The Climate Institute

Lima Climate Summit:
Striding or shuffling to Paris

Lima Climate Summit: Striding or Shuffling to Paris?

Policy Brief
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Summary

Governments from around the world will gather in Lima, Peru, for the next annual United Nations Framework Convention on Climate Change (UNFCCC) summit Nov 30-Dec 12, 2014. This meeting represents an important milestone towards defining a new international climate change framework for the period from 2020. The framework for post-2020 action is to be agreed on at the conference in Paris next year.

Recent announcements by the United States, the EU and China on post-2020 emission goals, and pledges to climate finance from the USA, Japan and others, provide important momentum into the Lima conference.

International climate change negotiations are inherently complex as they incorporate environmental, economic, security, trade and energy issues. Undue emphasis on the politics and symbolism of a global treaty has tended to overshadow the substantive practical progress that has been made. Progress can be difficult, yet over the past two decades, much has been achieved.

For example, countries that represent over 80 per cent of global emissions now have 2020 emission targets, and are implementing policies to meet them and drive investment in clean energy and low carbon solutions. Many are taking a broad view of their national interests and seeking to maximise energy security, deliver energy productivity improvements, reduce harmful pollution levels, support regional development, and develop export opportunities.

Domestic actions are a critical contribution to the international process. Domestic actions both make practical progress on emissions reduction and signal a country's ambition, commitment and expertise to the international community.

While significant challenges remain in advance of Paris, global and domestic politics are now dramatically different to those in advance of Copenhagen. Domestic actions have increased; some of the past negotiating stumbling blocks have been smoothed over (like the agreement to new Kyoto Protocol targets in 2012); a successful agreement is a key foreign policy objective for a growing number of countries (for example, the USA, the UK, Germany and a diverse range of developing nations), and; high level bilateral and plurilateral engagement among political leaders is occurring well in advance of Paris (for example, Ban Ki Moon's climate summit, G20 summits, G7 meetings and USA-China bilaterals).

Decisions expected out of the Lima talks include:

1. **To help transparency and support assessment of country targets, definition of the information countries need to include in the post-2020 contributions they have agreed to advance early next year**: This, for example, is needed to translate the recent post-2020 targets by the USA, EU and China into the international framework. The Climate Institute has produced a separate policy brief on Australia's post-2020 contribution.

2. **Narrow down the elements of the post-2020 framework**: In Copenhagen, countries arrived with no broadly supported negotiating text to define the parameters of the outcome. This led to a chaotic and trust-destroying process. Twelve months out from Paris, countries are discussing a text which most see as a useful basis for agreement. Lima will seek to narrow down this text further.

3. **A decision on ways to increase emissions reductions ambitions before 2020**: Recognising the gap between current actions and the emissions reductions required to

avoid a 2ºC increase in global temperature countries have been examining options to increase ambition before 2020.

While the underlying trends in the process remain positive, the Lima meeting is likely to involve a difficult negotiation process. This is inevitable as countries seek to find the balance between clarity on core political issues in the negotiations: emissions reductions commitments, adaptation, climate finance, and the legal form of contributions.

The Climate Institute defines three broad scenarios for the outcomes of Lima:

Stride: Countries make a clear decision on the upfront information that nations should advance on their post-2020 contributions, and establishes a review process on these contributions from June 2015. Climate financing pledges in advance of Lima, and constructive middle ground proposals on incorporating adaption and finance into the post-2020 framework, give confidence to vulnerable developing countries that contributions to support adaptation and low carbon development will continue. Countries leave Lima having narrowed down the options in the draft text for the framework to be agreed in Paris.

Shuffle: Countries agree a decision on the upfront information that nations should advance on their post-2020 contributions but does not elaborate the details of the information to be provided. Lack of sufficient progress on climate financing reduces the confidence of vulnerable developing countries that contributions to support adaptation and low carbon development will continue. This stymies stronger progress. Countries leave Lima with an expansive draft text with much work to be done before Paris.

Collapse: Countries fail to reach agreement on the information they need to put forward in their post-2020 contributions. Old developed vs developing country divides re-emerge over the balance between emission reductions, finance and adaption in the post-2020 framework. Countries leave Lima with no clear mandate to narrow down options in the text of the post-2020 framework.

Australia is one of the world's largest economies and carbon emitters. Total Australian emissions since1990 are the 12th largest of any country. Australia is also the developed country most exposed to climate impacts.

To advance Australia's national interest, and demonstrate its support for "strong and effective" global action, the Australian government should:

1. **Reaffirm support for warming limits:** Restate commitment and support to participate in a new post-2020 framework that is consistent with the national interest of limiting global warming to less than 2ºC above pre-industrial levels.

2. **Declare post 2020 target timeline:** Announce an independent, transparent domestic process to define our initial post-2020 target offer. In line with other major emitters, this offer should be made in early 2015. Emissions reductions consistent with avoiding 2ºC would see Australia reduce net emissions by 40 per cent by 2025 and decarbonise the economy from around 2040.

3. **Provide Climate Finance:** Clearly define its contribution to international climate financing, in particular investments in the Green Climate Fund. Australia's fair share towards public climate finance, including the Green Climate Fund, should be no less than $350 million per annum.

