

## WINROCK INTERNATIONAL USAID Reducing Pollution Activity

Hanoi, 22 November 2024

### RE-ADVERTISE FOR THE REQUEST FOR APPLICATION RFA-6997-24-23

Winrock International published the Request for Application (RFA-6997-24-23) “**Building an air pollution forecasting and early warning system applying machine learning models for urban areas in Vietnam**” on 17 October 2024. However, there is no application meet our requirements. We, therefore re-announce this Request for Application to all interested applicants.

Please refer to the Request for Application (RFA) attached herewith for preparation and submission of your applications.

For applicants who already submitted your applications before 18 November, 2024 are encouraged to re-submit your applications as clearly guided in the RFA.

Full applications received by **the submission deadline by 11 December 2024** and meeting all eligibility conditions noted in this RFA will be considered for evaluation.

We look forward to receiving your applications!

Sincerely,



Nguyen Thi Le Hoa  
Chief of Party, USAID Reducing Pollution Project

## REQUEST FOR APPLICATION RFA-6997-24-23

Winrock International (Winrock) is implementing the Reducing Pollution Project, funded by the United States Agency for International Development (USAID), Prime Award Number: 72044021CA00002 in close collaboration with Project Management Unit (PMU) under the Pollution Control Department (PCD) as the Project Owner and the Ministry of Natural Resources and Environment (MONRE) as the Executive Agency. The Reducing Pollution Project is supporting Vietnam's efforts to address environmental pollution challenges through a series of locally driven initiatives using a collective impact approach.

To achieve the ultimate goal of reducing environmental pollution in targeted areas, in addition to implementation of the collective impact initiatives, the Project also supports the Government of Vietnam (GVN) on development of appropriate legal and institutional frameworks and planning tools for effective implementation of the provisions of the Law on Environmental Protection in 2020.

Improving the national air quality monitoring and forecasting system is critical to identify air pollution sources and trends, which in turn inform pollution control efforts and protect public health. To address this issue, the Reducing Pollution Project, through a selected partner, will build an air pollution forecast and early warning system, applying machine learning models, and utilizing inputs from the data management software Envisoft and the Transparent Environmental Data Platform (TEDP). This support is expected to accelerate the development of the forecasting system, meeting urgent practical needs, especially as air pollution increases in urban areas and early forecasting becomes essential to minimize impacts on the population. Moreover, the system should help the Department of Environmental Pollution Control enhance and improve its ability to monitor and forecast serious air quality situations and assess the impact of pollution sources.

Winrock is pleased to announce this Request for Application (RFA) **“Building an air pollution forecasting and early warning system applying machine learning models for urban areas in Vietnam”**. Through this RFA, we seek to identify and collaborate with capable Vietnamese non-governmental organizations that possess the expertise and capacity to drive this initiative forward.

We look forward to receiving your applications and are excited about the potential impact of our collective efforts to reduce pollution and promote sustainable development in Vietnam. Winrock invites organizations interested in potential funding to submit applications outlining their approach and proposed activities that reflects the goals and objectives of the project.

To learn more about the project and this RFA, interested, potential applicants should submit their questions by email to the Winrock Grants Management team following the submission process described in the documentation below by 26 November 2024. Full applications received by the

submission deadline by 11 December 2024 and meeting eligibility conditions noted in this RFA will be considered for evaluation.

Winrock expects to issue one (1) grant under this RFA but reserves the right to award none based on the quality of applications received and the availability of funding.

Sincerely,



Nguyen Thi Le Hoa  
Chief of Party, USAID Reducing Pollution Project

## USAID Reducing Pollution Project Request for Application (RFA)

<b>Grant Activity Name:</b>	<b>Building an air pollution forecast and early warning system applying machine learning models for urban areas in Vietnam</b>
Request for Application (RFA) No:	RFA-6997-24-23
Date RFA Issued:	11/22/2024
Due Date and Time for Questions:	11/26/2024
Due Date and Time for Response to Questions:	11/28/2024
RFA Closing Date and Time:	12/11/2024
Estimated Award Date:	01/10/2025

### SECTION 1: PROGRAM DESCRIPTION

#### 1. Background

Air pollution, particularly pollution from microscopic particles (PM10, PM2.5), is becoming an alarming issue in Vietnam, adversely affecting health, and causing anxiety and concern among the population. Fine particles (PM2.5) from dust, soot, and smoke can penetrate deeply into lungs and the cardiovascular system, leading to health issues such as stroke, heart disease, lung cancer, and respiratory infections. The PM 2.5 concentration in major urban areas of Vietnam routinely exceed the thresholds for ambient air quality standards set by Vietnam as well as the World Health Organization’s global health protection standards.

Air quality in urban areas and densely populated regions has deteriorated significantly due to increased economic activities, especially in the two major cities (Hanoi and Ho Chi Minh City). Improving the national air quality monitoring and forecasting system is critical to identify air pollution sources and trends, which in turn, could inform pollution control efforts and protect public health. In this context, the revised Environmental Protection Law 2020 and the National Environmental Protection Strategy to 2030, with a vision to 2050, were introduced with the principle of not sacrificing the environment for economic development.

To implement the Environmental Protection Law 2020, the Ministry of Natural Resources and Environment (MONRE) carried out the 2020 National Action Plan for Air Quality Management, with a vision to 2025<sup>1</sup> and strengthened air pollution control.<sup>2</sup> MONRE developed and issued technical guidelines for creating provincial environmental quality management plans and required provincial People's Committees to strictly implement and develop Air Quality Management Plans. However, those plans stop at investigating, surveying, and listing emission sources and do not include the cumulative impact of all emissions sources. Local authorities have only been implementing plans for individual localities without considering the inter-regional and inter-provincial spread of air pollution. The Air Quality Management Plans lack early warning systems, air quality forecasting systems, and tools for real-time air quality information dissemination and 48-hour forecasts. The Ministry of Natural Resources and Environment invested in resources to develop air quality forecasting systems based on photochemical forecasting models by developing emission inventories. However, the error level of this system is very

<sup>1</sup> According to Decision No. 985a/QĐ-TTg dated June 1, 2016, by the Prime Minister.

