

## Emerging markets in a post-COP21 world

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*\*Please note that the views expressed in this article are her own, and do not necessarily represent the opinion of Eurasia Group.*

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International momentum continues to build around the issue of climate change ahead of the upcoming United Nations summit that will kick off in late November in Paris. Negotiating parties have agreed to strike an agreement at the 2015 conference to establish a new agreement to contain post-2020 global emissions.

While previous negotiations have fallen apart along divisions over burden sharing between developed and developing countries, the new bottom-up approach under the United Nations Framework Convention on Climate Change will facilitate the ability of negotiating parties to reach an agreement. Moreover, the recent cooperation and joint statements between the US and China, by far the world's largest emitters, will help set a constructive tone in Paris and ensure that an agreement is ultimately reached at the conference.

Though an agreement is set to be reached, it will most likely codify national plans rather than push countries to undertake emissions reduction policies they might have not otherwise considered. As such, the agreement will help keep global attention on the issue of climate change but will not dramatically move the needle in terms of ambition.

Among emerging markets, the greatest pressure will be on China and India to undertake emissions cuts, and both countries have submitted national plans that will meaningfully slow their emissions profiles from business-as-usual scenarios. While coal-fired generation will continue to feature prominently in both countries' fuel mixes, but non-fossil fuel development will gain more policy focus and traction.

Other smaller emerging markets will be under less pressure to take on ambitious obligations, so emissions reduction policies will be more driven by domestic economic and political considerations rather than international climate change mitigation commitments.

### 1. Outlook for COP21

As the 21st Conference of Parties (COP21) to the United Nations Framework Convention on Climate Change (UNFCCC) approaches in Paris at the end of this year, a revised approach to international climate negotiations will

help propel governments toward successfully striking a final agreement.

The crux of the agreement at Paris will be centered on Intended Nationally Determined Contributions (INDCs), or national commitments to emissions reduction. A number of parties have already submitted their INDCs, including the EU, US, China, and India. The submission of planned emissions cuts by various countries ahead of the gathering in Paris provides a clearer indication of a government's willingness to take on emissions reduction obligations as well as its level of ambition, removing the potential for a surprise position emerging in Paris. As such, the INDCs provide for transparency in the talks and lay down much of the groundwork before the official negotiations even kick off.

Ultimately, the bottom-up approach offered by the INDCs will increase the likelihood that governments will strike an agreement at Paris. As such, the agreement that comes out of COP21 will essentially codify the INDCs into an international framework. Nonetheless, the outstanding question looming over the Paris talks is whether the national submissions will add up to sufficient emissions reductions to contain global temperature, and what level of commitments will be viewed as sufficient. It is inevitable that targets will not add up to a trajectory to meet the 2 degrees Celsius (2°C) target set out by the UNFCCC. Some larger NGOs, including the World Resources Institute, have indicated that INDCs that comprise 65% of the 2°C goal would be considered a good outcome. However, even achieving that level will be difficult. To this end, some negotiating parties, led by the EU, will likely push countries to take on greater ambitions in their INDCs. In the end, though, it is unlikely that COP21 will push countries to take on more stringent emissions reductions or more aggressive policy measures that they had not already been considering.

In addition to the INDC approach, a joint climate change cooperation signed by the US and China will further bolster the likelihood of striking a global accord in Paris this December. Together, the two countries account for around 40% of global emissions, and disagreements between them have bogged down progress at previous summits. The more cooperative approach will limit the prospect of unforeseen

areas of disagreement emerging between the two governments in Paris. The recent statement's endorsement of both sides' INDCs will also minimize the risk that one country's targets are seen as inadequate by the other. Moreover, the affirmation of a shared vision on "common but differentiated" responsibilities between developed and developing countries might also help break the stark divide between the two sides that has featured prominently in previous COP gatherings.

Further alleviating a likely point of contention in Paris, Presidents Xi Jinping and Barack Obama agreed on the need for increased transparency to track and review progress on emissions reduction. Previously, China and other emerging countries have balked at efforts by some negotiating parties, especially the US and EU, to review submission targets and monitor progress to ensure compliance. Nonetheless, though Beijing's upholding of the principle of transparency and reporting is significant, the lack of details in the joint statement could still open up room for disagreement on the issue in Paris, especially given opposition from other emerging markets on being subjected to monitoring and review.

