Climate Finance Innovation Lab

Innovating Finance,
Accelerating Actions

Joint Committee on Climate Change (JC3)

Climate Finance Innovation Lab

Cohort 1

18 June 2025 – 31 Aug 2025

An initiative by: JC3 Joint Committee on Climate Change

Administrator: BPMB Malaysia Development Bank

Strategic Partner: UNDP

Climate Finance Innovation Lab

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Accelerating Actions

CFIL
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Planters International Berhad

Eco-Restoration and Biodiversity Innovation Program

Climate Finance Innovation Lab

Thematic area	Circular economy and sustainable cities
Climate action	Climate adaption
Project maturity	Full implementation
Funding required	RM2,527,000,000

About

The Coastal Oasis Initiative is a high-impact eco-restoration and circular economy programme focused on rehabilitating the degraded Sungai Klang river system and adjacent coastal isles, spanning over 27,000 hectares of riparian and mangrove ecosystems. The initiative integrates biodiversity restoration with waste recovery innovation, converting organic waste into biochar, carbon credits, and regenerative materials, while transforming collected plastics into fuel, energy feedstock, or recyclable products. Supporting NETR and Malaysia's climate finance agenda, the project offers a scalable model for ecological regeneration and sustainable economic growth.

Website

planters.life

Kota Kinabalu City Hall

Hybrid Waste-to-Energy Complex

Climate Finance Innovation Lab

Thematic area	Energy transition and green innovation
Climate action	Climate mitigation
Project maturity	Feasibility study
Funding required	RM500,000,000

About

The development of a 30 MW Hybrid WTE Complex, a combination of Incinerator and Anaerobic Digester, at Kayu Madang Landfill, Kota Kinabalu. Servicing up to 1000 metric tons of municipal waste daily, for sustainable waste management under Kota Kinabalu City Hall.

Website

dbkk.sabah.gov.my/home

Rhodomaxx Sdn Bhd

Seaweed Bio-refinery

Climate Finance Innovation Lab

Thematic area	Sustainable agriculture
Climate action	Environmental
Project maturity	Scaling
Funding required	RM10,000,000

About

We use locally grown seaweed to produce bio-stimulants and bio-materials, driving Malaysia's seaweed sector towards a higher-value, sustainable industry. As seaweed requires no land, freshwater, or additional inputs, it is an ideal low-impact biomass for climate-friendly solutions.

Our bio-stimulants support the estate industry by boosting oil palm growth and reducing Scope 1 emissions, addressing gaps overlooked by fertilizer companies and plantation groups. Simultaneously, our bio-materials tackle plastic pollution, from single-use plastics to microplastics in fast fashion.

Through strategic partnerships, IP licensing, and a pilot factory with support from JC3 and CFIL, we aim to scale these innovations sustainably.

Website

rhodomaxx.com

Nuplas Solutions Sdn Bhd

Eco-Restoration and Biodiversity Innovation Program

Climate Finance Innovation Lab

Thematic area	Circular economy and sustainable cities
Climate action	Environmental
Project maturity	Scaling
Funding required	RM10,000,000

About

Nuplas Solutions is a 100% Malaysian-owned company driving the NuNet Project, launched in 2021 to create a sustainable circular economy for discarded fishing nets in Southeast Asia. The initiative transforms end-of-life nets into high-quality recycled Nylon 6 for the B2B market, reducing marine pollution while unlocking economic value. Through financial incentives, Nuplas supports fishing communities and promotes sustainable practices. With over 100 villages onboarded, 10 metric tonnes collected, and growing export demand, NuNet aims to scale regionally, protect marine ecosystems, and establish Malaysia as a leader in sustainable net recovery and ocean conservation.

