

Produced by Participants on the
Malaysia Young Leaders Programme 2019

POWERING SABAH'S SUSTAINABLE PROSPERITY

Executive Summary





ELECTRIFICATION CHALLENGES

With up to 40% of Sabah’s population living in rural communities, there remain thousands of small indigenous villages too remote to be reached by the national power grid.

There are 603 villages with 19,671 houses in Sabah that are still not supplied with electricity according to a 2018 Sabah Electricity Board (SESB) assessment.

The key challenges in electrifying Sabah are the obstructive topography, isolating distances between settlements and poor road access. Collectively, these are symptomatic of a broader development challenge that encompasses the lack of basic needs provision in rural Sabahan communities.



ACCESSIBILITY

40% of Sabah’s population live in rural communities

SABAH’S RURAL DEVELOPMENT

Today, energy access is recognised as a basic human need, enabling education, communication, poverty reduction and overall socioeconomic development. The Sabah government and SESB have made efforts to address the underdevelopment of rural communities through initiatives that aim to expand the grid into rural regions. As a result between 2010 and 2017, a total of 29,260 households from 699 villages in the state benefited from access to electricity.

At the local level there is a vibrant non-profit ecosystem that has made significant progress on electrification and rural development including our partner for this project - non-profit entity **Tonibung** has been working with **Penampang Renewable Energy Sdn. Bhd. (PRE)** to provide rural communities with access to clean water and electricity through renewable energy focusing predominantly on micro-hydroelectric systems and sustainable solutions.

Tonibung and PRE have installed over 50 micro-hydro systems since 2005, providing electricity to 50,000 people. However, progress towards achieving their mandate of exhaustive rural electrification in Sabah is slow as they rely on funding that is both infrequent and insufficient.



ELECTRIFICATION

19,671 houses in Sabah are without electricity

ELECTRIFYING 6,500 HOUSEHOLDS

Increased access to electricity will not only improve quality of life for rural community members, but can also lay the foundation for other investments in infrastructure and local businesses. However, electricity alone cannot spur socioeconomic development and a more holistic approach is required where villages will have access to roads, healthcare, communications and upskilling.

Given the gaps in current government initiatives and the challenges facing rural communities in Sabah, a business model was designed to address the overlap of both, with an ambitious target of reaching 6,500 households in just 5 years.

The proposed business model is centred around the establishment of a Government Linked Company named **SinaRaff** with a focus on rural development in Sabah and Its mandate will be to provide renewable, affordable energy and access roads for communities in the short-term; and education, healthcare and communications in the long-term.





Sinar (noun) : In the Malay language, *sinar* means a ray, beam, or glow.

Rafflesia : The largest flower in the world, indigenous to Borneo & Sabah.

Vision: Catalysing rural development by addressing the key themes of rural electrification, accessibility and communication in an efficient, transparent and sustainable manner.

The newly established **SinaRaff** will support rural communities' development in multiple areas, covering electricity, accessibility, education and health. It will achieve this through construction of renewable energy systems; an improved road network; better access to education through the Centre of Excellence; contemporary healthcare facilities and services. **SinaRaff** will build an ecosystem of SMEs to implement its mandate by leveraging on their local knowledge and expertise and ensuring community involvement by upskilling and employing locals. The emphasis on community ownership of the power systems is integral for the long-term success of the model.

Seed funding from the government will provide the capital required to set up **SinaRaff**. The considerable one-off grant will also kickstart an Endowment Fund that will generate revenue through interests paid on secure investments in order to cover its operational costs. Additionally, a proposed Rebate for Ecosystem Services (RESS) will contribute toward maintaining operations by imposing a 1% levy on local extractive industries that will add to the Endowment Fund, ensuring the self-sustenance of **SinaRaff**.

KEY DELIVERABLES OF THE BUSINESS MODEL

Electrification

- Micro-hydro and solar systems will be installed and connected to form mini-grids, which will be the backbone of providing rural communities with electricity independent to the national grid.
- Rural communities would be the key consumers, paying fair and transparent tariffs that are set and collected by the Community Based Organisations.
- PRE will be a lead partner in the planning, execution and maintenance of the mini-grids.

