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Carbon-Integrated Climate-Smart Finance for Sustainable Agriculture, Livelihoods & Nature-Based Solutions

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Abstract: Climate-smart agriculture and sustainable rural livelihoods are central to strengthening climate resilience, food security, biodiversity conservation, and sustainable development. Despite substantial investments by governments, development agencies, banks, CSR programmes, and private investors, project appraisal largely relies on conventional indicators such as IRR, NPV, BCR, and ROI, while carbon benefits are typically assessed separately, limiting their integration into investment planning.

The Climate Smart Financial Model (CSFM) developed by Srivastava (2026) integrates climate vulnerability, governance, land tenure, water availability, adaptive capacity, and agricultural productivity into financial sustainability assessment. This research proposes a Carbon-Integrated Climate Smart Financial Model (CI-CSFM) that incorporates expected carbon revenue as an endogenous investment variable. It uses methodology-specific ex-ante estimates of eligible/issuable tCO_2e, expected carbon price, and issuance probability, while treating verified or issued credits as subsequent realized revenue.

The CI-CSFM is a financial integration framework, not a carbon quantification methodology. Carbon reductions/removals are quantified using applicable approved methodologies and project-specific data, then incorporated into financial appraisal. The framework also integrates additionality, permanence, leakage, monitoring quality, and verification/issuance risk, and proposes an Integrated Climate Investment Sustainability Index (ICISI) for comparative investment prioritization.

Keywords: Climate-Smart Finance, Carbon Revenue Integration, Sustainable Agriculture, Carbon Markets, Climate Investment Sustainability Index (ICISI)

I. INTRODUCTION

Climate change threatens agricultural productivity and rural livelihoods through rising temperatures, altered rainfall, groundwater depletion, land degradation, biodiversity loss, and extreme events. Agriculture contributes significantly to greenhouse gas emissions but also offers major mitigation opportunities through agroforestry, restoration, conservation agriculture, improved land management, and carbon sequestration. Voluntary carbon markets can provide an additional source of finance for sustainable agricultural and rural development by monetizing eligible emission reductions and removals. However, conventional project appraisal generally relies on NPV, IRR, BCR, and ROI, while carbon accounting is often conducted as a separate technical process involving baseline establishment, monitoring, validation/verification and issuance. This separation may discourage investment in financially marginal but potentially high-mitigation projects.

The Climate Smart Financial Model developed by Srivastava (2026) integrates financial, governance, land-tenure, climate, adaptive-capacity, water, productivity, and investment-sequencing variables into financial sustainability assessment but excludes carbon finance. The present study proposes a Carbon-Integrated Climate Smart Financial Model that brings the expected economic value of eligible carbon outcomes into investment appraisal without replacing or modifying approved carbon accounting procedures.

In the proposed CI-CSFM, Carbon Revenue (CR) is treated as an endogenous investment variable because it is incorporated directly into the financial decision framework. However, the underlying carbon quantity (tCO_2e) is determined ex ante using the applicable carbon accounting methodology and project-specific baseline, monitoring and field data. Thus, carbon revenue is endogenous to the investment appraisal, while carbon quantification remains methodology-specific.

A critical distinction is made between ex-ante estimated carbon and verified/issued carbon. At the investment stage, the model uses expected eligible/issuable tCO_2e, adjusted for the probability of successful issuance and the expected carbon price, to estimate expected carbon revenue. After validation, verification and issuance, actual issued credits and realized market prices can be used for subsequent revenue accounting. The CI-CSFM therefore does not claim to generate or verify carbon quantities independently.

The CI-CSFM is consequently positioned as a financial and investment-integration framework, not as a standalone carbon quantification methodology. It transfers the output of an applicable approved methodology into a structured investment appraisal and decision process. This positioning is intended to preserve compatibility with recognized carbon standards while enabling carbon finance to be considered earlier in project planning.

II. OBJECTIVES

The present investigation has the following objectives:

1) To extend the Climate Smart Financial Model by incorporating expected carbon revenue as an endogenous investment variable.
2) To establish a Voluntary Market-compatible carbon integration framework that utilizes methodology-specific tCO_2e estimates without modifying internationally accepted carbon accounting procedures.
3) To develop an Integrated Climate Smart Financial Sustainability Algorithm capable of evaluating commercial financial performance together with expected carbon revenue at the investment stage.
4) To formulate a mathematical decision-support framework integrating governance, adaptive capacity, climate resilience, carbon permanence, additionality, and financial sustainability.
5) To demonstrate the applicability of the proposed framework for sustainable agriculture, agroforestry, forest restoration, renewable energy, waste management, and rural livelihood projects.