4. **Ratify Kyoto Protocol II:** Make a clear commitment to ratification of the second commitment period of the Kyoto Protocol in advance of the Paris climate summit.

5. **Lift 2020 ambition:** Announce the measures that it will take to increase ambition before 2020 in recognition that the minimum 5 per cent target is inadequate given global action. Low hanging fruit in this regard could include using some of the Emissions Reduction Fund to purchase credible international emission credits under Kyoto II and regulations to limit emissions of super greenhouse gases like HFCs.

Introduction

Governments from around the world will gather in Lima, Peru, for the next annual United Nations Framework Convention on Climate Change (UNFCCC) summit Nov 30-Dec 12, 2014. This meeting represents an important milestone towards defining a new international climate change framework for the period from 2020. That framework for post-2020 action is to be agreed on at the conference in Paris next year.

Recent announcements by the USA, the EU and China on post-2020 emission goals, and pledges to climate finance from the USA, Japan and others, provide important momentum into the Lima conference.

International climate change negotiations are inherently complex as they incorporate environmental, economic, security, trade and energy issues. Undue emphasis on the politics and symbolism of a global treaty has tended to overshadow the substantive practical progress that has been made. In reality, much has been achieved. However domestic actions are still not consistent with the internationally agreed goal of avoiding a 2ºC increase in global temperature above preindustrial levels and that of decarbonising the global economy.[1]

The most recent report of the Intergovernmental Panel on Climate Change (IPCC) said that:[2]

"Without additional mitigation efforts beyond those in place today, and even with adaptation, warming by the end of the 21st century will lead to high to very high risk of severe, widespread, and irreversible impacts globally (high confidence). Mitigation involves some level of co-benefits and of risks due to adverse side-effects, but these risks do not involve the same possibility of severe, widespread, and irreversible impacts as risks from climate change, increasing the benefits from near-term mitigation efforts."

That said, countries representing over 80 per cent of global emissions have now committed to limit or reduce their pollution under UN agreements. These are not hollow words or without self-interested motives. Most countries have implemented domestic policies to help meet these targets.[3]

Countries are implementing policies to drive investment in clean energy and low carbon solutions for a range of reasons. Many are taking a broad view of their national interests and seeking to maximise energy security, deliver energy productivity improvements, reduce harmful pollution levels, support regional development, and develop export opportunities (see section on domestic policy in 2014).

While challenging, with political will, the goal of avoiding 2ºC warming remains achievable.[4] In the absence of technologies to capture and permanently store carbon pollution, even on conservative estimates this would however require around a third of current fossil fuel reserves to remain in the ground.[5]

National actions and interests supporting international negotiations

Domestic carbon laws are being implemented around the world even as the final shape of an international treaty is being negotiated. Over 140 countries now have renewable energy laws and emissions reduction targets.[6] Over 39 national and 23 sub-national jurisdictions have either implemented or are considering mechanisms that put a price on carbon.[7] Nations like the United States are also strengthening regulatory measures to limit traditional coal use and boost energy productivity.[8] The next section outlines major domestic policies announced in 2014.

Domestic actions are a critical contribution to the international process, as they both make practical progress on emissions reduction and signal a country's ambition, commitment and expertise to the international community.

A possible and important outcome from the agreement to be finalised in Paris is a binding obligation for countries to implement binding domestic laws to help them meet their international undertakings.[9]

Conversely, international agreements and negotiations are crucial underpinnings for domestic policy development and build the foundations of trust between nations needed to drive further global ambition.

Many of the actions countries are taking are not motivated solely by climate policy objectives. The realisation that there are multiple co-benefits of action has been another important development since Copenhagen.

For example, China is acting to limit the damaging impact of air pollution on the population's health and economy, and enhance domestic energy security. As an emerging super power, China also wants to enhance its international influence by contributing to an issue that will help shape international affairs over this century. Climate change is also a consideration because the government sees clean energy and low pollution technologies as a key driver in reshaping its economy and delivering future export opportunities. China recognises that climate change itself will have significant impact on China and its internal stability.

Other countries have other national interest drivers. For example, the survival of many small island states depends on strong international action.

It is reasonable to conclude that many countries that are taking a broader and long-term view of their national interest will be best positioned to gain from the transition underway. Early participation can enable positive influence on international outcomes, help manage the inevitable transition to a decarbonised economy, and take advantage of the economic opportunities that action on climate change presents.

Policy developments in 2014

JANUARY

The nine northeast **US** states of the Regional Greenhouse Gas Initiative (RGGI) carbon market tighten the market limit by 45 per cent, boosting carbon prices. **California's** carbon market officially links with that of Quebec, **Canada**.

China brings forward to 2014 its target of limiting coal to less than 65 per cent of energy use (last year it set 2017 as the deadline). China's Hubei province (pop. 57.6 million) invites its five neighbouring provinces to join its emissions trading scheme on a voluntary basis.

