

# At a crossroad on climate action

The world must decide to quickly cut greenhouse gas emissions and adopt a low-carbon development strategy

By **MANISH BAPNA**

As negotiators meet for the 24th Conference of the Parties to the UN Framework Convention on Climate Change in Katowice, Poland, the world is at an existential crossroad: it can continue on a path of gradual, but insufficient, progress on climate change, or shift into high gear to avoid the worst effects of rising global temperatures.

Fortunately, our understanding of the economic benefits of climate action is greater than ever. The world must wake up to seize these opportunities or face rising consequences of inaction. Decisions we take today will make the difference to the generations to come.

We know from the Intergovernmental Panel on Climate Change's special report, released in October, that the window to keep the world temperature from rising above 1.5 degrees Celsius is closing. We need major, immediate transformation across economic sectors, including how we generate and use energy, how we plan and live in cities, how we produce and consume food, and how we use and protect forests.

We know that every additional fraction of a degree of warming can have a negative impact on

economic growth, prosperity and quality of life.

The Paris Agreement, forged in 2015, brought the world together around the goal of limiting emissions below 2 C. Today, many national governments are moving forward, though not at the pace that is necessary. More encouragingly, we are seeing businesses, provinces and states, and cities making progress.

Many businesses are moving faster than governments to adopt low-carbon strategies. Nearly 500 companies have committed to set science-based targets to reduce climate-warming emissions in line with the Paris Agreement. More than 150 major companies, with a combined annual revenue of \$2.75 trillion have joined the RE100 initiative, committing to power their operations entirely with renewable energy.

In the financial sector, more than 500 companies and organizations with combined market capitalization of more than \$7.9 trillion have publicly committed to support the recommendations of the Task Force on Climate-Related Financial Disclosures, which recognizes the need for voluntary, consistent disclosures of climate-related financial risk to investors, lenders, insurers and others.

In the United States, too, there are signs of momentum despite the Donald Trump administration's opposition. For example, a new law in California — which has the fifth largest economy in the world — requires all of its electricity must be generated by renewable energy and zero-carbon sources by 2045. California recently joined two other provincial governments in Canada, Ontario and Quebec, to create the world's second-largest carbon market.

New research conducted by America's Pledge shows that policies already adopted by US states, cities and businesses will reduce US emissions 17 percent by 2025 compared with 2005 levels. America's Pledge is an initiative that aims to quantify the actions of states, cities and businesses in the US to drive down their greenhouse gas emissions in line with the goals of the Paris Agreement.

With additional action by these provincial players, the US could get to within striking distance of its Paris Agreement commitment of reducing emissions by 26 percent to 28 percent by 2025.

Major global cities are moving forward with ambitious action as well. Under the Global Covenant of Mayors, more than 1,600 cities have committed to climate action.

Together, these cities could reduce emissions equivalent to 1.4 gigatons of carbon in 2030 and 2.8 gigatons in 2050 (compared with business as usual).

Paris, for example, aims to be carbon neutral and powered completely by renewable energy by 2050. And Copenhagen has a plan to become the first carbon neutral capital by 2025.

Businesses, regions and cities are acting because the economic case for low-carbon economic development is strong and becoming stronger. It can benefit people's health, improve efficiency and drive innovation. According to research conducted by the New Climate Economy — a major international initiative that studies how countries can achieve economic growth while dealing with the risks posed by climate change — bold climate action could yield \$26 trillion in global economic benefits between now and 2030, compared with business as usual.

But, despite these shining points of light, the world is still on a trajectory for global temperature rise that could be catastrophic. National governments need to step up with ambitious policy and investment decisions to accelerate the low-carbon transition.

In recent years, China has been an important player on the global

climate stage, especially in helping draft the Paris Agreement. The country set a national target to peak its emissions by 2030, though many experts suggest it could happen earlier.

Also, China has invested heavily in renewable energy and electric vehicles, and accounts for more than one-third of all electric vehicles in the world, with EV sales expected to surpass 1 million vehicles this year.

But China's carbon emissions continue to rise and its coal consumption increased in 2017. Also, it should assess its investments in other countries to ensure they are climate-smart and financially sound.