III. CONCEPTUAL FRAMEWORK

The proposed Carbon-Integrated Climate Smart Financial Model (CI-CSFM) extends the existing Climate Smart Financial Model by introducing a Carbon Performance and Revenue pathway that operates alongside the financial sustainability algorithm.

The conceptual structure consists of five interacting components:

1) Financial Assessment Module, evaluating conventional project economics including investment cost, operating expenditure, projected commercial revenues, costs, and financial sustainability.
2) Climate Smart Assessment Module, incorporating governance quality, climate vulnerability, land tenure, water availability, adaptive capacity, agricultural productivity, and institutional readiness.
3) Carbon Accounting Interface Module, receiving carbon estimates generated under the applicable internationally accepted carbon accounting methodology. This module does not itself perform or replace methodology-specific carbon quantification.
4) Carbon Revenue Module, converting expected eligible/issuable tCO_2e into expected net carbon revenue considering expected carbon price, probability of successful issuance, and, where applicable, carbon-development, MRV, validation, verification and issuance costs.
5) Integrated Investment Decision Module, combining the financial appraisal with the expected carbon value to assess investment feasibility, additionality implications, sustainability and comparative investment attractiveness.

Unlike conventional systems in which carbon accounting may be considered after investment decisions, the proposed framework incorporates the potential economic value of carbon during project planning. This early integration is intended to improve investment prioritization and reduce uncertainty associated with project development. The framework remains methodology-neutral: the carbon quantity is supplied by the applicable carbon methodology and is not generated by the CI-CSFM itself.

IV. MATHEMATICAL DEVELOPMENT OF THE CARBON-INTEGRATED CLIMATE SMART FINANCIAL MODEL

The original Climate Smart Financial Model expresses Financial Sustainability (FS) as a function of multiple climate-smart investment variables:

$FS = f(FDI, C, G, L, W, Y)$

where:

- FDI = Financial Development Investment,
- C = Climate Resilience Index,
- G = Governance Index,
- L = Land Tenure Security,
- W = Water Resource Availability,
- Y = Agricultural Productivity.

The function f (·) represents the functional form of the original CSFM and is not re-estimated in the present paper. Its exact specification, weighting and units remain those established in the original CSFM work.

The present study extends this formulation by introducing Carbon Revenue (CR) as an endogenous investment variable:

$FS^* = f\,(FDI, C, G, L, W, Y, CR)$

where FS* denotes Carbon-Integrated Financial Sustainability and CR denotes expected net carbon revenue incorporated into the financial appraisal. The use of "endogenous" here refers to the fact that carbon revenue is directly incorporated into the investment decision framework; it does not mean that the CI-CSFM independently determines the underlying carbon quantity.

Carbon Revenue is estimated at the ex-ante investment stage as:
$CR_e = E(tCO_2e) \times PC_e \times PV - CC$

where:

- CR_e = expected net carbon revenue over the appraisal period,
- $E(tCO_2e)$ = expected eligible/issuable carbon quantity estimated under the applicable methodology,
- PC_e = expected carbon-credit market price,
- PV = probability of successful validation/verification and issuance, as applicable to the appraisal stage,
- CC = relevant carbon-development, MRV, validation, verification, issuance and other directly attributable carbon transaction costs included in the appraisal.

For a multi-year project, the annual expected net carbon cash flows should be discounted over the relevant project period. A generalized formulation is:
$CR_e = \Sigma_t\, [(E(tCO_2e)_t \times PC_{e,t} \times PV_t - CC_t) / (1+r)^{t}]$

where r is the applicable discount rate and t denotes the project year. This formulation is used where the carbon programme produces staged or recurring carbon outcomes.
The ex-ante equation must not be interpreted as using verified credits together with a verification probability. Before verification and issuance, the model uses forecast/expected eligible carbon quantities and an issuance probability. After verification and issuance, realized carbon revenue can instead be calculated from actual issued credits and the realized transaction price, subject to the applicable contractual and market conditions.
Carbon quantification is not performed by the CI-CSFM. The quantity is obtained from the applicable methodology-specific carbon accounting procedure:
tCO_2e = Methodology-specific carbon quantification function (project-specific baseline and monitoring data)