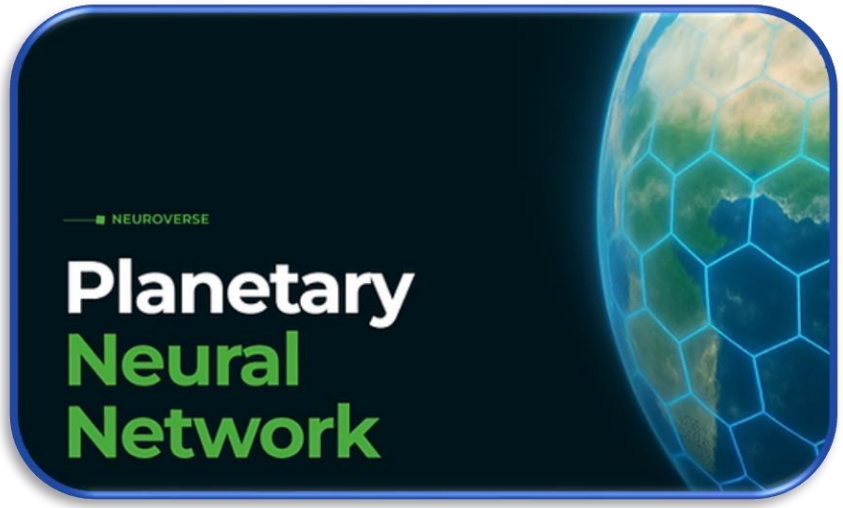
Website

nuplassolutions.com

Nur Inspirasi Sdn Bhd

Decentralized Climate Intelligence Platform

Climate Finance Innovation Lab



Thematic area	Circular economy and sustainable cities
Climate action	Climate adaption
Project maturity	Pilot
Funding required	RM5,000,000

About

Ecosphere Prime is a decentralized climate intelligence platform turning hyper-local environmental data into trusted, actionable insights. Communities, enterprises, and governments deploy IoT sensors that capture real-time weather and environmental data, validated with edge AI and secured on Hedera DLT for transparency. This data is tokenized and accessed through NFTs or APIs, enabling use cases in research, agriculture, insurance, and climate finance. By rewarding contributors and ensuring data integrity, Ecosphere Prime is building the world's most granular climate intelligence network, creating a sustainable data economy that empowers better decisions, strengthens resilience, and drives global impact.

Website

ecosphereprime.com

Umorie Graphene Technologies Sdn Bhd

Graphene Super Batteries

Climate Finance Innovation Lab

Thematic area	Energy transition and green innovation
Climate action	Climate mitigation
Project maturity	Pilot
Funding required	RM5,000,000

About

This project supports the clean energy transition and electric mobility through the certification and future commercialization of graphene-based super batteries. Aiming to deliver faster charging, longer-lasting, and safer energy storage, the initiative targets applications in electric vehicles, drones, and energy systems. The initial phase focuses on certification (IEC 62133, UN38.3), prototype refinement, and launching electric motorcycles. By leveraging graphene nanotechnology, the project enhances battery performance and sustainability. Its business model combines B2B battery sales, strategic partnerships, and technology licensing, driving carbon reduction, improved energy efficiency, and positioning Malaysia as a leader in next-generation battery innovation.

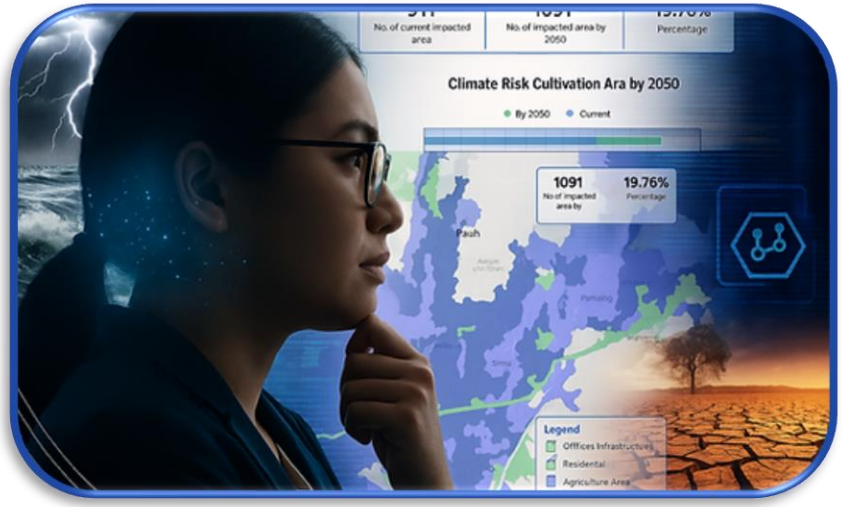
Website

umorie-ev.com

H2O Datatech Sdn Bhd

Selangor Climate Risk & Supply Chain Disruption Analytics Platform

Climate Finance Innovation Lab



Thematic area	Circular economy and sustainable cities
Climate action	Climate adaption
Project maturity	Feasibility study
Funding required	RM3,000,000