<sup>2</sup> According to Directive No. 03/CT-TTg dated January 18, 2021, by the Prime Minister.

high and it requires significant time and funding for fixing the errors. Using machine learning technology for forecasting systems can meet the urgent demand to analyze data from many different sources to enhance the forecast quality.

Currently, real-time air quality data in Vietnam is quite sparse and insufficient considering the pollution levels and the country's size and population. The existing monitoring, disclosure, and warning systems only provide air quality monitoring data at monitoring points/stations, offering warning about the status of a specific locality rather than broad-scope warnings for different regions. They do not account for pollution spread factors, the impact of emission sources, economic production activities, and particularly do not forecast or warn about near-future pollution risks.

New technological advances in forecasting systems have improved forecast quality, by using numerical modeling and machine learning. These systems can meet the urgent demand for high quality environmental forecasting with sufficient funding for their development. .

The Department of Environmental Pollution Control has requested the USAID-funded Pollution Reduction Project, as part of their 2024 activities to support implementation of the task: **"Building an Early Warning and Air Pollution Forecasting System Applying Machine Learning Models for Urban Areas in Vietnam."** The system will utilize the data from Envisoft software and the Transparent Environmental Data Platform (TEDP) as its inputs. The system will connect with these two platforms to utilize and assess the reliability and accuracy of the system, provide detailed, accessible visualization for users regarding air pollution. The results of forecasts and warnings will also be shared through the TEDP platform and its mobile application.

With support from the project, the Department of Environmental Pollution Control will obtain the methods, technical procedures, and a system for early air pollution forecasting and warning. This support will accelerate the development of the forecasting system, meeting urgent practical needs, especially as air pollution increases in urban areas and early forecasting becomes essential to minimize impacts on the population. Moreover, the system will help the Department of Environmental Pollution Control enhance and improve its ability to monitor and forecast serious air quality situations and assess the impact of pollution sources. Through impact assessment tools and contributions from pollution sources, the Department and management units will have the necessary information to develop effective and sustainable control and mitigation plans and take measures for improving air pollution from transportation, industry, and residential and commercial sources. This support will aim to ensure that citizens, as stakeholders, can receive reliable information on real-time air quality and air quality forecasts, enabling them to protect themselves from harmful levels of air pollution.

## **2. Objectives and expected results**

### **2.1. Objective**

To apply machine learning/ AI model to build an Air Quality Forecast System and air pollution warning mechanism for urban areas in Vietnam.

### **2.2. Expected results**

- Machine learning/ artificial intelligence model utilized to develop an air pollution forecasting and warning system for urban areas in Vietnam, which would provide information for up to 48 hours ahead for six main pollutants (PM10, PM2.5, NOx, CO, SO2 and Ozone);
- Integrate the results of the forecasting and warning systems into the mobile applications and web-based Geographic Information System (GIS) of the TEDP platform and develop a

communication strategy to publicly provide air pollution information and warnings to people, communities and environmental managers.

- Assessment completed on the impact of pollution sources, which includes proposed scenarios for air pollution control and improvement.

### **3. Project implementation time:** maximum 12 months

#### **4. Activities and tasks**

##### **4.1. Applying machine learning/ artificial intelligence model to develop an air pollution forecasting and warning systems for urban areas in Vietnam;**

###### ***a. Synthesize and standardize information, establish and operate pollution spread forecast models;***

- Standardize and synthesize automatic and periodic monitoring data, meteorological data, and remote sensing data for urban areas. Collect socio-economic data, emission sources, and exhaust gas emission data to serve as input for air pollution calculation and simulation models;
- Analyze and process data to forecast emissions from industrial, transportation and agricultural activities and hydrometeorological movements;
- Establish and operate a weather forecast model to provide information for 48-hour air quality forecasting;
- Establish and operate a pollution spread model to provide air quality information for 48-hour air quality forecasting.

###### ***b. Build a Machine learning and Artificial Intelligence model;***

- Analyze, evaluate and select machine learning/ artificial intelligence platform architecture models suitable for the region and data conditions;
- Analyze and process remote sensing image data, estimating the concentration of pollutants on the surface for building a machine learning model for short-term air quality forecasting for the next 48 hours;
- Implement solutions, train and optimize machine learning/ artificial intelligence models for forecasting pollutants in the air in the Northern urban area.

##### **4.2. Develop tools to support warning, publicize air pollution forecast information to people, communities and managers**

- Develop a map of the distribution and forecast concentrations of pollutants in the air (NO<sub>x</sub>, SO<sub>2</sub>, CO, PM<sub>2.5</sub>, PM<sub>10</sub>, Ozone) for the next 48 hours;
- Build a website that provides air quality forecasts and pollution warnings to provincial and local governments, the community and facility managers.
- Develop an effective communication strategy for the Department of Environmental Pollution Control, that to provide air quality forecasts and pollution warnings to the general public, as well as affected communities and facility managers. The communication strategy should be actionable giving instructions for affected communities to prohibit children's outdoor activities above certain threshold or to make contingency plans for limited vehicle use or factory operations.
- Formulate methods and processes for building air quality forecasting and warning systems to be shared with localities in order to develop forecasting and public warning systems at the provincial and municipal levels;
- Conduct expert group meetings on warning system design.

- Carry out broad consultations (Workshops/expert group meeting) with participation of provincial and municipal authorities, affected communities, and external experts for evaluating the results of the forecast model and building an information disclosure tool in at least 05 provinces in the North of Vietnam (including Hanoi, Bac Ninh, Hai Duong, Hung Yen, Ha Nam).