The methodology specifies the relevant calculation procedures, baseline/scenario parameters, emission factors, monitoring requirements, uncertainty treatment and other applicable requirements. Thus, the applicable carbon methodology is an external methodological input to the CI-CSFM rather than a numerical coefficient multiplied by field observations.
The overall investment return should be expressed only on a consistent monetary and time basis. Where RC and CR represent monetary returns over the same period, an integrated return can be represented as:
$IR = RC + CR_e$
where IR is Integrated Investment Return, RC is Commercial Return expressed on the same monetary/time basis as CR_e, and CR_e is expected net carbon revenue. If RC is instead represented by NPV, ROI, IRR or another normalized indicator, carbon revenue should not be added directly to it. In such cases, the appropriate approach is to incorporate the expected carbon cash flows into the same financial model and calculate the resulting integrated NPV, IRR, ROI or other common financial indicator. This avoids dimensional inconsistency.

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V. CARBON INTEGRATION MATRIX

The integration framework does not replace existing carbon accounting methodologies. Instead, it links the output generated by the applicable methodology to the financial model. The following matrix illustrates the methodology-neutral interface.

Project Category	Applicable Carbon Methodology	Estimated Carbon Variable	Financial Integration
Agroforestry	Applicable Voluntary Market ARR/ALM methodology	Biomass Carbon	Expected Carbon Revenue
Forest Conservation	Applicable REDD+ methodology	Avoided Emissions	Expected Carbon Revenue
Soil Restoration	Applicable Agricultural Land Management methodology	Soil Organic Carbon	Expected Carbon Revenue
Rice Cultivation	Applicable Methane Reduction methodology	CH_4 Reduction	Expected Carbon Revenue
Livestock Management	Applicable Livestock methodology	Methane Reduction	Expected Carbon Revenue
Renewable Energy	Applicable Renewable Energy methodology	CO_2 Reduction	Expected Carbon Revenue
Waste Management	Applicable Waste methodology	CH_4 Avoidance	Expected Carbon Revenue

The precise methodology, baseline, monitoring parameters, eligibility conditions and carbon calculation procedure must be determined separately for each project. The CI-CSFM only integrates the resulting methodology-specific carbon estimate into financial appraisal.

VI. ADDITIONALITY ASSESSMENT FRAMEWORK

Additionality is a fundamental principle of carbon market integrity. Carbon credits may be generated only where the relevant carbon standard and methodology establish that the claimed emission reductions or removals meet the applicable additionality requirements. Financial additionality is one possible component of such an assessment.

The proposed CI-CSFM embeds a financial-additionality screening function into the investment algorithm. The three cases are retained, but carbon-finance-induced financial viability is not treated as proof of overall carbon-credit additionality. Instead, it provides evidence that carbon finance may be financially decisive, subject to methodology-specific additionality requirements, including applicable regulatory, technological, common-practice and baseline considerations.

Case I: Commercially Viable Project

If the project's commercial financial indicator meets the selected viability threshold without carbon revenue:

$FI_0 \geq T\_F$ then the project is commercially viable without carbon finance and financial additionality attributable to carbon finance is assessed as 0 for the CI-CSFM screening purpose.

Case II: Carbon-Dependent Project

If the project is commercially non-viable without carbon revenue but becomes viable after inclusion of expected net carbon revenue:

$FI_0 < T\_F$ and $FI_1 \geq T\_F$ then carbon finance changes project viability and financial additionality is assessed as 1 for the CI-CSFM screening purpose, subject to methodology-specific carbon additionality tests.

Case III: Non-Viable Project

If the project remains below the selected viability threshold even after inclusion of expected carbon revenue:

$FI_1 < T\_F$ then the project remains financially non-viable and should either be redesigned or excluded from investment.

Here FI_0 represents the selected financial viability indicator before carbon revenue, FI_1 represents the corresponding indicator after inclusion of expected carbon revenue, and T_F is the applicable viability threshold. The specific financial indicator and threshold should be selected consistently with the project appraisal methodology.

This integrated approach enables investors to identify projects where carbon finance substantially improves economic feasibility while maintaining a clear distinction between financial additionality screening and formal carbon-credit additionality determination.

VII. INTEGRATED CLIMATE INVESTMENT SUSTAINABILITY INDEX (ICISI)

Financial sustainability alone cannot adequately represent long-term project success. Sustainable development depends upon economic viability, environmental performance, institutional capacity, governance quality, social acceptance, and climate resilience. To address these multidimensional considerations, the present research proposes an Integrated Climate Investment Sustainability Index (ICISI).

