

**H**OTTER days, more severe storms, droughts and fire, and higher sea levels in different parts of the world are reported almost daily in the media.

These products of climate change have taken the centrestage in the past few years. It is happening more rapidly than it has been assumed until now. Today, climate change is recognised as one of the most important environmental challenges confronting the global community.

A scientific body called Inter-governmental Panel on Climate Change (IPCC) projected that the world will experience a rise of 1° to 6° Celsius in global average temperatures by the end of this century.

Any temperature rise of this magnitude can result in serious impacts on our water, eco-systems, coastlines, food and health infrastructure worldwide.

The IPCC's findings also highlight the basis of climate change actions and human activities are some of them. It attributes most of the temperature rise to the release of carbon dioxide and other greenhouse gases (GHG) into the atmosphere as a result of human actions. Climate change is indeed an issue that concerns all of us, countries and individuals alike.

### What is climate change?

Climate change is a phrase often used to describe the changing climate patterns that can be attributed to human activity that alters the earth's atmosphere; and that are beyond natural climate variations observed over comparable time periods. It is a natural phenomenon that are being observed more frequently since the industrial revolution and that are appearing as global warm-

# Help mitigate effects of climate change

## Everyone can make a difference to soften impact

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**Preserve our trees:** There is little doubt that the government must take urgent action to preserve Malaysia's natural resources and rainforests that remain. - Photo by Centre For Orang Asli Concerns

mate change actions may not be substantial. Nevertheless our struggle towards battling climate change in an environmentally sustainable manner can have a positive effect on global warming in the long term. With regard to the water sector this means a further improvement in the management of extreme events (flooding and drought), but also integrated management of water resources. The need to make more efficient use of available water resources and reduce our consumption before tapping new sources is a must. Initiatives on saving water in all areas, both private households and industries must be implemented to reduce climate changes.

Malaysia is also blessed with abundant rainforest. Bringing deforestation to an end will help reduce the amount of CO<sup>2</sup> in the atmosphere. Similarly as a responsible citizen, make a point to plant a tree at home for a single tree will absorb one tonne of CO<sup>2</sup> over its lifetime. There is little doubt that the industry and the government must take urgent action to preserve Malaysia's natural resources and rainforests that remain. Nevertheless, we could play in making a difference for our

that are appearing as global warming, a more known name to many. However, you wish to call it though, the effects of climate change is grave and could threaten lives, industries and jobs, sustainable agricultural production, fresh water supplies and the survival of native species and ecosystems.

### Why care about climate change?

As highlighted, the environmental threats such as rising sea levels and lack of adequate water resources are problems that will not go away. Predictions for the next 100 years is that the temperature will increase from 1° to 6°C, leading to the melting of half of the mountain glaciers, a significant rise in sea level, and increased incidence of extreme events to just name a few.

In fact, the changes in an unprecedented increase in sea levels and other effects on the global climate are projected to continue at an even faster rate in the future if the rate of GHG emissions continues unabated.

### The big polluters

Factors affecting climate change are plenty. Most obvious are the solar changes, orbital modifications, ocean warming and El Nino phenomenon which resulted in a range of rainfall pattern leading to prolonged drought and floods in the Asia Pacific region. Above all however, it has been accepted recently that human activity is rocking the climate change actions incredibly. Over the last century the amount of these GHGs in our atmosphere has risen steadily, almost certainly as a result of human activity.

Output of carbon dioxide (CO<sup>2</sup>) released during the burning of fossil fuels for energy is notably said to be the main greenhouse gas that is heating the planet. Countries that together emitted more than 90% of

## »Bringing deforestation to an end will help reduce the amount of carbon dioxide in the atmosphere«

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the world's annual output of carbon dioxide are therefore categorised by the German Watch & Climate Action Network as the big GHG polluters that proliferates climate change actions.

The Climate Change Performance Index (CCPI), a report on the comparison of emissions, trends and climate protection policies of the top 56 CO<sup>2</sup> emitting nations which is issued annually by them, has ranked United States, Australia, Canada, South Korea and Saudi Arabia among the countries that together, emit more CO<sup>2</sup> than the rest of the world. Malaysia unfortunately is placed among the bottom of the list as well.

According to the report, the ranking of the countries were based on their emission levels, emission trends and climate policies. The fact that science and international relations outlook on all of this is that environmental issues such as climate change are global and thus, international by definition.

The underlying problem remains global although the impact of climate change may vary in its mani-

festation locally. It can only be addressed through an international effort not very different as it were from the need for a coordinated response from global governments to the current economic crisis.

Notwithstanding the above, one must realise that climate change is an issue of great complexity, requiring trade-offs between competing considerations all of which are significant!

Burning of fossil fuels are necessary to power the factories, air-conditioning and heating equipment, automobiles and just about every conceivable modern day convenience.

Plainly it is a negative by-product of mankind's progress. A global call for drastic reductions in energy consumption to deal with this threat would therefore be simplistic and one-dimensional as such strategy would have a deep impact on many economies because energy is a vital source for economic growth. This inevitably makes any solution politically difficult to carry out for many countries of the world, including developing countries.

### Water balance and water uses

While countries continue to negotiate on a new regime to reduce global emissions of greenhouse gases, the consequences for the water balance are especially significant as there is growing evidence that the Asia-Pacific will be severely affected by climate change.

Global warming is affecting the seasonal and regional distribution of rainfall, leading to the melting of glaciers and the rise in sea levels. Consequently flooding or longer periods of droughts as well as in gradual changes in the water balance will become more apparent.

An example of this is the local scarcity of water resources. This has impacts on a number of water uses and can aggravate competition between the different uses, with economic consequences for water-dependent areas of industry. In addition, changes in the water balance will have fundamental impact on animal and plant habitats which will lead to regional shifts in species composition. Negative impacts on water body quality are definitely possible.

### Bringing the green message home

At government and corporate level, developing a clean energy industry is nothing new among developed countries. Efforts are made to drive the need for energy efficiency investment. Some manufacturing companies are known to have invested in more efficient power plants to mitigate green gas emissions. Researchers in the energy industries are stepping up their efforts on biofuels as alternatives to petrol and diesel which are less favorable to the environment. Energy audits in buildings were implemented to introduce energy efficiency in their everyday operations.

Malaysia's approach to arrest cli-

play in making a difference for our living environment and become environment champions in our own daily lives.

A range of additional measures to soften the impact of climate change from our doorstep should include:

- changing light bulbs to energy saving ones;
- using less hot water as it takes a lot of energy to heat water;
- turning off electronic devices when not in use as this can reduce the amount of CO<sup>2</sup> released annually;
- exercise recycling more to reduce CO<sup>2</sup> per year;
- drive less if possible to reduce the amount of CO<sup>2</sup> emitted per mile and the list goes on.

In short, simple habits do save energy, save money and help to mitigate climate change.

It seems obvious that the planet is heading for an ecological crunch as climate change is progressing more rapidly and intensively than was previously anticipated. It is therefore important to take precautionary action as early as possible against the risk connected to the impacts of climate change.

Every country and every government must play its part in addressing climate change. As a responsible corporate citizen, we must equally do as much as we can to restrict the consequences.

Changing our behaviour and adapting to the changing world would be a good start. Take personal responsibility and value our environment and natural resources and share the message on climate change and its consequences with your family and friends. Together we have the capacity to make a positive difference. Go Green. Go Clean.

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