About

AI-Driven Climate Risk Platform is a pioneering initiative to help businesses in Selangor quantify and manage climate-related physical risks such as sea level rise, floods, storm surges, and supply chain disruptions. Using high-resolution geospatial data, remote sensing, AI, and machine learning, the platform identifies climate-exposed infrastructure, simulates disruption scenarios, and quantifies financial and operational losses. Featuring interactive dashboards and ESG-ready analytics, it supports manufacturing, logistics, healthcare, agriculture, and utilities. Developed in collaboration with the Selangor Climate Adaptation Centre (SCAC), the platform empowers businesses with data-driven adaptation strategies and strengthens Selangor's position as a regional leader in climate resilience innovation.

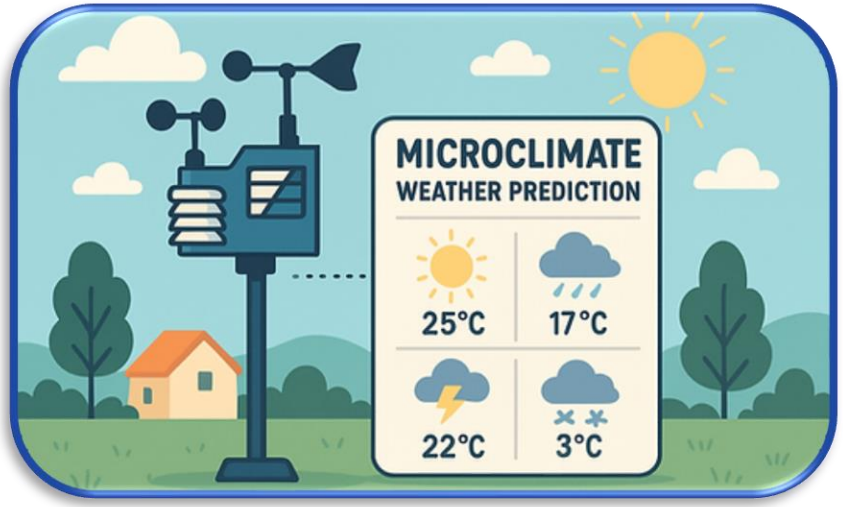
Website

h2odatatech.com

Green Urban Matters Solutions Sdn Bhd

Weather information platform from rooftop solar projects

Climate Finance Innovation Lab



Thematic area	Energy transition and green innovation
Climate action	Climate adaption
Project maturity	Idea / concept
Funding required	RM2,500,000

About

This project leverages rooftop solar installations across Malaysia to build a microclimate data platform that enhances weather and flood prediction capabilities. Weather stations installed on Commercial & Industrial (C&I) solar projects collect real-time data on irradiance, rainfall, and other parameters. By aggregating data from multiple sites into a shared database, the platform supplements limited datasets from the Meteorological Department, improving forecast accuracy. The system integrates IoT sensors, data loggers, and a public web portal, enabling stakeholders to access live and historical weather data to support climate resilience, flood planning, and data-driven decision-making.

Puvanameta Sdn Bhd

Material Recovery Facility

Climate Finance Innovation Lab

Thematic area	Circular economy and sustainable cities
Climate action	Environmental
Project maturity	Full implementation
Funding required	RM2,000,000

About

Plastic Resin and Flakes Manufacturing Project aims to establish a state-of-the-art facility for producing high-quality recycled plastic resin and flakes to support Malaysia's circular economy and sustainability goals. By converting post-consumer and industrial plastic waste into valuable raw materials, the project reduces landfill dependency, cuts carbon emissions, and promotes resource efficiency. The facility will supply recycled PET, HDPE, and other resins to manufacturers across packaging, automotive, and consumer goods sectors, enabling businesses to adopt eco-friendly solutions. This initiative aligns with Malaysia's green growth agenda and fosters sustainable industry practices while creating new economic opportunities.