By pushing forward its low-carbon development strategy, China can benefit its own citizens while encouraging other countries to raise their ambition.

With signs of mounting climate impacts — from wildfires in California to record-breaking typhoons in the Pacific — the world must recommit to bold climate action.

The economics is clear, and incremental steps will not be sufficient. It is time for a decisive shift to an innovative and productive low-carbon economy.

*The author is executive vice-president and managing director, World Resources Institute.*

## Striking a balance on environment

The fundamental solution to air pollution is a change in people's behavior, cut in use of fossil fuels

By **LI LAILAI**

The Beijing-Tianjin-Hebei region in North China, known as Jing-Jin-Ji, recently saw the resurgence of alarming air pollution, with some forecast saying heavy smog could be on the way.

We have experienced relatively "clean blue skies" since last winter, compared with two or more years ago when the air quality index at times crossed 500.

In recent years, the strong public reaction to poor air quality reflects the increasing public awareness about the harm caused by air pollution and people's demand for "blue skies". The same was evident last month when forecasts signaled the return of smog.

But the air quality has not worsened for no reason. According to experts, the surrounding areas of Beijing are still home to many highly polluting industries, such as

coal power plants, iron and steel factories, as well as chemical plants.

Motor vehicles, particularly heavy trucks running on diesel, are also a major source of pollutants. Statistics show that sulfur dioxide (SO<sub>2</sub>) emission intensity in Jing-Jin-Ji is 3.6 times higher than the national average, while that of nitrogen oxides (NO<sub>x</sub>) is four times higher.

In winter, the heating supply, coal burning of households and seasonal stalk burning in Beijing and its surrounding areas emit tons of pollutants, resulting in the return of smog. In Beijing, according to the Beijing municipal environmental protection bureau, mobile sources contributed 45 percent of local PM<sub>2.5</sub> in 2017.

Over the last few years, governments at the national and local levels have taken very active measures to clean the air and have achieved success. The most proactive measure is the nationwide environmen-

tal protection inspection launched by the Ministry of Ecology and Environment.

Following the Air Pollution Prevention and Control Action Plan, which was introduced in 2013, and the 'three-year action plan' publicized earlier this year, polluting factories have been shut down and coal burning replaced with gas or electricity in many industries.

As a result, the air quality has improved a great deal in the key targeted areas: Jing-Jin-Ji, and the Yangtze River Delta and Pearl River Delta regions.

To sustain the success of the "battle for blue skies", we must understand the causes of the problem. Experts at home and abroad say fossil fuels are the biggest source of air pollution, responsible for almost all SO<sub>2</sub> and NO<sub>x</sub> emissions and the source of 85 percent of particulate matter.

Fossil fuels account for 86.7 percent of China's energy mix. Last

year's data show that the three biggest consumers of fossil fuels and thus the biggest sources of air pollution in China are industry (64.3 percent), buildings (16.9 percent) and vehicles (15.3 percent).

Also, the six most pollution-intensive industries consume more than 50 percent of energy. In the first three quarters of 2017, the building materials industry, power plants, iron and steel plants, and chemical factories accounted for 85 percent of the total coal consumption — and most of these industries are associated with the real estate sector.

So the solution to the problem is to reduce the consumption of fossil fuels. For that, we need a structural change in industries, that is, a shift from fossil fuel-intensive businesses to cleaner and greener businesses.

And more investment should be made to develop renewable energy and improve energy efficiency

while supporting green development.

The demand for transport will continue growing. But we expect technological breakthroughs to bring us the most effective solution. In fact, slight changes in human behavior will make a big difference.

Proper urban planning can effectively avoid unnecessary transport needs in cities. Shifting to public transport and non-motorized transport from driving private cars will reduce fossil fuel consumption. The multiple benefits of "avoid" and "shift" also include less traffic congestion and improved public health.

The fundamental solution to air pollution is a change in people's behavior. Environmental protection is a self-serving and self-saving action.

*The author is chief representative of World Resources Institute (USA) Beijing Representative Office.*