



Lessons from the haze emergency – greenhouse gases and global warming

By Professor Ghazally Ismail

The effect of the greenhouse gases on global warming and climate change should be of great concern to all of us because it will affect our health, our food supply and the plant and animal species around us. As emissions of these gases increase, more and more of Earth's radiant heat will be trapped and re-emitted downward, warming the Earth's surface. The effect of these additional trace gases on global warming will be dramatic. The world could be 3 to 9 degrees Fahrenheit warmer by 2030. What does this increase in degrees mean to us on planet Earth? In the last 10,000 years, the average temperature of the planet has increased less than 4 degrees Fahrenheit, but over the past 100 years alone, Earth's average temperature has risen by about 1.0 degree Fahrenheit. As numerous studies of the greenhouse effect confirm, a 3.6-degree Fahrenheit temperature change would bring with it profound and pervasive changes. For ex-

ample, it has been projected that should temperatures increase by a mere increase of 1.4-degree Fahrenheit per decade, startling impacts worldwide will result: there will be extreme shifts in temperature in the high altitudes, more rain in the wet tropics, and a sea-level rise of as much as 1.5 meters by the middle of the next century – enough to erode beaches and coasts, destroy wetlands, and bring on severe flood damage to many low-lying countries.

Three options?

Is the build-up of greenhouse gases amidst us an inescapable by-product of our civilization? Or do we still have the options for improving our air quality? Many of the industrialized countries of the world launched programs to improve urban air quality by controlling emissions from fossil fuel combustion, industrial processes and waste disposal. Until today Malaysia's Air Quality Act has not

made its debut yet to guarantee that every citizen is entitled to breath air of a quality sufficient to protect human health and welfare. When passed and executed, the Act should be able to achieve its goal of setting national ambient air quality standards for the most commonly found pollutants around us. These standards not only must be achieved everywhere in Malaysia by specified dates but also must be maintained through programs limiting the emissions of existing and new sources of pollutants.

The greatest potential to deal with existing and future air quality problems is to have a policy that focuses primarily to prevent the generation of air pollutants wherever possible and the use of conventional air pollution technology to reduce residual emissions. We should begin by looking hard at the habits and activities of our society that result in air pollution. Next we should attempt to manage or restructure these polluting

habits and activities in a way that minimizes the generation of the pollution. For instance, we should consider the movement of people and goods; the location of residences, work, and recreation; the production and use of energy; and other activities that use energy derived from fossil fuels.

A first step in carrying out this approach could be to create incentives for energy efficiency and conservation. Increased energy efficiency and conservation are cost effective, will result in substantial improvements in air quality and will promote sustainable economic growth. A second step would be to begin restructuring the ways in which people and goods are transported. Programs to encourage car-pooling and the use of mass transportation as well as the location of residences closer to work and recreation will have important air quality benefits in the long run. A third step would be to look at an alternative process, material, or fuel for the



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activity that generates air pollution. A fourth step is the application of best available air pollution control technologies to residual emissions from major sources. Combustion modifications, particulate control devices, and scrubbers could

minimize emissions of air pollutants to our atmosphere. Unfortunately, so far, we have no inexpensive and effective technology available to do so, or any program for reducing fossil fuel use.

As we deliberate future actions, we should all subscribe to a philosophy of protection to keep the air that we breath as clean as possible from the impact of human activities. Clean air is essential in supporting a healthy ecosystem for a high quality life and, ultimately, survival. This philosophy involves changing lifestyles to reduce the generation of pollutants and the consumption of natural resources. It involves a moral view that the air should be clean for this and future generations. As for those in higher places in whose hands we trust them with policies and strategies to clean our air, may we remind them that there have been too many signposts of imminent dangers and dooms for us to ignore and plead our inno-

cence or ignorance. Open burning, continued emission of toxic fumes and generation of other air pollutants through our own over-consumptive behavior and activities have been left largely unchecked. It is not for want of additional and new institutional legislation, but for more effective enforcement of the existing Acts and Laws on environmental quality and natural resource conservation.

The scourge from our own greed and over-consumption has clearly indicated that indeed we have stepped over the line on the question of natural resource exploitation. The red flag is already up and it is time for us to reflect and take stock of our own polluting and wasteful lifestyles. In this respect, we are not asking the government to shift the spotlight from economic development to environmental and resource conservation but to strike a balance between them. Maybe the time is also ripe for us to begin thinking of other essentials

of life like water and our biodiversity. Here again the signposts are pointing distinctly at the dangers that lie ahead.

On one hand, Malaysian scientists are needed to carefully examine and bring into correct perspective the forces of both environmental and economic choices that can drive us into becoming a truly progressive nation. Politicians and industrialists, on the other hand, must be rightly open and sufficiently sensitive as to cast away any cloud of suspicion that hangs over anyone who dares to bring into public eyes any violation of our environmental ethics and norms. Optimistically, we trust in some radical way, the recent plight of haze emergency in Sarawak, can help heighten our awareness and foster a sympathetic attitude in all of us to influence the future policies pertaining to forest burning. Future generations will applaud our foresight and action but will condemn our lack thereof.