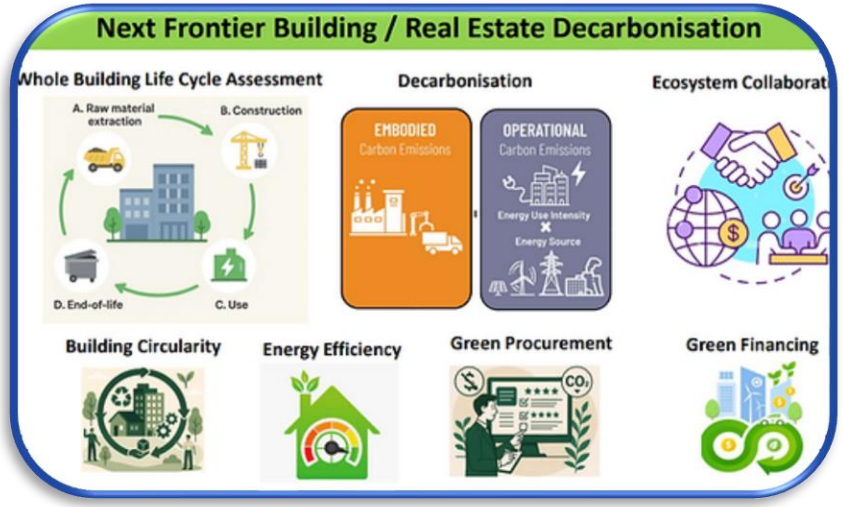
Website

puvanameta.my

Smart Tradzt Sdn Bhd

Enabling Green Low Embodied Carbon Building

Climate Finance Innovation Lab



Thematic area	Circular economy and sustainable cities
Climate action	Climate mitigation
Project maturity	Pliot
Funding required	RM2,000,000

About

This project provides innovative solutions to reduce both operational and embodied carbon in new buildings and retrofits of existing structures. It integrates whole-building life cycle assessments, green procurement of low-carbon materials, and circularity practices such as reusing salvaged and recycled materials. Through energy efficiency evaluations, the project enables greener buildings aligned with certification standards while supporting green financing. By delivering granular embodied carbon data and establishing new benchmarks for whole-life carbon, the solution empowers financial institutions to develop sustainability-linked loans and green financing instruments for more climate-resilient, low-carbon developments.

Website

smarttradzt.com/carbon-emission

Legatus Sdn Bhd

Ride to Own Electric Motorcycle

Climate Finance Innovation Lab

Thematic area	Circular economy and sustainable cities
Climate action	Climate mitigation
Project maturity	Pliot
Funding required	RM2,000,000

About

The solution enables delivery platforms to offer affordable 200km long range electric motorcycles, particularly to new riders without bikes, helping them join the gig economy and earn income. Businesses and government benefit by an increased rider pool whilst reducing operational costs, sound, and transport emission pollution, indirectly contributing to a cleaner and more sustainable urban mobility ecosystem, hitting ESG and SDG targets, as well as alleviating the national fuel subsidy burden. The project targets to deploy up to 200 electric motorcycles (in 5-unit multiples) with requisite support from state and federal governments, without the need for any swap or charging infrastructure.

Website

legatusev.com

Cell AgriTech Sdn Bhd

Cultivated Protein for Food Sustainability

Climate Finance Innovation Lab

Thematic area	Sustainable agriculture
Climate action	Climate mitigation
Project maturity	Scaling
Funding required	RM1,000,000

About

Cell AgriTech is Malaysia's first cell-cultivated fish and meat company, pioneering large-scale bio-manufacturing to deliver sustainable, affordable, high-quality protein, leading with unagi. Producing without slaughter, it reduces emissions, protects ecosystems, and supports food security. Leveraging proprietary plug-and-play biomanufacturing technology, industry partnerships, and consumer education, Cell AgriTech drives commercialization through high-value fish, contract manufacturing, and pet food production. With facilities in Malaysia and Singapore, the company champions innovation, sustainability, and animal welfare, positioning itself as a regional leader shaping the future of protein and fostering a resilient, climate-conscious food ecosystem.