ICISI is a normalized multi-criteria decision index for comparative investment prioritization; it is not itself a measure of financial profitability, nor does it measure carbon-credit quality or replace carbon-standard eligibility and verification.

The generalized formulation is:

$$ICISI = w_1FS_n + w_2CR_n + w_3CS_n + w_4G_n + w_5R_n + w_6A_n + w_7P_n + w_8L_p$$

where:

- FS_n = normalized Financial Sustainability Index,
- CR_n = normalized Carbon Revenue Index,
- CS_n = normalized Climate Smartness Score,
- G_n = normalized Governance Index,
- R_n = normalized Climate Resilience Index,
- A_n = normalized Adaptive Capacity Index,
- P_n = normalized Permanence Score,
- L_p = positive-direction normalized Leakage Performance Score, derived so that a higher score represents better performance/lower leakage risk,
- w_1–w_8 = normalized weighting coefficients.

All component variables must be normalized to a common scale before aggregation. This is necessary because financial values such as carbon revenue may be expressed in monetary units whereas governance, resilience and other indicators may be dimensionless scores. The normalization procedure should be specified consistently for the selected application.

The weighting coefficients satisfy:

$$\Sigma_{i=1}^{8} w_i = 1,\ w_i \geq 0$$

The weighting coefficients may be determined using Analytic Hierarchy Process (AHP), Delphi Technique, Principal Component Analysis, Multi-Criteria Decision Analysis (MCDA), or expert consultation depending upon project requirements. The ICISI provides a standardized comparative measure for prioritizing diverse projects across agriculture, forestry, ecosystem restoration, renewable energy, and sustainable livelihood sectors.

VIII. PROPOSED INVESTMENT DECISION ALGORITHM

The Carbon-Integrated Climate Smart Financial Model may be represented through the following sequential algorithm:

1) Step 1: Collect baseline information: climate conditions, governance, land tenure, water availability, livelihood status, agricultural productivity and other relevant project information.
2) Step 2: Estimate Financial Sustainability using the functional form of the original CSFM and establish the selected financial viability indicator and threshold.
3) Step 3: Screen carbon eligibility and select the applicable carbon methodology according to project type, applicable standard and project circumstances. Eligibility, baseline, additionality, leakage and monitoring requirements should be considered at this stage.
4) Step 4: Establish the baseline and project scenario in accordance with the selected carbon methodology.
5) Step 5: Estimate eligible/issuable tCO_2e using the methodology-specific equations, parameters and field/monitoring observations prescribed under the applicable carbon accounting standard.
6) Step 6: Estimate expected net carbon revenue using expected tCO_2e, expected carbon price, probability of successful issuance and relevant carbon-development/MRV/verification/issuance costs.

7) Step 7: Estimate Carbon-Integrated Financial Sustainability and, where applicable, the corresponding integrated NPV, IRR, ROI or other common financial indicator.
8) Step 8: Evaluate financial additionality by determining whether carbon finance changes project viability, while separately recognizing that formal carbon-credit additionality remains subject to methodology-specific requirements.
9) Step 9: Normalize the relevant indicators, calculate ICISI using the selected weights, and document assumptions and uncertainty.
10) *Step 10:* Rank projects. Projects having the highest ICISI receive the highest investment priority, subject to eligibility, safeguards, financing constraints and other decision criteria.

IX. MONITORING, REPORTING AND VERIFICATION (MRV)

An effective MRV framework is fundamental for ensuring the credibility of carbon outcomes used in the proposed financial model. Since expected carbon revenue is incorporated into investment appraisal, the reliability of the underlying carbon estimates becomes important for financial decision-making.

The MRV framework should include:

1) Baseline assessment.
2) Periodic field measurements.
3) Remote sensing and GIS monitoring.
4) Biomass inventories.
5) Soil sampling.
6) Water resource monitoring.
7) Farmer and community participation.
8) Independent third-party validation/verification as required by the applicable carbon standard.
9) Digital record management.
10) Long-term monitoring of permanence and leakage.

The concept framework further recommends development of a GIS-enabled decision-support platform integrating CSFM screening, spatial carbon stock mapping, baseline and scenario modelling, methodology applicability screening, ex-ante tCO_2e estimation, MRV data capture, and investor dashboards displaying financial and expected carbon returns. Any automated methodology selection or carbon estimation function must remain subordinate to the requirements of the applicable carbon standard and methodology.

