

“The Carbon Institute”
Terrestrial Carbon Accounting
International Academic
Partnership



Terms of Reference for The Carbon Institute
Council

Version 1.0 (Approved by all organizations May 15, 2018)



国家林业局调查规划设计院
Academy of Forest Inventory and Planning, State Forestry Administration

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Introduction

1. The Greenhouse Gas Management Institute (GHGMI), Forest Carbon Accounting and Monitoring Centre (FCAMC), and the Center for Climate Risk and Opportunity Management (CCROM) (collectively, the Carbon Institute partners) establish the Carbon Institute Council (hereafter referred to as the Council).
2. The Council is composed of experts tasked with assessing the Certificate programs and performing other work described below for the Carbon Institute partnership. The Council serves functions of accountability, governance, and oversight for the Carbon Institute and allows the partners to complete agreed on work and pursue new opportunities.
3. Initially, in 2018, the Council will assess the academic certificate programs in terrestrial carbon accounting (TCA), and decide on accreditation by The Carbon Institute for Terrestrial Carbon Accounting certificates. The Council may also begin work on international professional development programs for graduates of Carbon Institute certificate courses, consider a professional certificate affiliated with and supported by the Carbon Institute, and develop modalities for growing the Carbon Institute partnership to new organizations and countries.
4. Following the work in 2018, the Council may consider issues of continued professional development, faculty exchanges, program sustainability and fund raising, replication, research, accreditation of Certificate programs in additional subject areas, and governance of the Carbon Institute.

Objectives

5. The objectives of this Terms of Reference is to elaborate criteria for the selection of Council members and elaborate processes for the Council's operation to ensure quality, transparency, and consistency across the Carbon Institute Certificate programs and partnership.

Scope

6. These Terms of Reference contain:
 - (a) Rules for the composition and selection of Council members;
 - (b) Modalities of operation of the Council; and
 - (c) Rules and actions that shall be followed and undertaken by the Council, GHGMI, FCAMC, CCROM, The Carbon Institute Executive Director (TCI ED), and other partners, to review and approve accreditation applications from Certificate programs.

Membership

Status of Council Members

7. Experts on the Council should maintain their knowledge and skills through on-going awareness of developments in carbon accounting science and policy, with special attention given to the national context and developments in countries hosting Carbon Institute-affiliated Certificate programs.

Code of conduct

8. Experts on the Council shall be free from any interest that may cause them to act in any way other than an impartial manner. In this context, the following mitigation measures shall apply:
 - (a) A person currently working with an institution offering a Carbon Institute-affiliated Certificate program, if a member of the Council, shall abstain from voting on any accreditation application for a Certificate program at their institution. Such a person, however, should participate in the discussions to provide relevant information to other Council members.
 - (b) All experts on the Council shall declare any potential conflict of interest before undertaking an assessment of a specific Certificate program or any other matter.
9. Experts on the Council shall report to the Council any other development that adversely affects their impartiality in conducting accreditation assessments in general or for a specific academic program.

Qualification criteria

10. The experts on the Council shall fulfill the minimum requirements specified in this Terms of Reference and the detailed criteria elaborated in Appendix A of this document.

Selection process

11. In accordance with this Terms of Reference, GHGMI, FCAMC, and CCROM shall select the initial members of the Council. Thereafter, new and replacement members shall be elected by the standing members of the Council based on a two-thirds majority voting rule. In cases of a failure to reach two-thirds majority in favor of membership, the applicant member is not approved for membership on the Council.
12. The Carbon Institute Executive Director (the TCI ED) shall analyze the information provided in application documents submitted by an applicant Council member. If the TCI ED considers that a candidate possibly fulfils the qualification criteria, the TCI ED shall forward the applicant's information and a summary proposal (i.e., to approve or reject) to the Council.
13. The Council, at its next meeting, shall consider the recommendation of the TCI ED and decide whether to include the applicant on the Council or reject the application.
14. Information obtained during the applicant evaluation and its results shall be treated as confidential.

Officers

15. The Council may decide to elect its own officers of the Council. The Council may decide to provide funding for Council members and officers to perform work associated with the Council.

Modalities of work

16. These Terms of Reference shall be operational once FCAMC, CCROM, GHGMI agree to a final copy of the terms of reference and the initial members of the Council.
17. The Council shall meet and agree to its modalities of work, including its work flow and frequency and format of meetings.
18. The Council should elect a presiding Chairperson.

