

**Project: “Leveraging legality along China’s timber supply to reduce deforestation”
granted under the Norway’s international Climate and Forest Initiative**

Terms of Reference for the Services

Applicable law: United Kingdom Law

Contracting agency and address: TRAFFIC, David Attenborough Building, Pembroke Street, Cambridge, CB2 3QZ, UK

Type of contracting agency: Non-profit, non-governmental wildlife conservation, charity organisation

Title: Procurement of Wood ID development and Forestry Info App

Type of Contract: Cost plus fee

Information about lots: the contract can be divided into 2 lots

Award criteria: Price is not the only award criterion, and all criteria are stated only in the tender procurement documents’ package

Duration of the contract: 40 months

Estimated Start of the contract: Beginning of February 2022

The contract includes development and troubleshoot/maintenance. The substantive outputs should be completed within 24 months of the start of the contract. Flexible service during the project. See the workplan below. The contract is until June 2025.

Budget: The total budget to cover both the Wood ID development and Forestry Info App ranges from GBP 60,000 and not exceeding GBP 75,000. The fee payable by TRAFFIC is inclusive of any sales taxes that may be chargeable by the consultant. Any liability for sales taxes payable outside of the UK rests with the consultant.

The contract is subject to renewal: no

Information about funds:

The procurement is related to a project and/or programme financed by the Norwegian Government (grant)

Additional information:

Right of the granting governmental organization for audit accordingly to the project approval

Time limit for sending the proposals: 31 January 2022

Questions and clarification until 24 January 2022

Language in which tenders, requests are requested:

English

Questions regarding the tender can be sent to:

Chen Hin Keong

hk.chen@traffic.org

Address where the tenders shall be sent, within the time limit:

katie.mabbutt@traffic.org; hk.chen@traffic.org

INTRODUCTION

TRAFFIC, the wildlife trade monitoring network, is a leading non-governmental organisation working globally on trade in wild animals and plants in the context of both biodiversity conservation and sustainable development. TRAFFIC’s mission is to ensure that trade in wild plants and animals is not a threat to the conservation of nature. TRAFFIC International is the head office for TRAFFIC, based in the UK and located at the David Attenborough building, Cambridge. This tender is part of the project implementation by TRAFFIC, funded by the Norwegian Agency for Development Cooperation (NORAD) under their Norway International Climate and Forest Initiative (NICFI) programme.

TRAFFIC intends to engage a leading agency or agencies via tender procurement to develop a Wood ID tool and Forestry Info App for use by target groups, comprising of government enforcement agency officers, such as forestry department, revenue, customs, transport, industry, especially those working on the frontlines.

The selected tender applicant(s) shall have the capacity to develop the necessary tools and services, assist to conduct pilot tests, support the evaluation, and utilisation of the tools. The tender can be by

an individual applicant or as part of a consortium. Applications for one or two outputs will not be discriminated, and TRAFFIC will bring other partner(s) to complete the outputs which are inter-linked.

OBJECTIVES

There are two related but distinct outputs and tasks to be completed:

- Develop an online rapid **open-access** science-based tool (tentative name: Wood ID) to be able to conduct timber species macroscopic (minimum x10 magnification as standard) anatomy identification to the genus and/or species level for use by enforcement officers, especially in the field, to a sufficiently high degree of confidence of the timber species of the shipment to support enforcement action or to release the timber shipment. The Wood ID tool should be available for use via a link on a smartphone (for IOS and Android) using a minimum 10x magnification phonescope attached to the camera of the smartphone for field use to identify the species of an unknown timber. TRAFFIC will work with the supplier to obtain and identify priority species, including selected priority CITES timber species) in trade for the machine learning analysis and database.
- Develop a smartphone app (for IOS and Android use) or progressive web application (tentative name: Forestry Info App) with a dashboard for rapid field accessibility with **restricted access** covering key forestry, legality and supply chain information, governance, enforcement related data and information that are helpful for enforcement officers to verify details in documents obliged to be submitted to the officers during the trade of timber products. The Forestry Info App should be linked to the Wood ID tool in some ways for ease of use.

These tools should be practical and allow for mobile accessibility, either through a smartphone (available for download on iOS and Android) or via a progressive web application. An understanding of the advantages and disadvantages of each method of accessibility to enforcement officers in the field is a useful pre-requisite. Delivery of the tool and platform, and the troubleshoot and maintenance of the tools are two key criteria of selection. Further specifics can be found in the table below.

TENDER SPECIFICATIONS

ASSUMPTIONS

The sections of this document that cover the design and implementation of the products should be seen as a guide. Flexibility is permitted to allow for different development processes. However, suppliers are encouraged to seek clarifications via email before proceeding based on an assumption. All assumptions made must be fully documented within the tender proposal.

The supplier should assume that in some countries and locations where the tools will be used, internet accessibility may be limited and/or patchy. Alternative options should be considered in such cases when using the tools.

SCOPE OF WORK

The purpose of this work is to develop the two outputs listed above.

Suppliers are encouraged to study this document to fully understand the current technical and functional scope of what is required, while understanding that these may be subject to change following future discussions. Suppliers are encouraged to submit questions to TRAFFIC to understand fully the functional scope and requirements of these tools.

DELIVERABLES

The final deliverable for this tender is the two outputs listed above. The development process will be split according to the detail below. The timeline for the completion of the tools is within two years period, and the troubleshoot and maintenance of the tool and platform will continue until June 2025. The final timeline will be negotiated with the successful supplier(s).

Deliverables: PROJECT OUTCOME 3

Strengthened transparency and knowledge along the timber value chain, including for enforcement agencies and through increased suspicious transaction reporting by financial institutions to law enforcement.

