

Environmental Sustainability: Towards Net Zero for Sarawak

**Kho Lip Khoon, Elizabeth Nyomek, Sharifah
Mordhiah Binti Syeed Mohd. Hussein, & Abg
Ahmad Abg Morni**

Corporate Development & Economy Division

Ministry of Energy and Environmental
Sustainability Sarawak (MEESy)





Environmental
Sustainability



Green Economy



Net Zero Strategy



Carbon Trading



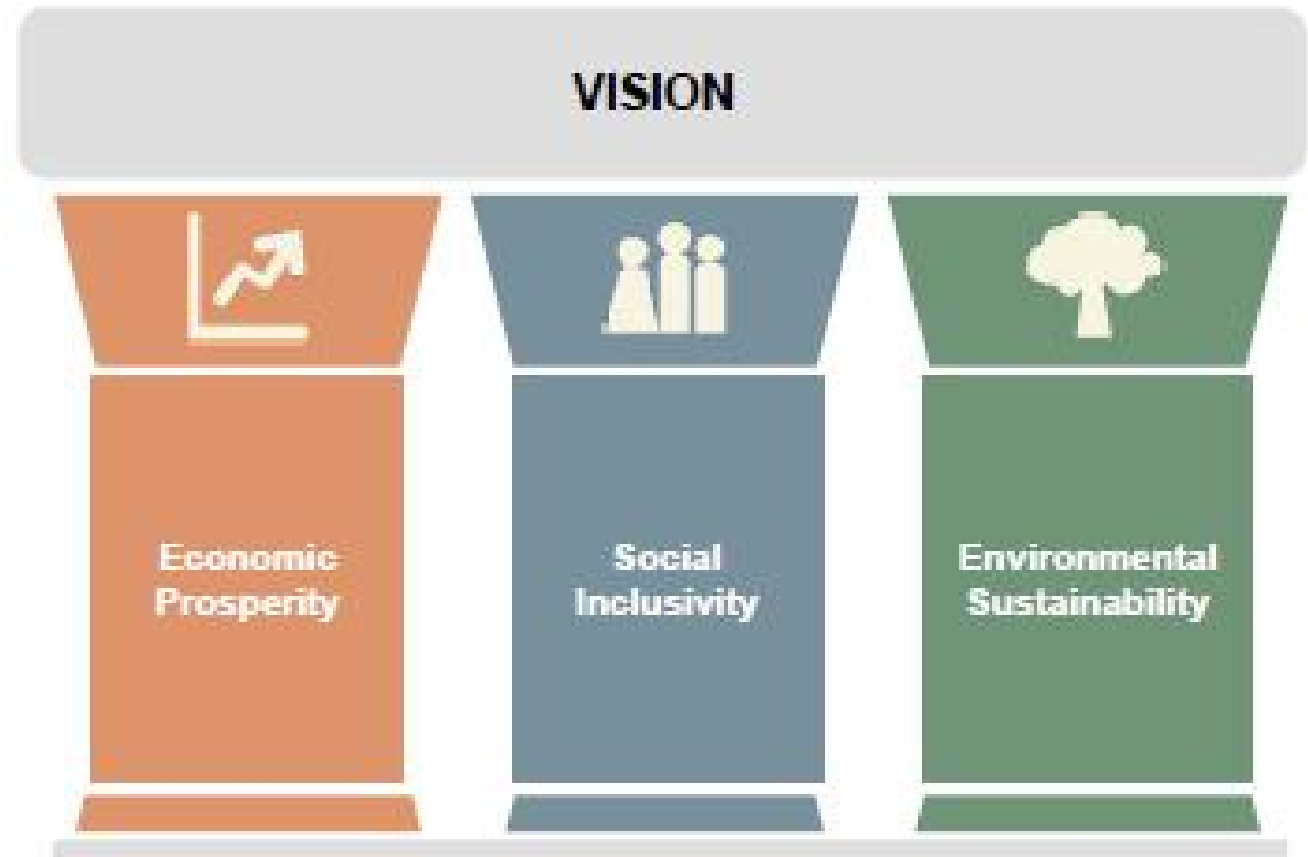
Moving forward with
Sarawak Government



Conclusion

Today's Talk

By 2030, Sarawak envisions a prosperous society led by data and innovation, ensuring economic prosperity, social inclusivity, and environmental sustainability for all.



What is Environmental Sustainability

- Responsible and balanced use of natural resources and ecosystems to meet the needs of the present generation without compromising the ability of future generations to meet their own needs.
- Making choices and taking actions that minimize negative impacts on the environment, promote conservation of resources, and ensure long-term ecological health.