## **5. Main products, deliverables**

- 48-hour short-term air quality forecast system for major pollutants (PM2.5, PM10, NO2, SO2, CO, O3) for centrally-run municipalities: Integration of production activity forecast data, meteorological forecast data, air quality forecast results from photochemical models with artificial intelligence platform to provide information accurately forecast the concentration of pollutants nationwide and urban areas.
- Public portal for forecasting the concentration of air pollutants; early warning of environmental pollution through the AQI index; Integrate and share data information for the community, management units, and research agencies in order to strengthen propaganda and dissemination and support air quality management and research.
- Effective communication strategy for the Department of Environmental Pollution Control to provide air quality forecasts and pollution warnings to the general public, as well as affected communities and facility managers.
- Manual of methods and techniques on implementing solutions, training, optimizing machine learning and artificial intelligence models for forecasting airborne pollutants
- Report evaluating the effectiveness of the air quality forecasting and warning system in at least 05 provinces in the North of Vietnam (including Hanoi, Bac Ninh, Hai Duong, Hung Yen, Ha Nam) including consultations with local government authorities, communities and experts at both design and evaluation stages.
- Policy brief/paper that highlights the findings/guidance which can be widely published as a policy deliverable of the project and which highlights the consultative process with various stakeholders including local communities
- Final report

## **SECTION 2: GRANT INFORMATION**

### **2.1 ANTICIPATED NUMBER OF GRANTS TO BE ISSUED**

The USAID Reducing Pollution Project expects to award 1 grant under this RFA but reserves the right to award none based on the quality of applications received and availability of funding.

### **2.2 ANTICIPATED START DATE AND DURATION OF GRANTS**

The anticipated start date for this award is on/about 10 January 2025. The anticipated period of performance for individual grants is a maximum of 12 months from the date of award to 31/12/2025, depending on the negotiated award activities.

### **2.3 ESTIMATED AMOUNT OF GRANTS**

The estimated amount to be awarded for an individual grant is a max of \$250,000. However, the final amount awarded will depend on activities and final negotiations. All awards will be negotiated, denominated and funded in Vietnam Dong.

## 2.4 TYPE OF GRANTS TO BE ISSUED

Winrock will determine the appropriate grant mechanism, in consultation with the applicant during the negotiation process, based on the pre-award assessment of the applicant, nature of the award activity, and estimated total cost of the award.

## SECTION 3: ELIGIBILITY INFORMATION

### ELIGIBLE APPLICANTS

This solicitation is open to Vietnamese non-governmental organizations. This can include traditional not-for-profit NGOs, social enterprises, or similar local organizations. To be minimally eligible for funding, applicants must comply with the following conditions:

- Be legally registered or otherwise authorized to conduct business in Vietnam.
- Agree to be subject to a pre-award assessment to examine that the applicant has sound management in the form of financial, administrative, and technical policies and procedures.
- Provide a SAM Unique Entity ID (UEI) number at the time of award. If the applicant already has a UEI number, it should be included in their application. Otherwise, applicants will be expected to get a UEI number before an award is issued. UEI numbers can be obtained online at <https://www.sam.gov>
- Does not have an active exclusion in the System for Award Management (SAM) - refer to <https://www.sam.gov/SAM/>
- Does not appear on the Specially Designated Nationals (SDN) and Blocked Persons List <https://sanctionssearch.ofac.treas.gov/> maintained by the U.S. Treasury for the Office of Foreign Assets Control (OFAC), sometimes referred to as the "OFAC List".
- It is not on the United Nations Security Designation List <https://scsanctions.un.org/search/>

## SECTION 4: INSTRUCTION TO APPLICANTS AND SUBMISSION INFORMATION

### Request for Application (RFA) Timeline



#### 4.1. QUESTIONS, COMMUNICATIONS REGARDING THIS RFA



Questions & Answers related to this RFA	<p>All questions and other communications regarding this RFA should be submitted in writing by email to the Grants Management Team at <a href="mailto:vietnamprocurement@winrock.org">vietnamprocurement@winrock.org</a></p> <p>Deadline to receive questions: 26 November 2024</p> <p>Written responses to questions will be made available to all applicants as soon as possible after the deadline. Answers are expected to be distributed by 28 November, 2024</p>
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## 4.2. SUBMISSION INSTRUCTIONS

### TECHNICAL APPLICATION

Applicants will develop their applications based on their understanding of the initiative’s needs, their prior institutional experience and their determination of the approaches that would be feasible and successful. In all cases, applicants shall clearly explain the rationale for the proposed approaches chosen.

Submissions must clearly state the objectives and the expected results of the activity within the life of the funding period and define an implementation plan with a proposed time frame and budget. On-going monitoring and reporting of the funded activities will be the responsibility of the applicant. An Application Form template, [Annex A](#), is provided as an attachment to this RFA.

### COST APPLICATION

Cost applications shall be submitted separately from the technical application. Applicants shall submit a detailed budget in Microsoft Excel with budget notes in column G ([Annex B](#)) to: provide elements of the proposed activity with sufficient detail to determine if the cost estimate is reasonable and based on supportable facts rather than guesswork. Specifically, budget notes must identify, justify and/or explain:

- each type of unit used,
- the number of units proposed,
- the cost per unit,
- how costs were derived (determined to be reasonable). Costs need to be based on actual quotes, prices paid, or experience. If costs are based on historical knowledge or recent experience, the justification should state by whom the information was provided, when the quoted experience occurred for reviewer easy to understand,
- explanation why each budgetline/cost is necessary; how it matches with the activities proposed in your organization’s technical application,
- cost norms to be applied in the budget should be consistent,
- budget for activities should include all expenses for each activity in big category line.

Note: The budget notes are very important to help the reviewers understand why an item of cost is necessary and how it will be used to support the activity for which it will be incurred. The budget notes should demonstrate the relationship between the proposed activities and the budget.

### COST-SHARE

Cost-share refers to additional resources that the applicant contributes to the total cost of the application, in addition to the requested budget amount of the submitted application. Cost-share is not required for grant(s) awarded under this RFA.

## SUBMISSION GUIDELINES

Applications may be submitted in Vietnamese or English using the form provided in Annex A, B, C and may not be more than 30 pages, using Arial 10pt, single spaced. The page limit does not include Annexes and CVs of proposed staff included as part of the application.

Applications (including a technical description, estimated budget, and supporting documentation) must be submitted electronically via email to [vietnamprocurement@winrock.org](mailto:vietnamprocurement@winrock.org) with the subject line: *RFA 6997 - 24 - 23 name of activity - [your organization name]*

Applications must be submitted no later than the time and date indicated on the cover page.

Incomplete or late applications will be marked as such and will be ineligible for review or award; however, Winrock reserves the right to accept and include incomplete or late applications in the review and award process when it is considered within the best interest of Winrock to do so. Applications that are submitted late or incomplete run the risk of not being considered for review.