EU Parliament votes for the world's toughest carbon dioxide standards for new cars. **Mexico** launches a $3/tonne carbon tax on fossil fuels.[10]

FEBRUARY

China announces plans for a 10 billion yuan ($2.84 billion) fund to fight air pollution. State news reports that Beijing will shut down 300 polluting factories this year and publish a list of industrial projects to be halted or. China's Qingdao city (pop. 3 million) proposes launch of its own carbon market next year, capping emissions of 300 of its largest companies.

US President Barack Obama orders new, higher fuel standards for trucks to be proposed by March 2015 and implemented by March 2016.

Massachusetts requires a new gas-fired power plant to meet declining emissions limits and close down by 2049. **Colorado** sets the US' first emission controls on oil and natural gas operations.

MARCH

EU governments start "backloading" – cutting the supply of new carbon permits into the EU ETS by 53 per cent – to address oversupply and low prices. EU parliament votes to phase down HFC use by two-thirds by 2030, reducing emissions by 1.5 billion tonnes of carbon dioxide equivalent (CO_2e). EU leaders set October deadline to agree 2030 climate and energy goals.

Chinese Premier Li Keqiang says the government will "declare war'' on air pollution by removing high emission cars from the road, closing coal-fired furnaces and capping energy use. The Chinese government announces that companies emitting over 13,000 tonnes of CO_2e annually will be required to start reporting their emissions, ahead of a national carbon market.

Chongqing's carbon market proposes that 250 of its biggest companies cut their carbon emissions by more than 4 per cent per year starting in 2014.

Guangdong announces plans to increase carbon costs for power generators within its carbon market, to speed up emission cuts. Guangdong's carbon market expands coverage to buildings and transport sectors.

Hubei issues 324 million carbon permits ahead of its carbon market launch on April 2.

Shanghai announces plans to get its citizens driving more than 10,000 electric or hybrid cars by 2015, by offering subsidies and installing charging stations.

US announces plans to replace super-potent HFCs with lower-emission chemicals in motor vehicle air conditioners, commercial refrigeration, plastic foam products, and consumer aerosols.

Chile plans a tax on carbon emissions.

Kazakhstan's carbon market launches.

APRIL

France sets a new EUR 7/tonne ($8/tonne) carbon tax on coal, natural gas, heating oil and from 2015 liquid fuels. Next year the tax is set to rise to EUR 14 ($16/tonne) and to EUR 22 ($25/tonne) in 2016.

Hubei's carbon market launches in **China**.

MAY

Brazil sets final rules for forest use, allows tradable credits in an effort to encourage reforestation.

EU announces it's on track to reduce emissions by nearly 25 per cent below 1990 levels by 2020, beating its 20 per cent target.

JUNE

US EPA proposes rules to cut carbon pollution from power plants by 30 per cent by 2030.

Japan and **India** plan carbon offset deal. **China** launches its seventh pilot carbon market in Chongqing city.

World Bank says global GDP could rise by $2.6 trillion a year through improved energy efficiency, waste management and public transport.

JULY

India expands support for solar energy projects and raises its tax on coal production to 100 INR ($6) per tonne.

Switzerland warns it will raise its tax on energy emissions by 40 per cent if companies fail to cut carbon by 24 per cent below 1990 levels this year.

Germany pledges EUR 750 million ($0.9 billion) to the UN Green Climate Fund, set up to finance carbon reduction and adaptation in developing countries.

China releases plan to boost electric and low-emission vehicles.

Mexico plans to tighten emissions rules for heavy-duty trucks and signs pact to cooperate with **California** on advancing cross-border investments in clean energy.

AUGUST

Beijing, China brings another 120 companies into its carbon market, up from 490 when it launched last year.

SEPTEMBER

China releases draft pollution law that considers a national cap on coal consumption and a ban on the import of low-quality coal.

South Korea confirms emissions cap ahead of carbon market launch next year.

Chile imposes South America's first carbon tax: $5 per tonne on emissions from power generators.

France pledges $1 billion to the Green Climate Fund.

Mexico, **South Korea**, **Denmark**, **Luxembourg** and the **Czech Republic** also make pledges bringing the GCF's total to $2.3 billion.

The **EU** promises $3 billion to help developing countries cut carbon.

The **US** and **India** agree to a strategic partnership on energy security, clean energy, and climate change. **India** agrees to support a global phase-down of HFCs.

OCTOBER

Canada launches the world's first commercial-scale carbon capture and storage project at a coal-fired power plant.

Sweden announces $500 million for Green Climate Fund.

The **EU** confirms its 2030 climate and energy targets: a cut in carbon pollution of at least 40 per cent below 1990 levels, 27 per cent of total energy to come from renewable sources, and a 27 per cent improvement in energy efficiency compared with projected consumption.

NOVEMBER

US and **China** announce their broad-brush post post-2020 emission reduction targets. The USA indicates 26-28 per cent emissions reductions on 2005 levels by 2025. China flags a peak in national emissions before 2030.

The **US** indicates it will contribute US$3 billion in climate financing to the Green Climate Fund. Japan indicates a US$1.5 billion contribution.

G20 reinforces that countries should seek to advance their post-2020 emission reduction goals well in advance of Paris (and by April for those countries in a position to do so) and reiterates support for the Green Climate Fund.

