

Climate change a Chinese hoax? Beijing gives Donald Trump a history lesson

China points out to global warming denier and president-elect that Republicans under Reagan and Bush actually put global warming on international agenda

A protest against climate change outside Trump Tower in New York. Photograph: Kena Betancur/AFP/Getty Images

Tom Phillips in Beijing

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China has rejected Donald Trump's claims that climate change is a Chinese hoax, urging the US president-elect to take a "smart decision" over his country's commitment to the fight against global warming.

Trump, who is **the first self-declared climate change denier to lead one of the world's top emitters**, has dismissed global warming as "very expensive ... bullshit" and claimed the concept "was created by and for the Chinese in order to make US manufacturing non-competitive".

But speaking at UN climate talks in Marrakech on Wednesday, China's vice foreign minister, Liu Zhenmin, pointed out that it was in fact the billionaire's Republican predecessors who launched climate negotiations almost three decades ago.

"If you look at the history of climate change negotiations, actually it was initiated by the IPCC [Intergovernmental Panel on Climate Change] with the support of the Republicans during the Reagan and senior Bush administration during the late

1980s,” Liu was quoted as saying by Bloomberg.

The IPCC was set up by the UN Environment Programme and the World Meteorological Organisation (WMO) in 1988 in a bid to better understand and respond to the risks of climate change. It received the 2007 Nobel peace prize for helping build “an ever-broader informed consensus about the connection between human activities and global warming”.

Less than three months ago climate campaigners were celebrating after China and the US, the world’s biggest greenhouse gas emitters, agreed to ratify the Paris climate agreement during a meeting between the Chinese and US presidents, Xi Jinping and Barack Obama.

Signatories to the deal, which came into force at the start of November, committed to limiting global warming to no more than 2C above pre-industrial levels, after which scientists believe its effects will become irreversible.

“We have a saying in America that you need to put your money where your mouth is. And when it comes to combating climate change that is what we are doing ... we are leading by example,” Obama said during the announcement in China in September.

But the shock victory of Trump threatens to undo much of that work. The president-elect has pledged to pull out of the Paris climate deal and scrap Obama’s Clean Power Plan to slash US carbon emissions.

“A Trump presidency might be game over for the climate,” Michael Mann, a prominent climate researcher, told the Guardian last week.

Fears over the environmental cost of a Trump presidency have been heightened by reports that Myron Ebell, a notorious climate change skeptic, has been appointed to head his Environmental Protection Agency transition team.

Such concerns have dominated the UN Climate Change Conference in Marrakech, the first such meeting since the historic 2015 talks in Paris. The Morocco talks began on the eve of the election and conclude on Friday.

With some fearing Trump’s victory could embolden other fossil fuel-rich countries to step back from their commitments under the Paris deal, China’s vice foreign minister told reporters it was “essential” the US continued to back the agreement.

“We hope that the US will continue to play a leadership role in the climate change process as people are worried about a repeat of the experience of the Kyoto protocol,” which Washington never ratified, Liu told reporters.

“We shall have to wait and see what position they will take ... [But we] expect that they will take a right and smart decision to live up to the world’s expectations,” he

added, [according to Xinhua, China's official news agency](#).

John Kerry, the outgoing US secretary of state, [has sought to reassure politicians and activists in Marrakech](#) while conceding that Trump's victory had left the international community "feeling uncertain about the future".

['No one's an exception': toll of climate change, from US to the Marshall Islands – video](#)

"While I can't stand here and speculate about what policies our president-elect will pursue, I will tell you this: in the time I have spent in public life, one of the things I have learned, some issues look a little bit different when you're actually in office compared to when you're on the campaign trail," [Kerry told delegates at the talks](#).

He added: "No one, no one should doubt the overwhelming majority of the citizens of the US who know climate change is happening and who are determined to keep our commitments in Paris."

But with the American commitment to fighting climate change suddenly in doubt, activists have urged Beijing to continue leading the international effort.

"Not only is climate change no Chinese hoax, but Chinese seriousness may be our best hope," Deborah Seligsohn, an expert in environmental governance from the University of California at San Diego, argued [in an article on the China Dialogue environmental website](#).

John Kerry: We will fight to keep US in the Paris climate deal

Secretary of state says the outgoing Obama administration is determined to prevent Trump withdrawing the US from the landmark deal



John Kerry warns of climate threat at talks overshadowed by Trump

Arthur Neslen in Marrakech and Fiona Harvey

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John Kerry has signalled that the outgoing Obama administration is preparing a fight to ensure that Donald Trump does not [withdraw the US from the landmark Paris agreement](#), to prevent catastrophic climate change.