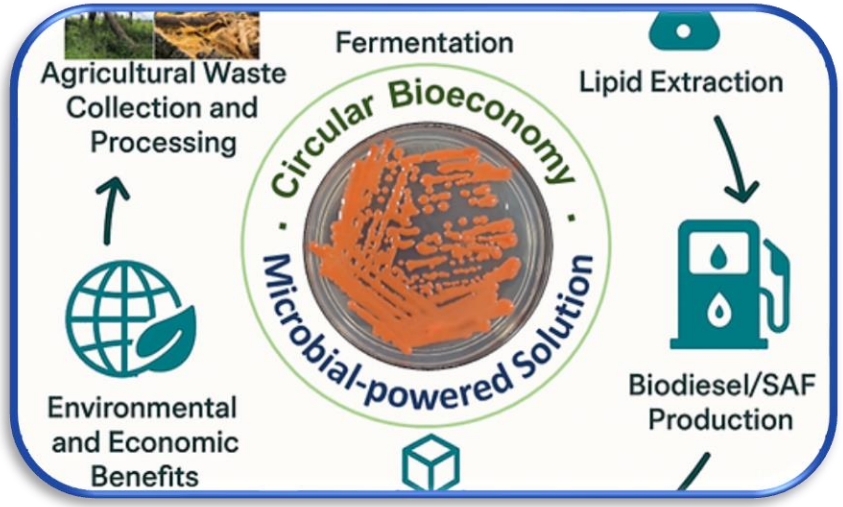
Website

cell-agritech.com

Sarawak Biodiversity Centre

Microbial-based Technology Biofuels

Climate Finance Innovation Lab



Thematic area	Energy transition and green innovation
Climate action	Climate mitigation
Project maturity	Pilot
Funding required	RM1,000,000

About

Sarawak Biofuel Innovation Project leverages microbial-based technology developed by the Sarawak Biodiversity Centre (SBC) to convert sap from felled oil palm trunks into energy-dense lipids, which can be refined into biodiesel and advanced biofuels. The initiative adds value to agricultural waste, promotes a circular bioeconomy, and supports Sarawak's vision of becoming a regional green energy hub. SBC is piloting this technology to validate performance, optimise processes, and assess economic feasibility under real-world conditions, enabling green financing opportunities and positioning Sarawak as a leader in sustainable biofuel production while driving climate action and carbon reduction

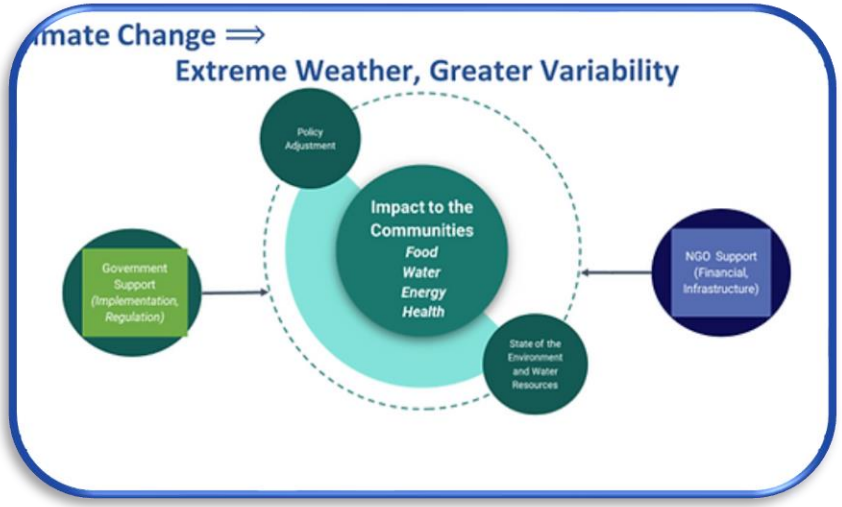
Website

sbc.org.my

Monash University Malaysia

Integrated Water-Energy-Food-Environment (WEFE) Nexus Model

Climate Finance Innovation Lab



Thematic area	Circular economy and sustainable cities
Climate action	Climate adaption
Project maturity	Pilot
Funding required	RM590,000

About

The Malaysia Water-Energy-Food-Ecosystem (WEFE) Nexus Project is a pioneering initiative to develop an integrated model across all states, advancing climate adaptation and policy implementation. Using spatial-temporal datasets, field studies, and geospatial analysis, it identifies stakeholder vulnerabilities and cross-sector impacts. By integrating nature-based solutions, participatory workshops, and decision-support tools, the project enhances resilience, biodiversity, and sustainable resource management while also improving health through better nutrition, cleaner water, reduced disease risks, and protection from heat stress. It provides a replicable framework for coordinated policy, infrastructure planning, and community empowerment to build climate-smart, healthier futures across the states of Malaysia.

