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# **Our Approach To Carbon Market Policy Assessment for Rwanda, Ghana, and Nigeria**

## **Voluntary Carbon Markets**

The voluntary carbon market (VCM) operates as a critical mechanism within the broader landscape of climate action, allowing entities—ranging from individuals and corporations to governments—to purchase carbon credits. These credits represent a reduction, avoidance, or sequestration of carbon dioxide (CO2) emissions, effectively offsetting the purchaser's emissions. The VCM is distinct from regulated carbon markets, such as those established under the Kyoto Protocol or the Paris Agreement, as participation is not mandated by law but driven by voluntary commitments towards sustainability goals, corporate social responsibility (CSR) objectives, or pre-compliance considerations.

The significance of the VCM lies in its flexibility and potential to mobilize additional finance for emission reduction projects that might not otherwise receive funding. By facilitating investments in projects such as reforestation, renewable energy, and community-based adaptation initiatives, the VCM plays a pivotal role in supporting global efforts to mitigate climate change. Furthermore, it offers an avenue for entities to demonstrate environmental stewardship and to meet or exceed their climate and sustainability targets, often as part of broader environmental, social, and governance (ESG) strategies.

To analyze each country's readiness to operationalize Voluntary Carbon Markets (VCMs), we have compiled a set of benchmarks that define what constitutes a comprehensive policy framework. These benchmarks serve as the foundation for assessing the adequacy and effectiveness of a country's carbon market policies.

Our approach involves conducting a thorough review of all the country's relevant carbon market policies and documentation, and comparing them against our established benchmarks. This enables us to gauge the country's readiness to implement and manage a robust VCM, identify areas where policies may be lacking or need improvement, and provide targeted recommendations based on global best practices in carbon market policy setting.

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### **VCM Policy Assessment Benchmarks**

#### Adherence to ICVCM’s Core Carbon Principles (CCPs)

* Effective Governance: What governance structures are in place for overseeing the projects, and how effective are they in ensuring transparency and stakeholder engagement?
* Tracking: How are carbon credits tracked within the system, and what mechanisms ensure their accuracy and management?
* Transparency: What levels of openness and accessibility are maintained regarding project data and operations?
* Robust Independent VVB (Validation, Verification Body): What are the credentials and performance histories of the Validation and Verification Bodies involved, and how do they contribute to the project's credibility?
* Additionality: Can it be confirmed that the emission reductions or removals are additional and would not have occurred in the absence of the project?
* Permanence: What risk management strategies are in place to ensure the long-term durability of carbon storage?
* Quantification of ER (Emission Reductions): What methodologies are used for quantifying emission reductions or removals, and how accurate are they?
* No Double Counting: What systems are in place to prevent the same carbon credit from being claimed more than once, ensuring no double counting?
* SDG Benefits and Safeguards: How do the projects contribute to the Sustainable Development Goals, and what safeguards are in place against potential negative impacts?
* Contribution to Net Zero Transition: How does the project or market facilitate the transition towards Net Zero emissions, and what role does it play in the broader climate action agenda?

#### Identification of local VVB and Project Developer Capacity

* Local VVB Capacity Assessment: Has there been a comprehensive assessment of the local VVB capacity, including the number of VVBs, their areas of expertise, and their track record in validating and verifying carbon offset projects?
* VVB Capacity Building Initiatives: Are there any initiatives or programs in place to build and enhance the capacity of local VVBs, such as training, knowledge sharing, or partnerships with international VVBs?
* Stakeholder Engagement: Are there mechanisms in place for engaging stakeholders, including the public, in the development and implementation of carbon market policies and projects?
* Project Developer Capacity Assessment: Has there been an assessment of the capacity of local project developers to design, implement, and manage high-quality carbon offset projects that align with the core carbon principles?
* Project Developer Capacity Building: Are there initiatives or programs to build the capacity of local project developers, such as training, mentorship, or access to resources and best practices?
* Data Availability and Transparency: Is there a commitment to making data on VVB capacity, public awareness, and project developer capacity publicly available and easily accessible?
* Continuous Improvement: Are there mechanisms in place for regularly reviewing and updating the assessment of VVB, public, and project developer capacity, and for addressing any identified gaps or weaknesses?
* Integration with National Climate Policies: Is the identification of VVB, public, and project developer capacity integrated into the broader national climate policy framework, ensuring coherence and alignment with overall climate goals?
* International Collaboration: Are there efforts to collaborate with international partners, such as other countries or organizations, to share knowledge, best practices, and resources related to VVB, public, and project developer capacity building?

#### Capacity Building Initiatives for the Public

* Per Sector Public Engagement Framework: Is there a comprehensive framework for public engagement that outlines tailored strategies and approaches for different sectors, such as energy, transport, agriculture, or forestry, considering their unique characteristics, stakeholders, and capacity building needs?
* Ministry-Specific Trainings: Are there targeted training programs for officials in relevant ministries, such as environment, energy, agriculture, or finance, to build their technical and institutional capacities related to carbon market policies, regulations, and implementation?
* Public Awareness Campaigns: Are there public awareness campaigns to educate and inform citizens about the role and benefits of carbon markets, as well as the opportunities for participation and engagement, using various communication channels and media?
* Educational Programs and Curricula: Are there initiatives to integrate carbon market concepts and skills into educational programs and curricula at different levels, such as schools, universities, or vocational training centers, to foster a new generation of climate-literate and carbon market-savvy professionals?
* Stakeholder Workshops and Dialogues: Are there regular stakeholder workshops, dialogues, or forums that bring together government officials, private sector representatives, civil society organizations, and other relevant actors to exchange knowledge, share experiences, and build networks related to carbon market development and implementation?
* Capacity Building for Media and Journalists: Are there capacity building programs targeting media professionals and journalists to enhance their understanding and reporting of carbon market issues, enabling them to effectively inform and educate the public?
* Online Learning Platforms and Resources: Are there online learning platforms, toolkits, or resource hubs that provide accessible and user-friendly information, guidance, and best practices on carbon markets, enabling self-paced learning and capacity building for various stakeholders?
* Peer-to-Peer Learning and Knowledge Exchange: Are there mechanisms for peer-to-peer learning and knowledge exchange among government officials, both within the country and with other countries, to share experiences, lessons learned, and best practices related to carbon market policies and implementation?
* Capacity Building for Local Governments and Communities: Are there initiatives to build the capacity of local governments and communities to understand and engage in carbon market projects, such as through training on project design, monitoring, and benefit sharing, or through support for community-based carbon market initiatives?
* Monitoring and Evaluation of Capacity Building Efforts: Are there systems in place for monitoring and evaluating the effectiveness and impact of public capacity building initiatives, including indicators to measure changes in awareness, knowledge, skills, and behavior, and mechanisms for continuous improvement based on feedback and lessons learned?

