are UNDP staff, UNDP shall have no obligation to respond nor can UNDP confirm that the query was received.

EVALUATION CRITERIA:

Evaluation forms for technical proposals are in the below table. The obtainable number of points specified for each evaluation criterion indicates the relative significance or weight of the item in the overall evaluation process. The Technical Proposal Evaluation Forms are:

Form 1: Expertise of Firm / Organisation Submitting Proposal

Form 2: Solutions and Methodologies

Form 3: Personnel

Note: The score weights and points obtainable in the evaluation sheet are tentative and should be changed depending on the need or major attributes of technical proposal

Summary of Technical Proposal Evaluation Forms		Score Weight	Points Obtainable	Company / Other Entity				
				A	B	C	D	E
Form 1.	Expertise of Firm / Organisation submitting Proposal	30%	300					
Form 2.	Solutions and Methodologies	35%	350					
Form 3.	Personnel	35%	350					
Total			1000					

Form 1: Expertise and Capacity of Firm / Organization submitting proposal		Max Point	
		Sub core	
1.1	Experience in the field of environmental protection and more specifically, in the management of POPs, hazardous chemicals and hazardous waste, sampling of waste and environmental media, handling of waste and hazardous substances, especially soil remediation, in the last 5 years More than 5 years <ul style="list-style-type: none"> - ≥ 8 contracts - 5-8 contracts - 1-5 contracts - No contracts 	100 70 40 0	100
1.2	Having laboratory certified with VILAS and/or VIMCERT for the sampling and analysis of POP pesticides in soil, fully qualified and equipped for POP/PTS sampling and analysis <ul style="list-style-type: none"> - VILAS and VIMCERT - VILAS - VIMCERT - No certificate 	100 60 60 0	100
1.3	Experience in the field of pesticides contaminated sites management and remediation. In the last 5 years, proven contracts related to this field <ul style="list-style-type: none"> - ≥ 3 contracts - 2 contracts - 1 contract - No contract 	100 70 30 0	100
Total (Form 1)			300
Form 2: Solutions and Methodologies			
2.1	Clearly understanding the purpose of the package		50
2.2	Approach and methodology which are appropriate to the task		100
2.3	Presentation		20
2.4	Implementation plan		60
2.5	Reasonable arrangement for human resource		60
2.6	Other factors (satisfying materials, machinery and equipment owned by the contractor or being rented to serve the monitoring work)		60
Total (Form 2)			350

Form 3: Personnel			Max Point
3.1	Team Leader	Sub score	150
3.1.1	Master degree, preference in the field of environment, chemicals, or related fields;		30
3.1.2	Experience in environment management/ environmental monitoring/ environmental soil remediation <ul style="list-style-type: none"> - More than 10 years' experience - 5 - 8 years - Less than 5 years 	50 25 15	50
3.1.3	Knowledge on Stockholm Convention and POPs/PTS		20
3.1.4	Track-record experience in working as team leader of a consultancy team and experience with UN organizations is preferred		20
3.1.5	Experience at contaminated sites with local authorities and local people		10
3.1.6	Experience in synthesis of information, data analysis, planning and writing report		10
3.1.7	Good English skills		10
3.2	Two experts on soil survey		100
3.2.1	Bachelor degree in the field of environment, chemicals, or related fields		20
3.2.2	Experience years on environment management/ environment technology/ environmental monitoring, preference on environment management for chemicals <ul style="list-style-type: none"> - More than 5 years' experience - 3-5 years - Less than 3 years 	30 20 10	30
3.2.3	Experience working on soil survey, especially survey of POP pesticides contaminated sites. Number of sites visited: <ul style="list-style-type: none"> - More than 10 sites in three provinces - 6-9 sites - Less than 5 sites 	30 15 5	30
3.2.4	Knowledge on Stockholm Convention and POPs/PTS;		10
3.2.5	Having C certificate on English or relevant certificates or Fluently English and report writing skills		10
3.3	Two senior experts on environment management/policy regulation		100
	Bachelor degree in the field of environment/ law		20
	Experience years on environment management/ preference on formulating and implementation of environmental policy <ul style="list-style-type: none"> - More than 8 years' experience - 3-8 years - Less than 3 years 	30 20 10	30
	Track-record experience working on environmental policies and regulation.		30
	Knowledge on Stockholm Convention and POPs/PTS;		10
	Having C certificate on English or relevant certificates or Fluently English and report writing skills		10
Total (form 3)			350
TOTAL POINTS			1000

TERM OF REFERENCE

Activity: Review and propose high risk pesticides contaminated sites and promote the implementation of “Target program of the Government on treating serious polluters and contaminated sites in 2016-2020”

Project Title:	Vietnam POPs and Sound Harmful Chemicals Management
Project ID:	91381
Contract Modality:	Contract service
Duration:	8 weeks since the contract is signed
Duty station:	Hanoi and selected provinces (Hoa Binh, Nam Dinh, Thanh Hoa, Nghe An, Ha Tinh, Quang Binh, Quang Tri, Quang Nam)
Reporting:	UNDP Vietnam, Ministry of Natural Resource and Environment (through Vietnam Environment Administration) and the Project Management Unit (PMU)

1. Introduction

The project “Vietnam POPs and Sound Harmful Chemicals Management Project” is funded by the Global Environment Facility (GEF) through the United Nations Development Programme (UNDP). The project is executed by Vietnam Environment Administration (VEA) / Ministry of Natural Resources and Environment (MONRE) as the UNDP’s National Implementing Partner (NIP). The project will contribute to the improvement of the environmentally sound management for chemicals and hazardous waste, focused on Persistent Organic Pollutants (POPs), Persistent Toxic Substances (PTS). The objective of the project is the continued reduction of environmental and health risks through POPs and harmful chemicals release reduction.

The 03 specific objective of the project include:

- Develop, Supplement the integrated legal and institutional framework to implement more effectively the provisions of the Stockholm Convention on POPs;
- Develop and demonstrate pilot pollutant release and transfer register system (PRTR) and apply to at least 20% of industrial waste sources in a selected province for environmental safety management and reports of POPs and mercury.
- Develop the environmental safety management framework for chemicals, aims to strengthen the management capacity of POPs pollution areas and inherit the results and experiences from projects in the GEF4 cycle and national project.

Through the implementation of the Project and previous projects on POP management and Stockholm Convention, the awareness has been raised recently in society of Vietnam. People are more demanding of living in a clean environment as well as without any risk incurred from wastes. In an effort to improve the environmental quality, the Government has

recently approved a target program called “Target Program on treating serious polluters and contaminated sites in 2016-2020” at the Decision No. 807/QĐ-TTg dated 03rd July 2018 of the Prime Minister. Overall objective of the Program is treatment, recovery of environmental quality at state owned facilities, legacy pesticides contaminated sites and domestic waste water at city ranked from class II, in order to protect human health, contributing to sustainable development of the country”. The Program has three objectives corresponding to three project components, of which the component 2 aims at remediation at 70 legacy pesticides contaminated sites that are serious and extremely serious in term of environmental pollution and health impacts.

Budget has been allocated clearly for this Component from central state budget, which is 493 billion VND (~21 million USD) and will be there counterpart fund from local government at a rate of 50 percent. That means, allocation for remediation of pesticides contaminated sites of the program will be 42 million USD. This is a significant planning considering that the Country is now putting more control on spending of state budget.

It is known that Vietnam is suffering from more than thousands of pesticides contaminated sites, which vary from small to medium and large scale sites with different concentration of pesticides in soil. In terms of risks, it is also different from site to site because of different sources, pathway and receptors. It is very important to select the most impacted sites, so that investment will be driven to the right places, meeting the objective of the Program “protect human health, environment therefore contributing to sustainable development of the Country”.

The UNDP/GEF “Vietnam POPs and Sound Harmful Chemicals Management” is seeking a consulting firm to help the Vietnam Environment Administration carry out desk review, site survey to propose the most suitable sites and later support the implementation of the Target Program.

2. Objective

The objective of the task is review and carry out quick site survey in order to propose to the Vietnam Environment Administration the list of pesticides contaminated sites that are most suitable for the implementation of the Target Program. The proposal then will be used by VEA/MONRE to submitted to the Prime Minister for approval and later on to appraise remediation approach according to the Circular 30/2016/TT-BTNMT.

3. Activities

a) Review the Decision 807/QĐ-TTg dated 3rd July 2018 of the Prime Minister ratifying the “Target Program on treating serious polluters and contaminated sites in 2016-2020”. List of sites proposed by MONRE in 2016 is in Appendix of this document.

- Identify objective and indicators of the Target Program, especially the Component 2 regarding remediation of legacy pesticides contaminated sites. Assess the possibility of achievement considering timeframe of the Target Program and 2019-2020.

- Review and analyze the legal procedure, identify milestone of a project since the first draft until final closure using budget supporting from central state budget.

- Define “the most suitable sites” criteria for the implementation of the Target Program. The term will cover many aspects but not limited to: Risk (sources, pathways and receptors), impacts, and pesticides reclaimable, timing of future remediation, land clearance, will from local government.

b) Review the list of pesticides contaminated sites in Decision No.1946/QD-TTg dated 21st October 2010 and Report No. 24/BC-BTNMT of MONRE dated 4th April 2015 to the Government on 5 years implementation of Decision 1946/QD-TTg and other proposal from provinces

- Review and summarize a list of pesticides contaminated sites from these two documents, make a desk analysis based on available information for categorization

- Carry out quick site categorization based on above developed criteria in Task a, come up with a list of the most suitable sites.

c) Organize meetings with local authority and do quick site survey

- Review the proposal from local Government regarding their desired list of sites to be enclosed in the Target Program.

- Meet with potential authorized local department possibly Department of Natural Resources and Environment or Project Management Boards under Provincial People’s Committee for finalizing the list of sites to do quick survey. The finalizing the list of sites will be discussed closely with Locals based on two sources: (i) sites proposed by Locals and (ii) sites categorized by the Consulting Firm of this task.

- Carry out quick site survey. Quick site survey procedure follows the guidance at Circular 30/2016/TT-BTNMT, and guidance from Department Of Environmental Quality Management. Quick site survey could or could not include sampling and analysis.

- Develop site survey report for each province. Development of site survey report could be referred to requirement at Circular 30/2016/TT-BTNMT regulating management of contaminated sites. Requirement for the quick site survey must include but not limited following points:

+ General information about site: current and past site owner, general overview about social, economics, land use, site history, soil type.

+ Identification of sources of pollution: type of pesticides used in the past, quantity estimation, warehouse or buildings, contaminated soil

+ Identification of pathway (how pollutants travel to receptors): air, erosion, surface and underground water, daily activities of people and cattle on the sites, reasoning that the pollutants might enter food chain.

+ Identification of receptors: Human, cattle, livestock, animals that could be receptors

+ Taking photos of site

+ Preliminary map of sites that contains sources, pathways and receptors. The maps do not need to meet the ratio but should be developed by computers based on handwriting during site visit.

