

**KEYNOTE ADDRESS** 

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FOR

# **ASEAN EDUCATION CITIES CONFERENCE 2023**

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SUNWAY UNIVERSITY, SELANGOR DARUL EHSAN

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## SALUTATION

- 1. YB Senator Jaziri Alkaf Dr. Abdillah Suffian Ahli Dewan Negara,
- 2. Tan Sri Dato' Seri Dr Jeffrey Cheah
- 3. Tan Sri Chew Chee Kin, President, Sunway Group
- 4. Dato Sri Idris Jala, Deputy Chairman, Sunway Group
- 5. Dato Prof Dr Elizabeth Lee, CEO Sunway Education Group
- 6. Prof. Sibrandes Poppema, President, Sunway University
- 7. Mayors, Invited speakers, Industry leaders,
- 8. Ladies and Gentlemen

Good Afternoon,

## **"THE CITIES OF SARAWAK"**

## INTRODUCTION

- 1. Assalamualaikum and my warmest greetings to all distinguished guests present this afternoon.
- It is an honour to be with you here at Sunway City Kuala Lumpur. Congratulations to Sunway University and all the

relevant stakeholders for organising this inaugural ASEAN Education Cities Conference 2023.

- 3. I would like to extend my heartfelt gratitude for inviting me to be a part of this prestigious gathering thatserves as a platform for experts in education and urban development to come together and exchange ideas on how we can create smart and sustainable cities.
- 4. This conference is a unique opportunity to share best practices and innovative approaches that have been successful in fostering sustainable urban development through education.
- I am particularly interested in the discussions on how educational institutions can play a key role in promoting sustainable development in cities.
- 6. It is important that we educate the next generation not only on the importance of sustainability, but also equip them with the knowledge and skills necessary to drive positive change in their communities.

- 7. We are also facing a critical moment in the history of our planet. Climate change is affecting the planet in ways that we never thought possible.
- It is therefore imperative for us to find better alternatives to keep our homes, businesses, and communities functioning while tackling the challenge of climate change head on.
- By working together, we can create new partnerships and initiatives that can contribute to the development of eco-township, smart and sustainable cities – similar to Sunway City.

Ladies and Gentlemen

# SARAWAK POST COVID-19 DEVELOPMENT STRATEGY 2030

10. Sarawak has a rich history and culture, and we are proud to be the largest state in Malaysia. Our state is also home to a diverse array of flora and fauna, and we have a responsibility to protect and preserve these precious resources for future generations.

- 11. The COVID-19 pandemic has had a profound impact on the global economy, and Sarawak is no exception. However, in the face of this crisis, the Sarawak Government has risen to the challenge and is committed to ensuring that our state emerges from this crisis stronger and more resilient.
- 12. The Post COVID-19 Development Strategy (PCDS) 2030 is a key part of our response to the pandemic. This comprehensive and ambitious plan outlines the steps we will take to rebuild our economy and create a more sustainable future for our people.
- 13. The PCDS 2030 focuses on key areas such as digitalization, innovation, and entrepreneurship. We are investing in digital infrastructure and promoting the development of digital skills, with the goal of creating a digital economy that will drive growth and create new opportunities for our people.
- 14. Sarawak Government envisions that by 2030, Sarawak will be a thriving society driven by data and innovation anchored on three important pillars of **economic**

# prosperity, social inclusivity and sustainable environment.

15. Furthermore, the PCDS 2030 emphasizes the importance of sustainability, and we are taking steps to ensure that our development is environmentally responsible and socially inclusive. We are committed to promoting sustainable practices in key sectors such as agriculture, tourism, and natural resource management.

#### **VISION OF SUSTAINABLE GREEN CITIES OF SARAWAK**

- 16. The Sarawak Government recognizes the importance of environmental sustainability, both in our recovery efforts from the COVID-19 pandemic and in our long-term economic growth.
- 17. Environmental sustainability will play a critical role in our state's future, and that we must take this into consideration in all of our investment decisions. This includes promoting sustainable and responsible business practices, investing in renewable energy, and reducing our carbon footprint.

