

**TERMS OF REFERENCE**

**Consultancy on assessment of Volumetric Water Benefit Accounting (VWBA) activities in Dong Nai Culture and Nature Reserve**

**Working period:** September – Octorber 2025

**Location:** Dong Nai CNR, Dong Nai Province

**Report to:** Project Manager/ Freshwater Lead

**I. Background**

WWF was one of the first international non-government organizations working in Vietnam. In 1985, WWF began working on a national conservation strategy and since then has worked closely with the Vietnamese Government on a diverse range of environment issues and implemented field activities across the country. WWF’s current work in Mekong Delta is spanning across themes including Free Flowing River, Water Stewardship, Wetland Conservation, Sustainable Food Systems, Climate Change and Energy, No Plastic in Nature and Sustainable Financing. Find out more at <http://vietnam.panda.org/>.

The Freshwater Program is one of the flagship programs of WWF in Viet Nam. We strongly advocate that all freshwater ecosystems – rivers, lakes, wetlands and associated aquifers – should be sustainably managed and wisely used to meet the needs of both biodiversity conservation and human development. In addition to advocacy work at the National level, the program is strongly rooted in the Mekong Delta provinces. We are one of the few organizations supporting key wetlands such as Lang Sen Wetland Reserve, Tram Chim, U Minh Thuong, Mui Ca Mau National Parks, Ecotourism & Conservation Area, and Tra Su Wetland Reserve in maintaining biodiversity and ecosystem services and engaging communities. We leverage water and water resources to realize ambitious plan in the Mekong Delta through bankable, nature- based solutions, as part of the Global Resilient Asian Delta.

Dong Nai Culture and Nature Reserve (DN CNR) and surrounding communes face persistent challenges: lack of clean water supply, unstable irrigation for agriculture, heavy chemical use, poor waste management, and pollution from aquaculture activities. These pressures threaten both water quality and availability, while forest areas require continued restoration and management. During April - July 2022, WWF-Viet Nam, under the financial support from Heineken Viet Nam (HVN), conducted a feasibility study assessing social conditions and calculating potential volumetric water benefits, based on Volumetric Water Benefit Accounting (VWBA) method[[1]](#footnote-1), as guided by the World Resources Institute (WRI) methodology to design a four-year project (2022–2025) in DN CNR. The theory of change is that DN CNR is a critical ecosystem in the Dong Nai River Basin; therefore, its improvement will yield the most significant impacts on water resources.

As part of the studies, WWF, together with the targeted stakeholders have reached a shared water challenge and further understood the local context, ongoing water stewardship activities. While some of these have been aware at the stage of the proposal submitted to HVN, this detailed study has allowed us to also consider other aspects relating to Environment and Social safeguards and potential risks while reaching the water benefit goals.

An iterative strategy planning process with the partners has helped identify the locations and interventions of the project, based on information GIS data, existing data and other inputs to support the calculation methods, the Curve Number Method, Recharge Method, Withdrawal and Consumption Methods were used. The studies have also helped to consider the best optimal of interventions to maximize VWB but also ensuring these water interventions best suited to the local conditions, ensuring environment and social safeguarding and other complimentary benefits.

After nearly three years of project implementation, WWF-Viet Nam is seeking a group of consultants to conduct a field assessment in Dong Nai CNR. The assessment **will have to apply the VWBA** **methodology** to evaluate and validate the actual water benefits achieved compared to the project baseline.

**II. Scope of work and expected results**

The consultant team will conduct field surveys for collecting ground data and information on project interventions and results, and calculating water balance benefited from the project in DN CNR, Dong Nai province.

Through this consultancy, we aim to achieve the evaluation on:

* Water replenishment goals for the project in comparison to the project baseline.
* Volume Water Benefits claimed in project site in comparison to the project baseline.

**III. Specific tasks**

The consultant team shall provide the following work:

**Task 1: Desk study**

Consultants will study the baseline report as well as technical reports, then collect and analyse secondary data, including reports, maps, data and information related to the project site. The consultants will also study the Volumetric Water Benefit Accounting (VWBA) methodology **(particularly SWAT modeling)** and prepare the field survey plans to collect a set of data and information needed for VWBA to calculate the water replenishment and water volumes of the restoration interventions in DN CNR.

**Task 2: Sites investigation, fieldwork and data collection**

Consultants will conduct field surveys on forest restoration areas, meetings with DN CNR’s manager and local communities to evaluate the project basin interventions, as well as the social context of the local communities live in and around the project site, especially those who rely on water and other resources from the project selected nature reserve for their livelihoods.

**Task 3: Quantitative analysis report**

Consultants will work with the project team, nature reserve’s manager and local communities to evaluate the project’s biodiversity conservation and water restoration interventions (natural-based solutions (NbS), to improve biodiversity conservation and create water benefits for nature and local people.

Consultants will use VWBA methods (e.g SWAT modeling, Curve Number Method, Recharge Method, Withdrawal and Consumption Methods, etc.) for calculating water replenishment with the identified interventions, implemented by the project (see detailed methodologies in the [VWBA report by WRI](https://www.wri.org/research/volumetric-water-benefit-accounting-vwba-method-implementing-and-valuing-water-stewardship)).

**Task 4: Draft report**

Consultants are required to develop a draft evaluation report **in English and Vietnamese** that highlighted the implemented interventions and water replenishment in project site.

**Task 5: Stakeholder consultation and final reporting**

Consultants will present the draft report at consultation meetings with key stakeholders to gather more ideas and comments before finalizing the report to submit to WWF.

