

Strategic Benchmarking of the Sustainable Coconut Charter Assurance System and selected sustainability standards

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Prepared for SCP

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Executive summary

The Sustainable Coconut Charter (SCC) Assurance System and selected sustainability standards were benchmarked against four dimensions defined by Sustainable Coconut Partnership (SCP) relevant to coconut supply chains and related markets, including Rainforest Alliance (RA), Fairtrade International, EU Organic, Regenerative Organic Certified (ROC) and the Farm Sustainability Assessment (FSA) by SAI Platform. The benchmarking exercise was conducted as a strategic desktop review, focusing on scheme/standard requirements, assurance design and implementation logic. It assesses how each system responds to coconut-sector risks, transformation needs and deployability challenges.

Overall, the benchmarking positions SCC as a sector-specific framework designed to respond to coconut supply-chain priorities, particularly where sustainability requirements need to be combined with responsible rejuvenation, smallholder accessibility, value-chain coordination and progressive assurance. The value of SCC therefore lies in being more directly structured around the coconut-sector risks and transformation needs assessed in this report rather than in being broader than comparator standards.

The analytical structure was developed around four dimensions defined by SCP and selected for their relevance to coconut-sector transformation as reflected in the Sustainable Coconut Charter:

- Dimension A Sector relevance and materiality alignment: assesses the thematic coverage of requirements and their alignment with material coconut-sector risks.
- Dimension B Sector rejuvenation and investment: examines whether standards support sector rejuvenation, investment mobilisation and farmer resilience.
- Dimension C Operational deployability and scalability: considers how assurance models can be deployed in fragmented, smallholder-based coconut supply chains.
- Dimension D Standard review cycles and system adaptability: reviews how standards are updated, revised and adapted over time.

Together, these dimensions connect the main questions facing the coconut sector: whether sustainability systems cover the right issues, whether they support long-term renewal, whether they can be implemented in practice, and whether they can remain relevant as sector conditions evolve.

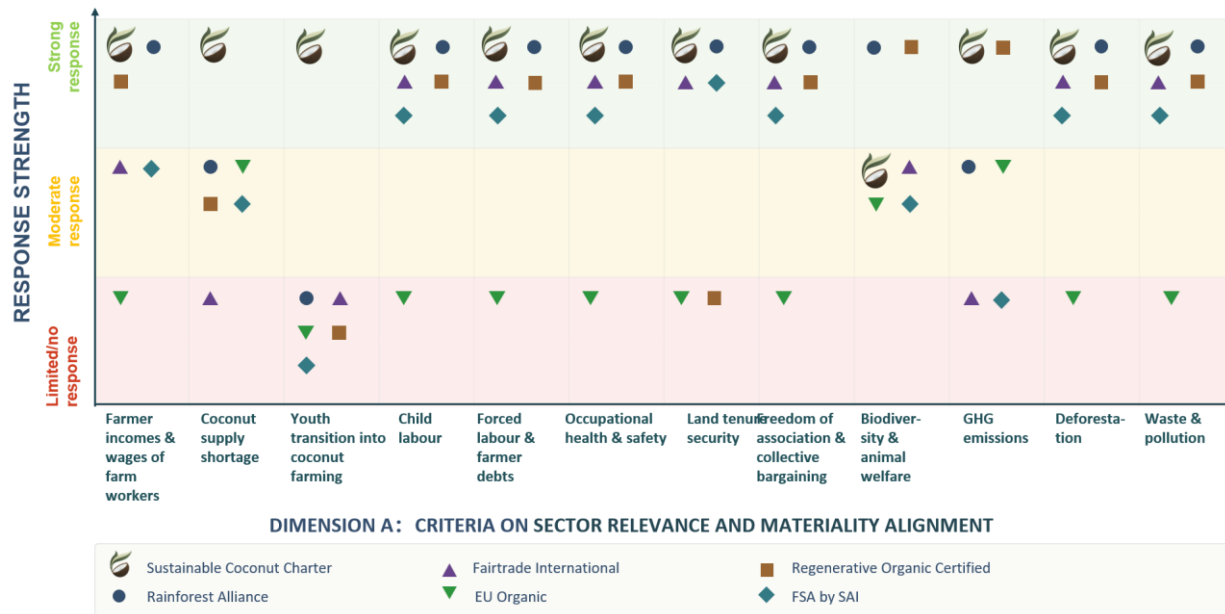
The findings should be interpreted specifically in relation to coconut supply chains. SCC was developed as a sector-specific framework, while all other comparator systems were designed for wider crop, commodity, production or regulatory contexts. The benchmarking results assesses how each system responds to a set of coconut-specific risks and priorities defined through SCP's sector work and the sustainable coconut charter, which was developed by the coconut sector. The benchmark therefore provides a sector-specific view of how each system is positioned against the risks, priorities and transformation needs identified for coconut supply chains.

Dimension A: Sector relevance and materiality alignment

SCC demonstrates alignment with the coconut-sector risks assessed in the report developed by SCP – [Pulse of the Sector](#), including farmer income, supply shortage, ageing tree stock, limited replanting, youth transition, labour risks, land tenure, deforestation, emissions, and waste and pollution. **This reflects SCC's sector-specific design and the fact that the risk framework itself was developed around coconut-sector priorities.** Comparator standards also address many of these risks through broader agricultural, producer-organisation, organic production, regenerative agriculture or sustainable sourcing requirements. SCC's distinct contribution is that it brings these

sustainability requirements into a coconut-specific framework, with more explicit attention to supply resilience, responsible replanting, youth transition, farmer support and value-chain coordination. Figure ES-1 provides a summary view of the documented responses to the 12 coconut-sector risks assessed under Dimension A.

Figure ES-1: Summary of documented responses to coconut-sector risks

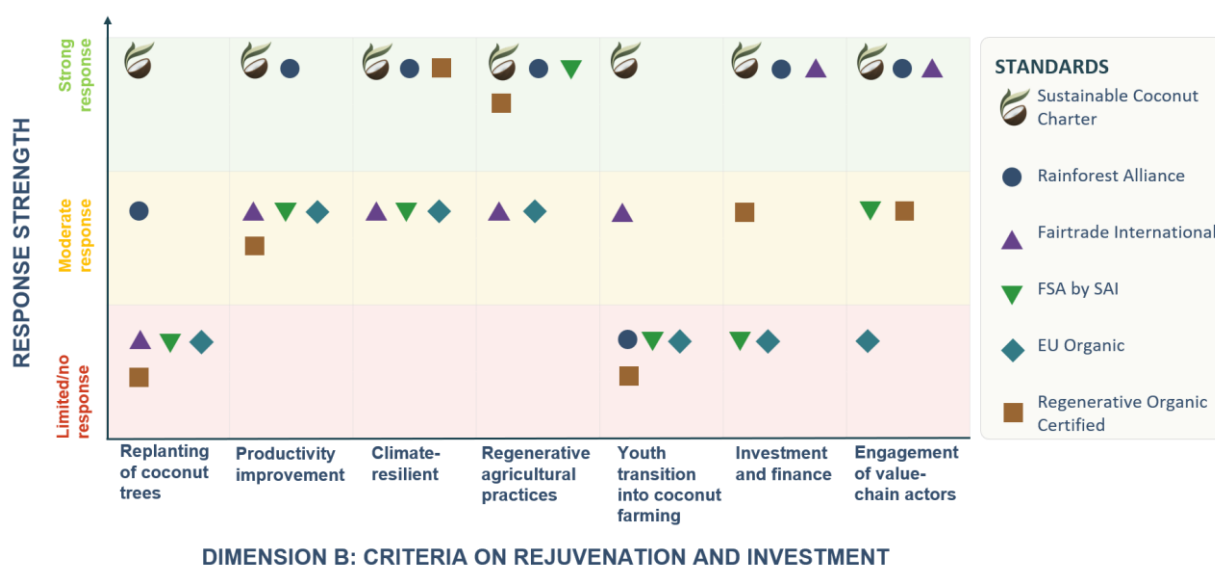


Note: Ratings reflect documented requirements and their relevance to the selected coconut-sector risks.

Dimension B: Sector rejuvenation and investment

SCC provides a response to structural coconut-sector challenges within its design focus. In the SCC context, rejuvenation goes beyond agronomic productivity improvement and refers more specifically to enabling responsible replanting at scale, addressing ageing and under-productive tree stock, and supporting generational renewal in coconut farming. SCC provisions on tree census, senile palm monitoring, phased replanting or rejuvenation planning, productivity improvement, access to planting material, farmer support and value-chain actor engagement are therefore closely linked to long-term sector renewal. Comparator standards provide relevant complementary mechanisms: Fairtrade International through producer organisation and Premium systems; RA through productivity, climate, premium and shared-responsibility elements; ROC through regenerative agriculture; FSA through modular assessment and improvement tools; and EU Organic through legally recognised organic production rules. However, these systems do not provide the same level of direct response to rejuvenation, replanting, ageing tree stock and generational renewal, and these systems are generally not designed around coconut-sector rejuvenation as a central objective. Figure ES-2 summarizes how the assessed systems respond to sector rejuvenation and investment-related criteria.

Figure ES-2: Summary of documented responses to sector rejuvenation and investment criteria



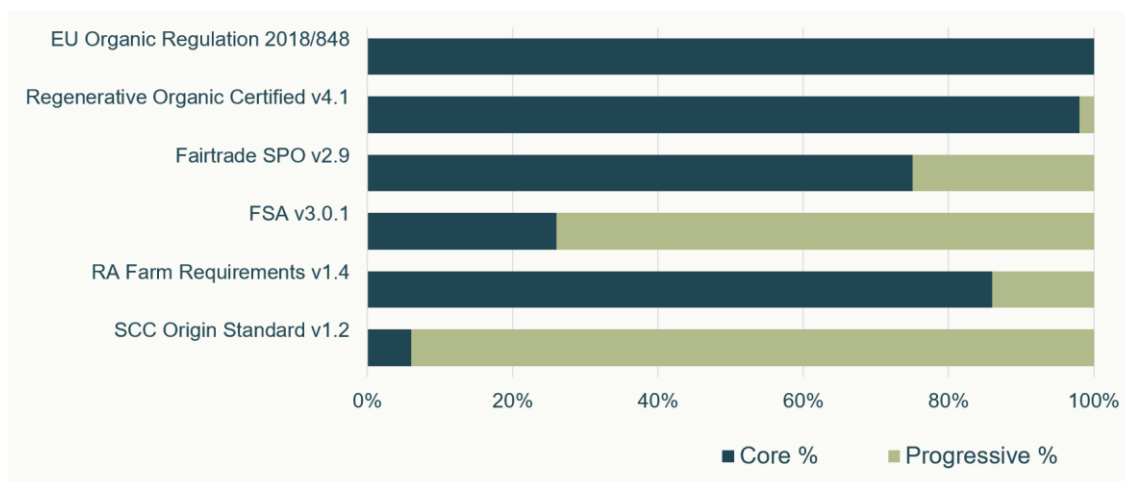
Dimension C: Operational deployability and scalability

The comparison shows important trade-offs between assurance maturity, market recognition and practical deployability in fragmented coconut supply chains.

- RA, Fairtrade, ROC and EU Organic provide more established certification or control systems, recognised market claims and mature assurance infrastructure, although their uptake in the coconut sector remains relatively limited. These systems may also require stronger management systems, documentation, internal controls and audit readiness.
- FSA offers a modular and improvement-oriented route that can be coordinated by farm groups or first buyers.
- SCC has a developed assurance model comprising scheme rules, and verification management system. Based on documented design, it appears more adapted to fragmented coconut supply chains based on documented design,** because it combines origin-level implementation, uses stepwise performance levels, and distributes responsibilities across value-chain actors rather than placing the implementation responsibility on smallholders only. This potential advantage will still need to be tested through implementation experience.

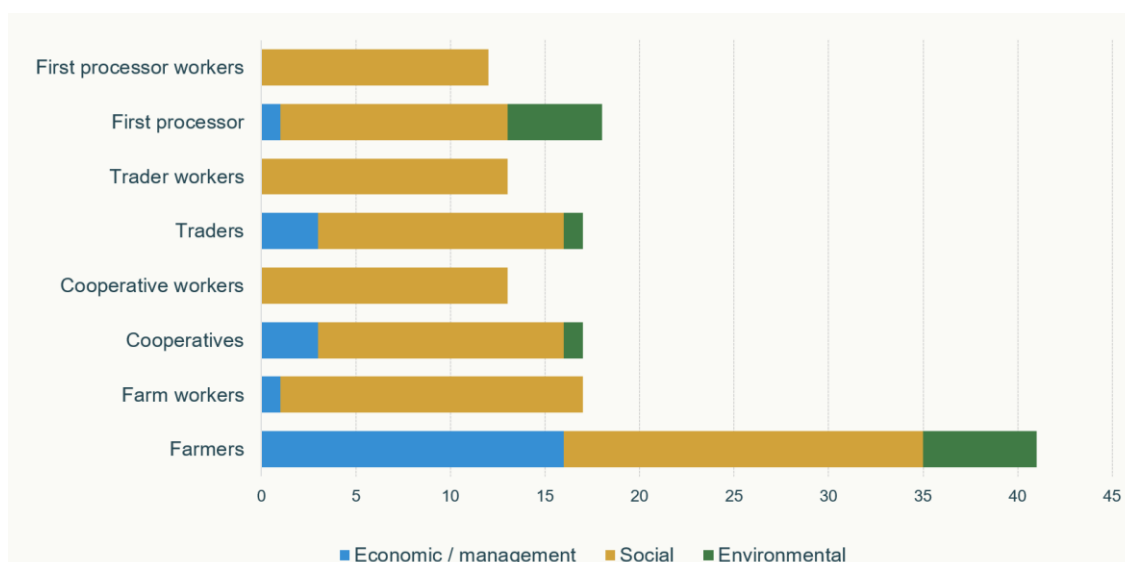
Figures ES-3 and ES-4 summaries two design features that are particularly relevant for deployability in fragmented coconut supply chains: the balance between core and progressive requirements, and the distribution of responsibilities across actors.

Figure ES-3: Percentage of core and progressive requirements



Note: Categories are not fully equivalent across systems. The figure provides a high-level structural comparison of requirement architecture and coverage across the assessed standards.

Figure ES-4: SCC Origin Standard requirements by actor and sustainability pillar



Note: Counts are based on 78 unique requirements in the SCC Origin Standard v1.2. Counts are not mutually exclusive, as one requirement may apply to more than one actor.

Dimension D: Standard review cycles and system adaptability

The systems show different balances between stability and responsiveness. RA, Fairtrade and ROC use structured review mechanisms, including formal periodic review cycles and mechanisms for stakeholder input, monitoring evidence, phased implementation or interim updates. FSA is more iterative and member-governed, with updates to tools, modules and normative documents. SCC also follows an iterative and member-governed approach within the SCP framework, informed by pilot experience, operational learning and sector feedback. EU Organic is different: it is a legal regulatory framework updated through EU legislative, delegated and implementing acts. This provides legal certainty and harmonisation, but it is not designed to be a dynamic sustainability improvement framework or as a mechanism for sector-specific priorities such as coconut rejuvenation or smallholder deployability. SCC is newer and in its initial

implementation phase, which may allow it to respond to operational learning and sector feedback more quickly than others. Adaptive and iterative systems can offer advantages where standards need to respond to implementation learning, sector feedback and evolving sustainability expectations. At the same time, adaptive systems benefit from clearly documented review, calibration, feedback and update processes, so that supply-chain actors, auditors and implementers have sufficient clarity and predictability. For SCC, as a newer system, this creates an opportunity to formalise learning mechanisms as implementation experience grows.

The benchmark should therefore be read as a sector-specific positioning exercise: it identifies where SCC provides a distinct response to coconut-sector needs and where comparator standards offer relevant reference points or complementary mechanisms.

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1. About the project

The Sustainable Coconut Charter (SCC) is a sector-specific sustainability framework developed for coconut supply chains. It is intended to harmonise buyer expectations, improve transparency across fragmented supply chains, provide a stepwise and scalable assurance pathway, enable pre-competitive collaboration, and support long-term responsible rejuvenation of the coconut sector.

