

TERMS OF REFERENCE

Firm to develop and execute a functional biodiversity monitoring and evaluation platform for the Philippine Biodiversity Strategy and Action Plan and its Biodiversity Finance Plan

A. PROJECT TITLE: BIODIVERSITY FINANCE INITIATIVE – PHILIPPINES

General Information	
Job Title	Development of a Biodiversity Monitoring and Evaluation Platform
Organization	UNDP Philippines
Duty Station	Manila, Philippines
Contract Duration	180 days spread over 9 months
Type of Contract	Firm
Languages Required	English, Filipino

B. Project Description and Objective

Since 2014, The United Nations Development Program through its Biodiversity Finance Initiative (BIOFIN) Project, has been supporting the Philippine Government in articulating the financial resources it needs to maintain a healthy biodiversity portfolio in-country. In particular, BIOFIN in collaboration with Department of Natural Resources-Biodiversity Management Bureau has conducted 1) Policy and Institutional Review (PIR); 2) Public and Private Biodiversity Expenditure Review (PPBER); 3) Assessment of financial needs (cost and gap analysis of implementing Philippine Biodiversity Strategy and Action Plan (PBSAP)); and 4) Biodiversity Finance to bridge the funding gap in implementing the PBSAP.

Based on insights gained from the results of the three BIOFIN assessments, this plan acknowledges the importance of tapping additional financing to support the biodiversity agenda of the Philippines, mainly through its National Biodiversity Strategy and Action Plan (PBSAP), referred to henceforth in this Plan as the Philippine Biodiversity Strategy and Action Plan (PBSAP). This Plan is cognizant of the parallel challenges that could not be addressed by generating financing alone: thus, the Plan transcends the focus on generating additional resources and also identifies a range of “finance solutions” that leverage finance, fiscal and economic tools and strategies to improve the outcome of biodiversity objectives in the country. Financing solutions include a range of transformative actions: generating more financing to fund the PBSAP or associated planning documents; appropriate attribution of biodiversity expenditures in the budget; attaining cost effective budget execution by eradicating overlaps in biodiversity functions; eradicating expenditures that continue to or aggravate dissipation of biodiversity resources; and paving the groundwork for a responsive policy environment through greater awareness on biodiversity and biodiversity financing and enhancing institutional support towards monitoring of PBSAP.

A monitoring and evaluation platform (M&E platform) is an information system that will be developed to monitor PBSAP implementation, to raise funds for its actions and to gather information on current actions on biodiversity conservation. The platform can also be an educational tool for its visitors.

C. Scope of Work

The firm shall develop and execute a functional biodiversity monitoring and evaluation platform for the Philippine Biodiversity Strategy and Action Plan (PBSAP) and its Biodiversity Finance Plan (BFP). The development shall be under the supervision of the BIOFIN team and the Biodiversity Management Bureau of the Department of Environment and Natural Resources. Specifically, the firm should:

1. Gather requirements for the development of a web-based M&E platform for PBSAP and BFP, including an inventory of existing M&E systems of the DENR BMB. The requirements will include the use case diagram, user stories, functional and non functional requirements. These will be placed in the requirements document.
2. Conduct with DENR BMB, DENR KISS and BIOFIN the Technical Needs Assessment (TNA) of users, stakeholders, and organizations regarding their current capacity, mechanisms, and capabilities in implementing the M&E platform as defined in the requirements document. The Firm shall appropriately apply the key technical and institutional recommendations and findings of the TNA report.
3. Develop web interface mockups based on the functional requirements. The mock ups should include the public facing and the internal facing user interface.
4. Conduct consultation on system design, development and testing with the DENR-BMB and BIOFIN
5. Develop an online information and monitoring system that will provide decision makers, prospective funders and the general public accurate and real-time information about the biodiversity status, threats, interventions needed, public and private biodiversity expenditure, funding opportunities for protected areas (PA) and key biodiversity areas (KBA). The system must support the import of existing biodiversity data and provide updated information through statistics, maps, infographics and other possible form of data visualization. Data analysis is expected to get more funding support for biodiversity conservation.
6. For biodiversity finance, Consultant will work together with BIOFIN to develop data fields and related infrastructure to accommodate relevant information including biodiversity expenditure, etc.
7. The platform should have an offline version for data entry.
8. The platform should be able to monitor the progress of the PBSAP implementation and evaluate the impact towards the attainment of the PBSAP and the remaining Aichi Biodiversity Targets, UN Sustainable Development Goals and the Philippine Development Plan (PDP) 2017-2022 and succeeding PDP, including the upcoming targets from the Post 2020 Global Biodiversity Framework. The system will prioritize and must be able to monitor the status of the targets indicated in the PDP which are the status of forest, coastal and marine ecosystems, METT and MEAT scores and generation of biodiversity-friendly jobs. These shall be presented in graphical, infographics and other analytical format.
9. The platform should be able to provide information on biodiversity financing of the Philippine Biodiversity Strategy and Action Plan (current and updated) and other sub-national/regional/local/protected area finance plans. In particular, it should include results of the biodiversity expenditure review, finance needs assessment (including financing gap), grants, loans, private sector (corporate social responsibility and otherwise) and NGO investments and other related information.
10. The platform should be able to provide a menu of projects for financing by both the public and private sectors. It should also have the capability of providing links to sites that feature crowdfunding campaigns and other resource mobilization activities.

