



GEF-6 REQUEST FOR PROJECT ENDORSEMENT/APPROVAL

PROJECT TYPE: Medium-sized Project
 TYPE OF TRUST FUND: GEF Trust Fund

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PART I: PROJECT INFORMATION

| | | | |
|--|---|---|---------------|
| Project Title: Application of Green Chemistry in Viet Nam to support green growth and reduction in the use and release of POPs/harmful chemicals | | | |
| Country(ies): | Viet Nam | GEF Project ID: ¹ | 9379 |
| GEF Agency(ies): | UNDP (select) (select) | GEF Agency Project ID: | 5723 |
| Other Executing Partner(s): | | Submission Date: | 10 April 2017 |
| GEF Focal Area (s): | Chemicals and Wastes | Project Duration (Months) | 36 |
| Integrated Approach Pilot | IAP-Cities <input type="checkbox"/> IAP-Commodities <input type="checkbox"/> IAP-Food Security <input type="checkbox"/> | Corporate Program: SGP <input type="checkbox"/> | |
| Name of Parent Program | [if applicable] | Agency Fee (\$) | 189,981 |

A. FOCAL AREA STRATEGY FRAMEWORK AND OTHER PROGRAM STRATEGIES²

| Focal Area Objectives/Programs | Focal Area Outcomes | Trust Fund | (in \$) | |
|--|--|------------|-----------------------|--------------|
| | | | GEF Project Financing | Co-financing |
| (select) CW-1 Program 1 (select) | Outcome 1.2: Innovative technologies are successfully demonstrated, deployed and transferred | GEFTF | 430,000 | 2,000,000 |
| (select) CW-2 Program 3 (select) | Outcome 3.1: Quantifiable and verifiable tonnes of POPs eliminated or reduced | GEFTF | 1,100,000 | 5,400,000 |
| (select) CW-2 Program 4 (select) | Outcome 4.1: Mercury is reduced | GEFTF | 469,800 | 1,000,000 |
| (select) (select) (select) | | (select) | | |
| (select) (select) (select) | | (select) | | |
| (select) (select) (select) | | (select) | | |
| (select) (select) (select) | | (select) | | |
| (select) (select) (select) | | (select) | | |
| Total project costs | | | 1,999,800 | 8,400,000 |

B. PROJECT DESCRIPTION SUMMARY

Project Objective: The proposed 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 MEAs. The project also expects to result in a reduction in the use and release of chemicals of concern not covered under 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.

| Project Components/ Programs | Financing Type ³ | Project Outcomes | Project Outputs | Trust Fund | (in \$) | |
|------------------------------|-----------------------------|------------------------------------|--|------------|-----------------------|------------------------|
| | | | | | GEF Project Financing | Confirmed Co-financing |
| Component 1: Developing the | TA | Outcome 1.1 – Enabling Environment | Output 1.1.1 National institutional capacity for | GEFTF | 250,000 | 400,000 |

¹ Project ID number remains the same as the assigned PIF number.

² When completing Table A, refer to the excerpts on [GEF 6 Results Frameworks for GETF, LDCF and SCCF](#) and [CBIT programming directions](#).

³ Financing type can be either investment or technical assistance.