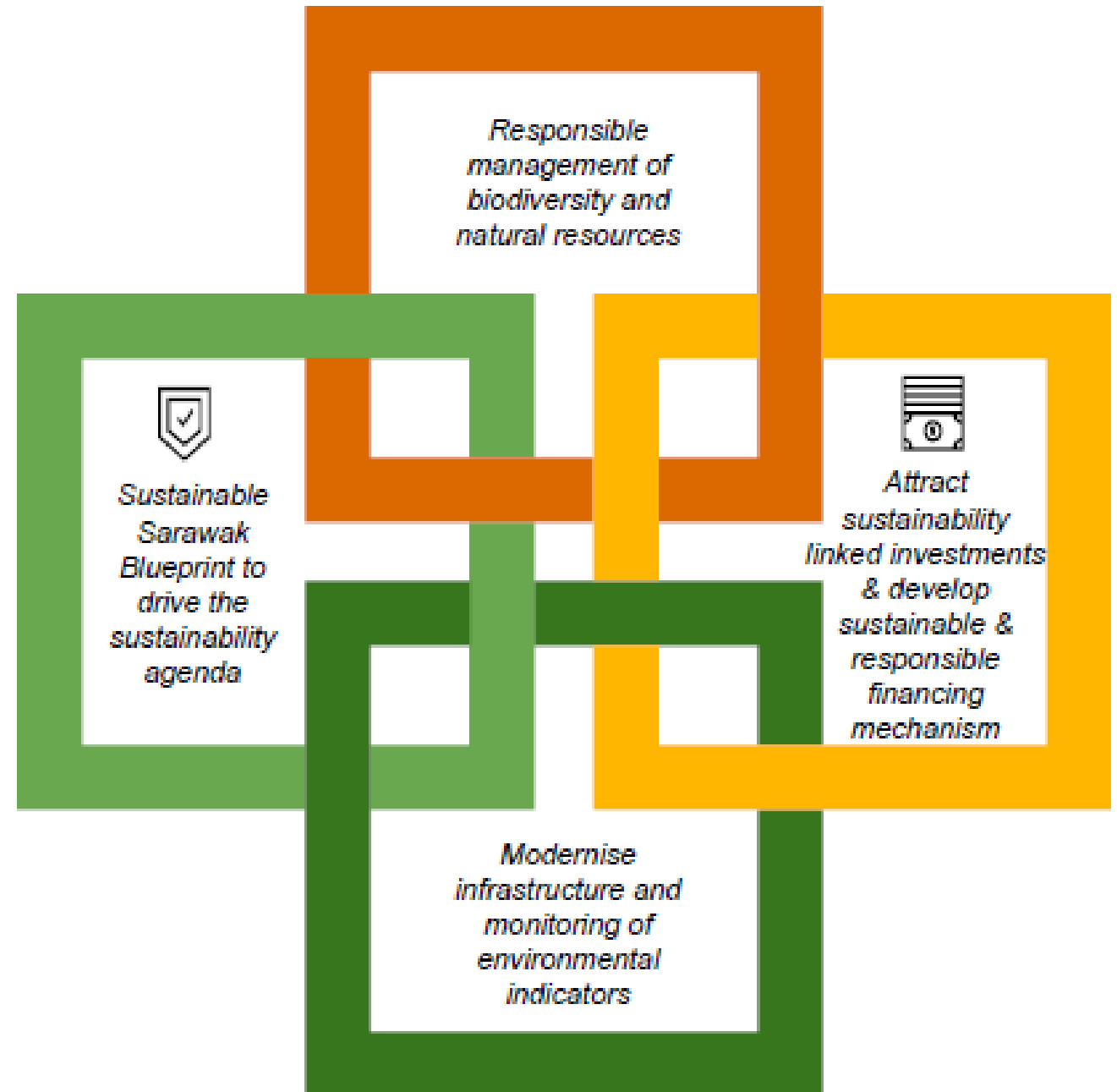


Environmental Sustainability – The Vision

- Ensure a clean and healthy environment for current and future generations
- Sustainable forest management
- Adoption of new technologies and innovation
- Support Malaysia's commitment to reduce greenhouse gas (GHG) emissions intensity of GDP by 45.0% by 2030.



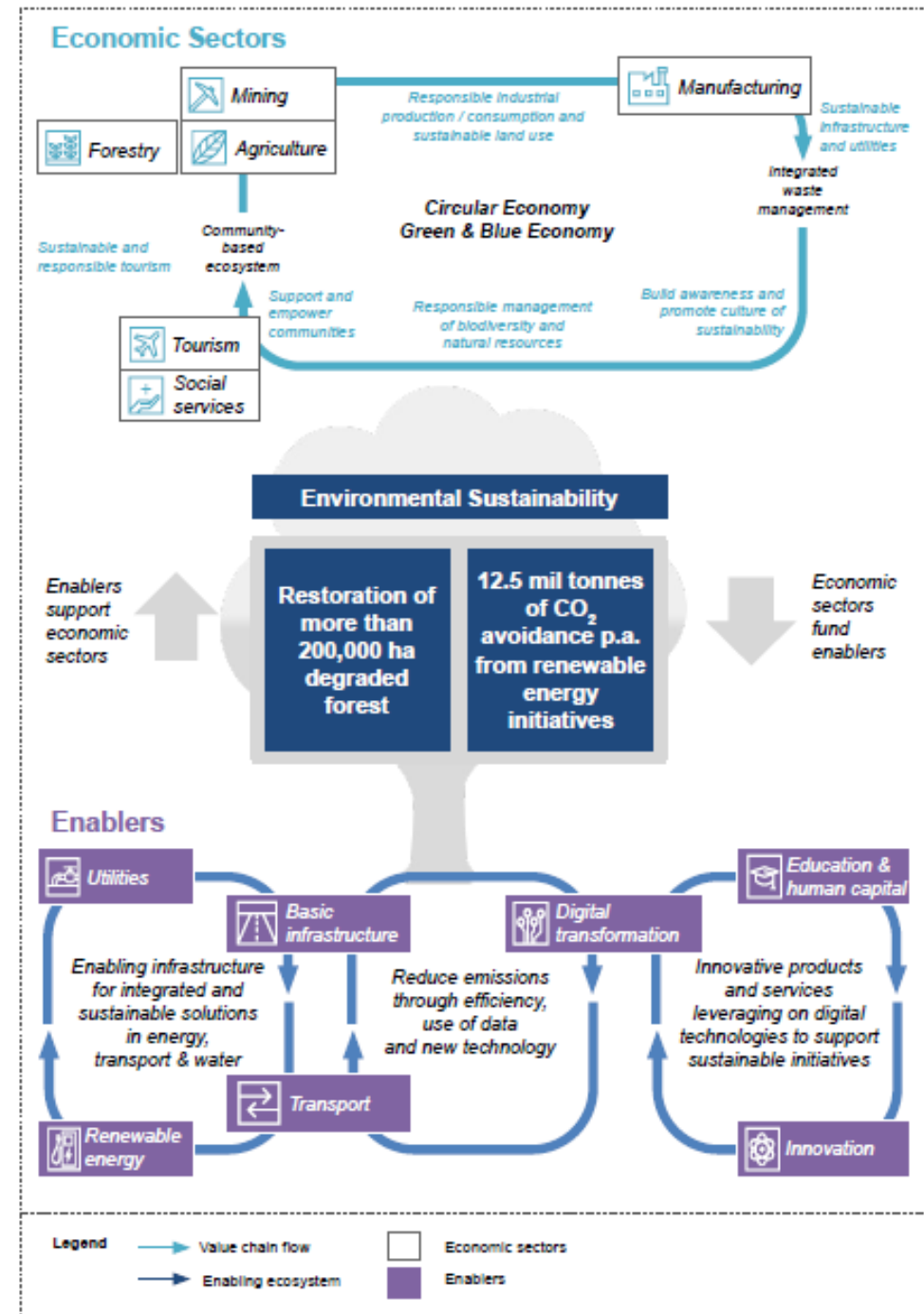
Strategic Focus of Environmental Sustainability