11. The platform should have a dashboard that will show the key indicators as identified in the requirements document.
12. Data submitted to the platform should have a validation mechanism (i.e. before data is shown in the landing page, this data should first be validated by the data manager).
13. Select an appropriate web development framework that fully meets the specifications stated in the requirements document and the stakeholders' required language and frameworks. The selected platform must be customizable, fully in compliance with the requirements document, and can be scaled into a full-fledged and functional integrated web-based M&E dashboard of the DENR/BMB/BIOFIN.
14. The DENR, BMB and UNDP Biofin will be assigning a responsible office who will directly coordinate with the firm for the development of the system.
15. Utilize an agile methodology in developing the system, with clear deliverables at the end of each sprint cycle. The firm should also include the responsible office during the regular stand up meetings and ensure that the the responsible office would be fully aware of the updates during the development period.
16. Provide warranty for at least 6 months after turn over. The firm should submit incidence report (when necessary) and weekly usage report. The warranty period shall include the following
 - 16.1 Fixing of bugs encountered within the 6 month period
 - 16.2 Support requests for technical assistance, limited to system administration and maintenance of the system.

The warranty period will not include any request for additional functionalities.
17. During the turnover period, the firm shall conduct regular technology transfer workshops with the responsible office
18. Prepare and submit a draft and final User and Technical Manual upon review and approval of the DENR-BMB and UNDP-BIOFIN.
 - 18.1 The Technical Manual will include the following
 - 18.1.1 Instructions for deployment
 - 18.1.2 Database Schema
 - 18.1.3 Guidelines on maintaining the system
 - 18.1.4 Source Code documentation
 - 18.1.5 Process flowchart
 - 18.1.6 Data flow diagram
 - 18.1.7 Detailed system architecture diagram
19. Submit the final version of the system, source code, and the technical and users manuals upon completion and approval of BMB.
20. The final and approved version of the system will be hosted in DENR Central Office / BMB and will be managed by the DENR and/or BMB.
21. Attend relevant project meetings and workshops/exercises; and
22. Submit report/s as may be required by UNDP and BMB.

Front-end Development

1. Design the user-facing interface of the web-based M&E dashboard. The interface shall include, but is not limited to, the following minimum subpages:
 - Front-end/Landing Page
 - Philippine Biodiversity Strategy and Action Plans / Local BSAP
 - List of National/Regional/Provincial Biodiversity related Programs and Actions
 - List of National/Regional/Provincial Accomplishments

- Interactive Map of Philippines displaying progress of PBSAP on each regions and provinces e.g., flagship species distribution (provincial scope)
 - Interactive Map of Philippines displaying location of programs and projects with information about project description, and accomplishments.
 - Statistics on status of biodiversity
 - Biodiversity financing and project pipeline
 - Other reports that may be required from time to time
 - Content Management System that will enable the [responsible office] to revise the contents of the landing page.
 - Login
 - Registration
 - Forgot Password
 - My Account
 - Change Password
 - My Account
 - User Management
 - Group Management
 - Users Management
 - Forms Management, that will allow user to view/add/edit/delete the following:
 - Biodiversity baseline data
 - Statistics on biodiversity
 - Programs/ Actions
 - Projects (Current and proposed)
 - PBSAP Target Report Checklist
 - PBSAP Accomplishment Report Checklist
 - PBSAP Progress Reporting
 - PBSAP Scoring
 - Biodiversity finance
 - Dashboard
 - PBSAP Targets
 - PBSAP Accomplishments
 - Statistics, analysis and trends
 - Philippine MAP - Showing Contributors/Contributions per Target
 - Philippine MAP - Showing NBSAP Progress
 - Philippine MAP - Showing Projects
 - Project Details Page
 - Biodiversity finance
 - Philippine MAP - PAs/KBAs/Other conservation areas
2. The landing and any public facing page should follow the government template for websites.
 3. Design and develop additional modalities for the front-end interface for general public viewing and feedback as defined in the requirements document.
 4. The platform must provide access to information and should have access controls based on the following user types:
 - General Public (including prospective funder) – they will not be required to login but will have read-only access to all information displayed at the front-end of the online system to be

developed.

