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Protecting our biodiversity

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AS history has shown, a nation without food security is a nation in trouble. North Korea and Iraq are two clear examples.

In Malaysia, food security has become a hot topic in recent weeks. With a hefty import food bill under present circumstances, there are reasons to be concerned.

It goes back to the question of how well Malaysia is managing its biodiversity. And from a purely economic point of view, it would be a big loss if the nation's biodiversity continued to be taken for granted.

The agriculture, forestry and fisheries sectors contribute close to 14 per cent of national income and account for 27 per cent of total employment. About RM8.3 billion from the tourism industry goes to the national coffers. Clearly, these wealth-creating activities are worth sustaining.

There should not be any more foot-dragging in safeguarding the myriad of genes, species and ecosystems found here. To do so will only lead to further depletion of resources.

The erosion of crop diversity is a case in point. Although Malaysia has over 12,500 flora species, only a handful have been utilised for food production.

A legacy of the Green Revolution, the practice of monoculture - the planting of single species such as rice - has demonstrated that while yields might have improved, the susceptibility to diseases and pest attacks can be equally devastating. The use of pesticides and synthetic fertilisers has virtually led to extinction of several plant species.

To prevent the situation from deteriorating, biologist Professor Abdul Latif Mohamed of Universiti Kebangsaan Malaysia and Chan Han Chee of Agriculture Ministry agree it is imperative that a number of wild species of plants be protected.

These serve as a crucial base material for the development of food crops with high yields and disease resistance. Shielding animals that function as pollinators such as bats and birds are just as vital.

Foregoing a diversity of food crops, as other countries have experienced, is a lost opportunity.

"Our ministry," explains Chan, "is revising the National Agriculture Policy for the third time to address the issue of food security."

The role of the forests in providing medicinal plants, controlling soil erosion and sustaining water supply, however, remain on the periphery. The focus is still on exploiting the forests for commercial timber.

But, as Sanath Kumaran of World Wide Fund for Nature proves, it is a misnomer that only logging generates income.

He has found that over the years, the export of timber to the Asian region has increased substantially but it is not in proportion to money earned.

In 1995, for example, a total of 3.3 million cubic metres of sawn timber was exported to Asia - which was seven times higher than what was delivered to European Union nations. However, the value of the wood sold to Asia was 3.5 times lower than the EU-bound ones.

If the trend remains unchecked - where timber is favoured over and above other jungle resources - taxpayers may end up paying more for medicine, flood mitigation and drinking water.

As it is, there were cases where plants were flown out of the country,

only to discover later that the drugs derived from them had been patented.

Imagine Malaysia having to pay royalties to foreign pharmaceutical companies for the roots of tongkat ali (*Eurycoma longifolia*) which contain active compounds for an anti-malarial drug.

"We got to act fast," urges Latif.

Indeed, the forests are infinite genetic warehouses. They are potential income generators. As long as they are well-managed with a strong team of scientists to research, it can materialise.

The American drug companies are well ahead in this aspect. They are earning no less than US\$9 billion per annum from selling medicine of plant origin.

But the signs continue to point to a total disregard for forests as water catchments. The short-term gains from converting forests to industrial estates can do more harm than good. Without water, factories and quarries cannot operate.

Displacing forest communities can be just as damaging. Such cultural genocide can only deprive invaluable lessons to be learnt about survival.

Similarly, if animals continued to be poached, what is left for the future generations? For instance, there used to be two species of rhinoceros that roamed the jungles of Malaysia.

With poaching and habitat loss, the Javan rhinoceros has since become extinct while the Sumatran rhinoceros population is reduced to 50 nationwide, says department of Wildlife and National Parks acting director of research and conservation Sivananthan Elagupillay.

There must be a greater sense of urgency to protect the nation's natural heritage.

The more we delay in tackling the issues, the more we stand to lose, says Gurmit Singh, whose organisation, Centre for Environment, Technology and Development Malaysia (CETDEM), conducted a three-day discourse last week on biodiversity.

After China, India and Indonesia, Malaysia is considered the fourth nation with "megadiversities". But will Malaysia allow its position to slide?

The fate of the forests and the coastal waters is in the hand of the State Governments because of their constitutional rights. For now, with no political challenge to the status quo, only the State Government can move mountains.

Unfortunately, more often than not, State Governments destroy rather than conserve biodiversity.

Gurmit figures that because the Federal Government virtually controls all forms of revenue including taxes, it leaves little room for the State Governments to generate income. So the State Governments choose to sell the forests and the islands under their jurisdiction.

One other fundamental flaw is the fragmentation of work in managing biodiversity. For instance, the Forestry Department of Peninsular Malaysia only deals with logging related issues. The fauna species in the forests are totally ignored. Further, the department answers directly to the respective State Governments. It is not vested with power to veto decisions made by the latter.

The Wildlife and National Parks, on the other hand, started as a State agency before becoming a Federal department in 1972. It is operating under a lot of constraints. It has only one superintendent to manage Taman Negara which is six times the size of Perlis.

Added to that, there is a dearth of records to determine the status of the existing sanctuaries.

"It's an insurmountable task," concedes Sivananthan.

Against such a backdrop, the national committee on biodiversity was

formed under the aegis of the Ministry of Science, Technology and Environment to formulate a national biodiversity policy.

After more than two years of deliberation, the committee is ready to unveil the policy. Prime Minister Datuk Seri Dr Mahathir Mohamad will officially launch it next month. (See sidebar)

Even as Malaysia grapples with such issues as biotechnology and intellectual property rights, it has to contend with the conflicting demands exacted on the nation's biodiversity.

For a meaningful national policy on biodiversity, there must be reforms at all levels.

As Gurmit rightly points out, transparency, accountability and public participation are three key ingredients. For now, these democratic rights remain sorely lacking.

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