Accessibility

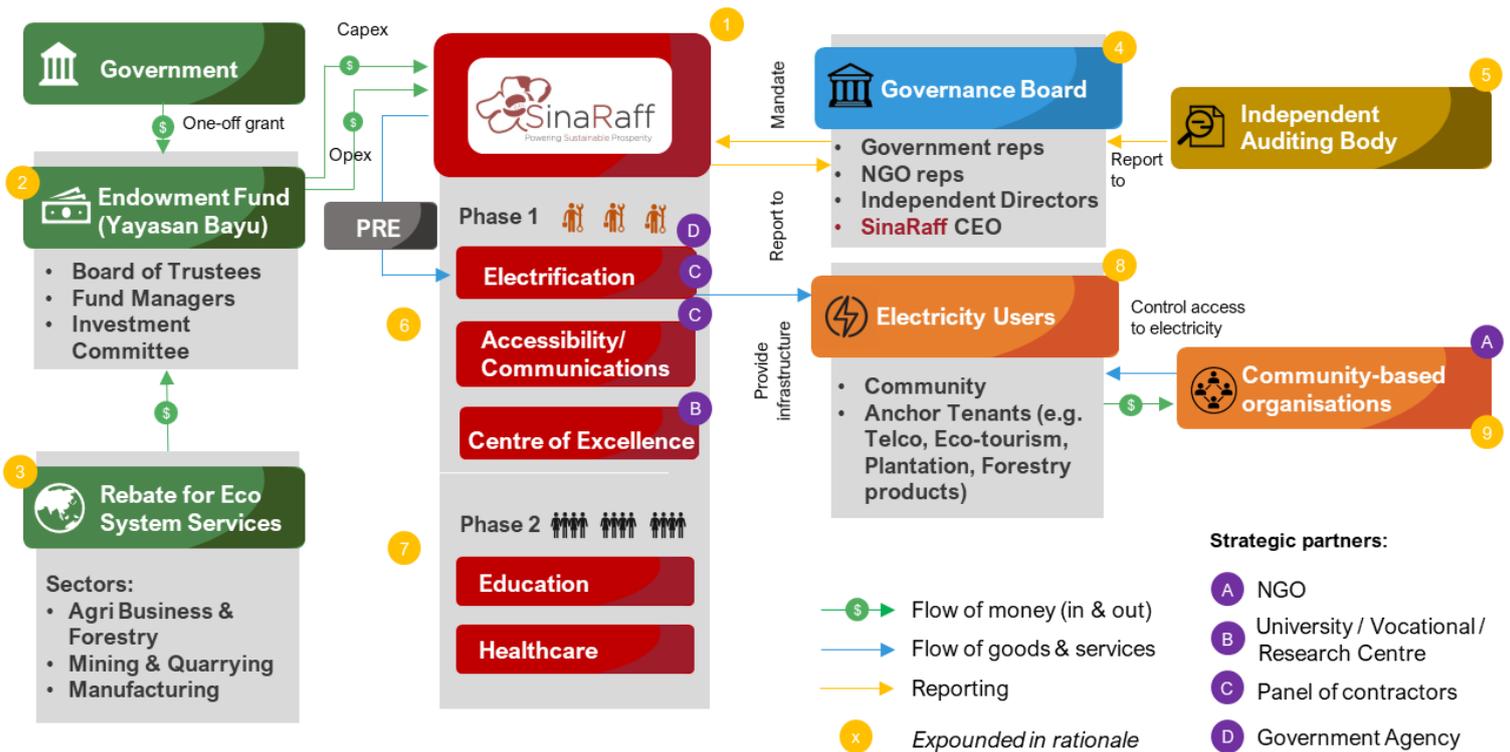
- Current roads will be upkept and new roads will be constructed, and communication infrastructure will be set up.
- This has the double-effect of addressing the major issue of communities' isolation while also providing routes for electrification partners to accelerate the installation of mini-grids in previously inaccessible regions.

Centre of Excellence

The community empowerment model comprises the joint efforts of the Centre of Excellence (COE) and the Community Based Organisations (CBO). The COE is an essential component for scalability and sustainability of **SinaRaff's** operations as it ensures that there is sufficient skilled workforce to support the implementation of its mandate and a knowledge-sharing culture. Meanwhile, the CBO delivers community ownership and equitable benefit-sharing of **SinaRaff's** projects. Local NGOs are vital to securing community trust and participation in the CBO.

- It will provide following services:
 - Training for rural community members. Initially specific mini-grid.
 - Cooperation with university and vocational Schools to provide access to teachers, materials, syllabuses, student exchange, and Train-the-Trainer programs.
 - Innovation through research and development, and technology sharing with local to global partners.

THE SINARAFF BUSINESS MODEL



1 **SinaRaff** is a newly established Government Linked Company mandated to address rural development in Sabah by delivering accessibility and electrification in an efficient and effective manner.

