



# Forest Carbon Activities in Sarawak

SEMINAR ON INTRODUCTION OF FOREST CARBON ACTIVITY IN SARAWAK

MIRI – BINTULU – SIBU – KUCHING

FOREST DEPARTMENT SARAWAK





# PRESENTATION OUTLINE

## 0 1 Introduction

- ☐ What is climate change?
- ☐ Kyoto Protocol
- ☐ Paris Agreement

## 0 2 Carbon Credit

- ☐ How the carbon credit system works
- ☐ How to offset carbon emissions?

## 0 3 Carbon Market

- ☐ Voluntary
- ☐ Compliance
- ☐ Market demand





# PRESENTATION OUTLINE

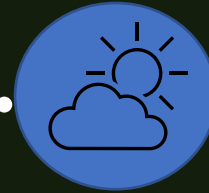
## 0 4 Sarawak initiative on nature-based solutions project

- ☐ PCDS 2030
- ☐ Legal framework on Forest Carbon
- ☐ Approach on Carbon Trading

## 0 5 Goals

# 01 INTRODUCTION

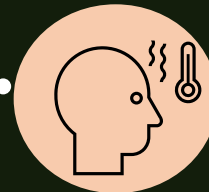
## WHAT IS CLIMATE CHANGE?



Long-term shifts in temperatures and weather patterns;



Affect our health, ability to grow food, housing, safety and work;