- 18. Sarawak is committed to transforming our state into a sustainable green city. Our goal is to create livable, healthy, and vibrant cities that will meet the needs of our residents and preserve the environment for future generations.
- 19. To achieve this goal, we are implementing a range of sustainable urban development practices, including energy-efficient buildings, sustainable transportation systems, and green space development. We are also promoting the use of renewable energy and reducing our carbon footprint, in line with our commitment to the Paris Agreement on climate change.
- 20. In addition, we are working to create walkable and bikefriendly communities, with the goal of reducing our dependence on cars and improving the health and wellbeing of our residents. We are also investing in green infrastructure, including parks, green roofs, and other urban green spaces, to improve air and water quality, reduce heat islands, and enhance biodiversity.
- 21. Furthermore, we are committed to ensuring that our development practices are inclusive and equitable. We

are working to create affordable housing, access to green spaces, and other amenities for all residents, regardless of income or social status.

- 22. By incorporating environmental sustainability into our economic recovery efforts, we are not only helping to protect the environment, but also creating opportunities for investment and growth in the green economy.
- 23. This will allow us to attract businesses and investors who are looking for a sustainable and responsible investment destination, while also supporting our goal of becoming a high income and developed state by 2030.

Ladies and Gentlemen,

#### **GREEN ECONOMY POLICY OF SARAWAK**

24. The Green Economy initiative of Sarawak is a response to the challenges posed by climate change and the need to develop a lush landscape of sustainable opportunity and environmental protection, where nature and industry seamlessly intertwine through sustainable industries, such as renewable energy, eco-tourism, and sustainable agriculture.

- 25. We recognize that economic growth is important, and we are committed to promoting "green" opportunities that will drive GDP growth while also reducing our impact on the environment.
- 26. We understand that sustainable development requires balancing economic growth with responsible resource use and consumption patterns, in order to protect our environment and mitigate the effects of climate change.
- 27. In this vibrant environment, every aspect of the Sarawak Green Economy is dedicated to promoting economic growth while also preserving the delicate balance of its natural resources.
- 28. Adopting a green economy growth model is particularly important for Sarawak, given its natural resources and the potential for sustainable development.
- 29. By prioritizing the quality of growth over the quantity of growth, the Sarawak government can ensure that the economic benefits of development are shared by all members of society and that the environment is protected for future generations.

- 30. One of the key components of the Sarawak Green Economy is the development of a hydrogen economy, which will leverage low carbon opportunities in naturebased solutions and technology to drive economic growth while reducing our impact on the environment.
- 31. Sarawak has vast potentials and opportunities in naturebased solutions, particularly the forestry sector that is expected to generate a revenue of RM701 million for the State in 2025.
- 32. This reinforces Sarawak's aspiration to not only enhance its forests to produce biomass energy and the role of forests as carbon sinks but to promote biodiversity as a natural capital for competitive advantage in the pursuit of green growth.
- 33. The concept of the "Bioeconomy" model has the potential to capitalize on and preserve social and biological diversity, while valuing the knowledge and ways of life of traditional population and ensuring an inclusive distribution of benefits.

34. Sarawak's Green Economy will integrate circular economy approaches to produce high value-added products and energy sources to offset its associated carbon footprint.

Ladies and Gentlemen,

# CITY DEVELOPMENT UNDER DIGITALIZATION – GREEN BUILDING INDEX

- 35. In Sarawak, the adoption of the Green Building Index has been growing in recent years, with several notable green building projects being developed in the state.
- These buildings range from commercial office buildings and residential developments to hotels and mixed-use projects.
- 37. Since the built environment has been touted as a large contributor to carbon footprint, the emphasis on indoor environmental quality along with improvement in air quality, lighting, and thermal comfort are cornerstones in Sarawak's urban and rural development blueprint as these can be used to spearhead the use of sustainable materials and construction practices.

- 38. One notable project, the University of Technology Sarawak, received a Platinum rating for their campus design that incorporates green elements in its design and planning to create a beautiful, eco-friendly campus and its stunning architecture.
- 39. UTS is owned fully by the Sarawak Government and the institution focuses on research and innovation in community development in order to turn Sarawak into an advanced state by 2030 and the digitalisation of Sarawak.
- 40. Sarawak is also developing the low carbon society blueprints in cities and towns in Sarawak to achieve sustainability goals by addressing concerns related to reducing greenhouse gas emissions, promoting renewable energy sources, improving energy efficiency, and promoting sustainable transportation options.
- 41. We have developed a Kuching Smart City Master Plan that is considering low carbon mobility and smart city infrastructure for Sarawak's capital city.

42. We have plans to develop similar smart city master plans for other urban areas in Sarawak that balance environmental sustainability and urbanisation.

