

Tagal can help conserve water catchments: Prof

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PUTATAN: The extension of the "tagal" system to watershed forests could reduce human-induced disasters as well as conserve its economical values, said UMS Head of Natural Disaster Research Unit (Faculty of Science and Natural Resources), Prof Dr Felix Tongkul (pic).

"The potential of a water catchment could not be maximised if the forest around it is damaged as they are interconnected, hence the 'Tagal Hutan' should be implemented to maintain its health.

"Healthy watersheds would not only benefit the economy but also could help in mitigating climate change," he told participants of a workshop on "Promoting Tagal Hutan To Conserve Traditional Indigenous Practices, Enhance Watershed Management and Address Climate Change", at the Forestry Department's Kota Kinabalu office in Lok Kawi, here.

Prof Dr Tongkul said the ecosystem services provided by the catchments have been taken for granted by many.

"Water catchments provide us with water, recreational areas, habitat for animals and plants, in which, would generate billions.

"Sadly, many have taken it for granted because they are not aware of the values provided and they assumed that the service is free.

"Water taken from the catchment is marketed cheaply because the cost of conserving the catchment area is not included," he said, adding that insufficient researches have been conducted to address water catchment problems.

He said improved watershed health leads to less runoff to ecosystems below and therefore cleaner and more valuable



downstream ecosystems.

"As we are developing, we have been busy clearing land for subsistence farming, cash crop plantations, building towns and cities and changing water catchments which had been in equilibrium for thousands of years.

"Such activities have resulted in damage to the health of our catchments, including loss of biodiversity, sedimentation and pollution of rivers.

"Activities such as forest burning will harden the soil and reduce its ability to absorb water, hence causing excessive water runoffs to flow directly to the river which could lead to flash floods," he said.

To illustrate his point, Prof Dr Tongkul drew attention to floods that were getting more prominent lately, such as those that affected Kelantan, Terengganu, Pahang, Johor, Perak, Negeri Sembilan, Selangor, Sarawak and Sabah in 2014 and 2015.

"In 2014, Kelantan was affected by severe floods which the authority believed to have been caused by forest clearing and logging activity at upstream Gua Musang and they have lost billions," he said.

Prof Dr Tongkul suggested three methods to protect and conserve water catchments, namely passive restorations, active restorations and pro-active actions.

"Passive restorations imply minimal human intervention by letting the forest to grow on its own, active restorations mean replanting trees, while pro-active actions mean gazettement of the catchment area, in this case implementing Tagal Hutan," he said.

Tagal in Kadazan means prohibition and the system maintains harmony between users and their natural environment.

The spirit behind the system is collective ownership and responsibility, sustainable use of resources and maintaining balance of life and had been successful in conserving fish in rivers.