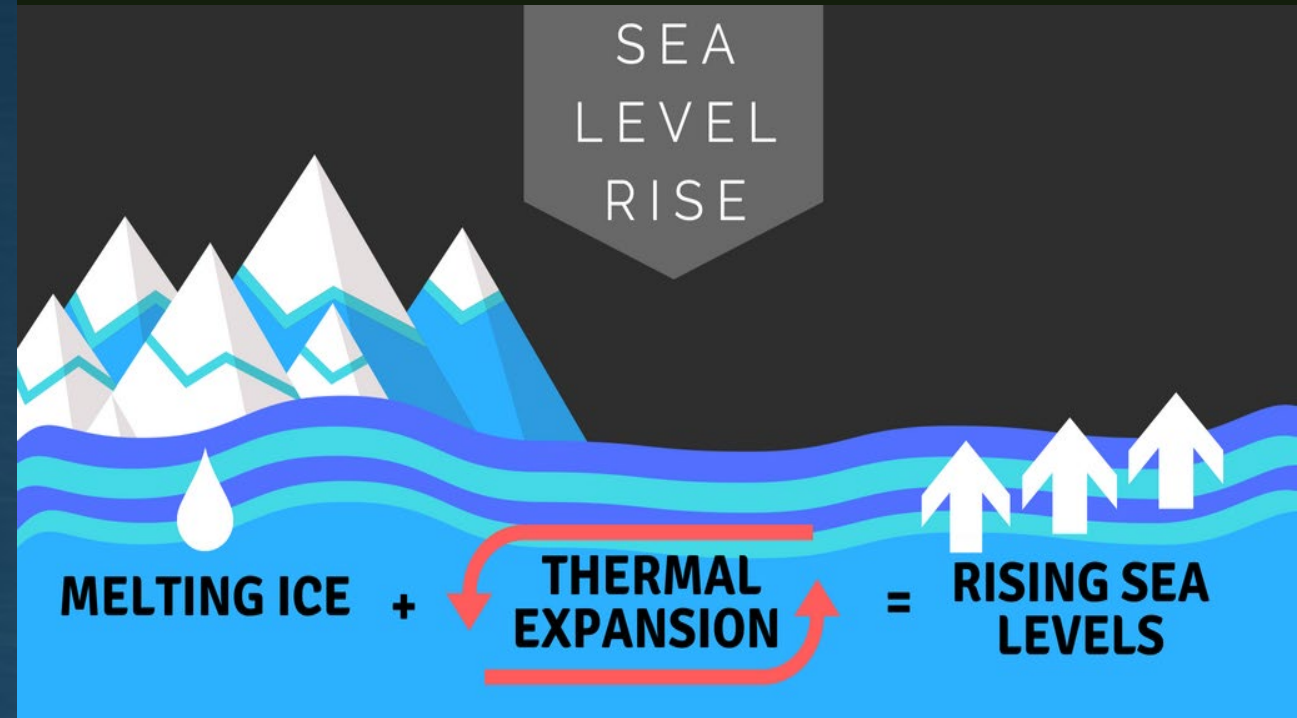


Every increase in global temperature matters



# 6 METER SEA LEVEL RISE

Countries at Risk with 2°C of Warming





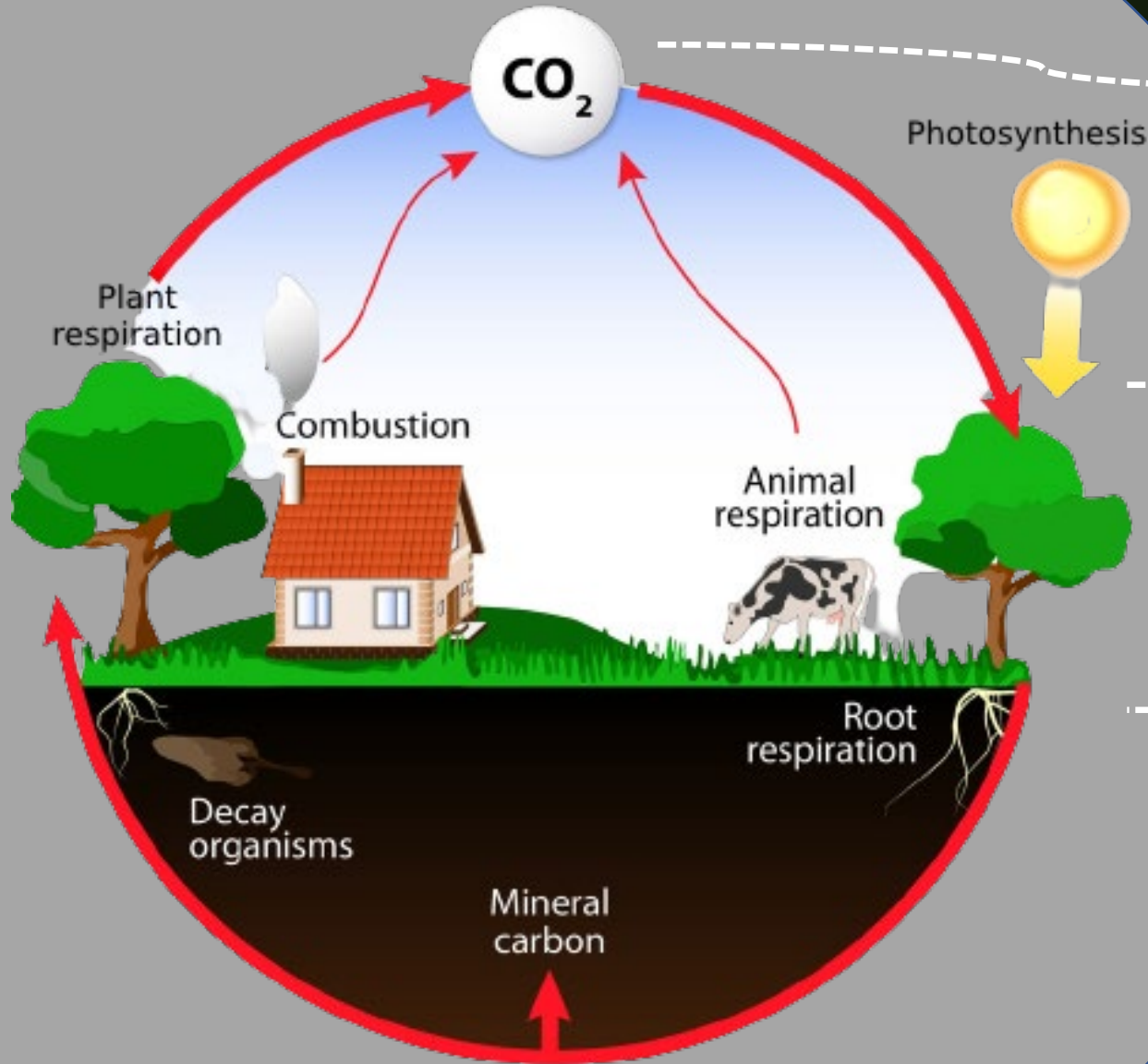






# GLOBAL WARMING





Greenhouse gas that occurs naturally

Carbon storage; Tropical forests, store vast amounts of carbon in the trees and soil;



Conservation is important to reduce build-up  $\text{CO}_2$  in the atmosphere



# KYOTO PROTOCOL



Adopted on 11 December 1997. First large-scale carbon market in 2005 involving 36 countries and the EU, but expired in 2020 after years of debate and ineffectiveness;

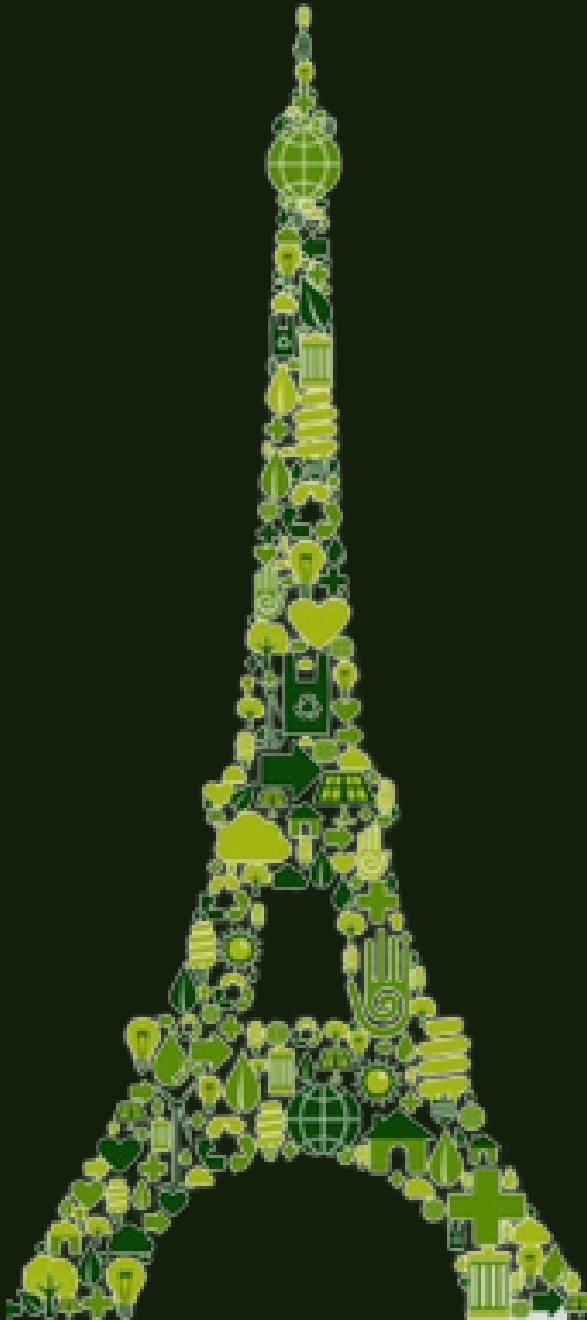
Commitment by developed country (Annex 1) to reduce GHG emission by 2020;

Malaysia ratified its commitment in 4 September 2002;

US, Russia, Canada left, EU deployed in 2012



# PARIS AGREEMENT



Article 5: Finance on Forest Activities



Article 6: Enabler for Carbon Trading



COP26: Globalized carbon market



Voluntary markets exist outside of compliance markets allowing companies and countries to buy and trade carbon allowances as they see fit.



### Article 5

1. Parties should take action to conserve and enhance, as appropriate, sinks and reservoirs of greenhouse gases as referred to in Article 4, paragraph 1 (d), of the Convention, including forests.
2. Parties are encouraged to take action to implement and support, including through results-based payments, the existing framework as set out in related guidance and decisions already agreed under the Convention for: policy approaches and positive incentives for activities relating to reducing emissions from deforestation and forest degradation, and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries; and alternative policy approaches, such as joint mitigation and adaptation approaches for the integral and sustainable management of forests, while reaffirming the importance of incentivizing, as appropriate, non-carbon benefits associated with such approaches.



### Article 6

1. Parties recognize that some Parties choose to pursue voluntary cooperation in the implementation of their nationally determined contributions to allow for higher ambition in their mitigation and adaptation actions and to promote sustainable development and environmental integrity.
2. Parties shall, where engaging on a voluntary basis in cooperative approaches that involve the use of internationally transferred mitigation outcomes towards nationally determined contributions, promote sustainable development and ensure environmental integrity and transparency, including in governance, and shall apply robust accounting to ensure, inter alia, the avoidance of double counting, consistent with guidance adopted by the Conference of the Parties serving as the meeting of the Parties to this Agreement.





***We are stakeholder in ensuring the environment remains in a pristine conditions.***

***Sarawak may be a small dot on this planet earth but being a responsible world citizen, we need to embrace the importance of environmental sustainability***



# Sarawak

- 12.45 mil. ha land area
- 28 ethnic groups with a population of 2.91 mil (2020).
- *Forest Cover: 62%*
  - 0.15% of World Tropical Rainforest
  - 16% of Borneo Tropical Rainforest
- Temperature relatively uniform throughout the year  
23-32°C
- Average rainfall per year 3,300-4,600 millimetres
- Sarawak- one of the 25 biological “hotspots”,  
greatest no. of spp., greatest development of  
distinctive ecosystems & unique biological elements.