Applications may be withdrawn by written notice via email received at any time before an award is made. Applications may be withdrawn in person by an organization or its authorized representative if the representative's identity is made known and the representative signs a receipt for the application before the award is made.

To be considered eligible for review, at a minimum, a complete submission package will have the following:

- Received before the closing date and time
- A copy of applicant's valid legal registration
- A copy of applicant's Charter
- A completed technical application
- CVs for proposed key personnel with signatures
- A detailed budget in Microsoft Excel and total budget does not exceed the max amount of \$250,000

Receipt time for electronic submissions is when the application is received by Winrock's Internet Server. Hand delivery and hardcopy paper submissions of the application will not be accepted after the stated time on the cover page. Please do not send files in ZIP, RAR format.

By responding to the RFA, applicants agree to a pre-award assessment to examine that the applicant has sound management in the form of financial, administrative, and technical policies and procedures.

## SECTION 5: APPLICATION EVALUATION AND REVIEW PROCESS

### TECHNICAL REVIEW

The criteria presented below have been tailored to the requirements of this RFA. A total of 100 points are possible for all components of the application. The relative importance of each criterion is indicated by approximate weight by points.

In evaluating the applications, Winrock will examine overall merit and feasibility, as well as specific criteria relevant to each component as elaborated below. Awards will be made to the overall highest scores to the responsible applicant(s). Applicants should note that these criteria: (1) serve as the standard against which all applications will be evaluated, and (2) serve to identify the significant matters which applicants should address in their applications.

**Technical Evaluation Criteria as follows:**

Evaluation Area	Evaluation Criteria	Points
<b>1. Technical and collective impact approach</b>	<b>The extent to which the proposed technical approach achieves the objectives and results required in the RFA.</b>	<b>50</b>
1a. Technical approach	<ul style="list-style-type: none"> <li>- Understand the objective and content of the task</li> <li>- Approach and methodology suitable for the activity.</li> <li>- Clear and feasible implementation plan, including timelines, and deliverables. The plan should demonstrate a logical progression from research and analysis to practical application. The applicant should demonstrate a clear understanding of potential challenges and propose effective solutions.</li> <li>- Proposed activities and budget are appropriate.</li> </ul>	30
1b. Collective impact approach	<ul style="list-style-type: none"> <li>- Convincing strategy to ensure wide consultation with stakeholders through sharing of findings and receiving feedback as part of a CLA methodology</li> <li>- The strategy should demonstrate a commitment to inclusive and participatory processes.</li> </ul>	20
<b>2. Key Personnel for the implementation</b>	<ul style="list-style-type: none"> <li>- The proposed overall staffing plan is effective and efficient and will achieve program objectives.</li> <li>- Key personnel have the relevant qualifications, skills, and expertise required to successfully implement the activity.</li> </ul>	<b>25</b>
<b>3. Organizational Capacity</b>	<ul style="list-style-type: none"> <li>- Intensive experience in AI model and/or Air Quality Forecast System and/or air pollution warning</li> <li>- Practical experience in research and policy development in the past</li> <li>- Level of credibility/quality of work (reporting on the results of the aforementioned projects/programs or/and feedback, and assessment from partners regarding the implementation of similar projects/programs).</li> <li>- Financial management experience and capacity in the past 3 years (annual disbursement amount).</li> </ul>	<b>25</b>
<b>Overall Rating (out of 100 points)</b>		<b>100</b>

**REVIEW PROCESS**

Grant applications will be reviewed and evaluated by an evaluation panel using the review criteria indicated above.

Cost applications will be evaluated for reasonableness and effectiveness based on the scope of activities being proposed.

Winrock will notify the successful and unsuccessful applicants in writing.

## SECTION 6: OTHER TERMS AND CONDITIONS

### DISCLAIMERS

The issuance of this solicitation does not commit Winrock to make an award to any prospective grantee responding to this solicitation. Prospective grantees will not be reimbursed for costs incurred in the preparation and submission of an application. Winrock reserves the right to reject any and all applications, or to make an award without further discussion or negotiation.

All awards will be negotiated, denominated, and funded in VND. All costs funded under the grant must be allowable, allocable, and reasonable.

### CONFLICT OF INTEREST

Applicants must provide disclosure of any past, present, or future relationships with any parties associated with the issuance, review, or management of this RFA and anticipated grant. Failure to provide full and open disclosure may result in Winrock having to re-evaluate the selection of a potential applicant.

### OTHER RFA CONDITIONS

- Applicants must agree and be willing to sign and submit required certifications before a grant is issued
- For those selected for a grant award, Winrock will conduct a pre-award risk assessment.
- Issuance of grant agreements may be subject to prior written approval by Winrock funder.
- Individuals are not eligible to receive funding under this solicitation.
- Application forms should be signed by an authorized agent of the applicant's organization.
- Applicants that submit applications that meet or exceed the evaluation criteria will be notified of next steps in the application process.

Additionally, the following items cannot be purchased under any grant awards:

- Any purchases or activities deemed unnecessary to accomplish grant purposes as determined by Winrock, including any grantee headquarters expenses that are not directly linked to the implementation of the proposed activities
- Private ceremonies, parties, celebrations, or "representation" expenses
- Previous obligations and/or bad debts
- Expenses related to overtly religious purposes
- Expenses intended to influence the outcome of elections or other political processes
- Fines and/or penalties
- Creation of endowments
- Alcoholic beverages
- Real property (land, including land improvements, and structures thereto)

The following items are also ineligible or restricted under USAID-funded grants

- Prohibited goods under USAID eligibility rules, including military equipment, surveillance equipment, commodities, and services for support of police or other law enforcement activities, abortion equipment and services, luxury goods, and gambling equipment, and weather modification equipment
- Restricted goods under USAID eligibility rules, such as agricultural commodities, motor vehicles, including motorcycles, pharmaceuticals, pesticides, used equipment, contraceptive products, USG-owned excess property, or fertilizer
- Construction or infrastructure activities of any kind.

