

# Record emissions of CO<sub>2</sub> : Bells are ringing

*The time for market-based experiments is over. Humanity can no longer afford to continue with failed experiments. From common sense, to avert a climate catastrophe, we need to rapidly embark on a different, a more "radical" path.*

PETER CUSTERS

THE alarm bells this time are not being rung by climate scientists or by environmental activists. They are rung by none other than the International Energy Agency (IEA), the institution set up in the 1970s to defend the interests of Western oil consuming nations.

On May 30 last, the IEA issued a press release that sent shock waves through the Western world. According to the release, global emissions of carbon dioxide (CO<sub>2</sub>) have reached their highest level ever in 2010. Although after the financial crisis emission levels in 2009 temporarily dipped, -- in 2010 they are calculated to have been 30.6 Giga-tonnes (Gt).

For a lay person, the implications of this figure may not immediately be evident. But the figure squarely indicates that exponential growth in CO<sub>2</sub> emissions has not been stopped, as was the purpose of joint international initiatives taken since the 1990s. Accumulation has continued up until today.

A decade back, in 2000, the level of emissions was probably about 23 Gt. This means that over the last ten years alone annual emission levels have increased by a staggering one quarter! Hence, the IEA's chief economist, Fatih Birol, has rung the alarm bells stating: "Our latest estimates are another wake-up call. The world has edged incredibly close to the level of emissions that should not be reached until 2020, if the 2 degree Celsius target is to be attained."

How to assess the implications of the IEA's May 30 statement for humanity's efforts to avert a climate catastrophe? Let's, to start with, take a closer look at the position from which the IEA sounds the alarm

bells. Prominent climate scientists have for years been debating what target humanity should set for itself. What maximum level of greenhouse gases in the atmosphere is permissible if runaway climate change is to be averted?

A section of scientists has been arguing with force that the target should be set at 350 parts per million, -- meaning that the presence of greenhouse gas molecules in the world's atmosphere should not exceed 350 molecules in a million molecules of atmospheric air.

Significantly, when the Copenhagen Summit was held in December of 2009, it witnessed a growing consensus among a majority of nations that the precautionary advice of alarmist climate scientists should be taken to heart, and that the target of a 1.5 centigrade cap should be maintained.

Hence, critics reading the IEA press release will react or retort that the agency is not buzzing the alarm bells as loudly as it should. For it is still working on the presumption that a 2 degree Celsius target is defensible. Whereas precautionary climate science teaches otherwise.

It may not be out of place here to cite evidence collected by James Hansen, one of the world's foremost climate archeologists. Hansen has become internationally renowned, amongst others because in his scientific papers and publicity work he takes account of the evolution which the earth's climate has undergone during the many hundreds of millions of years before civilization arose.

Thus Hansen brings out data on the situation that prevailed three million years ago. At that time the earth was 2 or 3

degrees warmer than it is today. And it was a different planet then, with sea levels not just higher than they are now, but a staggering 25 metres higher! The lower levels of sea water over civilization facilitated the building of human settlements in many coastal areas previously flooded or covered by ice.

The difference is, of course, basically to be explained by the existence of huge ice sheets, notably the Antarctic and the Greenland ice sheets. Hansen further argues that, unlike previously believed, the Antarctic and Greenland ice sheets won't take thousands of years to melt. They will disintegrate rapidly once danger points are reached.

Hence, the American scientist maintains that "a 2 degree Celsius global warming, or even a 1.7 degree warming, is a disaster scenario!" Clearly, with the IEA's data on 2010 CO<sub>2</sub> emissions at hand, James Hansen would ring shrieking, not soft alarm bells to shake humanity's conscience.

What policy-consequences should be drawn from the IEA's revelations? So far the two key paths the world's policymakers have treaded to stem the exponential growth in emissions have been ineffectual. These are the paths of "technological" and of "market-based" fixes. Here it is striking that the IEA's chief economist Fatih Birol continues to express a holy belief in technological fixes.

Thus, when releasing his data on CO<sub>2</sub> emissions, he is quoted as having advocated -- of all technological fixes -- continued reliance on nuclear energy. This is surprising for this reason already that any expansion in capital-intensive nuclear production requires many years.