**Sarawak, Malaysia**

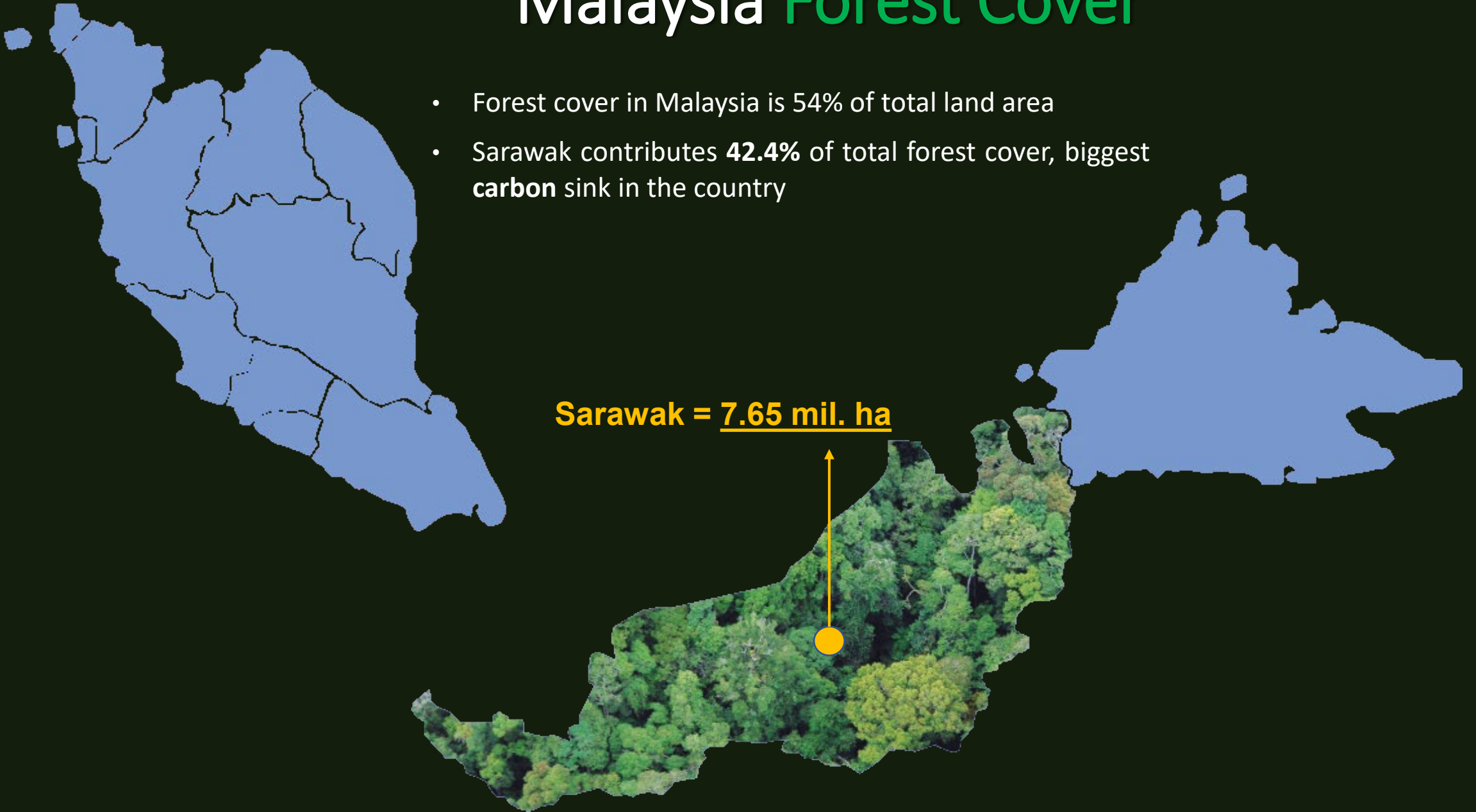




# Malaysia Forest Cover

- Forest cover in Malaysia is 54% of total land area
- Sarawak contributes **42.4%** of total forest cover, biggest **carbon** sink in the country