- Goods and services whose source and nationality are other than Geographic Code 937 which includes The United States, the host country, and developing countries other than advanced developing countries, but excluding any prohibited source countries.
  - (<https://www.usaid.gov/sites/default/files/documents/1876/310maa.pdf>)
  - (<https://www.usaid.gov/sites/default/files/documents/1876/310mab.pdf>)
  - (<https://www.usaid.gov/sites/default/files/documents/1864/310mac.pdf>)

#### **REFERENCE MATERIALS:**

- Collective impact forum: [Collective Impact Forum](#)
- Project page of Winrock International: [Winrock International » Solutions-Focused Partnerships, Data Sharing and Collective Impact to Reduce Pollution in Vietnam](#)

#### **SECTION 7: ANNEXES**

Annex A – Grant Application Form

Annex B – Detailed budget in Microsoft Excel

Annex C– Frequently Asked Question

**Annex A. Grant Application Form including Technical Application template**

**APPLICATION RESPONSE TO RFA ON BUILDING AN AIR POLLUTION FORECASTING AND  
 EARLY WARNING SYSTEM APPLYING MACHINE LEARNING MODELS  
 FOR URBAN AREA IN VIETNAM**

**To:** USAID REDUCING POLLUTION PROJECT  
 Winrock International in Vietnam

Dear Sir/Madam,

Having examined your Request for Application entitled “**Building an air pollution forecast and early warning system applying machine learning models for urban areas in Vietnam**”, we would like to submit our application for this initiative. Our proposal for project duration and budget are as below:

- Project duration:     months
- Total Project budget: VND.....

*Please find enclosed our application dossiers:*

- A copy of applicant's valid legal registration
- A copy of applicant's Charter
- A completed technical application
- CVs for proposed key personnel with signatures
- A detailed budget in Microsoft Excel

*(Please list other attachments to support your application if any)*

I, the undersigned, being the person responsible for the applicant organization for this project, certify that the information given in this application is true and accurate.

Name
Position
Signature & Stamp
Date

<b>GRANTEE INFORMATION</b>		
Name of Applicant		
Address		
Name of Applicant's Authorized Representative		
E-mail Address		
(SAM) EUI Number		
VAT Number		
Phone Number		
<b>GRANT INFORMATION</b>		
Grant Name		
Location Where Activity will be Performed		
Period of Performance		
<b>PROPOSED BUDGET</b> <i>(Please note that a detailed budget must be included in the submission)</i>		
	Local Currency (VND)	
Total Amount Requested		
<b>KEY PERSONNEL</b> <i>(Please list key personnel, title and short description: e.g., Project Manager, Technical Lead, key responsibilities.)</i>		
Name	Title	Description
<b>Applicant Capability and Past Performance</b> <i>(Please provide a brief narrative describing your organization's mission and primary activities, and also list annual income over the past three years along with main financial contributors/funders)</i>		
Organizational Background Narrative		
Organizational Capacity		
Year	Annual Income	Financial Contributor/Funder
<b>Past Performance</b> <i>(Please describe up to three major projects on environment in which your organization(s) was involved/conducted in the past, which show the organization's expertise and ability to meet the goals of the proposed grant.)</i>		
<b>1. First Project (if applicable)</b>		

Project Title	
Period of Performance	
Project implemented by (in case consortium)	
Location	
Role of Organization (leader or partner)	
Project Objectives	
Project Results	
Total Budget	
Funding Source and Contact Information - <i>Contact point:</i> - <i>Tel:</i> - <i>Email:</i>	
<b>2. Second Project (if applicable)</b>	
Project Title	
Project implemented by (in case consortium)	
Period of Performance	
Location	
Role of Organization (leader or partner)	
Project Objectives	
Project Results	
Total Budget	
Funding Source and Contact Information - <i>Contact point:</i> - <i>Tel:</i> - <i>Email:</i>	
<b>3. Third Project (if applicable)</b>	
Project Title	
Project implemented by (in case consortium)	
Period of Performance	
Location	
Role of Organization (leader or partner)	
Project Objectives	
Project Results	
Total Budget	
Funding Source and Contact Information - <i>Contact point:</i> - <i>Tel:</i> - <i>Email:</i>	

**Organizational Experience Developing Networks to Address Development Issues** *(Please provide a summary description fo your orgnaiztion’s experience*



*developing networks of stakeholders, preferably from communities, government, and business, to address development issues in the environment or other sectors).*

Technical Application Outline (maximum 30 pages). The applicants are encouraged to include charts, graphs and tables to present the information.

1. **Background and the needs of the RFA:** *(Please provide brief and necessary background information on the issues and the problems that the proposed grant will address.)*
2. **Goals, Objectives, and Indicators** *(Please state the goal and its corresponding objectives to address the problems identified above. Within each Objective, what are the main performance indicators? The theory of change may be used to express.) Besides narrative, please add charts and/or graphics as appropriate.*
3. **Methodology** *(Applicants should highlight how they propose to implement the assignment to meet the goals, objectives)*
4. **Strategy for integrating Gender Equality and Social Inclusion (GESI)** *(Applicants should highlight how to mobilize participation of stakeholders, especially vulnerable groups (women, the elderly, people with disabilities, the poor, ethnic minorities, LGBTIQ+ to benefit equally from the results of the project.)*
5. **Activities and key deliverables** *(Please provide a detailed description of all the key activities and identify key deliverables to achieve each objective.)*
6. **Direct and indirect Beneficiaries/participants** *(Please describe the type and number of beneficiaries/participants.)*
7. **Work-Plan and Timeline** *(Please provide a summary narrative of the work-plan and timeline in addition to attaching a copy of the proposed work-plan table. Include a description of how the project will be managed and operated administratively; )*
8. **Attachments:** Include any necessary attachments in support of your application.

**Annex B. Detailed budget in Microsoft Excel: Please use the cost application template at this link:**

[RPA FAA Budget Template](#)

**Guidance for Preparing Detailed Budget**

Please prepare all costs detailed below and include allocation methodology for other direct and indirect costs.