“This is bigger than one person, [one president](#),” the US secretary of state said in Marrakech, before his last address to the UN climate summit being held there. “We have to figure out how we’re going to stop this.”

President Obama is walking a fine line before leaving office, between an imperative to staunch the threat that climate change poses to US and global interests, and the need to respect the results of last week’s US election.

In a speech that pulled few punches, Kerry made a detailed and often emotional plea to the incoming US president to listen to faith leaders, military chiefs, businessmen, activists and – above all – climate scientists, before [abandoning future generations](#) to the ravages of climate change.



Trump administration could roll back US environmental protection, critics fear

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“I ask you on behalf of billions of people around the world,” he said. “Do your own due diligence before making irrevocable choices.

“No-one has the right to make decisions that affect billions of people based solely on ideology or without proper input.”

Minutes before he spoke, the US released [the first long-term climate strategy under the Paris agreement](#), offering a blueprint for reducing national emissions by 80% by 2050, measured against 2005 levels.

That presentation, like Kerry’s words, was given added urgency by the UN forecasting that [2016 will very likely be the hottest year on record](#), setting a new high for the third year running.

Kerry said: “This year will contribute to the hottest decade in human history, which was preceded by the second hottest decade, which was preceded by the third hottest decade. At some point even the strongest climate sceptic has to acknowledge that something is happening.”

In a meeting across from the room that Kerry spoke in, business leaders added their weight to the calls for the Paris agreement to be protected.

Kevin Rabinovitch, the global sustainability director for Mars Inc, said: “We are a food business. We have supply chains all over the world and at the base of every business is a farm, which is exposed to the climate. Since climate change affects the raw materials we buy, we are affected by it and if we don’t prevent the consequences

that have been predicted, they will have a real impact for our business.”

Kerry held out some hope of continued progress to slow climate change, outlining the unparalleled growth of the US renewable energy industry since Obama’s 2008 poll victory, citing a tripling of wind power since 2008, and a 30-fold increase in solar capacity.

But he stressed that with new coal plants coming online in Asia and other parts of the world, the impressive gains made by renewables - starting from a low baseline - would not be enough to prevent a climatic disaster.

“The question now is not whether we will transition to a clean energy economy. That, we are already beginning to do,” Kerry told the packed hall. “But whether we will have the will to get this job done – whether we will make the transition in time... to prevent catastrophic damage.”

“I’m not a Cassandra, but I am a realist,” he added. “Time is not on our side.”

Coal is still responsible for 30% of the world’s energy production, and 50% of its emissions, while renewables still only provide just over a tenth of the world’s power, Kerry noted.

His address was peppered with implicit and explicit references to the climate sceptic Trump. He said that government leadership was “absolutely essential” to the clean power transformation, and hinted that Trump’s promise to withdraw from the Paris climate pact might be tempered with the realities of office.

“I have learned that some issues look a bit different when you are in office, compared to when you’re on the campaign trail,” he said. “The truth is that climate change should not be a partisan issue in the first place.”

With a flourish, Kerry finished his address with a reference to his decision to carry his two-year-old granddaughter on to the stage to sign the Paris agreement. “Let us make clear to the world we will always remember the stakes. Let us stay clear to the goals made in Paris and redouble our efforts to meet them,” he said.

Delegates jumped to their feet for a spontaneous two minute standing ovation, in a collective release of emotion by delegates who remain uncertain and fearful at the prospect of a Trump presidency.

In London, the world’s leading energy watchdog warned that promises by Trump to revive the fortunes of the US coal industry may be doomed to failure.

The International Energy Agency, in its annual [World Energy Outlook](#), found that coal was “at an inflexion point” with a marked decline in consumption in the biggest market, China.

Fatih Birol, executive director of the IEA, told the Guardian in an interview: “Coal is losing ground because it is losing competitiveness. In the US gas is cheaper than coal.”

It would take major policy shifts to change these economics, he said. “Gas will be a very economic option [for decades] unless there are new government policies and new fiscal measures to change the balance.”

Birol issued a veiled warning to Trump that policy should be based on the realities of the energy sector: “We give the same advice to all leaders across the world: making decisions about the energy sector needs good information and an overview of developments, including technological improvements. Any decision making, in my view, needs to look at the latest data across the sector very carefully.”

He added: “Decisions taken [by governments] about the energy sector have very long lasting implications, and not just for this sector, but across the whole economy, and they have environmental and social impacts.”