+ Conclusion: Quick conclusion on site mapping and risk mitigation measures.

d) Reporting to UNDP, PMU and VEA

- The contractor is required to work closely with VEA, especially Department of Environmental Quality Management for the implementation, especially for the existing documents, orientation of Target Program implementation, logistic and meeting arrangement and other documentation

- Develop a comprehensive report, which propose a list of the most suitable sites (roughly 50-70 sites) for the implementation of the Target Program. The proposal must include rationale, criteria and analysis based on available documents and reliable meeting notes.

- Develop a report on each site following above mentioned requirement.

4. Duration and place of implementation

- Duration: 60 days, completed before 30/06/2019
- Place: Hanoi and selected provinces including but not limited to following provinces: Hoa Binh, Thanh Hoa, Nghe An, Ha Tinh, Quang Binh, Quang Tri, Quang Nam.

5. Deliverables

The consultancy firm will carry out the tasks, listed in Item 3 of this document and submit the deliverables and periodical reports to the PMU and UNDP, according to the plan and requirements of the PMU and UNDP. For each report, the consultancy firm must submit 01 electronic copy (soft copy) and 03 hard copy in Vietnamese and 1 in English (hard copy). Deliverables and times line is as below.

STT	Report	Time
1	Work plan	1 weeks after signing the contract
2	Review and categorization of sites based on available documents	3 weeks after signing the contract
3	Final report	8 weeks after signing the contract

6. Requirement for experience and qualification.

- The consulting firm has experience in environmental management, remediation and consultancy service.

7. The responsibilities of stakeholders.

7.1. Responsibility of UNDP

- Procure and sign contract with selected contractor
- Process payment to contractor

7.2. Responsibility of PMU and DEQM

- Assist the contractor to carry out some administrative procedures (documents, papers...)
- Supervise the contractor to carry out the above tasks

7.3. Responsibility of the contractor

- Implement the above mentioned tasks
- Take responsibility for legal procedures, ask permission, and report to the authorities about all the activities at the sites.

8. Payment deadline

The package will be paid in 03 payments:

- The first payment of 20% contract amount will be paid upon submission of the work plan agreed by UNDP and NPD/PMU;
- The second payment of 40% contract amount will be paid upon submission of the list categorized by the Contractor based on available documents.
- The final payment of 40% contract amount will be paid upon the completion of the final report with satisfactory acceptance by UNDP and NDP/PMU.

9. Knowledge and experience

To be eligible, bidders shall have as a minimum the following qualifications:

General requirements to the service supplier:

- Firms or association of firms, with head/branch office located in Vietnam.
- At least 5 years of experience in the field of environmental protection and more specifically, in the management of POPs, hazardous chemicals and hazardous waste, sampling of waste and environmental media, handling of waste and hazardous substances, especially soil remediation.
- Certified 5 years laboratory capacity for the sampling and analysis of POPs Pesticides in soil with valid VIMCERT/VILAS certificate. Fully qualified and equipped for POP/PTS sampling and analysis.
- Working experience with consulting service, on the area of surveying, investigation, remediation of contaminated sites (**provides at least one contract and comprehensive report on this area**)
- At least 05 key national experts in environment management, environment technology, sufficient English skills for Key personnel.

Requirements to key personnel of the service provider:

- 01 national Team leader:
 - Master degree, preference in the field of environment, chemicals, or related fields;
 - At least 10 years experience on environment management/ environment technology/ environmental monitoring, preference on environment management for chemicals;
 - Knowledge on Stockholm Convention and POPs/PTS;
 - Experience with local authorities, implementation of pop pesticides remediation projects;
 - Skills of synthesizing and analyzing the information, data, planning, and reporting.
 - Track-record experience in working as team leader of a consultancy team and experience with UN organizations is preferred;
 - Having D certificate on English or relevant certificates or Fluently English and report writing skills (provide **3 written consultancy reports and one article on international Journals (if any)**).
- 02 national experts on soil survey, with requirement of a senior one:
 - Bachelor Degree, preference in the field of environment, chemicals, or related fields
 - At least 5 years experience on environment management/ environment technology/ environmental monitoring, preference on environment management for chemicals;
 - Knowledge on Stockholm Convention and POPs/PTS;
 - Track-record experience working on soil survey, especially survey of POP pesticides contaminated sites. **Proven record of visiting at least 10 contaminated sites in at least 3 provinces.**
 - Having C certificate on English or relevant certificates or Fluently English and report writing skills (at least one report/proof provided)
- 02 national experts on environmental management/policies formulation, with requirement of a senior one:
 - Bachelor Degree, preference in the field of environment, law
 - At least 8 years experience years on environment management, preference in a state owned firms.
 - Knowledge on Stockholm Convention and POPs/PTS;
 - Track-record experience working on environmental policies and regulation.
 - Having C certificate on English or relevant certificates or Fluently English and report writing skills (at least one report/proof provided)

Evaluation criteria

No.	Criteria	Scores
1	Experience and capacity	300
1.1.	Experience in the field of environmental protection and more specifically, in the management of POPs, hazardous chemicals and hazardous waste, sampling of waste and environmental media, handling of waste and hazardous substances, especially soil remediation, in the last 5 years <ul style="list-style-type: none"> - ≥ 8 contracts - 5-8 contracts - 1-5 contracts - No contracts 	100 70 40 0
1.2.	Having laboratory certified with VILAS and/or VIMCERT for the sampling and analysis of POP pesticides in soil, fully qualified and equipped for POP/PTS sampling and analysis <ul style="list-style-type: none"> - VILAS and VIMCERT - VILAS - VIMCERT - No certificate 	100 60 60 0
1.3	Experience in the field of pesticides contaminated sites management and remediation. In the last 5 years, proven contracts related to this field: <ul style="list-style-type: none"> - ≥ 3 contracts - 2 contracts - 1 contract - No contract 	100 70 30 0
2	Solutions and Methodologies	350
2.1.	Clearly understanding the purpose of the package	50
2.2.	Approach and methodology which are appropriate to the task	100
2.3.	Presentation	20
2.4.	Implementation plan	60
2.5.	Reasonable arrangement for human resource	60
2.6.	Other factors (satisfying materials, machinery and equipment owned by the contractor or being rented to serve the monitoring work)	60
3	Human resources	350
3.1.	The team leader	150
	Master degree, preference in the field of environment, chemicals, or related fields;	30
	Experience in environment management/ environmental monitoring/ environmental soil remediation <ul style="list-style-type: none"> - More than 10 years' experience - 5 - 8 years - Less than 5 years 	50 25 15
	Knowledge on Stockholm Convention and POPs/PTS	20
	Track-record experience in working as team leader of a consultancy team and experience with UN organizations is preferred	20
	Experience at contaminated sites with local authorities and local people	10
	Experience in synthesis of information, data analysis, planning and writing report	10
	Good English skills	10
3.2.	Two experts on soil survey	100
	Bachelor degree in the field of environment, chemicals, or related fields	20
	Experience years on environment management/ environment technology/ environmental monitoring, preference on environment management for chemicals <ul style="list-style-type: none"> - More than 5 years' experience - 3-5 years - Less than 3 years 	30 20 10
	Experience working on soil survey, especially survey of POP pesticides contaminated sites. Number of sites visited: <ul style="list-style-type: none"> - More than 10 sites in three provinces - 6-9 sites - Less than 5 sites 	30 15 5

No.	Criteria	Scores
	Knowledge on Stockholm Convention and POPs/PTS;	10
	Having C certificate on English or relevant certificates or Fluently English and report writing skills	10
3.3.	<i>Two senior experts on environment management/policy regulation</i>	<i>100</i>
	Bachelor degree in the field of environment/ law	20
	Experience years on environment management/ preference on formulating and implementation of environmental policy <ul style="list-style-type: none"> - More than 8 years' experience - 3-8 years - Less than 3 years 	30 20 10
	Track-record experience working on environmental policies and regulation.	30
	Knowledge on Stockholm Convention and POPs/PTS;	10
	Having C certificate on English or relevant certificates or Fluently English and report writing skills	10
Total (100%)		1.000

Appendix 1

List of sites proposed by MONRE in 2016 when developing proposal for a National Program

TT	Tên điểm tồn lưu	Địa chỉ	Hiện trạng	Ghi chú
I	Hòa Bình (02)			
1	Điểm tồn lưu hóa chất bảo vệ thực vật tại thôn My Thanh	Xã Mỹ Hòa Huyện Kim Bôi tỉnh Hòa Bình	Kho được xây dựng trước năm 1984. Khu vực kho cách hộ dân gần nhất 20m. Hiện các hộ dân không sử dụng được nguồn nước ngầm. Cá và rau của các hộ xung quanh khi nấu chín có mùi thuốc trừ sâu. Theo kết quả phân tích tại 21 mẫu đất lấy tại nông trường Thanh Hà có hàm lượng DDT vượt quá ngưỡng cho phép từ 154,7 - 713 lần	Bc 24
2	Điểm tồn lưu hóa chất Bảo vệ thực vật tại Hang đá, khu 3 TT Mường Khến	TT. Mường Khến- Huyện. Tân Lạc tỉnh Hòa Bình	Kho được sử dụng trước năm 1991. Tổng diện tích 15 m2. Hiện nay, trong kho vẫn còn tồn đọng thuốc Basudin (1000 chai), thuốc bột trắng (02 bì), 08 phuy, vỏ chai vỡ, o5 thùng giấy thuốc gói và rất nhiều loại thuốc hết hạn, mùi thuốc nồng nặc. Dân sống xung quanh phản nản nhiều về mùi.	Bc 24
II	Nam Định (05)			
1	Điểm tồn lưu hóa chất bảo vệ thực vật tại thôn La Hào, xã Kim Thái, huyện Vụ Bản	thôn La Hào, xã Kim Thái, huyện Vụ Bản	Kho thuốc được xây dựng từ năm 1970, đây là trạm trung chuyển thuốc BVTV của ngành nông nghiệp huyện Vụ Bản, kho thuốc gần nhà dân. Lượng thuốc lưu giữ trước đây chủ yếu là DDT, Volfatox. Ước tính phạm vi đất ô nhiễm hóa chất bảo vệ thực vật có diện tích 380 m2, trong đó khu vực bị ô nhiễm nặng khoảng 186 m2	Bc 24
2	Điểm tồn lưu hóa chất bảo vệ thực vật tại núi Tiên Hương, xã Kim Thái, huyện Vụ Bản	xã Kim Thái, huyện Vụ Bản	Kho thuốc bảo vệ thực vật được xây dựng từ năm 1960 hiện kho đã ngưng sử dụng từ năm 1973, trong quá trình hoạt động chủ yếu lưu giữ các loại hóa chất như DDT, Volfatox, đây cũng là điểm trung chuyển hóa chất của ngành nông nghiệp. Hiện nay kho chỉ còn lại nền đất là đất vườn của các hộ dân, điểm tồn lưu này cũng nằm gần nguồn nước (sông Tiên Hương). Diện tích đất ô nhiễm khoảng 435 m2, trong đó khu vực bị ô nhiễm nặng khoảng 117 m2	Bc 24
3	Điểm tồn lưu hóa chất bảo vệ thực vật tại xóm 12, xã Nam Thắng, huyện Nam Trực	xóm 12, xã Nam Thắng, huyện Nam Trực	Kho thuốc hiện nay đang nằm trong khu dân cư và gần nguồn nước. Tại thời điểm ngừng hoạt động kho vẫn còn thuốc và lượng thuốc này được chuyển về kho Đại An. Khối lượng bao bì chứa hóa chất bảo vệ thực vật có trong kho còn khoảng 150 kg. Diện tích đất ô nhiễm khoảng 720 m2, trong đó khu vực ô nhiễm nặng khoảng 260 m2	Bc 24
4	Điểm tồn lưu hóa chất bảo vệ thực vật tại thôn Đại An, xã Nam Thắng, huyện Nam Trực	thôn Đại An, xã Nam Thắng, huyện Nam Trực	Điểm tồn lưu hóa chất bảo vệ thực vật hiện chỉ còn nền kho nằm trong khuôn viên của nhà trẻ. Kho được xây dựng từ năm 1960 cho đến năm 1971 do bão lũ gây vỡ đê gây ngập úng trên diện rộng nên số lượng thuốc bị chôn sâu khoảng 2m trong khu vực cách nhà kho 30m -100m. Diện tích đất ô nhiễm khoảng 570 m2, trong đó khu vực ô nhiễm nặng khoảng 170 m2.	Bc 24
5	Điểm tồn lưu hóa chất tại thôn Quyết Tiến, xã Giao Tiên, huyện Giao Thủy	thôn Quyết Tiến, xã Giao Tiến, huyện Giao Thủy	Kho được xây dựng từ năm 1992 gồm 03 gian mái bằng, kho nằm gần nguồn nước và gần khu dân cư. Hiện nay, thuốc bảo vệ phát tán ra môi trường mà chưa có biện pháp ngăn chặn. Trong kho mùi thuốc nồng nặc phát tán ra môi trường xung quanh, ảnh hưởng đến sức khỏe người dân, đặc biệt vào ngày nắng sau mưa. Đất tại khu vực chôn lấp có mức độ ô nhiễm nhóm Clo	1946 (3 PL2)