PCDS 2030 anchors on 6 economic sectors and 7 enablers



Ecosystem of Interdependence between Economic Sectors and Enablers

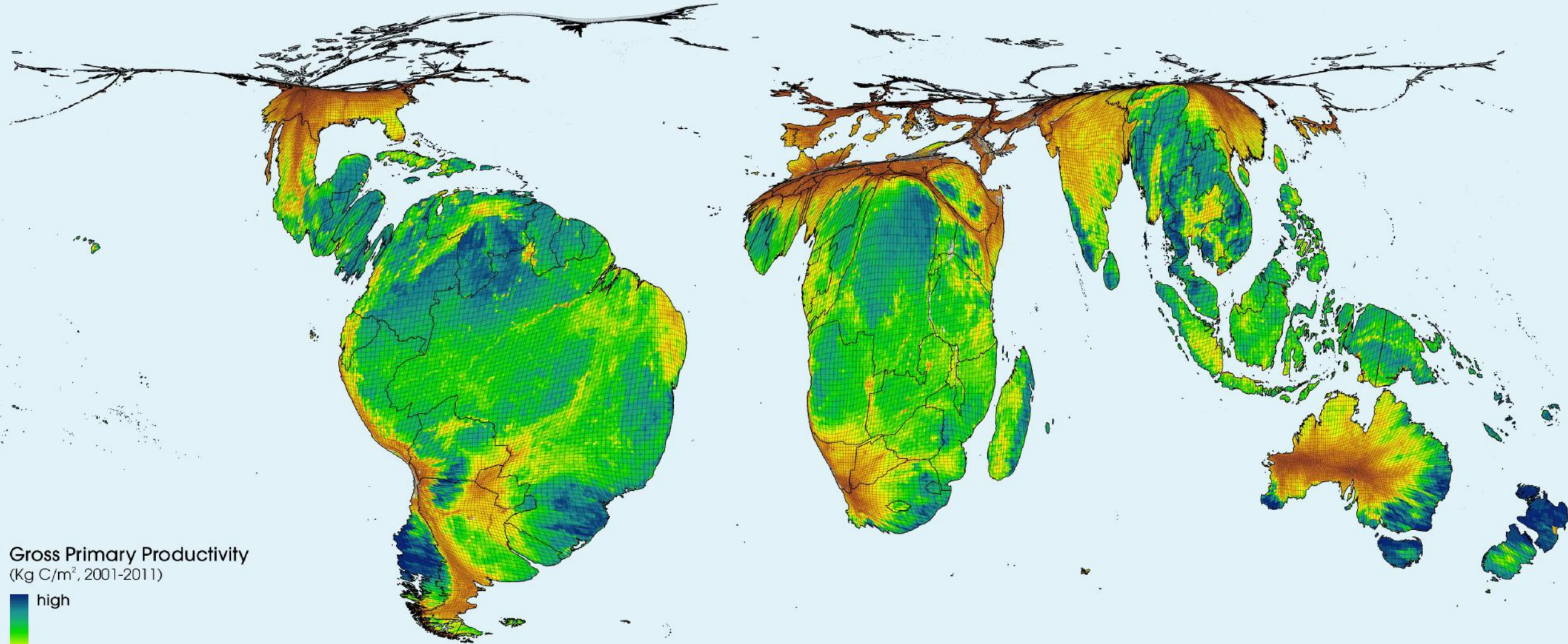


WHY?



The metabolism of the terrestrial biosphere

January



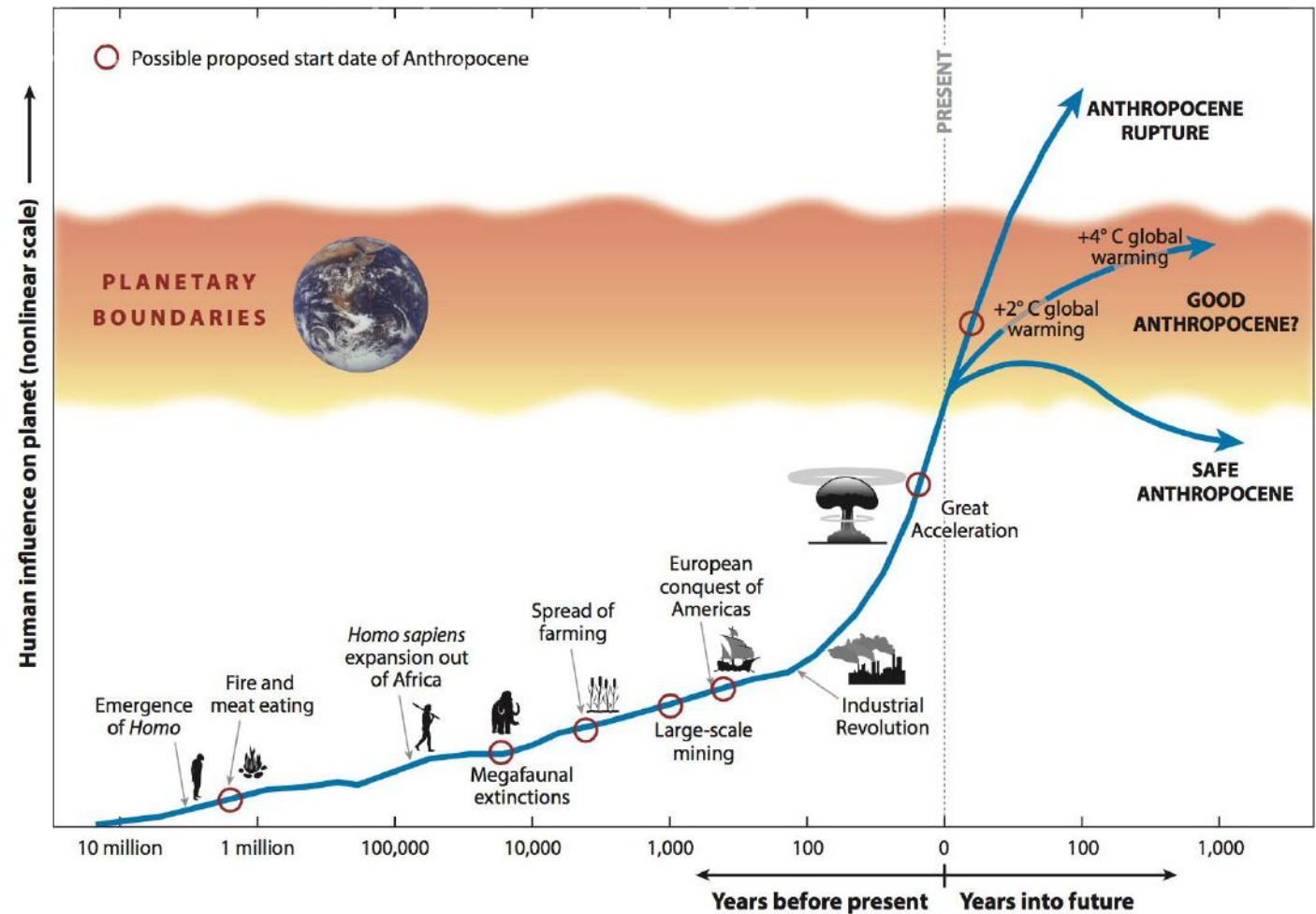
Gross Primary Productivity
(Kg C/m², 2001-2011)