| | | | | | | |
|---|----|--|--|-------|-----------|-----------|
| Enabling Environment for Green Chemistry in Viet Nam. | | for Adoption of Green Chemistry Practices Established | Green Chemistry adoption assessed Output 1.1.2 Regulatory and policy assessment pertaining to Green Chemistry and POPs completed and gaps identified. Output 1.1.3 Specific standards and regulations on Green Chemistry, including incentive scheme, developed. Output 1.1.4 Green Chemistry incentives introduced following Cost-Benefit Analyses (CBAs). Output 1.1.5 A network of GC experts and institutional expertise created through capacity building and training. | | | |
| Component 2: Promote awareness on Green Chemistry and the benefits of the application of Green Chemistry and its guiding principles (Implemented by MOIT and MONRE) | TA | Outcome 2.1 – Awareness on GC and its guiding principles increased to a level necessary to support a shift to GC application. | Output 2.1.1 Awareness on Green Chemistry created among decision makers and stakeholders. Output 2.1.2 Corporate Social Responsibility (CSR) Green Chemistry initiatives initiated. Output 2.1.3 Green Chemistry extra-lecture integrated in the universities and MOIT training institutes . Output 2.1.4. InfoTech exhibition: MOST and commercial/trade promotion of advance tech countries. | GEFTF | 200,000 | 1,660,000 |
| Component 3: Introduce Green Chemistry approaches into priority sectors and at least 2 entities | TA | Outcome 3.1 - 15 g-TEQ/a of UPOPs releases, 1 tonne of POPs, 0.002 tonnes of mercury reduced through the introduction of GC in priority sectors. | Output 3.1.1 In-depth GC assessments concluded of priority production/manufacturing sectors. Output 3.1.2 Technical tools and guidance developed for introduction of Green Chemistry in priority sectors. Output 3.1.3 Green Chemistry approaches introduced in at least 2 | GEFTF | 1,200,000 | 6,040,000 |

| | | | | | | |
|--|----------|---|---|----------|------------------|------------------|
| | | | entities. | | | |
| Component 4: Project Monitoring and Evaluation and Dissemination of Project Results, Lessons Learned and Experiences | TA | Outcome 4.1 - Project results monitored, adaptive management applied in response to needs identified and findings extracted. Outcome 4.2 - Lessons-learned, experiences, and best practices extracted and disseminated at national, regional and global level. | Output 4.1.1 Adaptive management applied in response to needs, annual and PIR findings. Output 4.2.1 Lessons-learned, best practices and experiences collected and disseminated at national, regional and global level to support replication. | GEFTF | 168,000 | |
| | (select) | | | (select) | | |
| | (select) | | | (select) | | |
| | (select) | | | (select) | | |
| | (select) | | | (select) | | |
| Subtotal | | | | | 1,818,000 | 8,100,000 |
| Project Management Cost (PMC) ⁴ | | | | GEFTF | 181,800 | 300,000 |
| Total project costs | | | | | 1,999,800 | 8,400,000 |

C. CONFIRMED SOURCES OF CO-FINANCING FOR THE PROJECT BY NAME AND BY TYPE

Please include evidence for co-financing for the project with this form.

| Sources of Co-financing | Name of Co-financier | Type of Cofinancing | Amount (\$) |
|---------------------------|--|---------------------|------------------|
| GEF Agency | UNDP | Grants | 200,000 |
| Recipient Government | MOT | In-kind | 700,000 |
| Donor Agency | JICA | Grants | 1,500,000 |
| Private Sector | Plato | Equity | 2,000,000 |
| Private Sector | Key Lab | In-kind | 1,000,000 |
| Private Sector | Bai Bang Pulp and Paper | Equity | 1,000,000 |
| Recipient Government | Viet Nam Environmental Protection Fund | Loans | 2,000,000 |
| (select) | | (select) | |
| (select) | | (select) | |
| Total Co-financing | | | 8,400,000 |

D. TRUST FUND RESOURCES REQUESTED BY AGENCY(IES), COUNTRY(IES), FOCAL AREA AND THE PROGRAMMING OF FUNDS

| GEF Agency | Trust Fund | Country Name/Global | Focal Area | Programming of Funds | (in \$) | | |
|------------|------------|---------------------|----------------------|----------------------|---------------------------|---|---------------|
| | | | | | GEF Project Financing (a) | Agency Fee ^{a)} (b) ² | Total (c)=a+b |
| UNDP | GEF TF | Viet Nam | Chemicals and Wastes | SAICM | 430,000 | 40,850 | 470,850 |
| UNDP | GEF TF | Viet Nam | Chemicals and Wastes | POPS | 1,100,000 | 104,500 | 1,204,500 |
| UNDP | GEF TF | Viet Nam | Chemicals and Wastes | Mercury | 469,800 | 44,631 | 514,431 |