Budget Category	Guidance
Salaries	Position of each staff, daily or monthly rate, the number of days/hours budgeted
Fringe Benefits	Provide information on how fringe benefits are calculated
Consultants	Purpose of consultancy, the daily or monthly rate, the number of days/months
Travel	Number of trips, number of days, destination, transport type and accommodation and other costs.
Supplies	Unit cost, number of units
Training/Workshops	Venue, Catering Cost, Number of Participants, Travel & Accommodation, Facilitator cost
Other	Any other costs, must detail unit cost and total number of units

## Annex C. Frequently Asked Questions

STT	Câu hỏi/Questions	Trả lời/Answers
I	<b>Các câu hỏi về hồ sơ nói chung/ General Questions on application</b>	
1	<p>Có cần cung cấp mã số định danh SAM UEI khi nộp hồ sơ đề xuất dự án nhằm đảm bảo tính hợp lệ để được đánh giá hồ sơ hay không?</p> <p><i>Is a valid SAM UEI Number required for applications to be reviewed?</i></p>	<p>Chúng tôi không yêu cầu cung cấp Mã số SAM (UEI) khi nộp hồ sơ đề xuất. Số định danh UEI chỉ cần cung cấp vào thời điểm ký hợp đồng tài trợ. Nếu Tổ chức đã có mã số UEI thì có thể điền thông tin này vào biểu mẫu hồ sơ đề xuất. Trong trường hợp chưa có, Tổ chức cần cung cấp mã số định danh UEI này trước khi ký hợp đồng trao tài trợ.</p> <p><i>We do not require a SAM Unique Entity ID (UEI) Number to be provided when submitting the proposal. A SAM number is only required at the time of award. If the applicant already has a UEI number, it should be included in their application. Otherwise, applicants will be expected to get a UEI number before an award is issued.</i></p>
2	<p>Tổ chức của chúng tôi có giấy phép kinh doanh doanh nghiệp xã hội và có mã số DUNS. Xin cho biết liệu chúng tôi có đủ điều kiện tham gia</p> <p><i>Our organization has a social enterprise business license, and a DUNS number. We are wondering if we would be considered an eligible organization?</i></p>	<p>Theo quy định mới mã số DUNS sẽ được chuyển đổi thành mã số định danh (UEI) nên nếu được lựa chọn để trao tài trợ, đơn vị nộp hồ sơ dự án cần truy cập vào đường link <a href="https://sam.gov">https://sam.gov</a> và làm theo hướng dẫn để nhận được mã số UEI.</p> <p><i>According to the new regulations, the DUNS number will be converted to Unique Entity ID (UEI) number, if the applicant is selected to award a grant, the applicant needs to access the link <a href="https://sam.gov">https://sam.gov</a> and follow the instructions to receive the UEI number.</i></p>
3	<p>Thời gian tối đa để thực hiện sáng kiến là bao nhiêu năm?</p> <p><i>For how many years can the proposed initiative be implemented?</i></p>	<p>Theo mục 2.2 của Thư kêu gọi mời nộp đề xuất dự án (RFA), thời gian tối đa để thực hiện sáng kiến này là 12 tháng</p> <p><i>Per Section 2.2 of the RFA, the maximum term to propose initiatives under this RFA is 12 months.</i></p>
4	<p>Theo hướng dẫn nộp đề xuất thì có thể viết đề xuất bằng tiếng Anh hoặc tiếng Việt, vậy nộp đề xuất bằng tiếng Anh có được ưu tiên gì không hay hai ngôn ngữ như nhau?</p> <p><i>According to the guidelines for submitting proposals, it is possible</i></p>	<p>Không có ưu tiên khi nộp đề xuất bằng Tiếng Anh hoặc tiếng Việt. Tổ chức nộp hồ sơ có thể lựa chọn viết đề xuất bằng một trong hai ngôn ngữ này (tiếng Anh hoặc tiếng Việt) để thể hiện tốt nhất ý tưởng của mình.</p>

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	<p><i>to write proposals in English or Vietnamese. Is the submission of proposals in English given any priority, or do both languages have the same priority?</i></p>	<p><i>There is no preference when submitting proposals in English or Vietnamese. Applicants should choose the language that helps best express their ideas.</i></p>
5	<p>Đề xuất tài chính có phải nộp cùng thời điểm với đề xuất kỹ thuật không hay nộp riêng?</p> <p><i>Should financial proposals be submitted at the same time with technical proposals, or separately?</i></p>	<p>Đề xuất kỹ thuật và tài chính có thể nộp trong cùng một email nhưng đề xuất kỹ thuật để riêng 1 file (tệp) và đề xuất tài chính để riêng 1 file (tệp)</p> <p><i>Technical proposal and financial budget may submitted in the same email, but should be separate files.</i></p>
<b>II</b>	<b>Đơn vị hợp lệ để nộp hồ sơ/ Eligible organizations</b>	
1	<p>Trường đại học/ viện nghiên cứu (công lập và dân lập) có quyền nộp hồ sơ đề xuất không?</p> <p><i>Are universities and research institutes (public and private) eligible to submit proposals?</i></p>	<p>Theo Phần 3 của RFA, khoản tài trợ này dành cho tất cả các tổ chức phi chính phủ Việt Nam bao gồm các tổ chức dựa vào cộng đồng (CBOs), các tổ chức xã hội dân sự (CSOs), các doanh nghiệp xã hội, các doanh nghiệp tư nhân/các hiệp hội và các viện nghiên cứu/các trường đại học dân lập.</p> <p>Các trường đại học công lập được coi là không hợp lệ để nộp Hồ sơ đề xuất dự án.</p> <p>Tổ chức nộp hồ sơ được lựa chọn cần chứng minh có đủ năng lực để có thể kết nối và dẫn dắt được mạng lưới đa dạng các bên liên quan cùng xây dựng chương trình chung để giải quyết vấn đề, xác định các hoạt động hỗ trợ nhau, cùng thống nhất về phương pháp đo lường kết quả, điều hành việc chia sẻ thông tin và học hỏi liên tục và điều hành mạng lưới, nhằm quản lý và thực hiện thành công sáng kiến.</p> <p><i>Per Section 3 of the RFA, this solicitation is open to Vietnamese non-governmental organizations. This includes community-based organizations (CBOs), civil society organizations (CSOs), social enterprises, private enterprises/associations, and private research institutes/universities.</i></p> <p><i>Public or state universities that are considered part of the government are not eligible.</i></p> <p><i>A successful applicant will need to demonstrate sufficient capacity to connect and lead a network of diverse stakeholders to jointly develop a common agenda,</i></p>