19. Council members will strive, in all cases, to reach all decisions by consensus.
20. Once the Council receives an “application” from a Carbon Institute partner it will begin reviewing the materials against the standard in this document.
21. An applicant Certificate program may nominate a point of contact to facilitate information sharing with the Council.
22. The Council, with support of the TCI ED, will provide the applicant program with a brief written report that summarizes the program’s assessed achievement of the accreditation standard, including areas needing improvement. The Council will issue its decision on accreditation approval or rejection, including any changes to the Certificate program it deems as being contingent for receipt of accreditation.
23. Once approved, a formal accreditation letter is issued to the program in writing and promoted publicly.

Enforcement of Standard

24. The Council’s review of an applicant or currently accredited program may indicate that the program is not in compliance with the standard in this document, and as amended. If this noncompliance occurs, the Council shall require the program to bring itself into compliance with the standard within either six months or the next scheduled start of instruction for a new student cohort, whichever is less, unless otherwise decided by the Council.
25. If the program does not bring itself into compliance within the specified period, the Council shall take any appropriate actions, including suspension of accreditation, unless the Council, for a documented good cause, extends the period.
26. The Council, with support of the TCI ED, shall review in a timely, fair, and equitable manner, any complaint it receives against an accredited program that is related to the accreditation standard. The Council may not complete its review and make a decision regarding a complaint unless it ensures that the program has sufficient opportunity to provide a response to the complaint.

Review of the Standard

27. The Council shall regularly maintain and amend this accreditation standard to adequately evaluate the quality of the education or training provided by the programs it accredits. During amendment, the Council may, for instance, add comprehensive subject matter for Certificate programs in additional technical areas. The review of this accreditation standard by the Council shall occur at least once every two years, unless otherwise decided by the Council.

Accreditation Standard Requirements

28. Programs accredited under this standard shall meet, to the satisfaction of two-thirds majority of the Council members, the following requirements:
 - (a) The Certificate program delivers curriculum that rigorously instructs learners to a professional level on all of the subject areas in paragraph 29, following a discussion by the Council on how to ensure rigorous attainment of the professional level, based on developed competencies through the attainment of

- learning objectives and outcomes;
- (b) The curriculum is instructed by qualified faculty with academic and practical expertise in the subject area they are responsible for instructing, who are adequately prepared to instruct and assess student achievement
 - (c) The program offers student support services and a professional development program to support continued learning after courses are complete;
 - (d) The curriculum has been developed with due consideration to the needs of national government stakeholders responsible for technical applications for international and domestic policy making and has been tailored to national policy and geophysical circumstances;
 - (e) Programs using online (i.e., e-learning) tools shall have a process for verifying the identity of students (e.g., through a secure login and password);
 - (f) Each course offered by the program is designed and delivered against explicit learning objectives that are based on good pedagogy;
 - (g) The program uses a rigorous process of student summative assessment (e.g., examination) that comprehensively measures the achievement of program learning objectives;
 - (h) Certificates are only issued to students who successfully demonstrate achievement of learning objectives;
 - (i) The program maintains an official process of student record keeping and archiving;
- 29.** The minimum subject areas for a Carbon Institute accredited TCA Certificate program include the following six courses for comprehensive instruction, including indicative sub-topics:
- (a) TCA policy context
 - (i) UNFCCC (e.g., INDCs/NDCs and NDF, national GHG inventories, REDD+ reference levels, MRV under the Paris Agreement)
 - (ii) Other guidance (e.g., World Bank, voluntary markets, sub-regional markets, relevant standards, including for verifiers)
 - (iii) National and/or provincial forest policies and national GHG policies and reporting
 - (b) GIS/ remote sensing
 - (i) Use of at least one of GIS Software (e.g. ArcGIS, QGIS, GRASS, IDRISI)
 - (ii) GPS use
 - (iii) Use of remote sensing for generating activity data
 - (iv) Software tools (e.g. ERDAS Imagine, ENVI, Google Earth Engine, CLASLite, IMG Tools)
 - (v) Supervised and unsupervised classifications
 - (c) Land classifications and IPCC Guidance and Guidelines
 - (i) Applying the 2006 IPCC Guidelines
 - (ii) National forest classification maps, forest types and classes

- (iii) National forest inventories
- (iv) Time series maps with land classifications
- (v) Land use change calculations
- (vi) Data quality and control, archiving of data
- (d) Data collection, field methods, and evaluation, generation of emissions factors
 - (i) Forest measurements for carbon accounting
 - (ii) Allometric equations
 - (iii) Forest carbon inventories
 - (iv) Generating emission factors
 - (v) Evaluating data quality and methodological appropriateness.
- (e) TCA Statistics
 - (i) General overview and training on basic math and statistics
 - (ii) Error propagation and uncertainty analysis (bootstrap, Monte Carlo methods), regression
 - (iii) Use of software (e.g., R code package)
 - (iv) Statistics applied to forests/forest carbon
- (f) Nationally-appropriate communication of TCA results
 - (i) UNFCCC reporting (e.g., national communications, NDC, BUR)
 - (ii) Reporting requirements to national government entities (e.g., PEP reporting)
 - (iii) REDD+ reporting (e.g., FCPF, FIP, bilateral, BUR),
 - (iv) Formatting analysis of results for reporting requirements
 - (v) Review process for REDD+ and NDC (e.g., UNFCCC, FCPF, FIP) and any future review of the Paris Agreement
 - (vi) Good communication (presentation and writing) generally

