



Small Island Developing States Dock (SIDS DOCK)

MEMORANDUM

DATE: 15 March 2026

TO: Hon. Rodwell Ferguson
Minister
Ministry of Agriculture, Food Security and New Growth Industries
Government of Belize

FROM: Dr. Albert Binger
Secretary-General, SIDS DOCK Secretariat

Subject: **Project Proposal Concept: A Financing Framework for Revitalizing Belize's Citrus Industry Using Bio-Enzyme Technology and Revenue from International Carbon Credit Co-Benefits from Soil Carbon Sequestration**

PURPOSE

1. This memorandum provides an overview of a concept for a financing proposal being prepared in support of the Belize Citrus Replanting Project being implemented by the Ministry of Agriculture, Food Security and New Growth Industries with technical support from the SIDS DOCK Secretariat. This project can potentially benefit the approximately 230 citrus farmers engaged in farming over 25,000 acres, concentrated mainly in Stann Creek and Toledo districts.
2. The Belize citrus industry is widely considered to be in a fragile but slowly stabilizing recovery phase after more than a decade of decline due to long-term production collapse due to disease, ongoing industry restructuring, and recent signs of recovery driven by higher prices and replanting. While the sector is still much smaller than its historical peak and still under severe pressure from citrus greening, it is in a recovery and restructuring phase, supported by replanting programmes, improved prices, and industry-government collaboration.
3. In 2025, the citrus industry generated approximately \$38¹ million in export earnings (393,897 boxes), and remains one of Belize's most important agricultural sectors. This is a modest increase of 10 percent over the 2024 season, and a far cry from when the industry peaked around 2008, with roughly 8 million boxes of citrus production. Export earnings from citrus concentrate reportedly fell from about \$143 million in 2012 to approximately \$27 million by 2022, illustrating the scale

¹ All dollars quoted are in United States dollars (USD)

of the industry's contraction. Despite the small volume, export earnings are improving because global orange juice prices have surged due to disease and climate impacts in major producers like Brazil and Florida. Today, the industry is economically surviving through high prices while it rehabilitates.

4. The SIDS DOCK Secretariat is currently developing a Project Proposal titled: *"A Financing Framework for Revitalizing Belize's Citrus Industry Using Bio-Enzyme Technology and Revenue from International Carbon Credit Co-Benefits from Soil Carbon Sequestration"* ("the Project"). The goals of the five-year Demonstration Project are to support the rehabilitation of the citrus industry by treating 20,000 acres of land with proprietary microbes, and replanting with seedlings increasing orchard yields by xxx boxes of citrus by (year), and increasing to xxx boxes by (year). Twelve (12) months after treatment, the soil will be retested for levels of soil carbon increase, and that represents the amount of carbon credits generated and available for sale on the international market.
5. The use of bio-enzyme technology is not new to Belize. Omni Green Solutions, a U.S. based company, has been exporting, through permits from the Belize Agricultural Health Authority (BAHA), its proprietary natural product using natural elements to return and repair severely damaged land and water to productive, healthy and valuable ecosystems. Omni Green products include oil products desulfurization, soil restoration for increased agriculture yield and resilience, purification of salt and fresh water for aquaculture, and they offer a natural fire suppression system for jet fuel and intense heat fires. Omni Green is a company with enhanced soil carbon fixation technology and also manages carbon trading deals.
6. TLM Pipeline, a Texas-based U.S. Company already engaged in project development in partnership with the Government of Belize, SIDS DOCK, and other partners in the private sector, is finalizing the drafting of agreements to fully finance the Project as it is well-liked by TLM and its investment partners due to the Project's strong social and environmental benefits, good economics, and markets for the high-level carbon that would be sequestered by the project in the range of \$125 per ton. Additionally, Belize is a highly desirable location for extending credit. The agreements cover three connected Project components:
 - a. Soil rehabilitation using bio-enzyme technology.
 - b. Generation of revenue from international carbon credit co-benefits from soil carbon sequestration.
 - c. Financing the replanting of citrus orchards.
7. The Ministry of Agriculture notes that establishing citrus groves is estimated at \$8,000.00 per acre. Under this Project, rehabilitation of 20,000 acres would cost approximately one hundred and sixty million dollars (\$160,000,000). Financing this level of investment is challenging for government and farmers, as they must wait several years before the young citrus seedlings begin fruiting and generating revenues. The slow progress in rehabilitation is due in part to the high cost of establishment.
8. This multi-component demonstration project would provide the financing to: (a) rehabilitate/regenerate the soil to be resistant to the virus-based Greening disease, (b) significantly increase yields, (c) replanting of orchards, (d) provide the industry with additional revenue from the trade in soil carbon credits. Agreements between Omni Green and farmers would see them receiving soil treatment free of cost, with Omni Green acquiring the carbon credits from farmers in exchange for treating orchards. Farmers with treated orchards would have the option of signing a financing agreement with TLM, for replanting of the newly-treated soil with seedlings, at terms to