high
low

Data source: MODIS GPP/NPP Project (MOD17)

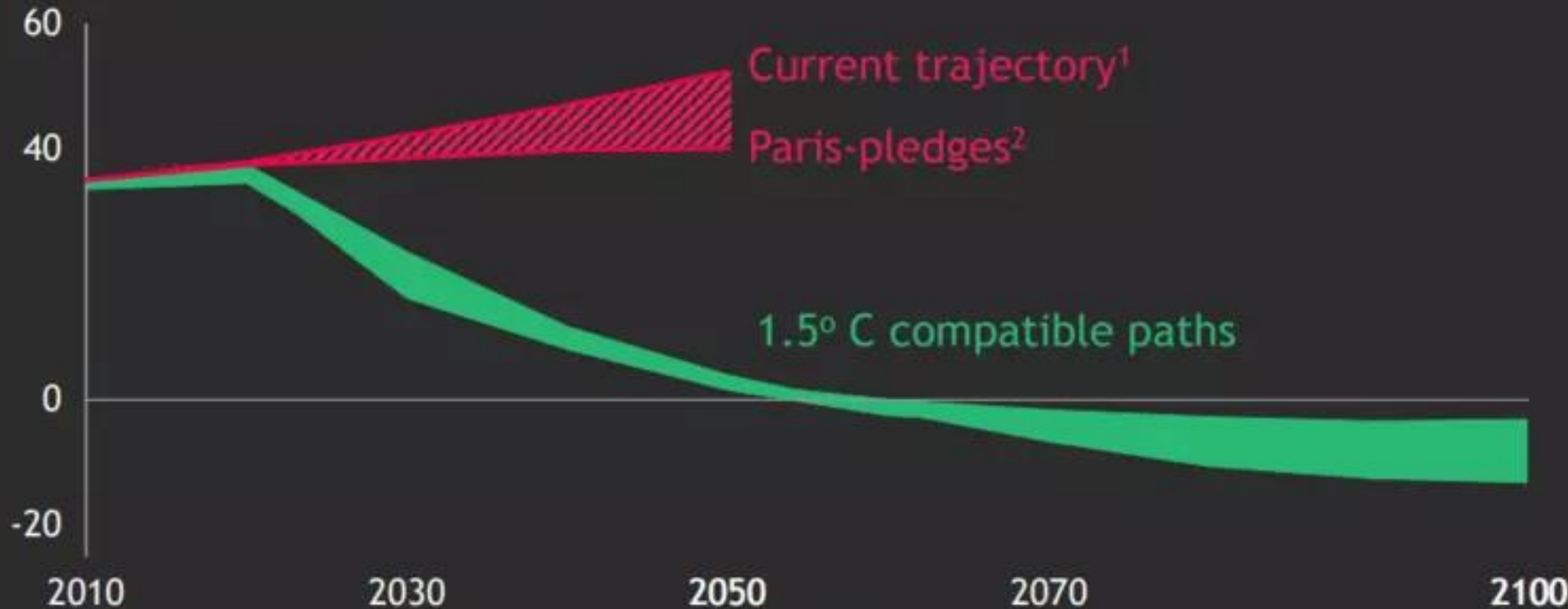
Total human social metabolism

Malhi (2017) The Concept of the Anthropocene. Annual Reviews in Environment and Resources



The world needs to move to “Net Zero”