Hence it helps preciously little to prevent exponential growth of CO<sub>2</sub> emissions from emanating in a catastrophe soon. Worse: both nuclear production and reliance on fossil fuels emitting carbon dioxide result in forms of waste that are inescapable, meaning that they represent a dead-end for humanity today.

This is not to deny there are great differences between the two types of waste. Greenhouse gases such as CO<sub>2</sub> exist in nature; they have only turned into damaging waste under the industrial system axed on the fossil fuels, i.e. on coal, oil and gas.



On the other hand, many of the radiating elements in nuclear waste do not exist in nature, but emerge as by-products when nuclear energy is generated. Yet both fossil fuels and the nuclear production chain threaten to saddle humanity with consequences that can't be undone. In case of nuclear waste: the half-life of radiation in thorium-230, in plutonium-242 and in jodium-129 respectively lasts 76 thousand, 380 thousand and over 15 million years!

Then, if a technological fix via expansion of nuclear production is questionable, -- what about a "market-based" fix to solve the problem of climate change? Here it might be too early to foreclose the debate. Yet the IEA's announcement, regarding CO<sub>2</sub> emissions in 2010, raises big questions on market-based approaches to avert runaway climate change.

Under the Kyoto treaty of 1997 policymakers set concrete targets towards reducing global emissions of CO<sub>2</sub>. To stem their exponential growth, obligatory reductions were agreed on. Yet the main practical measures proposed to achieve reduction targets were market-based. They entailed making CO<sub>2</sub> waste tradable, or transferring responsibility for storage of CO<sub>2</sub> to countries of the Global South.

Perhaps the historical lesson to be drawn from the IEA's alarming announcement on 2010 emissions is that the time for market-based experiments is over. Humanity can no longer afford to continue with failed experiments. From common sense, to avert a climate catastrophe, we need to rapidly embark on a different, a more "radical" path.

Compelled by James Hansen's scientific analysis and the IEA's historic, if defective, announcement, -- I venture to suggest that the Global South needs to insist on a new approach to avert a climate catastrophe. Why not propose that the Western world agrees to help enforce global rationing of energy access? Why not demand from the West it helps institute a worldwide system of energy rationing that is both equitable to the world's poor and to its vulnerable nations, -- and puts a permanent and strict cap on overall emissions?

In 2011, the alarm bells on climate change are ringing. And people with sensitive ears will notice that the ringing emits a shrieking sound.

The writer, an International Columnist for The Daily Star, writes from Leiden, the Netherlands.

# Forests at your service

*Forests feed our rivers and are essential to supplying the water for nearly 50% of our largest cities. They create and maintain soil fertility; they help to regulate the often devastating impact of storms, floods and fires.*

SHAFEEH MAHMOOD

"FORESTS: Nature at Your Service" was the theme for World Environment Day (WED)-2011 observed on June 5. The theme emphasises the variety of life-sustaining services that forests provide and calls us all to take action to protect these resources and move towards a green economy.

Mother nature, is very kind to us as she always converts our filthy carbon-dioxide into glorious oxygen, without which we couldn't live! She inspires us with her splendours - the drifting clouds, the gentle breeze, the lush green meadows, the magnificent forests tell that life is very beautiful, live it. Nature has beauty and nature has fury -- she teaches us to learn from both!

From the beginning, after the big bang, it is said that there was only dinosaurs. At that time intelligent mother nature gifted us forests because she knew that forests were the solution for everything. It would give food, shelter and maintain most biologically diverse ecosystems on land -- forests are home to more than half of terrestrial species. Not only animals, forests are now home to 300 million people worldwide and source of 1.6 billion people's earning. And forests are the "Lungs of Earth!"

"Forests do wonderful things. They bind soil to the ground, regulate water supplies, and help govern the climate" (UNDP: Human Development report 1998).

The largest area of rainforest in the world is in Brazil accommodating 50-200 different kinds of trees per hectare. Scientists estimate that there are more than 50 million different species of invertebrates living in rainforests while millions haven't been named or identified yet. They all are maintaining the ecological balance of this earth for which we are surviving on this planet.

Forests provide many important natural resources, such as timber, fuel, rubber, paper and medicinal plants. They help sustain the quality and availability of fresh-

water supplies.