#### Definition of Benefit Sharing Mechanisms

* Cash and Non-Cash Benefits: Are both cash and non-cash benefits clearly defined in the benefit sharing mechanisms, and is there guidance on how to value and distribute non-cash benefits?
* Benefit Sharing Framework Reporting: Is there a requirement for transparent reporting of the benefit sharing framework, including the types of benefits, distribution percentages, and recipients?
* Benefit Sharing Percentages: Are the benefit sharing percentages clearly defined, and do they ensure a fair distribution of benefits among project developers, local communities, and other stakeholders?
* Sector-Specific Benefit Sharing: Are benefit sharing percentages and mechanisms defined per sector, taking into account the unique characteristics and needs of different sectors such as forestry, agriculture, or renewable energy?
* Community Engagement and Consultation: Are there provisions for meaningful community engagement and consultation in the development and implementation of benefit sharing mechanisms?
* Alignment with Sustainable Development Goals: Do the benefit sharing mechanisms align with and contribute to the achievement of the Sustainable Development Goals, particularly those related to poverty alleviation, gender equality, and environmental sustainability?
* Grievance Redressal Mechanisms: Are there robust grievance redressal mechanisms in place to address any concerns or disputes related to benefit sharing, ensuring fairness and accountability?
* Monitoring and Evaluation: Are there provisions for regular monitoring and evaluation of the benefit sharing mechanisms to assess their effectiveness, identify areas for improvement, and ensure compliance?
* Capacity Building and Awareness: Are there initiatives to build the capacity of local communities and other stakeholders to understand and effectively participate in benefit sharing mechanisms?
* Integration with National Policies: Are the benefit sharing mechanisms integrated into the broader national policy framework, ensuring coherence and alignment with overall sustainable development and climate action goals?

#### National VCM Registry

* Registration Process for Projects: Is there a clear and transparent process for registering VCM projects in the national registry, including criteria for eligibility, required documentation, and timelines?
* Reporting Responsibility: Who is responsible for reporting on VCM projects, and are there clear guidelines and templates for reporting to ensure consistency and completeness?
* Reporting Platform: Where is the reporting on VCM projects taking place, and is the platform easily accessible, user-friendly, and secure?
* VCM Projects Capture: Does the national registry capture all relevant information on VCM projects, including project type, location, size, duration, and expected emission reductions or removals?
* Carbon Budget Integration: Is the national VCM registry integrated with the country's overall carbon budget, ensuring that VCM projects are accounted for in the national greenhouse gas inventory and climate action plans?
* Data Quality and Verification: Are there mechanisms in place to ensure the quality and accuracy of data reported in the VCM registry, such as independent verification or data quality checks?
* Public Accessibility and Transparency: Is the information in the VCM registry publicly accessible, and are there provisions for transparent reporting on project performance, credit issuance, and retirement?
* Interoperability with Other Systems: Is the national VCM registry designed to be interoperable with other carbon market systems, such as international registries or trading platforms, to facilitate cross-border transactions and avoid double counting?
* Capacity Building and Support: Are there initiatives to build the capacity of project developers, verifiers, and other stakeholders to effectively use and contribute to the national VCM registry?
* Continuous Improvement and Adaptation: Are there provisions for regularly reviewing and updating the national VCM registry to incorporate best practices, address any identified weaknesses, and adapt to evolving market conditions and regulations?

#### Identification of Relevant Methodologies

* Sector-Specific Methodologies: Are there clearly identified VCM methodologies that match the sector-specific needs and priorities outlined in the country's NDCs, such as methodologies for forestry, agriculture, energy, or waste management?
* Alignment with National Circumstances: Do the identified methodologies align with the country's national circumstances, including its greenhouse gas emission profile, mitigation potential, and sustainable development goals?
* Consistency with International Standards: Are the identified methodologies consistent with recognized international standards and best practices, such as those developed by the UNFCCC, IPCC, or voluntary carbon market initiatives?
* Robustness and Scientific Integrity: Are the methodologies based on sound scientific principles, reliable data, and transparent assumptions, ensuring the robustness and integrity of emission reduction or removal quantification?
* Applicability and Scalability: Are the methodologies applicable and scalable across different project types and sizes within the relevant sectors, enabling broad participation in the voluntary carbon market?
* Stakeholder Consultation and Acceptance: Have the methodologies been developed through a process of stakeholder consultation and validation, ensuring their acceptance and relevance for the target sectors and national context?
* Capacity Building and Training: Are there initiatives to build the capacity of project developers, verifiers, and other stakeholders to understand and apply the identified methodologies effectively?
* Regular Review and Update: Are there provisions for regularly reviewing and updating the identified methodologies to incorporate new scientific knowledge, technological advancements, and evolving best practices?
* Integration with MRV Systems: Are the methodologies integrated with the country's overall Monitoring, Reporting, and Verification (MRV) systems, ensuring consistent and comparable data collection, quantification, and reporting across projects and sectors?
* Transparency and Accessibility: Are the methodologies and related documentation publicly accessible, and are there efforts to promote transparency and understanding among stakeholders, including project developers, investors, and civil society organizations?

#### Climate and Carbon Finance

* Sector-Specific Financing Needs: Are the financing needs for each sector clearly identified and quantified, considering the costs of implementing carbon mitigation and adaptation projects, as well as the potential revenue from carbon credits?
* Mapping of Finance Players: Is there a comprehensive mapping of finance players who support sector-specific areas, including public and private investors, multilateral development banks, climate funds, and philanthropic organizations?
* Carbon Potential Estimation and Identification: Has there been a robust estimation and identification of the carbon potential in each sector, considering factors such as mitigation potential, cost-effectiveness, and co-benefits?
* Blended Finance Mechanisms: Are there provisions for innovative blended finance mechanisms that leverage public and private capital to de-risk investments and catalyze funding for sector-specific carbon projects?
* Carbon Pricing and Market Linkages: Are there strategies to link sector-specific carbon initiatives with national or international carbon pricing mechanisms and markets, creating additional revenue streams and incentives for project developers?
* Capacity Building for Project Developers: Are there initiatives to build the capacity of project developers to access climate and carbon finance, including training on project design, financial structuring, and investor engagement?
* Transparent and Accountable Financial Flows: Are there mechanisms to ensure transparent and accountable financial flows, including robust monitoring, reporting, and verification of climate and carbon finance at the project and sector levels?
* Alignment with National Climate Finance Strategies: Are the sector-specific climate and carbon finance approaches aligned with the country's overall national climate finance strategy, ensuring coherence and synergy in resource mobilization and allocation?
* Engagement with Financial Regulators and Policymakers: Is there active engagement with financial regulators and policymakers to create an enabling environment for climate and carbon finance, including supportive policies, regulations, and incentives?
* Knowledge Sharing and Best Practices: Are there platforms or initiatives for knowledge sharing and dissemination of best practices in climate and carbon finance across sectors, fostering learning, replication, and scale-up of successful approaches?

#### Fiscal Incentives

* Timing and Magnitude of Incentives: Are the timing and magnitude of incentives appropriate and sufficient to drive investment and participation in carbon mitigation projects, considering the project lifecycle and the need for long-term financial sustainability?
* Capital Access: Are there mechanisms to facilitate access to capital for project developers, such as dedicated climate finance facilities, green bonds, or concessional loans?
* Tax Incentives: Are there tax incentives available for carbon mitigation projects, such as tax credits, accelerated depreciation, or exemptions from certain taxes (e.g., carbon tax, VAT)?
* Subsidies: Are there direct or indirect subsidies available to support the development and implementation of carbon mitigation projects, such as feed-in tariffs, price premiums, or grants?
* Guarantees: Are there guarantee mechanisms in place to de-risk investments in carbon mitigation projects, such as partial risk guarantees, political risk insurance, or credit guarantees?
* Immigration and Labor Incentives: Are there incentives related to immigration and labor to attract and retain skilled professionals needed for the development and implementation of carbon mitigation projects, such as fast-track work permits or tax exemptions for expatriate staff?
* Incentives for Technology Transfer: Are there incentives to promote the transfer and adoption of low-carbon technologies, such as technology grants, patent pools, or collaborative R&D programs?
* Incentives for Capacity Building: Are there incentives for capacity building and training of local stakeholders, including project developers, verifiers, and regulators, to enhance their ability to participate in and benefit from the carbon market?
* Alignment with Broader Climate and Development Policies: Are the incentives aligned with the country's broader climate and sustainable development policies, ensuring coherence and avoiding perverse incentives that may undermine other policy objectives?
* Monitoring and Evaluation of Incentives: Are there robust monitoring and evaluation systems in place to assess the effectiveness, efficiency, and equity of incentives, and to inform their continuous improvement based on lessons learned and changing market conditions?

