Pakistan must make its peace

PAKISTAN has too much at stake for the leaders of parties which dominated the parliamentary election to not work with President Pervez Musharraf. Inflation, shortage of essential goods and energy, unemployment, lawlessness and violence – the masses did not have to look beyond their immediate pain to vote overwhelmingly for the secular parties in the Feb 18 election. Those were, to them, more fundamental reasons than political questions over Mr Musharraf's own election and his removal of Supreme Court judges. Despite the controversy, Mr Musharraf remains the President. It is a reality that the Pakistan People's Party (PPP) – which won the most seats – has done well to acknowledge. PPP co-chairman Asif Zardari, Ms Benazir Bhutto's widower, has not ruled out working with Mr Musharraf. He has recognised that even in a coalition with Mr Nawaz Sharif's Pakistan Muslim League (PML-N), it would not have the two-thirds majority to impeach the President, as was the plan.

Mr Sharif would do well to get over his grudge against Mr Musharraf for ousting him as prime minister in 1999 and subsequently throwing him in jail on corruption and other charges. The new government will have too many challenges to deal with than to get embroiled in a drawn-out constitutional fight. Mr Zardari said it well when he remarked that to establish democracy, "we need unity and not confrontation". For his part, Mr Musharraf has repeatedly signalled willingness to work with the new government. He needs to resist pitting one political faction against another. He should summon the National Assembly and invite formation of the government without delay.

Despite the polls setback, he still has the decisive role in a fraught situation that calls for political skill and nerve. With the exit of Ms Bhutto, who was to be one half of a power-sharing arrangement to stabilise Pakistan, he is potentially the only leader who can hold the country together, through coercion if not consensus. He continues to have the support of the United States, although this is not all a blessing. However, he should be careful not to overplay his hand. The PPP has reportedly settled on an eminent candidate, Mr Makhdoom Amin Fahim, for prime minister. With a reputation for honesty and ability to get things done, he is also known to favour close military and economic ties with the United States. America has options, though it has openly kept faith with Mr Musharraf. Pakistanis need and deserve a shot at political and economic stability. Leaders at home and partners abroad should not put stumbling blocks along the already rocky road.

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The real cost of palm oil

By Andy Ho
Senior Writer

WE HAVE had bad air for the past few days. Prevailing winds have brought in the haze from Riau's forest fires. The culprits responsible for this are big plantation companies that burn forests to clear land to plant oil palm.

Widely used in food and cosmetics, palm oil accounts for 21 per cent of the global edible oils market. It is also used to make a renewable fuel called biodiesel, the main user of which is the European Union (EU).

In 2003, the EU announced it was mandating biofuels in 5.75 per cent of transportation by 2010, and 10 per cent by 2020. This initiative stoked investment in oil palm plantations and biodiesel refineries in Indonesia.

Since biodiesel is made from a plant, carbon is absorbed while the palm is growing, which is released when the green fuel is burned. Thus, compared to fossil fuels, biodiesel would be neutral in terms of greenhouse gas emissions, it was argued.

We know now that things are not so simple. The process of producing palm oil itself takes a heavy toll on the environment. Still, the biofuel industry favours the palm as 1ha of it yields 20 tonnes of the crude. By contrast, biofuels like soybean and corn yield just 7.5 and 3 per cent of that, respectively.

By early last year, there were 6.1 million ha of oil palm in Indonesia, up from 600,000ha in 1985. Palm oil production rose from 157,000 tonnes in 1964 to 15.9 million tonnes in 2006, with exports jumping from 126,000 tonnes to 11.6 million tonnes in the same period. Last year, these exports were worth US$4.43 billion (S$6.3 billion).

As it is an important source of foreign exchange and employment, the Indonesian government wants to expand oil palm to the eastern part of the country. While Riau has the biggest area under palm cultivation now, plantation companies are being given forest concessions in Kalimantan, Irian Jaya and Sulawesi for further expansion.

It would be environmentally friendlier to rehabilitate disused rice paddies or old oil palm plantations, but that would cost more than clearing rainforests. Moreover, with forest concessions, companies can also sell the valuable tropical timber that they harvest.

The logging, however, is often uncontrolled, leading to the erosion of top soil that is then washed by rain into rivers, thus aggravating floods.

Also, after the logging is done, firms tend to burn the logged-over areas to clear them, though this is illegal. Trees soak up carbon as they grow; when they are burned, they release it back into the atmosphere.

In addition, these forest fires often spread beyond their planned areas. At least 19 of Indonesia's protected national parks have been affected thus, including a Unesco-registered wetland in Sumatra.

Forest fires consumed 50,000 sq km of Indonesia's rainforests in 1994. Another 46,000 sq km went up in smoke in 1997-98. Of the 176 firms which used fires illegally to clear forests in 1997-98, 133 were oil palm companies. A 2007 United Nations Environment Programme report confirmed that planting oil palm was the main cause of deforestation in Indonesia.

Apart from rainforests, these companies also resort to clearing peat-swamp forests, which they first drain. Timber found in these forests is logged and the logged-over land is also cleared by burning. These boggy swamps absorb rain and run-off, thus helping to mitigate flooding and erosion. When they are drained and burned, however, the risk of flooding rises.