More than three quarters of the world's accessible freshwater comes from forested catchments. Water quality declines with decreases in forest condition and cover, and natural hazards such as floods, landslides, and soil erosion occur with larger impacts.

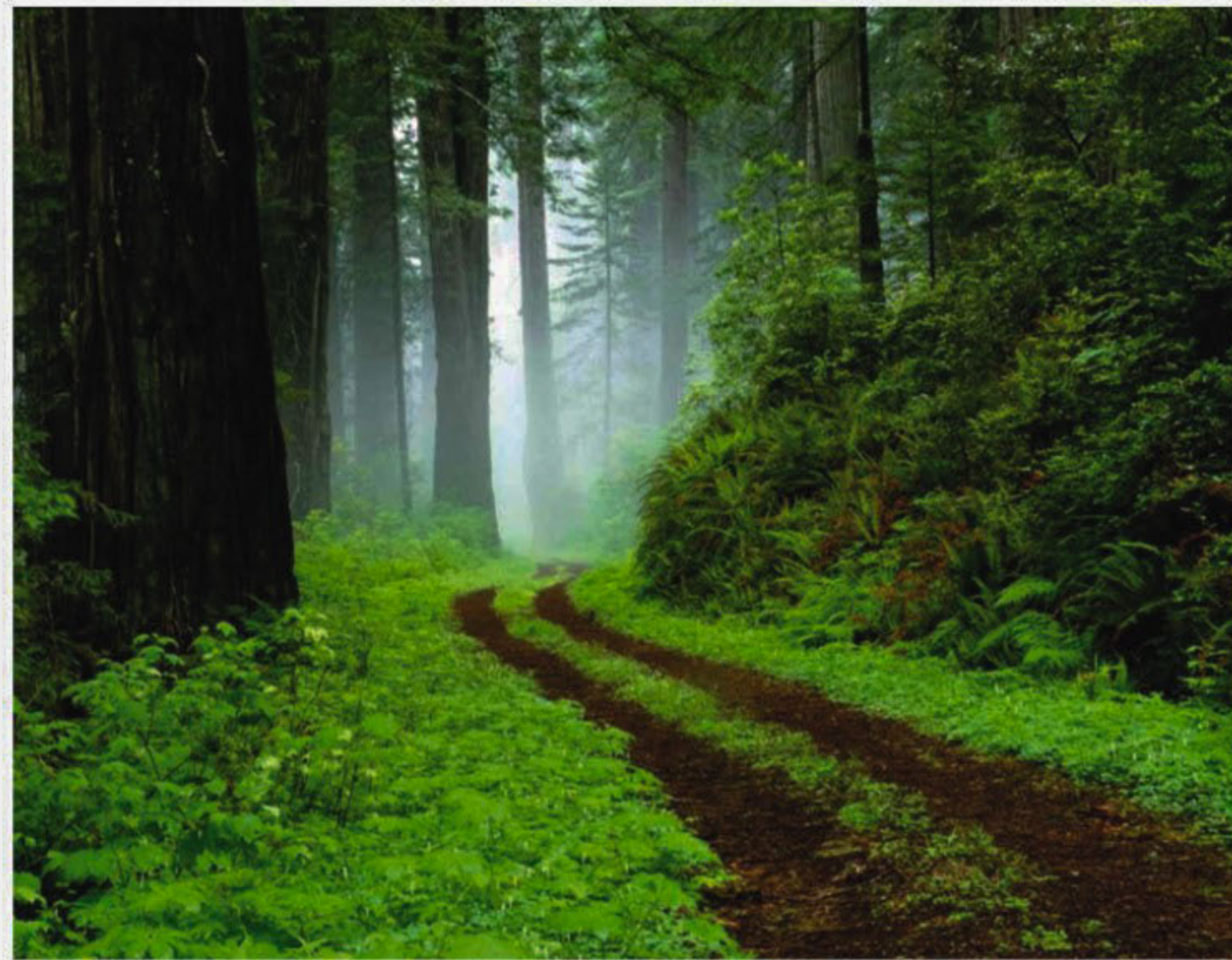
Forests feed our rivers and are essential to supplying the water for nearly 50% of our largest cities. They create and maintain soil fertility; they help to regulate the often devastating impact of storms, floods and fires.