TT	Tên điểm tồn lưu	Địa chỉ	Hiện trạng	Ghi chú
			hữu cơ cao gấp khoảng 40-50 lần. Phạm vi diện tích ô nhiễm khoảng 814 m ² , trong đó khu vực ô nhiễm nặng 324 m ² .	
III	Thanh Hóa (05)			
1	Điểm tồn lưu hóa chất bảo vệ thực vật tại trại giống kho Xuân Giai, xã Vĩnh Tiến, huyện Vĩnh Lộc	xã Vĩnh Tiến, huyện Vĩnh Lộc	Mẫu đất tại khu vực có hàm lượng DDT cao hơn 400 lần tiêu chuẩn cho phép, hàm lượng các chất hữu cơ Clo khác cao hơn 2 - 4 lần tiêu chuẩn cho phép	Bc 24
2	Điểm tồn lưu hóa chất BVTV kho vật tư nông nghiệp cũ thôn Trịnh Điện 2, xã Định Hải, huyện Yên Định	xã Định Hải, huyện Yên Định	Mẫu đất tại khu vực có hàm lượng DDT cao hơn 550 lần tiêu chuẩn cho phép, Aldrin, Endosulfan cao hơn 2,3 - 3,4 lần tiêu chuẩn cho phép	Bc 24
3	Điểm tồn lưu hóa chất BVTV tại nhà máy hóa chất Trung Sơn, phường An Hoạch, thành phố Thanh Hóa	phường An Hoạch, thành phố Thanh Hóa	Kho được xây dựng từ năm 1965 - 1972; Hàm lượng hóa chất bảo vệ thực vật trong các mẫu đất so với QCVN: Lindan ở độ sâu 1,5 m vượt từ 305,1 đến 8626,5 lần	1946 (26PL1)
4	Điểm tồn lưu hóa chất bảo vệ thực vật kho vật tư nông nghiệp cũ thôn 3, xã Thiệu Viên, huyện Thiệu Hóa	xã Thiệu Viên, huyện Thiệu Hóa	Mẫu đất tại khu vực có hàm lượng DDT cao hơn 650 lần tiêu chuẩn cho phép	Bc 24
5	Điểm tồn lưu hóa chất bảo vệ thực vật kho vật tư nông nghiệp cũ thôn Nguyên Sơn, xã Thiệu Nguyên, huyện Thiệu Hóa	xã Thiệu Nguyên, huyện Thiệu Hóa	Mẫu đất tại khu vực có hàm lượng DDT cao hơn 450 lần tiêu chuẩn cho phép, Lindane cao hơn 2,7 lần Aldril và Endosulfan cao hơn 3,2 - 4,6 lần	Bc 24
IV	Nghệ An (15)			
1	Điểm tồn lưu hóa chất bảo vệ thực vật tại Trung Yên (điểm 3).	Xóm 6 Yên Bang, xã Phúc Thành, huyện Yên Thành, Nghệ An	Kho được xây dựng từ năm 1988- 1990; còn nền kho, đã xuống cấp, có mùi; Hàm lượng hóa chất bảo vệ thực vật trong các mẫu đất so với QCVN cao 261.390,4 lần	1946 (193PL1)
2	Dự án xử lý, cải tạo phục hồi môi trường điểm tồn lưu hóa chất BVTV tại xóm 4, xã Hưng Khánh huyện Hưng Nguyên	xóm 4, xã Hưng Khánh huyện Hưng Nguyên	Khu vực ô nhiễm rộng. Diện tích đất ô nhiễm phải xử lý khoảng 526 m ² . Hàm lượng DDT cao nhất là 482.13 mg/kg	1946 (điểm 2 số 34 PL1)
3	Điểm tồn lưu hóa chất bảo vệ thực vật tại Lòi Thị xóm Kim Thành xã Hùng Thành.	Xóm Lòi Thị, xã Hùng Thành, huyện Yên Thành, Nghệ An.	Kho được xây dựng từ năm 1980 - 2000; vẫn còn kho nhưng đã xuống cấp, không sử dụng, diện tích: 24 m ² , có mùi thuốc khó chịu, nằm trong khuôn viên UBND xã. Hàm lượng hóa chất bảo vệ thực vật trong các mẫu đất so với QCVN: DDT (cao nhất): 60,482 ppm	1946 (66PL1)
4	Xử lý ô nhiễm môi trường do tồn lưu hóa chất BVTV tại xóm Thọ Vinh, xã Nhân Thành, huyện Yên Thành	Xóm Thọ Vinh, xã Nhân Thành, huyện Yên Thành, Nghệ An	Kho được xây dựng từ năm 1987 - 2002; vẫn còn kho nhưng đã xuống cấp, không sử dụng, diện tích: 160 m ² , có mùi thuốc khó chịu, khoảng cách tới nhà dân: 7 m; Hàm lượng hóa chất bảo vệ thực vật trong các mẫu đất so với QCVN: DDT (cao nhất) : 180,690 ppm.	1946 (67PL1)
5	Dự án xử lý ô nhiễm môi trường do tồn lưu hóa chất BVTV tại xóm	Xã Đồng Thành, huyện	Thời gian sử dụng trước năm 1975. Khu vực này dân cư đang sinh sống trên. Hàm lượng hóa chất bảo vệ	1946 (71PL1)

TT	Tên điểm tồn lưu	Địa chỉ	Hiện trạng	Ghi chú
	Hồng Kỳ-Vũ Kỳ, xã Đồng Thành, huyện Yên Thành	Yên Thành, Nghệ An	thực vật trong các mẫu đất so với QCVN: DDT cao hơn 1.000 ppm	
6	Dự án xử lý ô nhiễm môi trường do tồn lưu hóa chất BVTV tại xóm Đông Xuân, xã Hồng Thành, huyện Yên Thành	xóm Đông Xuân, xã Hồng Thành, huyện Yên Thành	Kho được xây dựng từ năm 1965 - 1975; khu vực đã được cải tạo làm đất ở, có mùi; Hàm lượng hóa chất bảo vệ thực vật trong các mẫu đất so với QCVN cao 100 lần	1946 (74PL1)
7	Điểm tồn lưu hóa chất bảo vệ thực vật tại xóm Yên Bang	Xóm Yên Bang, xã Phúc Thành, huyện Yên Thành, tỉnh Nghệ An	Thời gian sử dụng từ năm 1972 – 1994. Kho đã bị phá dỡ chỉ còn nền kho, nằm trong khu dân cư. Hàm lượng hóa chất bảo vệ thực vật trong các mẫu đất so với QCVN 54 chỉ tiêu DDT vượt từ 0,11 đến 3.372,8 lần.	1946 (76PL1)
8	Dự án xử lý điểm ô nhiễm thuốc bảo vệ thực vật tại HTX Mỹ Thịnh, xã Mỹ Thịnh, huyện Yên Thành	xã Mỹ Thịnh, huyện Yên Thành, tỉnh Nghệ An	Kho được xây dựng từ năm 1975 - 1990; khu vực đã được cải tạo làm đất ở, có tồn lưu, mùi thuốc; Hàm lượng hóa chất bảo vệ thực vật trong các mẫu đất so với QCVN cao 108,9 lần	1946 (78PL1)
9	Dự án “ Đóng gói, tập kết, bàn giao đất nhiễm hóa chất bảo vệ thực vật cho dự án POP; hoàn thổ mặt bằng, cải tạo môi trường điểm hóa chất bảo vệ thực vật tại khối Tân Lâm, thị trấn Nghĩa Đàn, huyện Nghĩa Đàn, tỉnh Nghệ An	Khối Tân Lâm, thị trấn Nghĩa Đàn, huyện Nghĩa Đàn, tỉnh Nghệ An	Kho được xây dựng từ năm 1966 – 1982. Chỉ còn nền kho, có tồn lưu thuốc rơi vãi. Diện tích khu vực 2.000 m2 nằm trong khu dân cư. Hàm lượng hóa chất bảo vệ thực vật trong các mẫu đất so với QCVN 54 (DDT) cao nhất 2.050 ppm	1946 (107 PL1)
10	Dự án xử lý điểm tồn lưu HCBVTV tại kho 1 xóm Cồn Cỏ, xã Nghĩa Lộc, huyện Nghĩa Đàn	Xã Nghĩa Lộc, huyện Nghĩa Đàn, Nghệ An	Thời gian sử dụng từ năm 1966 - 1982. Trước đây là kho chứa thuốc BVTV hiện nay đã cấp đất cho dân xây nhà ở, có mùi thuốc; Hàm lượng hóa chất bảo vệ thực vật trong các mẫu đất so với QCVN: DDT (cao nhất): 300,250 ppm	1946 (111PL1)
11	Dự án xử lý điểm tồn lưu HCBVTV tại kho Hải Lộc, xã Nghĩa Lộc, huyện Nghĩa Đàn	Xã Nghĩa Lộc, huyện Nghĩa Đàn, Nghệ An	Thời gian sử dụng từ năm 1978 - 2000. Trước đây là kho chứa thuốc BVTV hiện nay đã cấp đất cho dân xây nhà ở, có mùi thuốc; Hàm lượng hóa chất bảo vệ thực vật trong các mẫu đất so với QCVN: DDT (cao nhất): 307,264 ppm	1946 (112PL1)
12	Dự án xử lý điểm tồn lưu HCBVTV tại xóm 12 – HTX Thượng Sơn, huyện Đô Lương	Xóm 12 – HTX Thượng Sơn, huyện Đô Lương, tỉnh Nghệ An	Kho được xây dựng từ năm 1985-1993; kho được xây dựng từ năm 1993; khu vực này đã được cải tạo làm đất ở; Hàm lượng hóa chất bảo vệ thực vật trong các mẫu đất so với QCVN cao 1.387,4 lần	1946 (151PL1)
13	Dự án xử lý, cải tạo phục hồi môi trường điểm tồn lưu hóa chất thuốc hóa chất BVTV tại xã Tân Phú, huyện Tân Kỳ	xã Tân Phú, huyện Tân Kỳ, Nghệ An	Kho được xây dựng từ năm 1975-1996; vẫn còn kho nhưng đã xuống cấp, không sử dụng, diện tích: 27 m2, có mùi thuốc khó chịu, nằm trên sườn đồi, khoảng cách tới nhà dân: 100 m. Hàm lượng hóa chất bảo vệ thực vật trong các mẫu đất so với QCVN DDT (cao nhất): 291,753 ppm.	1946 (161PL1)
14	Dự án xử lý, cải tạo phục hồi môi trường điểm tồn lưu hóa chất thuốc hóa chất BVTV tại xóm 11, xã Tân An, Tân Kỳ (nhà Ông Huân)	Xã Tân An, huyện Tân Kỳ, Nghệ An	Kho được xây dựng từ năm 1975 -1999; khu vực đã được cải tạo làm đất trồng cây, có mùi; Hàm lượng hóa chất bảo vệ thực vật trong các mẫu đất so với QCVN cao 14.629,8 lần	1946 (167PL1)
15	Dự án xử lý, cải tạo phục hồi môi trường điểm tồn lưu hóa chất	Xóm Đô Lương, xã Tân	Kho được xây dựng từ năm 1975-1994; khu vực đã được cải tạo làm đất ở, còn nền, có mùi; hàm lượng	1946 (169PL1)

