

A monumental year for climate change

By Gautam Jindal and Melissa Low

AS 2016 comes to a close, the World Meteorological Organization has confirmed that the year will be the hottest ever, breaking the record set in 2015. This year saw temperatures climbing to 51 degrees Celsius in central India and to 45 degrees in parts of Thailand. Even in Singapore, the mercury soared to 36.7 in April, only a shade lower than the all-time high of 37 degrees.

Yet, 2016 will also be remembered as monumental for the fight against global climate change. Countries came together in three separate forums and negotiated agreements to put forward their best efforts on reducing greenhouse gas emissions and managing climate change impacts.

Last year in December, the global summit in Paris resulted in the strongest, most ambitious global climate agreement ever negotiated. For the first time, developing countries agreed to reduce their emissions, with the overall objective of restricting global temperature rise to less than two degrees.

Many expected that after pulling off a “negotiating miracle” in Paris, countries would take it easy in 2016. Instead, governments expedited the process of ratifying the agreement and within a year, the Paris pact became international law on Nov 4. Today, 115 countries representing 75 per cent of the world’s emissions are legally bound to implement emission reduction policies towards achieving targets that they have set for 2030.

They are also committed to regularly report on their progress, and to increase the ambitiousness of their actions with time as technology develops and prices of clean energy fall further.

While the Paris Agreement broadly covers countries’ domestic emissions, international aviation and shipping are out of its scope as these are “cross-border activities”.

This is especially worrying as the aviation sector is growing rapidly with increasing demand in developing countries. If global aviation were a country today, it would be the world’s seventh largest emitter.

MANAGING AVIATION EMISSIONS

Yet, countries have continued to argue on how to manage aviation emissions for the last 20 years.

In early October this year, members of the International Civil Aviation Organization (ICAO) reached an agreement for the sector to achieve carbon-neutral growth beginning 2020.

The scheme, known as the Carbon Offsetting and Reduction Scheme for International Aviation or CORSIA, will place a cap on emissions from international flights from participating countries. Any emissions in excess of the cap will have to be balanced by purchasing equivalent carbon credits. Experts roughly translate this to an additional cost of US\$1.50 per passenger for a flight from Singapore to Bali on an A320.

Currently, 66 countries accounting for more than 86 per cent of international aviation activity will join the scheme in 2021.

Participation from Singapore and other key international aviation hubs such as Germany, France, US, Japan, South Korea, Turkey and UAE is expected to make the scheme a success, even as up-coming markets like Brazil and India chose a “wait and watch” approach. The final success in the fight against climate change came in Kigali, Rwanda, in late October when countries agreed to cap and phase out the use of super powerful greenhouse gases called HFCs. These gases are mostly used as the cooling medium in refrigerators, air-conditioners, super market chillers and industrial freezers.

HFCs will now be controlled under the Montreal Protocol on Substances that Deplete the Ozone Layer, which is considered to be one of the most successful environmental treaties to date.

Under the agreement, most developed countries will begin reducing HFC consumption in 2019 whereas most developing countries, including Singapore, will enforce a cap in 2024.

Implementing these targets will also result in side-benefits. Studies have shown that the next generation of coolant chemicals will be more energy efficient than HFCs.

As a result, countries like Singapore, where cooling forms a big portion of the electricity requirement, will be able to reduce energy use and carbon emissions significantly.

In November, the successful conclusion of these three agreements was overshadowed by the election of Donald Trump as the next president of the US. Mr Trump has called climate change a hoax in his election campaign and has threatened to withdraw the US from the Paris Agreement. Thankfully, the rest of world has taken this as a push to work even harder to achieve the common goal of combating global climate change. As US Secretary of State John Kerry said in his speech at the recent climate summit in Marrakech – “... only those nations who step up and respond to this threat can legitimately lay claim to a mantle of global leadership. That’s a fact”.

While Singapore may contribute only 0.2 per cent of global greenhouse emissions, it will also need to ensure that it continues to show climate leadership. Singapore must remain well-prepared to deliver on its promises and ensure that its businesses and the public are ready to play their part.

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