SCP has requested a strategic benchmarking of the SCC Assurance System against selected sustainability standards relevant to coconut supply chains and related markets. The purpose of the benchmarking exercise is not to rank standards from strongest to weakest, but to assess how SCC is positioned in relation to other systems across areas that are strategically important for the coconut sector. The review compared SCC with the following schemes/standards:

- SCC Assurance System,
- Rainforest Alliance Standard,
- Fairtrade International Standard,
- EU Organic requirements,
- Regenerative Organic Certified,
- Farm Sustainability Assessment by SAI Platform.

The analysis relied primarily on publicly available standards, assurance procedures, certification rules, guidance documents and relevant scheme materials. Where relevant, the review focused on provisions applicable to smallholder farming, producer groups, coconut production and supply-chain assurance. The benchmarking remains focused on documented system design and requirements, rather than field-level performance or impact, as SCC is still a relatively new scheme with limited mature implementation evidence available.

2. Analytical framework

2.1 Methodology

The benchmarking applied a structured qualitative methodology. ASI reviewed relevant system documents, extracted applicable requirements and assurance rules, and assessed each standard against the agreed criteria. The analysis was structured around four dimensions:

- A. Sector relevance and materiality alignment
- B. Sector rejuvenation and investment
- C. Operational deployability and scalability
- D. Standard review cycles and system adaptability

These four dimensions reflect SCP's analytical priorities for the coconut sector. They were selected by SCP to connect four related questions: 1) whether standards cover the sustainability issues considered material for coconut supply chains; 2) whether they support long-term sector renewal and investment; 3) whether their assurance models can be deployed in fragmented, smallholder-based contexts; and 4) whether their review systems allow standards to remain relevant as sector conditions evolve.

The benchmarking exercise was conducted as a strategic desktop review considering the risks and priorities relevant to coconut supply chains, and did not aim to provide a technical clause-by-clause comparison or a full performance evaluation of each standard.

2.2 Use of AI and expert review

AI-assisted tools were used as supportive instruments for document processing, preliminary summarisation, internal structuring and sense-checking of publicly available information. They were not used as a substitute for expert judgement. All ratings, interpretations, conclusions and positioning statements were reviewed and verified by the ASI project team.

2.3 Methodological limitations

The benchmark was structured specifically around the coconut sector and the risks identified through SCP's work with the sector. This was important for interpretation: SCC was developed for coconut production and related supply chains, while several comparator standards cover a wider range of crops, products, geographies and certification contexts. Besides, this benchmarking was conducted as a strategic desktop review of documented system design, requirements, assurance logic and intended deployability. It does not assess field-level implementation, certified-site performance, impacts, audit quality or the overall credibility of each standard beyond the specific benchmarking dimensions agreed for this assignment.

As a result, SCC may show stronger alignment within the benchmarking framework in relation to topics that are highly coconut-specific, such as responsible rejuvenation, smallholder accessibility, supply-chain transparency and investment mobilisation. This should be understood as a reflection of SCC's sector-specific purpose, not as a general conclusion that SCC is more robust than other standards overall.

This benchmarking report therefore avoids generalized claims about the overall quality, credibility, robustness or performance of comparator standards. Findings are limited to how each system addresses the selected coconut-sector risks and benchmarking dimensions. Importantly, this benchmark does not evaluate the clarity, depth, level of detail, consistency, auditability, enforceability or implementation effectiveness of individual requirements. Rather, it provides a thematic-level comparison, focusing on whether and how each standard covers the coconut-specific risks identified by SCP. Ratings such as "strong response", "moderate response" and "limited/no response" should therefore be read as an assessment of documented coverage and sector relevance. They should not be interpreted as evidence of field-level impact, audit performance or comparative standard credibility.

It should also be noted that SCC is a relatively new scheme, with limited certified sites and operational results available to date. Its actual field-level impact could therefore not be evaluated on the basis of mature implementation evidence. For this reason, the comparison remained at desktop level and focused on documented system design, requirements, assurance logic and intended deployability. As SCC implementation continues to expand, further evidence from pilots, verification activities and uptake across different coconut-producing contexts will provide an expanded basis for assessing field-level effectiveness, operational consistency and practical outcomes. These aspects were outside the scope of this desktop benchmarking exercise.

Where public information on implementation, uptake, cost, field performance or assurance outcomes was limited, this was indicated in the analysis. It is important to note that the results should be read as a strategic benchmarking of sector relevance, design logic and deployability for coconut supply chains against the risk criteria identified through SCP's consultation with more than 120 industry organisations, rather than a comprehensive evaluation of standards' performance across all sectors or certified products.

2.4 Disclaimer on the use of content

The findings, analyses, and recommendations contained in this report and accompanying materials are the result of work conducted by ASI for SCP and reflect ASI's methodologies, expertise, and interpretation. Any reference to ASI's work must

either: 1) present the findings in their full context, in which case proper attribution to ASI is required; or 2) represent a selective, partial, or excerpted use of the findings, in which case ASI may not be cited or attributed, and such use shall be presented as SCP's own output. This rule is intended to ensure the integrity of ASI's analyses and to prevent selective referencing that could misrepresent the findings or mislead stakeholders.

3. Dimension A: Sector Relevance and Materiality Alignment

This chapter examines how the SCC and selected comparator standards address the sustainability challenges and risks of coconut production and supply chains. It provides a structured assessment of coverage across environmental, social, and economic dimensions, and highlights where each standard aligns with the specific risks and priorities of the coconut sector. The analysis benchmarks the following standards against the SCP risk criteria for the coconut industry:

- SCC Origin Standard v1.2,
- Rainforest Alliance (RA) Farm Requirements v1.4,
- Fairtrade Standard for Small-scale Producer Organizations (SPO) v2.9,
- FSA Self-Assessment v3.0.1,
- Regenerative Organic Certified Framework v4.1, and
- EU Organic Regulation 2018/848.

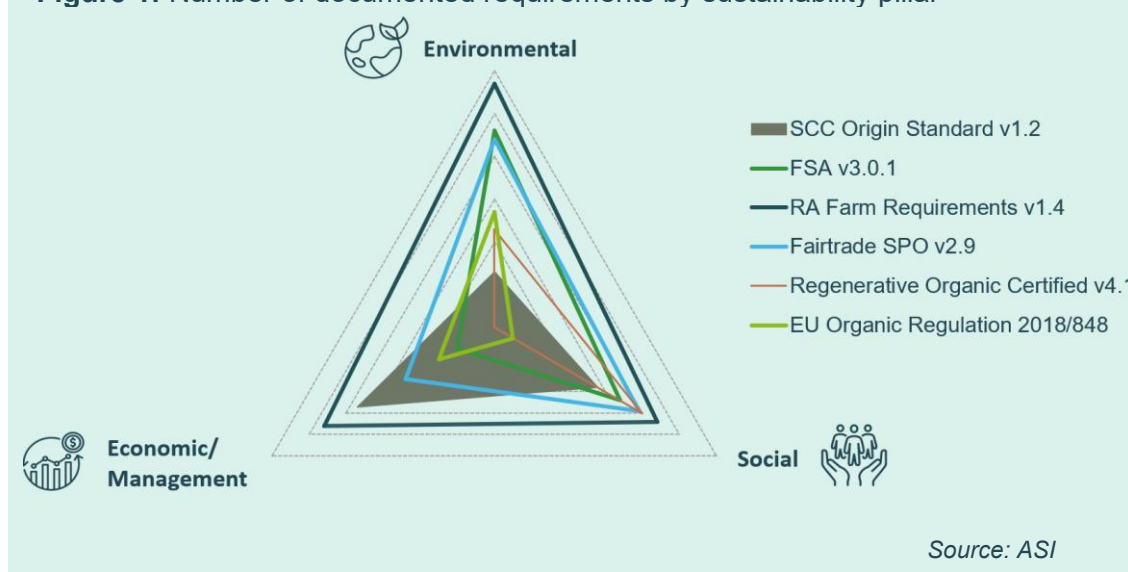
The benchmarking results are organised into two sections: a high-level overview of thematic coverage (A-1), and a detailed assessment of material coconut-sector risks and how standards address them (A-2). The purpose of Dimension A is to assess documented coverage and relevance to the selected coconut-sector risk framework, not to compare the depth, auditability or field effectiveness of individual requirements.

3.1 Dimension A-1: High-level environmental, social and economic coverage

The standards included in this benchmarking exercise differ in their origin, purpose and intended application. Several comparator standards are broad agricultural or sustainability systems designed for multiple crops, commodities and production contexts, while SCC was developed specifically for coconut production and supply chains. This distinction is important when interpreting the indicator count and thematic coverage shown below.

Figure 1 provides an overview of how many indicators or requirements each standard allocates to these pillars. The figure below is a graphical representation of the same data, designed to provide a quick visual comparison of thematic emphasis across standards. The count should be interpreted with caution, as the standards differ in structure, scope, level of detail and intended use. It indicates distribution of documented requirements, not requirement quality, ambition, auditability or implementation performance.

Figure 1: Number of documented requirements by sustainability pillar



Note: Figure 1 is developed based on the number of documented requirements or indicators per pillar. As standards categorise requirements differently, indicators were allocated by ASI to the most relevant theme for comparability. For example, the economic pillar may include management-related requirements.

Across the standards reviewed, all systems address environmental, social and economic aspects of sustainability. Some standards place stronger emphasis on environmental management, biodiversity, soil health, climate or chemical use. Others give more weight to social safeguards, labour conditions, producer organisation or community-related issues. Economic requirements also vary, ranging from general farm management and productivity expectations to more explicit attention to farmer livelihoods, market access, price transparency, investment and long-term supply resilience. The indicator count should be read as a useful but limited entry point into the comparison. In particular, the economic pillar includes management-related requirements where these relate to farm management, group systems, traceability, planning, investment or supply-chain coordination. The requirement count should also be interpreted in relation to the coconut-sector materiality profile identified in the *Pulse of the Sector* report. The Pulse materiality grid identifies the top material issues for the coconut sector and was developed through a weighted analysis of stakeholder-validated Coconut Charter V2 priorities, public/private sector research and targeted stakeholder surveys involving more than 120 organisations. It highlights the sector's strong focus on farmer incomes, supply stability, youth transition, occupational health and safety, child labour and forced labour, while also recognising environmental issues such as biodiversity, GHG emissions, deforestation, waste and pollution. From this perspective, SCC's requirement structure should be read as a sector-specific and risk-informed design rather than as a broad cross-commodity sustainability standard. A lower number of requirements in a given pillar does not necessarily indicate weaker design; it may reflect a more targeted response to the risks and transformation needs identified for coconut supply chains.

3.2 Dimension A-2: Sector relevance and materiality alignment

Following the overview of how the standards cover the three sustainability pillars, the analysis assessed how each standard aligns with the key material risks identified for the coconut sector. The risk list was based on SCP's refined materiality work in the [Pulse of the Sector Report](#), which frames the sector's core challenge as a "looming social and supply crisis" driven by low farmer incomes, ageing and under-productive farms, limited replanting, youth disengagement, labour risks, and emerging environmental concerns.

For the purpose of this benchmarking exercise, the key risks included are:

- 1) Farmer incomes and wages: Smallholder incomes and farm-worker wages are low, perpetuating poverty cycles and limiting sustainable livelihoods.
- 2) Coconut supply shortage: Ageing trees, low replanting rates, limited improved planting material, and climate risks threaten long-term supply.
- 3) Youth transition into coconut farming: An ageing farmer base and low attractiveness of coconut farming reduce young people entering or remaining in the sector.
- 4) Child labour: Children are occasionally engaged in hazardous farm work, including tree climbing and on-farm copra processing, risking injury and school disruption.
- 5) Forced labour and farmer debts: Indebtedness and exploitative labour arrangements create risks of forced or bonded labour in coconut farming.
- 6) Occupational health and safety: Farm workers face risks from handling tools, agrochemicals, and unsafe work environments, with limited access to protection or emergency care.
- 7) Land tenure security: Farmers may lack clear or documented land-use rights, increasing vulnerability to land disputes and tenure insecurity.
- 8) Freedom of association and collective bargaining: Workers' rights to organize and bargain collectively are limited in some contexts, constraining labour voice and protection.
- 9) Biodiversity and animal welfare: Biodiversity is threatened by land conversion and agrochemical use; animal welfare issues are limited and relate mainly to livestock integrated into farms.
- 10) GHG emissions: Energy use, processing, and agricultural practices contribute to greenhouse gas emissions, with limited farm-level mitigation.
- 11) Deforestation: Conversion of natural forests and sensitive ecosystems occurs in some areas, threatening environmental integrity.
- 12) Waste and pollution: Poor management of agrochemicals, solid waste, and processing residues creates environmental contamination risks.

For each risk, ASI assessed whether each standard benchmarked included relevant requirements, mechanisms or guidance, and whether these were specific and relevant in a coconut context. The assessment used a three-level rating. The rating reflects the coverage of requirements and sector relevance only. See below for an overview of the assessment results in Figure 2, with detailed explanations provided in Annex 1.

Table 1: Assessment rating for Dimension A-2

Rating	Interpretation
● Strong response	The standard includes clear, specific and actionable requirements or mechanisms that directly respond to the relevant SCP-defined coconut-sector risk criterion.
● Moderate response	The standard includes relevant requirements or mechanisms, but these are generic, partial, indirect, or not specifically tailored to the relevant SCP-defined coconut-sector risk criterion.
● Limited/no response	The issue is weakly or indirectly addressed, or no clear relevant requirement or mechanism could be identified in relation to the SCP-defined coconut-sector risk criterion.

Note: Ratings reflect the presence and specificity of documented requirements relative to SCP-defined coconut-sector risks. They do not indicate field-level performance, enforceability, or quality, depth, strictness or ambition level of individual requirements.

Figure 2 provides a visual summary of the documented response strength of the six schemes/standards against the 12 coconut-sector risk criteria assessed under Dimension A. It is intended as an overview to support interpretation of the more detailed comparison in the following table. Further details are available under Figure 3.

Figure 2: Summary of documented responses to coconut-sector risks (Dimension A)

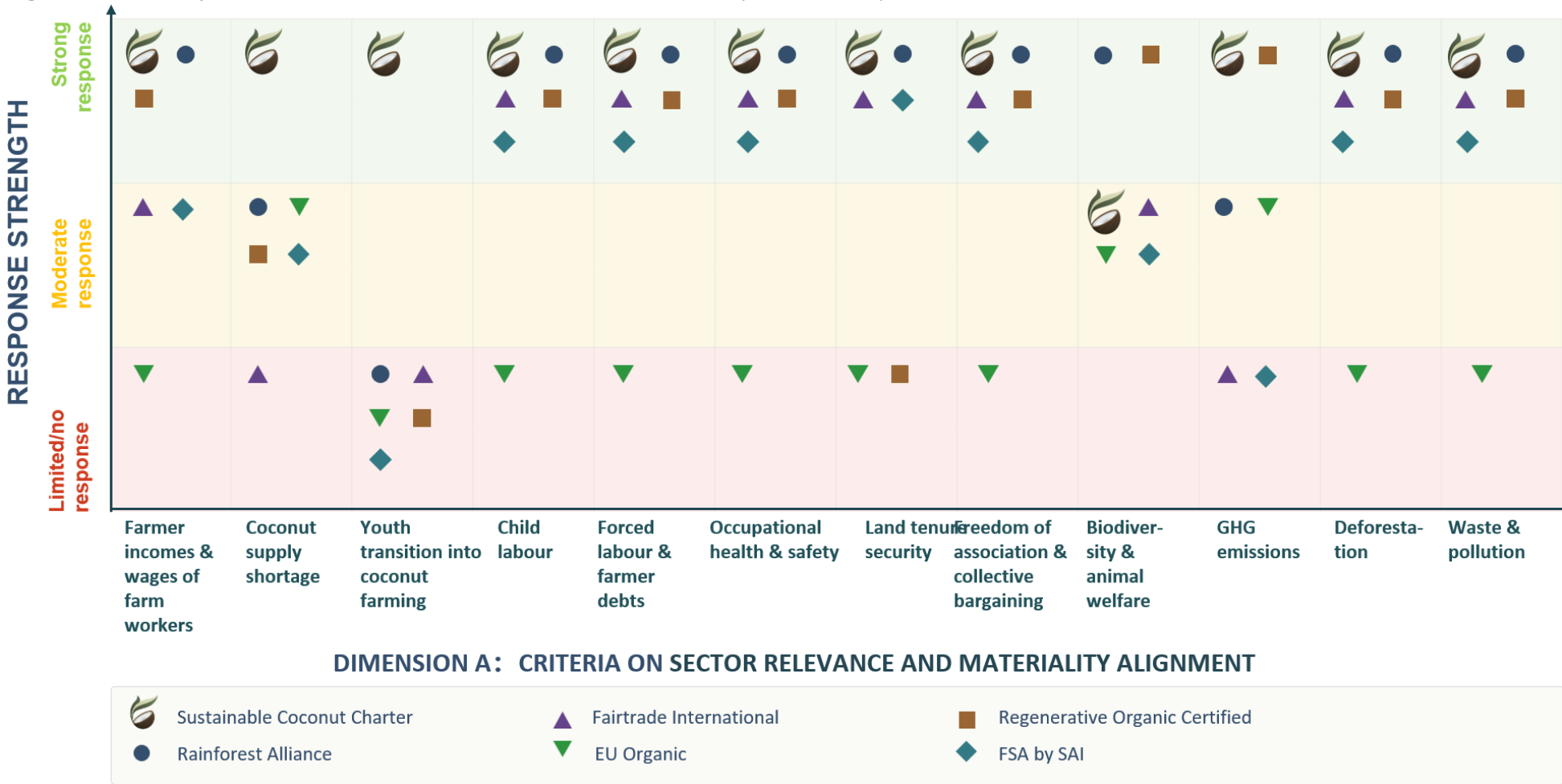


Figure 3: Sector relevance and documented standard responses to coconut-sector risks

