ASES CLIMATE ACTION AND NATURE POSITIVE

ON-CHAIN PROTOCOL FRAMEWORK

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On-Chain Protocol

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INTRODUCTION

The aOCP provides a voluntary carbon offset and biodiversity restoration program to monetize GHG emission reductions and benefits on biodiversity, thereby facilitating stakeholders around the world to execute climate change mitigation and ecosystem restoration activities.

The aOCP was developed based on international best practices, including: ensuring transparency through stakeholder engagement; creating an institutional structure to develop standards (e.g., baseline and monitoring methodologies); creating robust project cycles that include clear and agile procedures for project registration and issuance of carbon and biodiversity credits, an international blockchain-based carbon registry, and effective approval of project validity.

The aOCP also stipulates additional standards for projects that, in addition to reducing GHG emissions, also have a positive effect on biodiversity, soil and water infiltration and wish to be recognized for this. In addition, projects can use the Project Sustainability Standard to show how they help achieve the UN Sustainable Development Goals (SDGs) and get the SDG label incorporated into carbon and biodiversity credits.

All aOCP projects must adhere to the Project Sustainability Standard as well as the Environmental and Social Safeguards Standard. As a result, all aOCP Projects are of a high caliber, beneficial to biodiversity, long-lasting, and safe for the environment and society.

By creating a regional market-based structure to support investments in Natural Climate Solutions, the aOCP can also be helpful as a regional response to Article 6.2 of the Paris Agreement (following cooperative approaches). The aOCP's primary goals include sending a price signal to the market, catalyzing, enhancing, and leveraging global biodiversity and climate change mitigation financing, as well as supporting nations wishing to put into practice the cooperative approaches outlined in Article 6.2 of the Paris Agreement and the agreements made at COP15 of the Convention on Biological Diversity.

The aOCP has created simple processes and reliable approaches to guarantee environmental integrity. In evaluating methodologies initiatives, and issuance requests, the AOCP's governance structure ensures impartial decision-making without conflicts of interest.

The core purpose of aOCP is to help address the challenges of climate change, biodiversity loss, and land degradation. The Clean Development Mechanism's implementation and operation have yielded experience the aOCP acknowledges and expands upon.

I. PURPOSE

This document serves as a comprehensive and high-level overview of the ASES climate action on-chain protocol's structure, documentation, and governance.

II. DEFINITIONS

The definitions listed below apply to this document:

1. aOCP issues Verified Nature Positive Credits (VNPCs), these include Verified Carbon Credits (VCCs), Verified Biodiversity Based Credits (VBBCs), Verified Water Credits (VWCs), Verified Soil Credits (VSCs). The NAT5 carbon ledger is aOCP's registry, where VCCs, VBBCs, VWCs and VCACs can be stored, invested, traded, retired and/or canceled.
2. VCC stands for the account holder's right to assert that a GHG emission reduction or removal in the amount of one metric ton of CO2-equivalent has been achieved.
3. VBBC represents the account holder's right to assert that biodiversity has benefited from project development based on the evaluation of three variables: preservation area, restoration area, and ecological and landscape conditions.
4. VWCs represent improvements in the hydrological response of soils, specifically reduction of water erosivity and maximum instantaneous runoff. As a consequence, the infiltration of rainwater into the subsoil increases, thus recharging the water table and at the same time reducing the risk of flooding.
5. VSCS represents the account holder's right to assert that soil health has improved and erosion has been reduced by the activities carried out on the project.
6. "aOCP Project Proponent" refers to one or more legal entity(ies) or organization(s) ultimately in charge of the project;
7. An aOCP Project is a mitigation effort (or series of related operations) that leverages nature-based solutions for climate and biodiversity action. Implementing an aOCP Project, with a particular set of technologies and/or initiatives, changes the baseline scenario's conditions in a way that would not have occurred without the project, leading to GHG emissions reductions and/or removals, increasing biodiversity and improving ecosystem services. The aOCP only accepts projects that have not been registered under any other GHG program. A project's GHG emissions reduction/removal and biodiversity improvement efforts are detailed in the project submission made by the project proponent.
8. aOCP Project Submission Form (PSF) refers to the template titled "aOCP Project Submission Form" published by the aOCP on its website. PSF shall be used by Project Proponent(s) to submit a detailed description of the GHG and biodiversity project for the consideration of the aOCP;
9. NAT5 Carbon Ledger refers to a blockchain-based registry operating within the aOCP Registry System; In order to issue VCCs, VBBCs, VWCs and VCACs as well as hold, transfer, retire, suspend, and cancel them on behalf of its account holders, the NAT5 Carbon Ledger communicates with the aOCP project database;