#### Carbon Rights

* Legal Definition: Is there a clear and legally binding definition of carbon rights in the country's legal framework, including the nature of the right (e.g., property right, usufruct right) and the scope of the right (e.g., right to own, transfer, or use carbon credits)?
* Applicability of the Rights: Are the carbon rights clearly defined in terms of who can hold them (e.g., project developers, landowners, communities), under what conditions they can be acquired or transferred, and for what purposes they can be used (e.g., compliance with emission reduction obligations, voluntary offsetting)?
* Alignment with Land Tenure and Resource Rights: Are the carbon rights aligned with and respectful of existing land tenure and resource rights, ensuring that the allocation and exercise of carbon rights do not infringe upon or undermine the rights of indigenous peoples, local communities, or other legitimate rights holders?
* Institutional Arrangements for Carbon Rights: Are there clear institutional arrangements for the registration, tracking, and enforcement of carbon rights, including the designation of responsible authorities and the establishment of transparent and accessible registry systems?
* Benefit Sharing and Equity Considerations: Do the carbon rights provisions include clear and equitable benefit-sharing arrangements, ensuring that the economic benefits arising from carbon credits are fairly distributed among project participants, including local communities and other stakeholders?
* Linkages with National Carbon Accounting: Are the carbon rights provisions linked with the country's national carbon accounting and inventory systems, ensuring that the generation, transfer, and use of carbon credits are properly accounted for and reported in accordance with international standards and guidelines?
* Compatibility with International Carbon Market Mechanisms: Are the carbon rights provisions compatible with and recognized by international carbon market mechanisms, such as CORSIA or Article 6 of the Paris Agreement, facilitating the participation of the country's mitigation projects in global carbon markets?
* Stakeholder Consultation and Participation: Have the carbon rights provisions been developed through a transparent and participatory process, involving consultations with relevant stakeholders, including project developers, civil society organizations, and local communities?
* Grievance and Dispute Resolution Mechanisms: Are there effective grievance and dispute resolution mechanisms in place to address any conflicts or disputes arising from the allocation, transfer, or use of carbon rights, ensuring access to justice and the protection of stakeholders' rights and interests?
* Capacity Building and Awareness Raising: Are there efforts to build the capacity of stakeholders, particularly local communities and small-scale project developers, to understand and exercise their carbon rights, and to raise awareness about the benefits and risks associated with carbon market participation?

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#### Revenue Recognition and Transfer Pricing

* Transfer Pricing Framework: Is there a clear and robust transfer pricing framework in place to govern the pricing of carbon credits and related transactions between related parties, ensuring that prices are determined on an arm's length basis and in accordance with international standards and guidelines?
* Carbon Credit Revenue Framework: Is there a comprehensive framework for the recognition, measurement, and reporting of revenues from carbon credit transactions, including clear guidelines on the timing of revenue recognition, the valuation of carbon credits, and the disclosure of relevant financial information?
* Anti-Money Laundering (AML): Are there effective anti-money laundering measures in place to prevent the use of the carbon market for illicit activities, such as money laundering or terrorist financing, including customer due diligence requirements, transaction monitoring, and reporting of suspicious activities?
* Alignment with National Tax Policies: Are the revenue recognition and transfer pricing policies aligned with the country's national tax policies, ensuring that carbon credit transactions are subject to appropriate taxation and that potential tax risks, such as double taxation or tax avoidance, are adequately addressed?
* Consistency with International Financial Reporting Standards (IFRS): Are the revenue recognition and financial reporting practices consistent with International Financial Reporting Standards (IFRS) or other widely accepted accounting standards, promoting transparency, comparability, and reliability of financial information?
* Transfer Pricing Documentation and Reporting: Are there clear requirements for the preparation and maintenance of transfer pricing documentation, including the reporting of related-party transactions and the justification of transfer prices, in line with international best practices and standards?
* Capacity Building for Market Participants: Are there initiatives to build the capacity of market participants, including project developers, investors, and regulators, to understand and comply with the revenue recognition, transfer pricing, and AML requirements, promoting market integrity and reducing compliance risks?
* Cooperation with International Tax and AML Authorities: Are there mechanisms for cooperation and information exchange with international tax and AML authorities, such as the OECD or FATF, to prevent cross-border tax evasion, money laundering, or other illicit activities related to the carbon market?
* Monitoring and Enforcement Mechanisms: Are there robust monitoring and enforcement mechanisms in place to ensure compliance with the revenue recognition, transfer pricing, and AML requirements, including regular audits, penalties for non-compliance, and channels for reporting and addressing violations?
* Stakeholder Consultation and Continuous Improvement: Are there processes for regular stakeholder consultation and feedback on the effectiveness and efficiency of the revenue recognition, transfer pricing, and AML frameworks, and are there mechanisms for continuous improvement based on the lessons learned and evolving international standards and best practices?

#### Local Stakeholder Engagement

* Public Participation Framework: Is there a clear and comprehensive public participation framework that outlines the principles, procedures, and mechanisms for involving local stakeholders in the decision-making processes related to carbon market projects and policies?
* Sector-Specific Associations: Are there sector-specific associations or platforms that facilitate the engagement and representation of stakeholders in relevant sectors, such as forestry, agriculture, or renewable energy, in the development and implementation of carbon market initiatives?
* Stakeholder Mapping and Analysis: Is there a systematic process for identifying, mapping, and analyzing relevant stakeholders, including their interests, concerns, and potential contributions to the carbon market, to ensure inclusive and targeted engagement strategies?
* Capacity Building and Empowerment: Are there initiatives to build the capacity and empowerment of local stakeholders, particularly marginalized or vulnerable groups, to effectively participate in and benefit from carbon market projects, such as through training, access to information, or technical assistance?
* Free, Prior, and Informed Consent (FPIC): Are there mechanisms to ensure that carbon market projects adhere to the principles of Free, Prior, and Informed Consent (FPIC) when engaging with indigenous peoples and local communities, respecting their rights, knowledge, and cultural heritage?
* Grievance and Redress Mechanisms: Are there accessible and effective grievance and redress mechanisms that allow stakeholders to raise concerns, file complaints, and seek remedies related to the design, implementation, or impacts of carbon market projects or policies?
* Benefit Sharing and Livelihood Enhancement: Are there provisions for equitable benefit sharing and livelihood enhancement for local stakeholders involved in or affected by carbon market projects, such as through job creation, infrastructure development, or access to social services?
* Monitoring and Reporting on Stakeholder Engagement: Are there systems in place for monitoring, reporting, and evaluating the effectiveness and inclusiveness of stakeholder engagement processes, including indicators to measure participation, satisfaction, and impact on project outcomes?
* Integration with Sustainable Development Goals (SDGs): Are the stakeholder engagement processes aligned with and contributing to the achievement of relevant Sustainable Development Goals (SDGs), such as poverty reduction, gender equality, or sustainable land management?
* Continuous Improvement and Adaptive Management: Are there mechanisms for continuous improvement and adaptive management of stakeholder engagement strategies based on feedback, lessons learned, and evolving best practices, ensuring that engagement processes remain relevant, effective, and responsive to changing contexts and needs?