There are two (2) specific tasks of the supplier(s). The supplier(s) is not obligated to submit documents for both of the tasks and should indicate the tasks they are submitting for the tender.

Further specifics:

1.	Wood ID: Timber species macroscopic anatomy identification tool which can be used on a smartphone or via a progressive web application tool
1.1	Contribute towards developing partnerships to supply wood species anatomical imaging of key CITES timber species and nationally protected timber species in 15 countries initially from Africa, Southeast Asia and India exporting to Vietnam and China. TRAFFIC will work together with the supplier on this activity.
1.2	Use Artificial Intelligence to develop species model building for macroscopic wood species identification (Wood ID), hosted at a central server to be identified by TRAFFIC, and accessible via an online dashboard for use by enforcement agencies officers and other stakeholders in the field.
1.3	The online dashboard may have an option to have a restricted access functionality. Gathering analytics information on users should be built into the tool.
1.4	The supplier is expected to develop a user manual to facilitate ease of use of the online timber species identification tool.
1.5	The supplier should expect to develop the tool for multi-language usability, either using Google translate or other translation tool, beginning with Chinese, English, French and Vietnamese.
1.6	The supplier is expected to contribute to field test the identification tool with TRAFFIC.
1.7	The supplier is expected to include the ability to allow for backroom updates for new reference species to the database.
1.8	The supplier will deliver the source code for the tool as a property of TRAFFIC, who will determine how the source code will be shared in future, including as open source. The AI model code will remain the property of the supplier if the supplier has used other funds to begin the development of the AI. The full scope of the intellectual property will be negotiated with the successful supplier.
1.9	The supplier will continue to work on troubleshooting and maintenance of the tool until the end of the contract.
2.	Forestry Info App: Smartphone app or progressive web application online dashboard tool for key forestry, legality and supply chain information and data.
2.1	Design and develop a user-friendly smartphone app or progressive web application tool for online use by enforcement agency officers, especially frontline officers.
2.2	The tool should include the ability to capture information on a country's legal requirements for forestry and timber trade, supply chain legality requirements, log bans, tariffs, etc. The criteria will be developed jointly by TRAFFIC and the supplier.
2.3	The tool will link to the Wood ID as part of the functionality of its use
2.4	The tool will have restricted access functionality as the primary target audience are enforcement officers, especially in the field. Gathering analytics information on users should be built into the tool.
2.5	The supplier is expected to develop a user manual to facilitate ease of use of the online dashboard.
2.6	The supplier is expected to develop the tool for multi-language usability, either using Google translate or other translation tool, beginning with Chinese, English, French and Vietnamese.

2.7	The supplier is expected to include the ability to allow for backroom updates from various sources of the criteria for information gathering for the user interface online dashboard.
2.8	The supplier will deliver the source code for the tool as a property of TRAFFIC, who will determine how the source code will be shared in future, including as open source.
2.9	The supplier is expected to work with TRAFFIC to field test the tool.
2.10	The supplier will continue to work on troubleshooting and maintenance of the tool until the end of the contract.

Workplan

1. The development of the Wood ID and forestry info App will be completed within 24 months of the start of the contract.
2. The pilot of the Wood ID and forestry info App will follow and should not take more than 6 months after completing the development phase.
3. The troubleshoot and maintenance phase will continue until the end of the contract by June 2025.

Documents to be prepared for the supplier in English:

As part of responding to this tender, suppliers are required to develop and submit the following deliverables and a cost proposal:

1. Craft a strategy and plan for identifying priority species and anatomical image compilation for the AI modelling. This strategy and plan will guide the compilation of the imaging for TRAFFIC and other partners. The supplier is not expected to do any field image compilation. The minimum number of species models to be developed should be mentioned.
2. The proposal should incorporate insights from other anatomical species identification tools that the supplier is aware of, and as appropriate.
3. The proposal should give examples of the initial key visual of the forestry info app dashboard, and what types of information and potential sources is considered for the forestry info and the source of the information.
4. The proposal should include any assumptions used, possible constraints and challenges the supplier is aware of that could impact on development of the AI modelling and dashboard, and the delivery of the tool.
5. As part of the development process the supplier should propose and jointly work with TRAFFIC to arrange to pre-test the tool and adapt them accordingly to ensure that they are optimized before delivery to TRAFFIC for dissemination.
6. The tool and dashboard and forestry info app should be available in different languages, the priority languages are Chinese, English, French and Vietnamese. The proposal should plan a roadmap to add other languages.
7. The tools should include the ability to gather and compile user analytics and statistics.
8. The proposal should develop examples of initial key visuals, messaging and communication assets, including a call-to-action. Final materials will follow the branding guidelines of TRAFFIC and NORAD (details to be provided).
9. Summary of how the outputs of the initiative will be evaluated.

The proposal should also include:

1. Suitability for the work including examples of relevant past work
2. Draft budget
3. Proposed timeline
4. CVs of Key Personnel
5. Proof of Incorporation
6. Completed Annex V Norad Procurement Requirements document

Selection Criteria and Technical and professional ability

- (1) Experience working with international and environmental organization and Non-Government Organization (NGO) is an advantage.

- (2) Proven track record in implementation of similar types of technical and technological tasks for previous customers within the past 5 years
- (3) Proven track record in Wood ID technology and timber species identification science is an advantage.
- (4) Proven track record with developing user-friendly smartphone App and/or progressive web applications and dashboard developments.
- (5) Competitive price with detailed and comprehensive budget.
- (6) Proven track record of work with and understanding of timber industry, conservation issues and information and global timber policy is an advantage.