10. The aOCP Registry System is the framework developed by the organization to enable Project Proponents to request the issuance of VCCs, VBBCs, VWCs and VCACs units for their registered projects as well as to receive, transfer, hold, and retire their credits; it is made up of the aOCP project database and the NAT5 Carbon Ledger.

11. "aOCP Rules" refers to the body of guidelines established by the aOCP. For the purpose of attaining GHG emission reductions/removals and their certification under the aOCP, the aOCP Rules serve as a regulatory framework. The ISO 14064-2 and ISO 14064-3 standards, the aOCP Framework, the aOCP Manual, the aOCP Project Standard, authorized methodology and tools, and the additional papers cited in the aOCP Documentation Framework are all included in the aOCP Rules (see section 14). These rules are available at the aOCP public website. These guidelines might occasionally be revised.

12. "Methodology" refers to a methodology that has been approved in line with the aOCP's methodology development procedure (see: aOCP Procedures) and the aOCP Standard for Development of Methodologies. A specific set of GHG emission reduction and biodiversity project activities fall under the purview of methodology, which primarily consists of steps for establishing the project's boundaries, baseline scenario, additionality, baseline emissions, project emissions, emission reductions, changes to biodiversity, non-monitored parameters, and monitored parameters.

13. Verification Services refer to project validation and/or emission reduction/removal, biodiversity and water-related verification services by aOCP operations staff.

III. COVERAGE OF GREENHOUSE GASES

Regardless of their scale, the aOCP deals with GHG-emission reduction projects for three greenhouse gases, defined by the CDM and the 2006 IPCC Guidelines for National Greenhouse Gas Inventories. These gases are: (a) Carbon dioxide (CO_2); (b) Methane (CH_4); and (c) Nitrous oxide (N_2O).

IV. aOCP SCOPES AND GHG SECTORAL SCOPES

Only the project types that correspond to the defined aOCP Scopes and GHG Sectoral Scopes may be eligible for participating in the aOCP. Approved aOCP Validators/Verifiers shall be accredited for the corresponding Scopes in order to perform project validation or verification of GHG emission reductions/removals, biodiversity, and water-related impacts.

There are four aOCP Scopes (aOCP-S), based on the Projects' expected impacts, as described below.

1. aOCP GHG scope. Consists of GHG Emissions Reductions/Removals from two CDM sectoral scopes (GHG-SS):
   - **a)** Afforestation and reforestation (GHG Sectoral Scope 14).
   - **b)** Agriculture (GHG Sectoral Scope 15).
2. aOCP Biodiversity Scope
3. aOCP Water Restoration Scope
4. aOCP Soil health improvement and erosion reduction scope
5. aOCP Sustainable Development Goals Scope.

V. FRAMEWORK OF aOCP

The aOCP was created based on fundamental ideas and global best practices, as shown in Figure 1 below, as well as lessons learned from the creation, implementation, and management of several GHG programs, such as the CDM and other voluntary GHG programs [1].

[1] GHG offset programs that operate project-based mechanisms for the registration of GHG reduction projects and the issuance of carbon credits.

