



WWF

REPORT

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WWF REPORT

## CROSSING THE DIVIDE:

### How To Close The Emissions Abyss

Essays by a selection of WWF offices on what countries can do pre-2020 to reduce greenhouse gas emissions

February 2015



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# PREFACE

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*The World Meteorological Organization (WMO) has just confirmed that 2014 was the hottest year on record, and worryingly they say that this is part of a continuing trend. In fact, 14 of the 15 hottest years have all been this century. The trend is clear.*

*Global warming is expected to continue given the rising levels of greenhouse gases in the atmosphere and the increasing heat content of the oceans, committing us almost irrevocably to a warming future.*

*This is something we know. We have experienced it. Millions of people have their lives and livelihoods impacted by climate change through extreme weather, changing weather and irregular weather.*

*For 20 years we have been in global negotiations to do something about climate change, with little progress so far.*

*The good news is the world's governments seem to have woken up to the realities of climate change. The time for doubts and denials is past. But now we're facing a new challenge: the actions that are being proposed to tackle climate-changing emissions are mainly too unambitious – and too slow – to have the required impact.*

*There's a big gap between what the world's climate scientists are telling us needs to happen, in order to avoid catastrophic consequences, and what is actually being done.*

*And when we say a big gap, we mean gigantic. Greenhouse gas emissions (particularly carbon dioxide, but also methane and hydrofluorocarbons) aren't just a little bit over what they ought to be. The world is still pumping several billion tonnes more greenhouse gases into the atmosphere than we should, even to stay within the "least damaging" target of a 2°C average temperature rise.*

*A billion tonnes is a gigatonne. That's why we call this overshoot 'the gigatonne gap'.*

*Even if a global climate agreement is reached in Paris this December, as we hope, most of the proposals and targets for cutting emissions won't kick in until after 2020. But these five years, from 2015 to 2020, are absolutely vital in the battle against disastrous climate change.*

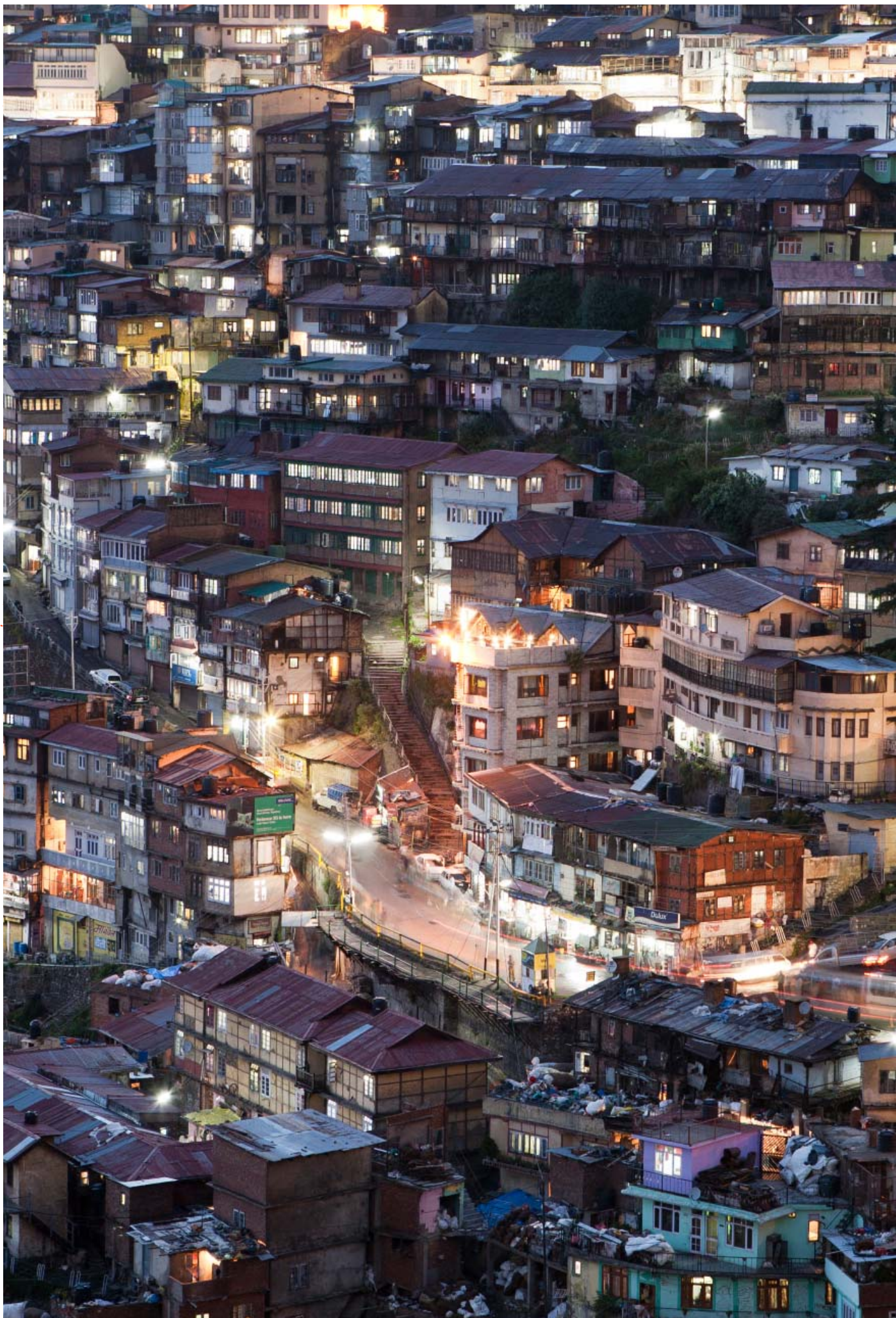
*This is the five years when global emissions should be peaking, or starting to plateau before falling. We can't just allow emission figures to drift ever upwards – otherwise the long-term targets will become even harder to meet.*

*WWF is determined to help close the gigatonne gap – but we need the world's governments to show leadership, foresight and determination, and start making urgent changes right now.*

*We can't afford to waste these crucial, precious five years.*



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# INTRODUCTION

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*While all eyes are focusing on the negotiations for a new climate agreement that will form the basis of the climate regime after 2020, it is critical that we do not lose sight of the need to increase our actions on climate in the current period up to 2020.*

*The issue of addressing pre-2020 ambition was placed on the agenda at COP 17 in Durban. But after three years of discussions, sharing ideas and listening to experts, we are yet to see any real concrete actions that can address the low level of ambition in this period.*

*This report is a compilation of views from WWF climate specialists around the world on how some key countries could help close the 'gigatonne gap' in emissions over the next five years.*

*The gap we're witnessing, which is more of an abyss, is caused by low levels of climate commitments from governments in the current period.*

*At the moment the pre-2020 period does not seem to be on the political radar in most countries, despite the fact that the IPCC science says emissions must peak within this decade to keep average global warming below 2°C to limit dangerous climate change. With current emission trends we are heading for a 3.6 to 4°C scenario.*

