MALAYSIA’S SUSTAINABILITY INITIATIVES IN THE CONSTRUCTION & REAL ESTATE SECTORS

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Presentation Outline

A  Construction Foresight
• Construction and climate change
• Challenges and key issues

B  Government Initiatives on Sustainable
• National and global agenda
• Shared Prosperity Vision 2030 (WKB2030)
• National Construction Policy (NCP2030)
• CIDB Strategic Plan 2021-2025

C  Sustainability Rating Tools
• Malaysian rating tools
• Joint certification GreenRE and MyCREST
• Sustainable INFRASTAR

D  Way Forward
• Future megatrends
• Digitalisation
• ESG
Malaysia’s Commitment on Carbon Neutral 2050

“Malaysia is committed to its target of becoming a carbon-neutral nation by as early as 2050.”

The government will take into account environmental, social, and governance (ESG) principles in its decision-making process.

“accelerate the growth of green economy, boost energy sustainability and transform the water sector must remain at the core of the country’s socio-economic development.”
Malaysia’s Commitment on Carbon Neutral 2050

“Malaysia contributes less than 0.7% of the greenhouse gas emissions, the government will continue to fulfil its commitments to reduce the greenhouse gas emissions intensity of gross domestic product (GDP) by 45% in 2030, in line with the aspiration to become a low-carbon country.”

The government will take into account environmental, social, and governance (ESG) principles in its decision-making process.
SUSTAINABLE AND RESILIENT – NATIONAL & GLOBAL AGENDA

STRATEGIC THRUST 1:
Pursuing Green Growth For Sustainability And Resilience

STRATEGIC THRUST 2:
Environmental Sustainability

17 Sustainable Development Goals


THE MEGA SCIENCE AGENDA:
Science, Technology and Innovation

THE ELEVENTH MALAYSIA PLAN 2016–2020

Disaster Risk Reduction
NATIONAL CONSTRUCTION POLICY (NCP 2030)

The NCP 2030 aims to promote;

ST 1 – Quality, safety and professionalism
ST 2 – Environment sustainability
ST 3 – Productivity
ST 4 – Internationalization and competitiveness
ST 5 - Facility management
ST 6 – Good governance and best practices
Construction sector is one of the larger contributors to climate change with an opportunity to effect positive change.

- **32%**: Construction consumes approximately 32% of the world's natural resources.
- **11%**: Building materials and construction are responsible for 11% of annual global CO₂ emissions.
- **23%**: Concrete (11%), steel (10%) and aluminum (2%) are responsible for 23% of total global emissions.

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Manufacturing industries and construction was the third largest contributor of CO₂ emissions at 23,856 Gg CO₂

7% = 5.45 million t CO₂ eq

This study shows 20,357.64 t CO₂ eq of GHG emission has been reduced from the residential building construction site when IBS has been implemented.

This GHG calculation template, enable the CIDB to identify the GHG emission associated with IBS score elements for the residential building construction.

Help CIDB to report this information in the National Update Report, UNFCCC.
Key Challenges of Sustainable Construction in Malaysia

1. Internalizing Sustainability
   - Lack motivation to drive all development decision into sustainable construction

2. Profit Oriented Mind Set
   - General perception of practitioners – sustainable construction practices will increase cost and reduce profit

3. Material Wastages
   - Lack of innovative methods of waste disposal and re-use in construction process
Key Challenges of Sustainable Construction in Malaysia

- **Mobilisation of Resources**
  - Mobilize resources in a more efficient way

- **Public Awareness**
  - Public is less conscious about the potential impact of their behaviour (decision making) and the way of resource utilization

- **Procurement Procedures**
  - Lack of awareness and commitment to embrace sustainability criteria in procurement procedure
Malaysian Sustainability Rating Tools
GreenRE and MyCREST Joint Certification in Promoting Green Building Certification

- Initiatives led by GreenRE and CIDB/CREAM and experts from green certification
- Applicable for new non-residential building projects
- All applicable pre-requisite of GreenRE and MyCREST will be maintained
- GreenRE Platinum = 5 star MyCREST
- GreenRE Gold = 4 star MyCREST
- GreenRE Silver = 3 star MyCREST
- GreenRE Bronze = 2 / 1 star MyCREST
WHAT IS SUSTAINABLE INFRASTAR

Sustainable INFRASTAR stands for Sustainable Infrastructure Rating Tool where it applies an objective & evidence-based rating system that assess each of the identified key conditions, including:

01 Land use planning and management
02 Resource management
03 Energy and water management
04 Biodiversity and other ecosystem services
05 Social and cultural protection
06 Stakeholder coordination
Mega Trends and Challenges Shaping The Future Of Construction Industry

Sustainable Construction

- Construction sector is the largest global consumer of raw materials, and constructed objects account for 25-40% of the world’s total carbon emissions - World Economic Forum 2016

facilitate sector players in implementing sustainable practices as these initiatives will require significant investment

- Abundant availability of cheap foreign labour
- Sector players has no urgent needs in adopting and implementing modern technology

higher costs of importing materials and technology
Construction 4.0 to support Sustainability

Smart planning and construction
- Multifunctional buildings
- Optimised, high-quality building design, codes and standards
- Mixed-use communities, flexible and shared spaces
- Efficient residential and commercial building management
- Transparent land use planning, monitoring and management
- Integrated, digital planning processes
### Key ESG Considerations in the Construction Industry

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<tr>
<th>Environmental</th>
<th>Social</th>
<th>Governance</th>
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<tr>
<td>Carbon &amp; greenhouse gas emissions</td>
<td>Diversity and social inclusion</td>
<td>Strategies</td>
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<td>Water consumption</td>
<td>Health and well-being</td>
<td>Policies</td>
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<td>Waste management</td>
<td>Legacy planning</td>
<td>Constitution of governing body</td>
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<td>Resource management and efficiency</td>
<td>Community impact and integration</td>
<td>Procurement</td>
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<td>Mineral extraction</td>
<td>Education and skills</td>
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<td>Materials</td>
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<td>Recycling</td>
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<td>Stakeholder engagement</td>
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<td>Diversity, equality and ethics</td>
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Achieving zero emissions from new construction will require energy efficient buildings that use no on-site fossil fuels and are 100% powered by on- and/or off-site renewable energy.

Create more with less

Growing population requires growing demand on the construction sector

Global building floor area is expected to double by 2060
THANK YOU

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