**Sarawak = 7.65 mil. ha**





# National Commitment on Sustainable Development



Clock is  
ticking  
to  
achieve  
these  
**GOALS**

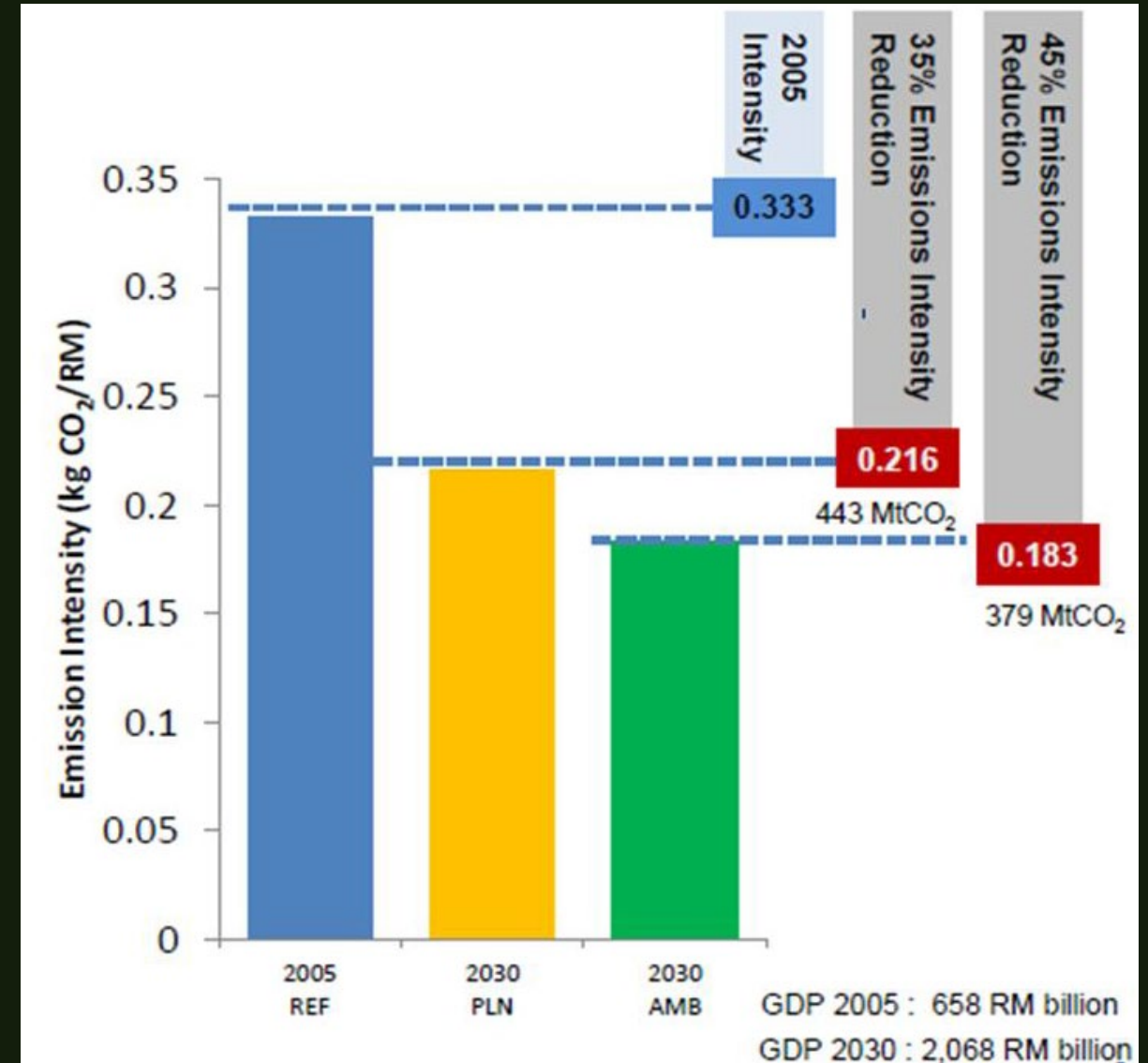


# National Commitment on Climate Change- Paris Agreement



Representative of Malaysia to the UN, signed the Paris Agreement, 22 April 2016. Source: UN photo

Malaysia 45% emission intensity reduction based on GDP 05, in 2030



Source: UKPACT-Malaysia



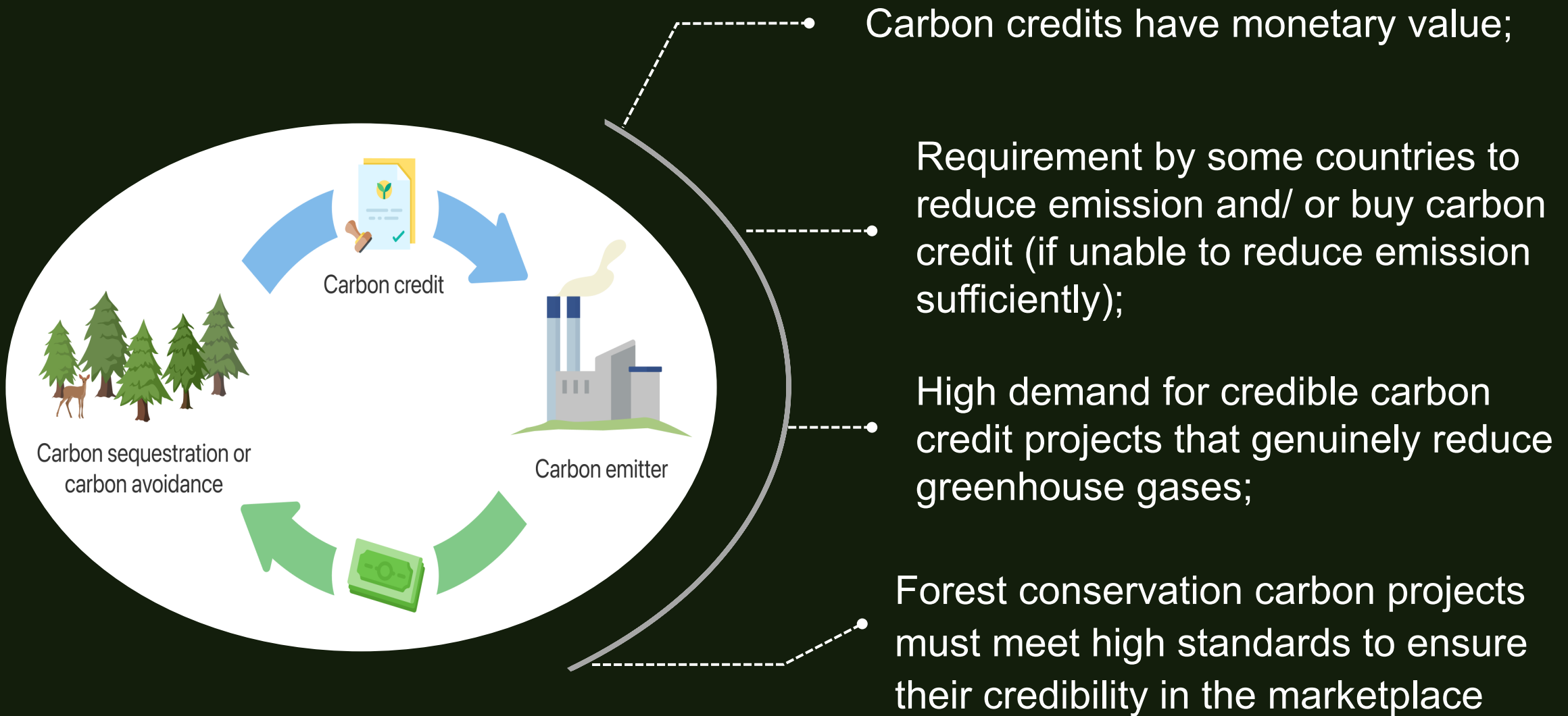
# 02 CARBON CREDIT



A way to give market value for activities that prevent/ reduce the amount of CO<sub>2</sub>/ other greenhouse gases in our atmosphere;

Generally measured as one metric tonne of carbon dioxide gas or its equivalent in other greenhouse gases;

Companies can assess the carbon “footprint” of their activities by measuring how many tonnes of greenhouse gases their operations release into the atmosphere in any given year.