On balance, the bottom up approach through INDCs and the significant groundwork already laid down by the world's two biggest emitters will go a long way to ensuring an ultimately successful outcome in Paris. But success here is measured by the signing of an agreement that falls short of containing global temperature rise to 2°C and loose conditions on monitoring and review. A treaty with legally binding enforcement mechanisms is out of the question, but even an agreement with non-binding obligations as well as a broader commitment by all parties to the UNFCCC process itself will continue to drive incremental action by countries toward emission reduction policies, especially as environmental issues become more salient in large emerging markets, as they have in China. The preservation of the UNFCCC process along with likely provisions to revisit targets to ensure global emissions are on a more sustainable trajectory and to reassess the stringency of targets will keep global attention, and therefore that of a growing number of emerging markets, on emissions reduction policies over time. But COP21 itself is unlikely to push emerging markets beyond China to undertake commitments they might not have otherwise considered.

## 2. China

Unlike in the US and most other industrialized countries, the environmental movement in China is not a cause trumpeted mainly by left-leaning NGOs and their supporters. Instead, in China the issue touches closer to home as severe air quality erosion has raised environmental awareness among middle class Chinese in eastern cities. As agitation among the population over the issue grows, Beijing has responded to avoid social unrest by advancing an environmentally-focused agenda. To that end, the more proactive and leadership

stance Beijing is taking on the international stage on climate change plays well to its domestic constituency that is keen to see action to address pollution.

As such, the commitments made by President Xi during his September visit to the US to move China and other countries onto a lower carbon development path highlight the leading role China is playing in global efforts to combat climate change. China's new climate commitments also highlight China's more proactive stance on addressing global challenges. Xi pledged to spend RMB 20 billion (\$3.1 billion) to help developing countries develop low-carbon societies, which will reposition China from a net recipient to a net donor of climate funding, and to strictly control flows of public funding to high polluting and carbon-emitting projects at home and abroad.

President Xi also announced a number of initiatives to achieve China's goal—unveiled in a November 2014 US-China joint statement—of peaking carbon emissions by 2030 and transitioning to a lower-carbon future. The most important of these new policies is the launch of a nationwide emissions trading scheme (ETS) in 2017. The ETS, which will likely be the largest cap-and-trade system in the world, will cover pollution-intensive sectors such as iron and steel, power generation, chemicals, building materials and paper-making that collectively account for about 75% of energy-related carbon emissions. Xi did not provide details on what the ETS will look like, but it will undoubtedly build on the experience of the different ETS currently operating in seven locations, which were established with the goal of testing various models for national implementation. Other new domestic initiatives include a pledge from Xi to prioritize renewable sources in power generation and the implementation of new heavy-duty vehicle fuel efficiency standards in 2019.

These new climate initiatives underscore the strong political will of the Xi administration to improve China's environment. They are part of a wave of new initiatives launched since Xi assumed power in 2013 that are aimed at tackling China's environmental woes, which are a political vulnerability for Beijing. China's slower and less energy-intensive economic growth and the structural deceleration of coal demand, which fell by 2.9% last year, also make it easier for China to meet its goal announced in November of peaking carbon emissions by 2030. The new steps unveiled by Xi to combat climate change will also help reduce air pollution—the centerpiece of Xi's environment agenda due to its severity in Beijing and other affluent cities where residents increasingly expect clean air—because coal burning accounts for the lion's share of China's sulfur dioxide emissions and about half of its carbon dioxide emissions.

Xi's climate commitments will reinforce the growth of renewables at the expense of coal in China's fuel mix for power generation, even with the likely implementation and enforcement problems that plague efforts to clean up

the environment in China. This shift is already underway. Between 2010 and 2014, coal's share of China's electric power generation fell from 79% to 75%, while the shares of hydro and nuclear increased. Xi's pledge to prioritize renewables in electricity generation, a goal already enshrined in China's renewable energy law, will support greater use of wind and solar power by making the resolution of transmission issues that have left much of China's wind and solar power generation capacity idle a much higher government priority. Moreover, the ETS will facilitate the Xi administration's push to eliminate excess capacity in energy intensive heavy industries.