Global net CO₂ emissions pathways
Gt per year



The industrial metabolism of humanity



Adverse impacts from human-caused change will intensify

Water scarcity and food production



Health and wellbeing



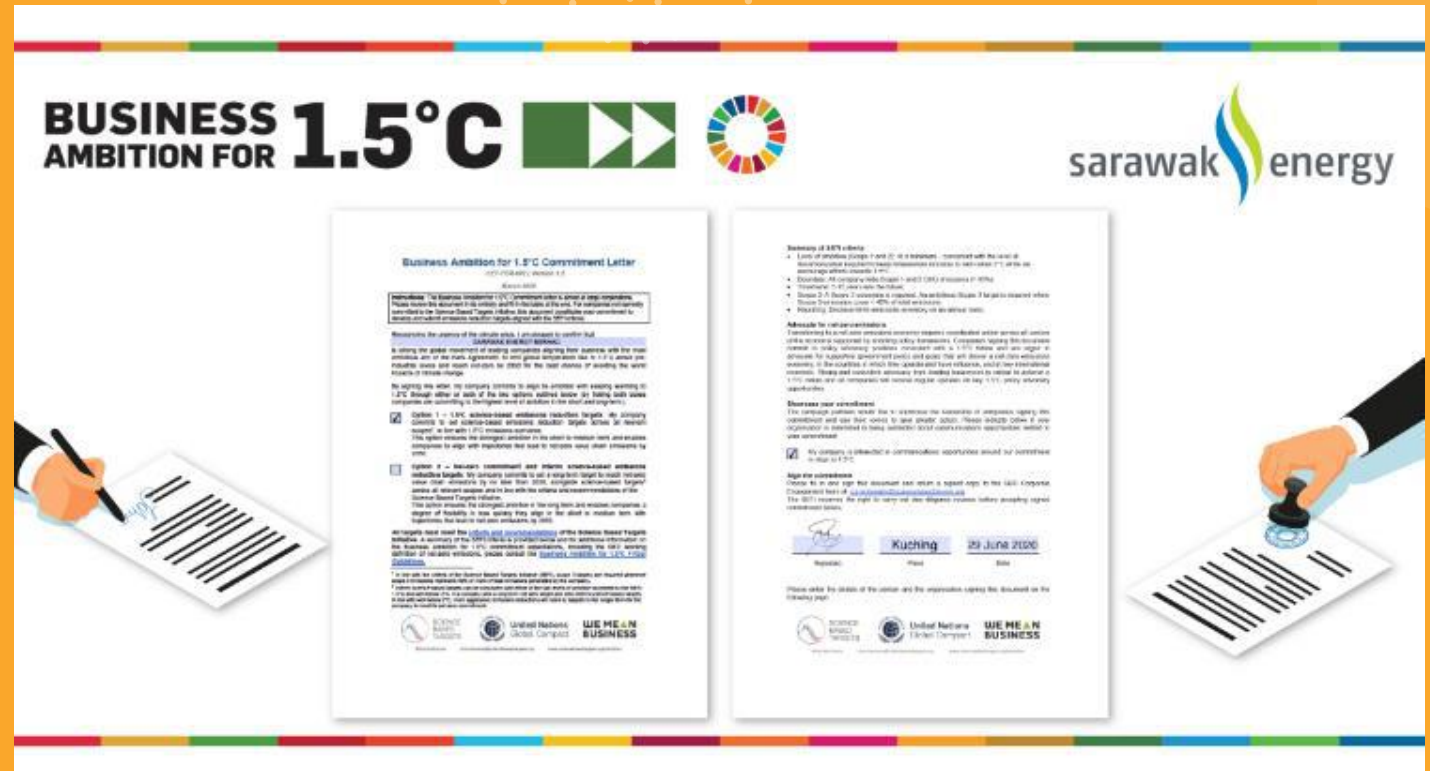
Cities, settlements and infrastructure



Ecosystem structure, species range shifts and changes in timing



- First corporation in Malaysia to commit to the "Business Action for 1.5° Celsius" under United Nations Global Compact.





Industry Processes and
Product Use
Waste
Agriculture
Land use change and
Forestry

Communication & Action

- Reporting on Climate Change
 - First National Communication (NC1) in 2007
 - NC2 and Biennial Update Report (BUR1) in 2011
 - NC3 and BUR2 in 2018
 - BUR3 in 2020
- GHG Carbon Inventory covers:
 - Emissions from Energy
 - Emissions from Industrial Processes and Product Use
 - Emissions from Land Use, Land-Use Change and Forestry (LULUCF)
 - Emissions from Agriculture
 - Emissions from Waste Sector

Malaysia

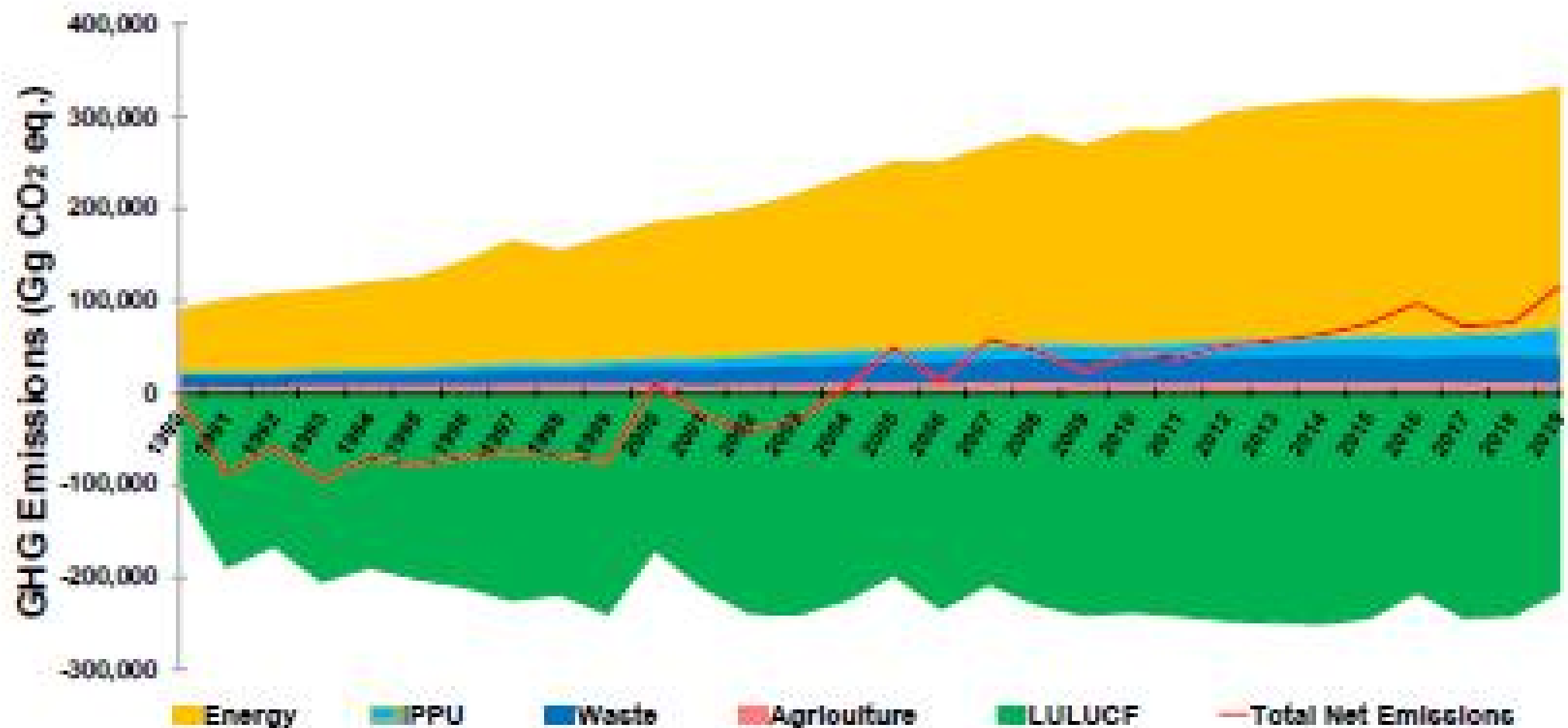
Initial National Communication



submitted to the
United Nations Framework Convention on Climate Change
MINISTRY OF SCIENCE, TECHNOLOGY AND THE ENVIRONMENT
July 2000