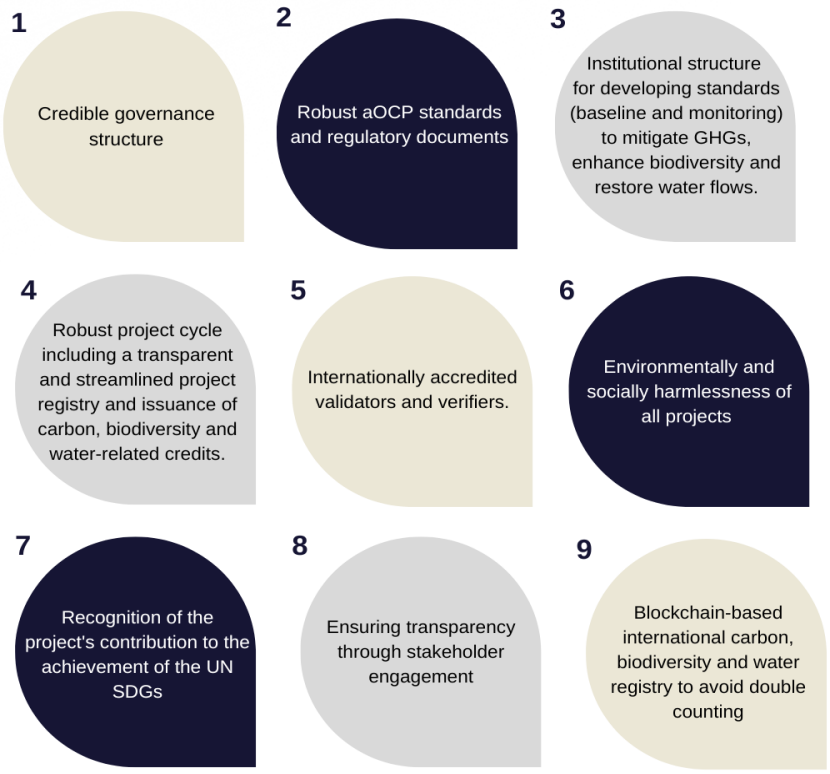


FIGURE 1. PRINCIPLES AND DESIGN ELEMENTS OF AOCP

Figure 2 provides an overview of the PSF framework and governance. Before registering a PSF, a local stakeholder consultation procedure must be carried out as well as signing the agreement for land use and management with the landowner, both of which are necessary documents for proper project registration. The Proponent will register its project by completing a PSF through the following website: https://www.nat5.bio/index.php/docs/onboard/psf/, and providing the requested information and evidence. Once completed, the internal team of technical experts will receive the registration. In a period of 72 working hours, the team must review that the submitted project meets the requirements of the standard to be certified, upon passing the first filter, aOCP will open a new file assigning a unique key and opening a project follow-up ticket through the internal platform "InTeam" (https://asessc.inteam.app/tickets/) to which the project proponent will be invited as it will be the official channel of communication.

The institutional and operational structure of the aOCP is composed of the following governing bodies and stakeholders:

a) **Steering Committee:** Strategic direction and certification approval;

b) **Internal Team of Technical Experts (ITTE):** Develops methodologies and supports project assessment;

c) **Independent 3rd party aOCP-Approved project validators:** Confirm project eligibility prior to registration;

d) **Project Proponents:** Develop project activities and receive VNPCs at issuance;

e) **NAT5 Ledger:** Carbon and nature-positive credits on-chain registry, transfer and retirement services;

f) **Buyers:** Support projects financially, hold and use VNPC;

g) **Public Stakeholders:** Society representation;

h) **External Scientific Committee:** Provides scientific and technical support.

The institutional setup for implementing the aOCP regulatory framework is presented in Figure 2 below.

FIGURE 2. AOCP INSTITUTIONAL SET UP

The following sections go into further detail on the main components of the aOCP Program documentation and governance architecture.

V.1. aOCP STEERING COMMITTEE

The aOCP Secretariat appoints members based on their profiles. The Steering Committee decides whether to approve aOCP standards, regulatory materials, GHG emission reduction/removal, biodiversity and water-related initiatives, as well as the issuance of VNPCs.