For China's transportation sector, while rapid urbanization may push Beijing to place greater emphasis on mass transit solutions, which will open up opportunities in the rail sector, the reality is that China will continue to see surging passenger vehicle ownership. As such, the main policy driver to cut emissions in the transportation sector will be tightening fuel efficiency standards.

In the power sector, China will put in place policies that limit the share of coal in the fuel mix. The challenge for country, though, is the fact that the vast majority of the current fleet of coal-fired power plants is relatively new (post-2000). As a result, these plants will continue to play a role in the electricity mix in the coming decades, as will plans to build new coal-fired power plants away from areas currently facing severe air quality issues, namely interior provinces in central and western China. As such, coal will remain dominant but the already strong focus on coal plant efficiency will probably grow. In addition, renewables and nuclear will see their build-outs rise further. Gas-fired generation will also grow, but it will face more challenges carving out a sizeable share as coal and renewables take precedence.

### 3. India

India submitted its long-awaited INDC to the UNFCCC in early October. In the submission, New Delhi pledged to cut the carbon intensity of its GDP by 33%-35% from 2005 levels by 2030 as well as source 40% of its electricity from renewable sources in the same timeframe. While the focus on COP21 in part informs the ambitious renewables targets, India, being further behind on economic growth and development compared to China, is primarily focusing on economic goals rather than on climate change. To that end, Prime Minister Narendra Modi's overarching priority will continue to be to provide power to India's estimated 300 million households that currently lack electricity. For India, it's most economical option to achieve this is to undertake a massive build-out of coal-fired generation.

The International Energy Agency projects that India's coal-fired power generation capacity will grow by 70% from 2013 levels by 2030 assuming India follows through on its INDC pledges. Moreover, unlike China's focus on coal efficiency, the efficiency of India's current coal plant fleet is

quite low. The abundance of low-quality coal domestically will reinforce the bias toward lower efficiency plants, and COP21 will not move the needle on this issue for India. Over time, though, growing air quality problems in India will likely force the hand of government policy to pursue control technologies at coal plants to limit sulfur dioxide, nitrogen oxide, and other particulate pollution, as well as measures such as coal washing. Such controls will also have benefits for CO2 reduction, but the majority of India's coal fleet is expected to remain subcritical even by 2030.

To offset the build out of coal-fired generation, New Delhi is also prioritizing a massive build-out of renewables, with a target to construct 175 gigawatts (GW) of renewable power by 2022. The INDC target to achieve 40% of electricity from renewable sources would push this target further, to roughly 200 GW of capacity by 2030. The vast majority of this target is expected to come from solar (including 100 GW of the 2022 goal). The targets are highly ambitious and likely unrealistic, but green groups have nonetheless praised them for focusing attention on clean sources of energy. Moreover, even achieving a fraction of the target would be a significant development from both an emissions and fuel mix perspective. The plan for renewables would also need to be accompanied by a significant build-out of transmission networks to connect generation facilities to demand centers.

Notably for COP21, India's submission distinctly notes that its commitments are contingent on industrialized countries following through on financial pledges to help developing countries on climate change mitigation as well as adaptation, the latter of which India is particularly focused on given the expected impacts of a warming climate on the country. The financing issue could open up some old divides between developed and developing countries in Paris as rich country financial disbursements have fallen short on promises and continue to be challenging as most governments are focused on reigning in budgets.

### 4. Other emerging markets

The bulk of the focus at COP21 and among environmental groups will be on China and India given the size of their populations and economies as well as their anticipated economic and emissions growth trajectories. As such, there will be less pressure on other emerging markets from COP21 to pursue emissions reduction strategies that will move the needle on controlling global emissions and climate change. So policies in other emerging markets will be even less focused on international obligations relative to domestic considerations and priorities.

#### 4.1 Latin America

Among the major emerging markets, Brazil will be a key player in COP21 as part of the BRIC (Brazil, Russia, India, and China) group of developing countries. Unlike other

regions, though, the emissions challenge in Brazil as well as much of the rest of Latin America is related to land use changes and deforestation rather than the energy sector itself.