Key Material Risks (Coconut Supply Chain)	 SCC Origin Standard	 Rainforest Alliance Farm standard	 Fairtrade Small Producer Standard	 EU Organic	 Regenerative Organic Standard	 FSA by SAI Questionnaire
 FARMER INCOMES & WAGES OF FARM WORKERS	Strong alignment Includes farm business planning, income diversification, pricing transparency, farmer incentives, finance access and minimum wage protection.	Strong alignment Covers premium use, worker contracts, wage payment, equal remuneration and living-wage assessment.	Moderate alignment Strong on worker wages, but farmer income mechanisms are limited under the Year 0 core filter.	Limited / no alignment Does not directly regulate farmer income, pricing, premiums or worker wages.	Strong alignment Includes living-wage and fair-pricing provisions covering production costs and fair payment.	Moderate alignment Covers worker wages and labour conditions, but not farmer income or pricing mechanisms.
 COCONUT SUPPLY SHORTAGE	Strong alignment Directly covers productivity tracking, coconut GAP, planting material, tree census and rejuvenation.	Moderate alignment Covers generic crop productivity and pruning, but does not directly address coconut replanting, ageing or senile palm monitoring, or sector-level rejuvenation.	Limited / no alignment No direct Year 0 core requirements on replanting, planting material or supply resilience.	Moderate alignment Supports resilient production through organic plant-production rules, but not coconut-specific replanting.	Moderate alignment Supports long-term productivity through soil health and regenerative planning, but not coconut rejuvenation.	Moderate alignment Supports basic production resilience, but lacks crop-specific replanting or tree-age requirements.
 YOUTH TRANSITION INTO COCONUT FARMING	Strong alignment Includes youth engagement, succession support and technical onboarding for incoming farmers.	Limited / no alignment No dedicated requirement on youth transition or farm succession.	Limited / no alignment No direct Year 0 core requirement on youth entry or succession.	Limited / no alignment No requirement on generational renewal or young farmer entry.	Limited / no alignment No dedicated requirement on youth transition or succession.	Limited / no alignment No Essential requirement on youth transition or farm succession.
 CHILD LABOUR	Strong alignment Sets minimum age rules, limits young-worker tasks, regulates family labour and includes grievance mechanisms.	Strong alignment Applies an assess-and-address system for child labour risk mitigation, monitoring and remediation.	Strong alignment Prohibits child labour and hazardous work for children under Year 0 core requirements.	Limited / no alignment Does not include farm-level child labour requirements.	Strong alignment — Prohibits child labour and restricts hazardous work for children and young workers.	Strong alignment — Prohibits illegal child employment and hazardous work by minors.
 FORCED LABOUR & FARMER DEBTS	Strong alignment Prohibits forced labour and includes finance transparency, fair agreements and no document retention.	Strong alignment Covers forced labour through assess-and-address and labour contract, wage and recruitment provisions.	Strong alignment Prohibits forced, bonded, slave and involuntary prison labour under Year 0 core requirements.	Limited / no alignment Does not regulate forced labour, debt bondage or recruitment practices.	Strong alignment Prohibits forced labour and applies employer-pays principles for recruited labour.	Strong alignment Covers forced labour, bonded labour and recruitment-fee risks.
 OCCUPATIONAL HEALTH & SAFETY	Strong alignment Covers safe input handling, PPE, medical access, safe workplaces, drinking water and sanitation.	Strong alignment Provides detailed OHS requirements covering risk analysis, PPE, first aid, emergency procedures and facilities.	Strong alignment Covers drinking water, workplace safety, first aid and restrictions on hazardous work.	Limited / no alignment No dedicated worker OHS framework.	Strong alignment Includes PPE, heat and shade, sanitation, emergency preparedness and safety committees.	Strong alignment Covers OHS risk mitigation, PPE, emergency contacts, WASH and worker accommodation.

Key Material Risks (Coconut Supply Chain)	 SCC Origin Standard	 Rainforest Alliance Farm standard	 Fairtrade Small Producer Standard	 EU Organic	 Regenerative Organic Standard	 FSA by SAI Questionnaire
 LAND TENURE SECURITY	Strong alignment Requires demonstrable land-use rights based on national or customary systems.	Strong alignment Covers legal or legitimate land-use rights and respect for customary rights.	Strong alignment Requires responsible handling of conflicts over land and tenure rights.	Limited / no alignment Does not establish land-tenure or customary-rights requirements.	Limited / no alignment No dedicated land-tenure requirement identified.	Strong alignment — Requires clear land title or valid legal/customary land-use basis.
 FREEDOM OF ASSOCIATION & COLLECTIVE BARGAINING	Strong alignment Protects worker organisation and collective bargaining rights, supported by grievance mechanisms.	Strong alignment Protects unions, worker organisations, collective bargaining and worker representatives.	Strong alignment Protects worker organisation and prohibits anti-union discrimination.	Limited / no alignment Does not regulate association or collective bargaining rights.	Strong alignment Protects freedom of association and prohibits employer-controlled alternatives.	Strong alignment — Protects labour organisation and worker-representative rights.
 BIODIVERSITY AND ANIMAL WELFARE	Moderate alignment Covers biodiversity protection, but has no dedicated animal-welfare framework.	Strong alignment Covers ecosystems, wildlife protection and explicitly prohibits use of monkeys for coconut harvesting.	Moderate alignment Covers protected areas and hazardous materials, but not animal welfare.	Moderate alignment Covers biodiversity and livestock welfare where relevant, but not coconut-specific animal welfare risks.	Strong alignment Has strong soil, biodiversity and dedicated animal-welfare requirements.	Moderate alignment Covers key ecosystem protection, but animal welfare is not substantially addressed.
 GHG EMISSIONS	Strong alignment Covers energy-intensive processes, efficiency, emission-source tracking and air-pollution reduction.	Moderate alignment Covers energy documentation, but direct GHG reduction is limited under the selected requirement filter.	Limited / no alignment No direct Year 0 core GHG accounting or reduction requirement.	Moderate alignment Supports climate mitigation indirectly through organic principles but lacks GHG accounting.	Strong alignment Includes carbon-sequestration objectives and GHG / sequestration modelling at higher certification level.	Limited / no alignment Direct GHG monitoring is outside the Essential/core-only filter.
 DEFORESTATION	Strong alignment Includes a no-conversion rule after the SCC cut-off date and protection of sensitive ecosystems.	Strong alignment Includes a no-conversion requirement for natural forests and ecosystems after 2014.	Strong alignment Prohibits deforestation and destruction of vegetation in protected or carbon-storage ecosystems.	Limited / no alignment Does not include a commodity-risk no-deforestation cut-off requirement.	Strong alignment Prohibits conversion of primary forests and key ecosystems after 2015.	● Requires key ecosystems to remain in original condition after the 2015 cut-off date.
 WASTE & POLLUTION	Strong alignment Covers chemical use, input storage, disposal, runoff, pollution control and processing air pollution.	Strong alignment Covers agrochemical legality, storage, handling, container disposal, wastewater and waste management.	Strong alignment Covers hazardous materials, pesticide restrictions, storage and protected-area safeguards.	Strong alignment Regulates authorised inputs, contamination prevention and organic production practices.	Strong alignment Covers manure, wastewater, hazardous waste, pesticide restrictions and input controls.	Strong alignment Covers PPP use, water quality, sewage/sludge restrictions, PPE and ecosystem protection.

The benchmarking results indicate that the SCC Origin Standard has documented requirements that are closely aligned with the material risks identified in SCP's coconut supply-chain risk assessment. For livelihood and supply risks, SCC includes requirements on farm business planning, price transparency, farmer incentives, income assessment, crop planning, replanting and tree rejuvenation. For social risks, it includes requirements on youth engagement and succession, limits on young-worker tasks, child-labour prevention and remediation, forced-labour safeguards, finance transparency, fair agreements, occupational health and safety, land-use rights, and farmer organisation or collective bargaining mechanisms. For environmental risks, SCC addresses biodiversity protection through a dedicated farm-level framework, requires energy and emission-related monitoring, includes a deforestation cut-off and protection of sensitive ecosystems, and covers chemical use, input storage, waste disposal, runoff reduction and pollution prevention.

Among the comparator standards, several systems address important broader sustainability issues that are also relevant to coconut supply chains. This includes topics such as labour rights, occupational health and safety, biodiversity protection, deforestation, waste management and pollution control. However, their response is generally less direct where the risks are highly specific to coconut-sector transformation, particularly farmer income, supply resilience, ageing tree stock, replanting at scale, access to improved planting material and youth transition into coconut farming.

The results therefore suggest that the comparator standards offer relevant reference points for broader sustainability assurance, but they are generally not designed around the most critical coconut-sector renewal challenges as central objectives. SCC provides a framework more specifically tailored to the risk profile and transformation needs of coconut supply chains, particularly where coconut-specific issues such as supply resilience, replanting, youth transition and value-chain coordination are concerned.

4. Dimension B: Sector rejuvenation and investment

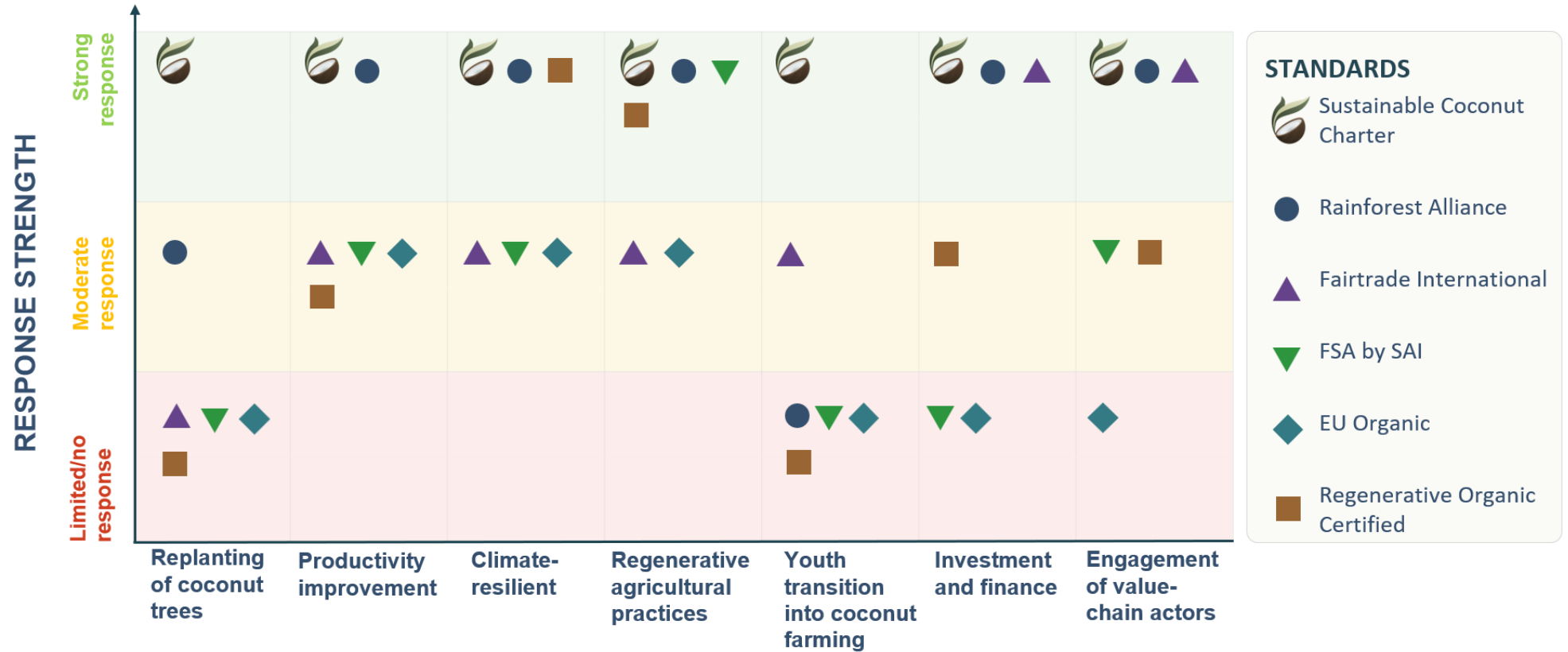
Dimension B assessed whether each system actively supports the long-term renewal of the coconut sector. The analysis covered the following criteria requested by SCP:

- 1) Replanting of coconut trees.
- 2) Productivity improvement through better agricultural practices.
- 3) Climate-resilient farms and farmers.
- 4) Regenerative agricultural practices.
- 5) Youth transition into coconut farming.
- 6) Investment and finance channelled to farms and farmers.
- 7) Engagement of processors, cooperatives, traders, input providers and other value-chain actors in supporting farmers.

For each criterion, ASI reviewed whether the standard included requirements, guidance or mechanisms that supported sector rejuvenation and investment mobilisation. The assessment considered whether these provisions were clearly defined, whether they created practical expectations for certified entities or supply-chain actors, and whether they recognised the need for support beyond individual farmers. The same rating system is used as for Dimension A-2. As in Dimension A, the assessment reflects documented coverage and relevance to the selected coconut-sector criteria; it does not assess implementation effectiveness, cost, uptake or field-level outcomes. See Table 2 for detailed findings.

Figure 4 provides a visual summary of how each standard responds to the seven Dimension B criteria. It is intended as an orientation aid before the detailed assessment in Table 2. The visual shows where documented requirements, mechanisms or guidance provide a strong, moderate or limited response to sector rejuvenation and investment needs in coconut supply chains.

Figure 4: Summary of how each standard responds to the seven Dimension B criteria



DIMENSION B: CRITERIA ON REJUVENATION AND INVESTMENT

Note: Ratings reflect documented requirements, mechanisms or guidance relevant to each Dimension B criterion.