*For us, science and equity have to be at the heart of any climate agreement. In other words actions need to be based on scientific facts and requirements, but also carried out in a fair and people-focused way.*

*We know that many countries have already started taking actions on climate at national level. But we also know that these have not gone far enough. The proposals for closing the emissions gap go a long way in addressing economic and developmental challenges in many countries. The arguments that action on climate will slow down growth or affect objectives to address poverty no longer hold water. There is enough evidence showing that climate action is good for jobs, health, poverty eradication and economic growth. Governments can use this period up to 2020 to begin the just transition to a zero-carbon future.*

*Those countries that have the responsibility and capacity to do more should lead this transition as well as support others that can do much more if there is financial, technology and capacity-building collaboration and support.*

*We need to see commitments at national level, as well as multilateral commitments – and crucially they need to be turned into concrete actions. Citizens and businesses around the world are ready to do their bit. Now governments must act. Climate action is urgent and the planet and its people cannot wait any longer.*

*For this report we've asked 10 WWF colleagues from various countries to analyse and sum up what concrete things their governments could and should be doing now.*

*From scrapping coal-fired power stations and increasing renewables to improving energy efficiency, strengthening emissions targets and addressing deforestation, you will see that there are plenty of ways governments around the world can limit their pre-2020 emissions – and urgently close the gigatonne gap.*



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# INDIA

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Climate change is one of the most formidable challenges facing developing countries like India. High levels of poverty, an agriculture-dependent economy, and vast low-lying coastlines increase the vulnerability.

India has the second largest population in the world but it is still very low on the human development index ranking, which implies that development and poverty eradication are key priorities. Around 300 million people still have no access to electricity and 800 million depend on solid biomass fuels for cooking and heating. The per capita electricity consumption in India is less than one fourth of the world average.

India's total greenhouse gas emissions may be the third highest in the world (after the US and China), but its per-capita emissions are much lower than the world average. And India is determined to see that its per-capita emissions level never exceeds that of developed countries.

**So what has India been doing to reduce emissions and help close the 'gigatonne gap', domestically and internationally?**

India has already taken significant measures on climate change, including the pre-2020 period.

- In December 2009 India announced its aim to **reduce the 'emissions intensity' of its GDP by 20-25% (against 2005 levels) by 2020.**

This voluntary commitment shows India's resolve to ensure its growth is sustainable and based on low-carbon principles. A report on 'Low Carbon Strategies for Inclusive Growth' has since been formulated.

- **In 2008 India launched a 'National Action Plan on Climate Change' (NAPCC)**, which identifies a number of measures to simultaneously advance development as well as climate change objectives of adaptation and mitigation.

The NAPCC has established eight priority missions, including solar power and enhanced energy efficiency. It also sets out that the **share of renewable energy in the electricity mix is to increase to 15% by 2020.**

- The government has **increased the target for solar power from 20,000 to 100,000 megawatts by 2022, and is also aiming for 60,000 megawatts of wind power by 2022.**

Other initiatives include:

- increase in the **Clean Energy Cess** (a tax on coal)
- a **National Adaptation Fund** to address climate change impacts
- setting up **'Ultra Mega Solar'** projects across the country to promote renewable energy.

All of this indicates the Indian government's positive approach. But with competing pressures such as high imports of fossil fuels, related energy security, as well as environmental and financial issues, we wonder if the degree and pace of actions are effective enough.

It's vitally important that the international community also steps up its long-term technological and financial support to help India successfully transition to a sustainable, low-carbon, climate-resistant economy.

In the pre-2020 phase, the developed countries need to commit to increasing their pre-2020 emission reduction targets, as well as providing adequate, predictable and long-term finance, technology and capacity-building support to developing countries. They have to enhance ambition in terms of closing the gigatonne gap, so as not to additionally burden the developing countries in the post-2020 phase.

THE 'NATIONAL  
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India and other developing countries have to build international pressure so that the developed countries deliver on closing the pre-2020 gap, and also make sure the key principles of the UN climate convention are not diluted (for instance that “Parties should protect the climate system on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities”).

*Having said that, it's important for countries such as India to continue domestic efforts for mitigation and adaptation, and take effective measures so that the ambitious plans announced in terms of enhanced renewable energy and energy efficiency are implemented on the ground. An appropriate time-bound action plan needs to be rolled out. This would clearly go a long way in building momentum towards a climate-resilient future, as well as helping close the gigatonne gap.*

**DEVELOPED  
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COUNTRIES.**

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# CHINA

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China is on track to deliver its pre-2020 pledge, and is planning to deliver the higher end of that pledge: a 40-45% 'carbon intensity' reduction by 2020, compared with 2005 levels. ('Carbon intensity' is the ratio of CO<sub>2</sub> emissions against GDP.)

**Although it's a developing country, China's size means it could play a bigger role in international climate progress. The road to the Paris climate conference could be a strategic opportunity for China to show leadership – to prove it's responding to climate science and meeting its responsibility as a big power.**

The joint announcement between China and the US in 2014 set the world's largest developed and developing countries on track to climate leadership. It was also the first time China officially announced its intention to use an 'absolute emission peak' to target emissions reductions (as opposed to 'carbon intensity'), with a goal of peaking around 2030 or earlier.

China's top-down system means the government plays a leading role, leveraging other key sectors – including businesses, think-tanks and the public – and necessary resources. There's a lot of focus on monitoring, reporting and verification (MRV), and there is enforcement and consequences for those who fail to deliver.

The 'energy revolution', as called for by President Xi, with more ambitious energy transition away from coal to renewables, could also hugely benefit China domestically.

But if there's one thing China could do pre-2020 to enhance its climate ambition, and lay a solid foundation for a national emission peak, it would be to move away from coal. Coal is the most consumed fossil fuel in China. It's also the dirtiest fuel – causing air pollution that bothers hundreds of millions of Chinese – as well as a serious carbon emitter driving global warming.

**China is targeting a coal consumption cap of 4.2 billion tonnes by 2020 (up from 3.6 billion tonnes in 2013), with coal's share in China's total energy mix planned to drop to under 62% by 2020. WWF thinks this coal cap should be an absolute peak for China's coal consumption – and it should come even earlier than 2020. We also want to see coal's share in the energy mix decline faster, to below 60% before 2020, otherwise many of China's energy, environment and climate goals won't be achieved.**

The good news is, for the first time since 2000, China's total coal consumption actually decreased in 2014, according to official statistics. The 'carbon intensity' of the economy also dropped remarkably – down almost 5% for the year. This makes 2014 the year of lowest carbon growth in the country's history, and moves China much closer to delivering its 2020 pledge.

**We'd really like to see China speed up the phasing out of old and inefficient coal-fired power plants, right away, and also cancel plans for new ones – which would likely end up becoming 'stranded assets' and bad investments in any case.**

In one of WWF's scenarios, China could also phase out all coal in its electricity-generating sector from 2040, with the aim of making it coal-free by 2050. Reducing coal consumption could also make room for other cleaner options to grow, particularly renewable energy. It's an achievable vision, and even calculated to be much cheaper than any fossil-fuel or nuclear-dominant energy future.