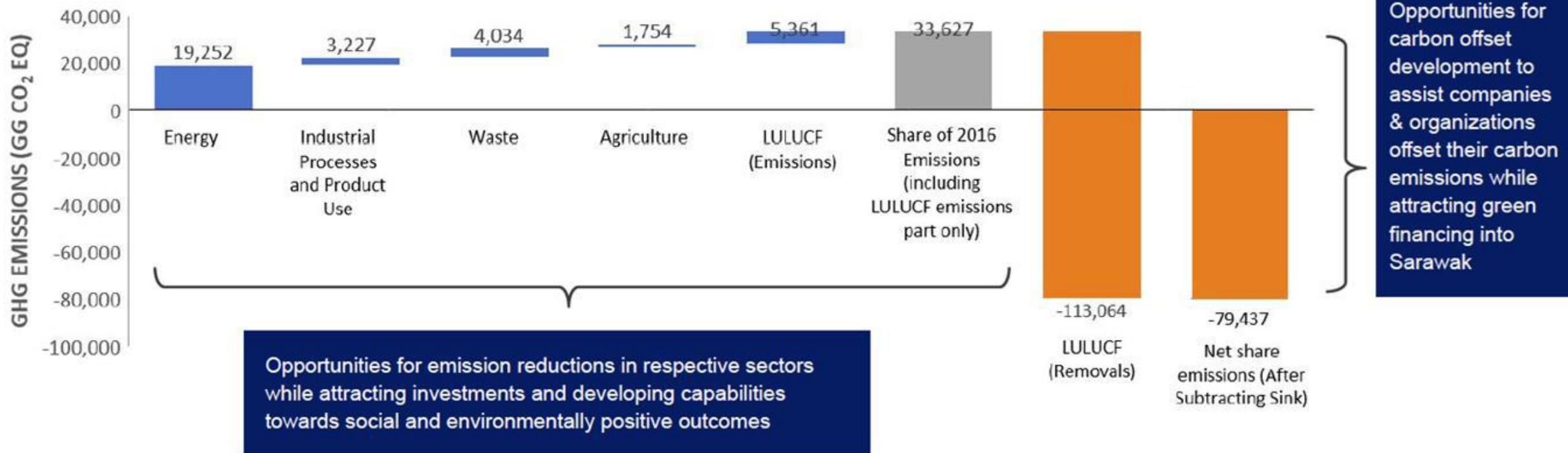
Biennial Update Report 4: Malaysia GHG Inventory - 2019



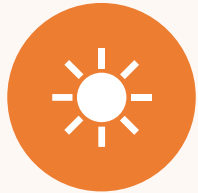
Sarawak's GHG emission

Sarawak's GHG emissions, 2016

(estimated share based on National GHG Inventory, baseline year 2016)



DEVELOPING THE NET ZERO STRATEGY FOR SARAWAK



Maintain at least 60% renewable energy capacity mix by 2030.



600k tons annual reduction to CO2 emissions via electrification of mobility fleet.



Conserve natural resources and intensify sustainable forest management practices



Accelerate green growth transition



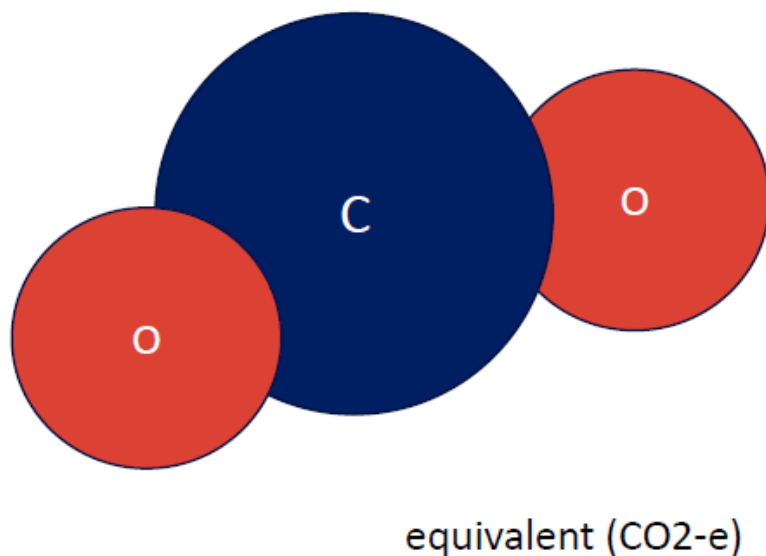
Global player in hydrogen



Accelerate low carbon urban development

What is carbon trading?