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		<p><i>mutually reinforcing activities, shared measurement, platforms/mechanisms for continuous communication and learning among parties, and operate the network, in order to successfully manage and implement the initiative.</i></p>
2	<p>Doanh nghiệp xã hội được thành lập theo luật Việt Nam có thể đăng ký cơ hội nhận tài trợ này không hay chỉ giới hạn cho các tổ chức phi lợi nhuận trong nước?</p> <p><i>Can social enterprises under Vietnamese law apply for this funding opportunity or is it solely limited to non-profit organizations?</i></p>	<ul style="list-style-type: none"> <li>Doanh nghiệp xã hội được xem là hợp lệ để nộp đề xuất dự án theo thông báo RFA này, nếu như có đăng ký hợp pháp hoặc được phép hoạt động kinh doanh tại Việt Nam và không thuộc cơ quan chính phủ.</li> </ul> <p><i>Social enterprises are eligible to submit concept notes under this RFA, as long as they are legally registered or otherwise authorized to conduct business in Vietnam and are a non-Government organization.</i></p>
3	<p>Liên hiệp các hội khoa học kỹ thuật hoặc DN tư nhân thì có hợp lệ và có được tham gia ko?</p> <p><i>Are the Union of Science and Technology Associations and private enterprises eligible to participate?</i></p>	<p>Khoản tài trợ này được dành cho các tổ chức có tư cách pháp nhân tại Việt Nam, hoạt động độc lập với chính phủ về cả tài chính và nhân sự.</p> <p><i>This grant is intended for organizations who are legally registered in Vietnam and operate independently of the government in both finance and personnel.</i></p>
4	<p>Chúng tôi đang có kế hoạch thành lập một liên danh gồm một số tổ chức (để tối đa hóa thế mạnh riêng của chúng tôi) để nộp hồ sơ đề xuất dự án theo RFA này, liệu dự án có thể tư vấn cho chúng tôi các biểu mẫu đề xuất dự án phù hợp để chúng tôi có thể sử dụng được không? Mọi thành viên trong liên danh có cần phải nộp hồ sơ đề xuất hay không? Nếu có, liệu chúng tôi có thể sử dụng cùng các thông tin giống nhau trong đề xuất dự án của mình, ví dụ các đề xuất kỹ thuật và tài chính có thể sẽ như nhau không? Nếu không (nghĩa là chỉ Đơn vị chính mới cần nộp hồ sơ dự án). Liệu chúng tôi có thể nêu kinh nghiệm của tất cả các đối tác trong phần kinh nghiệm đã thực hiện được không?</p> <p><i>We are planning to form a coalition of organizations (to maximize our</i></p>	<p>Các Tổ chức được hoan nghênh thành lập các nhóm hoặc liên danh để tối đa hóa thế mạnh của từng tổ chức. Theo RFA này, khoản tài trợ sẽ được trao cho một tổ chức để đóng vai trò là Tổ chức Nòng cốt.</p> <p>Khi một nhóm hoặc liên danh tham gia xây dựng đề xuất dự án, Tổ chức chính sẽ đại diện nộp hồ sơ. Tổ chức nộp hồ sơ phải chứng minh được năng lực quản lý nhóm/liên danh để đạt được các mục tiêu của sáng kiến đề xuất.</p> <p>Tất cả các thành viên trong nhóm hoặc liên danh đều cần cung cấp thông tin theo các biểu mẫu được cung cấp trong RFA.</p> <p>Tại Phần kinh nghiệm làm việc có thể trình bày kinh nghiệm của tổ chức chính/tổ chức đại diện và các thành viên trong nhóm hoặc liên danh.</p> <p><i>Organizations are welcome to form teams, consortiums, or coalitions to maximize the strengths of each partner organization. Under this RFA, one grant will be awarded to one organization to serve as the backbone organization. If a team or coalition is proposed, one lead applicant should submit one proposal for the proposed consortium. The lead applicant must demonstrate the capacity to manage</i></p>

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	<p><i>specific strength) to apply for this RFA, could you please help advise the appropriate proposal application templates we should be using? Does every member of our coalition need to submit an application? If yes, could we use the same materials in our application, i.e, the technical and financial applications will be identical? If no (i.e, only the lead applicant will need to submit), could we include all of our partners' experience in the past performance session?</i></p>	<p><i>the consortium to achieve the objectives of the proposed initiative.</i></p> <p><i>All applications should use the forms provided in the RFA.</i></p> <p><i>The Past Performance section of proposals may include past performance of lead applicants and other proposed consortium members.</i></p>
5	<p>Hai đơn vị có thể đứng chung một dự án được không ạ?</p> <p><i>Can two organizations cooperate to lead one project?</i></p>	<p>Có thể 1 hoặc nhiều tổ chức tham gia theo hình thức liên danh, liên kết, tuy nhiên cần 1 tổ chức đại diện đứng đầu liên danh, chịu trách nhiệm nộp ý tưởng và là đầu mối để liên hệ đồng thời là Tổ chức nhận tài trợ. Winrock không chia khoản tài trợ này thành nhiều khoản tài trợ nhỏ hơn cho các thành viên khác trong liên danh.</p> <p><i>It is possible for multiple organizations to cooperate in the form of a consortium. However, a lead organization is required to submit the concept paper and to serve as the focal point of contact and serve as the grantee. Winrock cannot split the grant into multiple grants to different consortium members.</i></p>
6	<p>Liệu chúng tôi có thể liên danh với các tổ chức khác bao gồm với các tổ chức nước ngoài?</p> <p><i>Is it permitted to form a Joint Venture with other organisations, including those who are non-Vietnamese?</i></p>	<p>Khoản tài trợ này được dành cho các tổ chức có tư cách pháp nhân tại Việt Nam, hoạt động độc lập với chính phủ về cả tài chính và nhân sự hoặc một liên danh giữa các tổ chức phi chính phủ địa phương.</p> <p><i>This RFA applies only for Vietnamese non-government organizations or a joint venture of vietnamese non-government organizations</i></p>
7	<p>Chúng tôi là đơn vị hoạt động khoa học và công nghệ độc lập, có tư cách pháp nhân, con dấu và tài khoản riêng; hoạt động theo cơ chế tự chủ, tự chịu trách nhiệm của tổ chức khoa học và công nghệ .. vậy chúng tôi có</p>	<p>Nếu trong Điều lệ hoạt động của đơn vị có nêu rõ những thông tin như đơn vị đã chia sẻ đồng thời cũng nêu rõ là đơn vị tự chủ về tài chính thì hoàn toàn hợp lệ.</p> <p><i>If your Operation Charter clearly states the information as your provided and also clearly states that your organization is financially autonomous, your organization is eligible to apply.</i></p>