TT	Tên điểm tồn lưu	Địa chỉ	Hiện trạng	Ghi chú
	thuốc hóa chất BVTV tại xóm Đô Lương, xã Tân An, huyện Tân Kỳ	An, huyện Tân Kỳ, Nghệ An	hóa chất bảo vệ thực vật trong các mẫu đất so với QCVN cao 1.971,8 lần.	
VI	Hà Tĩnh (16 điểm)			
1	Dự án xử lý ô nhiễm và cải tạo phục hồi môi trường do hóa chất BVTV tồn lưu tại các xã thuộc Huyện Đức Thọ (9 điểm)	tại thôn 3 xã Tân hương; Thôn Hữu chế (thôn Long Mạ cũ) và thôn Đại An (thôn Hòa Bình cũ) xã Đức An, thôn 8 xã Trung lễ; thôn Vĩnh Đại 2, xã Đức Vĩnh (gần UBND xã); thôn Đông Thái 1 xã Tùng Ảnh; tại xóm Long Lập, xã Đức Long; tại thôn 1 trung Hòa (nay là thôn Láng Hạ) và thôn Sơn Hà (nay là thôn Đông Xá), xã Đức Hòa; tại HTX Minh Tiến thôn Đông Quang (nay thôn Minh Lạng), xã Đức Lạng; Tại thôn Thanh Đình và thôn Đại Liên, xã Đức Thanh Tại rú Miệu, thôn Đình Đoài, xã Đức Lạc (điểm trong trường mầm non); tại thôn 9 (nay là thôn Đại Tiến) xã Đức Dũng	Xử lý ô nhiễm môi trường do hóa chất bảo vệ thực vật tồn lưu tại các khu vực có mức vượt QCVN 15 từ 11 đến 11.960 lần	Bc 24
2	Dự án xử lý ô nhiễm môi trường do hóa chất BVTV tồn lưu tại các xã thuộc Huyện Thạch Hà (3 điểm)	Tại xã Thạch Hương (trường Mầm non xã Thạch Hương ; tại khuôn viên Trụ sở UBND xã Bắc Sơn; tại xóm 2 Đồng Đài (nay là thôn Bắc Thượng) tỉnh Hà Tĩnh	Xử lý ô nhiễm môi trường do hóa chất bảo vệ thực vật tồn lưu tại các khu vực có mức vượt QCVN 15 từ 31 đến 967 lần	Bc 24
3	Dự án xử lý ô nhiễm môi trường do hóa chất bảo vệ thực vật tồn lưu tại các xã trên địa bàn các huyện: Hương Khê, Hương Sơn, Thạch Hà, Đức Thọ, tỉnh Hà Tĩnh (4 điểm)	Tại khối 6 thị trấn phố châu huyện Hương Sơn, tại Trầm Bong xã Đức Lập huyện Đức Thọ; xóm 4 xã Hương Long huyện hương Khê; xóm 10 xã Sơn Trường huyện Hương Sơn; tại thôn chế biến, xã Sơn kim 2, Hương Sơn; Thôn trung trinh, xã Việt Xuyên của tỉnh Hà Tĩnh	Xử lý ô nhiễm do hóa chất BVTV hữu cơ khó phân hủy tại các khu vực từ mức vượt 3,69-790,23 lần ngưỡng QCVN 54:2013/BTNMT	Bc 24
V	Quảng Bình (07)			
1	Điểm tồn lưu hóa chất bảo vệ thực vật tại thôn Cổ Hiền	Thôn Cổ Hiền, xã Hiền Ninh, huyện Quảng Ninh	Xây dựng từ năm 1966. Kho đã phá dỡ, mùi khó chịu; gây mệt mỏi cho người và động vật; lượng thuốc tồn lưu là 50 Kg; Chủ yếu là các loại thuốc DDT, 666, Wolftox	1946 (91PL2)
2	Điểm tồn lưu hóa chất bảo vệ thực vật tại thôn Long Đại	Thôn Long Đại, xã Hiền Ninh, huyện Quảng Ninh	Xây dựng từ năm 1966. Kho đã phá dỡ, mùi khó chịu; Lượng thuốc tồn lưu là 50 Kg; Chủ yếu là các loại thuốc DDT, 666, Wolftox	1946 (92PL2)
3	Điểm tồn lưu hóa chất bảo vệ thực vật tại Ruộng Lệ	Thôn Đồng Tư, xã Hiền Ninh, huyện Quảng Ninh	Xây dựng từ năm 1966. Kho đã bị phá dỡ, mùi khó chịu; Lượng thuốc tồn lưu 50kg; chủ yếu là các loại thuốc 666, DDT,..	1946 (93PL2)
4	Điểm tồn lưu hóa chất bảo vệ thực vật tại thôn Văn Bắc	Xã Quảng Hải, huyện Quảng Trạch	Xây dựng từ năm 1966. Kho đã bị phá dỡ, mùi khó chịu; Lượng thuốc tồn lưu 50 Kg; chủ yếu là các loại thuốc 666, DDT, ...	1946 (94PL2)
5	Điểm tồn lưu hóa chất bảo vệ thực vật Nhà kho chứa phân đạm, thuốc trừ sâu phía trước nhà ông Hàu, thôn 4	Phường Quảng Phong, thị xã Ba Đồn, tỉnh Quảng Bình	Hiện nay kho không sử dụng. Có mùi hôi quanh năm. Gây ô nhiễm môi trường nghiêm trọng.	Bc 24
6	Điểm tồn lưu hóa chất bảo vệ thực vật gần cây xăng thôn Liên Hóa (Kho thuốc Động Dài - Liên Sơn)	Xã Mai Hóa, huyện Tuyên Hóa, tỉnh Quảng Bình	Hiện nay kho không sử dụng. Mẫu phân tích vượt QCVN 54:2013/BTNMT. Có mùi hôi quanh năm. Gây ô nhiễm môi trường nghiêm trọng.	Bc 24