⁴ For GEF Project Financing up to \$2 million, PMC could be up to 10% of the subtotal; above \$2 million, PMC could be up to 5% of the subtotal. PMC should be charged proportionately to focal areas based on focal area project financing amount in Table D below.

| | | | | | | | |
|------------------------------|----------|--|----------|------------------------|-----------|---------|-----------|
| (select) | (select) | | (select) | (select as applicable) | | | , |
| (select) | (select) | | (select) | (select as applicable) | | | 0 |
| (select) | (select) | | (select) | (select as applicable) | | | , |
| (select) | (select) | | (select) | (select as applicable) | | | , |
| (select) | (select) | | (select) | (select as applicable) | | | , |
| (select) | (select) | | (select) | (select as applicable) | | | , |
| (select) | (select) | | (select) | (select as applicable) | | | , |
| Total Grant Resources | | | | | 1,999,800 | 189,981 | 2,189,781 |

a) Refer to the Fee Policy for GEF Partner Agencies

E. PROJECT'S TARGET CONTRIBUTIONS TO GLOBAL ENVIRONMENTAL BENEFITS⁵

Provide the expected project targets as appropriate.

| Corporate Results | Replenishment Targets | Project Targets |
|---|--|--|
| 1. Maintain globally significant biodiversity and the ecosystem goods and services that it provides to society | Improved management of landscapes and seascapes covering 300 million hectares | <i>hectares</i> |
| 2. Sustainable land management in production systems (agriculture, rangelands, and forest landscapes) | 120 million hectares under sustainable land management | <i>hectares</i> |
| 3. Promotion of collective management of transboundary water systems and implementation of the full range of policy, legal, and institutional reforms and investments contributing to sustainable use and maintenance of ecosystem services | Water-food-ecosystems security and conjunctive management of surface and groundwater in at least 10 freshwater basins; | <i>Number of freshwater basins</i> |
| | 20% of globally over-exploited fisheries (by volume) moved to more sustainable levels | <i>Percent of fisheries, by volume</i> |
| 4. Support to transformational shifts towards a low-emission and resilient development path | 750 million tons of CO _{2e} mitigated (include both direct and indirect) | 65 metric tons |
| 5. Increase in phase-out, disposal and reduction of releases of POPs, ODS, mercury and other chemicals of global concern | Disposal of 80,000 tons of POPs (PCB, obsolete pesticides) | <i>1 metric tons</i> |
| | Reduction of 1000 tons of Mercury | <i>0,002 metric tons</i> |
| | Phase-out of 303.44 tons of ODP (HCFC) | <i>ODP tons</i> |
| 6. Enhance capacity of countries to implement MEAs (multilateral environmental agreements) and mainstream into national and sub-national policy, planning financial and legal frameworks | Development and sectoral planning frameworks integrate measurable targets drawn from the MEAs in at least 10 countries | <i>Number of Countries:</i> |
| | Functional environmental information systems are established to support decision-making in at least 10 countries | <i>Number of Countries:</i> |

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

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

PART II: PROJECT JUSTIFICATION

A. DESCRIBE ANY CHANGES IN ALIGNMENT WITH THE PROJECT DESIGN WITH THE ORIGINAL PIF⁶

⁵ Update the applicable indicators provided at PIF stage. Progress in programming against these targets for the projects per the *Corporate Results Framework* in the [GEF-6 Programming Directions](#), will be aggregated and reported during mid-term and at the conclusion of the replenishment period.

⁶ For questions A.1 –A.7 in Part II, if there are no changes since PIF, no need to respond, please enter “NA” after the respective question.