Table 2: Comparison against the 7 criteria

Dimension B criterion	SCC Origin Standard	Rainforest Alliance SAS v1.4	Fairtrade SPO	SAI Platform FSA 3.0	EU Organic	Regenerative Organic Certified
Replanting of coconut trees	Strong response Directly addresses coconut farm rejuvenation through bearing/senile tree census, phased replanting or rejuvenation plan, quality seednut selection, nursery access and monitoring of replanting progress.	Moderate response Includes planting, rotation, pruning and renovation of tree crops, but not coconut-specific replanting or ageing palm rejuvenation.	Limited/no response Can fund replanting through Fairtrade Premium or development planning, but replanting is not a core requirement.	Limited/no response Covers varietal selection and plant material quality, but does not directly require tree-crop rejuvenation or replanting.	Limited/no response Covers plant reproductive material and conversion rules, but does not address rejuvenation of ageing tree-crop sectors.	Limited/no response Strong on soil and land regeneration, but no explicit tree-crop replanting or coconut rejuvenation requirement.
Improving productivity through improved agricultural practices	Strong response Coconut-specific GAP training, productivity tracking, demonstration farms, nutrient management, soil/leaf testing, IPM, soil management and product-quality training.	Strong response Farm v1.4 explicitly aims to help farmers grow better crops, boost productivity, use performance insights and focus investments on key risks; it includes farming chapters on planting, pruning, soil fertility, IPM and harvest practices.	Moderate response Covers production practices, environmental management, soil and water, pest management and climate adaptation; however, productivity is pursued through producer organisation development rather than crop-specific agronomy.	Moderate response Covers training, varietal choice, soil, nutrient, IPM and water management, but as a generic farm self-assessment rather than a sector productivity programme.	Moderate response Organic rules support soil fertility, biodiversity, preventive pest management and organic plant material, but do not focus on productivity improvement as such.	Moderate response Soil health, biodiversity, organic matter, fertility and system planning can support productivity, but productivity is not the primary framing. ROC's stated goals include soil organic matter, carbon sequestration and economic stability/fairness.
Developing climate- resilient	Strong response Includes climate-risk assessment based on climate data, local	Strong response SAS v1.4 maintains requirements contributing to climate	Moderate response Fairtrade's Theory of Change explicitly links improved	Moderate response FSA covers water, soil, biodiversity and farm management,	Moderate response Organic principles support soil health, water retention,	Strong response ROC is explicitly designed to increase soil organic matter

Dimension B criterion	SCC Origin Standard	Rainforest Alliance SAS v1.4	Fairtrade SPO	SAI Platform FSA 3.0	EU Organic	Regenerative Organic Certified
farms and farmers	knowledge and literature, identification of local adaptation practices, farmer guidance and monitoring of adoption.	adaptation, livelihoods and regenerative agriculture, with a specialised climate/regenerative/livelihoods direction emerging alongside the core standard.	farming performance, environmental protection and climate adaptation; the standard includes a climate change adaptation and mitigation section.	and SAI's FSA tools include priority screening and improvement planning for challenges such as climate change and biodiversity decline.	biodiversity and adaptation to climatic/local conditions, but without a structured climate-risk process.	and sequester carbon; its soil health module requires system planning and soil testing, supporting climate resilience through soil-water-carbon functions.
Adoption of regenerative agricultural practices	Strong response Includes a dedicated regenerative agriculture requirement assessing soil health, water retention, nutrient cycling and biodiversity functions, with farmer adoption of at least one regenerative practice.	Strong response SAS v1.4 has regenerative-relevant baseline requirements, and RA's new Regenerative Agriculture Standard is now part of its certification solutions; if assessing only SAS v1.4, this would be Moderate.	Moderate response Supports agro-ecological practices, biodiversity, ecosystem restoration and demonstration/training, but is not framed as a regenerative agriculture standard.	Strong response FSA itself is broader sustainable agriculture, but SAI's Regenerating Together Programme provides a global regenerative framework focused on soil health, biodiversity, water, climate and farmer livelihoods.	Moderate response Organic principles align with several regenerative practices, especially soil fertility, biodiversity and input restriction, but "regenerative" is not the core concept.	Strong response ROC is explicitly designed as a regenerative certification framework, built around Soil Health & Land Management, Animal Welfare and Farmer & Worker Fairness.
Promotion of youth transition into coconut farming	Strong response Directly includes youth engagement initiatives and requires traders/cooperatives to be incentivised for implementing youth engagement alongside replanting, trainings and demo farms.	Limited/no response Some indirect relevance through training, committees and livelihoods, but no clear youth-transition mechanism.	Moderate response Fairtrade's Theory of Change refers to intergenerational sustainability in rural communities, and SPO governance can support youth participation, but youth farming	Limited/no response No direct youth farming transition criterion identified.	Limited/no response No direct youth or succession mechanism.	Limited/no response Supports farmer fairness and farm viability, but no explicit youth-transition requirement.

Dimension B criterion	SCC Origin Standard	Rainforest Alliance SAS v1.4	Fairtrade SPO	SAI Platform FSA 3.0	EU Organic	Regenerative Organic Certified
			transition is not a direct requirement.			
Channelling investment and finance to farms and farmers	Strong response Includes group-level business plans, transparent pricing, additional payment above market price for SCC implementation, access to cash advances/harvest-linked finance, financial infrastructure and annual reporting on farmer support.	Strong response RA v1.4 operationalises shared responsibility through a Premium chapter; related guidance defines sustainability investments/premium mechanisms as cash or in-kind buyer contributions to help farm certificate holders meet requirements.	Strong response Fairtrade has the clearest built-in finance mechanism: Minimum Price where applicable, Fairtrade Premium, democratic Fairtrade Development Plan approval, accounting and premium oversight.	Limited/no response FSA supports sustainable sourcing and buyer engagement, but does not itself create a premium, finance or investment obligation.	Limited/no response EU Organic is a regulatory production and labelling system, not a finance-delivery mechanism.	Moderate response ROC can enable market differentiation and states an aim to maintain accessible fees and support farmers, but it does not have a structured premium/investment mechanism comparable to Fairtrade, RA or SCC.
Engaging processors, cooperatives, traders and input providers to support farmers	Strong response GME, cooperatives, traders and first processors are explicitly embedded in training, demonstration farms, finance, pricing, traceability, farmer support reporting and incentives for fertilizer distribution, replanting and youth engagement.	Strong response RA combines farm and supply-chain requirements, premium mechanisms, group management, certification tools and data systems; the programme is explicitly linked to farm and supply-chain certificate holders.	Strong response SPO model is built around producer organisations, democratic decision-making, Fairtrade contracts, development planning and collective use of premium.	Moderate response FSA can be applied at single farm, farm group or farm group with first-level buyer, and is designed as a flexible sustainable sourcing model for buyers and farm groups.	Limited/no response Operators across the chain are regulated, but the regulation does not require processors/traders/input providers to support farmers.	Moderate response ROC applies to farming and certain processing facilities and engages farmers, auditors, NGOs, brands and retailers in governance, but processor/trader support to farmers is not a central requirement.

The analysis of Dimension B shows that SCC is closely aligned with several structural challenges facing the coconut sector, especially ageing tree stock, low productivity and the need for coordinated farm-level investment. Its requirements on coconut tree replanting, monitoring of senile palms and phased rejuvenation planning provide a coconut-specific response to sector renewal. SCC also links rejuvenation with productivity improvement, regenerative practices, climate resilience and the engagement of cooperatives, processors and other supply-chain actors within the coconut industry.

The comparator standards were developed for wider agricultural, commodity, regenerative, organic or sustainable sourcing contexts. Among these comparator standards, Rainforest Alliance and Fairtrade show relatively stronger responses under this dimension, particularly where the criteria relate to productivity improvement, climate resilience, premium or investment mechanisms, producer organisation and value-chain engagement. ROC also provides a strong response for regenerative agriculture and climate resilience, reflecting its specific focus on soil health, carbon sequestration and regenerative production systems. However, these strengths do not necessarily translate into a direct response to coconut-sector rejuvenation, as most comparator systems do not explicitly address aging coconut trees, coconut replanting cycles, senile palm monitoring or youth transition into coconut farming. FSA and EU Organic show more limited alignment under Dimension B. FSA provides relevant tools for sustainable sourcing, farm assessment and improvement planning, but it does not itself establish a sector-specific rejuvenation programme, finance mechanism or replanting requirement. EU Organic provides a legally recognised framework for organic production and labelling, but it is not designed as a sector-transformation or investment framework and therefore shows limited response to criteria such as coconut replanting, youth transition, farmer finance and value-chain support.

Therefore, the benchmarking results of Dimension B should not be read as a general conclusion that SCC is more robust than the comparator standards overall. Rather, they reflect the specific focus on coconut-sector rejuvenation and investment. Comparator standards may offer well-established mechanisms for producer organisation, organic production, regenerative agriculture, premium systems, climate resilience or sustainable sourcing, while SCC provides a more targeted response to the structural renewal needs identified for coconut supply chains.

5. Dimension C: Assurance Model Design

Dimension C analysed whether each assurance model can be realistically implemented in fragmented, smallholder-based coconut supply chains. The sector is characterised by dispersed production, multiple intermediary actors, varying levels of farmer formalisation, limited compliance capacity, and evolving traceability systems.

The analysis considers six questions related to scalability as defined by SCP:

- 1) complexity of implementation;
- 2) audit and verification burden for certificate holders;
- 3) cost, accessibility and administrative burden for smallholders;
- 4) distribution of responsibilities;
- 5) effectiveness across informal supply structures;
- 6) continuous improvement logic and tiered or progressive compliance pathways.

To help readers understand the overall assurance model of each system before moving into the detailed analysis, Table 3 provides a summary of the main design features assessed under Dimension C. The table is structured around the same analytical elements used in Sections C-1 to C-4: overall deployability, requirement structure, continuous improvement logic and distribution of responsibilities.

Table 3: Overview of assurance model design features across Dimension C

Scheme / standard	C-1: Assurance model design & deployability	C-2: Mandatory, optional & progressive criteria	C-3: Continuous improvement logic	C-4: Distribution of responsibilities
SCC Origin Standard	Sector-specific model designed for coconut origins, supply-chain-linked implementation and fragmented smallholder contexts. Uses stepwise performance levels and can support gradual entry.	Combines critical requirements with a broader set of progressive scored practices. Full performance is not required at entry level.	Improvement is encouraged through scoring and stepwise performance levels rather than automatic mandatory progression between tiers.	Responsibilities are distributed across farmers, group management entities where present, cooperatives, traders, first processors and downstream actors.
Rainforest Alliance Farm Requirements	Mature third-party certification model for farms and farm groups, with established audit infrastructure and recognised market claims. May require stronger management systems and documentation.	Core requirements apply from the start; continuous improvement requirements become applicable during later certification cycles.	Continuous improvement is built into the certification cycle, with additional requirements applying over time.	Responsibilities are shared across certificate holders, group management and farms, with related supply-chain requirements and shared-responsibility mechanisms.
Fairtrade SPO	Certification model centred on small-scale producer organisations.	Core requirements apply at entry; development requirements	Improvement is structured through time-bound development requirements and	Producer organisations carry central responsibilities for governance,

	Strong where producers are formally organised, but less directly deployable in loose intermediary-based supply chains.	become mandatory over defined certification years.	producer-organisation planning.	member records, Premium management, development planning and compliance.
FSA by SAI Platform	Modular farm sustainability assessment and improvement framework. Can be applied by farms, farm groups or first-level buyers and may support sustainable sourcing in diverse contexts.	Essential questions define baseline requirements; Intermediate and Advanced questions support Bronze, Silver and Gold performance levels.	Improvement is supported through performance levels and continuous improvement planning, but progression between levels is voluntary.	Implementation can be coordinated by farms, farm groups or first-level buyers, with the coordinator often centralising data and verification tasks.
EU Organic	Legal regulatory framework for organic production and labelling. Provides clear control rules, but is primarily a compliance model rather than a sustainability improvement framework.	Organic production and labelling require compliance with legal requirements; no optional sustainability tiers are used.	The main progression element is the conversion period. After conversion, the model is largely pass/fail against legal requirements.	Responsibility rests mainly with operators or groups of operators subject to organic control requirements.
Regenerative Organic Certified	Tiered regenerative certification framework that builds on baseline certifications, including organic certification. Entry may therefore require a higher baseline.	Requires baseline organic certification plus ROC-specific requirements; Bronze, Silver and Gold levels define different performance expectations.	Progression is structured through tier levels and expansion expectations over time, especially for the share of land covered.	Certified operations carry primary responsibility, with requirements also covering farmer and worker fairness and, where relevant, processing facilities.

Building on this overview, the section moves into more detailed analysis of the same design features: C-1 provides an overall comparison of deployability and scalability; C-2 examines requirement architecture; C-3 analyses continuous improvement logic; and C-4 reviews how responsibilities are distributed across actors.

- Dimension C-1: Assurance model design: overview of each system's operational structure, practical accessibility and scalability against the six criteria,
- Dimension C-2: Mandatory, optional and progressive criteria: analysis of how each system structures requirements, including core/compulsory, optional/scored/progressive elements,

- Dimension C-3: Continuous improvement model: analysis of how improvement expectations evolve over time, and whether progression is structured, flexible or linked to performance metrics,
- Dimension C-4: Distribution of responsibilities: analysis of how obligations are allocated across farmers, groups, cooperatives, traders, processors, downstream buyers and other actors.

5.1 Dimension C-1: Assurance model design

Dimension C-1 provides an overview of how each assurance model is structured and what this implies for deployability in fragmented coconut supply chains. The systems differ in their basic design logic and should not be assessed as directly equivalent, since they were developed for different purposes. SCC and FSA include relatively explicit group, supply-chain and improvement pathways. Rainforest Alliance and Fairtrade have mature certification systems, established audit infrastructure and recognised market claims, but these can also involve higher management-system and documentation expectations. ROC offers a tiered regenerative certification model, but it builds on existing organic certification and therefore may require a higher entry baseline. EU Organic provides a legally recognised production and labelling framework, but it is primarily a regulatory compliance system rather than a sustainability improvement framework. See Figure 5 for an overview of findings. Detailed assessment can be found in Annex 2. Dimension C-1 does not apply the response-rating system used in Dimensions A and B, as it is not assessing the level of response to specific criteria. Instead, it provides a qualitative analysis and summary of how each standard's assurance model addresses the six questions related to scalability and deployability in fragmented coconut supply chains.

For Dimension C-1, the six scalability questions were interpreted through the following:

- **Implementation complexity:** the extent to which the model requires formal producer organisation, management systems, documentation, trained personnel or advanced internal control structures.
- **Audit and verification burden:** the expected intensity of external audit, verification, surveillance, sampling and evidence requirements for certificate holders or verified entities.
- **Smallholder accessibility:** the extent to which smallholders can participate without high direct cost, extensive record-keeping or immediate full compliance with all requirements.
- **Effectiveness in informal supply structures:** the extent to which the model can function where farms are fragmented, producer organisations are weak or absent, and intermediary-based supply chains are common.
- **Distribution of responsibilities:** whether implementation responsibilities are placed mainly on farmers / producer groups or shared across cooperatives, traders, processors, buyers and other supply-chain actors.
- **Continuous improvement logic:** whether the model allows progressive entry, tiered performance, improvement over time or phased compliance rather than only pass/fail certification.

Figure 5: Assurance model design of the comparator standards

	 SCC Origin Standard	 Rainforest Alliance Farm standard	 Fairtrade Small Producer Standard	 EU Organic	 Regenerative Organic Standard	 FSA by SAI Questionnaire
 Implementation complexity	Sector-specific and staged model. Designed for coconut origins and fragmented smallholder contexts, with staged performance levels and implementation roles beyond individual farmers.	Established certification model. Farm certification requires defined scope, farm and geolocation data, management-system elements, internal inspections and use of RA certification systems.	Producer-organisation-based model. Designed around organised small-scale producer organisations with governance structures, member participation, records and Premium-related decision-making.	Regulatory compliance model. Operators or groups of operators must comply with legal production, traceability, conversion and control rules for organic production and labelling.	Layered certification model. Requires an organic baseline or recognised equivalent before ROC-specific requirements apply across soil health, animal welfare and farmer / worker fairness.	Modular assessment framework. Can be used for self-assessment, improvement planning and verified claims, with implementation organised by farms, farm groups or buyers.
 Audit & verification burden	Staged performance framework with a consistent verification cycle. On-site audits take place in Years 0 and 3, with remote surveillance in Years 1 and 2. Verified claims require assessment by an approved Verification Body.	Third-party certification with surveillance logic. Farm certification includes audits, supported by internal inspection systems for group certification. Audit scope and sample size may be adjusted based on risk and certificate-holder performance.	Third-party certification cycle. Producer certification includes an initial audit, renewal audits every three years and at least one surveillance audit within the three-year cycle, with additional audit activities possible based on risk.	Official control system. Operators and groups of operators are subject to compliance verification at least annually, normally including physical on-the-spot inspection unless defined low-risk conditions apply.	Annual recertification model. ROC requires annual recertification audits at all levels. Existing certifications may be used to demonstrate compliance where accepted, with additional ROC criteria verified as needed.	Optional verification for claims. FSA can be used for self-assessment and improvement planning without verification. Verified Bronze, Silver or Gold claims require third-party verification by an approved Verification Body.
 Smallholder accessibility	Farm-level implementation, with management support. Farmers are mainly responsible for applying relevant farm-level practices and participating in training, data collection and internal assessment. Management-system tasks such as planning, monitoring, result analysis and verification preparation are mainly carried by implementing actors where applicable.	Accessible where group systems are functional. Group certification can support smallholder participation, but requires farm registration, data collection, internal inspections, management systems and platform reporting.	Accessible where producer organisations exist. The model is designed for organised small-scale farming groups; where producer organisations are absent or weak, formal organisation requirements may be an entry condition.	Accessible through operator or group certification where legal conditions are met. Participation requires records, compliance with organic production rules and, for groups, an internal control system.	Higher entry baseline due to organic prerequisite. Existing organic certification can reduce duplication, but the organic baseline, ROC system plan and annual recertification create defined entry and documentation requirements.	Low initial entry for self-assessment; more requirements for verified claims. The SAQ can be used for self-assessment, while verified claims require coordination, evidence, volume accounting and verification.