From Copenhagen to Lima

While current international commitments remain insufficient to limit global warming to less than 2°C, international climate change negotiations have made significant advances over recent years:

- Copenhagen 2009 – "Copenhagen Accord" asks countries to advance 2020 emission targets, agreement on the need to avoid 2°C in global temperature, and sets the ambition of public and private sector climate financing to $100 billion by 2020;[11]
- Cancun 2010, which enshrined for the first time a commitment to reduce emissions from all major emitters under the UN framework;[12]
- Durban 2011, which secured an agreement to finalise a binding agreement covering quantified emission commitments from all major emitters;[13]
- Doha 2012, where countries agreed the next commitment period of the Kyoto Protocol and streamlined the pathway towards the binding agreement in Paris in 2015;[14] and
- Warsaw 2013, where countries agreed to define a draft negotiating text in 2014 so it can be considered in Lima, and all countries were invited to initiate domestic preparations to advance their post-2020 contributions well in advance of the Paris summit (by the first quarter of 2015 by those countries ready to do so).[15]

While significant challenges remain in advance of Paris, global geopolitical and domestic situations today are dramatically different to those in advance of Copenhagen. Domestic actions have increased, some of the past negotiating stumbling blocks have been smoothed over (like the agreement to implement new Kyoto Protocol targets), a successful agreement is a key foreign policy objective for a growing number of countries (for example, the USA, the UK, Germany, and a diverse range of developing countries), and high level bilateral and plurilateral engagement among political leaders is occurring well in advance of Paris (for example, Ban Ki Moon's climate summit, G20 and G7 meetings and USA-China bilaterals).

Internationally, more and more countries are seeing effective global action on climate change as central to their long-term national interests.

Key decisions at the Lima climate summit

The Lima 2014 climate summit is an important milestone towards Paris. Decisions expected out of the talks include:

1. **Define the information countries need to include when they advance their post-2020 emission contributions next year**: All major emitters have targets to control carbons emissions to 2020, for example Australia has agreed to reduce emission by 5-25 per cent on 2000 levels by 2020. These targets are captured under the Kyoto Protocol and/or the Cancun Agreements. Last year in Warsaw, countries agreed to start domestic processes to define new contributions to global action on climate change for the period post-2020. Defining the information countries should advance would allow for the translation of the targets already advanced by the USA, China and the EU, and those to be advanced next year into the international framework. (The Climate Institute has produced a separate policy brief on Australia's post-2020 contribution.[16])

2. **Narrow down the elements of the post-2020 framework**: In Copenhagen, countries arrived with no broadly supported negotiating text to define the parameters of the outcome. This led to a chaotic and trust-destroying process. Twelve months out from Paris, countries are discussing a text which most see as a useful basis for agreement. Lima will seek to narrow down this text further. A draft negotiating text needs to be sent to the UN in May 2015 to meet the legal requirements for agree a new legal instrument under the UNFCCC in Paris.

3. **A decision on ways to increase emissions reductions ambitions before 2020**: Recognising the gap between current actions and the emissions reductions required to avoid a 2ºC increase in global temperature countries have been examining options to increase ambition before 2020. With the UNFCCC, process countries have been examining options to increase ambition through energy efficiency, renewable energy, and short-term emission reduction options. This process has been valuable in demonstrating best practices, and demonstrating the economic benefits of certain actions.

Balancing mitigation, adaptation and finance

Central to any outcome in Lima will be finding the balance between capturing emissions reductions contributions, and the other three the key political issues[17] in the post-2020 framework negotiations:

- **Adaptation**: Over time, discussions of how to facilitate adaptation to climate change under the UNFCCC have become increasingly prominent. This issue is a high priority for many countries in the developing world, in particular the Alliance of Small Island States (AOSIS), the Africa Group, and the Least Developed Countries (LDCs). Current discussions focus around issues about the establishment of a global adaptation goal, whether all nations should be submitting plans on how they adapt to the impacts of climate change, and the financial support the most vulnerable may need in addressing unavoidable climate change impacts. There is a risk that disagreements regarding adaptation (and finance below) will fall into traditional developed versus developing patterns and shape the broader dynamic of the Lima meeting.

- **Climate finance**: In the context of emissions reductions efforts from all countries, developed countries have agreed to facilitate US$100 billion by 2020 in public and private finance to help developing countries reduce emissions and adapt to climate impacts. Although private finance, in particular, is increasing, progress on public financing goal has been slow. Until recently, developed countries have been slow to share plans for scaling up their contributions, and the Green Climate Fund (GCF), a central vehicle for public finance disbursement. About $8 billion is currently pledged in public contributions. More pledges will likely be announced ahead of Lima.

  It is important for developing countries that developed countries follow through on their financing commitments, so close attention will be paid to the GCF pledges. Countries are divided over the treatment of finance in the Paris agreement, with some wanting to include finance as an element of countries' national targets and others aiming to keep the issue on a separate track.