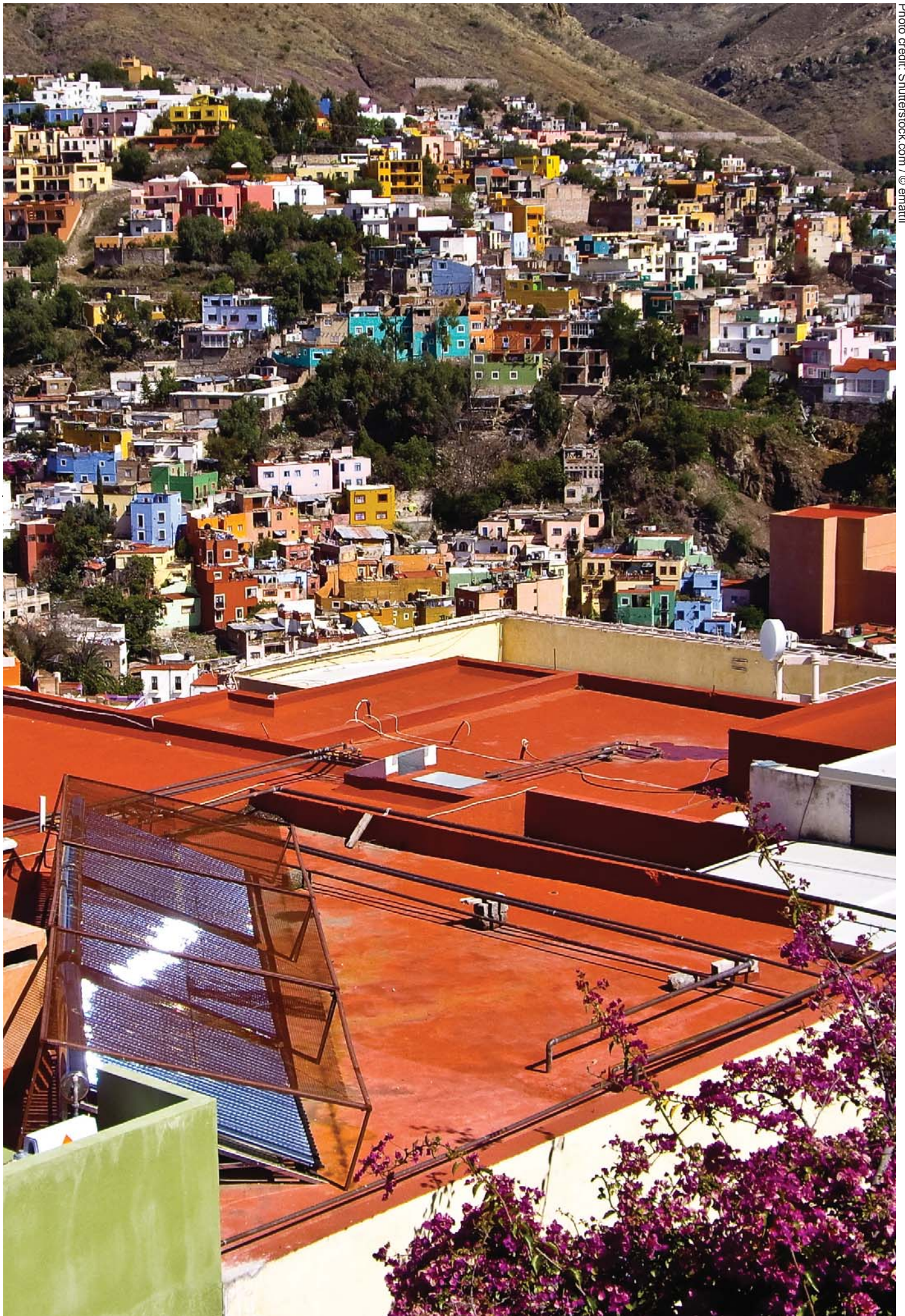
**Very importantly, China seems to be moving away from resource and energy-intensive development – including in industries such as cement, iron and steel – as the whole country steps into a 'New Normal' economic phase. Less reliance on real estate prosperity and more innovation will help create a cleaner, stronger economy.**

China's leaders needs to be determined to make sure this strategic revolution will boost environment progress and economic efficiency. China's actions could also help persuade other developing countries to take a healthier and more sustainable path.

*Ancient Chinese wisdom teaches us that a journey of a thousand miles begins with a single step. Coal control is the first step for energy transition in China.*

IF THERE'S ONE  
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WE'D LIKE TO  
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# MEXICO

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**MEXICO HAS AN  
ASPIRATIONAL 2020  
GOAL TO REDUCE  
ITS GREENHOUSE  
GAS EMISSIONS  
BY 30% BELOW  
'BUSINESS AS  
USUAL' LEVELS.**

Mexico has been very clear about its commitment to addressing global climate change – from the ambitious conditional commitments for 2020 and 2050 made at the 2009 Copenhagen climate conference, then hosting a successful UN climate conference in Cancun in 2010, and passing a landmark General Law on Climate Change, the first of its kind in the developing world.

But there are substantial challenges to be overcome. Even though renewable energy has been an important part of the country's energy diversification for over a decade, 75% of Mexico's power generation still relies on fossil fuels.

With falling gas prices, there's been a marked trend towards expanding gas-fired power plants. An energy reform has just been approved, and there is potential for increasing investment in renewable energy and associated infrastructure.

**So Mexico is at a crossroads. The analogy we'd make is 'saddling the horse' – we're on the move, but will we head in the right direction?**

Billions of US dollars will be coming into the country in energy investments. If Mexico doesn't make the right call and invest in renewable energy technology and infrastructure, it may well get locked into a fossil fuel future.

**So what has Mexico done so far that can help other countries in terms of pre-2020 action?**

- 1) Mexico has put an **aspirational 2020 goal** into national legislation, aiming to reduce its greenhouse gas emissions by 30% below 'business as usual' levels.
- 2) It has approved an **unconditional five-year multi-sectoral programme**, funded by national resources, to meet one third of the 2020 goal (90 million tonnes of CO<sub>2</sub>).

**Examples of actions include:**

- **reducing gas flaring by Pemex (Mexico's huge state-owned petroleum company)**
- **changing lighting technologies**
- **promoting renewable energy**
- **increasing co-generation in the private sector.**

3) In 2012 Mexico published a **'Special Program for the Use of Renewable Energy'**, which commits to increasing the amount of electricity sourced from renewable energy to 25% by 2018 (up from 15% in 2012).

Given the increase in overall energy demand, this implies doubling renewables generation in a six-year period (very ambitious), and in the process cutting 18 million tonnes of CO<sub>2</sub>.

4) Mexico has identified economically competitive ways for the **private sector** to contribute more to national efforts, which would account for about 40 million tonnes of CO<sub>2</sub>.