# Increasing Carbon Uptake levels through Forest Development Projects



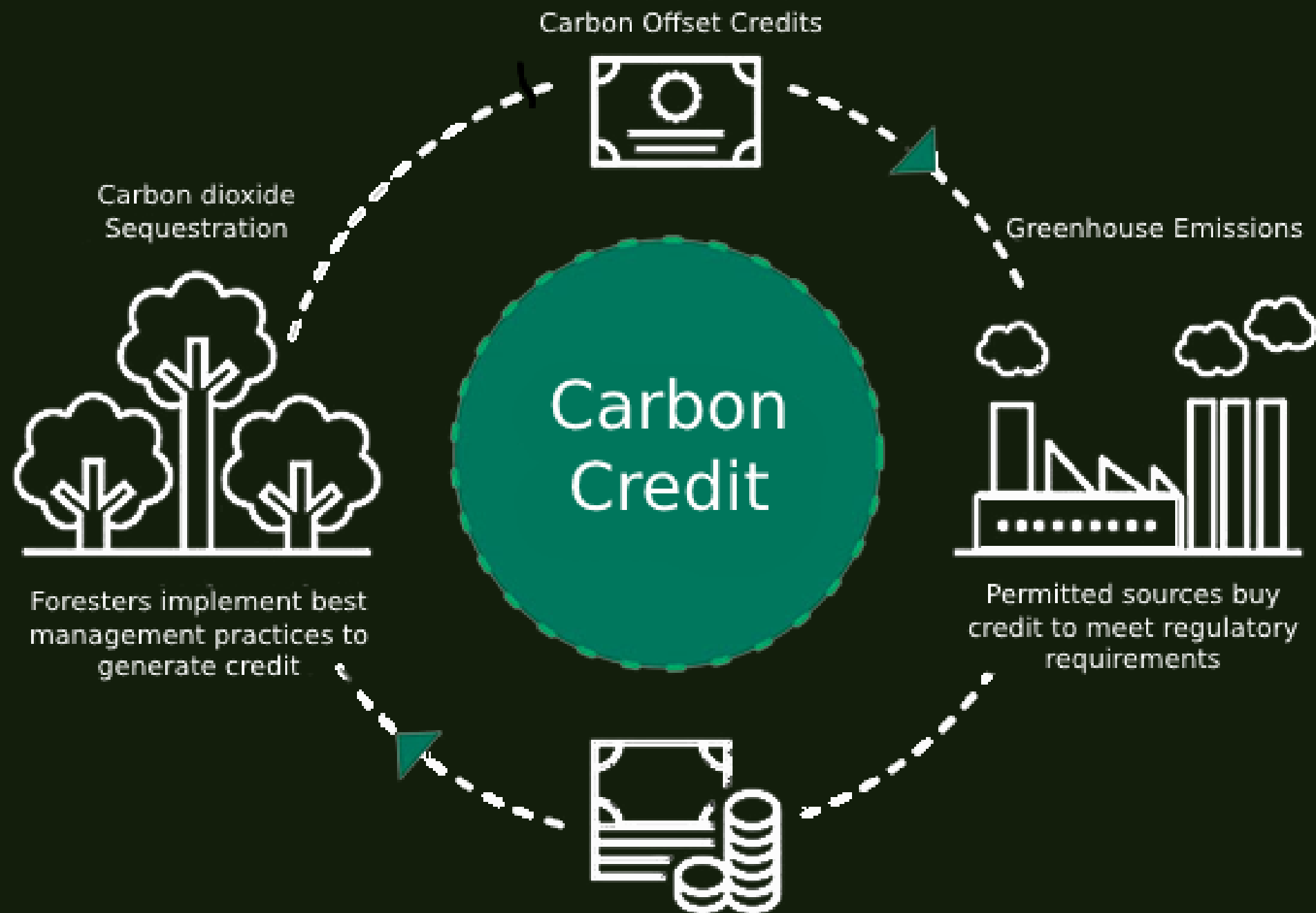


# How the carbon credit system works?

- Carbon credit system now on a path to an internationally recognized incentive system;
- Can decrease overall global greenhouse gas emissions, prevent further climate change and **potentially** generate **revenue** for Sarawak through forest carbon projects;
- But how does this all work? Who buys carbon credits? How can Sarawak generate carbon credits? And where are they sold?









# HIGH QUALITY CARBON OFFSET?



**Additionality:** Projects are unable to exist without revenue derived from carbon credits



**Verification:** Monitored, reported and verified by a credible third party



**Permanence:** Carbon reduction or removal will not be reversed



**Measurability:** Calculated according to scientific data through recognized methodology



**Avoid leakage:** An increase in emission should not occur elsewhere, or account for any that occur

# 03 CARBON MARKET



## WHERE TO MARKET CARBON CREDIT?

- Carbon trading, emissions trading, and carbon emissions trading = carbon market
- Voluntary/ Compliance markets
- Network of connections through which carbon credits are bought and sold by companies, governments and organizations.
- Trade carbon emission allowances, aims to encourage companies to limit their emissions of CO2 and to reduce countries emissions



# CARBON TRADING

The background of the slide features a dramatic sunset or sunrise scene. Several dark, silhouetted industrial smokestacks are visible, each emitting thick, billowing plumes of white and yellow smoke that fill the sky. The sky is a deep orange and yellow, suggesting the sun is low on the horizon. The overall atmosphere is one of industrial activity and environmental impact.

x



COAL  
BARON  
INC.