be determined. Farmers who enter into project agreements will not be required to provide any capital for either soil treatment or replanting.

9. This commercial scale demonstration project is a model public-private partnership that includes the government, local and foreign investors, citrus farmers, community-based organisations and other stakeholders. The foreign partners will bring proven scientific expertise to increase carbon fixation in soil being used for crop production, which significantly increases production levels beyond what would occur under conventional crop production practice and systems.
10. The Maya Forest Corridor REDD Project is an excellent precedent for this Project Proposal and it can strengthen it significantly. The project is one of the first large-scale carbon credit projects implemented in Belize, demonstrating that Belize already has experience with internationally verified carbon market projects, which increases credibility with climate funds and investors.

INTRODUCTION AND BACKGROUND

National Precedent: Carbon Market Experience in Belize

11. Belize has already begun participating in international carbon markets through the Maya Forest Corridor REDD Project, a large-scale forest conservation initiative designed to generate verified carbon credits through avoided deforestation. The project is located approximately 37 km west of Belize City in the Belize and Cayo districts and protects tropical lowland forests that form a critical ecological link between the northern Belize forest block and the Maya Mountains massif.
12. The project covers approximately 10,795 hectares of forest within a larger 11,856-hectare conservation property managed by the Maya Forest Corridor Trust. It was established to prevent the conversion of these forests to large-scale agriculture and to maintain long-term carbon storage, biodiversity conservation, and ecosystem services. The project is expected to generate approximately 1,153,412 tonnes of CO₂ equivalent in emission reductions over its 40-year lifetime through avoided deforestation and improved forest management.
13. In addition to climate mitigation, the project also demonstrates how carbon finance can support community resilience and biodiversity conservation. Activities include community training in sustainable livelihoods, wildfire management, biodiversity monitoring, and climate adaptation initiatives benefiting communities in the project zone.
14. The success of the Maya Forest Corridor REDD project demonstrates that Belize has the institutional capacity, technical expertise, and natural capital required to develop internationally recognized carbon credit projects. The proposed project, *“A Financing Framework for Revitalizing Belize’s Citrus Industry Using Bio-Enzyme Technology and Revenue from International Carbon Credit Co-Benefits from Soil Carbon Sequestration,”* builds upon this experience by expanding Belize’s participation in carbon markets beyond forest conservation to include climate-smart agriculture and soil carbon sequestration. While the Maya Forest Corridor project focuses on avoided deforestation, the proposed Project introduces a complementary model in which regenerative agricultural practices generate verifiable carbon removals while revitalizing a major export industry.
15. Together, these initiatives position Belize to develop a diversified portfolio of nature-based carbon projects spanning forests, agriculture, and ecosystems, strengthening the country’s ability to attract international climate finance while advancing sustainable development objectives.