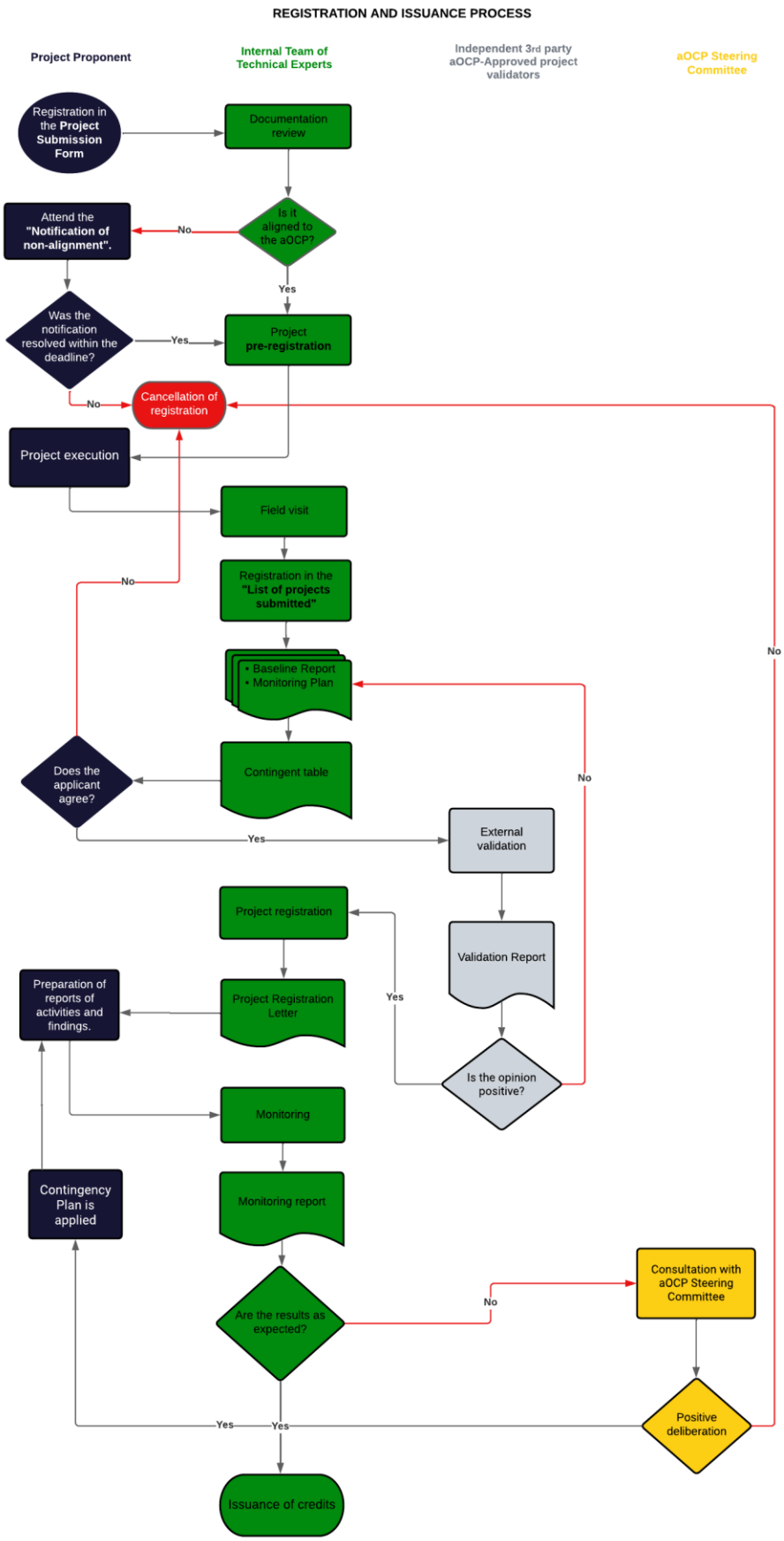
A Work Plan for the aOCP Steering Committee is posted publicly on the aOCP website. The proposed effort and anticipated results are specified in the work plan.