#### National Monitoring Reporting, and Verification Tool for GHG Emissions and Relevant Mitigation Initiatives

* Existence of MRV Framework: Is there a comprehensive and well-defined MRV framework in place that outlines the principles, methodologies, and procedures for measuring, reporting, and verifying GHG emissions and mitigation actions in the context of the country's carbon market policies?
* Alignment with International Standards and Guidelines: Is the MRV framework aligned with relevant international standards and guidelines, such as the IPCC Guidelines for National Greenhouse Gas Inventories, the GHG Protocol, or the ISO 14064 series, to ensure consistency, comparability, and credibility of the reported data?
* Coverage and Scope of MRV System: Does the MRV system cover all relevant sectors, sources, and sinks of GHG emissions, as well as all significant mitigation actions and carbon market projects, in a comprehensive and consistent manner?
* Institutional Arrangements and Responsibilities: Are the institutional arrangements and responsibilities for implementing the MRV system clearly defined, including the roles of relevant ministries, agencies, and other stakeholders in data collection, reporting, verification, and quality control?
* Methodologies and Tools for Data Collection and Analysis: Are there robust methodologies and tools in place for collecting, processing, and analyzing GHG emission and mitigation data, including standardized templates, emission factors, and calculation tools that are appropriate for the country's context and capacities?
* Quality Assurance and Quality Control (QA/QC) Procedures: Are there rigorous quality assurance and quality control (QA/QC) procedures in place to ensure the accuracy, completeness, consistency, and transparency of the reported data, including internal and external reviews, verification, and validation processes?
* Reporting and Disclosure Mechanisms: Are there clear and transparent reporting and disclosure mechanisms for communicating GHG emission and mitigation data to relevant stakeholders, including government bodies, carbon market participants, civil society organizations, and the public, in a regular and accessible manner?
* Capacity Building and Training: Are there initiatives to build the institutional and technical capacities of relevant stakeholders, including government officials, industry representatives, and verifiers, to effectively implement and participate in the MRV system, through training, guidance, and technical support?
* Linkages with National and International Reporting Obligations: Is the MRV system linked with and supportive of the country's national and international reporting obligations, such as the national GHG inventory, the Nationally Determined Contributions (NDCs), and the Biennial Transparency Reports (BTRs) under the Paris Agreement?
* Continuous Improvement and Adaptive Management: Are there provisions for continuous improvement and adaptive management of the MRV system based on lessons learned, new scientific and technological developments, and evolving best practices, to ensure its ongoing relevance, effectiveness, and efficiency?

## **Article 6.2**

Article 6.2 of the Paris Agreement plays a critical role in facilitating international cooperation in the fight against climate change through the use of internationally transferred mitigation outcomes (ITMOs). This provision allows countries to meet a portion of their nationally determined contributions (NDCs) to greenhouse gas (GHG) reductions by transferring emissions reductions to other countries. This innovative approach is designed to promote cost-effective emissions reductions, leveraging the comparative advantages of different countries to achieve global climate goals more efficiently.

The significance of Article 6.2 lies in its potential to enhance the ambition of climate action while promoting sustainable development and environmental integrity. It provides a flexible mechanism for countries to work together in reducing emissions, where emissions reductions achieved in one country can be counted towards another country's NDC, provided that such arrangements are transparent, verifiable, and ensure that double counting is avoided.

To analyze each country's readiness to operationalize Article 6.2, we have compiled a set of benchmarks that define what constitutes a comprehensive policy framework. These benchmarks serve as the foundation for assessing the adequacy and effectiveness of a country's carbon market policies.

Our approach involves conducting a thorough review of all the country's relevant carbon market policies and documentation, and comparing them against our established benchmarks. This enables us to gauge the country's readiness to effectively implement and manage Article 6.2, identify areas where policies may be lacking or need improvement, and provide targeted recommendations based on global best practices in carbon market policy setting.

### **Article 6.2 Policy Assessment Benchmarks**

#### Adherence to UNFCCC's Article 6.2 Technical Requirements

* Nationally Determined Contribution (NDC) Requirements: How does the country's NDC align with the requirements for participating in cooperative approaches under Article 6.2, and what steps have been taken to ensure compliance?
* Corresponding Adjustments: What is the country's approach to applying corresponding adjustments to avoid double counting of emission reductions, and how robust are these adjustments?
* Tracking and Reporting of ITMOs (Internationally Transferred Mitigation Outcomes): What systems are in place for the accurate tracking, reporting, and recording of ITMOs, and how do these align with UNFCCC requirements?
* Environmental Integrity: How does the country ensure that its Article 6.2 activities maintain high environmental integrity and contribute to sustainable development?
* Promotion of Sustainable Development: What mechanisms are in place to ensure that Article 6.2 activities contribute to the promotion of sustainable development within the country and partner countries?
* Avoidance of Double Counting: Beyond corresponding adjustments, what additional measures are taken to prevent double counting of emission reductions?
* Reporting and Review Requirements: How does the country meet the transparency, reporting, and review requirements for Article 6.2 participation, and what processes are in place to ensure ongoing compliance?
* Alignment with Paris Agreement Goals: How do the country's Article 6.2 activities align with and contribute to the overall goals of the Paris Agreement, particularly in terms of ambition and progression over time?
* Capacity Building and Support: What initiatives are in place to build capacity and provide support for the effective implementation of Article 6.2 activities, both domestically and in partner countries?
* Stakeholder Engagement and Public Participation: How does the country engage stakeholders and the public in the development and implementation of its Article 6.2 activities, ensuring transparency and inclusivity?

#### National Legislation Operationalizing Article 6.2

* **Legal Authority for Article 6.2 Participation:** What legal provisions establish the country's authority to participate in cooperative approaches under Article 6.2, and how comprehensive are these provisions?
* **Institutional Arrangements:** What institutional arrangements are established by legislation to oversee and implement Article 6.2 activities, and how effective are these arrangements?
* **Alignment with UNFCCC Requirements:** How does the national legislation align with and incorporate the requirements set forth by the UNFCCC for Article 6.2 participation?
* **Accounting and Reporting Frameworks:** What legal provisions are in place for the accounting and reporting of ITMOs, and how do these align with international standards and best practices?
* **Environmental Integrity Safeguards:** How does the legislation ensure the environmental integrity of Article 6.2 activities, including provisions for additionality, baselines, and avoidance of double counting?
* **Sustainable Development Promotion:** What legal mechanisms are established to promote sustainable development through Article 6.2 activities, and how effective are these mechanisms?
* **Stakeholder Engagement and Public Participation:** How does the legislation provide for stakeholder engagement and public participation in the development and implementation of Article 6.2 activities?
* **Compliance and Enforcement Mechanisms:** What legal provisions are in place to ensure compliance with Article 6.2 requirements and to enforce penalties for non-compliance?
* **Integration with National Climate Policies:** How does the legislation integrate Article 6.2 activities with the country's broader climate policies and NDC implementation plans?
* **Capacity Building and Support Measures:** What legal provisions are made for capacity building and support to enable the effective implementation of Article 6.2 activities, both domestically and in partner countries?