- **Legal form**: In the past, the symbolism of failing to agree a new legally binding treaty has distracted from the progress that has been made domestically and internationally to reduce emissions. Legally binding instruments can build confidence that countries will act on the commitments they make internationally. However, the legal form of an international agreement does not determine its effectiveness.[18] The most binding treaty will do little to address climate change if some major emitters like the US and China do not participate. Also, countries continue to implement policies to meet their current 2020 targets even if they and not strictly speaking internationally binding. For example, the US does not have a binding 2020 target, but is implementing policies that have legal force at a domestic level to achieve this target (e.g. regulations to control emissions from vehicles and power stations).

  To balance ambition and boost participation in the post-2020 framework, countries are moving towards a hybrid agreement which includes a new legally binding instrument at its core, including a binding commitment to attach a target to the post-2020 framework. However the emission reduction commitments attached to this agreement may not themselves be internationally binding. This outcome would likely achieve the best possible emission reduction outcomes in the medium term.

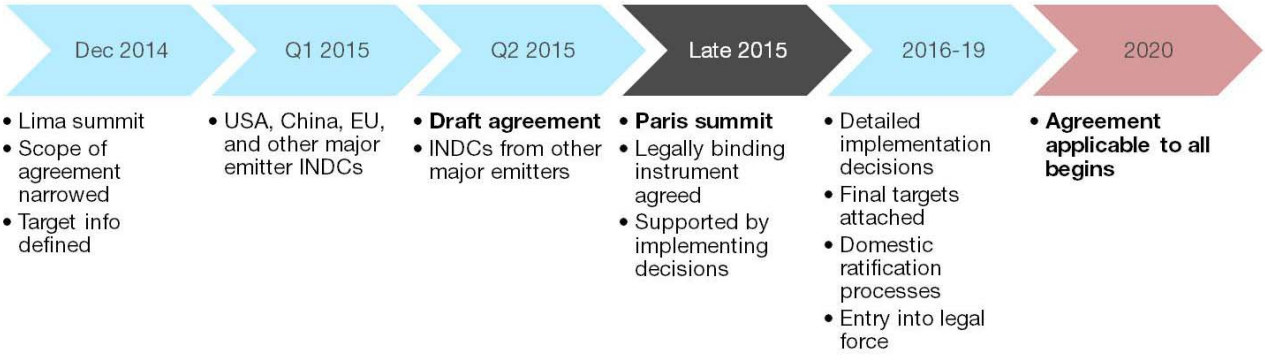
From Lima to Paris and beyond

Figure 1 outlines the process from Lima to Paris and beyond. The UNFCCC process is, by its, nature an evolving process. For example, the Paris outcome will provide a broad framework but some issues will require elaboration and operative decisions to be agreed over the period 2016-19. This occurred with the Kyoto Protocol and is not unlike Australia's law making processes – legislation is passed then in many cased regulations need to be agreed to operationalise elements of the law.

Key deadlines after Lima are:

- **First quarter 2015**: Countries in a position to do so to advance post-2020 contributions. The US, EU and China appear likely to meet this deadline at least given they have already announces the board parameters for their contributions.
- **Second quarter 2015**: Draft agreement negotiating text circulated by May. Other major emitters advance their post-2020 contributions.
- **Third and fourth quarters 2015**: International process to review and scrutinise post-2020 contributions and how they relate to the collective 2ºC goal.
- **December 2015**: Paris summit – new legally binding instrument agreed, with supporting decisions and political declarations.
- **Post 2015**: Implementing decisions agreed, and domestic ratification processes undertaken.
- **2020**: New agreement applicable to all starts.

Figure 1 – Timeline for the development of the post-2020 framework.



Money talking

Carbon and climate risks being mainstreamed

The financial sector has been moving rapidly on climate issues this year, partly thanks to growing awareness of fossil fuel companies' assets becoming stranded and "unburnable" if the world acts to avoid a 2ºC increase on global temperature.

In 2011 Carbon Tracker, a UK-based think tank, released a report which found that only about a fifth of global fossil fuel resources can be burned if the world is to maintain a good (80 per cent) chance of limiting global warming to 2ºC.[19] A year later, the International Energy Agency adopted the approach.[20]

Investors in Australian stock markets are particularly exposed to the carbon risk through the local stock market's heavy resource bias; particularly in coal. Australian-focused research by The Climate Institute and Carbon Tracker shows that if all the coal resources of listed companies is burnt, Australia would eat up around three-quarters of the global carbon limit that is consistent with avoiding 2ºC of warming.[21] In other words, Australia is quite vulnerable to a "stranded assets" scenario in which previously valuable reserves become worthless.

JANUARY

Global banks support Green Bond Principles: The announcement from banks including Bank of America Merrill Lynch, Citi, Crédit Agricole, JPMorgan Chase, BNP Paribas, Daiwa, Deutsche Bank, Goldman Sachs, HSBC, and Morgan Stanley paves the way for more issuance of these fast-growing financial instruments.

United Nations Environment Program launches an inquiry into policy options for a sustainable financial system, due to report in 2015. The inquiry's background report points out that the Basel III bank capital rules act as a disincentive to financing low carbon investments.