Distinguished Ladies and Gentlemen,

## **HYDROGEN ECONOMY**

- 43. In 2017, Sarawak embarked on research into green hydrogen production under our Green Energy Agenda with the aim of decarbonising and greening our transport system and transitioning to a low carbon economy.
- 44. Sarawak Energy spearheaded this pilot research project which led to the construction and commissioning of our Hydrogen Production Plant & Refuelling Station in 2019.
- 45. It is the first facility of its kind in Southeast Asia and provides refuelling services for three hydrogen buses, currently serving as public transport in Sarawak's capital city of Kuching.

- 46. Hydrogen is becoming increasingly recognized as a key component in the transition to a low-carbon energy system.
- 47. With nearly 90% of the world's GDP having put forward hydrogen support policies or initiatives, it is clear that hydrogen is seen as a crucial element in achieving sustainability goals.
- 48. The growth of the global hydrogen market is a reflection of this increased interest and support. The more than doubling of clean hydrogen production capacity since January 2021 is a testament to the progress being made in this field.
- 49. I am proud that Sarawak is becoming a leader in the hydrogen economy in Malaysia. Sarawak Energy Berhad (SEB) is already producing green hydrogen at their integrated hydrogen refuelling facility in Kuching.
- 50. SEDC Energy has since, taken lead in driving the hydrogen economy in Sarawak with innovative plans for Hydrogen Infrastructure which will be instrumental in powering industries and transportation beginning with the Rembus Hydrogen Production project to produce

hydrogen to power Sarawak Metro's Kuching Urban Transportation System Autonomous Rapid Transit (ART) by 2024.

- 51. SEDC Energy has also embarked on the H2biscus project partnering with Samsung Engineering, POSCO and Lotte Chemical to produce 240,000 tons of hydrogen for their use in Korea.
- 52. SEDC Energy is also partnering with ENEOS and Sumitomo in the H2rnbill project similarly to produce environmentally friendly hydrogen and ammonia plant in Bintulu.
- 53. The launch of Malaysia's first PETROS multi-fuelling station in Darul Hana, Kuching by SEDC Energy is also a significant milestone in the development of the hydrogen industry in Sarawak. This multi fuel station is well equipped with not only the conventional fossil fuels (petrol and diesel) but also Electric Vehicle (EV) chargers and hydrogen dispensers.
- 54. In the next several years, SEDC Energy plans to develop more of these multi-fuel stations across Sarawak.

- 55. SEDC Energy is also working on the Rembus Hydrogen Production project to produce hydrogen to power Sarawak Metro's Kuching Urban Transportation SystemAutonomous Rapid Transit (ART) by 2026.
- 56. By providing access to hydrogen fuel, the station will help to support the growth of hydrogen-powered vehicles, which are an important part of the transition to a lowcarbon transportation sector.
- 57. The adoption of fuel cells vehicles, such as the Toyota Mirai, is an important goal for Sarawak towards Green Mobility and Green Energy Initiatives to aim for carbon neutrality by 2050.
- 58. The introduction of hydrogen modules at universities in Sarawak is an important step towards building a skilled workforce that can support the growth of the hydrogen industry.
- 59. By equipping students with the knowledge and skills needed to specialize in this industry, these modules will help to ensure that Sarawak has the talent and expertise needed to meet the challenges and opportunities presented by the hydrogen sector.

- 60. In addition to the hydrogen modules, research programs and projects with firms such as Airbus and Japanese companies will help to advance the understanding of hydrogen technology and its applications in day-to-day life. This will help to accelerate the development of new technologies and applications that can be used to support the growth of the hydrogen sector and help to create a more sustainable and low-carbon society.
- 61. Investing in education and research is an important part of building a successful and sustainable hydrogen industry. By supporting the development of a skilled workforce and advancing the understanding of hydrogen technology, the government and other stakeholders can help to ensure that Sarawak is well-positioned to capitalize on the opportunities presented by this growing industry.

Ladies and Gentlemen,

#### **CARBON TRADING AND CCUS**

- 62. The Paris Agreement, which was signed in 2015, is a landmark agreement in which countries from around the world agreed to take action to limit global warming to well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit it to 1.5 degrees Celsius.
- 63. Article 6 of the Paris Agreement provides a framework for countries to engage in international cooperation on climate action, including the transfer of technology, capacity-building, and market-based mechanisms.
- 64. The carbon market is a tool that can help to reduce carbon emissions by putting a price on carbon and incentivizing companies and individuals to reduce their emissions in various forms, including cap-and-trade systems, carbon taxes, and offset programs.
- 65. Sarawak is developing a well-designed and wellconnected carbon market for companies and individuals to reduce their carbon footprint, while also supporting the transition to a low-carbon, climate-resilient future.
- 66. Putting a price on carbon creates an economic incentive for companies and individuals to reduce their carbon emissions, by making it more expensive to pollute and

less expensive to adopt clean energy and low-carbon technologies.