#### Whitelist Process Aligning to Carbon Budget

* **Carbon Budget Alignment:** How does the whitelist process ensure that selected projects align with and contribute to the country's overall carbon budget and emission reduction targets?
* **Project Eligibility Criteria:** What criteria are used to determine the eligibility of projects for inclusion in the whitelist, and how stringent and comprehensive are these criteria?
* **Methodologies for Emission Reduction Quantification:** What methodologies are accepted for quantifying emission reductions from whitelisted projects, and how robust and scientifically sound are these methodologies?
* **Additionality Assessment:** How does the whitelist process assess and ensure the additionality of projects, guaranteeing that emission reductions are beyond business-as-usual scenarios?
* Baseline Setting: What approaches are used for setting baselines for whitelisted projects, and how conservative and transparent are these approaches?
* Crediting Periods: What are the defined crediting periods for whitelisted projects, and how do these align with the country's carbon budget and long-term emission reduction goals?
* Monitoring, Reporting, and Verification (MRV): What MRV requirements are in place for whitelisted projects, and how robust and independent are these processes?
* Stakeholder Consultation: How does the whitelist process incorporate stakeholder consultation and feedback, ensuring transparency and inclusivity in project selection?
* Review and Update Mechanism: What mechanisms are in place to periodically review and update the whitelist, ensuring ongoing alignment with the carbon budget and evolving best practices?
* Integration with National Inventory: How are emission reductions from whitelisted projects integrated into the national greenhouse gas inventory, and what processes ensure accurate and timely reporting?

#### Memorandum of Understanding (MOU) for Article 6.2 Cooperation

* Objectives and Scope: What are the clearly defined objectives and scope of the cooperative approach outlined in the MOU, and how do these align with the goals of the Paris Agreement?
* Alignment with National Policies: How does the MOU ensure alignment between the cooperative approach and the participating countries' national climate policies, NDCs, and long-term strategies?
* Roles and Responsibilities: How clearly does the MOU define the roles and responsibilities of each participating country, and what provisions are made for effective coordination and communication?
* ITMO Accounting and Reporting: What arrangements are outlined in the MOU for the accounting, reporting, and tracking of ITMOs, and how do these align with UNFCCC requirements?
* Environmental Integrity Safeguards: What provisions are included in the MOU to ensure the environmental integrity of the cooperative approach, including measures to prevent double counting and ensure additionality?
* Sustainable Development Benefits: How does the MOU promote and facilitate the achievement of sustainable development benefits through the cooperative approach?
* Governance Structure: What governance structures are established by the MOU for the oversight and management of the cooperative approach, and how effective and inclusive are these structures?
* Capacity Building and Technology Transfer: What arrangements are made in the MOU for capacity building, technology transfer, and financial support to enable effective participation in the cooperative approach?
* Stakeholder Engagement: How does the MOU provide for stakeholder engagement and public participation in the design, implementation, and review of the cooperative approach?
* Review and Update Mechanism: What provisions are included in the MOU for the regular review and update of the cooperative approach, ensuring ongoing effectiveness and alignment with evolving best practices?

#### Registry at National Level to Track Article 6.2 Cooperation (Oversight Framework)

* Registry Design and Functionality: How is the national registry designed to effectively track and record ITMOs, and what functionalities are included to ensure transparency, accuracy, and security?
* Alignment with UNFCCC Requirements: How does the registry align with the requirements set forth by the UNFCCC for the tracking and reporting of ITMOs under Article 6.2?
* Data Management and Quality Control: What processes are in place for the management and quality control of data within the registry, ensuring the integrity and reliability of ITMO information?
* Registry Interoperability: How does the national registry ensure interoperability with registries of partner countries and international systems, facilitating the seamless tracking of ITMOs across borders?
* Oversight Body Mandate and Composition: What is the mandate of the oversight body responsible for the registry, and how is it composed to ensure independence, expertise, and stakeholder representation?
* Oversight Procedures and Processes: What procedures and processes are established by the oversight framework to monitor, review, and verify registry operations and ITMO transactions?
* Compliance and Enforcement Measures: What measures are in place to enforce compliance with registry rules and to address any irregularities or discrepancies in ITMO tracking?
* Transparency and Public Access: How does the registry and its oversight framework ensure transparency and public access to non-confidential ITMO information, promoting accountability and stakeholder engagement?
* Capacity Building and User Support: What arrangements are made for capacity building and user support to ensure the effective use and operation of the registry by all relevant stakeholders?
* Continuous Improvement and Adaptation: What mechanisms are in place for the continuous improvement and adaptation of the registry and its oversight framework in response to evolving best practices and lessons learned?

#### Mitigation Activity Description Document (MADD) for Article 6.2 Cooperation

* MADD Content Requirements: What information and data are required to be included in MADDs, and how comprehensive and detailed are these requirements?
* Alignment with UNFCCC Guidance: How do the MADD requirements align with the guidance provided by the UNFCCC for the description of mitigation activities under Article 6.2?
* Methodologies and Assumptions: What requirements are in place for the transparent description of methodologies, assumptions, and data sources used in the quantification of emission reductions?
* Baseline and Additionality Assessment: How do the MADD requirements ensure the robust assessment and justification of baselines and additionality for mitigation activities?
* Sustainable Development Contributions: What information is required in MADDs regarding the contributions of mitigation activities to sustainable development, and how are these contributions assessed and verified?
* Stakeholder Engagement and Public Consultation: How do the MADD requirements provide for stakeholder engagement and public consultation in the development and review of mitigation activity descriptions?
* Verification and Validation Processes: What processes are in place for the independent verification and validation of MADDs, ensuring the accuracy and completeness of the information provided?
* MADD Registry and Public Access: How are MADDs recorded and made publicly available, and what systems are in place to facilitate transparent access to this information?
* MADD Update and Revision Procedures: What procedures are established for the update and revision of MADDs over the course of mitigation activity implementation, ensuring ongoing accuracy and transparency?
* Capacity Building and Support: What arrangements are made for capacity building and support to assist project proponents in the development and submission of high-quality MADDs?

## **Article 6.4**

Article 6.4 of the Paris Agreement represents a significant evolution in the global approach to climate change mitigation through market mechanisms. It establishes a framework for the creation of a centralized mechanism to facilitate the trading of emissions reductions, allowing countries to finance and implement greenhouse gas (GHG) reduction projects and sell the resulting emissions reductions to help meet their nationally determined contributions (NDCs) under the Paris Agreement. This mechanism is intended to succeed and improve upon the Clean Development Mechanism (CDM) established under the Kyoto Protocol, offering a more robust and transparent system for international carbon markets.

The relevance of Article 6.4 lies in its potential to mobilize private sector investment, increase global ambition in the reduction of GHG emissions, and facilitate technological transfer and capacity building across borders. It is designed to ensure environmental integrity and promote sustainable development by requiring that emissions reductions are real, quantifiable, and verifiable, and that they contribute to the reduction of emissions globally.

To analyze each country's readiness to operationalize Article 6.4, we have compiled a set of benchmarks that define what constitutes a comprehensive policy framework. These benchmarks serve as the foundation for assessing the adequacy and effectiveness of a country's carbon market policies.

Our approach involves conducting a thorough review of all the country's relevant carbon market policies and documentation, and comparing them against our established benchmarks. This enables us to gauge the country's readiness to effectively implement and manage Article 6.4, identify areas where policies may be lacking or need improvement, and provide targeted recommendations based on global best practices in carbon market policy setting.

