



TERMS OF REFERENCE

Web Developer for the Enhancement of the Climate Change Expenditure Tagging (CCET) Quality Assurance and Review (QAR) Online Platform and GHG Inventory Module at the National Integrated Climate Change Database and Information Exchange System (NICCDIES)

Background

The CCET is a joint effort of the CCC and the Department of Budget and Management (DBM), with the Department of the Interior and Local Government (DILG) for the sub-national counterpart. The tagging and reporting procedure is guided by the Joint Memorandum Circular issued by the DBM and CCC (DBM-CCC Joint Memorandum Circular 2015-01), and with DILG (DBM-CCC-DILG Joint Memorandum Circular 2015-01) in 2015.

The CCET requires the government to keep track of adaptation and mitigation actions in the public resources under the General Appropriations with the use of climate change typologies. Data on CCET is collected via the CCET Help Desk through online submissions of quality assurance, review, and budget forms from government agencies and local government units.

Climate-tagged Programs/Activities/Projects (PAPs) and their budgets are reported in the National Integrated Climate Change Database Information and Exchange System (NICCDIES). The NICCDIES is envisioned to become the platform for domestic climate monitoring, reporting, and verification system.

From 2021-2023, Mr. Mark Tableza, Individual Consultant (web developer) was hired to digitalize the submission process of CCET Quality Assurance and Review (QAR) and Climate Budget Forms based on the comments received from DUOs.

For 2024, the consultancy services of Mr. Tableza is envisioned to finalize the remaining enhancements of National CCET digitization process, including the required fixes in the back-end of NICCDIES following the soft launch and dry run of the National CCET QAR module that will happen this 3rd quarter of 2024.

The consultancy services will also include the enhancement of the Greenhouse Gas Inventory Module, including but not limited to Content and Data Visualizations, based on the recent updates and developments in the implementation of the Philippine Greenhouse Gas Inventory Management and Reporting System (PGHGIMRS).

This builds on the existing work done by the CCC to digitize the development and submission of CCET quality assurance and review form and budget forms and to disseminate evidence-based climate information.

Scope of Work

The web developer shall provide the following work:

1. Further enhancement of the NICCDIES web database and design development for CCET and its Digital QAR Platform, through the following:
 - a. Back-end and front-end upgrades;
 - b. Design and develop stable, reliable, and effective database architecture to meet both functional and non-functional system requirements;

- c. Modify, update, improve and maintain existing database systems;
 - d. Ensure interoperability with existing and planned database systems;
 - e. Perform usability user engagement
2. Enhancement of the GHG Inventory Module which also includes updating of the Content and Data Visualizations;
 3. Ensure the effectiveness, efficiency, quality, reliability, robustness, security, and stability of the system;
 4. Develop new or revise existing web-based tools/systems, e.g. calculations, data manipulation, data processing, exploratory data analysis, data visualization, automation procedures, statistical analysis, and web scraping
 5. Improve existing administrator and user framework, e.g. hierarchy, registration, data uploading, and process workflows;
 6. Interpret and translate user requirements into system specifications;
 7. Coordinate closely with relevant IOD's NICCDIES development team, CCET Helpdesk, and GHG Inventory Team to discuss web development and database considerations, users' needs and corresponding user and system requirements, implementation timeline and workflows, and functionalities;
 8. Conduct of workshops on the use of the enhanced CCET QAR page and other functionalities relevant to the system;
 - a. Conduct of workshop for CCET Helpdesk on updated enhancements on CCET QAR page in familiarizing tools and functions of the page;
 - b. Assist in facilitating the testing phase and official launch of the CCET QAR page;
 - c. Present tutorial video on how to navigate the CCET QAR page and input details on the page to data encoders of government agencies during the testing phase and official launch;
 9. Serve as resource person for the presentation of the output;
 10. Web scraping/data extraction from relevant online sources and publicly available databases, as may be necessary for the performance of duties defined herein;
 11. Conduct a formal handover of all source codes, documentation (e.g. API documentation), user's manual and all other relevant work done, references, and files, among others, to the appropriate CCO-IOD personnel focal person.

Deliverables/Outputs and Timeline

All activities should be completed within four (4) months spread. The web developer is expected to regularly communicate and update the CCO-IOD and make necessary adjustments as needed, subject to the agreement of both parties.

Milestone	Timeline
Signature of contract	
Development of the enhanced GHG Inventory Module, including Content and Data Visualizations wireframes	On or before 15 August 2024
Submission and presentation of the GHG Inventory Content and Data Visualizations enhancement page (subject to two iterations)	On or before 10 September 2024
Submission of the revised and final GHG Inventory Content and Data Visualizations page	On or before 30 September 2024
Development of CCET QAR Enhancement wireframes	On or before 10 October 2024
Submission of the Revised CCET QAR enhancement page Module and Presentation of the Online Enhanced CCET QAR exercise Module	On or before 10 November 2024
Submission and presentation of the CCET QAR page enhancement Module (subject to two iterations)	On or before 30 November
Submission of the Final CCET QAR enhancement page module	On or before 15 December 2024

Payment Schedule

Subject to acceptability of the outputs, the CCC shall pay the consultant with an amount total to PHP 480,000.00 according to the following schedule of payments:

Output	Payment Schedule
Submission of the GHG Inventory Content and Data Visualizations wireframes	20%
Submission of the enhanced and final GHG Inventory Content and Data Visualizations page	25%
Submission of the CCET QAR Enhancement wireframes	25%
Submission of the enhanced and final CCET QAR enhancement page module	30%

Implementation Arrangement

The Climate Change Office shall define the acceptability of the deliverables and shall be the approving authority for all activities.

Responsibilities of the Web Developer

The consultant shall render services for four (4) months, and s/he shall report to the Executive Director, Deputy Executive Director, Officer in Charge of IOD, and its appointed technical focal.

Consultant Qualifications and Experience

1. Bachelor's degree relevant to the position
2. Minimum ten (10) years of Web Development and Design experience
3. Minimum five (5) years of experience in data visualization of GHG inventory
4. Have experience in developing an online platform for expenditure tagging related to climate change.
5. Strong to excellent designing and coding skills
6. Preferably with vast work experience on various types of projects and experience with backend and frontend technologies
7. Exceptional web development skills using PHP (Laravel), MySQL, Perl, NodeJS, AWS, Git
8. Exceptional frontend web development skills using modern HTML 5, CSS 3, JavaScript (ES5&6), Bootstrap, JSON, and REST API
9. Experienced in Laravel Framework, and multiple browser testing and debugging
10. Able to troubleshoot browser-based issues quickly and effectively
11. Maintains excellent coding standards
12. Knowledgeable in API Integration, VueJS (preferably using Vue 2.0+), and web GIS integration
13. Knowledgeable in industry-standard web development and design tools

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