The measures would need an up-front investment of US\$18 billion from the private sector, but predict a net economic benefit of more than US\$20 billion by 2020.

5) Mexico is **ready to implement REDD+**, the UN-led programme for reducing emissions from deforestation and forest degradation, which helps put a financial value on unfelled forests and low-carbon alternatives.

**What else can Mexico do in the immediate term to increase ambition for the future – to 'saddle the horse' properly?**

Mexico must urgently enforce an **energy transition policy** that sets the country's decarbonization vision and course for 2050, and guides current infrastructure investments in that direction.

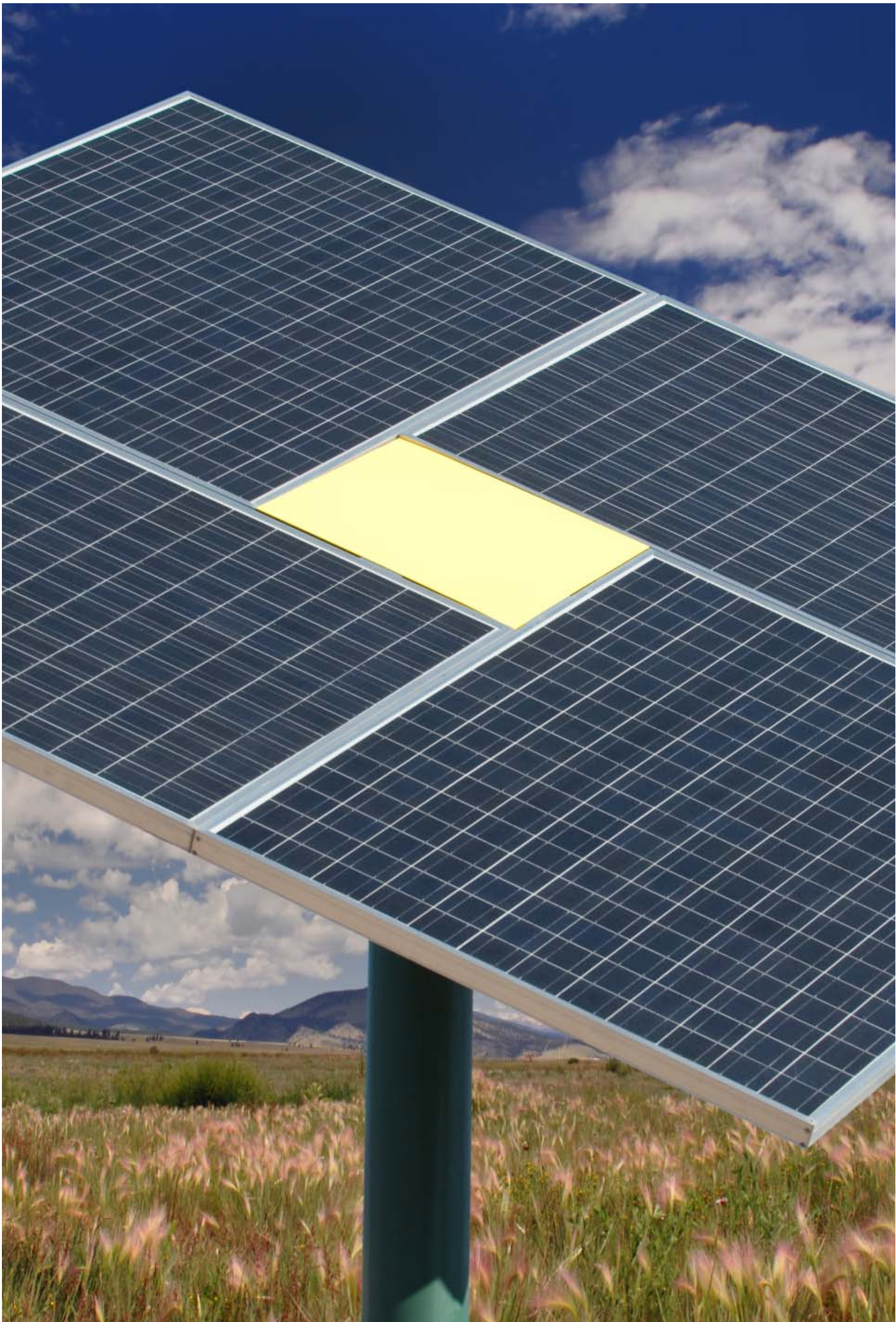
Mexico should set its own ambitious targets for 2025 and 2030 (its 'INDC'), in line with its national legislation. But crucially it should also clarify which proportion of its greenhouse gas reduction commitments are conditional on international funding and technology transfer, and which are unconditional and can be taken-up nationally.

*This would also show other countries and funders that Mexico's ambition and co-responsibility is in line with its progressive position in climate negotiations.*

**MEXICO MUST  
URGENTLY ENFORCE  
AN ENERGY  
TRANSITION POLICY  
THAT SETS  
THE COUNTRY'S  
DECARBONIZATION  
VISION.**

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# BRAZIL

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Most people agree Brazil has made advances in reducing its greenhouse gas emissions. In the 1990s, deforestation (which turns forests from carbon sinks into carbon emitters) was responsible for around 70% of Brazil's national emissions. By 2012 that had been reduced to around 30%.

But there's been a change in the country's pattern of emissions. The biggest source of greenhouse gases in Brazil over the last decade is no longer deforestation of the Amazon, but energy production and agriculture.

Most of Brazil's energy still comes from hydroelectric power (there's a lot of water in Brazil), but in recent decades there's been an increased reliance on fossil-fuel-powered thermal power plants.

**It seems the Brazilian government is still basing its future energy plans on hydro dams and thermal power – despite all the national potential for renewable alternatives like solar energy, wind and biomass.**

Alarmingly, in the last two years the Brazilian government has actually reduced investment in renewable energy by almost half. It's also predicted that the number of cars in Brazil will increase four-fold by 2050, which will undoubtedly add to the country's carbon emissions.

This is despite evidence (from the IPCC and national experts) that the temperature in Brazil increased 2°C in some regions over the last century – and future scenarios show it could increase disastrously from 3-6°C by 2100.

Brazilian society is already seeing the impacts of climate change, with damage to food production and water availability, and an increase in the frequency of extreme weather events.

## **So what do we need to see Brazil doing by 2020?**

Brazil needs to start making different investments and promoting low-carbon development at national level. We also need to prepare to adapt to the climate impacts we are already facing and will have to deal with in the future.

In 2014, the Brazilian government started an open consultation process to put together the next 'INDC' – our national contribution to emissions reduction.

The process started with online dialogues with different sectors to gather opinions. Some of us Brazilian NGOs sent a contribution, which focused on equity – the need for emissions cuts to be made fairly – as well as on Brazil's historical commitment to reduce its emissions to below 1 gigatonne before 2030.

We also need to see a commitment from the Brazilian government at international level, in addition to practical actions being implemented domestically.