### **Article 6.4 Policy Assessment Benchmarks**

#### Adherence to UNFCCC’s Article 6.4 Guidelines

* Nationally Determined Contribution (NDC) Alignment: How do the country's Article 6.4 activities align with and contribute to the achievement of their NDC targets?
* Sustainable Development: What mechanisms are in place to ensure that Article 6.4 activities promote sustainable development within the country?
* Environmental Integrity: What safeguards and methodologies are employed to maintain the environmental integrity of Article 6.4 activities?
* Additionality: How does the country ensure that emission reductions from Article 6.4 activities are additional to what would have occurred in the absence of the activity?
* Baselines and Methodologies: What baselines and methodologies are used for quantifying emission reductions, and how robust are they?
* Monitoring, Reporting, and Verification (MRV): What MRV systems are in place to track and report on the outcomes of Article 6.4 activities?
* Avoidance of Double Counting: What policies and procedures are implemented to avoid double counting of emission reductions?
* Stakeholder Engagement: How are stakeholders engaged in the planning, implementation, and monitoring of Article 6.4 activities?
* Capacity Building: What initiatives are undertaken to build domestic capacity for participating in Article 6.4?
* Governance and Institutional Arrangements: What governance structures and institutional arrangements are established to oversee Article 6.4 activities and ensure compliance with UNFCCC guidelines?

#### Host Country Legislation Framework for Operationalization

* Legal Authority: What legal instruments grant the country the authority to participate in carbon market activities, and how comprehensive are they?
* Institutional Arrangements: What institutional structures are in place to oversee and regulate carbon market activities, and how effective are they?
* Project Approval Processes: What are the procedures and criteria for approving carbon offset projects, and how transparent and efficient are they?
* Methodologies and Protocols: What methodologies and protocols are recognized for quantifying emission reductions, and how robust are they?
* Registry Systems: What registry systems are employed to track and manage carbon credits, and how secure and transparent are they?
* Contractual Frameworks: What standard contractual terms and conditions are used for carbon market transactions, and how fair and enforceable are they?
* Benefit Sharing Mechanisms: What legal provisions exist for the equitable sharing of benefits from carbon market activities, particularly with local communities?
* Stakeholder Engagement and Grievance Redress: What legal requirements and mechanisms are in place for stakeholder consultation and grievance resolution?
* Compliance and Enforcement: What legal penalties and enforcement measures exist to ensure compliance with carbon market regulations?
* Integration with National Policies: How well is the host country legislation integrated with broader national climate change and sustainable development policies?

#### Legal Frameworks for the Transition from CDM to 6.4 Operationalization

* CDM Project Eligibility: What legal criteria are established for determining the eligibility of existing CDM projects to transition to Article 6.4, and how clear and comprehensive are they?
* Transition Processes and Timelines: What are the legal procedures and timelines for CDM project transition, and how streamlined and efficient are they?
* Credit Conversion and Accounting: What legal provisions govern the conversion of CDM credits to Article 6.4 units, and how robust are the accounting methodologies?
* Stakeholder Engagement and Consent: What legal requirements exist for engaging with and obtaining consent from CDM project stakeholders during the transition process?
* Regulatory Oversight and Verification: What legal mandates and capacities are in place for regulatory bodies to oversee and verify the integrity of CDM project transitions?
* Continuity of Benefit Sharing: What legal mechanisms ensure the continuity of benefit sharing arrangements with local communities during and after the transition?
* Legal Compatibility and Harmonization: How compatible are the CDM transition provisions with the broader Article 6.4 legal framework, and what efforts are made to harmonize them?
* Transparency and Public Participation: What legal requirements are there for transparency and public participation in CDM transition decision-making processes?
* Dispute Resolution: What legal channels and mechanisms are available for resolving disputes that may arise during the CDM transition process?
* Alignment with International Rules: How well do the CDM transition legal frameworks align with relevant international rules and guidance, such as those provided by the UNFCCC?

#### Mapping Designated National Authority (DNA) Points of Contact

* Institutional Mandate: What is the legal and institutional mandate of the DNA, and how clearly defined and comprehensive is it?
* Organizational Structure: What is the organizational structure of the DNA, including key departments, units, and personnel, and how well-defined and functional is it?
* Roles and Responsibilities: What are the specific roles and responsibilities of the DNA in relation to carbon market activities, and how clearly delineated and appropriate are they?
* Capacity and Expertise: What is the level of capacity and expertise within the DNA, and how adequate is it for fulfilling its designated functions?
* Coordination Mechanisms: What mechanisms exist for coordination between the DNA and other relevant government agencies, and how effective are they?
* Stakeholder Engagement: What processes and platforms are used by the DNA for engaging with stakeholders, and how inclusive and participatory are they?
* Transparency and Information Sharing: What systems and practices are in place for the DNA to transparently share information and decisions, and how accessible are they?
* Contact Points and Communication Channels: Who are the designated contact points within the DNA, and what are their communication channels for external parties?
* Decision-Making Processes: What are the DNA's internal decision-making processes, and how clear, consistent, and timely are they?
* Performance Monitoring and Evaluation: What mechanisms exist for monitoring and evaluating the DNA's performance, and how regularly and rigorously are they applied?

## **4. Article 6.8**

Article 6.8 of the Paris Agreement, adopted in 2015 as part of the international community's response to climate change, represents a pivotal mechanism for promoting non-market approaches to sustainable development. This article aims to facilitate the implementation of policies and initiatives that contribute to the mitigation of greenhouse gas emissions and support sustainable development, without relying on the exchange of carbon credits or other market mechanisms. Its relevance stems from the broader objective of the Paris Agreement to limit global warming to well below 2 degrees Celsius, while pursuing efforts to limit the temperature increase to 1.5 degrees Celsius above pre-industrial levels.

The operationalization of Article 6.8 is crucial for countries, especially developing nations, to access support and collaboration in implementing their nationally determined contributions (NDCs) under the Paris Agreement. It encourages cooperation among parties through integrated, holistic approaches that can include a wide range of activities, such as capacity-building, knowledge sharing, and technology transfer, all aimed at enhancing environmental integrity and promoting sustainable development.

To analyze each country's readiness to operationalize Article 6.8, we have compiled a set of benchmarks that define what constitutes a comprehensive policy framework. These benchmarks serve as the foundation for assessing the adequacy and effectiveness of a country's carbon market policies.

Our approach involves conducting a thorough review of all the country's relevant carbon market policies and documentation, and comparing them against our established benchmarks. This enables us to gauge the country's readiness to effectively implement and manage Article 6.8, identify areas where policies may be lacking or need improvement, and provide targeted recommendations based on global best practices in carbon market policy setting.