	 SCC Origin Standard	 Rainforest Alliance Farm standard	 Fairtrade Small Producer Standard	 EU Organic	 Regenerative Organic Standard	 FSA by SAI Questionnaire
 Effectiveness in informal supply structures	Adapted to fragmented coconut sourcing. SCC is designed for coconut areas with limited levels of organisation and spreads requirements across the supply chain rather than placing implementation mainly on farm groups.	Works best where group management and data systems exist. Informal sourcing structures need formalisation, farm registration and reliable data systems before certification can operate effectively.	Works best where producers are formally organised. This model is less immediately applicable in intermediary-based coconut supply chains unless farmers are organised into eligible producer organisations.	Requires legally defined operator or group structures. Groups of operators must meet legal conditions, including legal personality, geographic proximity, joint marketing and an internal control system.	More applicable where certification infrastructure already exists. The model is less immediately deployable in informal supply structures without organic certification, documentation and management systems.	Can operate through a coordinating entity. FSA can be coordinated by a farm management group, supplier, aggregator or buyer; it is less suitable where no actor can coordinate data, self-assessment and verification.
 Distribution of responsibilities	Responsibilities are distributed across actors. Farmers implement applicable farm-level practices, while group management entities, cooperatives, traders, first processors and downstream actors may support data, monitoring, verification preparation, finance and implementation.	Responsibilities shared within certification scope. Certificate holders and group management carry central responsibility, while farms and related supply-chain actors contribute through applicable requirements and shared-responsibility mechanisms.	Responsibilities are shared between producer organisations, members and traders. Implementation depends strongly on producer-organisation governance and management.	Operator-centred responsibility. Responsibility rests mainly with operators or groups of operators; for groups, the internal control system verifies member compliance.	Certified-operation-centred responsibility. The certified operation carries primary responsibility for meeting ROC requirements, with criteria also addressing workers, farmers and, where relevant, processing or supply-chain stages.	Coordinator can centralise implementation tasks. A farm, farm management group or buyer can coordinate self-assessment, improvement planning, verification preparation and claims-related data.
 Continuous improvement logic	Staged performance pathway. Critical requirements apply across levels, while progressive criteria and performance levels allow improvement over time.	Cycle-based improvement. RA v1.4 uses Base, Specialized and Continuous Improvement requirements; these categories are mandatory where applicable and support progression within the certification programme.	Time-bound development pathway. Core requirements apply at entry, while development requirements become applicable over certification years, supporting gradual improvement by producer organizations.	Conversion pathway followed by compliance. The main progression element is conversion to organic production; after certification, the model is primarily pass/fail against legal requirements.	Tiered Bronze / Silver / Gold pathway. ROC uses three levels and annual recertification; optional practices may become required at higher levels, and land coverage expectations increase over time.	Performance-level pathway. FSA supports improvement through self-assessment, action planning and Bronze / Silver / Gold performance levels; progression depends on farm or supply-chain programme choices.

The analysis shows that an important difference between the assurance models is how certification or control procedures are structured and made accessible to fragmented smallholder supply chains. Rainforest Alliance, Fairtrade, ROC and EU Organic operate established certification or regulatory systems with longer implementation histories and broader market application. These features can support credibility, recognition and market confidence, but they may also require stronger management systems, documentation and audit readiness. FSA offers a modular and improvement-oriented route that can be coordinated by farm groups or first buyers.

SCC also has a formalised assurance model, including scheme rules, standards and verification procedures. Based on documented procedures, its distinguishing feature is its coconut-sector-specific design, combining origin, supply-chain and landscape-level scopes with stepwise performance levels and a broader distribution of responsibility across value-chain actors. Its practical effectiveness will need to be assessed through implementation experience.

5.2 Dimension C-2: Mandatory, optional and progressive criteria

Dimension C-2 examines how each system structures its requirements and scoring, distinguishing between mandatory, optional, and progressive elements.

The structure of SCC's requirements should be interpreted together with its progressive scoring model. As shown in Dimension A, SCC has a more focused set of documented requirements than several broader cross-commodity standards, including in some environmental and social categories. In Dimension C, this is relevant because SCC does not use a conventional full-compliance entry model. Instead, its staged performance model allows different levels of documented performance to be recognised, provided that critical requirements and the minimum score for progressive criteria are met. This design may affect how the standard can be introduced in fragmented coconut supply chains, where immediate conformity with a broad set of requirements may be difficult. It also means that requirement count alone should not be used to assess accessibility, ambition or improvement potential.

Table 4: Mandatory, optional and progressive criteria

Scheme/standard	Mandatory criteria	Optional/Progressive criteria
SCC Origin Standard v1.2	5 critical requirements. Core requirements cover critical safeguards. Conformity against critical requirement required across all tiers.	Tiered performance model (Engaged → Verified in Transition → Verified Sustainable). Continuous improvement is encouraged and embedded in scoring, but the scheme does not enforce automatic progression between tiers. Progression is score-based and voluntary, according to the Origin Standard.
RA Farm Requirements v1.4	126 Base and Specialized requirements. These require conformity on applicable social, environmental, farm-management and traceability requirements. Continuous Improvement requirements are listed separately as	Cycle-triggered mandatory progression. Continuous Improvement requirements are not purely optional. After the second certification audit, the second certification cycle starts and Continuous Improvement requirements come into effect during that cycle. Where applicable Continuous Improvement requirements are not met, they are treated through the non-conformity and corrective-action process rather than as optional improvement suggestions. RA does not use tiered performance levels equivalent to SCC's 1-, 2- and 3-star claim levels;

	progressive requirements.	progression is structured through certification-cycle requirements.
FSA v3.0.1	35 Essential questions. Essential questions define baseline requirements, for example on land rights and forced labour.	Tiered performance levels. Bronze → Silver → Gold performance levels exist, but progression is voluntary, based on farm or buyer choice. The framework does not enforce mandatory escalation between levels.
Fairtrade SPO v2.9	112 Core requirements. Core requirements include governance, recordkeeping, legal compliance and basic social / environmental safeguards.	Time-bound development pathway. Development requirements become applicable at defined certification years and are assessed through Fairtrade's compliance criteria. Where applicable development requirements are not met, they are addressed through the non-conformity and corrective-measure process rather than treated as optional suggestions.
Regenerative Organic Certified v4.1	86 Required practices. ROC requires baseline organic certification plus ROC-specific required practices on soil health, animal welfare and farmer / worker fairness.	The Framework states that Bronze must cover at least 10% of food- or fibre-producing land at initial certification and reach at least 50% by year five; Silver must start at 50% and reach 75% by year five; Gold requires 100%. This makes ROC progressive not only through voluntary tier choice, but also through defined expansion expectations within lower tiers. ROC therefore has tiered performance levels, although the structure and claim logic differ from SCC's 1-, 2- and 3-star pathway.
EU Organic Regulation 2018/848	Full statutory compliance on production, traceability, in-conversion periods, and controls. Non-compliance is a regulatory violation.	EU Organic does not use optional sustainability criteria or graded performance tiers. The main progressive element is the conversion period: land intended for organic production is managed under organic rules during conversion, but products can only be marketed as organic after the conversion period has elapsed. After conversion, the model is essentially pass/fail against the legal requirements.

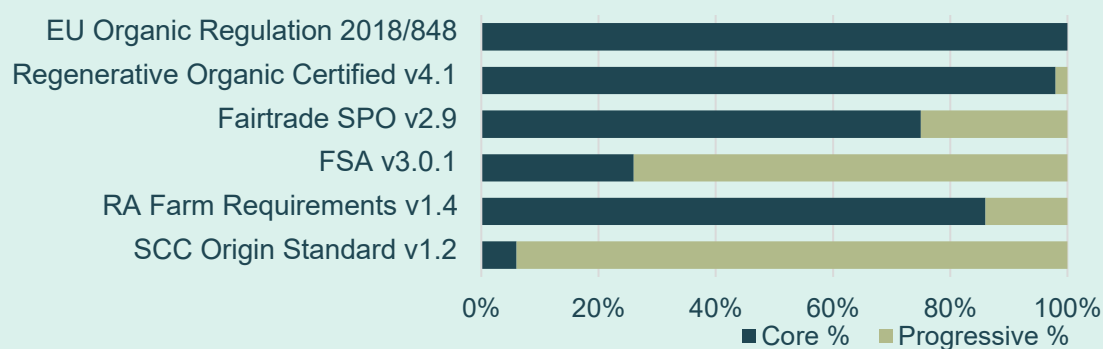
Table 5 and Figure 6 below present an overview of the percentage split between mandatory and optional or progressive requirements in each standard. It is important to note that the categories are not fully equivalent across systems: Rainforest Alliance refers to Continuous Improvement requirements, Fairtrade uses Development requirements, FSA distinguishes Essential, Intermediate and Advanced questions, and ROC differentiates Required and Optional practices. The figure is therefore an indicative comparison of requirement architecture, not a like-for-like assessment of requirement depth or assurance strength.

Table 5: Percentage of core vs progressive requirements

Standard	Core	Progre ssive	Total	Core %	Progre ssive %	Basis
EU Organic	Not directly comparable, Legal framework.			100%	0%	Not applicable.

ROC v4.1	86	2	88	98%	2%	Required vs optional
Fairtrade SPO v2.9	112	38	150	75%	25%	Core vs Development requirements
FSA v3.0.1	35	102	137	26%	74%	Essential vs Intermediate + advanced questions
RA Farm Requirements v1.4	126	21	147	86%	14%	Base + specialised requirements vs continuous improvement requirements
SCC Origin Standard v1.2	5	73	78	6%	94%	Critical requirements plus minimum progressive score required for 1-star entry; progressive scored practices determine higher performance levels.

Figure 6: Percentage of core vs progressive requirements



Source: ASI

Overall, the percentage split illustrates different design logics rather than different levels of standard quality. SCC and FSA place greater emphasis on tiered or progressive structures, which may support gradual entry and improvement where producers or supply-chain actors cannot immediately meet higher levels of performance. Rainforest Alliance and Fairtrade have a higher share of core or mandatory requirements, reflecting a stronger emphasis on defined baseline compliance before certification or claims can be made. The result should be interpreted carefully for ROC: the framework assessed here represents ROC's add-on requirements, while entry into ROC depends on required baseline certifications, including organic certification and, where applicable, animal welfare and social fairness certification.

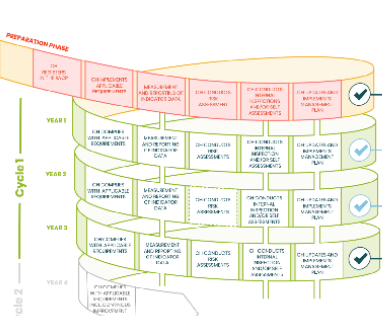
Both approaches have advantages and disadvantages. Progressive structures can improve accessibility, support stepwise improvement and reduce entry barriers, particularly in fragmented and smallholder-based supply chains. However, they also require clear rules on progression, assurance and claim systems to ensure that flexibility does not dilute credibility. Mandatory baseline requirements can provide stronger upfront assurance and clearer minimum performance expectations, but may also create higher entry barriers for producers or supply-chain actors with limited capacity.

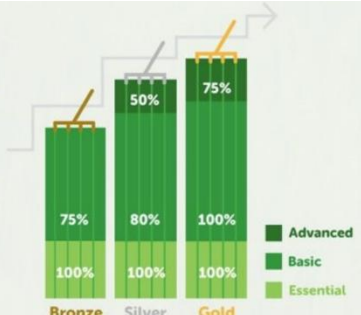
For the coconut sector, where many producers operate in fragmented and smallholder-based supply chains, progressive pathways such as those used by SCC may support staged entry and recognition of improvement over time.

5.3 Dimension C-3: Continuous improvement model

While C-2 focused on the architecture of mandatory, optional and progressive criteria, C-3 examines how continuous improvement is operationalised over time: what is expected at entry level, how requirements evolve, and whether progression is structured, scored, flexible or mainly compliance-based. It should be noted that not all comparator standards or systems apply a classical continuous-improvement model. For example, EU Organic operates primarily as a regulatory compliance framework, while other systems use different combinations of baseline requirements, development criteria, scoring, tiers or improvement pathways. Table 6 therefore presents the continuous-improvement model of each system separately, distinguishing between staged performance levels, certification-cycle requirements, time-bound development requirements, conversion pathways and voluntary improvement levels.

Table 6: Continuous improvement model

Scheme/Standard	Continuous improvement model
SCC Origin Standard v1.2	Staged star-level pathway.  SCC has a clearly coconut-specific stepwise improvement model. The Assurance System was developed partly in response to the limited uptake of conventional pass/fail certification in the coconut sector. It therefore adopts a tiered approach that allows participants to start from their current level of maturity and make measurable progress over time. For the Origin Standard, performance is recognised through three claim levels: Engaged, verified “In Transition”, and Verified “Sustainable”. These are linked to score bands of >30% to <60%, >60% to <80%, and >80% respectively. To reach the first claim level, the applicable critical requirements must be met, and the minimum overall score for progressive criteria must also be achieved. Continuous improvement is also embedded operationally. The Origin verification process includes action planning, implementation planning, internal assessment, analysis of results, and improvement activities to close compliance gaps.
RA Farm Requirements v1.4	Certification-cycle progression.  Rainforest Alliance uses a certification-cycle model. Certificate holders first register, define certification scope, implement applicable requirements, collect farm and indicator data, conduct risk assessments, complete internal inspections where relevant, update the management plan and undergo the first certification audit. After the first successful certification audit, farm certification operates on a three-year cycle. In the two years between certification audits, surveillance audits verify whether the management system continues to ensure compliance and monitor progress on improvements. Continuous improvement requirements come into effect during the second certification cycle. The standard distinguishes Base, Specialized and Continuous improvement requirements. Base requirements set the

	general baseline; Specialized requirements apply in specific contexts; Continuous Improvement requirements become applicable over time according to the Rainforest Alliance requirement category and certification-cycle logic. This creates a structured pathway, but entry still requires a relatively formal certification system and management capacity.
FSA by SAI Platform v3.0	Voluntary Bronze/Silver/Gold performance levels.  FSA is explicitly designed around assessment, improvement and verification rather than only pass/fail certification. The Self-Assessment Questionnaire provides the starting point, allowing farms or Farm Management Groups to assess business, environmental and social practices. The Priority Screening Module helps FMG Coordinators identify the most relevant sustainability priorities in their context. The Continuous Improvement Module provides guidance and templates to develop, implement and monitor a continuous improvement plan for the Farm Management Group. Where an FMG seeks independent verification, this plan is assessed as part of the FSA Management System audit. FSA also links improvement to market communication through independently verified Bronze, Silver and Gold performance claims. The framework can therefore support both internal improvement programmes and external recognition of progress, especially where buyers, processors or aggregators coordinate farm-level implementation.
Fairtrade SPO Standard and FLOCERT Assurance Rules	Time-bound development pathway. Fairtrade uses a dual-track model of Core and Development requirements. Core requirements reflect Fairtrade principles and must be complied with. Development requirements are used to support continuous improvement and are assessed against a scoring system with minimum average thresholds set by the certification body. Requirements are also time-bound. Core requirements may be assigned Year 0, Year 1 or Year 3, while Development requirements may be assigned Year 3 or Year 6, indicating when the organisation will be audited against them. This creates a structured progression model for organised small producer organisations. The approach supports gradual improvement, but depends on the existence of a functioning producer organisation able to manage records, governance, premium planning and audit follow-up.
Regenerative Organic Certified v4.1	Tiered Bronze/Silver/Gold certification pathway.  ROC uses a tiered certification model with Bronze, Silver and Gold levels. Bronze represents the entry level and Gold the highest level. The framework states that this tiered approach enables producers to adjust and adapt their practices over time and allows for continuous improvement. Annual recertification audits are required at all levels. The progression model is partly based on the share of eligible land or revenue covered by certification. For Bronze, at least 10% of eligible land or revenue must be certified at initial certification and this must

	reach at least 50% by year five. For Silver, at least 50% must be certified initially and reach at least 75% by year five. Gold requires 100% certification coverage. ROC also distinguishes Required, Optional and Critical Tolerance practices. Optional practices may become required as producers move from Bronze to Silver to Gold, creating a clear improvement pathway. However, participation at any ROC level requires organic certification or recognised equivalent as the baseline.
EU Organic Regulation 2018/848	Conversion pathway followed by legal compliance. EU Organic has a defined transition pathway through the conversion period. During conversion, farmers and operators must apply the organic production rules, and some products may be marketed as in-conversion once specific conditions are met. After conversion, the system operates mainly as a legal compliance model. Operators and groups of operators are subject to verification of compliance at least once a year, with controls applied throughout production, preparation and distribution. This provides a clear entry transition from non-organic to organic production, but it does not create a tiered improvement pathway comparable to SCC, FSA, Fairtrade or ROC. The emphasis is on maintaining compliance with the organic regulation rather than recognising progressive levels of sustainability performance.