TT	Tên điểm tồn lưu	Địa chỉ	Hiện trạng	Ghi chú
7	Điểm tồn lưu hóa chất bảo vệ thực vật tại hộ dân Nguyễn Xuân Tích (Hoàng Đình Ân) - T3 Thanh Lạng	Xã Thanh Hóa, huyện Tuyên Hóa, tỉnh Quảng Bình	Hiện nay kho không sử dụng. Mẫu phân tích vượt QCVN 54:2013/BTNMT. Có mùi hôi quanh năm. Gây ô nhiễm môi trường nghiêm trọng.	Bc 24
VI	Quảng Trị (12)			
1	Xử lý kho thuốc thôn Đặng Xá, xã Vĩnh Lâm, huyện Vĩnh Linh	Thôn Đặng Xá, xã Vĩnh Lâm, huyện Vĩnh Linh	Kết cấu kho thuốc xây bằng bê tông, tường gạch, nền xi măng có diện tích 30m ² , vị trí kho thuốc nằm trong nhà dân ông Nguyễn Văn Phú, xung quanh khu vực kho thuốc đều gần nhà dân.	Bc 24
2	Kho thuốc bảo vệ thực vật hợp tác xã nông nghiệp Vĩnh Hiền, thôn Tân Bình, xã Vĩnh Hiền	thôn Tân Bình, xã Vĩnh Hiền, huyện Vĩnh Linh	Kho thuốc được xây dựng từ năm 1970 đến năm 1979, kết cấu kho thuốc trước đây là nhà tranh, vách đất, nền đất có diện tích 30 m ² chứa các loại thuốc chủ yếu là: 666, 2,4D, Dasudin,... Kho thuốc hiện gần nhà dân	Bc 24
3	Kho thuốc bảo vệ thực vật tại thôn Hương Bắc, xã Vĩnh Kim, huyện Vĩnh Linh	thôn Hương Bắc, xã Vĩnh Kim, huyện Vĩnh Linh	Kho thuốc hiện còn nguyên hiện trạng, nằm gần khu dân cư	Bc 24
4	Xử lý kho thuốc tại thôn Thử Luật, xã Vĩnh Thái, huyện Vĩnh Linh	Thôn Thử Luật, xã Vĩnh Thái, huyện Vĩnh Linh	Kho thuốc có diện tích 20 m ² , vị trí kho thuốc hiện nằm gần nhà dân là hai hộ ông Ngô Thế Thọ và ông Nguyễn Hữu Mại	Bc 24
5	Xử lý kho thuốc tại khu đất trồng cao su của hộ gia đình ông Phạm Quang Huy, thôn Tân Trại, xã Vĩnh Thành	Thôn Tân Trại, xã Vĩnh Thành, huyện Vĩnh Linh	Hiện nay vị trí kho thuốc đang nằm trong khu đất trồng cây cao su của gia đình ông Phạm Quang Huy	Bc 24
6	Xử lý kho thuốc BVTV tại thôn Nam Hùng, xã Vĩnh Nam	Thôn Nam Hùng, xã Vĩnh Nam, huyện Vĩnh Linh	Kho thuốc trước đây có kết cấu dạng hầm ngầm sâu 1 m, diện tích khoảng 10 m ² , nền đất, hiện nay vị trí nền kho cũ là đất trồng hoa của gia đình ông Thái Văn Thước	Bc 24
7	Kho thuốc bảo vệ thực vật của hợp tác xã Vĩnh Thạch – xóm Bọc, xã Vĩnh Thạch, huyện Vĩnh Linh	xóm Bọc, xã Vĩnh Thạch, huyện Vĩnh Linh	Kho thuốc được xây dựng năm 1986, với diện tích 20m ² . tại điểm này người dân đã tận dụng giếng địa đạo để chôn hóa chất. Hiện tại vị trí kho thuốc nằm trong khuôn viên nhà ông Bùi Công An	Bc 24
8	Kho thuốc BVTV tại thôn Sa Bắc, xã Vĩnh Long, huyện Vĩnh Linh	Thôn Sa Bắc, xã Vĩnh Long, huyện Vĩnh Linh	Kết cấu kho thuốc trước đây là nhà cấp 4, gồm 2 ngăn với diện tích khoảng 16 m ² , tường gạch cao 2,5m, mái ngói nền xi măng. Hiện tại kho thuốc nằm cách chợ xếp thôn Sa Bắc khoảng 10 m	Bc 24
9	Xử lý kho thuốc trong khuôn viên nông trường cao su Cồn Tiên, thôn Trung An, xã Hải Thái, huyện Gio Linh	Thôn Trung An, xã Hải Thái, huyện Gio Linh	Kho có diện tích 60 m ² , nền kho thuốc cách nhà dân 50m và cách hồ nước 150 m	Bc 24
10	Xử lý kho thuốc trong vườn cao su của ông Phạm Quang Diễn, thôn Phú Ân, xã Hải Thái, huyện Gio Linh	Thôn Phú Ân, xã Hải Thái	Kho có diện tích 30 m ² , nền kho thuốc cách nhà dân 50m và cách hồ nước 150 m. Vị trí kho thuốc cách khe nước Phú Ân khoảng 50 m. Kho đã bị hư hỏng hoàn toàn và chỉ còn lại nền kho	Bc 24
11	Kho thuốc bảo vệ thực vật Nông trường Trường Sơn, thôn Gia Bình, xã Gio An, huyện Gio Linh	thôn Gia Bình, xã Gio An, huyện Gio Linh	Kết cấu kho trước đây là nhà cấp 4, tường đá ong, nền xi măng. Vị trí kho thuốc nằm gần nhà dân	Bc 24
12	Kho thuốc hợp tác xã sản xuất nông nghiệp Trung Tiến, thôn Hà Thanh, xã Gio Châu, huyện Gio Linh	thôn Hà Thanh, xã Gio Châu, huyện Gio Linh	Kho thuốc có diện tích 10 m ² nằm sát văn phòng HTX Trung Tiến, gần nhà dân và nguồn nước giếng sinh hoạt của người dân	Bc 24

TT	Tên điểm tồn lưu	Địa chỉ	Hiện trạng	Ghi chú
	Thanh, xã Gio Châu, huyện Gio Linh			
VII	Quảng Nam (08 điểm)			
1	Kho thuốc bảo vệ thực vật thôn Trà Châu, xã Duy Sơn, huyện Duy Xuyên	Thôn Trà Châu, xã Duy Sơn, huyện Duy Xuyên	Kho được xây dựng vào năm 1980 nằm trên đồi và bị sập năm 1995 do không được duy tu, bảo dưỡng, kho hiện không còn thuốc. Diện tích khu vực ô nhiễm là 200 m ²	Bc 24
2	Kho thuốc Hòn Chồng	Núi Hòn Chồng, xã Duy Sơn	Thời gian lưu chứa từ 1968 -1996. Diện tích khu vực ô nhiễm là 100 m ²	Bc 24
3	Chi cục Bảo vệ thực vật Quảng Nam- Đà Nẵng	Đội 18, thôn Câu Lâu Tây, Duy Phước, Duy Xuyên	Thời gian lưu chứa từ 1987-2001. Diện tích khu vực ô nhiễm là 50m ²	Bc 24
4	Kho thuốc của HTX Duy Sơn 2	Thôn Chiêm Sơn, Duy Sơn, Duy Xuyên	Thời gian lưu chứa từ 1978- nay. Diện tích khu vực ô nhiễm là 150 m ²	Bc 24
5	Kho thuốc HTX NN Duy Thành	Tổ 13, thôn Thi Thái, Duy Thành, Duy Xuyên	Thời gian lưu chứa từ 1988 - 2000. Diện tích khu vực ô nhiễm là 100 m ²	Bc 24
6	Kho thuốc BVTV của HTX Phú Đông	Thôn Phú Hưng, Xã Tam Xuân 1, Núi Thành	Kho được xây dựng vào năm 1980, hiện không sử dụng và bị sập phần mái vào năm 2012. Kết cấu tường, móng khá vững chắc. Thuốc trong kho được bảo quản tại kho khác, phần đất nhiễm thuốc được hút và đổ vào các bao tải để trong kho. Diện tích khu vực ô nhiễm là 140 m ²	Bc 24
7	Kho thuốc BVTV Đại Hòa	Thôn Lộc Bình, Đại Hòa, Đại Lộc	Kho được xây dựng vào năm 1980, hiện kho thuốc không sử dụng và được niêm phong khoảng 10 năm; trong kho không còn thuốc nhưng chứa nhiều chai lọ. Diện tích khu vực ô nhiễm là 50 m ²	Bc 24
8	Kho thuốc BVTV huyện Đại Lộc	Thôn Hòa Thạch, Đại Quang, Đại Lộc	Kho được xây dựng vào năm 1978 và phá dỡ năm 2007 để lấy vật xây dựng, hiện còn sót lại phần móng, xung quanh trồng chuối và cây ăn trái. Diện tích khu vực ô nhiễm là 120 m ²	Bc 24

Annex 2-a

FORM FOR SUBMITTING SERVICE PROVIDER'S TECHNICAL PROPOSAL³

(This Form must be submitted only using the Service Provider's Official Letterhead/Stationery⁴)

[insert: Location].

[insert: Date]

To: Procurement Unit - UNDP Vietnam

Dear Sir/Madam:

We, the undersigned, hereby offer to render the following services to UNDP in conformity with the requirements defined in the RFP dated *[specify date]*, and all of its attachments, as well as the provisions of the UNDP General Contract Terms and Conditions:

A. Qualifications of the Service Provider

The Service Provider must describe and explain how and why they are the best entity that can deliver the requirements of UNDP by indicating among others the following with appropriate supporting documents:

- a) Profile – describing the nature of business, field of expertise, licenses, certifications, accreditations;
- b) Business Licenses – Registration Papers, Tax Payment Certification, etc.
- c) Track Record – list of clients for similar services as those required by UNDP, indicating description of contract scope, contract duration, contract value, contact references

Client	Contract value	Duration of activity	Services/goods provided	References contact (name, phone, email)

- d) Certificates and Accreditation – including Quality Certificates, Patent Registrations, Environmental Sustainability Certificates, etc. (if any)
- e) Written Self-Declaration that the company is not in the UN Security Council 1267/1989 List, UN Procurement Division List or Other UN Ineligibility List.

(Note: Please refer to Form 1 – Evaluation criteria for providing appropriate information and supporting documents to demonstrate the bidders' capacity)

B. Proposed Methodology for the Completion of Services

The Service Provider must describe how it will address/deliver the demands of the RFP; providing a detailed description of the essential performance characteristics, reporting conditions and quality assurance mechanisms that will be put in place, while demonstrating that the proposed methodology will be appropriate to the local conditions and context of the work.

³ This serves as a guide to the Service Provider in preparing the Proposal.

⁴ Official Letterhead/Stationery must indicate contact details – addresses, email, phone and fax numbers – for verification purposes

(**Note:** Please refer to Form 2 – Evaluation criteria for UNDP requirements when preparing this section)

C. Qualifications of Key Personnel

The Service Provider must provide:

- a) Names and qualifications of the key personnel that will perform the services indicating who is Team Leader, who are supporting, etc.;
- b) CVs demonstrating qualifications must be submitted if required by the RFP

(**Note:** Please refer to Form 3 – Evaluation criteria for UNDP requirements when preparing this section)

We agree to abide by this Proposal for 120 days from the date of proposal submission deadline.

*[Name and Signature of the Service Provider's Authorized
Person]
[Designation]
[Date]*

FORM FOR SUBMITTING SERVICE PROVIDER'S FINANCIAL PROPOSAL⁵

(This Form must be submitted only using the Service Provider's Official Letterhead/Stationery⁶)

The Proposer is required to prepare the Financial Proposal in an envelope separate from the rest of the RFP as indicated in the Instruction to Proposers.

The Financial Proposal must provide a detailed cost breakdown. Provide separate figures for each functional grouping or category.

Any estimates for cost-reimbursable items should be listed separately.

In case of an equipment component to the service provider, the Price Schedule should include figures for both purchase and lease/rent options. UNDP reserves the option to either lease/rent or purchase outright the equipment through the Contractor.

The format shown on the following pages is suggested for use as a guide in preparing the Financial Proposal. The format includes specific expenditures, which may or may not be required or applicable but are indicated to serve as examples.

A. Cost Breakdown per Deliverable*

	Deliverables <i>[list them as referred to in the RFP]</i>	Percentage of Total Price <i>(Weight for payment)</i>	Price <i>(Lump Sum, All Inclusive)</i>
1	Deliverable 1		
2	Deliverable 2		
3		
	Applicable taxes		
	Total	100%	

B. Cost Breakdown by Cost Component *[This is only an Example]:*

Description of Activity	Remuneration per Unit of Time	Total Period of Engagement	No. of Personnel	Total Rate
I. Personnel Services				
1. Services from Home Office				
a. Expertise 1				
b. Expertise 2				
2. Services from Field Offices				
a. Expertise 1				
b. Expertise 2				
II. Out of Pocket Expenses				
1. Travel Costs				
2. Daily Allowance				
3. Communications				
4. Reproduction				
5. Equipment Lease				
6. Others				

⁵ This serves as a guide to the Service Provider in preparing the Proposal.