### **Article 6.8 Policy Assessment Benchmarks**

#### Adherence to UNFCCC’s Article 6.8 Guidelines

* Institutional Arrangements: What institutional arrangements are in place to coordinate and oversee the implementation of non-market approaches, and how effective are they in ensuring cross-sectoral collaboration?
* Stakeholder Engagement: How are various stakeholders, including local communities, civil society, and the private sector, engaged in the design and implementation of non-market approaches?
* Monitoring and Reporting: What systems are in place for monitoring, reporting, and verifying the outcomes of non-market approaches, and how do they align with the UNFCCC's guidelines?
* Sustainable Development: How do the non-market approaches contribute to sustainable development objectives, and what safeguards are in place to ensure equitable distribution of benefits?
* Capacity Building: What measures are being taken to build the necessary capacity, both institutional and technical, to effectively participate in Article 6.8 activities?
* Synergies with NDCs: How are the non-market approaches integrated with the country's Nationally Determined Contributions (NDCs), and what synergies exist between them?
* Adaptation Co-Benefits: To what extent do the non-market approaches deliver adaptation co-benefits, and how are these co-benefits quantified and communicated?
* Technology Transfer: What mechanisms are in place to facilitate technology transfer and knowledge sharing related to non-market approaches?
* Financial Resources: How are financial resources mobilized and allocated to support the implementation of non-market approaches, and what measures ensure the transparency and accountability of these resources?
* Alignment with Long-Term Strategies: How do the non-market approaches align with the country's long-term low-emission development strategies and contribute to the global goal of reaching net-zero emissions?

# **Country-Specific Policy Documents Used for the Analysis**

## **Rwanda**

To conduct a comprehensive voluntary carbon market policy assessment for Rwanda, we reviewed the following key policies, strategies, laws, and documents that shape the country's climate action and carbon market landscape:

* 1. Rwanda's Nationally Determined Contribution (NDC) to the Paris Agreement
* 2. Rwanda's Long-Term Strategy for Climate Change and Low Carbon Development
* 3. Green Growth and Climate Resilience: National Strategy for Climate Change and Low Carbon Development (2011)
* 4. Rwanda's Climate Action Plan - Similar to NDC doc
* 5. Rwanda's National Environment and Climate Change Policy (NECCP) (2019)
* 6. Rwanda's National Strategy for Transformation (NST1) 2017-2024
* 7. Environmental Organic Law (No. 04/2005)
* 8. Law on Environment (No. 48/2018) - Non-English
* 9. Rwanda's Green Growth and Climate Resilience Strategy (2011) - Same as doc 3
* 10. Ministerial Order No. 005/16.01 of 15/07/2010 determining the modalities of establishing the list of activities for which an environmental impact assessment is mandatory
* 11. Forestry Policy (2018)
* 12. Biomass Energy Strategy (2009)
* 13. National Agricultural Policy (2018)
* 14. National Land Policy (2019)
* 15. Mining Policy (2010) - Available doc is IGF Mining Policy Framework Assessment 2017
* 16. National Water Policy (2011)
* 17. Rwanda Building Code (2019)
* 18. Energy Sector Strategic Plan (2018/19-2023/24)
* 19. Electricity Law (No. 21/2011) - Non-English
* 20. Regulations Governing the Generation, Transmission, Distribution and Trading of Electricity (No. 005/R/EL-EWS/RURA/2021)
* 21. Renewable Energy Feed-in Tariff Regulations (No. 001/R/EL-EWS/RURA/2021)
* 22. Rwanda's Intended Nationally Determined Contribution (INDC) (2015) - We already have the updated NDC
* 23. Rwanda's Third National Communication to the UNFCCC (2018)
* 24. Rwanda's Second Biennial Update Report to the UNFCCC (2021) - There’s only first Biennial Update
* 25. National Adaptation Plan (NAP) Process in Rwanda (2021)
* 26. Rwanda National carbon market framework
* 27. Vision 2050
* 28. Rwanda REDD+ Readiness Proposal (R-PP)
* 29. Standardized Crediting Framework (SCF)
* 30. Ministerial Order No 005/ 2021 of 08/04/2021
* 31. PRIVATE SECTOR MOBILIZATION PLAN FOR CLIMATE ACTION (PSMP - CA)
* 32. FIVE YEAR STRATEGIC PLAN FOR THE ENVIRONMENT AND NATURAL RESOURCES SECTOR - 2014 – 2018
* 33. 7 Years Government Programme\_ National Strategy for Transformation (NST1) 2017 –2024
* 34. Rwanda\_National\_Carbon\_Market\_Framework\_updated\_1\_

## **Ghana**

To conduct a comprehensive voluntary carbon market policy assessment for Ghana, we reviewed the following key policies, strategies, laws, and documents that shape the country's climate action and carbon market landscape:

* 1. Ghana's Nationally Determined Contribution (NDC) to the Paris Agreement
* 2. Ghana's National Climate Change Policy (NCCP) (2013)
* 3. Ghana's National Climate Change Master Plan (2015-2020)
* 4. Ghana's National Climate Change Adaptation Strategy (NCCAS) (2010-2020)
* 5. Ghana's Low Carbon Development Strategy (LCDS) (2016)
* 6. Ghana's Renewable Energy Act (Act 832) (2011)
* 7. Ghana's Renewable Energy Master Plan (REMP) (2019)
* 8. Ghana's Energy Sector Strategy and Development Plan (2010)
* 9. Ghana's National Energy Policy (2010)
* 10. Ghana's Sustainable Energy for All Action Plan (2012) - 2015
* 11. Ghana's Forest and Wildlife Policy (2012)
* 12. Ghana's National REDD+ Strategy (2016-2035)
* 13. Ghana's National Forest Plantation Development Programme (NFPDP) - Similar to n0. 11 pdf
* 14. Ghana's Environmental Protection Agency Act (Act 490) (1994)
* 15. Ghana's Environmental Assessment Regulations (LI 1652) (1999)
* 16. Ghana's National Environmental Policy (2014)
* 17. Ghana's National Land Policy (1999)
* 18. Ghana's Land Use and Spatial Planning Act (Act 925) (2016)
* 19. Ghana's National Climate-Smart Agriculture and Food Security Action Plan (2016-2020)
* 20. Ghana's National Adaptation Plan (NAP) Framework (2018)
* 21. Ghana's Intended Nationally Determined Contribution (INDC) (2015)
* 22. Ghana's Fourth National Communication to the UNFCCC (2020)
* 23. Ghana's Second Biennial Update Report to the UNFCCC (2018) + Third
* 24. Ghana's Technology Needs Assessment (TNA) Reports
* 25. Ghana's Nationally Appropriate Mitigation Actions (NAMAs)
* 26. Ghana’s framework on international carbon markets and non-market approaches.
* 27. Ghana’s Adaptation Communication to the United Nations Framework Convention on Climate Change
* 28. Ghana First NDC (Updated submission) 2021-2030
* 29. UNDP\_Gh\_Article 6 case study\_final
* 30. Ghana Infrastructure Plan 2018-2047 (Volume One)
* 31. Ghana Beyond Aid Charter Strategy
* 32. Ghana’s Fifth National Greenhouse Gas Inventory