Trump seeking quickest way to quit Paris climate agreement, says report

The president-elect wants to bypass the theoretical four-year procedure to exit the accord, according to a Reuters source



Indigenous people from the Mesoamerican Alliance of Peoples and Forests protest at the climate change talks in Marrakech, Morocco. Photograph: Youssef Boudlal/Reuters Staff and agencies

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09.39 GMT

Donald Trump is looking at quick ways of withdrawing from the [Paris climate agreement](#) in defiance of widening international backing for the plan to cut greenhouse gas emissions, Reuters has reported.

Since the US president-elect was chosen, governments ranging from China to small island states have reaffirmed support for the 2015 Paris agreement at 200-nation [climate talks running until 18 November in Marrakesh, Morocco](#).

But, according to Reuters, a source in the Trump transition team said the victorious Republican, who has called global warming a hoax, was considering ways to bypass a theoretical four-year procedure for leaving the accord.

Donald Trump presidency a 'disaster for the planet', warn climate scientists

“It was reckless for the Paris agreement to enter into force before the election,” said the source, who works on Trump’s transition team for international energy and climate policy, speaking on condition of anonymity. [The Paris agreement went into force on 4 November](#), four days before last Tuesday’s election.

Alternatives were to send a letter withdrawing from a 1992 convention that is the parent treaty of the Paris agreement, voiding US involvement in both in a year’s time, or to issue a presidential order simply deleting the US signature from the Paris accord, the source told Reuters.

Many nations have expressed hopes the United States will stay. [Morocco](#), the host for the talks, said the agreement that seeks to phase out greenhouse gases in the second half of the century was strong enough to survive a pullout.

“If one party decides to withdraw that it doesn’t call the agreement into question,” foreign minister Salaheddine Mezouar told a news conference.

Despite the threat of a US withdrawal, US secretary of state [John Kerry](#) said on Sunday that he would continue his efforts to implement the Paris agreement until Barack Obama leaves office on 20 January.

Speaking in New Zealand following a trip to Antarctica, Kerry appeared to take a swipe at Trump when he listed some of the ways in which global warming could already be seen. He said that there were more fires, floods and damaging storms around the world, and sea levels were rising.

“The evidence is mounting in ways that people in public life should not dare to avoid accepting as a mandate for action,” Kerry said.

[paris](#)

“Now the world’s scientific community has concluded that climate change is happening beyond any doubt. And the evidence is there for everybody to see,” Kerry said.

[The Paris agreement](#) was reached by almost 200 nations in December and, as of Saturday, has been formally ratified by 109 representing 76% of greenhouse gas emissions, including the United States with 18%.

The accord seeks to hold global warming to no more than 2C above pre-industrial levels to limit rising temperatures that have been linked to increasing economic damage from desertification, extinctions of animals and plants, heat waves, floods and rising sea levels.

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United Nations climate chief Patricia Espinosa declined to comment on the Trump source's remarks to Reuters.

"The Paris agreement carries an enormous amount of weight and credibility," she told a news conference. She said the UN hoped for a strong and constructive relationship with Trump.

The Trump source blamed US president Barack Obama for joining up by an executive order, without getting approval from the Senate. "There wouldn't be this diplomatic fallout on the broader international agenda if Obama hadn't rushed the adoption," he said.

Donald Trump presidency a 'disaster for the planet', warn climate scientists

Leading scientists say the climate denier's victory could mean 'game over for the climate' and any hope of warding off dangerous global warming

Trump has called global warming a 'bullshit' Chinese-invented hoax and wants the US to exit the Paris climate deal. Photograph: Mark Wilson/Getty Images

[Oliver Milman](#) in New York

[@olliemilman](#)

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14.40 GMT

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The ripples from a new American president are far-reaching, but never before has the arrival of a White House administration placed the livability of Earth at stake. Beyond his bluster

and crude taunts, Donald Trump's climate denialism could prove to be the lasting imprint of his unexpected presidency.

"A Trump presidency might be game over for the climate," said Michael Mann, a prominent climate researcher. "It might make it impossible to stabilize planetary warming below dangerous levels."

Kevin Trenberth, senior scientist at the US National Center for Atmospheric Research, added: "This is an unmitigated disaster for the planet."

Trump has vowed to sweep away the climate framework painstakingly built over Barack Obama's two terms. At risk is the Paris climate accord, which [only came into force last week](#), and Obama's linchpin emissions reduction policy, the [Clean Power Plan](#).

At a pivotal moment when the planet's nations have belatedly banded together to confront an existential threat, a political novice who calls global warming a "bullshit" [Chinese-invented hoax](#) is taking the helm at the world's foremost superpower.

"Millions of Americans voted for a coal-loving climate denier willing to condemn people around the globe to poverty, famine and death from climate change," said Benjamin Schreiber, climate director at Friends of the Earth US. "It seems undeniable that the United States will become a rogue state on climate change."