Website

monash.edu.my

UITM Solar Research Institute

Greenhouse Gas Intelligence and Reporting System (GIRS)

Climate Finance Innovation Lab

Thematic area	Energy transition and green innovation
Climate action	Climate mitigation
Project maturity	Pilot
Funding required	RM550,000

About

GHG Intelligence & Roadmap System (GIRS) is a digital, data-driven GHG Inventory and Reporting System designed to support sub-national emissions reduction targets. The platform automates the collection, aggregation, and reporting of emissions data, integrating national energy statistics with local demographics, GDP, and sectoral data to generate emission baselines and projections. Featuring real-time dashboards, scenario modeling, and emissions maps, it also identifies financeable low-carbon interventions. Initially self-funded, GIRS will adopt a subscription-based model for state governments, offering consulting, MRV services, and data licensing, with potential scalability to local government and ASEAN states/cities.

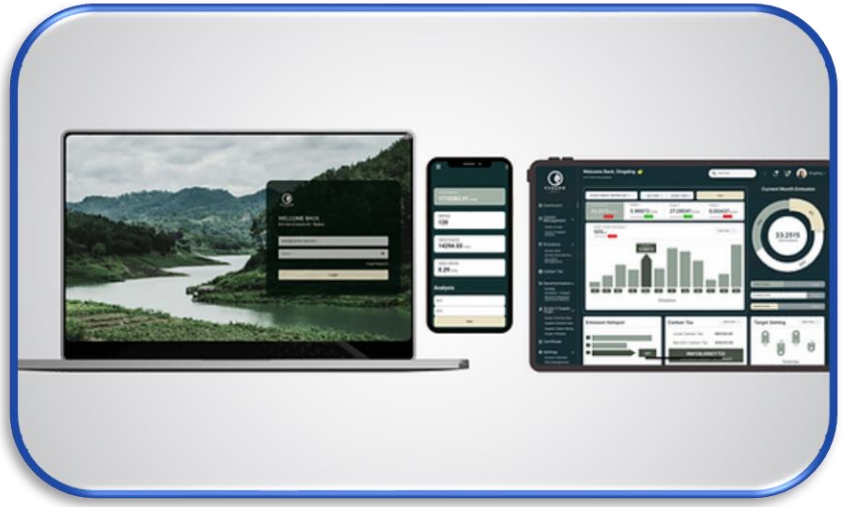
Website

solar.uitm.edu.my

Carbon Next Sdn Bhd

Carbon Next: Carbon Management Software

Climate Finance Innovation Lab



Thematic area	Other
Climate action	Climate mitigation
Project maturity	Scaling
Funding required	RM500,000

About

Carbon Next is shaping the financial infrastructure for ASEAN's low-carbon transition. Our platform enables SMEs and PLCs to produce assurance-ready carbon reports aligned with ISSB, SASB and GRI, while connecting directly to banks, insurers, and regulators. With adoption already underway, Carbon Next provides the regulatory-grade backbone for climate finance, helping businesses unlock capital, reduce financing risks, and strengthen disclosure readiness. Scalable across ASEAN, it positions the region's financial system to support climate-aligned growth.

Website

carbon-next.com

Eco Terra Sdn Bhd

Carbon-Negative Bioenergy

Climate Finance Innovation Lab

Thematic area	Energy transition and green innovation
Climate action	Climate mitigation
Project maturity	Feasibility study
Funding required	RM500,000

About

Eco Terra transforms palm oil waste (19M tonnes EFB/year) into high-value, carbon-negative solutions. Its proprietary process produces biofertiliser, reducing synthetic fertilizer use by 10-25% (validated data), and generates renewable syngas energy (2.8MWh/tonne) to power off-grid mill operations with excess electricity sold. Through Verra-certified carbon removal (2.4t CO_2e/tonne), Eco Terra enables pre-sold carbon credits while supporting Malaysia's NETR Flagship 4 (Bioenergy). With scalable mobile units—60% women-operated—the initiative drives climate action, rural empowerment, and sustainable economic growth.

