

The transition to a clean economy gains momentum

In a fluid political landscape, who is best placed to lead climate change action on the ground?



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Climate change has been described as the biggest risk to humanity. So what are we doing about it? The answer is: quite a lot, but not enough.

Even five years ago it would be impossible to imagine headlines like ‘Exxon supports a global deal to address climate change’, ‘Investors call for low-carbon strategies to minimise financial exposure to climate risk’ or ‘China steps up to lead the global fight against climate change’.

But these headlines are exactly what have been appearing over the last few months. They are signs that key decision-makers are starting to understand the impact climate change will have on the stability of the global economy and the health of our society.

Access to electricity has been a driving factor in unlocking economic growth for many countries. And it has been fuelled

and infrastructure development can ensure electricity is being generated from clean sources.

As renewables offer the cheapest source of new power generation in many countries around the world, this should happen naturally. However, with the growth of electricity demand in fast-growing economies like China, India and many African countries, it is critical that the long-term impacts of power generation choices are considered, even when they may not be the cheapest, in the race to meet demand.

Investment decisions

One thing that might help considerably in the choice of new power generation is investor concern about the long-term viability of assets.

There is a growing awareness of the financial risks associated with using fossil fuels. The Financial Stability Board’s Task Force on Climate-related

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by oil and coal – a significant factor in contributing to climate change. But now renewable energy generation has come of age and is competing with fossil fuels in many parts of the world. As storage and smart-grid technologies develop, the capability of renewables to compete – at any time of day or night, no matter what the load – will not be far away.

The future of transportation is also transitioning towards electrification. Solutions for electric road, rail, marine and even aviation transport are being developed at pace. This is a positive trend for climate change – provided that policy

Financial Disclosures recently released their recommendations – backed by investors, insurance companies and major corporations – that outline the need for better understanding of climate risk when making investment decisions.

It is likely to drive a preference for clean energy and more resilient infrastructure investment, particularly in relation to new infrastructure developments in emerging economies.

This is also the message coming from China as part of their ambitious plans for the \$900 billion infrastructure investment commitment behind their Belt and Road initiative. It is likely the future for curbing carbon emissions will be won or lost through the decisions in infrastructure investment. Lack of clarity around the

◀ An innovative approach to renewable power: a large floating solar farm under construction on a lake formed by a collapsed coal mine in Anhui province, China