2 **SinaRaff's** capital requirements will be financed by an **Endowment Fund** sourced from government grants and Rebate for Eco-system Services. The funds will be supervised by a Board of Trustees and a portion of the capital raised will be placed in the purview of a professional **Fund Manager**.

3 RESS is a 1% levy on revenues of companies with high environmental and social impacts on rural economies and will contribute to the endowment fund. These companies also stand to benefit in the long term from improved rural infrastructure and a higher skilled workforce.

4 A Governance Board with multi-sector representation that is guided by independent third-party experts that will oversee the mandate of the GLC and will report regularly to the board.

5 The **Independent Auditing** body will report on **SinaRaff's** operations and financials to the board to ensure that it remains transparent and efficient.

6 Phase 1 of the model will focus on providing electricity, accessibility and communication. In order to achieve this, **SinaRaff** relies on strategic partnerships with SMEs and NGOs with local expertise.

PRE will be the lead partner for the electrification initiative and will manage the installation and maintenance of the energy systems.

A Centre of Excellence will also be established and will leverage on existing training centres in order to upskill members of local communities who will contribute to the ground operations of **SinaRaff**.

7 Phase 2 of the model will expand on the operations of phase 1 by cooperating with various ministries, SMEs and NGOs in order to provide innovative and appropriate access to healthcare and education.

8 Rural communities will be the primary consumers of electricity while any excess amount can be sold to anchor tenants.

9 **Community Based Organisations** will be set up in order to ensure community buy-in, ownership and equitable benefit-sharing from planned projects.

POWERING SABAH'S SUSTAINABLE PROSPERITY

Aligned with the vision, the proposed business model efficiently manages available funds and channels them to the people who need them – the rural communities.

Communities will be given 51% ownership of the power systems to guarantee long-term participation, accountability and decision-making. Over time, the ownership percentage gradually increases.

The model in place builds an ecosystem where the public sector, financiers, community stakeholders, and community focused non-governmental organisations work together in harmony.

In order to determine the tangible benefits that **SinaRaff** delivers to Sabahan rural communities, impact evaluation must take place. Considering that **SinaRaff** is a GLC, it is essential that these benefits can be logged to improve **SinaRaff's** effectiveness and provide a transparent narrative to all stakeholders.

Below is a snapshot of 10-year financial projection of **SinaRaff's** intended development plans for rural communities in Sabah through the establishment of an Endowment Fund through a foundation named *Yayasan Bayu*.

The aim for this Endowment Fund is to generate investment returns sufficient to finance **SinaRaff's** operations without having to depend upon withdrawal of its principals in the long-term.

Yayasan Bayu's model is built from an initial seed fund of MYR 250 million with a small portion of the Fund (7.58%) allocated for capex in the preliminary year, and the remaining 92.42% (MYR 231.05 million) will be invested into the Fund. Thereafter, the Fund will receive a yearly contribution from the RESS initiative to add to its pool of investable funds, with a projected breakeven in year 7.

Key Financials	Key Figures
Government Seed Funding	MYR 250 million
Year 0: Endowment Fund	MYR 231.05 million
Year 0: Capex	MYR 18.95 million
Rebate for Ecosystem Services (RESS)	1% levy on profits of extractive industries operating in Sabah's rural regions

Year 10 Financial Snapshot	
Completed target villages	475
Endowment Fund's returns	MYR 365 million
Cost	MYR 247 million
Investable funds at beginning of year	MYR 6.35 billion



200 villages to be electrified in 5 years



6,500 Households to get access to renewable energy in 5 years



1,500 jobs created in 5 years



The **Global Institute For Tomorrow (GIFT)** is an independent pan-Asian think tank providing content-rich and intellectually challenging executive education from an Asian worldview.

The **Malaysia Young Leaders Programme (YLP)** is GIFT's Southeast Asian leadership experiential programme designed for government officials and managers from leading global organisations to think critically about the drivers of change in the 21st century and develop new business models that address the defining challenges of our time.

In this Malaysia YLP, participants convened in Kuala Lumpur and Kota Kinabalu between 25 March and 18 April 2019 to undertake classroom discussions, site visits, fieldwork, and business planning sessions. The results of this business plan were presented at a public forum in Kota Kinabalu, Malaysia, on 18 April to a range of government, business, and community stakeholders.

GIFT thanks everyone for putting in their best efforts and making this possible.

Tomorrow Matters.

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