Website

ecoterraasia.com

Reclimate Sdn Bhd

Reclimate: Artisanal Biochar Project Network

Climate Finance Innovation Lab

Thematic area	Circular economy and sustainable cities
Climate action	Climate mitigation
Project maturity	Full implemtation
Funding required	RM500,000

About

Reclimate's artisanal biochar solution is a decentralised, cost-effective, in-situ approach enabling farmers to transform crop residues into biochar with simple kilns. This prevents open burning, enriches soils, and sequesters carbon for centuries. Through Reclimate's digital platform, projects are tracked and verified, producing globally accredited carbon credits. As Malaysia's first artisanal biochar carbon removal project, Reclimate pioneers scalable, farmer-driven climate finance. By training rural communities and unlocking new income streams, it advances sustainable agriculture while supporting climate goals. With ongoing regional expansion, Reclimate positions Malaysia as a leader in regenerative solutions driving impactful, grassroots climate action across Southeast Asia.

Website

reclimate.earth

Vanilla Impact Story Sdn Bhd

Integrated Vanilla Cultivation

Climate Finance Innovation Lab

Thematic area	Sustainable agriculture
Climate action	Environmental
Project maturity	Scaling
Funding required	RM300,000

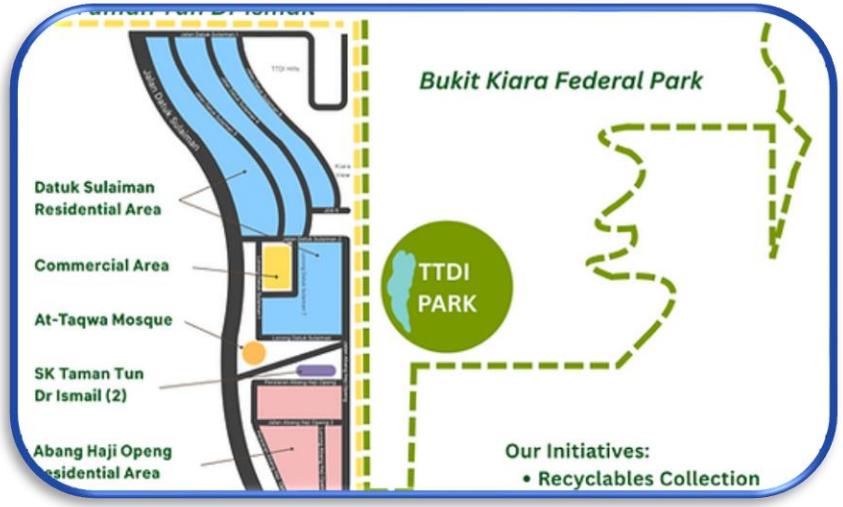
About

Economic Empowerment through Integrated Vanilla Cultivation and Ecotourism is an initiative dedicated to uplifting indigenous communities through sustainable agriculture and tourism. The project focuses on training a strong team of young agropreneurs, empowering local farmers through contract farming opportunities, and accelerating impact by building an integrated supply chain from cultivation to market. By combining vanilla farming with community-based ecotourism, the initiative aims to create diversified income streams, preserve local heritage, and multiply its positive impact across Borneo and beyond, fostering inclusive and sustainable economic growth.

Hijau Mikro Sdn Bhd

GreenSteps to Circularity

Climate Finance Innovation Lab



Thematic area	Circular economy and sustainable cities
Climate action	Climate mitigation
Project maturity	Scaling
Funding required	RM250,000

About

GreenSteps to Circularity is a programme under the GreenSteps Low-Carbon Circular Economy Blueprint, piloted in Taman Tun Dr. Ismail (TTDI) to scale waste circularity and strengthen biodiversity. The project integrates a structured waste management system to unlock value from waste streams including recyclables, used cooking oil (processed into Sustainable Aviation Fuel), organic waste, and the distribution of native plants to create an ecological connector linking TTDI to Bukit Kiara. By combining waste circularity with nature-based solutions, GreenSteps delivers a replicable model that reduces landfill waste and emissions, enhances biodiversity, and supports Malaysia's climate adaptation and mitigation goals.

Website

greensteps.my

Susden Malaysia

Oil Palm Crop Productivity Enhancer

Climate Finance Innovation Lab

Thematic area	Sustainable agriculture
Climate action	Climate adaption
Project maturity	Feasibility study
Funding required	RM60,000

About

Smallholder oil palm plantations often face reduced yields due to poor soil moisture retention and limited water infiltration, especially during dry periods. Compacted and degraded soils restrict water penetration, root development, and nutrient uptake, leading to lower productivity and income for farmers.