**BRAZIL NEEDS TO  
START MAKING  
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DEVELOPMENT AT  
NATIONAL LEVEL BY  
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**WE WANT TO  
SEE RENEWABLE  
ENERGY SOURCES  
- BIOMASS, SOLAR  
AND WIND -  
REACH 33% OF THE  
NATIONAL ENERGY  
MIX BY 2025.**

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**Brazil needs an effective national climate change policy that includes considerations like:**

- **commitments to achieve zero net deforestation**
- **increase of renewables in the Brazilian energy mix**
- **economic incentives to support renewables**
- **actions on agriculture and solid waste disposal**
- **a ‘national adaptation plan’ that will help increase the resilience of Brazilians to the impacts of climate change.**

On agriculture, for example, we are asking the Brazilian government to reinforce the Low-Carbon Agriculture Plan, and to link with other government strategies to guarantee effective implementation.

In the energy sector, we are asking the government to promote at least one exclusive action for each alternative renewable energy source up to 2018 – to try to guarantee that biomass, solar and wind can reach 33% of the national energy mix by 2025.

Brazil is moving and changing, but we could do much more to make sure we’re on the right path. We must do more.

*We can show that it’s possible for Brazil to develop and at the same time create a low-carbon future – with security of food, water, energy and climate for everyone.*





Photo credit: Shutterstock.com / © Danie Nel

# SOUTH AFRICA

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**SOUTH AFRICA  
HAS COMMITTED  
TO REDUCING  
EMISSIONS  
34% BELOW  
'BUSINESS AS  
USUAL' LEVELS BY  
2020.**

South Africa is a country that has shown how much change can be achieved in just two decades. We've only had 20 years of democracy, and yet we've fundamentally changed the way our society works. And I think the climate story should be the same.

Our next big challenge is the transition to a just, low-carbon economy. For a developing country that faces many challenges, South Africa has made an admirable start in its efforts to play its part in the global fight against climate change.

At the UN Climate Conference in Copenhagen in 2009, South Africa's president committed to reducing emission 34% below 'business as usual' levels by 2020, and 42% by 2025. But there is much more that can be done, especially with support from the international community.

**Examples of what South Africa is doing (and could do more of) include:**

- **Integrated public transit systems (including rapid bus and modern rail systems) are being rolled out in many of our cities. These systems reduce greenhouse gas emissions while also giving people on the fringes of our cities access to better economic opportunities, and reducing commuting times and costs.**

**A key challenge now is to move freight transport from the roads back onto the railways, as this would save further emissions, as well as reducing the heavy social costs from traffic accidents, congestion, road maintenance etc.**

- **On the energy front, South Africa has made big changes over the last three years with a rollout of renewable energies under a bidding process.**

**We're well on-track to delivering 3.7 gigawatts of renewable energy capacity, as part of the effort to produce 42% of all our new electricity capacity from renewable sources by 2030. This will mean 13% of electricity will be provided by renewables by 2030.**

But we need to do more. The current allotment for renewable energy procurement is almost fully allocated. Now **we need a long-term plan that will give manufacturers the assurance they need to set up manufacturing facilities in our country, which would create the jobs we need to power our economy.**

South Africa's energy mix still holds carbon contradictions. South Africa is constructing two of the largest new coal-fired power stations in the world (Medupi and Kusile).

Since the lifetime of a coal power station can be more than 40 years, it's imperative that these are the last ones that get constructed in South Africa. All further energy demand should be met through expanding the renewable energy generation capacity and energy efficiency drives.

An important step on the road to phasing out fossil fuels is the planned rollout of a carbon tax, due to be implemented from 2015. This is a fundamental part of driving the economy in a low-carbon direction and creating an economic environment that encourages energy efficiency and low-carbon business.

**But we need to recognize the developmental challenges we face, and that the impacts of such a tax can't be borne by the poor in our country. It has to be allocated correctly, without allowing large long-term exemptions for heavy-emitting industries and organizations.**

*South Africa has always been a country that has punched above its weight politically in international negotiations. Domestically the long walk to climate freedom has started, but we are going to need the rest of the world to walk with us and to support us every step of the way.*

**AN IMPORTANT  
STEP ON THE ROAD  
TO PHASING OUT  
FOSSIL FUELS  
IS THE PLANNED  
ROLLOUT OF A  
CARBON TAX  
IN 2015.**





# JAPAN

By Naoyuki Yamagishi, Climate & Energy Group Leader, WWF-Japan  
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Put simply, what Japan should do before 2020 is **stop building new coal-fired power plants.**

Japanese companies are apparently planning to build 35 new coal-powered plants. That amounts to 15 gigawatts of electricity – so that’s a huge amount of coal power in the pipeline.

Many of those power plants will come online around 2020, which means they could be there until the 2060s, by which time we are supposed to decarbonize our economy completely. We’re worried about the general trend where Japanese companies are thinking that, because we had the Fukushima nuclear accident, and we need cheaper fuels, increasing coal consumption is OK. This trend has to be reversed.

**In fact, if you take the increase of coal consumption between 1990 and 2012, and simply convert that increase into carbon emissions, it amounts to 140 million tonnes (CO<sub>2</sub> equivalent). That’s the size of Pakistan’s emissions – a whole country’s emissions.**

So that’s a huge increase we are already experiencing – and we are now talking about additional emissions in the pipeline because of these new planned coal power plants. In fact, we are talking about adding another 75 million tonnes per year because of them.

Japanese policies put a strong emphasis on energy security – but it’s a distorted sense of energy security. More than 90% of fossil fuels in Japan come from overseas. We know the best source of domestic energy is renewables, but somehow this discussion is distorted, so that the security of supply from overseas is seen as most important and domestic energy is not. (Nuclear, which sources raw materials like uranium from overseas, is considered a ‘quasi-domestic energy resource’.)

**Japan has a domestic renewable energy potential that it’s ignoring. For example, a report by the Ministry of Environment shows that Japan has roughly 33 gigawatts (GW) of solar power and 240GW of wind power (including both onshore and offshore). Taken together, this could provide 5,400 terawatt-hours (TWh) of electricity per year. Japan’s electricity consumption is 1,000TWh per year. (Of course, it may be impossible to use the full potential due to various limitations related to construction sites and grid capacity etc).**

But at the moment the renewables proportion of Japanese electricity is just 2%, if you exclude large hydropower. This ridiculously underemployed potential has to be tapped. And yet, paradoxically the government believes that energy security will be achieved by importing fossil fuels and uranium for nuclear, instead of fostering the renewable energy market.

The explanation is simple: the cheap price of coal does not reflect the true costs – for instance the environmental and human costs. Producing and using coal can cause damage at mining sites, and it increases pollution, as well as being a big factor in global warming and climate change. But Japan’s government is willing to ignore these harms because they think economically-cheap fuels are more important than the costs they incur in other countries.

**So Japan should stop building coal-fired power plants – that’s the one key message we want to convey pre-2020.**

If we can do that, we may be able to change Japan’s currently poor emissions reduction target. At the moment the 2020 greenhouse gas reduction aim is -3.8% below 2005 levels. And there is a trick in this target because, if you convert it into one using 1990 as a base year, it becomes a 3.1% increase. So in fact it’s not even a reduction target at all, but an increase target.