⁶ Official Letterhead/Stationery must indicate contact details – addresses, email, phone and fax numbers – for verification purposes

III. Other Related Costs				
Applicable taxes				

We agree to abide by this Proposal for 120 days from the date of proposal submission deadline.

[Name and Signature of the Service Provider's Authorized
Person]
[Designation]
[Date]

CHECK LIST OF DOCUMENTS SUBMITTED BY BIDDERS**Note:**

- Bidders are required to review carefully this checklist before submitting proposal to ensure complete submission.
- Maximum email size: 07 MB/email. Bidders can split proposal into several emails if the file size is large
- Technical and Financial Proposals are to be submitted in separate envelop/email by 29 November 2017 (Hanoi time).
- Email and proposal should indicate clearly the name of tender.

Item	Documents	To be completed by bidders		
		Doc submitted Y/N	Number of pages	Remarks
1	Fully filled Technical proposal (pls. refer to template in Annex 2-a) with copies/scan of supporting documents i.e. company profile, company registration certificate, CVs of experts...			
2	Dully signed Price Schedule (pls. Refer to template in Annex 2-b)			
3	This duly filled, checked, certified submission checklist to be attached to the submission			
4	Send email (without attachment) to procurement.vn@undp.org notifying that you already submitted proposal and the number of email/envelop submitted. Notification emails should be sent to above email address by submission deadline or right after you submit proposals (either by email or hard copy).			

[Name and Signature of the Service Provider's Authorized Person]

[Designation]

[Date]

TERMS OF REFERENCE

INTERNATIONAL CONSULTANCY FIRM TO PROVIDE TECHNICAL ASSISTANCE ON THE ASSESSMENT OF INDUSTRIAL AND PRODUCTION SECTORS THAT PRESENT OPPORTUNITIES FOR THE INTRODUCTION OF GREEN CHEMISTRY AND ENERGY SAVING MEASURES IN VIETNAM

1) GENERAL BACKGROUND

The Viet Nam Chemical Agency (Vinachemia) under Ministry of Industry and Trade (MOIT) is implementing the Project “Application of Green Chemistry in Viet Nam to support green growth and reduction in the use and release of POPs/harmful chemicals (Green Chemistry)” funded by GEF/UNDP and with co-financing by Viet Nam agencies/institutions and companies. The project is currently in its first year of implementation.

The project aims to create the enabling environment for the introduction of Green Chemistry in Viet Nam and introduce Green Chemistry applications in productive sectors with the purpose of reducing the use and release of chemicals controlled under Stockholm and Minamata Conventions. The project also expects to result in a reduction in the use and release of chemicals of concern not covered under the MEAs, as well as improve energy and natural resource efficiency and generate Green House Gas (GHG) release reduction co-benefits in the sectors and industries supported by the project.

The project will reduce the use of Persistent Organic Pollutants (POPs) and release of Unintentional Persistent Organic Pollutants (U-POPs) through the introduction of green chemistry approach in six industrial sectors in Viet Nam: chrome plating, pulp and paper manufacturing, plastic manufacturing, textile, pesticides and solvents. Specific guidance for each sector will be developed, and the green chemistry approach will be streamlined into the relevant legislation. Two industrial facilities from 2 different sectors (out of the above six sectors) will be selected for the practical demonstration of the green chemistry approach. The project is structured in 3 components:

1. Developing the enabling environment for Green Chemistry in Viet Nam;
2. Promote awareness on Green Chemistry and the benefits of the application of Green Chemistry and its guiding principles; and
3. Introduce Green Chemistry approaches into priority sectors and at least 2 entities.

The activities to be carried out under this contract are related to Output 3.1.1. (In-depth GC assessments concluded of priority production / manufacturing sectors.) of the project, which is one of the outputs under project Outcome 3.1 (15 g-TEQ/a of UPOPs releases, 1 tonne of POPs, 0.002 tonnes of mercury reduced and at least 65 tons of CO₂ through the introduction of GC in priority sectors),

Output 3.1.1 concerns the assessment of industrial and production sectors that present opportunities for the introduction of Green Chemistry. Based on the preliminary outcomes achieved during the project preparation phase, the following shortlist of priority sectors for the application of GC principles has been identified:

- 1) **Electro-plating industry**, due to its use of PFOS as etching agent and mist suppressant;
- 2) **Plastic manufacturing industry**, due to its use of deca-BDE (which has the potential to be degraded into POPs-PBDE) as well as PBBs (flame retardant) used in many plastic polymers and due to the use of short chain chlorinated paraffins;

- 3) **The textile industry**, due to the potential release U-POPs into products associated with contaminated raw materials (i.e. dyes), the potential use of PFOS and PFAS for water – repellency purposes, the potential use of deca-BDEs as flame retardant, and the use of chlorine as bleaching agent;
- 4) **The pulp and paper industry**, due to the use of chlorine-based bleaching agents that may result in the secondary formation of chlorinated compounds in the environment (including PCDD/F);
- 5) **The pesticide sector**, due to the continuation of the import and use of some restricted chemicals including POPs, and for the use of mercury in some pesticide or biocide formulations
- 6) **The solvent and paint sector**, due to the use of chlorinated solvents and short chain chlorinated paraffins in paints, as well as the use of mercury in some paint formulations.

For common understanding, green chemistry (GC) is defined as “the design of chemical products and processes that reduce or eliminate the use and generation of hazardous substances “. The green chemistry approach has been standardized in 12 general principles: 1. Prevent waste; 2. Maximize atom economy; 3. Design less hazardous chemical syntheses; 4. Design safer chemicals and products; 5. Use safer solvents and reaction conditions; 6. Increase energy efficiency; 7. Use renewable feedstocks; 8. Avoid chemical derivatives; 9. Use catalysts, not stoichiometric reagents; 10. Design chemicals and products to degrade after use; 11. Analyse in real time to prevent pollution; 12. Minimize the potential for accidents⁷.

Studies undertaken as part of this output will allow for the establishment of baselines and identify opportunities for green chemistry introduction on a sector-based approach. Assessment results will be presented in sector-specific reports.

The baseline situation and potential for implementation in the 6 industrial sectors which will be covered under the Green Chemistry project are reported in Annex I

UNDP, the GEF Implementation Agency for this project, is seeking an international consultancy firm to provide technical assistance, guidance, training and supervision to the Vietnamese national consultancy firm recruited with a separate TOR to undertake assessment the above mentioned six targeted industrial sectors.

2) OBJECTIVES OF THIS ASSIGNMENT

The objectives of the assignment are to provide technical support, guidance, training and supervision to a Vietnamese consultancy firm and national consultants.

The national consultancy firm to be supported has been recruited to undertake in-depth GC assessment of the six targeted industrial sectors in order to select two facilities (out of the six targeted industries) for demonstration of the green chemistry. The national consultants to be supported has been recruited to undertake to select two factories and to prepare demonstration plans for those two selected factories as well as develop criteria for POPs/mercury baseline assessment and calculations of POPs/mercury baseline and reduction.

3) SCOPE OF WORK

Under this assignment, the international consultants are expected to provide technical support, guidance, training and supervision to a Vietnamese consultancy firm and national consultants to facilitate the completion and ensuring the quality of the following tasks: 1) site visits in a relevant number of factories / plants for each of the six targeted industrial sectors (textile, plastic, pulp and paper, electro-plating, pesticide and solvent), 2) assessment of data gathered during site surveys, and drafting of survey and sector reports; 3) selection of 2 demonstration facilities and development of Green Chemistry demonstration plans for these facilities / factories; 4) criteria for POPs/mercury baseline assessment and calculation of POPs/mercury baseline and reduction of the above six sectors.

For this purpose, the international consultants will work in close coordination and cooperation with the national consultancy firm and national consultants.

⁷ Anastas, P. T.; Warner, J. C. Green Chemistry: Theory and Practice, Oxford University Press: New York, 1998, p.30.

4) TASKS

The International consultancy firm will perform the following tasks:

Task 1: Support national consultancy firm to undertaking survey of the six industrial sectors

- 1) Provide assistance to the consultancy firm in the drafting of the work-plan for the activity, including the plan for the 48 site visits in industrial sites;
- 2) Provide training to the Vietnamese consultancy team on the implementation of Green Chemistry in the 6 sectors of textile, plastic, electro-plating, pulp and paper, solvent and pesticides, before starting the site visits to the industrial sites. More specifically, the training should be addressed at:
 - a. Analysis of the production processes for the six sectors;
 - b. Criteria for the assessment of POPs use and release, and compliance with Green Chemistry principle at baseline.
 - c. Methodology for studying the Chemical profile of factories (simplified mass balances, type and amount of chemicals and raw material used in the production process, with CAS code) with specific reference to the use / release of POPs, mercury and other POPs/PTSs;
 - d. Methodologies for conducting waste inventory;
 - e. Methodologies for the assessment of energy profile of industrial plants;
 - f. Techniques and equipment for environmental monitoring in industrial sites (online monitoring of stack flue gas, periodical sampling of effluents, etc.);
 - g. Methodologies for the assessment and reduction of water consumption.
- 3) Introduce, as part of the training, a template report to be used for reporting the outcome of the site survey at the industries in a consistent and standardised manner;
- 4) Lead and conduct the site visit of at least 2 out of the 8 manufacturing plants to be visited by the Vietnamese consultancy from each sector (total of 12 site visits). The factories to be visited will cover both Small and Medium Enterprises (SMEs) and largescale plants. During each visit, the expert group (the team of the selected Vietnamese national consultancy plus the international consultant) will discuss with the plant managers the possible GC interventions for the sector in order to raise awareness and collect advice on the practical application of these interventions.
- 5) Provide assistance to the consultancy in the drafting of the site visit reports and revise the site visit reports;

Task 2: Provide assistance to the consultancy firm the preparation of sectoral assessment reports and in the selection of demonstration plants

- 1) Guiding the national consultancy team to assess data collected during the field surveys of the targeted industrial sectors, identify gaps/shortcomings against GC principles and propose possible interventions for each sector to implement at least some of the Green Chemistry principles in its production process;
- 2) Review the sectoral report drafted by the Vietnamese consultancy for each of the 6 sectors examined, which will contain a proposal for a number of possible interventions for each sector to implement at least some of the Green Chemistry principle in the production process.