The Belize Climate Change and Carbon Market Initiatives Bill, 2025

16. Belize is a Party to the United Nations Framework Convention on Climate Change (UNFCCC), and Article 6 of the UNFCCC Paris Agreement enables international cooperation to tackle climate change and to unlock financial support for developing countries. Article 6.4 established a new UNFCCC mechanism which can be used to trade high-quality carbon credits. The groundwork for carbon markets and non-market approaches laid out at the UNFCCC Conference of Parties (COP26), in 2021, in Glasgow, Scotland created, for the first-time, a united standard to go by to standardize the international carbon trading market.
17. The carbon marketplace is where carbon credits are purchased to offset emissions through environmental projects. One carbon credit equals one metric ton of carbon. Many Small Island Developing States (SIDS) are beginning to participate in international carbon markets under Article 6, although only a few are fully operational so far. Most SIDS are still in the “readiness” or “early implementation” phase, establishing registries, legal frameworks, and pilot projects. In the case of Belize, in 2025, the Government introduced the “*Climate Change and Carbon Market Initiatives Bill, 2025*,” which is currently under review by Parliament.
18. Belize could turn the citrus industry into a carbon credit generator by integrating the use of bio-enzyme technology to store carbon while maintaining and increasing fruit production. Because citrus orchards are long-lived perennial systems, they are well-suited to generate carbon credits linked to soil carbon and regenerative agriculture. Because citrus orchards already exist and farmers are organized through processors and grower associations, Belize could implement carbon projects faster than many countries, linking the citrus industry recovery with climate finance.
19. The *Climate Change and Carbon Market Initiatives Bill, 2025* establishes a national governance framework for addressing climate change in Belize. It creates key institutions including the Belize National Climate Change Council, the Climate Change Department, and a National Transparency Unit responsible for a Measurement, Reporting, and Verification (MRV) system. These institutions coordinate national climate policy, oversee greenhouse gas inventories, implement Belize’s Nationally Determined Contributions (NDCs) under the Paris Agreement, and promote mitigation and adaptation measures. The bill also requires regular reporting, data collection, and national planning for climate resilience, ensuring that climate considerations are integrated into development policy and public decision-making.
20. The bill also establishes a legal framework for a carbon trading market in Belize, recognizing carbon credits as tradable intangible commodities generated from projects that reduce or remove greenhouse gas emissions. It creates a National Registry System to track carbon projects, credit issuance, and transactions, and requires developers to obtain project approval and authorisation permits before selling credits. The law sets standards to ensure environmental integrity, including avoidance of double counting, stakeholder consultation, and free, prior, and informed consent from landholders. It also regulates participation in voluntary and international carbon markets, such as those linked to Article 6 of the Paris Agreement, and includes penalties for fraud, unauthorized trading, or manipulation of carbon credit records.
21. Overall, the bill integrates national climate governance with a regulated carbon market to support Belize’s transition to a low-emission and climate-resilient economy. The institutional framework established for climate policy also administers and oversees carbon credit projects, ensuring that carbon trading contributes to Belize’s national climate targets while maintaining transparency and accountability. Revenues from carbon credit transactions involving the government are directed to the national treasury, while benefit-sharing arrangements may be established with landholders and

communities. By linking climate policy implementation with market mechanisms, the legislation seeks to mobilize climate finance, incentivize emissions reductions and conservation activities, and align Belize's development strategy with international climate commitments.

22. As the legal process of establishment of the bill is still to be completed, the Ministry of Agriculture is seeking approval to initiate development of the Project while the legislative process continues. The speedy completion of the legislation and developing its operational capacity will provide a path to significant development of carbon credits projects, and become a major source of revenue for investment in the citrus industry which has been suffering from the impacts of changing climate and disease after decades of conventional agricultural practice and high-cost inputs. The use of micro-organisms to rejuvenate soil ecology would accelerate the rehabilitation citrus industry and in a short time positively impact the economics and sustainability of the suffering industry, one critical to Belize economic adaptation to climate change.

PROJECT GOALS AND ACTIVITIES

23. The Project titled "*A Financing Framework for Revitalizing Belize's Citrus Industry Using Bio-Enzyme Technology and Revenue from International Carbon Credit Co-Benefits from Soil Carbon Sequestration*" is a five-year commercial-scale demonstration initiative designed to restore productivity, resilience, and long-term financial sustainability to Belize's citrus sector. The goals of the project are to rehabilitate approximately 20,000 acres of citrus farmland located primarily in the Stann Creek and Toledo districts through the deployment of advanced soil restoration technology, regenerative agricultural practices, and climate finance mechanisms linked to international carbon markets. By integrating agricultural rehabilitation with measurable carbon sequestration outcomes, the project seeks to establish a replicable model for climate-smart agricultural transformation in small island and coastal developing states.