Foundations worth $1.8 billion pledge to divest from fossil fuels and invest in clean energy. The group includes Wallace Global Fund and John Merck Fund.

FEBRUARY

A group of investors file shareholder resolutions with 10 energy companies, including ExxonMobil, demanding disclosure of their business strategies for a low carbon future.

MARCH

Norway sets up an expert group to see if its $840 billion oil fund should stop investing in fossil fuel companies. The group will report back in 2015.

BP writes in its annual sustainability review that "we believe the unburnable carbon approach... overstates the potential financial impact." The UK House of Commons' environmental audit committee says the Bank of England should take advice from

the Committee on Climate Change to monitor the risks to financial stability.

ExxonMobil publishes two reports disclosing its assumptions on climate risk in response to shareholder proposals. The company says it accepts that carbon dioxide from fossil fuels is creating potentially dangerous increases to global temperatures, but also said it was "highly unlikely" that greenhouse gas emissions will be sufficiently regulated to achieve the 2ºC target, and that it is therefore "confident that none of our hydrocarbon reserves are now or will become 'stranded'."

APRIL

The IPCC says investment in fossil fuel energy generation needs to fall by $30 billion a year, while investment in low-carbon plants – nuclear, renewables and carbon capture – needs to rise $147 billion a year with a further $336 billion per year in transport, buildings and industry will be needed to keep global warming to 2ºC.

FTSE and Blackrock team up to launch the first indices from a leading index group that specifically bar fossil fuel companies.

MAY

Stanford University's $18.7 billion endowment fund announces it will sell its investments in companies involved in coal mining. Harvard University students blockade administrative offices as part of their campaign to persuade the institution to sell its endowment's investments in fossil fuel companies.

$1.1 trillion of planned capital expenditure identified at risk: Carbon Tracker Initiative research finds that planned investments over the next decade in oil sands, deepwater and Arctic oil extraction will be lost if policymakers agree to cut carbon emissions.

JUNE

The report "Risky Business: The Economic Risks of Climate Change in the United States," is launched by high profile financial experts including former Treasury Secretaries George Shultz, Rob Rubin and Hank Paulson, with Michael Bloomberg and Tom Steyer.

JULY

Credit ratings agency Standard & Poor's publishes a report on carbon constraints for the coal sector, saying "a significant decline in production and consumption is becoming a much more realistic scenario".

SEPTEMBER

Investors representing $500 billion worth of assets take the Montreal Carbon Pledge to carbon footprint their portfolios. Institutional investors representing over $24 trillion in assets call on governments to provide stable and reliable carbon pricing and phase out subsidies for fossil fuels. The Low Carbon Investment Registry, a global public online database of low carbon investments made by institutional investors, launches.

Oxford University's Smith School of Enterprise and the Environment publishes a paper finding that investment strategies based on ESG principles correlate to higher returns. HESTA, one of Australia's largest superannuation funds, announces portfolio-wide restrictions on new investments in thermal coal. Medium-sized Australian super fund LG Super announces it will sell holdings of shares in companies with significant exposure to oil sands or coal.

MSCI launches a family of low-carbon indices at the request of several asset owners and managers. The Rockefeller Brothers Fund announces it will divest from fossil fuels. New Climate Economy launches the "Better Growth, Better Climate" report, which points to vast benefits to global economy from sustainable infrastructure investment and reduction of fossil fuel and fertiliser subsidies. The New Climate Economy group is chaired by former Mexican president Felipe Calderon and Nicholas Stern.

OCTOBER

Glasgow University announces it will divest its entire endowment from fossil fuels. Sweden's national pension fund announces it will divest from 20 fossil fuel companies. Investors managing more than $3 trillion of assets demand 45 of the world's top oil and gas, coal and electric power companies assess the financial risks that climate change poses to their business plans, under the umbrella of the Carbon Asset Risk initiative (CAR).

Scenarios for Lima

While the underlying trends in the process remain positive, the Lima meeting is likely to involve a difficult negotiation process. This is inevitable as countries seek to find the balance between clarity on emissions reductions commitments, adaptation, and finance.

The Climate Institute defines three broad scenarios for the outcomes of Lima:

- **Stride**: Countries make a decision on the upfront information that nations should advance on their post-2020 contributions. This includes a clear list of the information to be included (e.g. 2025 or 2030 targets), and establishes a review process on these contributions from June 2015. Climate financing pledges in advance of Lima give confidence to vulnerable developing countries that contributions to support adaptation and low carbon development will continue. Middle-ground developed and developing countries advance concrete proposals that see a balance being struck between emissions reductions, climate finance, and adaptation tracks in the negotiations. This includes a political parity between these three elements being achieved, and a clear process forward on how adaptation and finance will be integrated as central features of post-2020 framework. Countries leave Lima having narrowed down in draft text the options for the framework to be agreed in Paris. A high-level forum is created to feed into the Paris meeting on how countries can increase their ambition before 2020.
- **Shuffle**: Countries agree a decision on the upfront information that nations should advance on their post-2020 contributions. This reiterates that the information be transparent but does not elaborate the details of the information to be provided. Low climate financing pledges around Lima reduce confidence of vulnerable developing countries that contributions to support adaptation and low carbon development will continue. Lack or middle group proposals from progressive developed and developing countries weakens progress on how adaptation and finance will be integrated as a central feature of post-2020 framework. A process on these elements is agreed, but it lacks definition. Countries leave Lima with a loose framework still to be agreed in Paris. Significant consolidation is required in early 2015 to meet May deadlines for a negotiating text. A high-level forum is created to feed into the Paris meeting on how countries can increase their ambition before 2020.
- **Collapse**: Countries fail to reach agreement on the information they need to put forward in their post-2020 contributions. Old developed vs developing country divides re-emerge over the balance between emission reductions, finance and adaption in the post-2020 framework. Countries leave Lima with no mandate to narrow down options in the text of the post-2020 framework.