Greenhouse gas equivalent measure

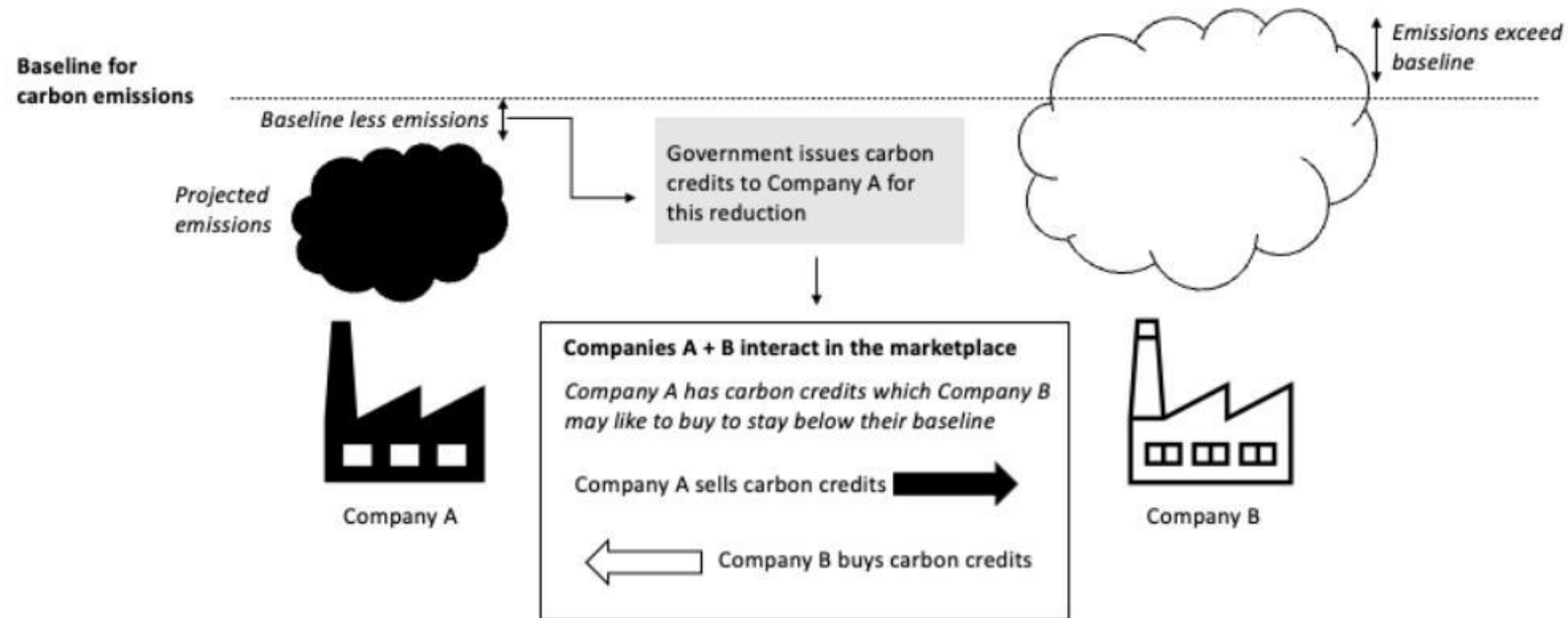


- Accounting and representation of greenhouse gas measure (tonne CO₂-e)
- Science and accounting
- Credits / units / allowances representing measure of CO₂-e abatement or sequestration (storage)
- Energy efficiency and other metrics to be aware of (Paris Agreement)

Accounting frameworks, common metrics, exchanges / transfers / cancellations

Emissions trading schemes (examples)

Baseline and credit emissions trading scheme



Low Carbon Cities for Green Growth



Developing Carbon Ecosystem



QUANTIFY

A platform that quantifies
the CO2 you didn't produce



VALUE

Values your
CO2 savings



EXCHANGE

And enables you to
exchange your savings

Creating Carbon Neutral Cities



- Sustainability platform rewards carbon neutral mobility behavior towards a new way of living in cities
- Rewarding people and communities for not emitting CO2
- Exchange credits for other services and companies can offset them to compensate their local carbon footprint
- Accelerating global transition towards carbon neutral cities



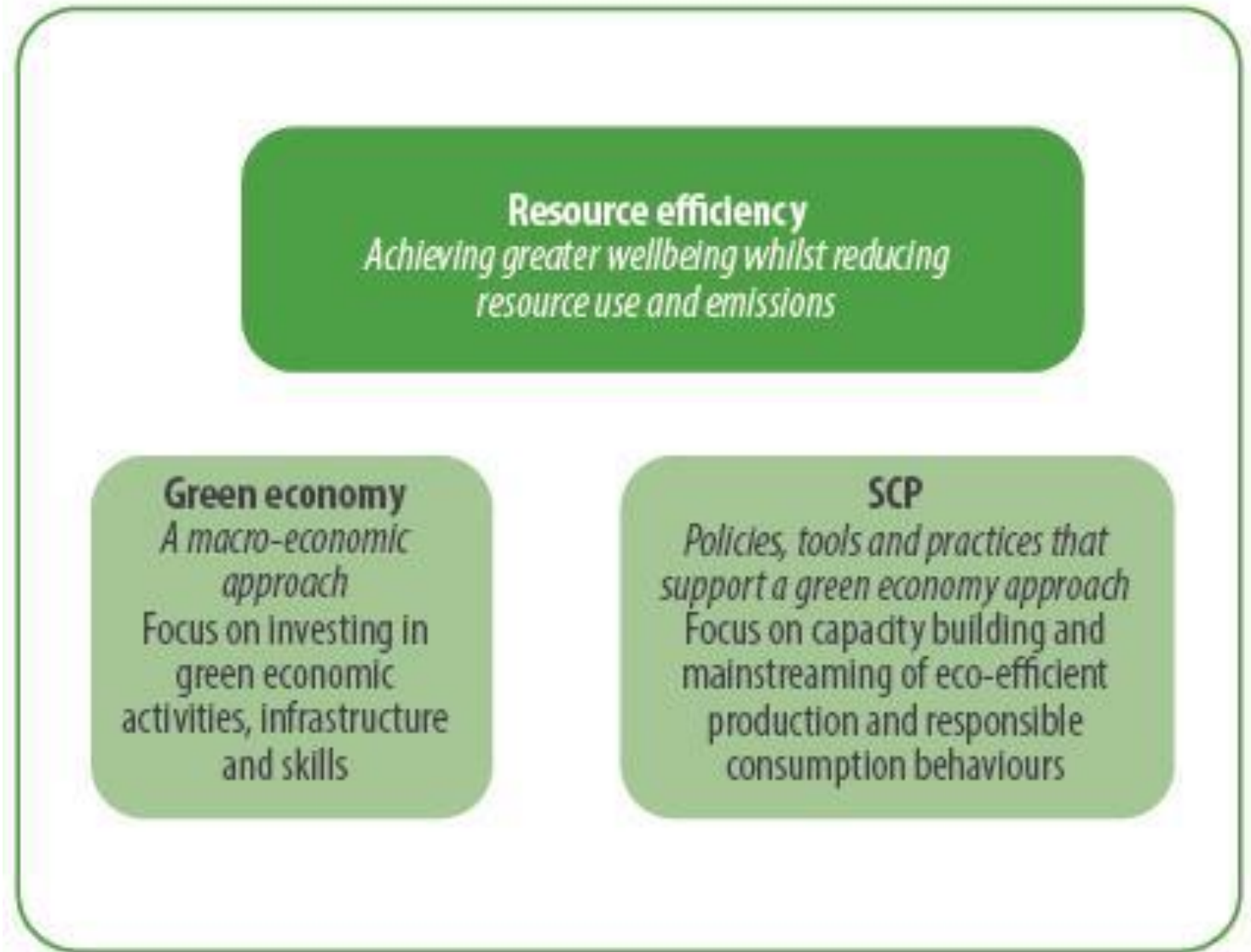
AYR, a platform that
rewards carbon
neutral mobility
behavior

Green Economy or Green Growth

- Low carbon, resource efficient and socially inclusive
- Growth in employment and income are driven by public and private investment into such economic activities, infrastructure and assets that allow reduced carbon emissions and pollution, enhanced energy and resource efficiency, and prevention of the loss of biodiversity and ecosystem services.