A.1. *Project Description*. Elaborate on: 1) the global environmental and/or adaptation problems, root causes and barriers that need to be addressed; 2) the baseline scenario or any associated baseline projects, 3) the proposed alternative scenario, GEF focal area⁷ strategies, with a brief description of expected outcomes and components of the project, 4) [incremental/additional cost reasoning](#) and expected contributions from the baseline, the GEFTF, LDCF, SCCF, CBIT and [co-financing](#); 5) [global environmental benefits](#) (GEFTF) and/or [adaptation benefits](#) (LDCF/SCCF); and 6) innovativeness, sustainability and potential for scaling up.

There are no significant changes compared to the PIF, except that in some cases the outputs are more concretely defined and the baseline updated and detailed. This is explained in the section below.

1) The global environmental and/or adaptation problems, root causes and barriers that need to be addressed.

Please refer to Section II (Development Challenges) Chapter 1 and Annex O of the project document.

2) The baseline scenario or any associated baseline projects.

Please refer to Section II (Development Challenges) Chapter 2 and Annex P of the project document.

3) The proposed alternative scenario, GEF focal area strategies, with a brief description of expected outcomes and components of the project.

Limited changes were introduced in the proposed alternative scenario, with the main purpose to identify in a concrete manner the outputs and activity to be undertaken, and the target industrial sectors.

The proposed alternative scenario and brief description of expected outcomes is reported in Section IV, Chapter 6 of the project document. The project remains unchanged in term of components, while at the level of outputs the following has been introduced:

| Outcome / output | PIF | Project Document |
|--------------------|---|---|
| Output 1.1.1 | National institutional capacity for Green Chemistry adoption assessed and sector baselines established | National institutional capacity for Green Chemistry adoption assessed (sector baseline to assessed in Output 3.1.1) |
| Output 1.1.3 | Institutions and entities capacitated to develop, improve and operationalize the regulatory and policy framework for Green Chemistry and POPs | Specific standards and regulations on Green Chemistry, including incentive scheme, developed. |
| Output 2.1.3 | Green Chemistry modules integrated in higher education curricula | Green Chemistry extra-lecture integrated in the universities and MOIT training institutes . |
| Output 2.1.4 (new) | | InforTech exhibition: MOST and commercial/trade promotion of advance technology countries |
| Outcome 3.1 | 3.1 15 g-TEQ/a of UPOPs releases, 1 tonne of POPs, 0.002 tonnes of Mercury and X tonnes (to be determined during PPG) of GHGs reduced through the introduction of GC in priority sectors. | 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 |

A.2. *Child Project?* If this is a child project under a program, describe how the components contribute to the overall program impact.

n/a

⁷ For biodiversity projects, in addition to explaining the project's consistency with the biodiversity focal area strategy, objectives and programs, please also describe which [Aichi Target\(s\)](#) the project will directly contribute to achieving..

A.3. *Stakeholders*. Identify key stakeholders and elaborate on how the key stakeholders engagement is incorporated in the preparation and implementation of the project. Do they include civil society organizations (yes /no)? and indigenous peoples (yes /no)?⁸

Stakeholder analysis is reported in Section IV, Chapter 7 (Partnership) of the project document. The list of stakeholders is reported in Table 9 of the project document.

A.4. *Gender Equality and Women's Empowerment*. Elaborate on how gender equality and women's empowerment issues are mainstreamed into the project implementation and monitoring, taking into account the differences, needs, roles and priorities of women and men. In addition, 1) did the project conduct a gender analysis during project preparation (yes /no)?; 2) did the project incorporate a gender responsive project results framework, including sex-disaggregated indicators (yes /no)?; and 3) what is the share of women and men direct beneficiaries (women X%, men X%)?⁹

A gender analysis was carried out in the course of the PPG. The analysis is reported as Annex Q of the project document (Page 106). A specific gender mainstreaming plan has been developed (please refer to Table 10 in Section IV, Chapter 7 "Mainstreaming Gender" of the project document (Page 52). The Gender Mainstreaming Action Plan includes quantitative indicators and target, disaggregated by sex, on equal job opportunities, equal access to training and information, gender specific chemical risk assessment and management, including Personal Protective Equipment. The actions and indicators identified in the plan have been integrated in the project results framework to make it gender responsive. ,

A.5 *Risk*. Elaborate on indicated risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, the proposed measures that address these risks at the time of project implementation.(table format acceptable):

Please refer to Annex I "UNDP Risk Log" of the project document.

