



OPENING SPEECH

**YANG BERHORMAT DATO' DR. XAVIER JAYAKUMAR
MINISTER OF WATER, LAND AND NATURAL RESOURCES**

**INTERNATIONAL CONFERENCE ON DAM SAFETY MANAGEMENT
AND ENGINEERING (ICDSME 2019)**

19 NOVEMBER 2019

THE WEMBLEY HOTEL, PENANG, MALAYSIA

**Yang Berbahagia Dato' Ir. Nor Hisham Bin Mohd Ghazali
Deputy Director General
Department of Irrigation and Drainage Malaysia (DID), Malaysia**

**Yang Berbahagia Datin Prof Ir. Dr. Lariyah binti Mohd Sidek
Chairman
International Conference on Dam Safety Management and Engineering
(ICDSME 2019)**

**His Excellency Mr. Michael F. Rogers
President International Commission on Large Dams (ICOLD)**

**Yang Berusaha Ir. Shukri bin Muslim
Director
Department of Irrigation and Drainage (DID), Penang**

Distinguished Participants, Ladies and Gentlemen.

1. Terlebih dahulu, saya berasa berbesar hati kerana dijemput untuk menyampaikan ucapan dan seterusnya merasmikan Persidangan Antarabangsa Pengurusan Keselamatan Empangan dan Kejuruteraan bagi tahun 2019. Saya juga berasa bangga melihat jumlah bilangan peserta yang menghadiri persidangan pada kali ini. Ini jelas membuktikan keyakinan para peserta terhadap hasil persidangan ini serta keprihatinan seluruh warga kejuruteraan empangan ke arah pembangunan empangan yang mapan, berteknologi terkini dan efisien.

Distinguished guests, allow me to continue my speech in English.

Ladies and gentleman,

2. Firstly, I would like to take this opportunity to thank the organizing committee for inviting me to deliver the opening speech of the ***International Conference on Dam Safety Management and Engineering (ICDSME 2019)***. It is indeed a great pleasure and a privilege to be among these distinguished audience this morning. The participants of this conference encompasses experts, senior public-sector officials and captains of industry in the fields of dam safety engineering worldwide.

3. I would like to welcome all international delegates to Malaysia, “Selamat Datang”. I am very pleased to note that there are about 400 professionals from 15 countries such as The United States of America, India,

Canada, Nigeria and Australia represented here. It is a very impressive turnout. I would like to cordially thank all of you for coming to Malaysia and taking part in this conference.

4. I would also like to thank the collaborating partners, Tenaga Nasional Berhad (TNB), Department of Irrigation and Drainage (DID), Universiti Tenaga Nasional (UNITEN), Malaysia National Committee on Large Dam (MyCOLD) and other Agencies for their efforts and commitment in organising this conference. This is an excellent example by which collaborative efforts by various multinational and international companies or agencies in bringing a positive impact to mankind especially related to water resources and dams management.

5. I strongly believe that this conference would be able to serve as a platform for the professionals such as scientists, academicians, researchers, practicing engineers, policymakers and industry players related to water resources and dams management to discuss and exchange their experience, ideas and presenting their research findings to the group of people with the same interests. Practicing engineers who are involved in water resources projects could grasp this golden opportunity to continually enhance and update their knowledge beyond their expertise.

INTRODUCTION OF THE CONFERENCE THEME

Ladies and Gentlemen,

6. A dam is defined as an artificial barrier together with appurtenant works constructed for the purpose of holding water or any other fluid or silt across

a natural watercourse or on the periphery of the reservoir. Engineering of dams has evolved from crude works to increasingly complex present systems nowadays.

7. This conference's theme is ***“Resilient Dams for Safe Communities”***. In order to sustain the economic growth of a nation, a reliable, safe and well-maintained dam is of utmost importance. Dams are expensive to build and maintain. The absence of the proper best management practices on dam safety may increase the risk of dam failures, which may cause loss of life, properties, economic and environmental damages. Hence, this conference's theme is timely to enable us to sit down together and think of ways to improve on how to manage our dams effectively.

Ladies and Gentlemen,

8. Over the last half-century, we have seen a tremendous increase in the dam constructed around the world. Malaysia too is not left behind. Currently, we have about 104 dams. This number is considered large compared to the size of Malaysia. This is made even worse due to the fact that some dams are aging. Hence, we need to re-think how to build and maintain our dam assets so that they can last longer, cheaper to maintain and in the safe condition.