environmental company

12/15/20

\$\$\$

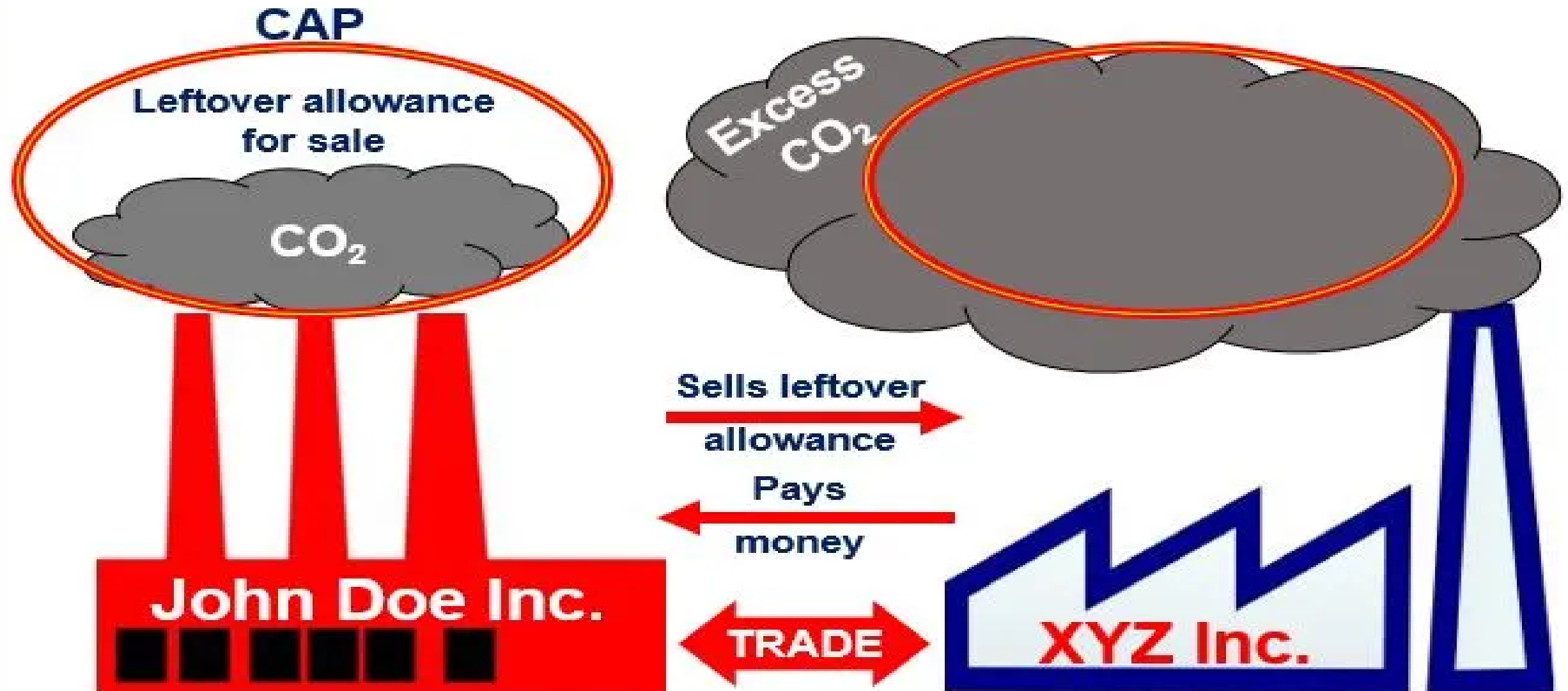
carbon credits

Mrs. CEO

CARBON  
CREDITS



# Emissions Trading



# CARBON TRADING

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graph TD; A[CARBON TRADING] --> B[CARBON CAP-TRADE PROGRAM]; A --> C[CARBON OFFSETTING]
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CARBON CAP-TRADE PROGRAM



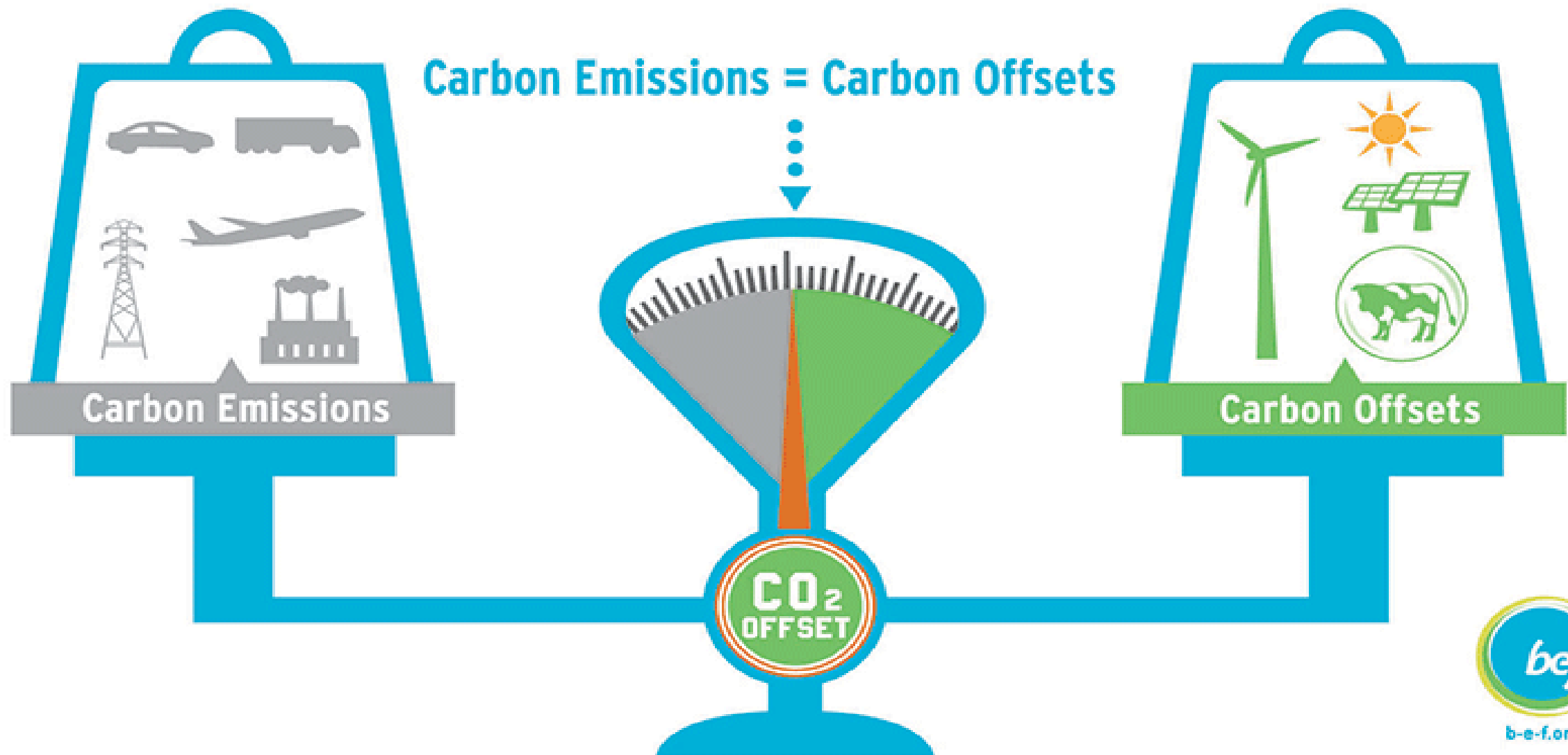
CARBON OFFSETTING





# How a Carbon Offset works.

1  = 1 Metric Ton of Carbon Dioxide Reductions



# CARBON CREDIT

1 CARBON CREDIT  $\approx$  1 ton of CO<sub>2</sub> or its equivalent greenhouse gas (GHG) which is an entitled certificate by UNFCCC (United Nations Framework Convention on Climate Change)



# CARBON MARKETS



## COMPLIANCE MARKET

Mandatory systems regulated by government organizations to cap emissions for specific industries

**\$261B**



## VOLUNTARY MARKET

Where carbon credits can be purchased by those that voluntarily want to offset their emissions

**\$473M**

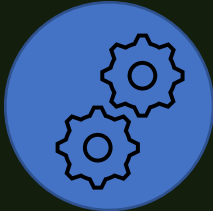
*As demand to cut emission intensifies, voluntary carbon market volume has grown over **five-fold** in **less than five years**.*