STT	Câu hỏi/Questions	Trả lời/Answers
	<p>đủ điều kiện để tham gia nộp đề xuất này hay không?</p> <p>We are an independent scientific and technological organization, legally registered, having our own stamp and bank accounts; operating under the autonomous and self-responsible mechanism of a scientific and technological organization, ect. Are we eligible to apply for this RFA?</p>	
8	<p>Trong thư mời nộp đề xuất có nêu “Có đăng ký thành lập, hoạt động hợp pháp hoặc được phép hoạt động tại Việt Nam”. Chúng tôi là một doanh nghiệp thương mại tư nhân (cụ thể là Công ty TNHH” thì có hợp lệ để nộp đề xuất?</p> <p><i>It is stated that the applicant “Be legally registered or otherwise authorized to conduct business in Vietnam”. Does that mean that a privately owned commercial company (in our case TNHH = Co. ltd.) is full eligible to apply?</i></p>	<p>Khoản tài trợ này được dành cho các tổ chức có tư cách pháp nhân tại Việt Nam, hoạt động độc lập với chính phủ về cả tài chính và nhân sự bao gồm doanh nghiệp tư nhân, các tổ chức phi chính phủ trong nước, các tổ chức xã hội, nghề nghiệp, và các viện nghiên cứu/trường đại học dân lập.</p> <p><i>This RFA applies to all local Non-government organizations, including private commercial companies, LNGOs, CSOs, CBOs, private universities/institutes</i></p>
9	<p>Key Personnel: Nhân sự chủ chốt: - Số lượng nhân sự tối đa theo quy định chương trình là bao nhiêu? <i>What is the maximum number of employees according to the program regulations?</i></p> <p>- Trong CV nhân sự có cần cung cấp bằng đại học, chứng chỉ liên quan không? <i>Do we need to provide a degree or relevant certificate with the CV of proposed staff?</i></p> <p>- Một số nhân sự có thể outsource được không? <i>Can we hire some outsourced personnel?</i></p>	<ul style="list-style-type: none"> <li>• Số lượng nhân sự nên được xem xét đề xuất phù hợp với yêu cầu công việc và theo thông lệ tiêu chuẩn của đơn vị nộp đề xuất.</li> <li>• <i>The number of proposed staff should be what is required to meet the work’s requirements and should be reasonable and according to the standard practices of the applicant.</i></li> <li>• Chỉ cần nộp CV nhân sự. Tuy nhiên, đơn vị nộp đề xuất có thể bổ sung bằng cấp hoặc chứng chỉ liên quan nếu thấy cần thiết và hỗ trợ cho đề xuất của đơn vị.</li> <li>• <i>Only a CV is required. However, the applicant may provide a degree or certificate if they feel it gives a stronger justification.</i></li> <li>• Có, nhân sự thuê ngoài có thể được phép nếu tổ chức không có nhân sự phù hợp tại đơn vị.</li> </ul>

STT	Câu hỏi/Questions	Trả lời/Answers
		<ul style="list-style-type: none"> <li>• <i>Yes, outsourced personnel can be hired if there are no capable personnel in-house.</i></li> </ul>
<b>III</b>	<b>Chuẩn bị hồ sơ đề xuất / Prepare and submit the Proposal</b>	
1	<p>Trong mục kinh nghiệm làm việc trong hồ sơ, có cần trình bày các dự án đã thực hiện bởi đối tác liên danh hay không? Có đề cập các bên liên quan trong hồ sơ không? Có cần trình bày kinh nghiệm của các bên liên quan không?</p> <p><i>In the Past Performance section of the Proposal, should we list down the implemented project by the consortium partner?</i></p> <p><i>Should all stakeholders be mentioned?</i></p> <p><i>Is it necessary to present the past experiences of key stakeholders?</i></p>	<p><i>Vui lòng xem Phần II, Câu hỏi 4 ở trên.</i></p> <p>Phần kinh nghiệm thực hiện dự án tương tự có thể bao gồm các dự án đã được thực hiện bởi tổ chức đứng đầu/đại diện liên danh và các thành viên trong liên danh.</p> <p>Phần kinh nghiệm thực hiện dự án không liệt kê dự án của các bên tham gia dự án nhưng không phải là thành viên của liên danh.</p> <p><i>See Part II, Question 4 above.</i></p> <p><i>The Past Performance section of proposals may include past performance of lead applicants and other proposed coalition or consortium members.</i></p> <p><i>Past Performance information does not need to be included for other stakeholders who are not part of the consortium.</i></p>
2	<p>RFA này có yêu cầu đơn vị nộp hồ sơ đóng góp chi sẻ chi phí (vốn đối ứng) không? Nếu có, số tiền hoặc tỷ lệ phần trăm đóng góp trên tổng chi phí của dự án là bao nhiêu? Ngoài ra, vốn đối ứng có được coi là một tiêu chí đánh giá không?</p> <p><i>Do you anticipate or prefer co-financing (cost share) arranged by the applicant? If so, what amount or percentage of the total project costs would be expected? Additionally, is co-financing considered an evaluation criterion?</i></p>	<p>Khoản tài trợ này không yêu cầu đưa ra mức đóng góp vốn đối ứng. Vốn đối ứng không phải là tiêu chí để đánh giá đề xuất tài chính.</p> <p><i>Cost-share is not required for award(s) awarded under this RFA. Cost-share is not a criterion for evaluation</i></p>