**Keynote Address by**

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**Premier of Sarawak**

*In conjunction with the*

**Borneo International Water & Wastewater Exhibition & Conference 2024**

**'Bridging Solutions for Sustainable Water'**

**Wednesday, 23 Oktober 2024/**

**10.30 a.m.**

**Borneo Convention Centre Kuching**

## Opening

1. Assalamualaikum, Salam Sejahtera and Salam Ibu Pertiwiku, Distinguished Guests, Ladies and Gentlemen.

2. First of all, thank you for inviting me to deliver a keynote address at this year's Borneo International Water & Wastewater Exhibition & Conference (BIWWEC) organised by the Malaysian Water Association Sarawak with the support of the Ministry of Utility and Telecommunication Sarawak.

3. I wish to extend the warmest welcome to all those who are present here, especially our distinguished speakers and esteemed participants. During the course of this three-day programme, there will be plenty of opportunities to share knowledge, foster collaborations, engage in meaningful discussions and establish networking. Take this opportunity to make the best of your participation at BIWWEC 2024.

4. I would also like to convey my appreciation to all those who have contributed to the success in organising this event, especially Business Events Sarawak (BESarawak), PETROS, Sarawak Energy Berhad, the generous sponsors and exhibitors and all relevant government agencies for supporting **BIWWEC 2024.** Your support is deeply appreciated.

Ladies and Gentlemen,

5. I would like to share the various progress Sarawak has made in developing its water and wastewater infrastructure and utilization, and to outline our vision for the future. Our journey can be summarized in 5 critical points that highlight both our achievements and our approach with the future well in mind.

## A Legacy of Development and Modernisation

6. In the colonial era, our water supply systems were rudimentary, designed to serve only the administration offices and a few urban centres, such as Kuching. This limited reach meant that in 1963, when Sarawak became a part of Malaysia, fewer than 30% of our population had access to piped water.

7. However, post-independence marked the beginning of an era for the Sarawak Government to embark on an ambitious plan to significantly expand water services across the region.

8. A notable milestone was the Sarawak Urban Water Supply project during the 1980s and 1990s, which dramatically increased the reach of piped water to urban areas.

9. Today, these efforts have borne fruit. Over 90% of our urban population now has access to clean water, a testament to our progress. Through the water grid and advanced treatment plants, such as the Batu Kitang Water Treatment Plant, which supplies not only to Kuching City but also to Greater Kuching

which include part of Samarahan Division, play a crucial role in maintaining the quality and reliability of our water supply.

10. This legacy of development and modernisation reflects our commitment to improving the lives of our people and ensuring that access to clean water is a fundamental right for all.

**Ladies and Gentlemen,**

**Overcoming Unique Geographical Challenges**

11. As we reflect on Sarawak's journey, we must acknowledge the unique geographical challenges that have shaped our approach for water infrastructure development.

12. Our homeland Sarawak is blessed with a diverse and stunning landscape—dense rainforests, mountainous regions and an extensive network of rivers. While this natural beauty is a treasure, it also presents significant challenges when it comes to constructing and maintaining water supply systems. The complexity and cost of these tasks are formidable due to these challenging terrains.

13. Yet, in the face of these challenges, Sarawak has risen to the occasion by implementing several innovative solutions.

14. For instance, in the Baram district, where the rugged terrain makes traditional piped systems impractical, we have turned to

solar-powered water pumps and gravity-fed systems. These innovative solutions draw water from rivers and springs, providing a reliable supply to remote villages that would otherwise remain under-served.

15. Furthermore, our commitment to reach even the most isolated communities is exemplified by the Sarawak Alternative Water Supply (SAWAS) programme.

16. This initiative has successfully delivered clean water to over 2,500 households through community-based rainwater harvesting systems and package water treatment plants.

17. In line with the Sustainable Goal Development (SGD), these efforts highlight Sarawak's resilience and dedication to ensuring that every community, no matter how remote, has access to clean and reliable water.

Ladies and Gentlemen,

**Sustainability and Environmental Stewardship**

18. As Sarawak looks to the future, our commitment to sustainability and environmental stewardship remains at the heart of our water management strategies.

19. In today's world, climate change poses significant challenges to our water resources. We are increasingly

experiencing extreme weather events, such as prolonged droughts and severe flooding. These conditions threaten not only our water supply but also our infrastructure and the local communities.

20. To mitigate these risks, Sarawak has taken proactive measures to adapt and mitigate the impact of climate change. The implementation of flood mitigation projects in Kuching, Sibu and Miri for instance, play a vital role in controlling floodwaters, protecting both our water infrastructure and the communities we serve.

21. In addition to flood management, our commitment to sustainability extends to wastewater management. Sarawak has embraced environment-friendly technologies to ensure that our approach to wastewater treatment supports our broader environmental goals.

22. The Kuching Centralised Sewerage System, for instance, employs conventional activated sludge technology. Through the sewerage system, we reduce the strain on our freshwater resources and underscore our commitment to sustainable water management practices

23. Renewable energy derived from water at hydropower plants such as Batang Ai, Bakun and Murum provides sustainable use of our water resources to achieve generation mix comprising

predominantly renewable sources. Future renewable hydropower will also be implemented through cascading power sources with series of smaller reservoirs which will have minimal impact on the environment and displacement of affected communities.

24. The reservoir for the hydropower provides potentially suitable sites for floating solar, which can be use with pumped hydro energy storage (PHES) thereby increasing further renewable energy generation from water resources. Currently a 50MW floating solar farm is under construction at Batang Ai Hydropower reservoir and when complete at end of this year will become the largest floating solar farm in Malaysia.