If necessary, the aOCP Steering Committee may consult independent sectoral experts for tasks including creating regulatory papers, devising methodologies, approving evaluations and rating validators and verifiers, registering projects, and granting VNPCs. The following duties are carried out by the aOCP Steering Committee:

a) **aOCP Regulatory Documents approval:** The Internal Team of Technical Experts shall create draft aOCP regulation papers in accordance with the documentation framework in this document and submit them for review and approval to the aOCP Steering Committee. The aOCP website must be updated with the approved regulatory papers and made accessible to the public.
b) **aOCP Methodology approval:** When creating an aOCP Project Submission Form, aOCP Project Proponents must use approved methodologies. For PSFs submitted to the aOCP, all methodologies that have been approved by the aOCP are accepted. The methodology development approach outlined in the aOCP Procedures and aOCP Standard for the Development of Methodologies shall be used for top-down creation and approval of new aOCP methodologies.
c) **aOCP Registration and Issuance approval:** Each registration and issuance request is examined as part of the aOCP project cycle by one Steering Committee member to ensure that the project complies with the aOCP regulations. If necessary, the aOCP may create and appoint a pool of sectoral specialists in accordance with the accepted ToR. All inputs and recommendations are taken into account by the aOCP Steering Committee, which then uses a predetermined decision matrix to reach a decision.
d) **Legal, financial, and human resources:** This function is the responsibility of the aOCP Steering Committee, including financial functions (setting budgets for and overseeing projects), legal functions, and human resource management. Finding sufficient funding to run the aOCP and managing administration costs for doing so, including setting up its infrastructure, are also responsibilities of the aOCP Operations Team.

When the aOCP Advisory Board makes specific requests, the aOCP Steering Committee may take on additional tasks.

The following figure shows the Registration and Issuance Process.


REGISTRATION AND ISSUANCE PROCESS
Project Proponent
Internal Team of Technical Experts
Independent 3rd party aOCP-Approved project validators
aOCP Steering Committee
Registration in the Project Submission Form
Documentation review
Is it aligned to the aOCP?
No
Attend the "Notification of non-alignment".
Yes
Was the notification resolved within the deadline?
Yes
Project pre-registration
No
Cancellation of registration
Project execution
Field visit
Registration in the "List of projects submitted"
No
• Baseline Report
• Monitoring Plan
Contingent table
Does the applicant agree?
No
Yes
External validation
Project registration
Validation Report
Preparation of reports of activities and findings.
Project Registration Letter
Yes
Is the opinion positive?
No
Monitoring
Contingency Plan is applied
Monitoring report
Consultation with aOCP Steering Committee
Are the results as expected?
No
Positive deliberation
Yes
Yes
Issuance of credits

V.2. Internal Team of Technical Experts (ITTE)

The Internal Team of Technical Experts has five main objectives within its functions:

V.2.1. Standards development

The ITTE is in charge of the creation of standards, methodologies, and tools, as well as other components of the documentation framework, such as various instructions, processes, forms, and templates.

When deciding which project categories should receive priority for the development of aOCP methodologies and tools, the ITTE will confer with the Steering Committee. The aOCP Procedures document's methodology development process section contains information about this approach in full.

V.2.2. Projects assessment

The Internal Team of Technical Experts receives assistance from the Steering Committee in reviewing, evaluating, and managing submissions relevant to the aOCP project.

The aOCP Operations Team's project assessment duties include:

a) a) Evaluate the extent to which contributions are in compliance with the aOCP's rules and procedures and recommend changes to the steering committee. The evaluation of registration and issuance requests including the assignment of the appropriate and approved methodologies, evaluation of the calculations proposed by the project proponent, visit to the project area to verify the activities developed, elaboration of the baseline report, elaboration of the risk assessment, elaboration of the monitoring plan and contingent table as well as to evaluate the additionality of the project.
b) Creating and running digital workflows for the project cycle that permit online submission and processing of registration and issuance requests will help develop and ensure the openness of aOCP processes;
c) Assisting the Steering Committee in making decisions about submitted requests for aOCP project registration and requests for the issuance of NPCs.

V.2.3. NAT5 registry

The NAT5 carbon ledger carries out crucial tasks, such as documenting and accounting for NPCs issued by the aOCP. In addition to allowing the issuance, transfer, withdrawal or cancellation of NOCs, the registry also protects the environment and the integrity of carbon markets by prohibiting double counting and double issuance and ensuring full transparency.