The role of Green Economy, Sustainable Consumption and Production and Resource Efficiency for Sustainable Development



Partnerships



Vision

Sarawak to be a low carbon and inclusive green economy by 2030

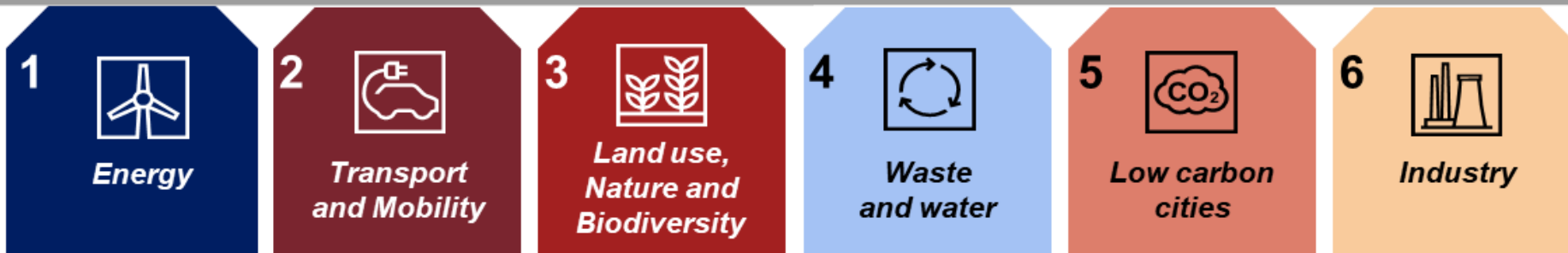
Objectives

To protect **Sarawak's biodiversity** and natural resources

To improve the **liveability** of Sarawakians including preserving indigenous values and cultures of the locals

To foster **inclusive economic growth** through responsible and sustainable use of natural resources

6 strategic pillars:



30 strategies:









6 enablers:



Sarawak's Green Economy Policy sets out the vision to achieve 3 policy objectives, supported by 6 strategic pillars and 6 enablers

There are several “quick-wins” that will kick start the transition towards a green economy

1  Energy	2  Transport and Mobility	3  Land use, Nature and Biodiversity	4  Waste and water	5  Low carbon cities	6  Industry
<p>E1: Enhance off-grid green electrification systems in rural areas</p> <p>I1: Conduct monthly/quarterly training workshops with local communities</p> <p>E2: Enhance the environmental and social sustainability of hydroelectric plants</p> <p>I2: Carry out EIAs and SIAs by independent organisations without any conflict of interest</p> <p>I3: Provide all employees and staff with adequate resources on sustainability principles</p>	<p>T3: Enhance the quality, safety and environmental sustainability of road infrastructure</p> <p>I4: Conduct consultation meetings with people residing in the community</p> <p>I5: Enhance coordination between different levels of stakeholders, especially between the federal, state and local communities</p> <p>I6: Create and implement a capacity building plan for the development and maintenance aspect of roads</p>	<p>L6: Adopt the concept of Other Effective Area-based Conservation Measures (“OECM”)</p> <p>I7: Prepare a detailed program for gazetting all catchments required for the plan</p> <p>L3: Improve the management of peatlands in Sarawak to accelerate the shift towards sustainable peatland management</p> <p>I8: To strengthen the peatland management framework in Sarawak. Without an overarching framework, progress will be hindered</p>	<p>W3: Increase Sarawak’s sanitised water supply coverage, particularly in rural areas, through means of partnership</p> <p>I9: Source for opportunities to access market financing. This is to finance infrastructure and maintenance of water supply systems</p> <p>I10: Deliver a series of consultations workshops on topics such as Personal Hygiene and Sanitation; Water Conservation; Composting of kitchen waste and organic farming</p>	<p>C4: Implement sustainable construction practices that are environmentally responsible and resource efficient</p> <p>I11: Build awareness and education for those involved in green building construction, such as contractors and engineers</p> <p>I12: Offer training initiatives and apprenticeship programs to those involved in green buildings</p>	<p>I2: Integrate circular economy approaches in the life cycle flow in heavy industries</p> <p>I13: Develop a Circular Economy framework that is applicable to heavy industries, to guide Sarawak to achieve its long-term goals in the circular economy</p> <p>I14: Step up efforts, in cooperation with national authorities, on enforcement of applicable sustainability requirements for products placed in Sarawak</p>



Miri Food Carnival gets praise for integrating green initiatives

BY NORINI MAHADI ON AUGUST 30, 2023, WEDNESDAY AT 3:44 PM

SARAWAK

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Doughnut Economics: Seven Ways to Think Like a 21st-Century Economist by Kate Raworth



Highlights



Adopting green economy strategies and policies including carbon offset strategies will help Sarawak achieve its long term development goals as increasingly global investors and markets demand and reward low carbon economies.



Increase and deepen the usage of data-driven tools in decision-making, tracking and monitoring in key sectors e.g. transportation, waste management, and Sarawak's carbon offset projects



Monetise nature based assets by developing carbon offset projects via forest preservation and land restoration activities.

Desired outcomes

- Strong signal by the State Government's commitment on green agenda
- Effectiveness and efficiency in driving growth of green economy of the State
- Sarawak as global player in green agenda

Moving Forward

The challenge

- Cut emissions quickly, sharply to create a safer, sustainable world
- Scale up practices and infrastructure to enhance resilience
- Cut global GHG emissions by nearly half by 2030
- Action required along numerous dimensions



Terima Kasih