The impact of forests reaches even further. In many developing countries more than 80% of total energy consumed by people and industry is derived from forests. Such as fuel wood and charcoal. Use of the genetic diversity within forests enables the development of new medicines leading to progress in healthcare and science.

A total of 17,291 species are known to be threatened with extinction -- from obscure plants and insects to well-known birds and mammals. What's the reason? Human activities. With our present approach to development, we have caused the clearing of much of the original forests, drained half of the world's wetlands, depleted three quarters of all fish stocks, and emitted enough heat-trapping gases to keep our planet warming for centuries to come. As a result, we are increasingly risking the loss of the very foundation of our own survival. Forests absorb CO<sub>2</sub>, cover 31% of total land area while supporting 80% of terrestrial biodiversity that live in them.

Forests are under threat because the world's forests are being cut down to provide timber and to make way for farms, buildings and roads. Besides, often forest fire flames sweep through destroying trees, saplings and animals. The lions, tigers depend on forest, but are under threat from farmers who are desperate for land. Shortage of land makes conservation difficult. Shockingly, 36 million acres of natural forest are lost each year.

Bangladesh, a low-lying country, is known globally as one of the most vulnera-



ble spots to climate change. High population density, unplanned town expansion, unplanned cutting of trees and forest increase risk to Bangladeshi people. We must organise activities to reduce problems and promote calls among our commu-

nities, schools and organizations for pledge to save forests in this world. We should protect native forests :  
• As carbon storehouses  
• By planting native trees in urban and deforested areas

- To reduce soil erosion and water pollution
- By keeping forest habitat calm and quiet for native wildlife
- For human health as they produce oxygen and improve air quality
- To reduce home energy needs as they provide shade in summer and a wind break in winter
- To reduce use of fossil fuels
- By more tree plantation as without tree oxygen becomes a limited resource, animals lose homes and the Earth loses beauty
- By recycling papers as it reduces consumption of trees.
- By not buying wood products from forests
- Prohibiting indiscriminate walk inside the forests.

We should create awareness by reading learning and conveying message to others about the importance of forests.

We know that from observance of WED 2009 and WED 2010 some solution came out to save the environment. So, the theme "Forests: Nature at your Service" WED-2011, of would also make remarkable contribution for environment. The time is to act now send out a message to the world that we need to unite, agree to save our forests to combat climate change before it is too late.

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# Promoting environmental conservation A CSR initiative

PRESS RELEASE

Cathay Pacific Airways would sponsor 40 students from around the world to take part in the new Cathay Pacific Green Explorer programme -- that will take place in Hong Kong and Sichuan Province in China. The aim of the programme, which runs from 13 to 20 August 2011 is to give the young participants a better understanding of environmental issues and the importance of conversation.

The programme for students aged 16 to 18, is launched as part of Cathay Pacific's ongoing commitment to sustainable development and corporate

social responsibility. Mr Edward Yau Tang-wah, Secretary for the Environment in the Hong Kong SAR Government, is Patron of the programme.

Students from Hong Kong, Australia, Canada, Germany, Korea, Malaysia, South Africa, Taiwan, the United States and Vietnam will be invited to join this unique educational experience. Applications are open to full-time students who are proficient in written and spoken English and have been involved in environmental or community activities. Applicants are required to submit an essay on an environmental topic that is close to their hearts and relevant to his

or her home country or the global situation. Students can make online applications through [www.cathaypacific.com/greexplorer](http://www.cathaypacific.com/greexplorer) upto 17 June 2011.

Successful applicants will gather in Hong Kong to visit a green project run by the Hong Kong SAR Government before travelling to Yingjing County in Sichuan Province. Known for its breathtaking natural beauty, Yingjing is home to some of the last remaining Giant Panda populations in the wild, diverse ethnic communities and upstream watersheds that feed some of China's major rivers. On site, the students will see for themselves how eco-

nomical growth is affecting natural resources and observe how conservation efforts are bringing tangible and sustainable social benefits at different levels.

Highlights of the eight-day programme include classroom sessions on forest carbon, a field visit to rare and ancient forests near Taihu Temple, and interactions with indigenous communities. Students will also hike at Daxiangliang National Reserve and camp overnight at a local forestry staff, the students will learn how to monitor wildlife and identify fauna and flora in the Niba Mountain area