X. PILOT VALIDATION FRAMEWORK

The proposed framework may be validated using two or three representative ecological regions; namely: A. Nagaland / B. Arunachal Pradesh / C. Jharkhand in India.

XI. RESULTS AND DISCUSSION

The Carbon-Integrated Climate Smart Financial Model extends the Climate Smart Financial Model by integrating the expected economic value of eligible carbon outcomes into investment appraisal. Its principal conceptual contribution is to treat potential carbon value as an economic investment variable while preserving the separation between financial integration and carbon quantification. The framework does not claim that the CI-CSFM itself produces or verifies carbon quantities. Rather, methodology-specific carbon accounting generates an ex-ante estimate of eligible/issuable tCO_2e, which is transferred into the CI-CSFM. Expected carbon revenue is then calculated using the expected quantity, expected price, issuance probability and relevant carbon-related costs. Once credits are actually verified and issued, realized quantities and prices can be used for subsequent revenue accounting. The methodology-neutral framework can interface with carbon outcomes associated with biomass accumulation, soil organic carbon enhancement, methane reduction, renewable energy substitution, forest conservation, waste management and other eligible activities, subject to the applicable standard and methodology. It enables comparison of financial performance with and without carbon finance and provides a structured basis for screening projects whose financial viability may depend materially on carbon income.The additionality module improves the investment-screening logic by distinguishing three situations: commercially viable projects without carbon finance, projects whose viability changes because of carbon finance, and projects that remain non-viable even after carbon revenue is included. Importantly, carbon-finance-induced financial viability is treated as evidence of financial additionality for investment screening, not as proof of overall carbon-credit additionality.

The ICISI extends the framework from a single financial dimension to comparative multi-criteria investment prioritization. Because its components differ in units and scale, normalization is necessary before aggregation, and the weights must sum to one. The index therefore provides a comparative decision-support score rather than a substitute for conventional profitability indicators or formal carbon-credit assessment.

The framework may also support digital monitoring through GIS, remote sensing, AI, IoT, cloud computing and other digital MRV tools. Such technologies may improve data capture, transparency and transaction efficiency, but their application does not remove the need to comply with the requirements of the applicable carbon standard, methodology and independent verification process.

As the present study is a conceptual and mathematical framework rather than an empirically validated model, its practical effectiveness, predictive performance and investment-ranking reliability require field validation. The proposed pilot regions provide a basis for testing the framework across different ecological, institutional and socioeconomic conditions.

XII. POLICY IMPLICATIONS

1) The model supports climate finance policy, investment planning, and sustainable development by bringing potential carbon value into early-stage project appraisal.
2) It provides a structured interface through which governments, financial institutions and development agencies can consider the carbon-market potential of agriculture, forestry, watershed and livelihood projects without replacing recognized carbon accounting procedures.
3) Public investments can be prioritized using integrated sustainability scores, subject to appropriate normalization, weights, safeguards and eligibility criteria.
4) Limited public and private funds may be directed toward projects with stronger combined economic, environmental, social and climate characteristics.
5) Expected carbon-revenue integration may improve project bankability where carbon finance is sufficiently material and credible.
6) The model can support blended finance involving governments, development banks, climate funds, CSR programmes and private investors.
7) The framework aligns with Environmental, Social, and Governance (ESG) principles through its consideration of governance, land tenure, climate resilience, permanence, leakage and adaptive capacity.
8) Early carbon planning may reduce avoidable transaction costs and improve the feasibility of small projects, although actual transaction-cost reductions require empirical testing.
9) Integrated MRV platforms can support digital governance and improve transparency.
10) Remote sensing, GIS, artificial intelligence, cloud computing and other digital systems may improve monitoring and information management, while remaining subject to applicable verification requirements.

XIII. CONCLUSIONS

The present paper proposes a Carbon-Integrated Climate Smart Financial Model (CI-CSFM) that extends Srivastava's Climate Smart Financial Model by directly incorporating expected carbon revenue into investment decision-making. The framework recognizes that climate-smart agriculture, agroforestry, ecosystem restoration, sustainable livelihoods, renewable energy, waste management and related interventions may generate both conventional financial returns and eligible carbon assets.