Note: All images included in Table 6 have been extracted directly from the respective scheme's official documents or websites and are used here for illustrative purposes.

For coconut supply chains, the practical significance is that systems with tiered or scored improvement models may offer more accessible entry points for fragmented supply bases, provided that safeguards remain sufficiently robust.

SCC's model is notable in this context because its continuous improvement pathway is linked directly to coconut-sector deployability and claim levels. This may allow supply-chain actors to enter at an earlier stage while still showing a structured route toward higher performance. The actual accessibility, cost, effectiveness and long-term positive impact of this pathway will need to be tested over time through implementation.

5.4 Dimension C-4: Distribution of responsibilities

C-4 examines how each assurance system distributes responsibilities among supply-chain actors, an important consideration in fragmented, smallholder-based coconut supply chains.

Table 7 provides a qualitative comparison of how responsibilities are distributed across the six systems. The comparison focuses on the main actors carrying implementation and documentation responsibilities, rather than assessing the overall strength or credibility of each assurance model.

Table 7: Distribution of responsibilities

Scheme/standard	Distribution of responsibilities
SCC Assurance System	Responsibilities are distributed across farmers, Group Management Entities where present, cooperatives, traders, first processors and relevant downstream actors. Farmers are not certificate holders and are mainly responsible for applying relevant farm-level practices and participating in training, data collection, internal assessment and improvement activities. Management-system tasks such as action planning, implementation planning, monitoring, result analysis, record coordination and verification preparation are mainly carried out by the

	GME or other responsible entities where applicable. This differs from assurance models that place primary responsibility on a certificate holder, producer organisation or operator.
Rainforest Alliance Sustainable Agriculture Standard v1.4	Responsibilities are distributed between farm certificate holders, group management, intermediaries, subcontractors and service providers. Group management plays a central role in implementation, including internal inspections and risk assessment, and farms are responsible for maintaining records and implementing core requirements.
FSA by SAI Platform v3.0	Implementation can be led by a farm, a Farm Management Group (FMG), or a farm group with their first buyer. The FMG Coordinator centralises many responsibilities, including assessment, improvement planning, and reporting. Farmers within the group implement farm-level practices, while the Verification Body verifies compliance.
Fairtrade SPO Standard and FLOCERT Assurance Rules	Core responsibilities lie with the producer organisation, which must ensure that members comply with core and development requirements, maintain records, and implement the Fairtrade Development Plan. Traders are responsible for paying the Fairtrade Premium and adhering to pricing rules. FLOCERT audits both SPOs and traders to verify compliance.
Regenerative Organic Certified	Responsibilities are primarily placed on the certified operation. In ROC, this can include farming and ranching operations, and certain processing facilities where they fall within the certification scope. The certified operation must comply with the Regenerative Organic System Plan and demonstrate adherence to the applicable ROC level across soil health, animal welfare and farmer / worker fairness. Separate supply-chain actors, such as organizations that buy, sell, store, process or transport products carrying ROC claims, are covered through ROC chain-of-custody requirements. Core compliance with the ROC production framework remains centred on the certified operation, while supply-chain actors have claim, traceability and chain-of-custody responsibilities where applicable.
EU Organic Regulation	Responsibilities are held by the operator or group of operators. In EU Organic, an operator can be an individual legal entity responsible for organic activities such as production, preparation, storage, distribution, import, export or placing organic products on the market. A group of operators is more specifically a group structure composed of eligible producer members, primarily farmers, with an Internal Control System to manage member compliance. Processors, exporters or traders may therefore be certified as operators where they carry out organic activities within the regulatory scope, while farmer groups may be certified as groups of operators if they meet the legal conditions. Verification is performed through official controls, and responsibility remains concentrated on the operator or group of operators.

To illustrate SCC's responsibility-distribution logic more concretely, Figure 7 shows how requirements in the SCC Origin Standard are allocated across actor groups and sustainability pillars. The figure indicates that SCC does not place implementation responsibility only at farmer level. A substantial number of requirements are linked to cooperatives, traders, first processors and worker groups. This reflects SCC's design logic of distributing responsibilities across the coconut supply chain.

Figure 7: SCC Origin Standard requirements by actor and sustainability pillar



Note: Counts are based on 78 unique requirements in the SCC Origin Standard v1.2. Counts are not mutually exclusive, as one requirement may apply to more than one actor.

Responsibility distribution is not only about who implements requirements, but also about who coordinates evidence, maintains records and prepares for verification. This distinction is important in fragmented smallholder contexts, where documentation requirements may sit with individual farmers, group-level structures or supply-chain actors depending on the assurance model. Record-keeping and documentation requirements are therefore an important part of responsibility distribution, but they are not directly comparable across systems because the responsible actor differs. In some systems, documentation is mainly managed by a certificate holder, producer organisation, operator or Farm Management Group; in others, farmers may be expected to provide farm-level information or maintain certain records directly. Table 8 therefore provides an indicative comparison of documentation and record-keeping effort, focusing on where the effort sits and what type of records are generally required.

Table 8: Indicative documentation and record-keeping effort across assurance models

Scheme/standard	Main actor carrying documentation effort	Main types of documentation	Indicative effort level
SCC Origin Standard	Documentation is coordinated through the GME's Internal Management System, where a GME is in place, with actor-specific records and evidence provided by farmers, cooperatives/traders, first processors and	Internal Management System, action planning, implementation planning, internal assessment, result analysis, farmer data, training participation, productivity / quality monitoring, replanting monitoring, farmer support records, pricing / finance documentation	Moderate overall; lower at individual farmer level where GME support is in place. Farmers are mainly expected to provide farm-level information and participate in training, data collection and internal assessment, while planning, monitoring, result

	other relevant supply-chain actors.	and traceability-related records	analysis and verification preparation are mainly coordinated by the GME or other responsible entities where applicable.
Rainforest Alliance Farm Standard	Mainly the certificate holder / group management, with farm-level input from members	Farm and geolocation data, Group Member Registry, internal inspection records, risk and management-system documentation, training records, corrective-action follow-up, certification platform data and applicable indicator data	High at certificate-holder / group-management level; moderate at individual farm level where group systems provide support. The model is structured and data-intensive, but group certification can centralize part of the documentation effort.
Fairtrade SPO	Mainly the Small Producer Organization (SPO), with member-level information where applicable	Product flow from members to first buyer, products sourced from members, Fairtrade sales, processing records, member records, worker records where applicable, annual reports, budgets, accounts and Premium-related governance records	Moderate to high at SPO level; variable at member level. The SPO carries the main documentation role, while individual members may have more limited or specific record responsibilities depending on production, worker and organisational requirements.
FSA by SAI Platform	Farm, Farm Management Group, supplier, aggregator or buyer, depending on implementation model	Self-Assessment Questionnaire responses, continuous improvement planning, farm-level performance information, traceability records, volume accounting and supporting evidence for verified Bronze / Silver / Gold claims	Low to moderate for self-assessment use; moderate to high where verified claims are made. Documentation effort increases where the framework is used for verified performance levels or claims, especially if farm-level evidence and volume accounting are required
EU Organic Regulation	Operator or group of operators; for groups, the Internal Control System is central	Organic production records, traceability and product-flow records, member registration, internal control procedures, training records, annual internal inspection records, non-compliance follow-up and control-body documentation	High for operators / groups due to legal compliance and control requirements. For groups, documentation is strongly linked to the Internal Control System and annual internal checks of members

Regenerative Organic Certified	Certified operation, building on existing organic and other baseline certifications where applicable	Organic baseline certification, Regenerative Organic System Plan, soil lab and in-field testing, KPIs, records of regenerative practices, labour / fairness documentation where applicable, annual recertification evidence and additional ROC-specific criteria not covered by baseline certifications	High at certified-operation level, although existing baseline certifications may reduce duplication. ROC adds documentation for regenerative organic requirements on top of baseline certification evidence
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The effort levels are indicative and based on documented assurance model design. They do not assess actual implementation cost, field-level effectiveness or time required in practice. “Effort” refers to the relative documentation and record-keeping requirements implied by each assurance model. The comparison is not fully like-for-like because the systems allocate responsibility to different actors, such as certificate holders, producer organizations, operators, Farm Management Groups, GMEs or individual farmers.

Overall, the analysis shows that the systems allocate implementation, documentation and verification-related responsibilities through different assurance structures. The documentation-effort comparison indicates that record-keeping and evidence preparation are organized by different responsible entities depending on the assurance model. Under the SCC Origin Standard, documentation and verification preparation are mainly linked to the GME where present, with participation from farmers and relevant supply-chain actors. In FSA, these tasks may sit with a farm, Farm Management Group, supplier, aggregator or buyer, depending on the implementation model. Rainforest Alliance and Fairtrade place substantial documentation and coordination responsibilities on certificate holders, group management or producer organisations. ROC places these responsibilities primarily on the certified operation, with additional chain-of-custody or sourcing responsibilities where applicable. EU Organic places responsibility mainly on the operator or group of operators under the official control system. These differences affect how each model may operate in fragmented smallholder contexts, but the practical level of effort depends on implementation arrangements, group capacity, verification scope and local conditions.

Taken together, the four elements of Dimension C illustrate how assurance-system design features relate to the practical realities of the coconut sector, including limited farmer organisation, informal supply structures, documentation capacity and the need for stepwise improvement. Systems that combine structured guidance, tiered or progressive requirements, shared responsibilities and flexible verification pathways may support implementation at scale without placing disproportionate burdens on smallholders. The following section considers how the systems are reviewed and adapted over time.

6. Dimension D: Standard review cycles and system adaptability

Dimension D assesses how standards are reviewed, updated and adapted over time. The assessment distinguishes between fixed-cycle review, iterative or member-governed updates, regulatory amendments and sector-specific calibration. It does not assume that more frequent or more adaptive updates are automatically preferable. Longer review cycles can support stability and certification planning, while more adaptive approaches can support responsiveness but may create uncertainty if changes are not clearly governed.

Table 9: Standard review cycles and system adaptability

Standard	Review cycle	Current status	Update approach
SCC Assurance System	SCC is designed as a coconut-sector-specific system. Following completion of four pilot verifications in 2025, the system has moved beyond the initial calibration phase and is now reflected in version 1.2.	SCC Origin Standard v1.2 is the current version reviewed in this benchmark. The system remains relatively new compared with several established comparator standards, but the initial pilot / calibration phase has been completed.	Iterative and sector-responsive. This may support targeted adaptation to coconut-sector needs, provided that calibration, feedback and update decisions are clearly documented and governed.
Rainforest Alliance Sustainable Agriculture Standard	Rainforest Alliance states that it reviews its Sustainable Agriculture Standard at least every five years, drawing on scientific information, best practices, stakeholder input, audits and evaluations.	Version 1.4 was published on 3 March 2025 and becomes binding from 1 October 2025. The standard is supported by Farm Requirements, Supply Chain Requirements, binding annexes, policies, assurance rules, data systems and guidance.	Fixed five-year review cycle, supplemented by operational learning, audit results, evaluations and stakeholder input. In v1.4, requirement categories are simplified into Base, Specialized and Continuous Improvement, all of which are mandatory where applicable.
FSA by SAI Platform	The FSA Governance Framework is reviewed and updated regularly, and at least every two years. The wider FSA toolset and normative documents can be updated through SAI Platform's member-governed structures.	FSA 3.0 was launched in April 2021. The FSA Resource Centre shows several documents updated later, including the FSA Benchmarking Protocol in April 2025.	Iterative, member-governed and tool-based. This allows the FSA system to remain broadly applicable across crops and regions while updating specific tools, protocols and verification documents between major framework updates.
Fairtrade SPO Standard	Fairtrade standards are reviewed at least every five years under Fairtrade's standard-setting procedures. Updates may also occur through Standards Committee or delegated decisions, interpretation notes, guidance and pilots.	The current SPO Standard reviewed is version 03.04.2019_v2.9. The reviewed version indicates an expected next review date of 2024.	Fixed five-year review cycle, with controlled adaptation between full revisions. This provides procedural stability while allowing targeted clarifications, interpretation notes, product-standard updates and pilot-based learning.
Regenerative Organic Certified	ROC uses a formal framework revision process. The current revision process is supported by public consultation and stakeholder engagement, with revisions informed by	The ROC Framework is version 4.1, effective 27 June 2023. ROA has launched a ROC Framework Revision process, including public consultation and a revision timeline.	Formal revision process currently underway. The system is adaptive to regulatory, market and operational learning, while retaining a structured framework-review process.

	implementation learning, regulatory developments, market growth and emerging science.		
EU Organic Regulation 2018/848	EU Organic is a legal regulatory framework rather than a voluntary sustainability standard. Updates occur through EU legislative, delegated and implementing acts rather than through a scheme-led standard review cycle.	The consolidated version reviewed is dated 25 March 2025 and includes amendments and corrigenda incorporated into Regulation 2018/848.	Regulatory and amendment-driven. This provides legal certainty, harmonisation and enforceability, but the framework is not designed as a dynamic sustainability improvement system or as a sector-specific mechanism for priorities such as coconut rejuvenation or smallholder deployability.

The comparison shows several update models rather than a single hierarchy of responsiveness. Rainforest Alliance, Fairtrade and ROC use structured review mechanisms, including formal periodic review cycles and mechanisms for stakeholder input, monitoring evidence, phased implementation or interim updates. FSA is more iterative and member-governed, with updates to tools, modules and normative documents. SCC also follows an iterative and member-informed approach within the SCP framework, informed by pilot experience, operational learning and sector feedback. EU Organic is different: it is a legal regulatory framework updated through EU legislative, delegated and implementing acts. SCC is newer, with a review approach linked to calibration and operational learning in the coconut sector.

These differences involve trade-offs. Fixed or periodic review cycles can provide stability for certificate holders, auditors and supply-chain actors, but may be slower to integrate emerging risks or field learning. Iterative or adaptive review approaches can increase responsiveness, but may create uncertainty if requirements change frequently, or if update processes and transition periods are not clearly governed. The comparison should therefore be read as an assessment of review architecture and adaptability, not as a ranking of governance quality.

Figure 8 below presents a contextual positioning of the schemes and standards against two dimensions. The X-axis indicates the review approach, ranging from more structured fixed-cycle reviews to more iterative or responsive updates. The Y-axis represents the breadth of sector, crop or product coverage, ranging from broad multi-product or multi-sector systems to more product- or sector-specific frameworks, such as the coconut-focused SCC.