Task 3: Provide support to the national consultants to prepare a Green Chemistry demonstration plan for two selected plants

- 1) Provide support and advice on the selection of two plants for the demonstration of Green Chemistry.
- 2) Provide assistance to the Vietnamese consultancy in drafting the implementation plan for the demonstration of Green Chemistry in two plants / factories. This support may include advice on required modification of the production process, substitution of hazardous (POPs, PTS, mercury) chemicals with safer ones, or both.
- 3) Provide guidance on the methods for monitoring of the demonstration process as well as methods for calculation of the chemicals/POPs/mercury used and released, GHGs emissions and energy savings, after the implementation of GC approaches in comparison with the baseline, should be also supported by the international consultant and included in the demonstration plan

Task 4: Criteria for POPs/mercury baseline assessment and calculation of POPs/mercury baseline and reduction of the above six sectors

- 1) Provide support and advice to national consultants on the development of criteria for POPs/mercury baseline assessment for each sector.
- 2) Provide support and advice to national consultants on the methodology to calculate POPs/mercury baseline and reduction

The international team will consist of at least two (02) international consultants – one team leader and one team member. The team leader is in charge of Task 1, 2 & 3. The team member is in charge of Task 4.

5) METHODOLOGY:

The selected consultancy firm will propose and discuss with UNDP and MOIT the approach in undertaking the assignment. The detailed assignment plan will be submitted and approved by UNDP and the PMU before commencing the assignment.

6) DURATION OF ASSIGNMENT, DUTY STATION AND EXPECTED PLACES OF TRAVEL

Duration and Timing: approximate 50 working man-day is expected during the period from December 2018– July 2019 including two missions to Hanoi and project provinces.

Duty station: Home based with travel to Hanoi, and other provinces in Vietnam.

The international consultants will have two missions, 10 days each mission to Viet Nam (at PMU office in Hanoi and project provinces). Travel cost to project provinces will be paid separately by PMU based on the UN-EU cost norms.

7) FINAL PRODUCTS

The international consultants shall deliver the following:

No.	Type of deliverables	Deadline
1	Detailed workplan of the assignment	Two weeks upon the signing of the contract
2	Training material and guidelines for the site visit (inspection) in 6 industrial sectors with the purpose to assess Green Chemistry implementability	15 January 2019
3	Templates for the site visits (inspection) in 6 industrial sectors	15 January 2019
4	Revision of the sectorial reports developed by the consultancy with proposal for the implementation of Green Chemistry by sector	30 March 2019
5	Criteria for POPs/mercury baseline assessment for each sector	30 January 2019
6	Calculations of POPs/mercury baseline and reduction	30 April 2019
7	Revision of the implementation plan for the demonstration of Green Chemistry in two industrial facilities	30 June 2019

8) PROVISION OF MONITORING AND PROGRESS CONTROLS

Coordination and reporting. The selected international consultancy firm will coordinate with PMU staff and the UNDP Programme Officer with regular consultation and guidance by the MOIT.

Technical support and supervision. The international consultants will support and supervise the activity of the Vietnamese consultancy, by specifically providing experience on POPs and green chemistry. Therefore, the international consultant shall coordinate all activities with the Vietnamese consultancy, and will also provide specific training for the execution of specific tasks to be carried by the Vietnamese consultancy out under their assignment.

9) REQUIRED QUALIFICATIONS AND REQUIREMENTS

To be eligible, bidders should have minimum following qualifications:

- At least 5 years of experience in the field of chemistry and environment and more specially, in the management of POPs, hazardous chemicals and hazardous waste, green chemistry, cleaner production
- At least 5 years of experience in calculating POP and UPOP release and mercury
- Working experience with enterprises, industrial facilities/areas
- Working experience with Viet Nam

The Team Leader should have knowledge, skills and experience as follows:

- Postgraduate or higher education degree in chemistry, , environment, engineering, or related fields;
- At least 10 years of practical working experience in environmental management, chemical and waste management in industrial processes, management of hazardous and toxic chemical including POPs/PTSs and Mercury;
- At least 10 years of experience in environmental audits, such as: energy saving in industrial processes, management of POPs, management of hazardous chemicals and hazardous waste, environmental monitoring of industrial processes (including the development of monitoring plans), sampling of waste and environmental indicators, handling of waste and hazardous substances;
- Knowledge of the use of chemicals in industrial processes with specific reference to two or more sectors among the six targeted industrial sectors;
- Good understanding and knowledge of MEAs (especially Stockholm Convention on POPs, Minamata Convention on Mercury, Basel Convention)
- Fluent in written and spoken English (with submission of at least two sample reports)

The Team Member should have knowledge, skills and experience as follows:

- Postgraduate or higher education degree in chemistry, , environment, engineering, or related fields;
- At least 10 years of practical working experience in environmental management, chemical and waste management in industrial processes, management of hazardous and toxic chemical including POPs/PTSs and Mercury;
- Good understanding and experience in POPs/mercury baseline assessment and calculation;
- Good understanding and knowledge of MEAs (especially Stockholm Convention on POPs, Minamata Convention on Mercury, Basel Convention)
- Have working experience in developing countries, experience of Viet Nam is an advantage.
- Fluent in written and spoken English (with submission of at least two sample reports)

10) PAYMENT TERMS

- The first instalment of 10% contract amount will be paid upon submission of the detail assignment plan agreed by the UNDP, PMU/MOIT;
- The second instalment of 40% contract amount will be paid upon completion of the first mission to Viet Nam with submission deliverables 2, 3, 5, with satisfactory acceptance by UNDP and MOIT/PMU,
- The last payment of 50% will be paid upon the completion of the second mission to Viet Nam and all products required by the assignment, with satisfactory acceptance by UNDP and MOIT/PMU.

ANNEX I: ANALYSIS OF GC POTENTIAL IMPLEMENTATION IN THE 6 INDUSTRIAL SECTORS IN VIETNAM

Table 1 Electro-Plating Sector - Green Chemistry interventions capable to reduce the use and releases of POPs.

Green Chemistry principle	Situation in the Chrome Plating industry in Viet Nam	Potential GC intervention	Relevance to POP
1. Prevent waste:	Waste slug and wastewater containing POPs and toxic metal are a common issue of the Chrome Plating Industry in Viet Nam.	Increase the number of closed-loop processes to prevent the release of contaminants in wastewater, including PFOS. Ensure rinse water is treated before release. Improve waste treatment processes. Reduce CrVI to CrIII before discharge.	Yes, direct
2. Maximize atom economy:	Most small scale chrome-plating plants use basic processes without automated control of bath conditions.	Reduce/optimize the use of etching agents. Adopt Direct Current (DC) rectifiers and automated control of the chromium bath to reduce the loss of the plating agent (chromium).	Yes, direct
3. Design less hazardous chemical syntheses:	Chrome plating processes making use of PFOS as etching agent and mist suppressant.	Use alternative non-PFOS mist suppressant -see below	Yes, direct
4. Design safer chemicals and products:	N/A	N/A	N/A
5. Use safer solvents and reaction conditions:	PFOS based mist suppressants used for the prevention of chrome-contaminated mists in the workplace.	Use non chemical mist-suppressants (like poly-propylene floating balls) or non PFOS mist suppressants. Introduce alternative chrome-plating processes (under development: trivalent chromium, spray and PVD coatings).	Yes, direct
6. Increase energy efficiency:	Most chrome-plating small-scale plants use basic processes without process control to reduce energy consumption.	Introduce process control to reduce energy use for heating baths (e.g. insulation of plating baths to prevent energy losses).	Yes, indirect (U-POPs)
7. Use renewable feedstocks:	N/A	N/A	N/A
8. Avoid chemical derivatives:	N/A	N/A	N/A
9. Use catalysts, not stoichiometric reagents:	Sulfuric acid mostly used as catalytic agent	Use of less toxic, more balanced, mixtures of catalysts to reduce toxicity of the bath.	No
10. Design chemicals and products to degrade after use:	N/A	N/A	N/A
11. Analyse in real time to prevent pollution:	No real-time monitoring of effluent implemented in most of the small scale plants	Real time monitoring of air and wastewater effluents.	Yes, indirect
12. Minimize the potential for accidents:	Airborne release of chromic acid in the workplace is one of the major causes of worker illness. However, the use of PFOS as mist suppressant introduces a new source of risks in case of non-closed loop processes.	Use of non-chemical mist suppressant like poly-propylene floating balls on the bath surface. Use of chromic acid scrubbers.	Yes, direct

Table 2 Plastic manufacturing sector - Green Chemistry measures and prevention of POPs use and releases.

GC category	Situation in the polymer industry In Viet Nam	Potential GC interventions	Relevance to POP
1. Prevent waste:	Waste from polymer production may contain flame-retardants.	Better control of waste effluent. Reuse/recycle plastic wasted during manufacturing.	Yes, direct
2. Maximize atom economy:	Optimization of processes in a few advanced factories.	Improvement of the polymerization process. Reduce the amount of additives through optimized processes.	Yes, direct
3. Design less hazardous chemical syntheses:	Deca-BDEs are still being imported and used as additives in a number of plastic polymers.	Replace brominated flame retardants with non-brominated non-POPs flame-retardants.	Yes, direct
4. Design safer chemicals and products:	Deca-BDEs are not produced in Viet Nam.	Restrict / control the import of deca-BDE in the country.	Yes, direct
5. Use safer solvents and reaction conditions:	Deca-BDEs are still imported and incorporated as part of a number of plastic polymers.	Improve design of articles so that Flame Retardants are not necessary (introduce alternative measures to reduce fire risk).	Yes, direct
6. Increase energy efficiency:	Adoption of energy saving measures is currently very limited.	Reduce heating through better process control and insulation of reactors.	Yes, direct
7. Use renewable feedstocks:	The plastic sector in Viet Nam often recycles plastic without checking for the content of PBDEs.	Introduce quality criteria for plastic manufacturing, including the use of recycled plastic.	Yes, direct
8. Avoid chemical derivatives:	Not relevant for this type of industry	Not relevant for this type of industry	N/R
9. Use catalysts, not stoichiometric reagents:	Not relevant for this type of industry	Not relevant for this type of industry	N/R
10. Design chemicals and products to degrade after use:	No biodegradable plastics are being produced in Viet Nam.	Production of bio-degradable/bio-plastics, which may prevent the release of U-POPs as a result of accidental combustion.	Yes, direct
11. Analyze in real time to prevent pollution:	Few plants are adopting real time monitoring.	Real time monitoring of air and wastewater effluents introduced.	Yes, indirect
12. Minimize the potential for accidents:	Storage of hazardous chemicals may represent a potential risk.	Improve the storage of hazardous chemicals, by optimizing and reducing the quantities stored, and by establishing surveillance.	Yes, indirect

Table 3. Textile sector - Green Chemistry measures and prevention of POPs use and releases.