A.6. *Institutional Arrangement and Coordination*. Describe the institutional arrangement for project implementation. Elaborate on the planned coordination with other relevant GEF-financed projects and other initiatives.

A detailed analysis of the planned coordination with ongoing initiatives is reported in Section II (Development Challenges), Chapter 2 "The Baseline Scenario or any associated Baseline Projects" (Page 9), and Section III (Strategy), Chapter 3, "Linkage and Coordination with other GEF projects" (Page 21).

Additional Information not well elaborated at PIF Stage:

A.7 *Benefits*. Describe the socioeconomic benefits to be delivered by the project at the national and local levels. How do these benefits translate in supporting the achievement of global environment benefits (GEF Trust Fund) or adaptation benefits (LDCF/SCCF)?

After the PIF; a big effort of the project drafting team has been paid to identify the priority sectors to be demonstrated under the project and possible incentive mechanism. The baseline analysis of the selected sectors is reported in Annex P of the project document. The list of potential Green Chemistry interventions for each sector are reported in Table 3 to 8 of the project document. It should be stressed that several Green Chemistry principles envisage a more efficient use of resources and energy. This will result not only in a reduced manufacturing cost, but also in the reduction of GHG and U-POPs emission, both bringing in a substantial social and economic benefit for the country, as the 6 selected sectors represent not only the ones where Green Chemistry can be effectively demonstrated, but they are also among the largest manufacturing sectors in Viet Nam in term of financial share of the nation's economy. These are: Pulp and paper; Plastic; Textile and fibers; Chrome Plating; Paint and Solvents; Pesticide formulation.

In addition to the above, the project intends to develop an incentive mechanism which will facilitate the shifting from conventional manufacturing production to the green chemistry approach. Finally, the demonstration of at least one

⁸ As per the GEF-6 Corporate Results Framework in the GEF Programming Directions and GEF-6 Gender Core Indicators in the Gender Equality Action Plan, provide information on these specific indicators on stakeholders (including civil society organization and indigenous peoples) and gender.

⁹ Same as footnote 8 above.

Corporate Social Responsibility initiative promoted by one of the 6 sectors will further enhance the social and economical benefit brought by the project.

A.8 Knowledge Management. Elaborate on the knowledge management approach for the project, including, if any, plans for the project to learn from other relevant projects and initiatives (e.g. participate in trainings, conferences, stakeholder exchanges, virtual networks, project twinning) and plans for the project to assess and document in a user-friendly form (e.g. lessons learned briefs, engaging websites, guidebooks based on experience) and share these experiences and expertise (e.g. participate in community of practices, organize seminars, trainings and conferences) with relevant stakeholders.

A specific outputs related to Knowledge Management will be achieved under project Component 4 (Knowledge Management and Monitoring). Under this component, results from the project will be disseminated within and beyond the project intervention area through existing information sharing networks and fora. The project will identify and participate, as relevant and appropriate, in scientific, policy-based and/or any other networks, which may be of benefit to the project. The project will identify, analyse and share lessons learned that might be beneficial to the design and implementation of similar projects and disseminate these lessons widely. There will be continuous information exchange between this project and other projects of similar focus in the same country, region and globally.