Figure 8: Standard review cycles and system adaptability

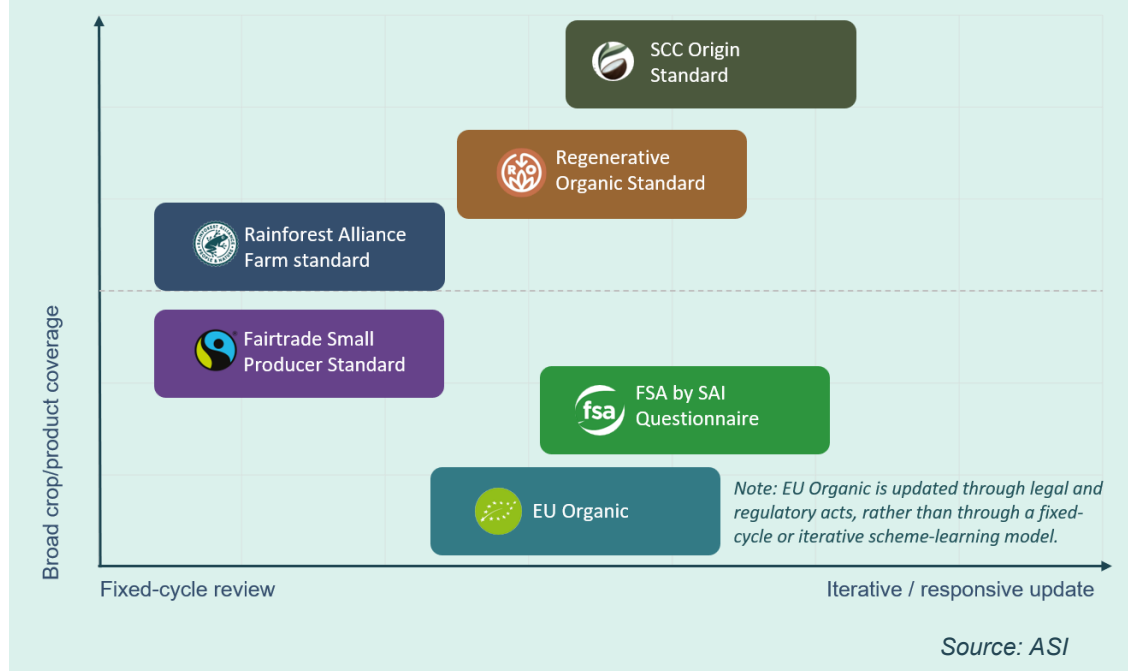


Figure 8 interprets system adaptability in relation to both review approach and sector coverage. Sector coverage is relevant because systems with broader crop, product or production-system scopes usually need to consider a wider evidence base, more diverse implementation contexts and a larger set of stakeholders when revising normative documents. This can support broad legitimacy, consistency and stability, but it may also mean that revisions are less directly shaped by the needs of a single sector such as coconut. EU Organic should be interpreted differently from the voluntary sustainability standards included in the comparison. It is a legal regulatory framework updated through legislative, delegated and implementing acts, rather than through a fixed-cycle or iterative scheme-learning model.

SCC is positioned differently because it is coconut-specific and follows an iterative, member-governed approach within the SCP framework. More generally, iterative and fixed-cycle review models involve different trade-offs. Iterative systems can be more responsive to implementation learning, user feedback and emerging risks, while fixed-cycle review models can provide greater predictability for planning and implementation. In both cases, clear governance, documentation of changes, communication to users and appropriate transition arrangements are important for consistent application.

For SCC, the relevant benchmarking insight is that its iterative review approach can support sector-specific learning as the system matures, provided that update processes remain transparent, documented and clearly communicated. Figure 8 should therefore be read as contextual positioning of review-cycle design and sector specificity, not as a ranking of overall system quality, governance strength or effectiveness.

7. Final reflections

The benchmark indicates that SCC is closely aligned with the practical realities of the coconut sector within the scope of the assessed dimensions. Its design responds to several structural challenges that are particularly relevant for coconut supply chains, including ageing tree stock, fragmented smallholder production, limited formalisation of farmer groups, evolving traceability systems, weak investment at origin, and the need for progressive improvement rather than immediate pass/fail compliance.

Across the dimensions reviewed, SCC's sector-specific focus is particularly visible in its treatment of responsible rejuvenation, supply-chain actor engagement, shared responsibility, and stepwise assurance pathways. This positioning is important because many of the coconut sector's material challenges cannot be addressed by farmers or producer groups alone. They require coordinated action across farmers, farmer groups, cooperatives, traders, processors and downstream buyers. SCC's assurance logic reflects this by distributing responsibilities across the value chain and by creating entry points that may be more accessible for fragmented smallholder supply bases, while still providing a pathway towards stronger verification and performance over time. Whether this design translates into effective and scalable implementation will need to be assessed as more field experience becomes available.

At the same time, the findings should be interpreted within the scope and purpose of this benchmarking exercise. The comparison focuses specifically on the coconut sector and on the analytical dimensions, topics and criteria defined by SCP. The comparator systems, namely Rainforest Alliance, Fairtrade, FSA, ROC and EU Organic, were designed for much broader purposes, covering multiple crops, commodities, geographies, production systems and market claims. Most also operate as established certification or certification-related systems, while SCC is currently structured around a verification-based assurance pathway for the coconut sector. As a result, SCC may show stronger alignment in areas that are highly coconut-specific, such as tree rejuvenation, smallholder deployability and coconut supply-chain coordination. This reflects the fact that SCC was designed for a specific, targeted coconut-sector context.

The benchmark therefore provides a strategic assessment of design fit for coconut production and related supply chains, not a general ranking of sustainability standards. Its value lies in showing where SCC offers a distinct response to coconut-sector priorities, where comparator standards provide relevant alternative models or complementary strengths, and where further implementation evidence will be needed as SCC matures. As a next step, a future assessment could complement this desktop benchmark with evidence from implementation experience, including verification results, implementation costs, documentation effort, participant feedback, supply-chain actor experience and observed outcomes in different coconut-producing contexts.

Annex 1: Detailed analytical results on the sector relevance and documented standard responses to coconut-sector risks

This annex provides the analytical backbone for Figure 2, which summarises how each standard addresses the material risks specific to the coconut sector.

Material risk	SCC Origin Standard v1.2	RA Farm Requirements v1.4	Fairtrade SPO v2.9	EU Organic Regulation	ROC v4.1	FSA v3.0.1
Farmer incomes & wages of farm workers	Strong response SCC includes provisions on farm business planning, income diversification, transparent pricing, farmer incentives, access to finance, and minimum wage protection for workers. Ref: 1.2.1–1.2.2; 1.2.5–1.2.12; 2.3.8–2.3.9.	Strong response RA includes premium-related provisions, including premium reporting, contracts/agreements, distribution of part of the premium to group members, and use of premium to benefit producers or workers. It also includes worker contracts, wage payment, equal remuneration and living-wage assessment. Ref: 3.1.1–3.1.4; 5.3.1–5.3.8; 5.4.1.	Moderate response Under the Year 0 core filter, Fairtrade strongly covers worker wage records, minimum wage / CBA wage setting, piece-rate transparency, regular payment and payment documentation. However, the Fairtrade Premium and Development Plan requirements are mainly Year 1 and therefore excluded from this table; farmer income coverage is therefore less direct here. Ref: 3.3.18–3.3.22.	Limited/no response EU Organic focuses on organic production rules, certification and controls. It does not directly regulate smallholder farmgate prices, farmer income, premiums, living income, or farm-worker wage levels. Ref: No direct provision; general scope in Art. 1–2.	Strong response ROC includes wage and living-wage provisions, and fair pricing / fair payment provisions requiring pricing to be agreed through dialogue and payments to cover cost of production, living wages and farmer-equivalent income. It is not coconut-specific but is directly relevant to farmer income and worker wages. Ref: Farmer & Worker Fairness 8.1–8.2; 12.3–12.5.	Moderate response FSA Essential questions cover worker equality, conditions, regular wage/benefit payment and legal / industry minimum wage expectations. However, it does not include core requirements on farmer income, farmgate pricing, premiums, or coconut-specific livelihood planning. Ref: FSA80; FSA84.
Coconut supply shortage	Strong response SCC includes provisions on productivity tracking, coconut-specific GAP training, demonstration plots, soil and nutrient management, IPM, planting material, tree	Moderate response RA includes relevant agronomic provisions on variety selection, planting systems and pruning / rejuvenation of tree crops. Alignment is moderate because these are generic crop requirements and do not	Limited/no response Fairtrade Year 0 core requirements do not directly cover productivity, replanting, tree age, planting material or supply resilience. Some generic organisational and	Moderate response EU Organic includes general plant-production principles on soil fertility, biodiversity, prevention, and plant reproductive material. These can support resilient production	Moderate response ROC supports long-term productivity indirectly through the Regenerative Organic System Plan, soil health testing, vegetative cover, crop rotation / perennial systems, nutrient	Moderate response FSA Essential requirements support basic production resilience indirectly through product safety, training / advice, legal agrochemical use, water management

Material risk	SCC Origin Standard v1.2	RA Farm Requirements v1.4	Fairtrade SPO v2.9	EU Organic Regulation	ROC v4.1	FSA v3.0.1
	census and replanting / rejuvenation monitoring. Ref: 1.1.1–1.1.3; 1.1.8–1.1.11; 1.3.1–1.3.4.	include coconut-specific senile palm census, seednut supply or sector-level supply shortage mechanisms. Ref: 4.1.1–4.1.2; 4.2.1.	environmental provisions may indirectly support farm management, but they do not respond specifically to coconut supply shortage. Ref: 3.1.1; indirect only.	but do not directly address coconut ageing trees, replanting, improved seednut supply or supply shortage. Ref: Art. 5–6; Annex II, Part I.	management and regenerative practices. It does not include coconut-specific replanting cycles, senile palm census or coconut seed systems. Ref: Soil Health & Land Management 1.2; 2.1–2.4; 3.1–3.2; 6.1–6.2.	and ecosystem protection. It does not include core requirements on crop-specific replanting, rejuvenation, tree-age mapping or planting material. Ref: FSA5; FSA15; FSA38–FSA45; FSA55–FSA57; FSA63.
Youth transition into coconut farming	Strong response SCC includes provisions on generational succession, youth engagement, technical onboarding and demonstration / peer-learning mechanisms for incoming farmers. Ref: 1.2.1; 1.1.3; 2.4.1–2.4.2.	Limited/no response RA does not include a dedicated requirement on youth transition, farmer succession or attracting young farmers. Training, farm management and livelihood provisions are only indirectly relevant. Ref: 1.3.3–1.3.4; 4.1.1–4.2.1, indirect only.	Limited/no response Fairtrade Year 0 core requirements do not include a dedicated requirement on youth transition, farmer succession or youth entry into farming. Broader organisational participation requirements may be indirectly relevant, but they are not targeted to this risk. Ref: No direct Year 0 core provision identified.	Limited/no response EU Organic does not include requirements on generational renewal, young farmer entry, succession planning or youth participation in farming. Ref: No specific provision identified.	Limited/no response ROC includes worker voice and employment relationship provisions, but it does not contain a dedicated requirement on youth transition, farm succession or entry of young farmers into agriculture. Ref: No direct provision; Farmer & Worker Fairness 7.1–7.4 only indirectly relevant.	Limited/no response FSA Essential requirements do not include youth transition, farmer succession or youth entry into farming. Any link is indirect through training, legality and farm management. Ref: No direct Essential provision identified.
Child labour	Strong response SCC sets minimum-age rules, restrictions on young workers, conditions for family labour, and a grievance mechanism.	Strong response RA applies its Assess-and-Address system to child labour, requiring commitment, risk mitigation, monitoring and remediation. The	Strong response Fairtrade Year 0 core requirements prohibit employment below 15, regulate children's family work, and prohibit worst forms of	Limited/no response EU Organic does not include farm-level child labour requirements or social compliance criteria.	Strong response ROC prohibits child employment below the relevant minimum age, restricts children's family work, and prohibits	Strong response FSA Essential requirements prohibit employment of minors contrary to relevant legislation and prevent minors from

Material risk	SCC Origin Standard v1.2	RA Farm Requirements v1.4	Fairtrade SPO v2.9	EU Organic Regulation	ROC v4.1	FSA v3.0.1
	Ref: 2.3.1–2.3.3; 2.3.7.	approach is generic across crops but directly relevant to coconut labour risks. Ref: 5.1.1–5.1.4.	child labour and hazardous work for workers under 18. Child-labour remediation is Year 1 and is therefore not counted here. Ref: 3.3.8–3.3.10.	Ref: No specific provision identified.	hazardous work for children and young workers. Ref: Farmer & Worker Fairness 2.1–2.3.	hazardous work or work that jeopardises physical, mental or moral wellbeing. Ref: FSA96–FSA97.
Forced labour & farmer debts	Strong response SCC prohibits forced labour, coercion and servitude, and includes provisions on transparent financing, fair agreements and no withholding of identity documents. Ref: 2.3.6; 1.2.10–1.2.11; 2.3.12; 2.3.14.	Strong response RA applies the Assess-and-Address model to forced labour and includes worker contract, wage, deduction and labour-provider requirements. It is strong for labour exploitation, though farmer debt-bondage is treated through general forced-labour and wage/contract provisions rather than coconut-specific debt mechanisms. Ref: 5.1.1–5.1.4; 5.3.1–5.3.7.	Strong response Fairtrade Year 0 core requirements prohibit forced, slave, bonded and involuntary prison labour, and prohibit making employment or housing conditional on employment of a spouse. The guidance explicitly discusses debt bondage, but remediation is Year 1 and excluded here. Ref: 3.3.5; 3.3.7.	Limited/no response EU Organic does not include requirements on forced labour, debt bondage, recruitment fees or retention of worker documents. Ref: No specific provision identified.	Strong response ROC prohibits forced labour, human trafficking and deceptive hiring, and applies the Employer Pays principle for recruited or contracted labour. It is relevant to forced labour risks, though not coconut-specific farmer indebtedness. Ref: Farmer & Worker Fairness 3.1–3.3.	Strong response FSA Essential requirements cover legal right to work, prohibition of forced or bonded labour, and prohibition of recruitment fees or related costs charged to workers. Ref: FSA76–FSA78.
Occupational health & safety	Strong response SCC includes requirements on safe handling of inputs and equipment, PPE, medical access, safe working environment, drinking water and sanitation. Ref: 2.1.4–2.1.8; 2.3.10–2.3.11.	Strong response RA includes detailed OHS provisions on health-and-safety risk analysis, first aid, emergency procedures, drinking water, toilets, hazardous work, PPE, machinery, vulnerable workers, medical examinations and safe	Strong response Fairtrade Year 0 core requirements cover drinking water, workplace safety, restrictions on hazardous work for vulnerable groups, toilets, washing facilities and first aid. Some pesticide-	Limited/no response EU Organic includes rules on inputs, plant health, animal health and environmental protection, but no dedicated worker OHS framework. Ref: No dedicated worker OHS provision identified.	Strong response ROC includes health-and-safety requirements on PPE, heat / shade, drinking water, sanitation, emergency preparedness, first aid, healthcare for workplace accidents and safety committees	Strong response FSA Essential requirements cover handling training for hazardous inputs, PPE for spray handlers, OHS risk identification and remediation, emergency contacts, vulnerable workers,

Material risk	SCC Origin Standard v1.2	RA Farm Requirements v1.4	Fairtrade SPO v2.9	EU Organic Regulation	ROC v4.1	FSA v3.0.1
		workshops / processing facilities. Ref: 5.6.1–5.6.13.	training and PPE provisions are Year 3 and therefore not counted here. Ref: 3.3.29–3.3.33; 3.3.37.		for larger operations. Ref: Farmer & Worker Fairness 10.1–10.3.	WASH and worker accommodation where applicable. Ref: FSA15; FSA45; FSA99; FSA105–FSA108.
Land tenure security	Strong response SCC requires demonstrable land-use rights supported by national or customary systems. Ref: 2.2.1.	Strong response RA includes respect for legal and customary rights of Indigenous Peoples and local communities, and requires legal or legitimate right to use land, substantiated by ownership, leasehold or other legal documentation. Ref: 5.8.1–5.8.2.	Strong response Fairtrade Year 0 core requirements require responsible resolution of indications of conflict over legal and legitimate land, water-use and land-tenure rights. Ref: 1.1.7.	Limited/no response EU Organic regulates production units and conversion to organic status, but it does not establish land-tenure security, customary tenure or FPIC requirements for farmers. Ref: No direct provision identified.	Limited/no response ROC includes legal compliance and land-management requirements, but no dedicated clause was identified requiring farmers to demonstrate land tenure, customary tenure or FPIC. Ref: No direct land-tenure provision identified. Ref: No direct land-tenure provision identified.	Strong response FSA Essential requirements require clear title to the land through ownership, valid legal agreement or customary law, and FPIC where applicable during land acquisition. Ref: FSA1–FSA2.
Freedom of association & collective bargaining	Strong response SCC protects the rights of workers to organise and bargain collectively and includes a confidential grievance mechanism. Ref: 2.3.16; 2.3.7.	Strong response RA protects workers' rights to form and join unions or worker organisations, participate in collective bargaining, be free from retaliation, and receive reasonable paid time for worker representatives. Ref: 5.2.1–5.2.3.	Strong response Fairtrade Year 0 core requirements protect workers' freedom to join organisations, allow trade-union representatives to meet workers, and prohibit discrimination against unionised workers. Ref: 3.3.13–3.3.15.	Limited/no response EU Organic does not regulate freedom of association, worker representation or collective bargaining. Ref: No specific provision identified.	Strong response ROC includes requirements protecting freedom of association and collective bargaining, including protection against retaliation, prohibition of employer-instituted unions, and restrictions on employment structures that	Strong response FSA Essential requirements protect workers' rights to establish, join or participate in labour organisations and require management to allow the effective functioning of such organisations. Ref: FSA90–FSA91.