*As we head towards the climate agreement at December’s Paris conference, each country is now required to present an emission reduction target beyond 2020. We demand that our government presents a more ambitious target, which constrains the use of coal and taps into Japan’s massive renewables potential.*

THE NEW  
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JAPAN SHOULD  
STOP BUILDING  
COAL-FIRED POWER  
PLANTS -  
THAT’S THE ONE  
KEY MESSAGE WE  
WANT TO CONVEY  
PRE-2020.



# EUROPEAN UNION

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*By Jason Anderson, Head of WWF's European Climate & Energy Policy and Regine Guenther, Director for Climate and Energy Policy for WWF-Germany  
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## THE OBVIOUS STEP WOULD BE TO AGREE A TOUGHER 2020 TARGET, SUCH AS 30% EMISSIONS CUTS, RATHER THAN 20%.

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EU leaders recently agreed the outlines of a new climate and energy package covering the period 2020-2030. They seem to have overlooked that there is still plenty of scope for improvement before 2020.

EU emissions actually look likely to drop below target levels – more than 24% below 1990 levels (target is -20%). This doesn't even include the additional offset credits purchased by government and industry. But unfortunately, by not acknowledging the likely over-achievement, Europe gives itself the option of reversing that trend. Or carrying tonnes over to dilute post-2020 goals. Neither of which is acceptable.

**The obvious step would be to agree a tougher 2020 target, such as 30%, which has been shown to be both feasible and economically beneficial. EU officials seem reluctant to have this political battle, but we believe it's clearly the best option.**

Despite the reluctance, there's a piece of legislation under discussion to improve the working of the EU Emissions Trading Scheme (ETS), which covers about half of Europe's emissions. A history of easy targets, overseas offset credits and the economic downturn has created far too many permits in the system, and the price is too low to sufficiently rein in big polluters like coal power

The improvement under discussion, the 'market stability reserve,' will have no environmental benefit if these 'toxic tonnes' simply return to the system later. We need urgent parliamentary amendments to retire or cancel the unneeded tonnes.

On renewable energy, Europe has targets that support its climate goals, and is extending them beyond 2020. But in setting a renewable energy target for 2030, the EU should not overlook meeting or exceeding the 2020 target of 20%, which is divided into binding national targets. The 2030 goal is only 'at least 27%', and no longer binding at national level, which means the rate of progress on renewables would slow down post-2020.

**Unfortunately the level of commitment and support for renewables growth seems to be on the wane in many European countries. Some member states might tend to hope they'll get away with underperforming on their 2020 commitments. This can't be allowed to happen – it would be illegal, for one thing.**

When it comes to **energy efficiency**, more effort and commitment is needed to make sure buildings are better insulated and products more efficient, if we're to meet the 20% target for 2020. The recent upsurge in interest in energy security has added new urgency to the idea of saving energy.

In general member states need to be more open about communicating their positive actions, and make sure they lead to pre-2020 improvements. (Germany, for example, has an ambitious 40% greenhouse gas reduction goal.) Countries should also be prepared to cancel excess Kyoto and EU ETS allowances unilaterally.

Europe's role isn't limited to domestic efforts, but also helping finance reductions elsewhere. Some EU countries have made important contributions to the Green Climate Fund, but Europe's total effort is still far off-track from its fair share of the foreseen \$100bn by 2020.

Europe needs to be careful not to simultaneously finance high-carbon energy, at home or abroad. Fossil fuel energy subsidies still exist in Europe, and need to be stopped, just as international finance needs to be redirected away from coal and towards clean energy.

For six years European politicians have been bending to the will of a handful of fossil-fuel-dependent EU countries and their industry allies, whose ideological opposition to climate action has held back economic transition.

**Europe's goals for 2030 demonstrate this inadequacy – the 'at least 40%' cut in greenhouse gases should be 55%; the 27% renewable energy target should be 45%; and the efficiency goal of 27% should be 40%.**

*In this important year for climate and clean energy – and with a new European parliament and Commission in place – it's time for European leaders to show they can take the steps needed to close the gigatonne gap for 2020, set their sights higher for 2030, and guide Europe to nearly total decarbonization by 2050.*

**EUROPE NEEDS TO  
BE CAREFUL NOT TO  
SIMULTANEOUSLY  
FINANCE  
HIGH-CARBON  
ENERGY, AT HOME  
OR ABROAD.**

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# FRANCE

By Pierre Cannet, Head of Climate, Energy & Sustainable Infrastructures, WWF-France  
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**AS COP21 HOSTS,  
FRANCE HAS AN  
OPPORTUNITY AND  
A RESPONSIBILITY  
TO DEMONSTRATE  
ITS LEADERSHIP.**

All eyes are turning to the Paris Climate Conference (COP21) in December 2015, when 195 countries will meet to agree future international climate plans.

As conference hosts, France has an opportunity and a responsibility to demonstrate its leadership – and that means taking urgent actions now, at both domestic and international levels.

On the domestic front, France is pursuing 2020 targets fixed by the ‘Grenelle de l’Environnement’ (a national cross-party, multi-organization forum) and EU 2020 targets. Among the main 2020 goals is to have **23% renewable energy in the energy consumption mix**.

But France’s development of renewable energy is still too weak. In 2013, renewables accounted for 14% of the country’s energy consumption, but there have been delays in development of offshore wind power and wood-energy – despite the fact that France has global industrial champions in these sectors.

**In order to reach its 23% renewables target by 2020, and increase its ambition in the short term, France will have to adapt its regulation and develop economic tools to accelerate investments in this sector.**

The French Energy Transition bill, which is now under discussion, will provide new targets for the mid-to-long term, and new tools to accelerate implementation in the short term.

The French environmental agency estimated that an additional 10-30 billion euros (US\$11-34 billion) of investment in France are needed to implement the right transition. Unfortunately, the energy transition bill would only provide a fraction of this, and does not advance any mechanism to leverage or encourage that kind of level of investments. So other decisions would have to support the transition in the short term.

**The bill also intends to expand French green growth, covering other key sectors like building, clean transportation and sustainable cities. This holistic vision represents an evolution, taking all of French society on an ecological transition. Citizens, local government and businesses must all be involved. The benefits will include health, employment and wellbeing.**

Clean transportation is already covered in the bill, including the obligation for public organizations to have at least 50% ‘clean vehicles’ and suitable charging terminals.

Responsible French engagement must also go beyond its borders at EU and international levels. Over the 2007-2013 period, France supported coal projects abroad worth US\$1.67billion through its export credit agency. The two coal power plants supported by French export credits in South Africa produced the equivalent of 14% of French greenhouse gas emissions (at 2011 figures).

Ahead of the Lima climate conference last December, the French president announced that France would put an end to its support for coal projects around the world. In the lead-up to COP21 in Paris, it’s crucial that this is reflected in the way France votes in the actions of multilateral development banks (like the Asian Development Bank), and its decisions as a shareholder in companies, as well as in policies about its export credit agency and development aid.