Australia's role

Achieving influence for the national interest

Australia is one of the world largest economies and carbon emitters:[22]

1. As a member of the G20, Australia's economy the 19th largest in the world and accounts for around one per cent of global GDP. Per capita income is the 13th highest globally and 3rd among the G20 nations.

2. Australia is the 13th largest carbon pollution emitter globally and accounts for around 1.3 per cent of global emissions. Australia total emissions are higher than a range of other G20 nations such as the United Kingdom, Saudi Arabia, France, Italy and South Africa. Since 1990 total emissions from Australia are the 12th largest of any country.

3. In per capita terms, Australia emission ranks 8th globally and is the highest per capita emitter in the G20 (and the OECD).

Australia's high emissions, economy and per capita income (and therefore strong capacity to act to reduce emissions), and diplomatic influence is also reflected in its membership of the G20, the Major Economies Forum on Energy and Climate[23], and as chair of the Umbrella Group[24] within the UNFCCC.

As a country very exposed to climate change, it is in Australia's national interest for short-term collective action to be consistent with the agreed long-term objective of international action to limit global warming to less than 2ºC above preindustrial levels. Warming above this level would have severe impacts on the natural systems on which we depend, significantly increase risks to health from more extreme climate events, and exceed the adaptive capacity of many key economic sectors.[25]

To advance, Australia's national interest in strong and effective global action the Australian government should:

1. **Reaffirm support for warming limits:** Restate the government's commitment to participate in a new post-2020 framework that is consistent with the national interest of avoiding a 2ºC in global temperature above pre-industrial levels.

2. **Declare post 2020 target timeline:** Announce an independent, transparent domestic process to define our initial post-2020 target offer. In line with other major emitters, this offer should be made in early 2015. The Climate Institute has previous published a policy brief on the approach Australia should take in advancing post-2020 contributions consistent with the agreed 2ºC goal.[26] This includes 40 per cent net emissions reductions by 2025 and a clear national decarbonisation goal by 2040-2050.

3. **Provide Climate Finance:** Clearly define its contribution to international climate financing, in particular, to the capitalisation of the Green Climate Fund. Australia should allocate an annual average of no less than $350 million to climate finance through bilateral and multilateral mechanisms that include the Green Climate Fund. Australia should maintain its proactive approach to strengthening transparency and accountability in climate financing.

4. **Ratify Kyoto Protocol II:** Make a clear commitment to ratification of the second commitment period of the Kyoto Protocol in advance of the Paris climate summit. Agreement to Kyoto Protocol targets covering the period from 2013-2020 was an essential trusting building measure that enabled an

agreement to finalise a new agreement applicable to all countries in Paris. Australia signed onto the second commitment period with bipartisan political support in 2012, and has since aligned its domestic policies (like the Emission Reduction Fund) to comply with this second Kyoto Protocol target. The Kyoto Protocol's Clean Development Mechanism has been a key driver of investment in developing countries and assisted the development of emissions accounting frameworks as well as carbon markets. Importantly, it is a source of credible international offsets that, subject to ratification, could be accessed by Australia or Australian companies.

5. **Lift 2020 Ambition:** Alongside the development of its national post-2020 contribution, Australia should announce the measures that it will take to increase ambition before 2020.

   Given the level of global action the minimum "unconditional" target of 5 per cent below 2000 levels is inadequate. Conditions shared internationally for a higher reduction target have been met. A number of independent assessments of the bi-partisan backed conditions conclude the 2020 target should be at least 15 per cent by 2020.[27-29]

   With low global carbon prices and low electricity demand these targets and more are achievable. Low hanging fruit in this regard could include:

   - the establishment of a strategic reserve under the Emission Reduction Fund to purchase credible Kyoto II international emission credits to increasepre-2020 ambition and support international carbon markets;[30]
   - regulations to limit emissions of super industrial greenhouse gases like HFCs;[31]
   - set light and heavy vehicle emission standards;[32] and
   - regulations to exit aging and inefficient coal-fired electricity capacity.[33]

Any significant emissions reductions will require clear emission limits on large domestic emitters. This would ensure major emitters not taxpayers take primary responsibility for achieving our emission reduction goals at least cost. The debate over the Government's proposed 'safeguards mechanism' during 2015 and the review of emissions trading to be conducted by the Climate Change Authority provide opportunities to revisit this area of policy.