Material risk	SCC Origin Standard v1.2	RA Farm Requirements v1.4	Fairtrade SPO v2.9	EU Organic Regulation	ROC v4.1	FSA v3.0.1
					undermine association rights. Ref: Farmer & Worker Fairness 6.1–6.3; 7.2–7.3.	
Biodiversity & animal welfare	Moderate response SCC includes provisions on biodiversity protection and environmental-function assessment, but it does not include a dedicated animal-welfare framework. Livestock is only mentioned as an income-diversification option, not as animal-welfare coverage. Ref: 3.1.2–3.1.3; 3.4.1; 1.2.1–1.2.2.	Moderate response RA includes natural ecosystem conservation, vegetation cover, wildlife protection, biodiversity safeguards and an explicit prohibition on using wildlife for processing or harvesting crops, including monkeys for coconut. This makes RA particularly relevant to the animal-welfare aspect of coconut harvesting. Ref: 6.2.1–6.2.3; 6.4.1–6.4.6.	Moderate response Fairtrade Year 0 core requirements protect high-conservation-value areas and protected areas and prohibit certain hazardous materials. However, biodiversity enhancement and buffer-zone maintenance are Development requirements, and there is no dedicated animal-welfare framework. Ref: 3.2.15–3.2.17; 3.2.30–3.2.31.	Moderate response EU Organic includes general principles on biodiversity and animal welfare and detailed livestock rules where animals are in scope. However, it does not directly address coconut-specific animal welfare risks such as use of monkeys for harvesting. Ref: Art. 5–6; Annex II, Part I and Part II.	Strong response ROC has a dedicated Animal Welfare pillar and extensive soil health, biodiversity and land-management requirements. Its animal-welfare provisions are strong, though only applicable where animals are part of the certified operation. Ref: Soil Health & Land Management 1.2–1.4; 2.1–2.4; Animal Welfare VI.1–VI.7.	Moderate response FSA Essential requirements protect key ecosystems such as primary forest, mangroves, wetlands, peatlands, protected grasslands and legal reserves, and include pesticide safeguards for non-target areas. However, animal welfare is not substantially covered under the Essential requirements. Ref: FSA44; FSA63.
GHG emissions	Strong response SCC includes provisions on identifying energy-intensive processes, energy efficiency, emission-source tracking and air-pollution reduction, mainly at processing-facility level. Ref: 3.3.1–3.3.4.	Moderate response RA includes energy-source and energy-use documentation for production and processing. The explicit GHG reduction requirement is outside the base/specialized filter if treated as continuous improvement, so alignment is moderate rather than strong.	Limited/no response Fairtrade climate and GHG provisions are Development requirements, not Year 0 core requirements. Under the Year 0 filter, there is no direct GHG accounting or reduction requirement. Ref: 3.2.42–3.2.44 excluded because	Moderate response EU Organic supports climate mitigation indirectly through soil fertility, biodiversity, closed nutrient cycles and restrictions on external inputs, but it does not provide a farm-level GHG accounting or reduction mechanism. Ref: Art. 5–6; Annex II, Part I.	Strong response ROC explicitly aims to increase soil organic matter and sequester carbon, and includes a GHG / sequestration modelling requirement using tools such as COMET-Farm or Cool Farm Tool. Note that the modelling requirement is required at Gold level and optional for	Limited/no response FSA has a GHG monitoring question, but it is Advanced and therefore excluded under the Essential/core-only filter. Essential requirements include indirect environmental safeguards but no direct GHG accounting or reduction requirement.

Material risk	SCC Origin Standard v1.2	RA Farm Requirements v1.4	Fairtrade SPO v2.9	EU Organic Regulation	ROC v4.1	FSA v3.0.1
		Ref: 6.8.1.	they are Development requirements.		Bronze/Silver. Ref: Introduction; Soil Health & Land Management 6.1–6.3.	Ref: FSA75 excluded because Advanced; no direct Essential provision identified.
Deforestation	Strong response SCC prohibits expansion or production on areas converted from natural forests and natural ecosystems after the cut-off date and requires protection of sensitive ecosystems. Ref: 3.1.1–3.1.2.	Strong response RA has an explicit no-conversion requirement for natural forests and other natural ecosystems after 1 January 2014, and restricts production in protected areas and buffer zones except where legally allowed. Ref: 6.1.1–6.1.3.	Strong response Fairtrade Year 0 core requirements prohibit members from causing deforestation and destroying vegetation in carbon-storage ecosystems or protected areas. The Year 1 procedure requirement is excluded, but the Year 0 prohibition is directly relevant. Ref: 3.2.30–3.2.31.	Limited/no response EU Organic includes general environmental and biodiversity principles, but it does not include a commodity-risk no-deforestation cut-off requirement comparable to SCC, RA, Fairtrade, ROC or FSA. Ref: No direct no-deforestation cut-off provision identified.	Strong response ROC prohibits clearing primary, untouched forest or old-growth secondary forests and conversion of wetlands, peatlands or protected grasslands into agricultural production after 1 January 2015. Ref: Soil Health & Land Management 1.4.	Strong response FSA Essential requirements require primary forest, mangrove, wetland, peatland, protected grassland and legal reserves to remain in their original condition since 31 December 2015. Ref: FSA63.
Waste & pollution	Strong response SCC includes provisions on permitted chemical use, secure input storage, waste disposal, runoff and pollution control, and processing-related air pollution. Ref: 1.1.4–1.1.7; 3.1.4–3.1.6; 3.3.4.	Strong response RA includes detailed provisions on agrochemical legality, risk mitigation, PPE, storage, handling, container disposal, riparian safeguards, wastewater management and waste management. Ref: 4.6.1–4.6.11; 6.3.1–6.3.2; 6.6.1–6.6.3; 6.7.1–6.7.2.	Strong response Fairtrade Year 0 core requirements include hazardous-material responsibility, central storage, container reuse prohibition, pesticide listing, Red List prohibition, Orange List conditions and protection of high-conservation-value / protected areas. Some waste-management requirements are Year 1 or Development and are excluded.	Strong response EU Organic includes rules on authorised inputs, prevention of contamination, soil fertility, plant protection and organic production methods designed to reduce pollution and avoid unauthorised substances. Ref: Art. 5–6; Art. 9; Annex II, Part I.	Strong response ROC includes restrictions on anaerobic liquid manure from CAFOs, wastewater discharge controls, hazardous waste identification and disposal, restrictions on pollinator-toxic approved pesticides near waterbodies, and restrictions on GM inputs and quick-acting soluble fertilisers.	Strong response FSA Essential requirements cover permitted PPP use, Red List restrictions, licensed sourcing, label compliance, protection of non-target areas, PPE, water licences / limits, irrigation water quality, untreated sewage / sludge / slurry discharge, and ecosystem protection. Ref: FSA38–FSA39; FSA41; FSA43–FSA45; FSA55–

Material risk	SCC Origin Standard v1.2	RA Farm Requirements v1.4	Fairtrade SPO v2.9	EU Organic Regulation	ROC v4.1	FSA v3.0.1
			Ref: 3.2.1; 3.2.9; 3.2.13; 3.2.15–3.2.17; 3.2.30–3.2.31.		Ref: Soil Health & Land Management 3.1–3.2; 4.1–4.2; 5.1–5.3.	FSA57; FSA62–FSA63.

Annex 2: Detailed assessment on assurance model design

This annex provides the analytical basis for Figure 4, which summarises the assurance model design of each scheme/standard.

Assessment criteria	SCC Origin Standard v1.2	RA Farm Requirements v1.4	Fairtrade SPO v2.9	EU Organic Regulation	ROC v4.1	FSA v3.0.1
Implementation complexity	The Origin Standard is designed for coconut	Rainforest Alliance operates a mature	Fairtrade is built around formal	EU Organic is a legal production,	ROC is a layered certification model.	FSA is a modular framework rather

	origins and fragmented smallholder contexts. It uses staged performance levels and allows implementation roles to sit beyond individual farmers, including the Group Management Entity where present, cooperatives, traders, first processors and relevant downstream actors. This supports comparison with the farm- or producer-facing components of the other systems.	certification programme with Farm Requirements, Supply Chain Requirements, annexes, policies, certification rules, auditing rules and platform-based data reporting. Farm Certificate Holders must define scope, collect farm and indicator data, and implement management-system requirements.	producer and trader certification. For smallholder contexts, the SPO model requires a functioning producer organisation, governance structures, member records, democratic decision-making, Fairtrade Development Plans and Premium management.	labelling and control system rather than a voluntary improvement framework. It applies to operators and groups of operators across production, preparation and distribution, with detailed legal requirements for organic and in-conversion production.	An operation must first hold USDA Organic certification or a recognised international equivalent, then meet additional requirements across Soil Health & Land Management, Animal Welfare and Farmer & Worker Fairness.	than a conventional certification standard. It includes the Self-Assessment Questionnaire, Priority Screening Module, Continuous Improvement Module, Outcome Measurement Module, Verification Module, Benchmarking Module and Supply Chain Module. This makes it flexible, but implementation still requires a structured management approach
Audit & verification burden	Progressive verification approach. Verification against the SCC Origin Standard requires an Internal Management System, action planning, implementation planning, internal assessment, analysis of results and continuous improvement. Verified	Third-party certification with surveillance logic. Rainforest Alliance farm certification includes external certification and surveillance audits, supported by internal inspection systems for group certification. For smallholder farms in groups, Rainforest	Third-party certification cycle. Fairtrade producer certification includes an initial audit before certification, renewal audits every three years and at least one surveillance audit within the three-year certification cycle. Audit frequency and type	Official control system. Under Regulation (EU) 2018/848, operators and groups of operators are subject to verification of compliance at least once a year, normally including a physical on-the-spot inspection unless specific low-	Annual recertification model. ROC requires annual recertification audits at all certification levels. The framework builds on existing baseline certifications, especially organic certification or accepted equivalents, and	Optional verification for claims. FSA can be used as a self-assessment and improvement tool without third-party verification. Where verified Bronze, Silver or Gold claims are made, verification is conducted by an SAI Platform-approved

	claims require assessment by a Verification Body in line with the SCC assurance rules. The stepwise performance model allows verification to be linked to the applicable claim level, rather than requiring highest-level performance from the outset.	Alliance requires at least 35% of farms to be internally inspected each year after the first certification audit, ensuring that all farms are inspected after three consecutive years; Rainforest Alliance reserves the right to require a higher sample size for particular crops, countries or regions. Under v1.4, certificate-holder performance can also affect audit sample size, scope and, in some cases, the second surveillance audit.	are risk-based, taking into account factors such as Premium amounts, volumes traded, complex structures, non-conformities, allegations, new products or complex trade chains. FLOCERT also uses different audit types, including initial, renewal, focused and unannounced audits, depending on the certification cycle and risk context.	risk conditions are met; in such cases, the interval between physical inspections cannot exceed 24 months. Groups of operators must also establish an internal control system, including annual internal physical on-the-spot inspections of each group member and additional risk-based inspections where relevant.	third-party auditors focus on additional ROC requirements not already covered by existing certifications. The model uses Bronze, Silver and Gold levels, with required practices, optional practices and critical tolerances depending on the level pursued.	Verification Body, which issues a Letter of Attestation if the audit is successful. FSA claims guidance describes verification as confirming that self-assessment has been performed appropriately across a relatively small sample of farms, rather than auditing every farm individually.
Smallholder accessibility	Farmers are mainly responsible for farm-level participation and implementation. This includes receiving relevant training, applying applicable farm practices, respecting worker and land-use safeguards, and participating in data collection,	Group certification can reduce individual farmer burden, but implementation still requires structured group management, farm data, geodata, internal inspections, risk assessment and platform use.	Fairtrade is designed for small producer organisations, but entry requires application and certification fees, regular audits, documented compliance evidence, Premium accounting and	Group certification can provide an access route for small operators, but EU Organic requires formal records, internal controls, separation between organic / in-conversion / non-organic production where relevant, and	The possibility to leverage existing certifications can reduce duplication. However, the organic baseline requirement, Regenerative Organic System Plan, soil health documentation and annual	The SAQ can be used as a free self-assessment tool, which lowers the initial barrier. However, verified claims require a Farm Management System, volume accounting, audit preparation and

	internal assessment and improvement activities. Management-system tasks, including planning, monitoring, internal assessment, result analysis and verification preparation, are primarily carried by the GME or other responsible entities, where applicable.		corrective-action follow-up.	compliance with official control requirements.	recertification create a relatively high entry threshold for smallholders not already participating in organic systems.	third-party verification.
Effectiveness in informal supply structures	The landscape / island-level option and supply-chain mapping logic make SCC comparatively well suited to fragmented coconut sourcing structures where formal farmer organisation may still be developing.	RA can work in smallholder contexts through group certification, but highly informal supply structures would need formalisation, farm registration and reliable data systems before the model can operate effectively.	Fairtrade is effective where smallholders are already organised, or can be organised, into formal producer organisations. It is less immediately deployable in loose coconut supply chains dominated by informal intermediaries unless those structures can be formalised.	EU Organic can include groups of operators, but those groups must meet defined legal conditions and operate an Internal Control System. This makes the model less flexible for informal or weakly organized coconut supply chains.	ROC can apply to operations of different sizes, but is more deployable where farms already have formal certification infrastructure, documentation systems and organic-compliance capacity.	FSA can accommodate fragmented sourcing where an aggregator or first-level buyer is able to organise farms into a Farm Management Group. It is less suited to fully informal structures without a coordinating entity.
Distribution of responsibilities	SCC deliberately distributes responsibility across farmers, group management, cooperatives, traders,	Responsibilities are distributed between farm Certificate Holders, group management, supply-chain actors,	Responsibilities are shared between producer organisations, members and traders. Producer	Responsibility rests with the operator or group of operators. For groups, the Internal Control System becomes	The certified operation carries primary responsibility for implementing the system plan and	FSA can be implemented through a stand-alone farm, Farm Management Group or first buyer. The

	processors / first points of processing and downstream actors.	intermediaries, subcontractors and service providers, but group management carries a central implementation role.	organisations manage member participation, internal governance and Premium use, while traders are bound by Fairtrade price and Premium rules where applicable.	central, but the regulation does not create a wider shared-responsibility mechanism involving downstream buyers or processors.	demonstrating compliance. ROC also includes buyer-related fairness provisions, but the core assurance model remains centred on the certified operation.	Farm Management Group Coordinator, often a cooperative, aggregator or processor, can centralise implementation tasks.
Continuous improvement logic	SCC uses stepwise performance levels, including Engaged, Verified “In Transition” and Verified “Sustainable”, allowing entry before full performance is achieved and creating a pathway for improvement over time.	RA v1.4 uses base, specialised and continuous improvement requirements. Continuous improvement requirements apply from the second certification cycle, creating a structured pathway beyond initial compliance.	Fairtrade distinguishes between core requirements, which must be met, and development requirements, which support progressive improvement through scoring and minimum average thresholds.	EU Organic has a conversion pathway from non-organic to organic production, but after certification it mainly operates as a compliance-based pass/fail system rather than a tiered continuous-improvement model.	ROC has a tiered Bronze, Silver and Gold structure. Bronze allows partial initial coverage, with expansion over time, while Gold requires full coverage. This creates a structured progression pathway, although entry still depends on meeting the organic baseline.	FSA is explicitly designed for assessment, improvement and verification. It includes a Continuous Improvement Module and recognises performance through Bronze, Silver and Gold levels after verification.

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