## **Nigeria**

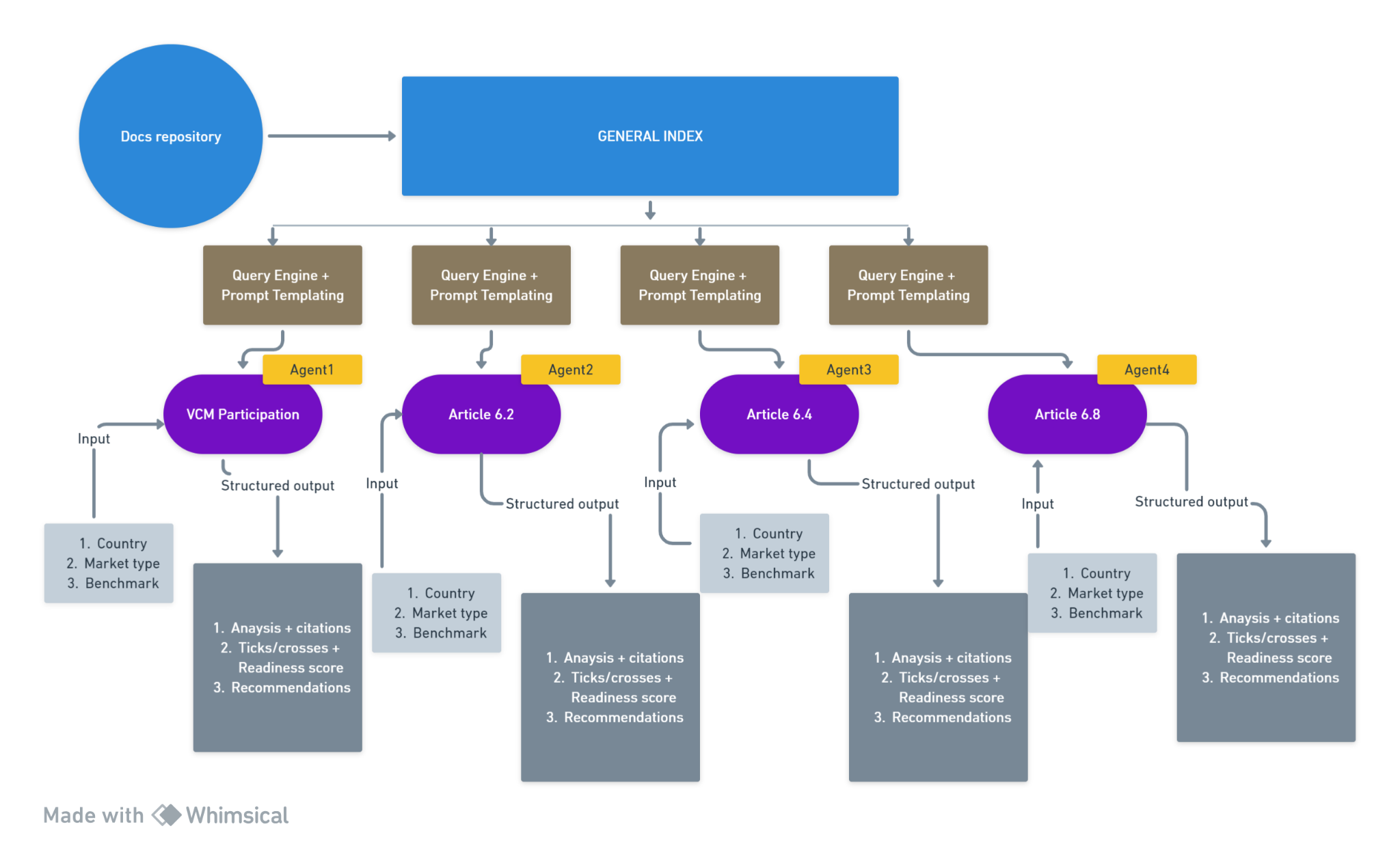
To conduct a comprehensive voluntary carbon market policy assessment for Nigeria, we reviewed the following key policies, strategies, laws, and documents that shape the country's climate action and carbon market landscape:

* 1. Nigeria's Nationally Determined Contribution (NDC) to the Paris Agreement (2021 Update)
* 2. National Climate Change Policy and Response Strategy (NCCP-RS) (2012) - 2021-2030
* 3. Nigeria Climate Change Act (2021)
* 4. National Adaptation Strategy and Plan of Action on Climate Change for Nigeria (NASPA-CCN) (2011)
* 5. Nigeria's Vision 2020 (NV20:2020)
* 6. Nigeria's Economic Sustainability Plan (NESP) (2020)
* 7. Nigeria's Economic Recovery and Growth Plan (ERGP) (2017-2020)
* 8. National Renewable Energy and Energy Efficiency Policy (NREEEP) (2015)
* 9. Nigerian Biofuel Policy and Incentives (2007)
* 10. National Forest Policy (2006)
* 11. National Environmental Standards and Regulations Enforcement Agency (Establishment) Act (2007)
* 12. Environmental Impact Assessment (EIA) Act (1992)
* 13. Nigerian Urban and Regional Planning Act (1992)
* 14. National Park Service Act (1999)
* 15. Nigeria's REDD+ Readiness Programme
* 16. Nigeria's Sustainable Energy for All (SE4ALL) Action Agenda (2016)
* 17. Nigerian Gas Flare Commercialization Programme (NGFCP)
* 18. National Oil Spill Detection and Response Agency (NOSDRA) Act (2006)
* 19. Nigerian Electricity Regulatory Commission (NERC) Act (2005)
* 20. National Environmental (Permitting and Licensing System) Regulations (2009)
* 21. National Policy on Erosion and Flood Control (2020)
* 22. Great Green Wall for the Sahara and the Sahel Initiative (GGWSSI) - Nigeria's National Strategic Action Plan
* 23. Nigeria's Third National Communication to the UNFCCC (2020)
* 24. Nigeria's First Biennial Update Report to the UNFCCC (2018)
* 25. Nigeria's Nationally Appropriate Mitigation Actions (NAMAs)
* 26. Nigeria Article 6 framework
* 27. Investing in Nigeria's Energy Transition Opportunity
* 28. Nigeria’s National Action Plan to reduce short-lived climate pollutants
* 29. Medium Term National Development Plan 2021 - 2025

# **Technical Implementation of Policy Assessment**

## **Policy Assessment Tool Technical Architecture**

**NOTE:** This is a country-specific flowchart that is extrapolated to multiple countries



### **System Architecture Overview**

The architecture is composed of several interconnected components that enable the tool to perform autonomous data traversal and extraction from a vast corpus of carbon market documents. These components are organized into the following subsystems:

#### **1. Document Repository**

Function: Stores a collection of carbon market documents specific to various countries.

Purpose: Acts as the primary data source for training the AI tool, enabling it to perform autonomous data traversal and extraction.

#### **2. General Index**

Function: Serves as a corpus of the trained dataset, essentially a machine-learned digital representation of the training data.

Purpose: Utilized for NLP purposes, allowing users to engage in natural conversations with the AI tool about information related to carbon markets.

#### **3. Market Types**

Function: Classifies carbon markets into four distinct types: Voluntary Carbon Markets, Article 6.2, Article 6.4, and Article 6.8.

Purpose: Facilitates specialization within the tool, ensuring precision and accuracy in data processing and analysis.

#### **4. Agents**

Function: Each market type is managed by its own Large Language Model (LLM) agent, with all agents coordinated by the central Agent CMAP.

Purpose: Each specialized agent handles its respective market, while Agent CMAP oversees the delegation of roles and the compilation of extracted information.

#### **5. Benchmarks**

Function: Specific details used by Agent CMAP to guide the delegation of roles to market-specific agents.

Purpose: Ensures the relevant information is extracted from the document corpus according to distinct market characteristics and criteria.

#### **6. Input**

Function: User inputs such as country name, market type, and benchmark type are processed by the Query Engine.

Purpose: Informs Agent CMAP about the user's research focus, triggering the assignment of tasks to the relevant market agents.

#### 7. Output

**Components of the Output:**

**Analysis:** A detailed examination of a certain benchmark under a specified carbon market.

Citations: References to the raw data sources within the specific country's carbon market documents.

**Recommendations:** Suggestions derived from the analysis about actions to be taken to enhance the carbon market's integrity.

**Readiness Score:** An assessment of a market's readiness or compliance level within a specific country.