Carbon Credits

24. Carbon credits are technically generated when an activity naturally removes carbon dioxide from the atmosphere and it is stored in another place. Examples include
- The capture of CO₂ and storage in old mines, or oil wells.
 - Protection of forests and wetlands.
 - Renewable energy and energy efficiency projects in which fossil fuel use is reduced.
 - Production of agricultural crops using practices which results in annual increase of soil carbon levels.

Project Activities

25. The core intervention will involve the application of proprietary bio-enzyme microbial technology to degraded citrus soils in order to restore soil ecological balance, improve nutrient cycling, enhance water retention, and significantly increase soil organic carbon levels. Baseline soil carbon measurements will be conducted prior to treatment across participating orchards, followed by periodic monitoring to quantify carbon sequestration over the project lifetime.
26. Based on conservative estimates for regenerative agricultural systems, the project is expected to sequester 3 to 6 metric tons of CO₂ equivalent per acre, per year, through increased soil carbon storage and improved biomass productivity. Across 20,000 acres, this represents a potential generation of 60,000-120,000 carbon credits annually, or 300,000-600,000 credits over the five-

year demonstration period, each credit representing one metric ton of CO₂ equivalent removed or avoided.

27. The project will simultaneously support the replanting and rehabilitation of citrus orchards with improved seedlings following soil restoration. Establishment costs for citrus orchards in Belize average approximately \$8,000 per acre, implying an investment requirement of roughly \$160 million to rehabilitate 20,000 acres. By mobilizing private investment through a blended finance structure, the project will provide participating farmers with no upfront capital requirements for soil treatment or orchard replanting. The intervention is expected to significantly increase orchard productivity over time. Preliminary projections indicate that rehabilitated orchards could achieve yields of 200-300 boxes per acre once mature, potentially restoring national citrus production toward 4-6 million boxes annually, over the longer term, compared with approximately 393,897 boxes produced in 2025.
28. Carbon credits generated through verified increases in soil carbon will be certified under internationally recognized standards compatible with mechanisms established under Article 6 of the Paris Agreement, as well as voluntary carbon market methodologies. At projected prices ranging from \$80-\$125 per ton for high-integrity soil carbon credits, the project could generate \$5-15 million in annual carbon revenue, providing an additional income stream to support orchard rehabilitation, farmer livelihoods, and long-term sustainability of the citrus sector. These carbon revenues will serve as a catalytic financing mechanism, helping to offset the high upfront costs of orchard establishment and enabling private investors to support large-scale agricultural recovery.
29. The project will be implemented through a public-private partnership involving the Government of Belize, international technology providers, private investors, citrus farmers, and development partners. Omni Green Solutions will provide the soil restoration technology and support carbon measurement and verification processes, while TLM Pipeline and its investment partners will structure and mobilize financing for orchard replanting and project deployment. The Ministry of Agriculture, Food Security and New Growth Industries will oversee coordination with national agricultural development strategies, while the emerging carbon market regulatory framework under Belize's climate legislation will provide governance for credit issuance and trading.
30. By combining soil regeneration, climate finance, and agricultural investment, the project will deliver multiple benefits including increased agricultural productivity, enhanced farmer incomes, rural employment, and measurable climate mitigation outcomes. In addition to generating verifiable greenhouse gas removals, the project will strengthen Belize's participation in global carbon markets, contribute to implementation of its Nationally Determined Contribution (NDC) under the Paris Agreement, and demonstrate how regenerative agriculture can simultaneously address climate change, food security, and economic resilience in small developing economies.

EXPECTED CLIMATE IMPACT, ECONOMIC AND SOCIAL CO-BENEFITS, FINANCIAL STRUCTURE

Expected Climate Impact

31. The Project is designed to deliver measurable climate mitigation benefits through soil carbon sequestration, regenerative agricultural practices, and improved land management across approximately 20,000 acres of citrus orchards. Baseline soil carbon assessments will be conducted prior to project implementation, followed by periodic measurement and verification in accordance with internationally recognized methodologies compatible with carbon markets operating under Article 6 of the Paris Agreement and leading voluntary carbon standards.