US conservatives are already rubbing their hands in glee at the prospect of a bonfire of regulation. Trump wants the US to exit the Paris deal, which commits nations to keeping the global temperature rise below a 2C threshold, potentially setting off a cataclysmic domino effect where other countries also drop out or ease off efforts to decarbonize. The 2C limit, [which was already a stern challenge](#), now appears perilous.

The [Clean Power Plan](#), the main tool to cut American emissions, is also targeted for elimination, along with [billions of dollars in clean energy funding](#). Republicans will also turn off the tap of aid flowing to developing nations [already struggling](#) with climate change-driven sea level rise, heatwaves and drought.

Bitterly contested fossil fuel projects such as the Keystone development and the [Dakota Access pipeline](#), which has caused unprecedented uproar among native American tribes, would likely be waved through, with Trump promising to "lift the Obama-Clinton roadblocks to allow these vital energy infrastructure projects to go ahead".

Environmentalists are already aghast at Trump's presidential preparations. He has [appointed](#) Myron Ebell, director at a conservative thinktank, to oversee transition plans for the Environmental Protection Agency, which Trump has casually earmarked for abolition. Ebell has said global warming is "nothing to worry about" and that the Clean Power Plan is "illegal".

Shortlists drawn up for key Trump administration posts have also raised alarm. Oil billionaire Harold Hamm is being touted as energy secretary, while former vice presidential candidate Sarah Palin could make a stunning comeback as interior secretary, putting her in charge of US public lands, including treasures such as Yellowstone and Yosemite national parks. Palin is an enthusiastic proponent of oil and gas drilling, [describing](#) the fossil fuels as "things that

God has dumped on this part of the Earth for mankind's use".

Republicans have already used Congressional committees to [hound](#) climate scientists and green groups and this badgering may escalate once climate denial is official White House doctrine. It's understood that scientists at Nasa are already bracing themselves for cuts to climate research programs.

Predicting Trump's plans, however, largely relies upon reading the runes from his discursive policy speeches, which regularly dissolved into vituperative diatribes while on the campaign trail.

At the heart of his energy and climate thinking is an "[America first](#)" policy where "draconian climate rules" are repealed and the US escalates its production of coal, oil and natural gas. In May, Trump sported a coal miner's helmet at a rally in West Virginia, a state with a long history of mining, to underscore his message that the "war on coal" is over and that jobs will flow back to the stricken industry.



Trump want to repeal 'draconian climate rules' and increase US production of coal, oil and natural gas. Photograph: Dominick Reuter/AFP/Getty Images

"Under my administration," Trump said, "we'll accomplish complete American energy independence. Complete. Imagine a world in which our foes, and the oil cartels, can no longer use energy as a weapon. It will happen. We're going to win."

These bromides to American industrial strength helped propel Trump to the White House but aren't tethered to reality. US coal production [slumped](#) 10% last year, with mining jobs shrinking by 12%. Over the same 12-month period, the US oil industry [lost](#) \$67bn. These woes have been caused by market forces, rather than onerous regulation, and even Trump's

authoritarianism doesn't extend far enough to change that.

“As president, [Donald Trump](#) will pretend climate change does not exist,” said Prof Tom Lyon of the University of Michigan's business school. “This is an increasingly untenable position, even for committed climate skeptics.

“His energy policy will encourage investment in high-carbon energy sources that will look foolish in retrospect. And he will anger much of the rest of the world by renegeing on policies designed to address global challenges.”

Renewables made up half of net electricity capacity added last year

US greenhouse gas emissions have started to taper off in recent years but a Trump presidency would see a resurgence, with an analysis by Lux Research finding that carbon dioxide output [would be 16% higher](#) than the current trajectory should the real estate magnate complete a second term.

This would give the world a hefty shove towards climate disaster and fatally wound the US's reputation as a global leader. Should other major emitters such as China, India and the European Union fail to make compensatory emissions cuts the planet will likely spiral into runaway climate change where tens of millions of people are displaced by rising seas, food insecurity and conflict, leading to an unprecedented international humanitarian disaster.

Major US cities including New York, Miami and Boston would face inundation. California, already suffering its worst dry spell in 1,200 years, may stage '[megadroughts](#)' that last 20 or even 30 years. The Pentagon has [warned](#) climate change poses a “threat multiplier” to US national security, to hoots of derision from Republicans.

The shift to a low-carbon economy already has its own momentum, however, with the cost of solar and wind power tumbling in recent years. Nearly 100 coal power plants were retired in 2015, with renewables accounting for two-thirds of all new electricity generation.