- 67. I envisioned that a price on carbon can create a financial value for activities that sequester carbon, such as forest protection and reforestation. This can incentivize land owners to protect and preserve forests, which play a crucial role in absorbing carbon dioxide from the atmosphere.
- 68. Sarawak is the first state in Malaysia to enact legislation permitting carbon and nature-based solution venture businesses.
- 69. We have amended and gazetted our Forest (Forest Carbon Activity) Rules, 2022 which will provide a legal framework to regulate forest produce that covers carbon stocks and greenhouse gas (GHG) emissions in Permanent Forest Estates, both in state and alienated land.
- 70. By allowing carbon and nature venture businesses, Sarawak is sending a clear signal that it is committed to addressing climate change and promoting sustainable economic growth.

Distinguished Guests, Ladies and Gentlemen,

- 71. We have also passed and gazetted the Land Code (Carbon Storage) Rules, 2022 to include the airspace and properties above the surface of the land, as well as the seabed of the state's continental shelf to provide legal framework for Carbon Capture, Utilisation andStorage (CCUS) activities in Sarawak.
- 72. Sarawak has an estimated 30 trillion cubic meters of carbon storage capacity in the seabed of its continental shelf. The depleted or abandoned petroleum fields in offshore areas, are suitable for the development of secured and permanent storage of captured carbon dioxide (CO2) by oil and gas companies who now haveobligations to reduce emission of CO2.
- 73. Recently, PETRONAS CarigaliSdnBhd has reached the Final Investment Decision (FID) for the development of the Kasawari Carbon Capture Storage (CCS) project off Bintulu and is expected to reduce 3.3 million tonnes of CO2 equivalent annually, making it one of the largest offshore CCS projects in the world.

74. Additionally, reputable companies from Singapore, South Korea and Japan have also shown keen interest in participating and investing in CCUS in Sarawak.

Ladies and Gentlemen,

#### **BLUE ECONOMY INITIATIVE**

- 75. Sustainable development and utilization of ocean and coastal benefits within planetary boundaries require a multi-faceted approach that involves balancing economic, social, and environmental considerations.
- 76. How do we sustainably develop and utilise ocean and coastal benefits within planetary boundaries, avoiding past mistakes from land-based development?
- 77. We need to find the right balance by maximizing environmental, economic and social benefits based on ocean-based sustainable development.
- 78. In 2019, the Sarawak Government allocated RM70 million to deploy a total of 16,800 reefballs in strategic places

along the coastline of Sarawak from Tanjung Datu to Lawas. Incidentally, local fishermen have reported an increase in catch.

- 79. Following the success of our initial initiative, Sarawak Government will further allocate about RM 30 million to implement Phase 2 of reefballs deployment.
- 80. Sarawak will embark on a sustainable blue economics by taking a holistic approach to policies and management to realize the sustainable ocean-based economies.
- Hence, it is imperative that Sarawak Government adopt the right tools and approaches to incentivize 'Sustainable Blue Economies' to realize its full potential.

Ladies and Gentlemen,

#### RENEWABLES

82. Renewables demonstrated resiliency and growth during the pandemic and continue to play a key role in driving green and sustainable economic recovery.

- 83. Renewable energy's share in ASEAN's Total Primary Energy Supply rose by 0.7% in 2020. Followingthe ASEAN Power Updates Report, around 82% of new capacity in ASEAN was renewable in 2020.
- 84. The predominance of hydropower in the generation mix has played a key role in shielding ASEAN from energy challenges, providing a stable and secure energy source. The added stability provided by indigenous thermal resources is also a positive development, contributing to the overall energy security of the region.
- 85. Leveraging on renewable hydropower has allowed us to explore green hydrogen production and utility scale floating solar, and embark on research into microalgae for carbon capture, utilisation and storage or CCUS.
- 86. To further accelerate Sarawak's Green Energy Agenda, I am proud to announce that Sarawak is the first in the region to generate power from wind.
- 87. We are witnessing progressive growth in wind industry, beginning with technical innovation that includes advancement and sophistication of instruments and materials to transform wind to electricity.