32. Regenerative soil management practices combined with the application of bio-enzyme microbial technology are expected to increase soil organic carbon levels significantly. Conservative estimates indicate that treated soils could sequester 3-6 metric tons of carbon dioxide equivalent (tCO₂e) per acre annually, depending on soil type, management practices, and climatic conditions. Across 20,000 acres, this represents an estimated 60,000-120,000 tCO₂e per year of verifiable carbon sequestration. Over the initial five-year demonstration period, the project could therefore generate between 300,000 and 600,000 carbon credits, each representing one metric ton of CO₂ equivalent removed from the atmosphere.
33. Beyond direct carbon sequestration, the project will contribute to additional climate mitigation benefits by improving soil health, increasing water retention capacity, reducing dependence on synthetic fertilizers, and strengthening the resilience of citrus orchards to drought and climate stress. By restoring degraded agricultural lands and increasing long-term biomass productivity, the project will contribute to the implementation of Belize's Nationally Determined Contribution (NDC) commitments under the Paris Agreement while demonstrating scalable approaches for climate-smart agriculture in tropical production systems.

Economic and Social Co-Benefits

34. The project will generate significant economic and social benefits for rural communities in Belize, particularly in the Stann Creek and Toledo districts, where the citrus industry has historically served as a key driver of employment and rural economic activity. Approximately 230 citrus farmers managing more than 25,000 acres of farmland are expected to benefit directly from the project through increased productivity, improved soil health, and new revenue streams associated with carbon credit generation.
35. By rehabilitating 20,000 acres of citrus orchards, the project is expected to significantly increase fruit yields and restore long-term productivity to farms impacted by citrus greening disease and declining soil fertility. Rehabilitated orchards could eventually achieve production levels of 200-300 boxes per acre, substantially increasing farm incomes and strengthening the supply base for citrus processing and export industries. The revitalization of the sector will also stimulate economic activity across the citrus value chain, including transportation, processing, logistics, and export services.
36. In addition to improved agricultural incomes, the project will generate employment opportunities in soil treatment operations, orchard replanting, farm management, monitoring and verification activities, and carbon market administration. Hundreds of seasonal and permanent jobs are expected to be created during the implementation phase. Increased rural income and employment will contribute to improved livelihoods, food security, and economic resilience in communities that have experienced significant economic hardship due to the decline of the citrus industry over the past decade.

Financial Structure

37. The project will be implemented through a blended finance structure combining private investment, carbon market revenues, and agricultural production income. The total investment required to rehabilitate approximately 20,000 acres of citrus orchards is estimated at \$160 million, based on an average establishment cost of \$8,000 per acre, which includes soil rehabilitation, orchard replanting, and associated farm infrastructure.
38. Private investment capital will be mobilized through a financing facility led by TLM Pipeline and its investment partners, who will provide the majority of upfront funding required for soil treatment

and orchard establishment. The project's innovative financial model enables farmers to participate without requiring upfront capital contributions. Participating farmers will receive soil rehabilitation treatments and access to financing for orchard replanting, allowing rapid scaling of orchard rehabilitation across participating farms.

39. Carbon credit generation will serve as a key revenue stream supporting project financing. Based on estimated annual sequestration levels of 60,000-120,000 tCO₂e, and potential carbon market prices in the range of \$80-\$125 per ton for high-integrity soil carbon credits, the project could potentially generate \$5 million to \$15 million in annual carbon credit revenues. These revenues will contribute to servicing project financing obligations and supporting ongoing project operations.
40. Additional revenues will be generated from increased citrus production as rehabilitated orchards reach maturity. At projected yields of 200-300 boxes per acre, the restored citrus sector could potentially eventually generate several million boxes of fruit annually, significantly increasing export earnings from citrus products. The combined revenue streams from citrus production and carbon credit trading provide a diversified financial structure capable of supporting long-term repayment of project financing while ensuring sustainable returns for investors and participating farmers.
41. This blended financing model demonstrates how climate finance mechanisms can catalyse large-scale agricultural rehabilitation, enabling Belize to simultaneously restore a critical export industry, generate verifiable climate mitigation outcomes, and attract international investment into climate-resilient agricultural development.