- Academe, CSO, LGU, DENR, selected national government agencies, private sector –will be provided with login credentials, as determined by the system administrator, for entering information in the designated section of the system (back end) where they are responsible for data population.
 - Data Manager – Responsible for reviewing and validation (clearing house) of the information entered/uploaded by users with data-entry privilege in the system.
 - System Administrators – responsible for administration and maintaining the availability and operation of the system. They should also be responsible for training of the users with data entry privilege in the system.
5. The platform shall be hosted by the firm during the development and testing phase to be transferred to DENR or BMB upon final acceptance and turn-over.
 6. The platform shall have mobile-friendly or a responsive web design.
 7. The platform must function equally well with all the major browsers from their current versions to their last two versions.
 - Internet Explorer
 - Microsoft Edge
 - Mozilla Firefox
 - Google Chrome
 - Safari

Back-end Development

1. Develop an information system that will consolidate BMB Reports and ensures interoperability with BMB's Protected Area Database (PA Database) and other information systems and Databases.
2. Implement an integration mechanism (i.e. APIs) to enable database connection with existing BMB information systems and databases

The platform should:

- 1.1 Provide a landing page and management dashboard for data management and administration;
- 1.2 Accept, manage and export baseline data, either via CSV upload or direct data input;
- 1.3 Accept, manage and export inputs on targets, sub-activity of each targets and accomplishments from users at local, regional and national level either via CSV upload or direct data input;
- 1.4 Allow uploading and downloading of documents/evidences;
- 1.5 Provide data analysis, targets and accomplishments progress reporting either via CSV or direct data input and
- 1.6 Generate data visualizations such as data trends and contain an interactive map in the landing page
- 1.7 Follow government mandated data security and privacy guidelines

The system should pass the VAPT tests that will be done.

- Present MVP results at the end of every sprint cycle. The MVP must be deployed in as staging server to be set up by firm.
 - The following shall be scoped in the Inception Report (Business Requirement Document);
3. Develop the M&E platform based on the approved design and shall be created using an open-source set of tools and frameworks or development stacks.
 4. Develop a sprint plan that contains the prioritization of user stories to be implemented and update the prioritization at the end of every sprint.

5. The following should be logged and should be auditable:
 - User actions and application events
 - Data changes
 - System should be able to generate audit reports.
 - The logs should contain the date, time, user account and IP address that performed the said change.
6. The system should have an offline mechanism that allows user to enter data even if the user is offline, and the data will be synch to the databases once the user becomes online.
7. Access to the different functionalities of the system should be based on the permissions of the groups assigned to users.
8. Access to the management modules of the system will require user login. Public pages will be available to anonymous users.
9. Administrators will have full control of permission management.
10. The system should be developed using best practices in software engineering.
11. Ensure robust database security features for data submitted, reported, and uploaded into the dashboard.
12. Streamline the process of accessing data sets from the database so that the website loads as fast as possible, and its functionality is carried out as quickly as possible.

D. Expected Outputs and Deliverables

Deliverables/ Outputs	Estimated Duration to Complete	Target Due Dates	Review and Approvals Required
Upon submission and acceptance of inception report containing the requirements document, TNA and interface mock ups	15 days	January 30, 2022	<div>Project Manager, BIOFIN Phils</div> <div>BMB Director</div> <div>Team Leader, CAPT</div>
Upon Completion of Sprint 1 Minimum Viable Product	30 days	March 30, 2022	
Upon completion of Sprint 2 Minimum Viable Product	30 days	May 15, 2022	
Upon completion of Sprint 3 Minimum Viable Product	30 days	June 30, 2022	
Upon completion of Sprint 4 Minimum Viable Product	30 days	August 15, 2022	
Upon completion of Sprint 5 Minimum Viable Product	30 days	October 30, 2022	
Upon submission of final deliverables and acceptance of final Minimum Viable Product	15 days	November 30, 2022	

E. Institutional Arrangement

The UNDP Project Manager (BIOFIN) shall directly coordinate with the firm in the development of the platform. All outputs shall be approved and accepted by the Biodiversity Management Bureau (BMB) of the Department of Environment and Natural Resources (DENR) in particular, the Biodiversity Planning and Knowledge Management Division (BPKMD).