Knowledge management is however an important part of other project components: under Component 1, Output 1.1.5, a network of trained experts, consultants and firms who will work as an help desk to provide advice to industry in adopting Green Chemistry practices will be established. In practical terms, this will be established through a blog platform or a Green Chemistry line which can be accessed by the industry to ask specific question on the implementation of Green Chemistry. Under Component 2, workshops for disseminating the knowledge on Green Chemistry potential, and the specific project results will be held under Output 2.1.1. Finally, training stages will be organized at manufacturing facilities selected among the six reference sectors (Output 2.1.3). At least 20 trainees for each sector will be trained in this training cycle. This will allow trainees to base their knowledge on practical experience rather than only on theoretical classroom training.

B. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:

B.1 Consistency with National Priorities. Describe the consistency of the project with national strategies and plans or reports and assessments under relevant conventions such as NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, INDCs, etc.:

Please refer to Section II (Development Challenge), Chapter 3 "Consistency of the Project with National Policies" of the project document (Page 16).

C. DESCRIBE THE BUDGETED M & E PLAN:

Please refer to Section VII "Monitoring and Evaluation (M&E) Plan as well as to Annex B (Monitoring Plan) of the project document (Page 66).

PART III: CERTIFICATION BY GEF PARTNER AGENCY(IES)

A. GEF Agency(ies) certification

This request has been prepared in accordance with GEF policies¹⁰ and procedures and meets the GEF criteria for CEO endorsement under GEF-6.

| Agency Coordinator, Agency Name | Signature | Date (MM/dd/yyyy) | Project Contact Person | Telephone | Email Address |
|--|---|--------------------------|--|------------------|------------------------|
| Ms. Adriana Dinu Executive Coordinator, UNDP Global Environmental Financie |  | 04/10/2017 | Xiaofang Zhou Director, Montreal Protocol Unit/Chemicals | 212-906-5782 | xiaofang.zhou@undp.org |
| | | | | | |

¹⁰ GEF policies encompass all managed trust funds, namely: GEFTF, LDCF, SCCF and CBIT
GEF6 CEO Endorsement /Approval Template-August2016

ANNEX A: PROJECT RESULTS FRAMEWORK (either copy and paste here the framework from the Agency document, or provide reference to the page in the project document where the framework could be found).
Please refer to Section VI of the project document "Project Results Framework" (Page 55-63).

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

The project was recommended for CEO approval without comments in May 2016. In the GEF-6, the GEF Secretariat review of the PIF confirmed that "The use of Green Chemistry principles in manufacturing supports sustainable consumption and production and will in the long term be a sustainable solution to the emissions and releases of POPs and mercury. The GEF 6 Strategy articulates Green Chemistry approaches as a means of reducing POPs and Mercury."

ANNEX C: STATUS OF IMPLEMENTATION OF PROJECT PREPARATION ACTIVITIES AND THE USE OF FUNDS¹¹

A. Provide detailed funding amount of the PPG activities financing status in the table below:

| PPG Grant Approved at PIF: 50,000 | | | |
|--|---|------------------------------------|--------------------------------|
| <i>Project Preparation Activities Implemented</i> | <i>GETF/LDCF/SCCF/CBIT Amount (\$)</i> | | |
| | <i>Budgeted Amount</i> | <i>Amount Spent To date</i> | <i>Amount Committed</i> |
| International consultants | 22,000 | 12,438.00 | 9,531.20 |
| Local consultants | 15,000 | 18,314.76 | 5,990.45 |
| Travel | 5,000 | 107.49 | 0.0 |
| Miscellaneous <i>(reserve budget for Prodoc translation to Vietnamese once approved by GEF)</i> | 2,000 | 0.0 | 2,000.28 |
| Workshop | 6,000 | 1,617.82 | 0.0 |
| | | | |
| Total | 50,000 | 32,478.07 | 17,521.93 |

¹¹ If at CEO Endorsement, the PPG activities have not been completed and there is a balance of unspent fund, Agencies can continue to undertake the activities up to one year of project start. No later than one year from start of project implementation, Agencies should report this table to the GEF Secretariat on the completion of PPG activities and the amount spent for the activities. Agencies should also report closing of PPG to Trustee in its Quarterly Report.

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

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

n/a