MONITORING, REPORTING AND VERIFICATION (MRV) FRAMEWORK FOR SOIL CARBON CREDITS

42. A robust Monitoring, Reporting and Verification (MRV) framework will be established to ensure that soil carbon sequestration achieved under the project is accurately measured, transparently reported, and independently verified in accordance with internationally recognized carbon market standards. The MRV system will align with methodologies used in voluntary carbon markets and emerging compliance mechanisms linked to Article 6 of the Paris Agreement. The framework will ensure environmental integrity, prevent double counting, and provide confidence to investors and buyers that carbon credits generated by the project represent real, measurable, and additional greenhouse gas removals.
43. The MRV process will begin with baseline soil carbon assessments conducted across participating orchards prior to the application of Omni Green's bio-enzyme soil treatments. Soil samples will be collected using statistically representative sampling protocols at defined depths and georeferenced locations to establish baseline soil organic carbon levels across the 20,000 acres targeted under the project. Geographic Information System (GIS) mapping, satellite imagery, and digital farm records will be used to define project boundaries and track land-use changes. Following treatment and implementation of regenerative management practices, soil carbon measurements will be repeated periodically, typically every 12 to 24 months, to quantify changes in soil carbon stocks. These measurements will be combined with modeling tools and biomass assessments to estimate total carbon sequestration across the project area.
44. All carbon sequestration data will be compiled into a centralized project database and reporting system, enabling continuous monitoring of soil health indicators, farm management practices, and carbon stock changes. The system will incorporate digital farm registries, GPS-referenced sampling points, and remote sensing technologies to ensure transparency and traceability. Data will be

reported in accordance with recognized carbon accounting methodologies and submitted to an approved carbon registry for certification and issuance of tradable carbon credits.

45. Independent third-party verification will be conducted by accredited auditors to validate the accuracy of reported emission reductions and removals. Verification will confirm that project activities meet requirements for additionality, permanence, and leakage prevention, which are critical criteria for carbon market credibility. Upon successful verification, carbon credits will be issued through an approved registry and made available for sale in international carbon markets. The MRV system will also ensure compatibility with Belize's emerging national carbon registry and governance framework being established under the country's climate legislation, thereby supporting national transparency and compliance with international climate reporting obligations.
46. By implementing a rigorous MRV framework, the project will ensure that soil carbon credits generated from rehabilitated citrus orchards meet the highest standards of environmental integrity and market credibility. This approach will enhance investor confidence, facilitate participation in international carbon markets, and position Belize as a leader in the application of scientifically validated soil carbon sequestration projects within climate-smart agricultural systems.

ESTIMATED BUDGET TO DEVELOP A FULL PROPOSAL FOR FUNDING

47. The estimated preparation budget for a full proposal for funding ranges between \$775,000-\$1,630,000, and includes soil carbon baseline studies, citrus rehabilitation feasibility analysis, carbon credit methodology, environmental and social safeguards, MRV, financial structuring of the \$160 million investment programme, and stakeholder consultations, as noted below in Table 1. Because this Project potentially generates \$5-15 million per year in carbon revenue, investors often pay for the preparation work themselves if they believe the carbon credits are viable.
48. Although being financed by TLM Pipeline, as a reference, for a \$160 million agricultural-carbon project, climate finance institutions require detailed documentation to ensure:
 - Environmental integrity
 - Financial viability
 - Carbon credit credibility
 - Farmer benefit sharing
 - Compliance with safeguards
49. For example, the Green Climate Fund (GCF) often spends \$1-3 million in project preparation funding before approving projects larger than \$100 million.

Table 1: Estimated Budget To Develop a Full Funding Proposal

Component	Purpose	Estimated Cost (USD)
1. Technical Feasibility Study	Agronomy, soil science, citrus rehabilitation modeling, bio-enzyme performance validation	\$120,000-\$250,000
2. Soil Carbon Baseline & Methodology Design	Baseline soil sampling, carbon sequestration modeling, methodology alignment with carbon standards	\$150,000-\$350,000
3. Carbon Market Development Strategy	Carbon registry selection, Article 6 compatibility, credit pricing strategy	\$75,000-\$150,000

4. Financial Modeling & Investment Structuring	Full financial model for the \$160M program, investor return structure, blended finance model	\$80,000-\$150,000
5. Environmental & Social Safeguards	Environmental and Social Impact Assessment required	\$120,000-\$250,000
6. Monitoring, Reporting and Verification (MRV) System Design	Carbon measurement system, digital registry integration, verification protocols	\$80,000-\$160,000
7. Legal & Institutional Framework Analysis	Alignment with Belize carbon legislation and carbon credit ownership structure	\$50,000-\$120,000
8. Stakeholder Consultation Process	Farmer engagement, consultation workshops, consent documentation	\$40,000-\$80,000
9. Proposal Writing & Climate Finance Packaging	Preparation of the final funding proposal	\$60,000-\$120,000
Total Estimated Preparation Budget		\$775,000-\$1,630,000