A key contribution is the methodology-neutral Carbon Integration Module. The framework does not introduce a new carbon accounting method and does not independently quantify or verify carbon reductions/removals. Instead, it uses the output of an applicable internationally accepted carbon methodology, based on project-specific baseline and monitoring data, and integrates the resulting ex-ante carbon estimate into financial appraisal.

The paper also develops mathematical formulations that combine financial sustainability and expected carbon revenue, while incorporating governance, adaptive capacity, permanence, leakage, climate resilience and additionality into an Integrated Climate Investment Sustainability Index. The ICISI is explicitly defined as a normalized multi-criteria decision index for comparative investment prioritization, rather than a profitability or carbon-credit quality measure.

The distinction between ex-ante expected carbon and post-verification issued credits strengthens the financial logic of the framework. Expected eligible/issuable tCO_2e, expected carbon price and issuance probability are used for investment appraisal; verified/issued credits and realized prices are subsequently relevant for realized revenue accounting.

The additionality framework identifies projects for which carbon finance may be financially decisive, but it does not equate financial additionality with overall carbon-credit additionality. Formal additionality remains subject to the requirements of the applicable carbon standard and methodology.

The proposed CI-CSFM provides a structured and potentially applicable framework for governments, development agencies, financial institutions, climate funds, CSR programmes, multilateral organizations and carbon-market participants. Its potential contribution is to connect climate-smart investment screening with carbon-finance considerations at the planning stage. However, its empirical effectiveness, parameterization, weighting system, carbon-revenue uncertainty and investment-ranking performance require validation through field pilots before claims of scientific robustness or general financial effectiveness can be made.

Future research should therefore validate the model across diverse ecological regions and project types, including the proposed pilot contexts in Nagaland, Arunachal Pradesh and Jharkhand. Integration with GIS, remote sensing, artificial intelligence and digital MRV platforms may further improve its efficiency and scalability, subject to the requirements of applicable carbon standards and methodologies.

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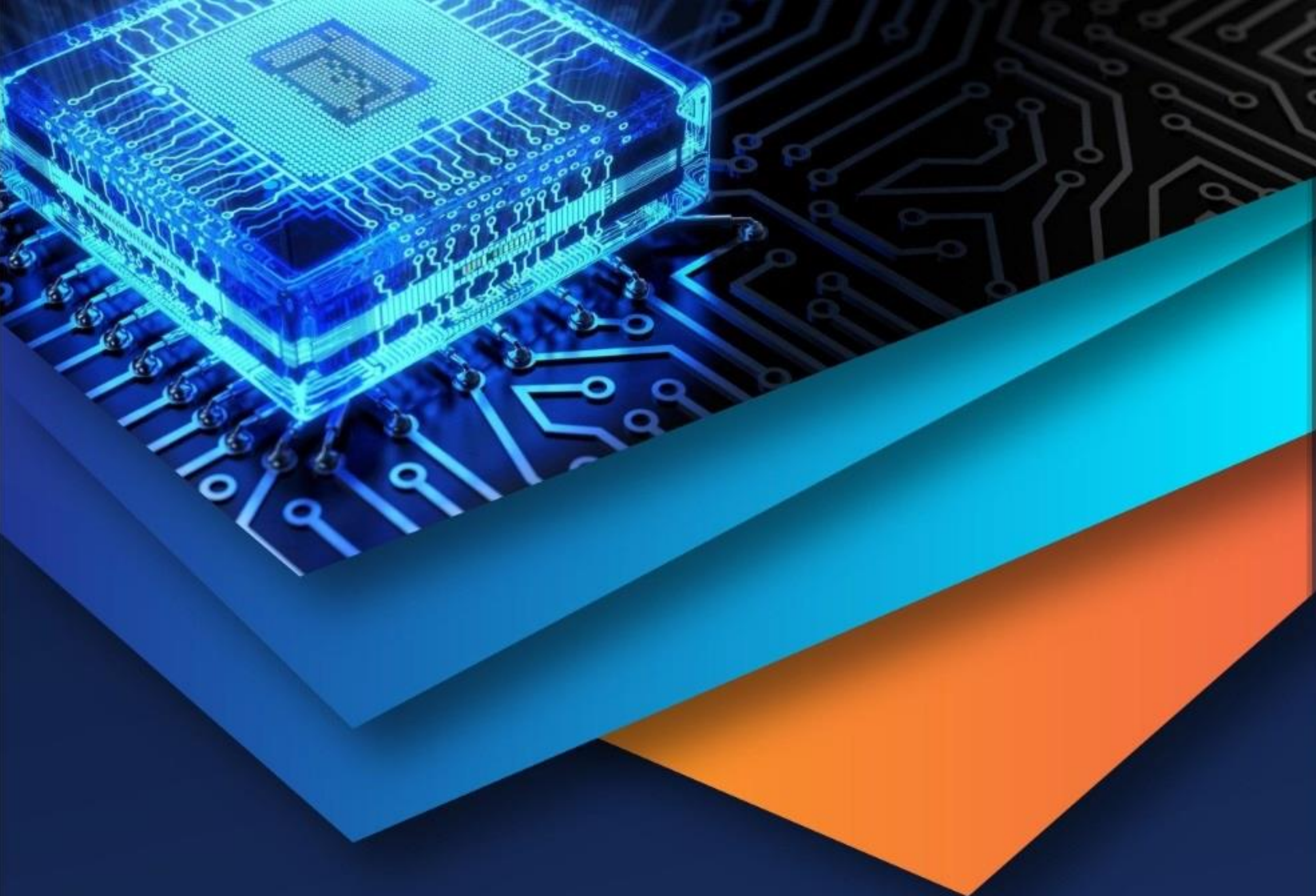
LIST OF ABBREVIATIONS