Endnotes

[1] Intergovernmental Panel on Climate Change, 2014, *Climate Change 2014, Synthesis Report*, IPCC, Geneva.
[2] Intergovernmental Panel on Climate Change, 2014, *Ibid*.
[3] Climate Change Authority, 2014a, *Reducing Australia's Greenhouse Gas Emissions – Targets and Progress Review*, CCA, Melbourne.
[4] Intergovernmental Panel on Climate Change, 2014, *Ibid*.
[5] International Energy Agency, 2012, *World Energy Outlook 2012*, IEA, Paris.
[6] REN21, 2014, *Renewables 2014 Global Status Report*, REN21 Secretariat, Paris.
[7] World Bank, 2014, *State and Trends of Carbon Pricing 2014*, World Bank, Washington, DC.
[8] For example, US State Department, 2013, *U.S. Biennial Report, Draft for Public Review*, Government of the United States of America, Washington, DC.
[9] Center for Climate and Energy Solutions, 2014, *Toward 2015: An International Climate Dialogue, Report of the Co-Chairs*, C2ES, Washington, D.C.
[10] All currencies have been converter to 2013 USD based on World Bank PPP estimates.
[11] E. Jackson and W. McGoldrick, 2010, *Post-Copenhagen Progress and Prospects*, The Climate Institute, Sydney.
[12] The Climate Institute, 2010, *The Cancun Agreement: A Preliminary Assessment*, TCI, Sydney.
[13] The Climate Institute, 2010, *The Cancun Agreement: A Preliminary Assessment*, TCI, Sydney.
[14] The Climate Institute, 2012, *Doha Outcomes: Initial Assessment by The Climate Institute*, TCI, Sydney.
[15] UNFCCC, 2013, *Further advancing the Durban Platform*, Decision 1/CP.19, FCCC/CP/2013/10/Add.1
[16] The Climate Institute, 2014, *Australia's Post-2020 Emission Challenge: Our role in the international cycle of growing ambition*, TCI, Sydney.
[17] Other issues to be addressed in the post-2020 framework include capacity building and technology transfer.
[18] R. Stavins, Z. Ji, T. Brewer, et al., 2014, International Cooperation: Agreements and Instruments, in *Climate Change 2014: Mitigation of Climate Change, IPCC Working Group III Contribution to AR5*, IPCC, Geneva.
[19] Carbon Tracker, 2011, *Unburnable Carbon – Are the world's financial markets carrying a carbon bubble*? Carbon Tracker, London.
[20] International Energy Agency, 2012, *op cit.*
[21] Carbon Tracker, The Climate Institute, 2013, *Unburnable Carbon: Australia's carbon bubble*, TCI, Sydney.
[22] Economic data is based on International Monetary Fund, World Economic Outlook Database, October 2014. Emissions data is based on Climate Analysis Indicators Tool (CAIT) 2.0., 2014, World Resources Institute, Washington, D.C.
[23] The MEF is intended to facilitate dialogue among major developed and developing economies, help generate the political leadership necessary to achieve successful outcomes at the UNFCCC. The 17 major economies participating in the MEF are: Australia, Brazil, Canada, China, the European Union, France, Germany, India, Indonesia, Italy, Japan, Korea, Mexico, Russia, South Africa, the United Kingdom, and the United States.
[24] The Umbrella Group is a loose coalition of non-EU developed countries. The Group is usually made up of Australia, Canada, Japan, New Zealand, Norway, the Russian Federation, Ukraine and the USA.
[25] The Climate Institute, 2014, *op cit*.
[26] The Climate Institute, 2014, *op cit*.
[27] Climate Change Authority, *op.cit*.
[28] The Climate Institute, 2010. *Summary of Freedom of Information Request from The Climate Institute to the Department of Climate Change and Energy Efficiency*: *Documents regarding the influence of foreign emission reduction targets on Australian emission reduction targets*.
[29] R.Garnaut, 2011, *The Garnaut Review 2011: Australia in the Global Response to Climate Change.* Cambridge University Press, Melbourne.
[30] The Government should apportion some of the Emission Reduction Fund to purchase credible Kyoto Protocol-compliant emission units as an insurance policy against the risk that domestically sourced abatement is not available at the scale or price required to achieve
Australia's international carbon budget obligations. This insurance fund should also be used to help meet the stronger emission targets that are in our national interest. See also Climate Change Authority, 2014b, *Using international units to help meet Australia's emissions reduction targets*, CCA, Melbourne.
[31] In advance of the formal agreement under the Montreal Protocol Australia should implement domestic regulations to ensure that HFC imports and use are phased down to levels consistent with the proposed amendments to the USA, Canada and Mexican past proposals.
[32] For example, set vehicle emissions standards consistent with EU and USA levels. See for example, Climate Change Authority, 2014c, *Light vehicle emission standards for Australia*, CCA, Melbourne.
[33] Clear regulatory standards for the power sector should be set in line with the longer-term emission pathways required to meet international commitments to contribute to avoiding a 2°C increase in global temperature. This could include, for example, regulations to close power stations when they reach a certain age.