[New York](#) and [California](#) both have their own ambitious emission reduction plans, conservative states such as Iowa are [embracing](#) wind energy, and innovations from companies such as Tesla, in solar panels and battery storage, are being snapped up by homeowners.

Trumpian interference can only do so much to slow this trend, although plodding progress isn't enough to stave off climate catastrophe. The [UN has warned](#) that global emissions must peak by 2020 and then be sharply reduced in order to avoid the worst. This shrinking window risks being clouded entirely if the US is to choke itself, and the rest of the world, on its fumes.



Artificial turf is rolled out after digging up a lawn due to California suffering its worst dry spell in 1,200 years. If climate action fails under Trump, the US state may experience 'megadroughts' that last 20 or 30 years. Photograph: Lucy Nicholson/Reuters
Stunned environment groups, faced with triumphant climate denialism in all branches of government, are trying to muster defiance. "This could be devastating for our climate and our future," admitted Michael Brune, executive director of the Sierra Club. "But Trump must choose wisely or we guarantee him the hardest fight of his political life. We won't be in a defensive crouch for the next four years, licking our wounds.

"If he tries to go backwards on climate change he'll run headlong into an organized mass of people who will fight him in the courts, in Congress and on the streets."

Others are more conciliatory, with former vice president Al Gore proffering an olive branch along with an enormous dollop of optimism. "Last night President-elect Trump said he wanted to be a president for all Americans," Gore said on Wednesday. "In that spirit, I hope that he will work with the overwhelming majority of us who believe that the climate crisis is the greatest threat we face as a nation."

Whether or not Trump becomes a belated convert to the reality of climate change, the physics of global warming remain unchanged.

2016 will be the [warmest year on record](#), beating a mark set only last year. These extremes, where India [experiences](#) a temperature of 51C (123F) and the Arctic is robbed of almost all [of its winter snowfall](#), are set to become the [norm](#) within a decade. American citizens, from [Alaska](#) to [Louisiana](#), are already being uprooted due to the rising seas, a situation that will become commonplace.

Trump knows enough of the gargantuan shifts underway to [build](#) a seawall for his golf course in County Clare, Ireland. His Mar-a-Lago club in Florida [may have to be next](#). Whether he extends his concern from beyond his own business interests to the rest of the world remains

to be seen.

Military Leaders Urge Trump to See Climate as a Security Threat

Dozens of military and defense experts advised the president-elect that global warming should transcend politics

By Erika Bolstad, ClimateWire on November 15, 2016



Rising sea levels are a threat to naval bases such as the Norfolk Naval Station in Virginia. *Credit: GETTY*

It may well end up in the paper shredder, but a bipartisan group of defense experts and former military leaders sent Donald Trump's transition team a briefing book urging the president-elect to consider climate change as a grave threat to national security.

The Center for Climate & Security in its briefing book argues that climate change presents a risk to U.S. national security and

international security, and that the United States should advance a comprehensive policy for addressing the risk. The recommendations, released earlier this year, were developed by the Climate and Security Advisory Group, a voluntary, nonpartisan group of 43 U.S.-based senior military, national security, homeland security and intelligence experts, including the former commanders of the U.S. Pacific and Central commands.

The briefing book argues that climate change presents a significant and direct risk to U.S. military readiness, operations and strategy, and military leaders say it should transcend politics. It goes beyond protecting military bases from sea-level rise, the military advisers say. They urge Trump to order the Pentagon to game out catastrophic climate scenarios, track trends in climate impacts and collaborate with civilian communities. Stresses from climate change can increase the likelihood of international or civil conflict, state failure, mass migration and instability in strategically significant areas around the world, the defense experts argue.

Trump hasn't weighed in on climate change as a national security threat, although he has called climate change a "hoax" perpetrated by the Chinese.

Many military leaders say that considering climate change and renewable energy has made their branches more resilient fighting forces and bureaucracies, starting with reducing emissions and creating a nimble fighting culture that is less

dependent on fossil fuels. By reducing their carbon footprint, they become a combatant in the war on rising global temperatures, military leaders say.

But considering climate change a national security problem remains controversial, especially among Republicans.

An executive directive issued in January within the Department of Defense required Pentagon agencies to take climate change into account and to consider its effects when developing plans and implementing procedures.

And President Obama in September ordered federal defense and intelligence agencies to consider the effects of a warming planet in the national security policies, plans and doctrines they develop (*ClimateWire*, Sept. 22).

The memo requires 20 federal agencies to collaborate to make sure decisionmakers have the best available information on climate change impacts and their potential threats to national security. The agencies are as varied as NASA and the National Oceanic and Atmospheric Administration, which gather scientific observations on climate, and the CIA, the National Security Agency and the Department of Defense, which analyze intelligence and develop national security policy.