88. Sarawak is also exploring Sustainable Aviation Fuel (SAF) by way of Cultivation and Harvesting of Microalgae for the purpose of extracting crude algae oils for biofuels. SEDC Energy is working with Petronas who has done extensive research in micro algae and there are strains of micro-algae, technology in cultivation and processing, which have been found suitable for producing this biofuel.

Ladies and Gentlemen,

#### OIL PALM WASTE TO ANIMAL FEED

- 89. The oil palm industry is a significant contributor to the economy of Sarawak, and the efficient management of its waste is crucial for sustainable development.
- 90. Oil palm waste, such as empty fruit bunches, palm kernel shells, and palm oil mill effluent, can be converted into valuable animal feed. This not only addresses the challenge of waste management but also provides a new source of feed for the livestock industry. Research has

shown that oil palm waste products can serve as a nutritious supplement for cattle, poultry, and other livestock.

- 91. In Sarawak, there is a growing demand for animal feed, and the use of oil palm waste can help to meet this demand while reducing waste and improving the environment. The conversion of oil palm waste into animal feed can also create new economic opportunities for the local communities.
- 92. The government of Sarawak recognizes the potential of oil palm waste for animal feed, and we are committed to supporting the development of this industry. We are working closely with researchers, industry players, and the local communities to promote the use of oil palm waste for animal feed and to address any challenges that may arise.
- 93. The potential of oil palm waste for animal feed in Sarawak is significant, and we are confident that it can contribute to the sustainable development of our state.

Ladies and Gentlemen,

#### SARAWAK'S ENERGY DEVELOPMENT

- 94. To meet our goal of reducing carbon emissions and reducing our dependence on fossil fuels, Sarawak has set a bold plan for post-COVID-19 development by expanding on our original economic blueprint in the Sarawak Corridor of Renewable Energy (SCORE), which was launched in 2008.
- 95. That was when we began to strategically harness hydropower potential for rapid socio-economic growth. This transformed Sarawak's energy landscape.
- 96. Our generation mix has successfully transitioned from 92% fossil fuels in 2010 to 70% hydropower by 2015, complemented by thermal resources for energy security.
- 97. This shift has decarbonised our grid emission intensity by 72% between 2010 and 2020 and continues to drive our sustainable socio-economic growth in the present day.

- 98. Our renewable hydropower will be among the main engines for achieving the climate goal of a transition from CO<sub>2</sub>-producing electricity generation to carbon-free generation.
- 99. By 2030, Sarawak plans to achieve three targets:
  - a. Maintain at least 60% renewable energy capacity mix, with renewable hydropower at its core and an increase in alternative renewable energy resources.
  - b. Reduce CO2 emissions by 600,000 tons per annum by electrifying Sarawak's mobility fleet.
  - c. Achieve more than 15% income from foreign markets, which includes pursuing power exports.

Distinguished Guests, Ladies and Gentlemen,

#### CONCLUSION

100. Education is one of the most important drivers of progress and development in any society. It equips

individuals with the knowledge, skills, and values they need to participate fully in the modern world and achieve their potential. It also plays a critical role in shaping the future of our cities and our region.

- 101. As we have seen in recent years, cities around the world are facing numerous challenges, from rising inequality and poverty to environmental degradation and the impacts of climate change. To build a better future, we need education systems that are resilient, adaptive, and capable of equipping young people with the knowledge and skills they need to meet these challenges head-on.
- 102. In the ASEAN region, we have a unique opportunity to build education cities that are world-class, sustainable, and inclusive. With our diverse cultural heritage, rich history, and dynamic economies, we have the potential to become global leaders in education and innovation.
- 103. However, to realize this potential, we need to take action. We need to invest in education and research, foster collaboration between universities, schools, and businesses, and create vibrant, inclusive communities that support learning and innovation.

- 104. In this context, the role of local governments is crucial. By working together and sharing best practices, we can build education cities that are models for the world. We can create environments that are supportive, inspiring, and empowering for all students, regardless of their background or circumstances.
- 105. Sarawak government has implemented various initiatives aimed at retaining talent and attracting skilled individuals to create a more attractive environment for highly skilled individuals, and to reduce the rate of brain drain in the state.
- 106. Let me emphasize that the future of our education and sustainable cities is in our hands.
- 107. By working together, I believe developing an integrated, smart, and eco-township can bring many benefits, including promoting green energy, healthy living, sustainability, and a circular economy. Sunway and Sarawak can create a unique and innovative community that sets a positive example for others to follow.

108. Our present decisions will have major implications for future generations, whose ability to lead prosperous, healthy lives depends on what we do today.

Thank you.