## DRIVERS OF MARKET DEMAND



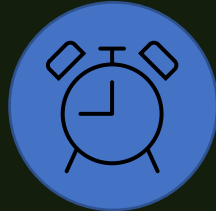
### Paris Agreement

Companies seeking alignment with these goals



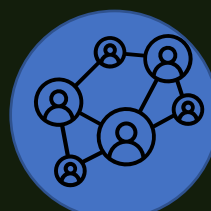
### Technological Gaps

Companies are limited by technologies that are available at scale and not prohibitive



### Time Gaps

Companies do not have the means to eliminate all emissions today



### Shareholder Pressure

Companies are facing pressure from shareholders to address their emissions



In 2021, market values in voluntary carbon markets are set to exceed \$1 billion

# 04 SARAWAK INITIATIVE



## POST-COVID DEVELOPMENT STRATEGY 2030

- ❑ Sustainable Development Goals (SDGs) through PCDS 2030- anchored on 3 pillars: **Economic** prosperity, **Social** inclusivity & **Environmental** Sustainability
- ❑ Ensure a clean and healthy environment for all by having policies on **sustainable forest management** as well as adoption of new **technologies** and **innovation** to support Malaysia's commitment to reduce greenhouse gas (GHG) emissions intensity of GDP of 45% by 2030.



# STRATEGIC THRUSTS

Economic,  
Social and  
Environmental  
well-being for  
all in Sarawak

1

## Economic Structure

Transforming Sarawak into a competitive economy by increasing productivity level, developing more high value downstream activities and creating new industries

2

## Ease of Doing Business

Improving ease of doing business and making Sarawak an investment destination of choice

3

## Targeted Spending

Spending on areas that yield the most economic, social and environmental impacts

4

## Optimize Assets & Human Capital

Optimizing use of assets and government funding and developing human capital to support socio-economic development

5

## Digital & Execution

Accelerating digital adoption and data utilization to generate outcomes

6

## Social Inclusivity

Driving economic and social benefits for all Sarawakians, focusing on impoverished segment of the population

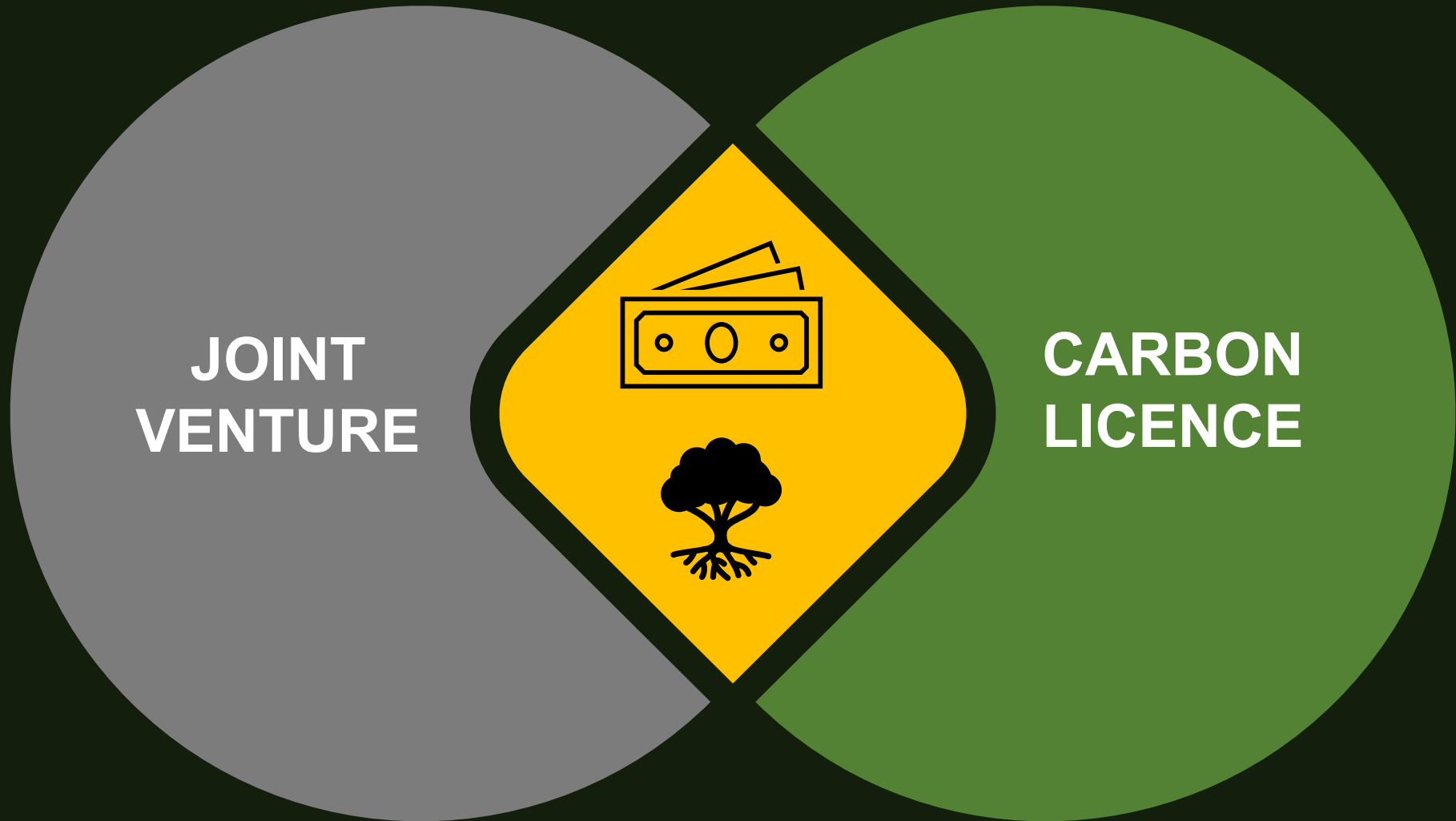
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## Environmental Sustainability