Republicans have been skeptical of tying climate change to national security. House Republicans this summer passed defense appropriations and authorization bills that bar the Defense Department from spending money on efforts to combat

climate change, including green fuel projects.

And after the White House memo issued in September, Rep. Lamar Smith (R-Texas), the chairman of the House Science, Space and Technology Committee, wrote to national security adviser Susan Rice requesting that the Obama administration offer proof of its assertion that climate change is a national security threat.

Trump won't deter us on climate change

By Gemedo Dalle

Updated 2059 GMT (0459 HKT) November 16, 2016



Marshall Islands can't survive 2 degrees of warming 03:10

Story highlights

- Gemedo Dalle: "Limiting global warming to below 1.5 degrees Celsius can and must be done"
- New research affirms transformational impact of keeping warming below 2 degrees, he says

“Gemedo Dalle is Ethiopia's minister of environment, forest and climate change. Unless

otherwise noted, facts here reflect United Nations Development Program research that the author participated in presenting at the UNFCCC COP in Marrakech, Morocco. The opinions expressed here are his.”

(CNN)Even the recent outcome of the US elections cannot stop those of us dedicated to battling climate change.

No country has said it will walk away from global action. To the contrary, countries including China, members of the European Union, Japan and Saudi Arabia have all reconfirmed their commitment to implement the Paris Agreement. Others, such as Australia, Pakistan and Italy, have even joined the agreement in the days since the US elections. French President Francois Hollande and UN Secretary-General Ban Ki-moon [have called on](#) President-elect Trump to drop his campaign pledge to cancel the Paris Agreement; Ban called the Paris Agreement "unstoppable."

Together they send a resounding message: The countries of the world will forge on. Those that do will be better off by skipping all the downsides of a 19th century development model characterized by the burning of fossil fuels to achieve economic growth, while cashing in on more jobs, more growth and a higher quality of work and life.

Climate change poses an existential threat to vulnerable countries around the world. Inaction in the face of worsening climate shocks risks moving the UN's Sustainable Development Goals beyond our reach. Tackling climate change, on the other hand, presents opportunities. The case for highly ambitious efforts on climate change is now so compelling that addressing global warming is no longer about burden sharing on emission cuts. It is now about securing the most benefits by taking action.

When the world came together to produce the Paris Agreement in December 2015, all nations agreed to limit warming to well below 2 degrees. In that pact, now already in force, we committed to pursue efforts to ensure temperatures would even be half a degree lower at just 1.5 degrees, only just above the warming we have experienced to date.



[Climate change worries escalate as Trump elevates top deniers](#)

Half a degree Celsius -- it doesn't sound like much, but it is a number that could transform the face of the world as we know it.

At the first global talks after the Paris Agreement, held in Marrakech, Morocco, this month, we are presenting new research from the United Nations Development Program, and science and policy institute Climate Analytics, as commissioned by the more than 40 member countries of our Climate Vulnerable Forum. The report, the [Low Carbon Monitor](#),

demonstrates with great clarity just how much of a difference half a degree can make. If we pass 1.5, new weather extremes will gravely imperil countries like the Maldives and the Marshall Islands as well as large, populated low-lying territories in Bangladesh, Vietnam and Egypt, with sure-fire submergence under rising seas. Going beyond 1.5 degrees of warming means the virtual disappearance of the world's coral reefs within the lifetime of most people alive today. It would also increase heatwave spells for multiple regions by an entire month yearly and raise risks of crop yield losses for key breadbasket areas of Africa and Central America by 10-15% in the coming decades.



[Climate change: How to save 12.6 million lives per year](#)

Keeping warming down also does more than reduce risk; its benefits can save lives. Greenhouse gas emission controls will help tackle the problem of air pollution, which already [causes more deaths](#) than [alcohol](#) or [tobacco](#). The need to curb emissions also motivates expansion of renewable energy. Current policies would still leave over 1 billion people without electricity by 2030. In fact, to achieve universal access to energy 14 years from now, 60% of new energy must come outside of traditional grids. The logistical and infrastructure advantages of renewable energy are plain for all to see.

The required action to keep us below 1.5 is just too ambitious, some say. Well, Costa Rica has gone more than [200 days](#) in the past year with 100% of its energy production derived from renewable sources.