The firm is expected to liaise/interact/collaborate/meet with the national and global (as necessary) BIOFIN project team, DENR and its units, and UNDP. As needed, the project staff and BMB staff shall provide administrative assistance to her/him in order for her/him to accomplish all requirements.

The BMB and UNDP including other project consultants, as well as, relevant technical staff shall provide comment on the outputs of the consultant within 2 weeks of the consultant's submission of his/her outputs. Should there be further comments, the revised output shall be submitted within a week. Should there be no comments, the Project Manager shall endorse the consultant's output/s for approval.

Based on the table above, outputs will be submitted to UNDP and BMB through the UNDP Project Manager.

All systems, reports, and materials shall be the sole property of UNDP.

F. Facilities to be Provided by UNDP

This work shall be performed remotely. The Contractor is expected to have their own workspaces, facilities, computers, equipment, and licenses to digital tools. UNDP shall not be responsible in providing these to the Contractor and its personnel.

UNDP and the Firm shall assess, once Community Quarantine restrictions are eased, if it is safe and necessary to have in-person meetings and activities.

G. Duration of the Work, Duty Station and Travel

The Firm will be hired for one year. The target start of work date is December 2021 and the end date shall not be later than December 31, 2022

Duty station: BIOFIN Project Management Office, 1/F Admin Bldg. Annex 2, Ninoy Aquino Parks and Wildlife Center, Biodiversity Management Bureau, North Avenue, Diliman, Quezon City 1101. The Contractor is not required to report daily at the duty station but shall have a mutually agreed reporting schedule.

Travel: Due to various Community Quarantine (CQ) measures, the Contractor is expected to implement this project with a Work From Home (WFH) arrangement for its personnel based in the Philippines in compliance with the rules and guidelines set by the Philippine Government's Inter-Agency Task Force on Emerging Infectious Diseases (IATF). For out of country personnel, the Contractor is expected to implement the appropriate working arrangements that complies with the rules and guidelines of the respective jurisdictions where its personnel reside, especially those on physical distancing and home quarantines. Hence, meetings and coordination, whether regular or irregular, shall be conducted through digital collaboration and conferencing tools by default.

Should rules and guidelines on physical distancing and home quarantines be recalled or modified in the respective jurisdictions where personnel involved in this project reside, the UNDP and the Contractor shall exercise flexibility and prioritize the physical and mental well-being of all project personnel and stakeholders with view to attending meetings with government counterparts where necessary., the firm may be required to travel within the Philippines. Travels will be endorsed by the UNDP Outcome Lead for CAPT and approval by the UNDP senior management on a case by case basis.

H. Professional Qualifications of the Successful Contractor and its key personnel

The successful Firm must have demonstrable capability and track record to undertake a combination of methodologies and tools for this project.

The Firm shall assign a minimum of 4 key personnel for the project, specifically 1 Team Leader, 1 Senior Developer, 1 UI/UX Developer, 1 content writer and editor. The CVs of the 4 key personnel proposed will be evaluated according to the qualifications indicated in Section K: Criteria for Evaluation.

The Firm may propose to include additional personnel as it sees fit, and these will be evaluated by UNDP based on their relevance and value-addition. The Firm must also demonstrate how its senior leadership and advisers can be tapped to provide guidance to the project as may be necessary. In the event that any one of the proposed personnel becomes unavailable during the duration of the project, it shall be the responsibility of the firm to assign a substitute personnel of same qualifications.

I. Price and Schedule of Payments

1. The contract price is a fixed output-based price regardless of the extension of the duration specified herein. Bids must be expressed as an “all-inclusive” cost which includes the professional fees, travel and living allowances within Manila, management and administrative fees, taxes, and other applicable costs. For the professional fees, the Firm shall separate the costs related to the mandatory personnel and those related to the proposed additional personnel, if any.
2. Level of Effort per key personnel should be indicated in the technical and financial proposal. (To note that the technical proposal should not contain any unit costs).
3. Medical/health insurance must be purchased by the contractor at their own expense

UNDP shall deliver payment to the Contractor in tranches contingent on both delivery and acceptance and certification of the outputs as presented in the Schedule of Payments table below.