No.	Abbreviation	Full Form
1	AI	Artificial Intelligence
2	AHP	Analytic Hierarchy Process
3	ALM	Agricultural Land Management
4	ARR	Afforestation, Reforestation and Revegetation
5	BCR	Benefit-Cost Ratio
6	CEO	Chief Executive Officer
7	CI-CSFM	Carbon-Integrated Climate Smart Financial Model
8	CSR	Corporate Social Responsibility
9	CSFM	Climate Smart Financial Model
10	DOI	Digital Object Identifier
11	ESG	Environmental, Social, and Governance
12	FAO	Food and Agriculture Organization
13	FDI	Financial Development Investment
14	FI_0	Financial Viability Indicator before Carbon Revenue
15	FI_1	Financial Viability Indicator after inclusion of Carbon Revenue
16	GIS	Geographic Information System
17	GMM	Generalized Method of Moments
18	GTAP	Global Trade Analysis Project
19	HLPE	High Level Panel of Experts
20	ICISI	Integrated Climate Investment Sustainability Index
21	IFAD	International Fund for Agricultural Development
22	IJHESM	International Journal of Humanities, Engineering, Science and Management
23	IoT	Internet of Things
24	IPCC	Intergovernmental Panel on Climate Change
25	IR	Integrated Investment Return
26	IRR	Internal Rate of Return
27	KfW	KfW Development Bank
28	KVK	Krishi Vigyan Kendra
29	MCDA	Multi-Criteria Decision Analysis
30	MRV	Monitoring, Reporting and Verification
31	NPV	Net Present Value
32	OECD	Organisation for Economic Co-operation and Development
33	PC_e	Expected Carbon-Credit Market Price
34	PV	Probability of Successful Validation/Verification and Issuance
35	REDD+	Reducing Emissions from Deforestation and Forest Degradation, plus conservation, sustainable management of forests and enhancement of forest carbon stocks
36	RBI	Reserve Bank of India
37	RIMA	Resilience Index Measurement and Analysis
38	ROI	Return on Investment
39	SAM	Social Accounting Matrix
40	UN	United Nations
41	UNCTAD	United Nations Conference on Trade and Development
42	UNEP	United Nations Environment Programme
43	UNFCCC	United Nations Framework Convention on Climate Change
44	UNICEF	United Nations Children's Fund
45	VCS	Verified Carbon Standard
46	WFP	World Food Programme
47	WHO	World Health Organization

Additional technical notation

Term	Full Form / Meaning
C	Climate Resilience Index
CC	Carbon-development, MRV, validation, verification, issuance and other directly attributable carbon transaction costs
CH_4	Methane
CO_2	Carbon Dioxide
CR	Carbon Revenue
CR_e	Expected Net Carbon Revenue
FS	Financial Sustainability
FS*	Carbon-Integrated Financial Sustainability
L	Land Tenure Security
L_p	Positive-direction Normalized Leakage Performance Score
P	Permanence Score
R	Climate Resilience Index
W	Water Resource Availability
Y	Agricultural Productivity
tCO_2e	Tonnes of Carbon Dioxide Equivalent



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IMPACT FACTOR: 7.129

IMPACT FACTOR: 7.429

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