GC category	Situation in the polymer industry in Viet Nam	Potential GC intervention	Relevance to POP
1. Prevent waste:	Waste from polymer production may contain flame retardants.	Quality management of incoming fibers. Better control of waste effluent. Avoid processing fibers contaminated with hazardous chemicals, such as pesticides, unless an analytical certificate has been provided. Optimize water consumption and online control of wastewater quality.	Yes, direct and indirect
2. Maximize atom economy:	Optimisation of processes has only been introduced in a few advanced factories.	Improve the quality and quantity of chemicals used, including regular revision and assessment of the recipes, optimal scheduling in production, etc.	Yes, direct
3. Design less hazardous chemical syntheses:	PFOS or PFAS may be used in the finishing process to provide water-repellent features to the fibers.	Replace PFOS and PFAS with other water-repellent substances. Replace PBDEs flame retardants with other FR substances. Build a database of the chemicals and mixtures used in the textile sector to facilitate the identification of alternatives.	Yes, direct
4. Design safer chemicals and products:	PFOS or PFAS are not produced in Viet Nam.	Restrict/control the import of PFOS and PFAS substances in the country. Restrict/control the import of PBDEs flame retardants in the country. Adopt Hydrogen Peroxide bleaching as a substitute of Sodium Hypochlorite bleaching.	Yes, direct
5. Use safer solvents and reaction conditions:	PFOS are still used in a number of textile application. No data is available on the use of PBDEs.	Identify / develop alternative to PFOS as water - repellent substances. Identify / develop alternatives to PBDEs as flame retardants.	Yes, direct
6. Increase energy efficiency:	The adoption of energy saving measures is very limited.	Reduce heating through better process control and insulation of vessels.	Yes, indirect (U-POP)
7. Use renewable feedstocks:	The textile sector already makes wide use of natural fibers.	Introduce quality criteria for natural fibers, including verification of organic residues. Perform testing of intermediate and final products to verify the presence of hazardous substances.	Yes, direct and indirect
8. Avoid chemical derivatives:	Not relevant	Not relevant	Not Relevant
9. Use catalysts, not stoichiometric reagents:	N/A	N/A	Not Available
10. Design chemicals and products to degrade after use:	Many substances used are not biodegradable and are released in the environment during / after manufacturing processes.	Promote the use of surfactants that may easily degrade after release without forming toxic metabolites. Use of non-PFOS antifoaming agents. Develop bio dyes for the replacement of toxic dyestuff	Yes, indirect and direct
11. Analyse in real time to prevent pollution:	Most plants are of small scale and do not adopt real time monitoring.	Real time monitoring of air and wastewater effluents. Adopt automated control of process parameters (e.g. temperature, liquor level, chemicals feed) to reduce the use of chemicals and auxiliaries.	Yes, indirect
12. Minimize the potential for accidents:	Storage of chemicals, including bleaching substances, represent a substantial risk.	Improve the storage of hazardous chemicals, by optimizing and reducing the quantities stored, and by establishing surveillance.	Yes, direct and indirect

Table 4. Pulp and Paper Sector - Green Chemistry measures and prevention of POPs use and releases.

GC category	Situation in the pulp and paper industry In Viet Nam	Potential GC intervention	Relevance to POP
1. Prevent waste:	Poor recycling of the lignin residue from pulping results in a very high organic load released to wastewater, which when associated with high chlorine content (derived from chlorine bleaching) results in a high level of chlorinated compounds released to wastewater.	Improve recycling of lignin from the wastewater process. Improve wastewater treatment. Assess and implement water reuse in various processes.	Yes, indirect
2. Maximize atom economy:	Optimisation of processes has only been introduced in a few advanced factories.	Improve the recycling of lignin before bleaching may lead to a reduction of chemicals needed for bleaching.	Yes,, indirect
3. Design less hazardous chemical syntheses:	Very often there little knowledge about chemicals used. PFOS or PFAS may be used in the finishing process to provide water- repellent features to the paper.	Build a database of chemicals used in the pulp and paper sector to increase awareness. Replace PFOS and PFAs with other water-repellent substances.	Yes, direct and indirect
4. Design safer chemicals and products:	PFOS or PFAS are not only being produced in Viet Nam.	Restrict/control the import of PFOS and PFAS substances in the country. Adopt Hydrogen Peroxide bleaching or ozone bleaching as a substitute to Sodium Hypochlorite bleaching.	Yes, direct and indirect
5. Use safer solvents and reaction conditions:	PFOS is still used in a number of water or grease repellent paper applications.	Identify / develop alternatives to PFOS as water -repellent substances.	Yes, direct
6. Increase energy efficiency:	Adoption of energy saving measures is very limited.	Reduce heating through better process control and insulation of vessels.	Yes, indirect (U-POPs)
7. Use renewable feedstocks:	Pulp and paper is made from natural fibers, however deforestation and sustainability of plantations for the pulp and paper industry remains an issue.	Introduce quality criteria for natural fibers, including verification of organic residues. Test the final product for the presence of chemical residues, including POPs.	Yes, direct and indirect
8. Avoid chemical derivatives:	Not relevant.	Not relevant.	N/R
9. Use catalysts, not stoichiometric reagents:	Only applicable to large plants.	Using a solid metal catalyst and a hydrogen peroxide solution as an 'activator' to kill microorganisms by oxidation.	N/R
10. Design chemicals and products to degrade after use:	Paper is mostly biodegradable, However it may contain additives or trace chemicals, which are persistent or not easily biodegradable.	Develop a database of chemicals used in the pulp and paper industry. Test final product for the presence of POPs and other hazardous substances.	Yes, direct and indirect
11. Analyse in real time to prevent pollution:	Most plants are small scale and have not adopted real time monitoring.	Real time monitoring of all process modules. Real time monitoring of air and wastewater effluents. Adopt automated control of process parameters (e.g. temperature, liquor level, chemicals feed) to reduce applied chemicals and auxiliaries.	Yes, indirect
12. Minimize the potential for accidents:	Storage of chemicals including acid tanks and chlorine may represent a serious risk in the pulp and paper sector.	Improve the storage of hazardous chemicals, optimizing and reducing the quantities stored, and establishing surveillance.	Yes, direct and indirect

Table 5. Solvent and Paint Industry - Green Chemistry measures and prevention of POPs use and releases

GC category	Situation in the solvent and bio-solvent industry in Viet Nam	Potential GC intervention	Relevance to POP / mercury
1. Prevent waste:	N/A	N/A	
2. Maximize atom economy:	N/A	N/A	
3. Design less hazardous chemical syntheses:	The petro-chemical industry and the chlor-alkali process, produce most of the solvents used in Viet Nam.	Firms manufacturing non-harmful bio-solvents are emerging. Promote the development of industries in the bio-solvent sector.	Yes, direct and indirect
4. Design safer chemicals and products:	The use of chlorinated and halogenated solvents is widespread in industrial processes. Some solvents produced by the petro-chemical industry (BTEX series) are also commonly used and known for their toxicity. SCCP are used in the formulation of paints.	Design solvents, which can replace halogenated solvents or BTEX solvents commonly used in products. Redesign paint mixtures to avoid the use of SCCP.	Yes, direct and indirect
5. Use safer solvents and reaction conditions:	N/A	N/A	
6. Increase energy efficiency:	N/A	N/A	
7. Use renewable feedstocks:	As the petro-chemical industry and the chlor-alkali process produce most of the solvents used in Viet Nam, feedstocks are non-renewable. A limited number of firms are currently investing in bio-solvents.	Production of solvents from the distillation of vegetable, renewable feedstock.	No – however reduce GHG
8. Avoid chemical derivatives:	N/A	N/A	
9. Use catalysts, not stoichiometric reagents:	N/A	N/A	
10. Design chemicals and products to degrade after use:	Chlorinated solvents and aromatic solvents are usually hard to degrade. Most of the solvents used in Vietnamese industry are imported chlorinated or aromatic solvents. Some paint formulation are still based on the use of SCCP.	Develop the production and promote the use of bio-degradable solvents to replace chlorinated, non-degradable solvents. Develop the production of paints not containing SCCP.	Yes – direct and indirect
11. Analyse in real time to prevent pollution:	N/A	N/A	
12. Minimize the potential for accidents:	N/A	N/A	

Table 6. Pesticide Production and Application - Green Chemistry measures and prevention of POPs use and releases

GC category	Situation of the pesticide production and application in Viet Nam	Potential GC intervention	Relevance to POP / mercury
1. Prevent waste:	As in many other countries, the issue of pesticide waste containers is serious and not addressed yet.	Reduce the amount of pesticide containers. Ensure that after use containers are not dumped in the environment.	
2. Maximize atom economy:	Pesticides are not manufactured in Viet Nam. In most cases pesticides are re-formulated.	Promote the use of bio-pesticides. As bio-pesticides are synthesized by living organisms, the promotion of their use will ensure maximum atom economy in their synthesis.	Limited – indirect
3. Design less hazardous chemical syntheses:	As historically demonstrated, the design of pesticides is linked to the production and release of many POPs as intermediate substances or impurities in the final product.	Replace the production of traditional pesticides with bio-pesticides, as the biosynthesis of pesticide is intrinsically safe and extremely efficient.	Yes – indirect relevance
4. Design safer chemicals and products:	Most pesticides are imported in Viet Nam.	Bio pesticides - although in some cases they may be very effective like conventional pesticides - in general do not exhibit the properties of POPs and are biodegradable. In Viet Nam, 49 bio-pesticides have been registered as active ingredients, however these are in the early stages of commercialisation. Promoting the use of bio-pesticide would limit the use of conventional pesticides including POPs pesticides.	Yes - Indirect
5. Use safer solvents and reaction conditions:	No specific action in Viet Nam has been taken to introduce the use of safer solvents in pesticide production.	Promote the use of bio-solvents in the formulation of bio pesticides.	Yes – indirect
6. Increase energy efficiency:	Synthetic chemistry may require high energy processes.	The active ingredients of bio-pesticides have been synthesized by plants. Energy may be required for extraction – concentration. Promoting the use of bio-pesticides would limit the use of energy as compared to the manufacturing of synthetic pesticides.	No
7. Use renewable feedstocks:	Most pesticides are synthetic pesticides manufactured abroad.	Bio-pesticides are always extracted from natural, renewable materials.	No
8. Avoid chemical derivatives:	Most pesticides are synthetic pesticides manufactured abroad.	Not relevant	No
9. Use catalysts, not stoichiometric reagents:	Most pesticides are synthetic pesticides manufactured abroad.	Not relevant	No
10. Design chemicals and products to degrade after use:	Most pesticides are synthetic pesticides manufactured abroad. Some of the synthetic pesticides recently imported in Viet Nam are designed to ensure biodegradability.	Bio-pesticides are normally biodegradable, therefore do not exhibit POPs characteristics.	Yes
11. Analyse in real time ...	N/A	N/A	
12. Minimize the potential for accidents:	N/A	As bio-pesticides are generally biodegradable, accidental releases would be easier to remediate.	Indirect

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