Brazil released its INDC in late September with a target to cut emissions by 37% below 2005 levels by 2030. Though the headline is large, Brazil has already made great strides in cutting emissions so the 37% target represents stable to slightly growing emissions from 2012 levels. In particular, Brazil has already cut emissions from deforestation by an estimated 85% from 2005 levels by 2012. Offsetting this decline, emissions from the agriculture and energy sectors will be growing.

For the energy sector, Brazil relies heavily on hydro power for its electricity needs. However, the availability of new hydro resources along with recent drought conditions have pushed the government to consider alternatives. Among these, natural gas, wind, and solar will feature prominently, especially given a generous endowment of the latter resources domestically.

Mexico will focus its emissions reduction efforts to achieve the 25% cuts embodied in its INDC by pursuing efforts to cut methane emissions from waste disposal and upstream oil and gas production, ongoing tightening of fuel efficiency standards in vehicles, and switching power generation sources from oil to natural gas and renewables.

#### 4.2 Southeast Asia

As governments in Southeast Asia focus on economic growth and rising populations, policies to address climate change will not take center stage. While these countries will be important participants at COP21, they will not face the same degree of pressure as their larger peers, China and India, to undertake more ambitious emissions reductions. For a region rich in coal resources, the expected strong build-out in power generation will prioritize the use of indigenous coal resources (or natural gas in the case of Myanmar) as well as renewables. Unlike other emerging markets, the focus on vehicle fuel efficiency does appear to be a high priority among Southeast Asian governments, which will likely mean lower standards for the automotive and freight fleet compared to developed countries.

#### 4.3 Middle East

Similar to Southeast Asia, climate change does not rank high on the priority of Middle Eastern governments. Still, in contrast to smaller emerging markets, the Middle East will be under more scrutiny at COP21 for very high rates of per capita energy consumption and emissions, supported by generous subsidization of energy consumption.

Nonetheless, over time, Middle Eastern countries will also likely move toward a slower emissions growth trajectory, though the drivers will be less about climate change itself and more about domestic economics. Energy subsidies in the region have supported highly inefficient

consumption and resulted in hefty subsidy bills for governments. While most governments are well-positioned to foot the bill, rising financial pressures will likely erode the sustainability of these policies. For poorer countries in the region such as Egypt, the fiscal burden of energy subsidies will become increasingly untenable and likely prompt a gradual reduction. Though the oil-rich Persian Gulf countries are better positioned to finance large subsidy bills, here too the recent drop in crude oil prices will increase fiscal pressure on these countries to lower fuel subsidies, as has already taken place in the UAE this year.

Moreover, Middle Eastern oil exporters will also reduce their historic reliance on oil for power generation by switching to natural gas (as well as renewables) to free up oil resources for export. Though not driven by climate change concerns or COP21, the policy will nonetheless result in slower emissions growth.

#### 4.4 Africa

Africa for the most part will not be under significant pressure to undertake ambitious emissions reduction policies at COP21 given the relatively small share of emissions from the continent and the still-sizeable task of economic growth and poverty eradication. As such, African countries will use their most economic options to build out power generation capacity, including from coal, natural gas, hydro, and renewables (especially solar).

The region's largest economy, South Africa, will be under some pressure on emissions reduction at COP21. The country's INDC includes a target to peak emissions between 2020 and 2025, largely achieved through improved efficiency as well as reducing its heavy reliance on coal for power generation and encouraging a switch to more nuclear, gas, and renewables.

#### 5. Conclusion

With COP21 fast approaching, countries are positioning themselves both for the negotiations themselves as well as for their future energy sector plans in a post-COP21 world. The likely signing of an agreement will not bind emerging markets to onerous emissions reduction commitments, but will ensure a consideration of climate change mitigation while pursuing national economic development plans. Moreover, growing air quality issues, which are most salient in China at present, will present a compelling domestic driver for emerging markets to pursue policies that promote efficiency and clean energy over time. For the time being, though, domestic considerations will be a greater driver of emissions reduction and energy policies compared to COP21.