First Session

- 30. The Council will conclude its first review in 2018, during which time it will consider accreditation of the TCA Certificate programs in China and Indonesia and possibly other countries.
- 31. There is an expression of interest from the Kenya School of Government and University of Kinshasa (Democratic Republic of the Congo) to join the Carbon Institute Council. The Council will discuss the inclusion of these other academic institutions and vote on this matter during its first meeting, unless otherwise decided.

Second and Subsequent Sessions

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32. Following the 2018 accreditation process, the Council will expand its scope for the second and subsequent sessions. The Council will consider topics beyond TCA accreditation and growth, including governance and oversight, professional development, program sustainability, accreditation of programs in additional technical areas, and research.

Other

33. The Carbon Institute has been trademarked and is being held by GHGMI. The Council can make decisions about future trademarks and incorporating as a separate entity.

Appendix. Council Member Qualification Criteria

1. The Carbon Institute Council and the Carbon Institute partners shall use the qualification criteria in this Appendix for inclusion of applicants as Council members.
2. All Council members shall meet the following general criteria:
 - (a) Education: bachelor degree or equivalent education in a science, engineering, forestry, agriculture, economics, finance or related discipline;
 - (b) Experience: Four years of relevant experience, of which preferably one year in accreditation or similar assessments;
 - (c) Communication skills: ability to communicate conversationally, both in writing and orally, in English;
3. When selecting members of the Council, the Carbon Institute partners and the Council members shall take into account the following collective criteria for Council members:
 - (a) Members of the Council shall collectively possess the necessary expertise based on the criteria in this Appendix to this Terms of Reference;
 - (b) The Council shall include experts from countries wherein Carbon Institute-affiliated Certificate programs are currently operating or in development;
 - (c) The Council shall include an expert who is fluent in the national language of the program undergoing an accreditation review;
 - (d) The Council should include educator(s) with experience in teaching and pedagogy;
 - (e) The Council should include representatives of the higher education government ministry or agency of the countries where in the Carbon Institute affiliated Certificate programs are currently operating or in development.
 - (f) Gender and geographic diversity
4. Council members shall have documented subject matter expertise in one or more of the following subject areas:
 - (a) Climate change, forestry, energy, or other relevant policy context
 - (b) Use of software tools, such as GIS or database software
 - (c) Data aggregation, IPCC Guidance and Guidelines, climate change reporting, and

verification

- (d) Data collection, methods, generation of emissions factors
- (e) Statistics
- (f) Communications of results to decision makers
- (g) Pedagogical expertise

Document information

<i>Version</i>	<i>Date</i>	<i>Comments</i>
00.1	27 Oct 2017	Initial drafting by Michael Gillenwater and John Niles
00.2	3 Nov 2017	Revisions by Niles, Cage, Joshi, and Gillenwater
00.3	Nov 9, 2017	Revisions by Niles at COP23 based on discussions: 1) with Liu and Gao Jinping, having discussed it with Gao Xianlian, and 2) with Rizaldi and Ardy, Patrick Cage.
00.4	January 29, 2018	JN and Patrick Cage redo edits to shorten, tie to larger grant issues (connect to check list, exams, faculty development) and larger Carbon Institute issues.
00.5	February 1, 2018	JN reviews V4 to streamline and move more towards a true partnership.
00.6	February 7, 2018	PC reviews V5 to edit down according to the direction of JN, creating room for non-TCA programs and other changes
00.7	March 9, 2018	JN reviews, edits, final changes, share early draft with partners
00.8	April 5, 2018	JN/PC review partners comments and edit to develop final version, Other and Officers sections added.
00.9	April 12, 2018	JN takes on board final suggestions from members and also final editorial changes suggested after review (small changes to acronyms in paragraph 29). This is the final draft shared with all partners for approval.
1.0	May 15, 2018	Discussions were held May 14 and May 15, 2018, in Xian China with Council member Gao Xianlian, Lisa Hanle, Anup Joshi in person (and other staff). On the phone were Rizaldi Boer and Sun Zhongqiu. Nur Masripatin was This version was adopted by a voice vote on May 15, 2018.