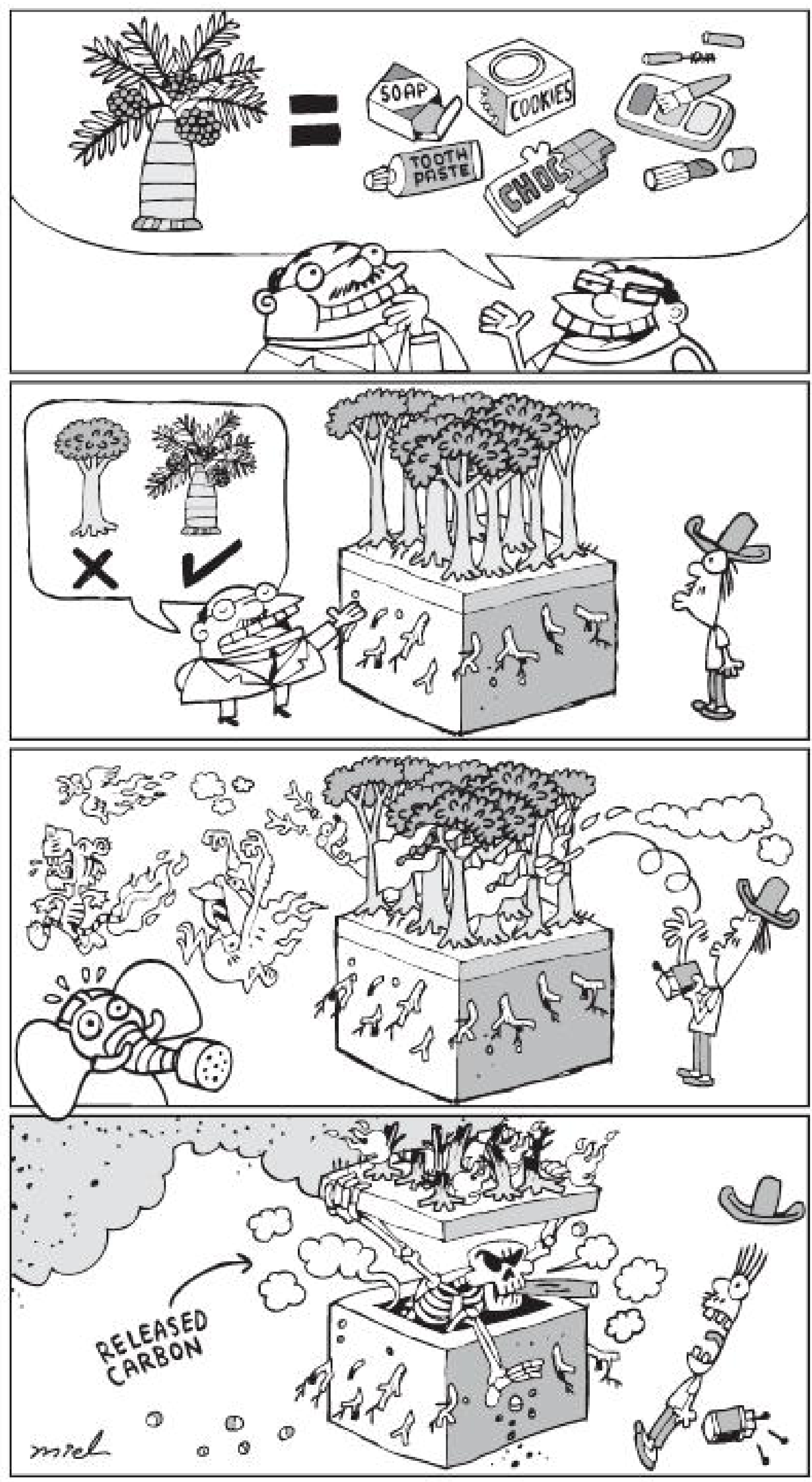
Moreover, these bogs have partially decomposed plant matter that has been sitting underground for centuries, effectively storing carbon. The 4 million ha of peatlands in Riau alone store 14.6 billion tonnes of carbon, experts estimate. When drained, the peat is exposed to oxygen and decomposes, thus releasing carbon. Of the 22.5 million ha of peatland in Indonesia, 10 million have been drained, studies estimate. When the peat-swamp forests are burned, the fires smoulder underground for years even if the surface fires are extinguished.

A 2007 University of Leicester study found that for every hectare of oil palm, 170 tonnes of carbon are released into the air over the plantation's useful life of 25 years. By contrast, each hectare of peat-swamp absorbs 2.6 tonnes of carbon annually, so it stores 65 tonnes over 25 years.

Producing palm oil on peatland, in other words, results in a net emission of carbon. This conclusion was supported by a study published in the journal Science this month. Peatland abuse has made Indonesia the third-largest carbon emitter in the world after the United States and China.

But it is rainforests, the world's richest ecosystems, that have captured the imagination of many. Not only do they house 70 per cent of all known flora and fauna species, they may also hold 200 species of trees per hectare compared to just a few in temperate forests.