MALAYSIA GOVERNMENT INITIATIVES

Ladies and Gentlemen,

9. Dam failures can be extremely harmful. This is because of the immense destruction that can occur with a dam breach. Throughout history, a large number of dam failures have caused immense property damage when floodwaters destroy infrastructure. In addition, ecosystems and habitats are destroyed as a result of waters flooding them. In Malaysia, fortunately we have not had the experience of any such failures. However, as the dams in this country get older, we cannot avoid but to face the reality that we have to address the condition of these dams from the safety point of view. We should not wait until failure occurs which may endanger public safety.

10. For your information, a Special Committee on Dam Structural Safety was established in February 2015 under the stewardship of the then Ministry of Natural Resources and Environment (NRE), which is now under my Ministry. The members of this committee are representatives from the Ministry of Agriculture and Agro-based Industry (MOA), Ministry of Energy, Science, Technology, Environment and Climate Change (MESTECC), Department of Irrigation and Drainage (DID), Department of Mineral and Geoscience (JMG) and Malaysia National Committee on Large Dams (MyCOLD). The main roles of this committee are to establish the standardize Dam Safety, Inspection and Monitoring guidelines for all dam operators.

DAM SAFETY MANAGEMENT IN MALAYSIA.

Ladies and Gentlemen,

11. Before 2018, the safety management practice by dam operator in the country is largely by self regulation. There is no specific Law or Guidelines on the dam safety in Malaysia. There is no regulatory body to regulate activities on dam development and operation. However, the Malaysia Dam Safety Management Guidelines (MyDAMS) have been implemented since September 2017. This is in line with the Government decision of the 12th National Water Resources Council (MSAN) Meeting held in 2017.

12. Since then, the Ministry has put an effort to ensure that all our dams are maintained in a sustainable and environmentally friendly manner and according to MyDAMS. The objectives of MyDAMS are :

- a) To ensure that the management of the dams in Malaysia is systematically and effectively implemented;
- b) To establish a uniform and standard safety management practice; and
- c) To ensures the integrity of the dam's safety and its functioning as designed.

SUSTAINABLE DAM SAFETY MANAGEMENT

Ladies and Gentlemen,

13. The dam operator and dam owner must keep abreast of the latest cutting edge technologies and innovations. With the establishment of the new Dam Safety 'Flying Squad' since 2017 in the Ministry, all those involved in dam design, construction and maintenance, including academia, are welcome to collaborate and lend their expertise in doing dam safety inspection, research and development on dam related issues, for the mutual benefit of all parties.

By having this "Flying Squad", dam safety auditing has been carried out to ensure those dam owners take appropriate measures so that:

- a) dams do not endanger life and public property;
- b) the dam and catchment areas have not trespassed; and
- c) pollution in dam areas can be prevented.

CONCLUSION

Ladies and Gentlemen,

14. This international conference is timely for all of us to make the first step towards the sharing and exchanging of knowledge, ideas and experiences that can make the world a better place to live in. We must embrace innovation in driving productivity for the dam industry. I sincerely believe this can be achieved from this Conference as well as the Exhibition on show, which offers ideas, solutions and products for dams and water infrastructure.

15. I feel very impressed that there are several distinguished Resource Persons, Keynote Speakers, Paper Presenters and participants from both local and overseas who are actively involved in water resources research and management participating in this conference. Indeed, your participation and knowledge sharing are indispensable and highly appreciated. Your expertise is needed to help us in developing and sustainably managing our dams considering the people's livelihoods and the environment as well. I would like to express my appreciation to all speakers and participants for their valuable contribution to this conference.

16. Special praise goes to the conference Chairman, members of the Organizing Committee, for their time and efforts put forth to ensure the success of this conference. I truly appreciate the International Commission on Large Dam (ICOLD) for their cooperation and continuous support . Special thanks to Mr. Michael F. Rogers (President of ICOLD) and his team.

Thank you for being a part of this conference. To all delegates from abroad, a very warm welcome to Malaysia and I hope your stay here is an enjoyable one.

17. On that note, ladies and gentlemen, I take great pleasure in declaring the **INTERNATIONAL CONFERENCE ON DAM SAFETY MANAGEMENT AND ENGINEERING (ICDSME 2019)** officially open.

Thank you.