Percentage	Description	Projected Deadline
20%	Upon submission and acceptance of proposed system design as specified in Scope of Development. (Business Requirement Document/Inception Report)	January 30, 2022
10%	Sprint 1 Minimum Viable Product	March 30, 2022
10%	Sprint 2 Minimum Viable Product	May 15, 2022
10%	Sprint 3 Minimum Viable Product	June 30, 2022
10%	Sprint 4 Minimum Viable Product	August 15, 2022
10%	Sprint 5 Minimum Viable Product	October 30, 2022
30%	Final Deliverables	November 30, 2022

J. Criteria for Evaluation

The lowest priced among technically compliant offer (point system with a minimum threshold). The financial proposal of only those offerors obtaining the minimum 70% score during technical evaluation should be opened. The remaining financial proposals of offerors whose technical proposals are deemed unqualified and non-responsive shall be remain unopened. The contract will be award to the company meeting the minimum 70% score in the technical evaluation and offering the lowest price.

The Technical Proposal will be assessed based on the criteria as shown in the table below.

Technical Proposal Evaluation Forms		Points Obtainable
1.	Bidder's qualification, capacity and experience / Expertise of the Firm	350
2.	Proposed Methodology, Approach and Implementation Plan including budget	400
3.	Management Structure and Key Personnel	250
	Total	1000

Section 1. Bidder's qualification, capacity and experience		Points obtainable
1.1	Has completed at least 3 projects of similar technical scale	150
1.2	Should have a minimum of seven (7) years experience in the design, development and implementation of similar online information systems/database	150
1.3	Has completed at least 5 projects in digital M&E systems, platforms, dashboards, or any similar solutions	50
Total Section 1		350

Section 2. Proposed Methodology, Approach and Implementation Plan			Points Obtainable
2.1	Understanding of the requirement: Have the important aspects of the task been addressed in sufficient detail? Are the different components of the project adequately weighted relative to one another?		100
2.2	Description of the Offeror's approach and methodology for meeting or exceeding the requirements of the Terms of Reference		100
2.3	Details on how the different service elements shall be organized, controlled and delivered		50
2.4			150
a	Description of available performance monitoring and evaluation mechanisms and tools; how they shall be adopted and used for a specific requirement	50	

b	Assessment of the implementation plan proposed including whether the activities are properly sequenced and if these are logical and realistic	50	
c	Demonstration of ability to plan, integrate and effectively implement sustainability measures in the execution of the contract	50	
Total Section 2			400

Section 3. Management Structure and Key Personnel			Points obtainable
3.1	Qualifications of key personnel proposed		
3.1 a	Team Leader (Project Manager)		100
	Advanced Degree in information technology, computer science, software engineering, web development, or other related degrees <i>Minimum 20 points for Masters degree, additional points for additional degree, maximum of 25 points</i>	50	
	At least 5 years' experience in project management of development projects. <i>Minimum 21 points for 5 years' experience, additional points for each additional year, maximum of 30 points</i>	50	
3.1 b	Senior Developer		100
	At least a Bachelor's Degree in information technology, computer science, software engineering, web development, or other related degrees <i>Minimum (7) points for Bachelor's degree, additional points for additional degree, maximum of 10 points</i>	50	
	At least 4 years' experience in MVC (Model-View-Controller) Framework, server-side and client-side programming; <i>Minimum (14) points for 4 years experience, additional points for additional years, maximum of 20 points</i>	30	
	At least 4 years' experience in platform development and web mapping <i>Minimum (14) points for 4 years experience, additional points for additional years, maximum of 20 points</i>	20	
3.1 c	UI UX Developer		25
	At least a Bachelor's Degree in information technology, computer science, software engineering, and web development, or other related degrees <i>Minimum (14) points for Bachelors degrees additional points for additional degree, maximum of 20 points</i>	10	

	At least 3 years' experience in platform development and UI/UX designing <i>Minimum 21 points for 3 years experience, additional points for additional years, maximum of 30 points</i>	15	
3.1 d	Content Writer and Editor		25
	At least a Bachelor's degree in Development Communication, Journalism, English, Comparative Literature, or other related courses Minimum (14) points for Bachelors degrees additional points for additional degree, maximum of 20 points	10	
	At least 3 years' experience in content writing and editing Minimum 21 points for 3 years experience, additional points for additional years, maximum of 30 points	15	
Total Section 3			250

K. Financial Proposal

The financial proposal must include professional fees of all team members for the whole duration of engagement; **any related costs in resources that are required and may be needed to conduct activities specified in this Terms of Reference (TOR)**, including corresponding costs for organizing and hosting on-site training sessions and workshops; any related costs in data gathering; communication costs; costs of preparing soft copies of outputs; and taxes.