**IV. Deliverables**

The consultant team will submit deliverables/outputs to WWF-Viet Nam by the timeline and important milestones are as follows:

| No | Deliverables | Due Time (days) |
| --- | --- | --- |
| 1 | Desk study report and field survey plan | 6 |
| 2 | Technical report (draft & final report in English and Vietnamese) | 5 |
| 3 | Presentation and meeting minutes | 1 |

**V. Timeline**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Activities** | **September** | | | **Octorber** | | | | |
| Week 3 | Week4 | Week 1 | | Week 2 | Week 3 | Week 4 |
| **Task 1:** Desk study | x | x |  | |  |  |  |
| **Task 2:** Sites investigation, fieldwork and data collection |  | x | x | |  |  |  |
| **Task 3:** Quantitative analysis report |  |  | x | | x |  |  |
| **Task 4:** Draft report |  |  |  | | x | x |  |
| **Task 5:** Stakeholder consultation and final reporting |  |  |  | |  | x | x |

*Note: The timetable above is for indicative purposes only. A more detailed timeline will be agreed by the Consultant(s) and WWF-Viet Nam after submission of the methodology and tentative plan by the consultant(s).*

**VI. Qualifications and experience requirements**

In general, the consultants are required to have:

* Master’s degree or higher in Water, Hydrology, Environment, Climate Change Resilience or relevant fields.
* Proven expertise in SWAT modeling, VWBA methods in water conservation projects/programs in Viet Nam.
* Experience and skills in social research tools, especially PRA tool.
* Good understanding and background on water and conservation issues.
* Excellent communication skills, both written and spoken, in English and Vietnamese.
* Demonstrated ability to adhere to strict confidentiality.
* Can-Do attitude; with the ability to interact with governments, project donor/team, local partners.

**VII. How to submit your proposal**

Interested consultant team(s) are kindly requested to send technical and financial proposals in English.

**Via email:** [procurement@wwf.org.vn](mailto:procurement@wwf.org.vn); [nhan.dangthe@wwf.org.vn](mailto:nhan.dangthe@wwf.org.vn) with subject: **[WWF- HNK Volumetric Water Benefit Accounting Consultants]**

**Deadline for submission is 05:00 PM on September 1st, 2025, Hanoi time.**

Only short-listed consultants will be contacted.

**Annex 1. Specific requirement for the consultant team**

(optional placed in advert TOR or for internal usage only – used for the bidding evaluation).

- The consulting contract will be granted to a group of consultants, represented by 01 Chief Consultant (Team leader), who meets the eligibility requirements according to the Vietnamese law/regulation and the Project Funding Arrangement.

- The consulting team will include at least (but not limited to) experts with the required experience and skills listed in the table below.

- Priority is given to experts with international experience and the experience in project areas.

- Total estimated expert input is 12 man-days. This man-day is a temporary value for consulting team reference. Consulting groups should review and recommend their personnel/financial plans to ensure good performance of assigned tasks within the allocated budget.

***Annex 2. The Consultant team should have (but not limited to):***

| **No.** | **Position** | **Qualification requirements** | **Task/Responsibility** | **Remark** |
| --- | --- | --- | --- | --- |
| 1 | **1-2 Water/ hydrological Experts**  Hydrological Modeling Expert | Master's degree or higher in related fields of water resources management, hydrometeorology, irrigation, fluid mechanics; have at least 10 years of related experience in designing and implementing hydrological and hydraulic modeling calculations, calculating water resources and impacts on water resources using SWAT model; have good English proficiency, office computer skills and good report writing skills. | * Collect information, data, documents to build a model (SWAT) to calculate water resources in the research areas * Conduct water resource calculations under current conditions and after interventions. * Determine the water volume benefits of interventions * Complete related research contents in the final report * Perform other tasks assigned by the research team. |  |
| 2 | **01 Sociology/ agrofrestry Expert** | Master's degree or higher in fields related to sociology, indigenous peoples, minorities, local livelihoods, forestry, etc. At least 10 years of related experience in similar jobs with good English proficiency, office computer skills and good report writing. | * Collect data and describe the current situation related to water and related to the local socio-economic situation, activities related to water volume, water ways * Plan local surveys, work with national parks, to assess and estimate the amount of water saved by interventions * Establish outlines, questionnaires, survey plans and collect data * Complete the research content in the final report. * Carry out other tasks assigned by the research team. |  |
| 3 | Support local data collection | Local expertise and experience | * Collect data as required |  |

* team finishes the assignment, and 01 final report are approved by WWF Supervisor.

**Annex 3. Consultant(s)**

***3.1 Technical evaluation criteria:***

|  |  |  |
| --- | --- | --- |
| **No** | **Evaluation criteria** | **Max. points** |
| **1** | **Proposed Methodology and Feasible Plan for the Completion of Services** | **400** |
|  | Break down detail  1. Criteria 1  2. Criteria 2  3. Criteria 3 |  |
| **2** | **Qualifications of Key Personnel: A team with 03 positions to be assigned to implement the tasks** | **600** |
| 2.1 | Water Modeling Expert | 200 |
| 2.2 | Data collection expert | 100 |
|  | **TOTAL** | **1000** |

1. Volumetric Water Benefit Accounting (VWBA): <https://www.wri.org/research/volumetric-water-benefit-accounting-vwba-method-implementing-and-valuing-water-stewardship#:~:text=VWBA%20empowers%20companies%20with%20a,water%20risks%20at%20catchment%2Dscale>. [↑](#footnote-ref-1)