In fact, it is possible that keeping warming below 1.5 degrees might spur greater economic growth. According to the new estimates released in the report, it could raise global economic output by \$12 trillion by 2050 in particular because countries would avoid so many of the devastating impacts associated with higher levels of warming. The benefits of tackling climate change can also be passed on to workers. Producing energy from coal or oil creates the least possible jobs, whereas sustainable biomass or renewable hydro-energy have among the highest employment contributions. Ambitious climate policies could thereby double global energy jobs come 2050.

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For all to have access to these benefits, the least developed, low- and middle-income developing countries like Ethiopia, Costa Rica or the Philippines still require partnerships with more advanced countries, investors and industrial pioneers to access new clean energy technologies, to bridge investment shortfalls when they leave the polluting carbon path, and to develop skills and know-how that remain the domain of large and advanced economies. Renewable energy costs are already substantially lower than just a few years ago. Already they are competing at cost with carbon-intensive energy in a low-price oil market still

distorted by hundreds of billions of dollars of fossil fuel subsidies. According to the Low Carbon Monitor report, if all embrace low emissions development, renewable energy could be five times cheaper or more by 2050, a vision of a low-cost energy future we believe everyone wants and deserves.

Limiting global warming to below 1.5 degrees Celsius can and must be done. We will make it happen not just to survive, but also to thrive.

Climate change worries escalate as Trump elevates top deniers

By [Gregory Krieg](#), CNN

Updated 2327 GMT (0727 HKT) November 16, 2016

Story highlights

- Trump could have a huge effect on the US involvement in climate change
- He is relying on top climate change skeptics to run elements of his transition

(CNN) As the shape of President-elect Donald Trump's new administration comes into focus, environmental activists and organizations who had found an ally in the Obama White House are preparing for a fight to protect their gains of the past eight years.

Trump's ascendance is threatening not to simply undo a series of already tenuous international agreements, but give a boost to interests opposed to fossil fuel regulation, while amplifying voices who express doubt -- or

outright deny -- that climate change is real. It is. Scientists agree people are causing climate change primarily by burning fossil fuels, and the longterm consequences are expected to be disastrous."

"The disaster that Donald Trump represents for the climate cannot be understated," Jamie Henn, a spokesman for 350.org, a leading environmental action group, told CNN on Tuesday. "He is the only head of state in the world who is an all-out climate denier and he has the most radical, anti-environmental policies of anyone to ever assume the role of the presidency."

Here are the four centers of concern -- right now:

1. Trump plans to resist the Paris climate deal

The [Paris Climate Agreement](#) became international law November 4, days before Trump scored his upset defeat of Hillary Clinton. But the non-binding deal is still very much a work in progress. Negotiators are gathered now in Marrakech, Morocco, in an effort to implement its historic framework.

While the Trump administration does not have the authority to "cancel" the international pact, as the now President-elect pledged during the campaign, it is [reportedly looking for ways out](#) and could, because individual countries set their own standards, effectively remove the US from the process.

"If one party decides to withdraw that it doesn't call the agreement into question," Moroccan foreign minister Salaheddine Mezouar said at a news conference last weekend in an effort to downplay the new administration's potential action -- or inaction.

But a US reversal would likely also cause other major carbon emitting nations, like China or India, to at least slow their own efforts.

2. Obama's "Clean Power Plan" under threat

The keystone of the US plan to meet its Paris accord commitments is currently tied up in federal courts, with the Environmental Protection Agency fighting a legal challenge from nearly two dozen states, the Chamber of Commerce and coal-mining companies.

During the campaign, Trump framed the "Clean Power Plan," which promises a nearly 32% reduction in domestic greenhouse emissions by 2030, as a job-killer he would be quick to scuttle.

"This Obama-Clinton directive will shut down most, if not all, coal-powered electricity plants in America," Trump said during a September speech.

"They're shutting down all over the country."

The crux of the plan, though, should it survive the court challenge, relies on the authority and willingness of the EPA to carry out its mandate. Trump could easily decline that and seek to roll it back during his term.

3. Trump picked a leading climate denier to head the EPA transition

Trump's decision to install Myron Ebell as the head of his EPA transition team sent shivers through the activist community.

Ebell, though not a scientist, has emerged as one of the world's foremost climate deniers. As the Paris pact entered its final (and successful) stage of negotiations at an international conference in December 2015, his face was [one of seven](#) pasted, mug shot-style, outside hotels in the French

capital.

A few months before that, he wrote in [a blog post](#) that Obama's "Clean Power Plan" was "illegal" and lamented the gains likely to be incurred by "renewable energy producers" at the expense of coal and natural gas. Now the man activists call a "[climate criminal](#)," and who has [said](#) that climate change is "phony" and a bogus "pretext for expanding government," has been given the power to staff the federal agency most often tasked with monitoring and enforcing actions to slow or reverse it.