The aOCP Operations Team makes sure that all necessary project documents have been submitted to the registry, issues and maintains NPC accounts for account holders, monitors and reports credit deposits and withdrawals to and from the centrally-managed account, and keeps custody and records of the legal ownership of NPCs.

To hold issued NPCs, each Project Proponent has its own account. The Registry also encourages the opening of accounts for retail aggregators as well as for traders of carbon, biodiversity and water restoration credits who participate in secondary markets.

V.2.4. STAKEHOLDER MANAGEMENT

The administration of stakeholders, including Project Proponents, Project Supporters, NGOs, and pertinent associations, is the responsibility of this aOCP ITTE.

The ITTE broader responsibilities include conducting capacity building and training, forming partnerships as needed, and developing and maintaining a framework for stakeholder feedback.

V.2.5. INFORMATION TECHNOLOGY SUPPORT

In order to facilitate stakeholder access to information on standards, projects, published NPCs, and various AOCP meetings, as well as to promote interaction among stakeholders, the Internal Team of Technical Experts maintains a dedicated website.

V.3. INDEPENDENT 3RD PARTY AOCP-APPROVED PROJECT VALIDATION

Independent validation of projects and GHG emission reductions/removals and impacts on biodiversity, water and soil are the responsibility of aOCP-approved Validators who are the third party assurance of each project's certification process.

In accordance with the aOCP project cycle, an independent external validation of projects is required as part of a project's validation report, aOCP validators are required to provide a validation result called a validation opinion.

External validators shall be a group of specialists and experts to ensure high quality results in the validation process. To ensure that validations are carried out in accordance with aOCP standards, a procedure has been designed with the necessary criteria for the approval of validators.

The aOCP Project Standard, the Validation and Verification Standard, and the criteria established to ensure consistent project design, implementation, monitoring, and reporting, as well as specific decisions agreed upon by the Internal Team and Technical Expert and the Steering Committee, will be used to carry out Validation of aOCP projects.

V.4. PROJECT PROPONENTS

The fundamental pillars of the aOCP are Project Proponents and Project Supporters because they jointly build the market for carbon, biodiversity, and water restoration credits that is necessary to run the project-based mechanism. Project Supporters have the choice to invest in their local community through aOCP, which will aid in the development of a low-carbon and nature-positive economy. Through the purchase of regional or global carbon credits provided by the aOCP, project supporters can assert the carbon neutrality of organizations or events.

Project Proponents and Project Supporters must be legally recognized organizations under the laws of their respective nations. Project Supporters can either be the end users of NPCs that have been acquired or intermediary players as carbon, biodiversity and water credits traders.

V.5. NAT5 Ledger

The NAT5 carbon ledger carries out crucial tasks, such as documenting and accounting for NPCs issued by the aOCP. In addition to allowing the issuance, transfer, withdrawal or cancellation of NOCs, the registry also protects the environment and the integrity of carbon markets by prohibiting double counting and double issuance and ensuring full transparency.

The aOCP Operations Team makes sure that all necessary project documents have been submitted to the registry, issues and maintains NPC accounts for account holders, monitors and reports credit deposits and withdrawals to and from the centrally-managed account, and keeps custody and records of the legal ownership of NPCs.

To hold issued NPCs, each Project Proponent has its own account. The Registry also encourages the opening of accounts for retail aggregators as well as for traders of carbon, biodiversity and water restoration credits who participate in secondary markets.

V.6. Buyers

The buyers are entities, organizations, or individuals that purchase VCCs as part of their climate change mitigation strategies or to offset their greenhouse gas (GHG) emissions.

V.7. Public Stakeholders

To ensure the transparency of the projects certified by the aOCP, the evaluation procedure takes into account the local stakeholders directly involved in the development of the project. For a detailed explanation of the procedure to be followed, please refer to the document "Guide for local stakeholder consultation of aOCP".