**At the EU level, France should also strongly advocate a real price on carbon, driving the transition to a low-carbon economy, especially through an ambitious reform of the European Trading Scheme (ETS) this year.**

The ETS is in crisis because of an over-allocation of schemes in the market, but there's still time to save the system. Among other measures, France should advocate for the implementation of a 'market stability reserve' in early 2016/17 to absorb this surplus.

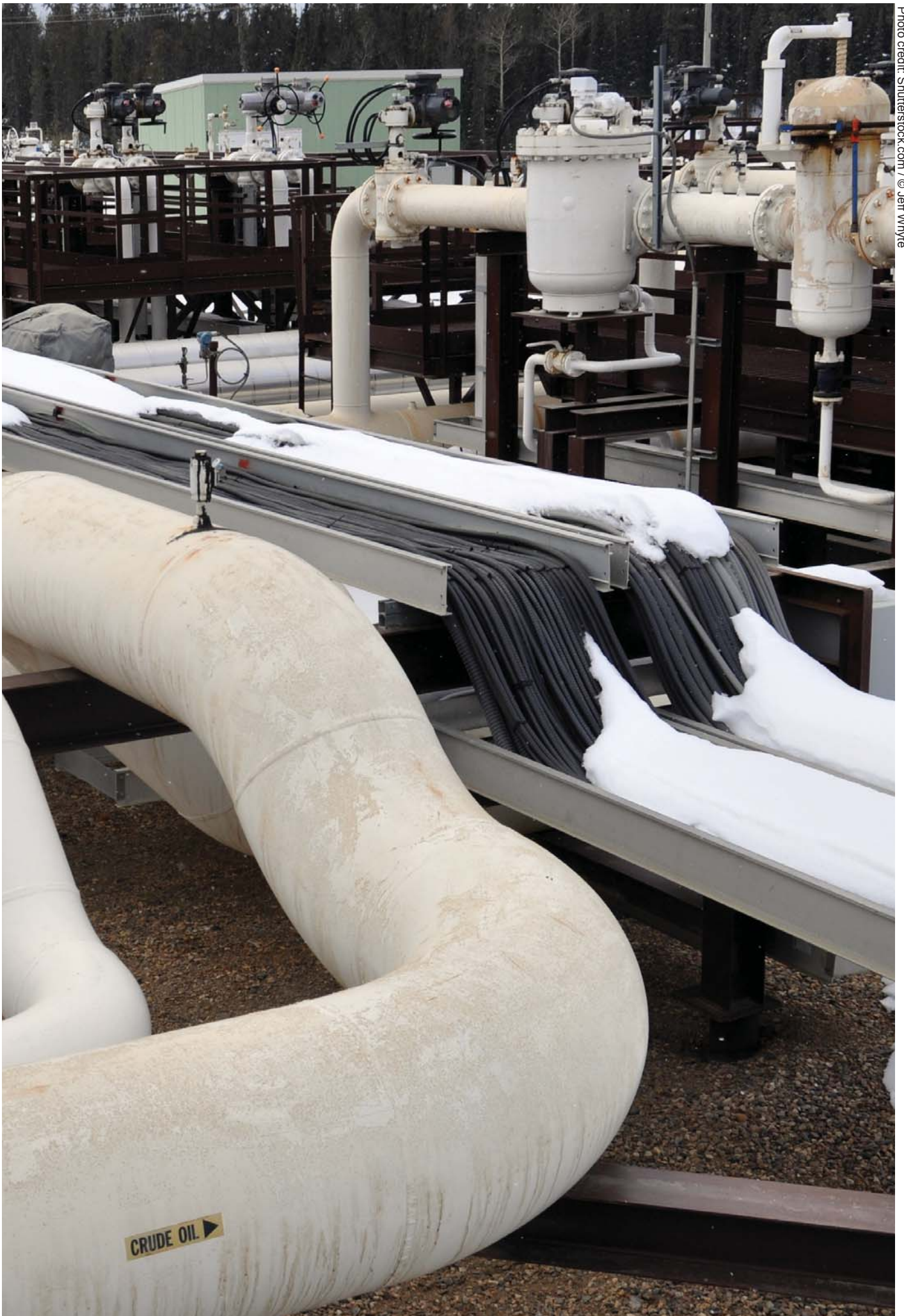
*On the road to COP21, France will have opportunities to create a positive international dynamic for raising ambition. By making investments to support the transition to renewables and energy efficiency, by participating in an ETS reform to put a price on carbon at EU level, and by ending its support for coal projects abroad, France would gain much more legitimacy in the international arena – and make it easier to facilitate climate discussions and promote urgent action.*

**AMONG FRANCE'S  
MAIN 2020 GOALS  
IS TO HAVE 23%  
RENEWABLE  
ENERGY  
IN THE ENERGY  
CONSUMPTION MIX.**

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# UNITED STATES OF AMERICA

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*By Lou Leonard, Vice President, Climate Change, WWF-US  
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Within the rules of Washington, the Obama administration has been quite proactive, pushing the political envelope on climate change policy. But science and nature don't play by Washington's rules.

As the world's largest economy and one of the main contributors to climate change, all steps taken by the US to cut emissions can have big impacts on the health of our atmosphere and our planet. It also means stronger US leadership is both necessary and fair.

At home, climate change is a clear and present danger to America's prosperity. That's why, to maintain the momentum and trust that President Obama has built, he needs to deliver urgently. **For example:**

- **strengthening the Clean Power Plan**
- **taking action on methane & HFCs**
- **fair funding of the Green Climate Fund.**

It also means finally rejecting the controversial Keystone XL oil pipeline – showing the world the US is committed to a clean energy future.

**TO MAKE SURE  
THE US MEETS AND  
EXCEEDS ITS 2020  
CLIMATE TARGETS,  
THE CLEAN POWER  
PLAN RULES MUST  
BE STRENGTHENED.**

Let's look more closely at some of those actions:

1) **Clean Power Plan.** The biggest source of US emissions (over 35%) is the electric power sector. The Clean Power Plan, to be finalized through binding rules in June 2015, will set the first carbon pollution rules for new and existing coal plants in the US.

To make sure the US meets and exceeds its 2020 and 2025 international climate targets, these rules must be strengthened. The new rule for existing power plants would set a target of 30% reductions in emissions by 2030. That's not enough to meet President Obama's recently announced national 2025 target of 26-28% (the US power sector will need to 'out-perform' any national target).

These low targets ignore the revolutionary transformation that's been happening in renewable energy technologies and energy efficiency. The new rule needs to accelerate and develop these cost-effective revolutions, not underestimate them.

In 2014, wind and solar alone constituted over half of new US electricity capacity. A recent analysis by the Union of Concerned Scientists demonstrated that by 2030 the US electricity sector could reduce emissions by at least 40%. In June the target of the final rule should be strengthened to at least this level.