12-MONTH PROJECT PREPARATION ROADMAP: FROM CONCEPT NOTE → FULL FUNDING PROPOSAL → INVESTOR COMMITMENT →

50. The roadmap converts the concept into a bankable, investment-ready \$160 million programme that aligns with Belize’s emerging carbon market legislation. It ensures MRV integrity, which is essential for high-value soil carbon credits and provides a clear path for farmer onboarding with no upfront cost. This Project positions Belize as a leader in climate-smart agriculture and soil carbon markets. Table 2, below is a summary timeline, noting milestones over a 12-month period:

Table 2: Summary Timeline - 12-Month Project Preparation Roadmap

Month	Milestone
1	Governance + mobilisation
2	Data framework + farm registration
3	Agronomic feasibility
4	Soil carbon baseline sampling
5	Carbon methodology + market strategy
6	\$160M financial model
7	Legal + regulatory alignment
8	Drafting of Full Proposal
9	Pre-validation + MRV finalisation
10	Investor negotiations
11	Government + registry approvals
12	Final funding proposal + financial close

51. Pre-Implementation Readiness:

Month 1: Mobilisation & Governance Setup

- Establish a Project Preparation Task Force (Ministry of Agriculture, SIDS DOCK, Omni Green, TLM Pipeline, Citrus Growers, BAHA, Climate Change Department).
- Approve a Project Preparation Work Plan and budget.
- Finalise NDAs, data-sharing agreements, and roles for each partner.
- Begin drafting the Project Proposal outline aligned with Article 6 and voluntary carbon standards.

- Initiate legal review of the Climate Change & Carbon Market Initiatives Bill, 2025 to map implications for project approval.

Month 2: Field Mobilisation & Data Collection Framework

- Develop the Soil Carbon Baseline Sampling Protocol (sampling density, geospatial mapping, etc.)
- Identify and register the 20,000 acres of participating farms; secure farmer letters of intent.
- Begin GIS mapping of orchards, land-use history, and degradation levels.
- Draft the MRV architecture (data flows, verification cycles, registry alignment).

Month 3: Technical Feasibility Study (Agronomy & Bio-Enzyme Validation)

- Conduct field trials of Omni Green's bio-enzyme technology on representative plots.
- Model expected yield recovery, soil carbon response, and disease resistance improvements.
- Produce the Agronomic Feasibility Report with cost-benefit analysis.
- Begin drafting the Environmental & Social Safeguards (ESS) Screening.

Month 4: Soil Carbon Baseline Sampling Begins

- Launch full-scale baseline sampling across the 20,000 acres.
- Conduct laboratory analysis of soil organic carbon.
- Build the digital farm registry with GPS-tagged sampling points.
- Begin drafting the Carbon Methodology Alignment Report (Article 6 + voluntary standards).

Month 5: Carbon Market Strategy & Methodology Finalisation

- Finalise the carbon accounting methodology (3-6 tCO₂e/acre/year).
- Select the carbon registry (Omni Green to advise/or Article 6.4 mechanism).
- Develop the Carbon Revenue Model (price scenarios: \$80–125/ton).
- Prepare the Carbon Rights & Benefit-Sharing Framework for farmers.

Month 6: Financial Structuring & Investment Model

- Build the full \$160M financial model (CAPEX, OPEX, cash flows, internal rate of return, repayment structure).
- Structure the blended finance mechanism (private capital + carbon revenue + future citrus income).
- Draft the Farmer Financing Agreement (no upfront cost, repayment via yields or carbon).
- Begin investor due-diligence data room preparation.

Month 7: Legal, Regulatory & Institutional Alignment

- Align project requirements with the Climate Change & Carbon Market Initiatives Bill.
- Draft the Project Approval Application for the national carbon registry.
- Develop the Permanence, Leakage & Additionality justification.
- Finalise the Public–Private Partnership (PPP) Framework.