V.8. External Scientific Committee

The External Committee of Scientists is a group made up of sector specialists from around the world with proven experience, who will be asked by ITTE to evaluate or create methodologies and/or contribute their point of view to the projects with the objective of scientific rigor. The ITTE and the Steering Committee will take into account the recommendations of the experts when making decisions.

VI. aOCP DOCUMENTATION FRAMEWORK

The hierarchy of different documents is classified in the aOCP documentation system. All aOCP papers are categorized by the Documentation Framework according to their hierarchical sequence. The hierarchy is standards first, then processes, explanations, checklists, then templates.

a) **aOCP Framework (this document):** This is the apex document. It provides an overview of the aOCP's design blueprint, which is a voluntary GHG and nature positive program based on ISO 14064 and implemented in conjunction with a number of internal and external standards (e.g., CDM, biodiversity, etc.). The Framework integrates the ideas and principles of the aOCP, outlines the governance, institutional arrangements, and operations as well as the execution and operations of the aOCP (as defined in the aOCP Regulatory Documentation Framework, available on the aOCP website).

b) **aOCP Manual:** This document outlines the regulation documents for the aOCP's objective, scope, principles, institutional arrangements, and organizational structure. The main document for the program is the aOCP Manual. It offers links to aOCP publications that include the guidelines and specifications that control the aOCP.

c) **Requirements Documents:**

- **i.** Definitions;
- **ii.** Project Standard;
- **iii.** Standard for Development of Methodologies;
- **iv.** Baseline and Monitoring Methodologies (List of approved methodologies including those from the CDM);
- **v.** Environment and Social Safeguards Standard;
- **vi.** Guidelines for conducting a Local stakeholder consultation process (the requirements are contained in the Project Submission Form).

d) **Procedural Documents:**

- **i.** aOCP Procedures
- **ii**. Procedure for Approval of aOCP Validators and Verifiers.

e) **Information Documents:**

- **ii.** Plans: Includes documents recording workplans of the Advisory Board, Steering Committee, etc.;
- **iii.** Clarifications: includes clarifications on particular unclear aOCP requirements, checklists for compliance with aOCP requirements, etc.;
- **iv.** Information Notes: Includes documents recording administrative decisions (such as concept notes for meetings), etc.; and
- **v.** Reports: Includes Meeting Reports of Advisory Board and Steering Committee meetings and other ad-hoc reports.

(f) Templates & Forms:

- i. Project Submission Form (PSF) template;

ii. Local Stakeholder Consultation template;

iii. Risk assessment and follow up action template;
iv. Project Validation Report (PVR) template;
v. aOCP Project Monitoring Report (MR) template; and
vi. Other templates used in the process of approving verifiers, methodology development, registration and issuance, and communication with the aOCP Steering Committee.

To ensure a swift commencement of the aOCP, ASES has created preliminary regulatory documentation. These records have been made accessible to the general public.

To reflect advancements in and honed aOCP operations, the aOCP will continuously upgrade regulatory and policy materials, including new approaches.

VII. CONFIDENTIALITY OF INFORMATION

The aOCP guarantees complete information confidentiality.

Documentation must be submitted in two versions where a PSF contains information that the Project Proponent(s) wishes to be treated as secret or proprietary:

a) a) One version that has all portions containing proprietary or confidential information deleted and replaced with a "Confidential Information" notation, allowing the version to be made available to the public while protecting proprietary or confidential information;

b) A copy including all information that must be kept totally private and confidential by everyone handling the material. In their contracts for work supporting the Steering Committee and the aOCP Operations Team, external experts, and members of the Steering Committee are required to review such papers under the confidentiality oath.

Information used to support environmental impact assessments, describe the use of chosen methodology, and show additionality is not to be regarded as private or confidential. Spreadsheets should contain accessible and verifiable data, numbers, and formulas.

DOCUMENT HISTORY		
Version	**Date**	**Comments**
V1.0	25/01/2023	● First version released for review by the aOCP Steering Committee under the aOCP Version 1.
V2.0	28/06/2023	● Second version released for review by the aOCP Steering Committee under the aOCP Version 2.