

Earthquake risk from proposed Papar Dam

DE 12.11.2019 2

David Thien

KOTA KINABALU:

The negative impacts of building the proposed Papar Dam include earthquake induced by immense water pressure on the earth crust, according to Prof. Dr Felix Tongkul (pic) of University Malaysia Sabah (UMS)'s Natural Disaster Research Centre.



He said the location receives some of the highest rainfall in Sabah, some 3,000mm a year, and does not need a dam, which is best built in an area like drought-prone Kudat district.

"Extra dammed-up water can induce micro earthquakes. Dams alter the ecosystem, thus affecting physical, chemical and biological systems.

"Existing earthquakes within the vicinity of the proposed Papar Dam also add risk to the safety of the dam," he said.

He cited as an example the Kenyir Dam in Terengganu, which was completed in 1987 with a height of 150m.

"Numerous earthquakes with a maximum of 4.6 magnitude occurred during flooding from 1984 to 1987 and continued up to 2016," he said.

He said on the upstream of the proposed Papar Dam, flooding of natural resources and cultural heritage of village

settlements in the Upper Papar River is regrettable.

"Dams displace populations with established livelihood in the affected area and are expensive to construct, time-consuming and sometimes quite expensive to maintain.

"The Papar Dam will disrupt the delicate balance of the hydrological system, both upstream and downstream.

"It will cause a huge loss to ecological and economic resources in the affected area," he added.

Dr Felix said building dams is not the best solution to our future water supply as too much is being sacrificed, and there are available alternatives.

"Large dams of more than 15m in height disrupt the flow of rivers, causing imbalance to the natural hydrological and ecological systems.

"This disruption has a long-term effect on both upstream and downstream ecosystems. The bigger the dam, like mega dam of more than 150m, the bigger the disruptions," he said.

The Papar Dam is therefore not the best solution to our future supply of water, said Dr Felix, adding the Sungai Papar Water Catchment is one of the healthiest - 50 per cent is protected under the Crocker Range Park and forest reserve.

"There is too much precious natural resources and cultural heritages to sacrifice in exchange for a dam that has a limited life span," he said, adding dams have finite

life span of between 50 and 100 years.

Dr Felix was called to speak on the Papar Dam by presenting a paper on "Papar Dam Case: Some Serious Concerns and Alternatives for Future Water Supply in West Coast Sabah" at the "Inclusive Dialogue between Stakeholders on Infrastructure Development in Sabah for the 12th Malaysia Plan." It was organised by the Sabah Institute for Development Studies and Coalition 3H.

He opined that dams are vetted to a much deeper environmental and socio-economic standards than in the past.

Dr Felix said the alternatives to Papar Dam include new storage reservoirs, being a cheaper and more practical solution and less detrimental to the environment and society.

"Like the Telibong water intake project, it is a more sustainable alternative to the Papar Dam. Suitable storage reservoirs should be identified, reserved and protected for future needs.

"The Papar River Water Catchment is one of the healthiest in West Coast of Sabah. It should be maintained this way so that it will provide us with continuous supply of water for years to come. Its river should continue to flow without hindrance," said Dr Felix.

"Reservoirs will not affect the natural biodiversity and heritage in Ulu Papar and will keep the natural flow of the Papar River unimpeded by a dam."