Month 8: Full Project Proposal Drafting

- Complete the first full draft of the project proposal including:
 - Baseline scenario
 - Project boundary
 - Carbon methodology
 - MRV plan
 - Financial model
 - Implementation plan
 - Safeguards
 - Risk mitigation

- Conduct stakeholder consultations (farmers, processors, communities, regulators).

Month 9: Verification & Pre-Certification Engagement

- Engage an accredited third-party validator (TBD).
- Conduct a pre-validation review of the project proposal.
- Address gaps identified by validators.
- Finalise the Monitoring Plan and digital MRV system.

Month 10: Investor Structuring & Term Sheet Negotiations

- TLM Pipeline and partners negotiate:
 - Investment terms
 - Carbon revenue sharing
 - Risk allocation
 - Disbursement schedule
 - Prepare the Investment Prospectus and circulate to co-investors.
 - Secure letters of commitment from anchor investors.

Month 11: Government Approval & Carbon Registry Submission

- Submit the project proposal to the National Carbon Registry for approval.
- Secure the Article 6 Authorisation (if applicable).
- Submit the project proposal to the selected international carbon registry.
- Finalise the Benefit-Sharing Agreement with farmers and communities.

Month 12: Final Funding Proposal & Financial Close

- Produce the Full Funding Proposal including:
 - Technical feasibility
 - Carbon methodology
 - MRV system
 - Financial model
 - Investment structure
 - Implementation plan
 - Safeguards
 - Risk management
- Secure binding investment agreements with TLM Pipeline and partners.
- Establish the Project Implementation Unit (PIU).
- Prepare for Year 1 implementation (procurement, staffing, logistics).

KEY RECOMMENDATIONS AND CONCLUSION

Key Recommendations

52. The Ministry of Agriculture, Food Security and New Growth is being requested to consider the following recommendations:
 - a. That the Ministry uses the opportunity under this Project to include 20 acres of sugarcane fields as a small demonstration pilot for the treatment of soil with Omni Green's proprietary bio-enzyme technology.
 - b. That the Ministry considers granting Omni Green the required additional permits to facilitate the establishment and operation of an Omni Green Bio-Enzyme Facility in Belize.

Conclusion

53. The revitalization of Belize's citrus industry is no longer simply an agricultural priority, it is a national opportunity to restore a cornerstone of rural livelihoods, unlock new climate-finance revenue streams, and position Belize as a regional leader in regenerative, carbon-smart agriculture. The evidence presented throughout this proposal shows that the sector's decline is reversible, that the technologies required for recovery already exist, and that the financial architecture to mobilize \$160 million in private investment is within reach. What is needed now is unified commitment.
54. The Ministry of Agriculture, Food Security and New Growth Industries has proposed a Commercial Demonstration Project that brings together government leadership, proven bio-enzyme technology, international investment partners, and the resilience of Belize's citrus farmers into a single, coherent pathway for recovery. By rehabilitating 20,000 acres of farmland, restoring soil health, replanting orchards, and generating high-integrity soil carbon credits, the Project offers a transformative model that strengthens food security, expands export earnings, and delivers measurable climate benefits aligned with Belize's NDCs and emerging carbon market legislation. As the Maya Forest Corridor REDD Project has already shown, Belize has the institutional capacity and credibility to succeed in global carbon markets; this initiative builds directly on that foundation.
55. The scale of the economic, social, and environmental impacts will only be realized if all stakeholders move forward together. Government agencies, citrus growers, processors, community organizations, private investors, and development partners each have a critical role in ensuring that this Project becomes a national success story. The financing is ready to be mobilized, the technology is proven, and the legislative framework is advancing. What is required now is collective endorsement and coordinated action to bring this opportunity to fruition.
56. Belize stands at a pivotal moment. With full stakeholder support, this Project can restore a vital industry, generate millions in new climate-finance revenues, and create rural jobs. Belize is considered a Small Island Developing State (SIDS) because it meets the internationally recognized criteria used by the United Nations to classify countries that share similar structural vulnerabilities, despite differences in geography. This project being championed by Belize can demonstrate to the world how a Small Island Developing State can lead in climate-smart agricultural transformation. The time to act is now, and the path forward is clear.

March 15, 2026

SIDS DOCK Secretariat

For

Ministry of Agriculture, Food Security and New Growth