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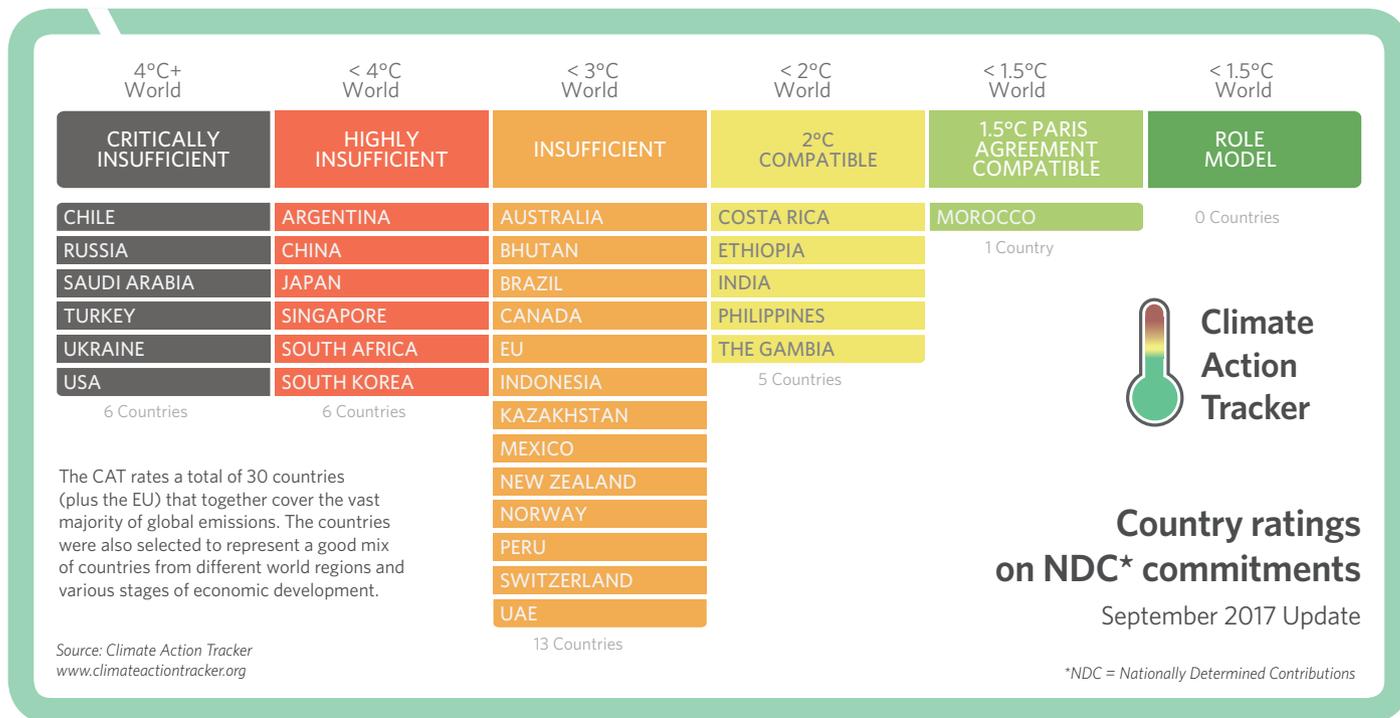
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true cost of energy projects is still masked by misunderstanding of energy incentives – whether they are for fossil fuels or renewables.

Additional complications of bringing renewables into grids at large scale still need to be addressed to fast track this solution. It will require a combination of digital infrastructure for demand-side management of power requirements alongside policy changes and the development of physical infrastructure capacity to make it work.

But, perhaps just as importantly, it will take changes in mindset. We need to recognise that new ways of managing electricity demand, use and storage are changing at an increased pace. Solutions not feasible just a year ago are becoming economically and technically viable.

Decentralised energy production and use are offering new ways for individuals, companies and communities to find local solutions that don't rely on traditional options. They offer 'bottom-up' approaches to delivering access to energy for those that don't have reliable grid connections.

Better micro-grid solutions and more energy-efficient technologies like LED

lighting are also providing access to energy for many rural communities that have previously relied on kerosene. These options are not only safer and cleaner. They are often cheaper, too.

Price signals on carbon are similarly helping to drive investment decisions for clean energy and improved energy efficiency. China will launch a national carbon market at the end of the year, which will help drive emission cuts in some of the country's most carbon-intensive sectors while sending a clear signal to the rest of the world that China intends to continue its emissions-reduction push.

The country's new environmental regulations, set to come into force next year, will restrict a number of environmental pollutants, making clean energy options more appealing than coal.

Speed of transition

In addition, the Paris Agreement has helped to stimulate a groundswell of other actors driving change. Cities, states and regions are setting aggressive goals for carbon cuts, allowing for more localised solutions to deliver on pathways for reducing emissions. At the same time, these

initiatives are developing more healthy and sustainable places for people to live and work.

A growing number of businesses are committed to reducing emissions across their operations and value chains. This is creating a market for energy-efficient technologies and renewable energy irrespective of local policies.

The voice of all these non-state actors is a welcome influence in the wake of the US President's decision to pull the country out of the Paris Agreement. It sends a signal to all national governments that the momentum behind the low-carbon transition is sufficient to continue to address climate change, irrespective of the decisions at the top of national governments.

This community will be keeping a close watch and it is inevitable the shift will continue from the climate action leaders that grow in numbers by the day.

The question is not whether the world will move to a low-carbon future. The question is how quickly the transition can occur to ensure those most vulnerable can be protected from the worst effects of climate change. ●