25. These efforts reflect Sarawak's dedication to safeguard our environment while ensuring a reliable and sustainable water supply and utilization for future generations.

**The Role of Key Players and Collaboration**

26. As we celebrate the advancements in Sarawak's water and wastewater sectors, it is essential to recognise the collaborative effort that has fuelled this progress. Our achievements are contributed by the result of a robust partnership among various stakeholders.

27. At the forefront, the Sarawak Government has played an instrumental role in providing the necessary funding for major water infrastructure projects, which is supported with fundings from the Federal agencies such as Ministry of Energy Transition and Water Transformation (PETRA) and Ministry of Rural and Regional Development (KKDW).

28. There are four (4) Water Supply Agencies in Sarawak. They have been working together and become the backbone of our daily operations. Their dedication ensures that our water supply systems function smoothly and efficiently across Sarawak, maintaining the high standards that our communities rely on.

29. Water also forms an important source for energy through hydropower generation and new energy in the form of hydrogen derivable from water.

**30. Climate change action has called for the development of hydrogen as an emission-free fuel by splitting the water molecule into hydrogen and oxygen through the process of electrolysis.** Through collaboration with Sarawak Energy Berhad and SEDC Energy, the utilization of water in our energy transition towards sustainable renewable sources are aggressively pursued.

31. **In the pursuit of developing hydrogen as a new carbon free fuel, particularly for public Transport,**

**Sarawak has installed probably South East Asia's first hydrogen plant capable of producing 130 kg of hydrogen per day in 2019 for the purpose of research. By early 2026, our Autonomous Rapid Transit (ART), now under construction, is expected to start operation as Asia's first hydrogen-powered public transport under the Kuching Urban Transportation System (KUTS).**

Ladies and gentlemen,

32. Private investors are also encouraged to participate and explore investment opportunities in the development of renewable energy as Sarawak aims to increase its power generation to 10 Megawatt (MW) by 2030 and increasing to 15MW by 2035, with renewable energy as the predominant sources forming not less than 60% of the generation mix.

33. All these collaborations exemplify how collective efforts and collaborations can overcome challenges and drive meaningful progress. Together, we continue to build a future where access to clean and reliable water is a universal reality.

Ladies and Gentlemen,

34. Last, but not least, we come to our fifth critical point that underscores our progress in the development related to water and wastewater industry in Sarawak.

**Embracing Future Opportunities and Innovations**

35. While we stand on the brink of a new era in water and wastewater management, I am excited to share the vision and advancements that are shaping the future of Sarawak. The road ahead is filled with opportunities, driven by technological advancements and strategic investments, which will play a crucial role in enhancing our water infrastructure and utilization.

36. Sarawak is making significant strides in adopting smart water management systems. These systems leverage real-time data and advanced analytics to improve efficiency and reduce water loss.

37. A notable example of this innovation is the implementation of smart water meters in Kuching, Samarahan and Serian which allow for remote reading. By providing real-time data on water usage, these meters enable us to quickly identify and address leaks, conserve valuable water resources and reduce operational costs.

38. But our commitment to embrace innovation does not stop there. We are also exploring new technologies in wastewater

treatment to ensure our systems are as forward-thinking as possible.

39. For instance, we are in the process of developing a new centralised sewage treatment plant in Bintulu while exploring potential of generating bio-gas as a renewable energy source.

40. The existing Bengoh Water Supply Dam is also being explored for dual purposes i.e. as water supply, currently its main purpose and hydropower generation as secondary purpose. Sarawak has also identified 12 river basins as potential sites for cascading power sources and numerous sites with suitable geographical topography for pumped hydro energy storage (PHES).

Ladies and Gentlemen,

41. The water ecosystem extends beyond direct utilization such as water supply, irrigation, navigation and hydropower generation as earlier described.

42. There can be indirect purposes for water bodies especially from sizeable hydropower reservoirs which can be utilized for aqua-culture and eco-tourism activities. These will spur economic development, beyond just power generation, for new economic activities in Sarawak.

43. The water reservoirs at Bakun, Murum, and in the near future Baleh Hydropower will provide huge areas for floating solar installations which can be utilized with pumped hydro energy storage. This huge potential of solar resources can be used to pump water and subsequently utilize to generate power during unavailability of the sunlight, thereby providing additional and sustainable energy for Sarawak.

44. This not only addresses our water management needs but also supports our goals of sustainability and energy efficiency. These initiatives highlight Sarawak's proactive approach to preparing our water and wastewater infrastructure for the demands of a growing population and a changing environment.

45. I am also very thankful that Kuching, Sarawak, has been selected to stage the International Water Association IWA World Water Congress and Exhibition in 2028, where the conference will be held at the new BCCK2. This is a defining moment for Sarawak, as we will not only meet global practitioners and experts in the water industry, but will also be able to learn and hear about the latest trends and technologies. Once again, I congratulate Ministry of Utility and Telecommunication Sarawak, the Malaysian Water Association (MWA), the Malaysian Water Association Sarawak Branch (MWAS) and Business Events Sarawak (BESarawak) team for their efforts in securing this prestigious conference for Sarawak.

## Conclusion

Distinguished Guests, Ladies and Gentlemen,

46. Thank you once again, for being here in Kuching, Sarawak.

47. I am confident we will attain our objectives and be able to build a good future based on our water resources in our respective areas, in Sarawak in particular.

48. Together, let us embrace these opportunities and continue to advance our efforts to ensure that Sarawak remains at the forefront of water and wastewater management excellence.

49. With this, it is my great pleasure to officially launch the *Borneo International Water & Wastewater Exhibition & Conference 2024.*