The Clean Power Plan also underestimates the potential of energy efficiency. An international survey last year ranked the energy efficiency of major economies: the US ranked 13 out of 16.

**Energy efficiency is a simple, obvious, cost-effective step – for instance reducing energy waste, using high-efficiency appliances and developing better personal and business practices. This is not just low-hanging fruit – it’s fruit lying on the ground or already on the table.**

2) **Methane.** A super-greenhouse gas, 35-100 times more potent at warming the atmosphere than CO<sub>2</sub>. Methane produces around 600 million tonnes of CO<sub>2</sub>-equivalent emissions per year in the US.

The Obama administration recently announced a new set of proposals to tackle methane leaking from oil and gas production – but it was a mixture of regulation and voluntary initiatives. These steps should be mandatory whenever possible – and cover all controllable sources of methane emissions, including oil and gas development and transportation, coal-mining and landfills. If they do this across the whole economy they could cut as much as 90-100 million tonnes of greenhouse gas emissions in the coming years.

3) **HFCs (hydrofluorocarbons).** HFCs and other so-called ‘F gases’ – commonly used in refrigeration, air conditioning and fire-fighting equipment – are even more powerful greenhouse gases than methane (some are 20,000 times more potent than CO<sub>2</sub>). So even incremental steps to control them can make a huge difference.

The US has been strongly championing increased international action on HFCs, but also has to make good at home. Emissions from HFCs in the US have increased by 310% since 1990 (since they started replacing ozone-depleting CFCs).

At least 100 million tonnes of emissions reductions could be secured in the near term through more aggressive action to reduce HFCs. Substitutes can be used that have less global warming potential, and technical improvements can reduce HFC leakage. The US Environmental Protection Agency is developing new rules for air conditioners in homes and vehicles, but this needs to be done faster and more comprehensively.

4) **Green Climate Fund.** The US made the biggest pledge to the Green Climate Fund. The good news is that President Obama recently asked Congress to deliver a first installment of US\$500 million. But he’ll need all his negotiating powers to ensure Congress helps to honour this request – otherwise we risk eroding the trust and momentum the US has begun to build with other countries on climate change.

*The Obama administration has moved the needle on climate change in Washington. Now we need them to push even harder to move the needle further – below 2°C global warming. Our future depends on it.*

**RECENT ANALYSIS  
SHOWS THAT  
BY 2030 THE  
US ELECTRICITY  
SECTOR  
COULD REDUCE  
EMISSIONS BY AT  
LEAST 40%.**





# AUSTRALIA

By Kellie Caught, Climate Change National Manager, WWF-Australia  
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As well as being lucky enough to have some of the world's most spectacular natural environments – from tropical reefs to rainforests – and so many unique plants and animals, Australia is also a country that's particularly susceptible to global warming and climate change.

More extreme weather events are already having a devastating effect on our environment, economy and livelihoods.

The latest science tells us that in just 16 years from now climate impacts on the Great Barrier Reef, our global icon, could be irreversible if we don't limit global warming to well below 2°C. At the moment we're on-track for at least 3.6°C.

So it's in our own national interest to do more to cut our greenhouse gas emissions, as well as being part of the wider global effort. Australia is among the world's top 20 biggest polluters, with similar emissions to countries like France, Italy, Brazil and the UK, despite having a much smaller population.

**What Australia does in the five years up to 2020 will be crucial. The first thing we need is stronger targets. The government's current carbon pollution reduction target is extremely weak and not in line with those set by other countries.**

An important first step, a sign of faith to the Australian people and the international community, would be to commit to raising Australia's 2020 emissions target from the current 5% cut (based on 2000 levels) to a 25% cut.

**There are a number of things the Australian government could do to achieve that 25% cut. Here are just five:**

1. Stick to the 2020 **Renewable Energy Target** of 41,000 GWh, which means renewables could provide around 24% of electricity by 2020 (depending on final demand), generating \$15 billion in investment and supporting more than 18,000 new jobs.
2. Implement similar measures to Germany and the US to help take old and inefficient **coal-fired power plants** out of the electricity grid. This will free up capacity for renewable growth, reduce carbon pollution and provide current and future investors stability and investment certainty.
3. Strengthen **energy efficiency measures**, starting with strong vehicle emissions standards (equivalent to European standards). Australia's cars are among the most energy-intensive in the world, consuming on average 9.1 litres of gasoline equivalent per 100km (about 31mpg). The EU average is around 5.9 litres/100km (48mpg). Better energy efficiency will also improve economic productivity.
4. Regulate to make sure that **hydrofluorocarbon (HFC)** imports and use are phased down to levels proposed by the US, Canada and Mexico. That could cut around 15 million tonnes of greenhouse gas emissions by 2020.
5. The biggest gains before and after 2020 could be achieved through an internationally linked **cap and trade scheme**. A 2013 analysis by London-based Vivid Economics found that this kind of policy could allow Australia's 2020 emission reduction target to jump from 5% to 25% at very little additional cost to the economy. The small delay in GDP growth would be balanced out within two months.

**AN IMPORTANT  
FIRST STEP WOULD  
BE TO RAISE THE  
2020 EMISSIONS-  
CUTTING TARGET  
FROM A WEAK 5%  
UP TO 25%.**

**Many Australian people and businesses are trying to do their part, and want Australia to do more. But the focus on old economic models, vested interests and short-termism gets in the way of pushing forward a sustainable, clean economy.**

For example, renewable energy companies are clamoring to invest in solar, wind and other renewables, but the scrapping of Australia's carbon price in 2014, and the threats to cut the Renewable Energy Target, have meant they're often turned away.

We need vision and stable long-term policies – to provide stability and certainty for business and investors, stimulate innovation, improve economic productivity, create sustainable jobs, protect our natural environment and build a more sustainable future for our children.

*It's all doable and desirable, but it requires political will. In 2015, the Australian government could build on the goodwill created when they announced a financial contribution to the Green Climate Fund, by increasing their 2020 target. This would help build a new era of fair climate talks and sustainable prosperity for Australia.*

**RENEWABLES  
COULD PROVIDE  
AROUND 24%  
OF AUSTRALIA'S  
ELECTRICITY BY  
2020.**

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### **About WWF**

WWF's mission is to stop the degradation of the Earth's natural environment and to build a future in which people live in harmony with nature. The Global Climate & Energy Initiative is WWF's global programme addressing climate change through promoting renewable and sustainable energy, scaling up green finance, engaging the private sector and working nationally and internationally on implementing low-carbon, climate-resilient development.

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# How to Close the Emissions Abyss

## USA

“We want to see Congress deliver President Obama’s pledged \$500million to the Green Climate Fund”

## CHINA

“We’d like to see China speed up the phasing-out of old and inefficient coal-fired power plants right away”



## BRAZIL

“Brazil needs to start making different investments and promoting national low-carbon development by 2020”

## INDIA

“Developed countries should commit to stronger pre-2020 emission targets, and support developing countries”



### Why we are here

To stop the degradation of the planet’s natural environment and to build a future in which humans live in harmony with nature.

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