Balancing economic growth and environmental sustainability



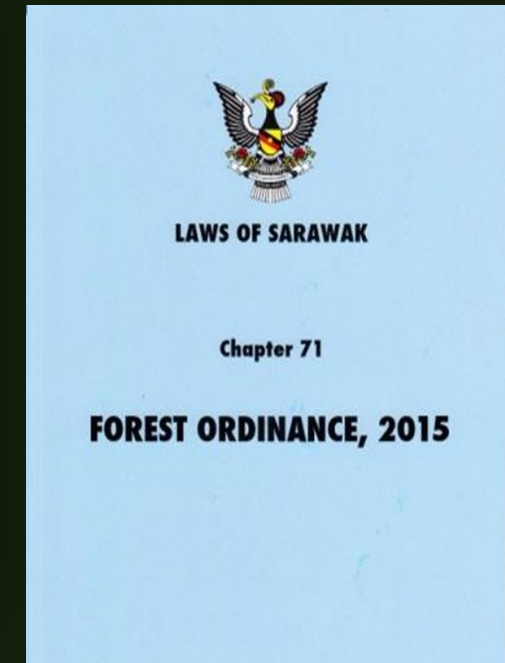
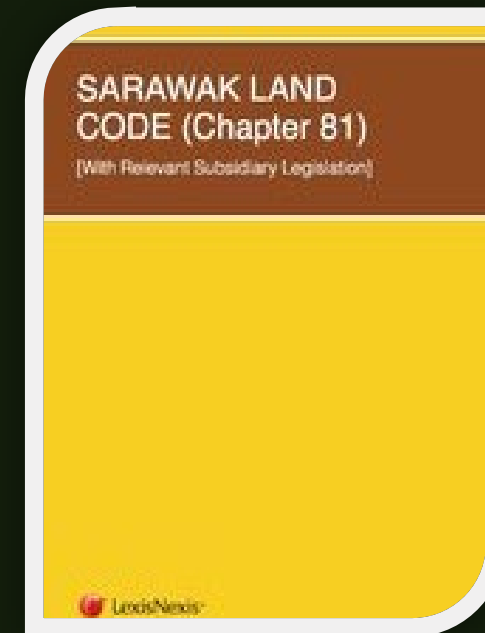
# SARAWAK APPROACH ON CARBON TRADING





# REVIEW OF POLICIES AND ORDINANCES

- ❑ Land Code to enable carbon capture usage and storage
- ❑ Forest Ordinance regulates forest carbon activity





**Tabling of Forests (Amendment) Bill, 2022 at the State Legislative Assembly (DUN) Sitting on  
18<sup>th</sup> May 2022**

**by**

**YB Datuk Amar Haji Awang Tengah Ali Hasan  
Deputy Premier of Sarawak/  
Minister for Natural Resources and Urban Development II**





# LEGAL FRAMEWORK

**AMENDMENT  
TO THE LAWS**

**FORESTS  
ORDINANCE  
2015**

**In force since  
1<sup>st</sup> June 2015**

1

**Section 2- Definition of Forest Produce  
extended to Carbon Stock**

2

**Section 70A- Issuance of Carbon Licence by  
the Director and any matters related therewith**

3

**Section 70B- List of terminologies being  
used in the forest carbon activities**

4

**Section 113- Power making rules**

# LEGAL FRAMEWORK



Rules is drafted to regulate on Forest Carbon activity, carbon credit unit and carbon trading

**FORMULATION  
OF NEW LAWS/  
SUBSIDIARIES**

**Forests  
(Carbon  
Activities)  
Rules, 2022**

10



No. of Parts

44



No. of Rules

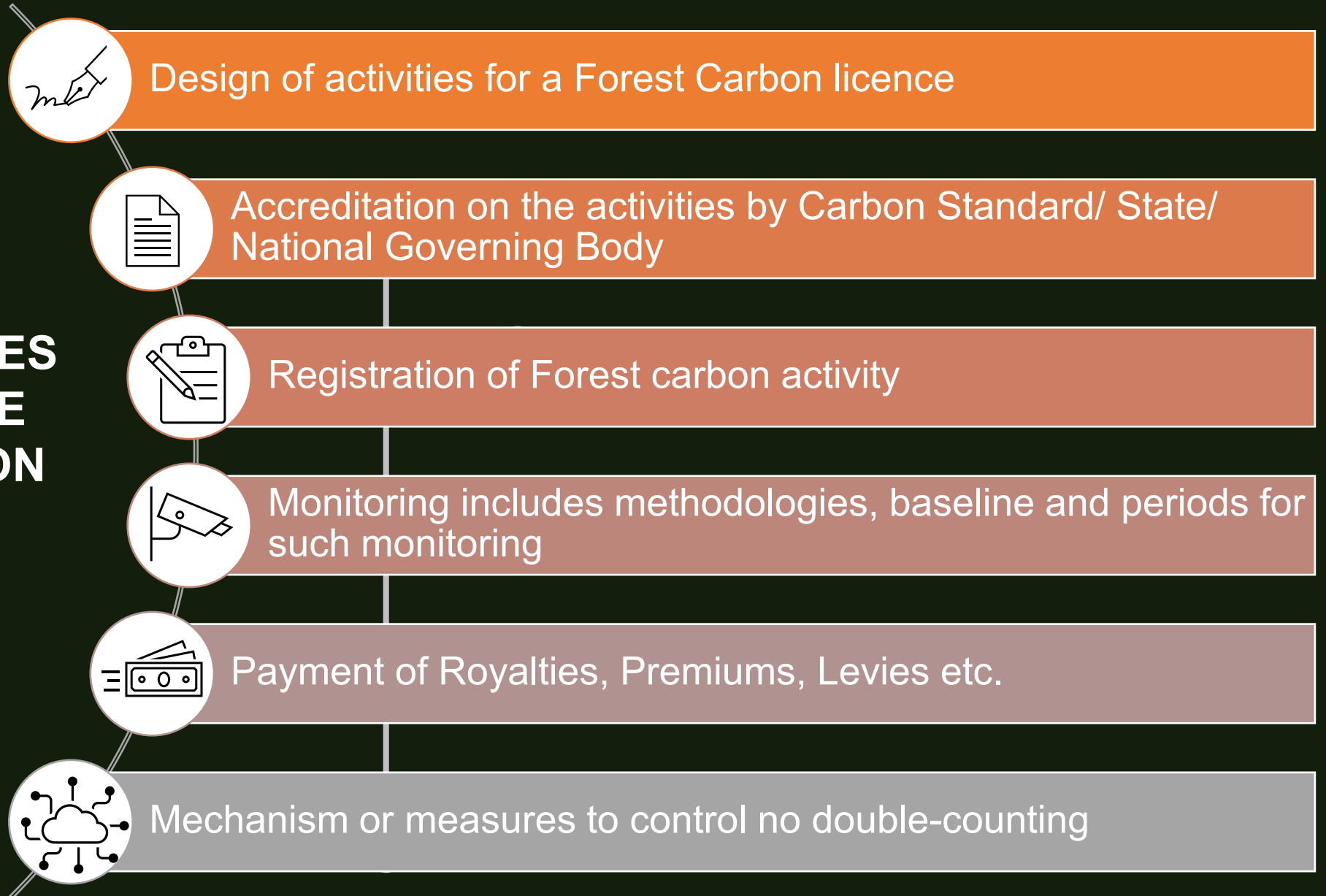
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No. of Schedules



## HOW DOES RULES CAN REGULATE FOREST CARBON ACTIVITIES





# **SARAWAK'S GOALS**

**ISSUANCE OF  
CARBON STUDY PERMIT**

**ISSUANCE OF  
CARBON LICENCE**

**TRADING OF  
CARBON CREDIT UNITS**



# TERIMA KASIH