Besides trees, rainforests contain innumerable species of vines, shrubs, mosses, and other plants. The unprecedented scale of deforestation in Indonesia – two-thirds of the forests in Sumatra and half in Borneo have been cleared – threatens many species.



WHEN GOING GREEN GOES WRONG

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Among the rainforest's more charismatic residents are mammals – like the Sumatran tiger, the Sumatran rhinoceros, the Sumatran orangutan, langurs, and so on. According to the World Conservation Union, 32 per cent of over 400 mammal species in Indonesia are threatened.

These animals can survive only in rainforests, not monoculture oil palm plantations where the varieties of leaves, fruits, roots and shoots they need to eat do not exist. The Conservation Union's authoritative Red List Of Threatened Species reports that 15 Indonesian species are critically endangered. A World Bank study has warned that Indonesia is "almost certainly undergoing a species extinction spasm of planetary proportions".

As if all this weren't enough, even processing the oil palm fruit can harm the environment. Because it must be processed within 24 hours of being harvesting, hundreds of small mills have been put up throughout rural Indonesia. Many of these discharge their effluent – oil residue and crushed shells – untreated into waterways. In Sumatra, in 2002, the Siak River was thus polluted, killing off thousands of fish. In 2003, the Kuning River in Sumatra suffered the same fate.

Admitting that such environmental consequences had not been anticipated when it mandated biofuels, the EU issued a new directive in January. This requires biofuels to show an overall cut of 35 per cent in carbon emissions compared to fossil fuels. However, the directive exempts biodiesel sourced from plantations established before 2003.

Indonesia exports 40 per cent of its crude palm oil to India and China, so no let-up in the expansion of the crop's cultivation is expected. Palm oil prices have been climbing uninterruptedly since mid-2007, setting a new record of US$1,217 per tonne this week.

Don't hold your breath, haze or no haze.

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PUNCHLINES

Market not the answer to climate change

By Benjamin K. Sovacool & Toby J. Carroll

EVIDENCE suggests that the market mechanisms currently being touted to address climate change could benefit the few in the short term – and fail all in the long term.

These market mechanisms include carbon trading (where licences to pollute one tonne of carbon are traded among firms) and carbon offsets (where developed countries build carbon-friendly infrastructure in the developing world). There are at least four reasons to be sceptical of their potential.

First, they attempt to reconcile a pro-growth model of development with improvements in the environment. This gives rise to a technocratic approach to the problem that has little chance of succeeding.

The problem with climate change is that reconciling infinite growth with the environment is no technical matter. Nature, unlike the paradigm of perpetual economic growth, appears to be rapidly approaching finite limits. Indeed, climatologists and atmospheric scientists have warned of the likelihood of tipping points, or climate-forcing thresholds, such as the extreme melting of ice or rising sea levels, beyond which changes are impossible to reverse.

Second, addressing climate change through carbon offsets will most likely be detrimental to many in the underdeveloped world.

Alternative transportation fuels such as ethanol and biodiesel, for instance – promoted as a way for developed countries to "offset" their emissions by investing in the developing world – have increased the global prices of corn, cassava, sugar cane, palm oil and soybeans. This has the largest impact on the poor, who spend 55 to 75 per cent of their income on food.

The recent "tortilla riots" in Mexico, where the urban poor could not afford higher corn prices, and the 2006 Indonesian protests against high soybean and palm oil prices may be harbingers of more serious conflicts to come.

Third, the promotion of global offsets would penalise developing countries and solidify their dependence on developed nations. It would allow industrial nations to buy limitless amounts of cheap emission reductions in poor countries and bank them indefinitely for the future. This means that when developing nations are obliged to cut their own emissions, they would be left with only the most expensive options.

Fourth, offsets and carbon credits suffer from the assumption that a one-to-one relationship between carbon emissions and offsets exists. The energy-intensive nature of some offsets – such as carbon capture and sequestration – proves no such thing.

Accounting for the energy needed to capture, transport, inject and store carbon dioxide, firms have to sequester two to three tonnes to "offset" every tonne they emit.

Moreover, efforts to offset carbon by means of afforestation (planting of trees), protecting existing grasslands and injecting carbon dioxide into underground caverns and aquifers run the risk of reaching biological saturation. Some forests can only store a certain amount of carbon no matter how many trees they have.

Also, investing purely in biological offsets such as plants could contribute dangerously to climate change if many of the world's forests turn from sinks (vegetation that absorbs carbon dioxide) to sources (vegetation that releases carbon dioxide). This is a real possibility given that forests and grasslands are at the ever-present mercy of floods, more severe weather, new strains of disease – not to mention vested interests that could later decide to alter land practices.

What we need is a qualitatively different approach – the equivalent of a "Green New Deal" to address climate change. This would entail building informed constituencies for reform and social movements that can check the sources of climate-change-related behaviour. It also entails recognising the qualitative differences among carbon mitigation and adaptation techniques. Not all carbon credits and offsets are "equal", and they should not be treated as such.

The truth is the market is not always the best instrument to pursue public policy goals.

The writers are research fellows at the Centre on Asia and Globalisation at the Lee Kuan Yew School of Public Policy.