This project focuses on improving soil health and enhancing water retention capacity to support sustainable farming practices. By restoring soil conditions, it helps increase yields, strengthen climate resilience, and improve long-term profitability for smallholders while promoting better land stewardship and sustainable palm oil production.

Website

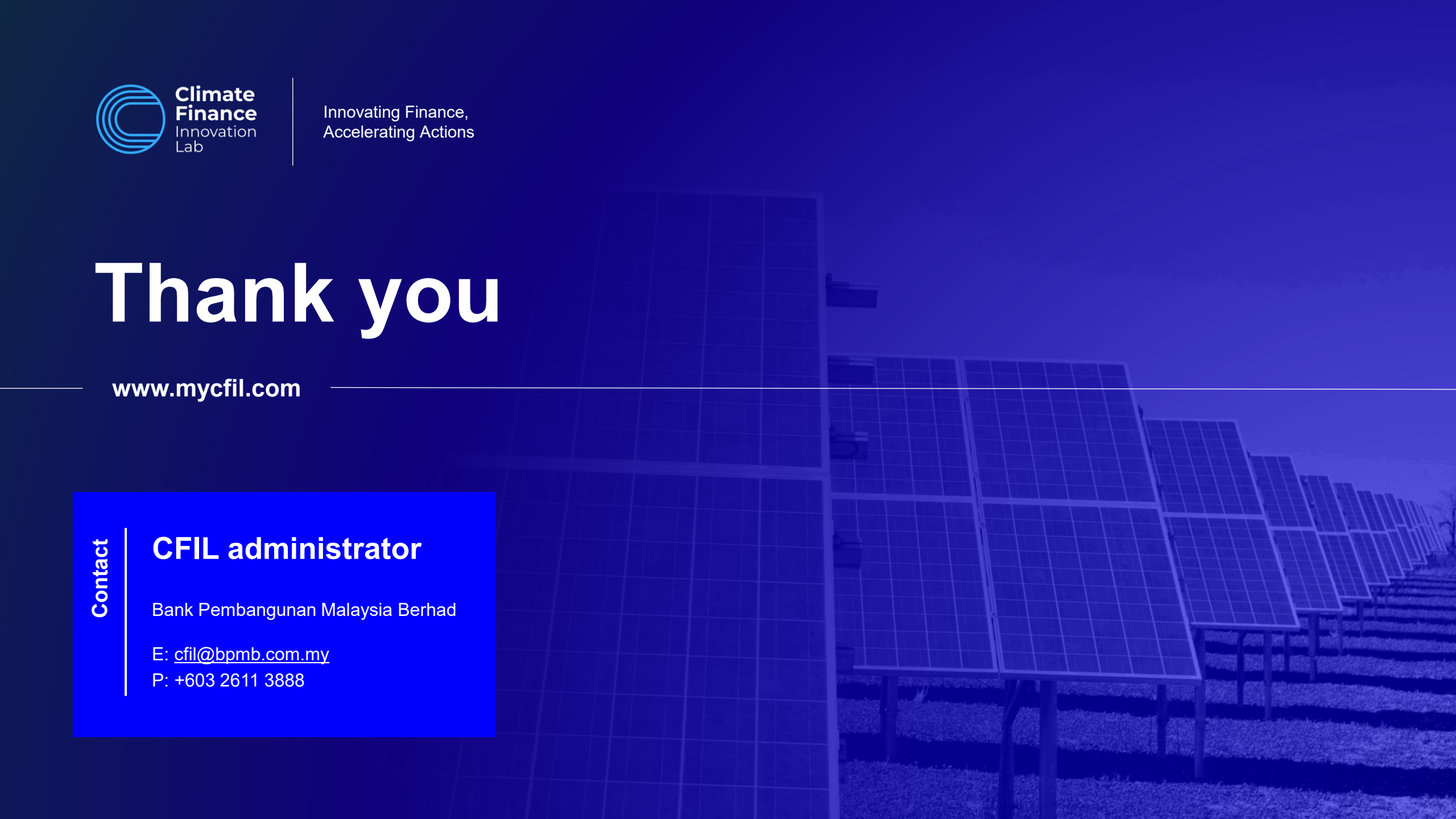
susden.org.my

Climate Finance Innovation Lab

Innovating Finance,
Accelerating Actions

Thank you

www.mycfil.com



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