4. Trump himself is a climate denier

"He believes that global warming is naturally occurring," Trump campaign manager Kellyanne Conway told CNN's Alisyn Camerota on "New Day" the morning after the first presidential debate.

The issue came up because Hillary Clinton had, the night before, said that her opponent "thinks that climate change is a hoax perpetrated by the Chinese."

Trump made the claim on Twitter in 2012, almost four years to the day he was elected, writing, "The concept of global warming was created by and for the Chinese in order to make U.S. manufacturing non-competitive."

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Donald J. Trump



@realDonaldTrump

The concept of global warming was created by and for the Chinese in order to make U.S. manufacturing non-competitive.

8:15 AM - 7 Nov 2012

104,268 104,268 Retweets

65,67865,678 likes

It is a thread he has kept up for years, often through skeptical tweets.

"It's late in July and it is really cold outside in New York," he wrote in July 2014. "Where the hell is GLOBAL WARMING??? We need some fast! It's now CLIMATE CHANGE."

And on a cold January evening in 2015, he asked, "Where the hell is global warming when you need it?"

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Donald J. Trump



@realDonaldTrump

Where the hell is global warming when you need it?

12:18 PM - 27 Jan 2015

1,1421,142 Retweets

1,0301,030 likes

Trump has said he was "joking" about the Chinese conspiracy theory, but in multiple public statements has framed policies designed to combat climate change as a threat to American industry.

"I am not a believer in climate change," [he told](#) CNN in September 2015.

"You have rain, and you have beautiful days. But I do not believe that we should imperil the companies within our country."

Climate talks: 'Save us' from global warming, US urged

By Matt McGrath

Environment correspondent

4 hours ago

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Science & Environment

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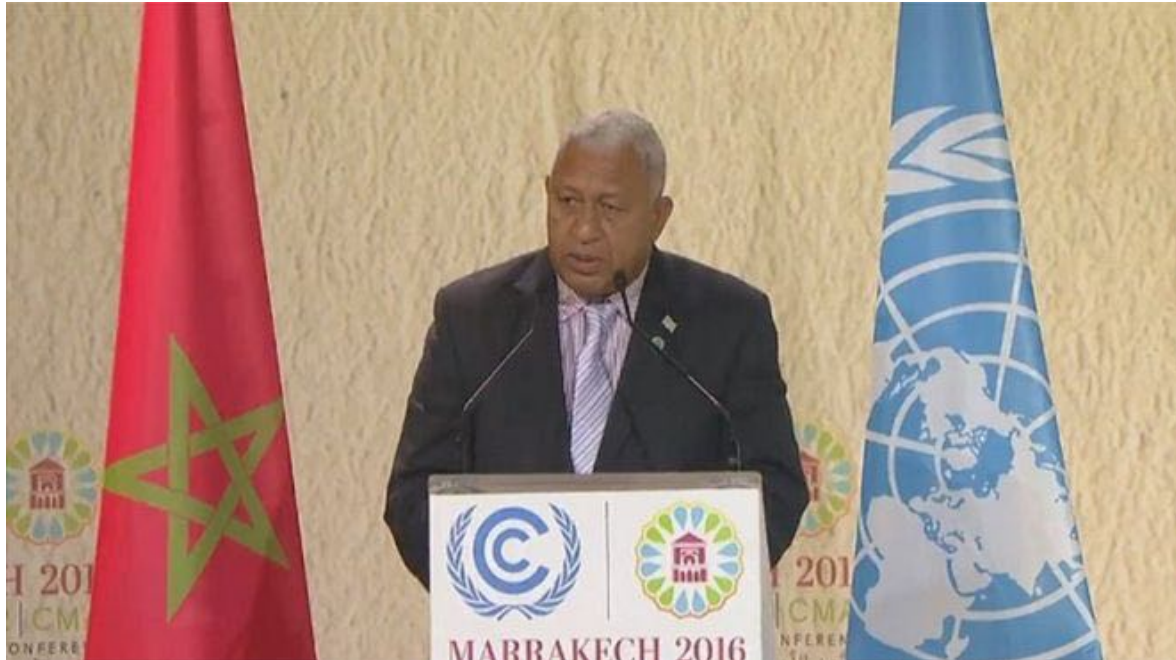


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UNFCCC

Image caption

Fiji's Prime Minister Frank Bainimarama told the conference that climate change was not a hoax

The next head of the UN global climate talks has appealed for the US to "save" Pacific islands from the impacts of global warming.

Fijian Prime Minister Frank Bainimarama said that the islands needed the US now as much as they did during World War Two.

He was speaking as global climate talks in Marrakech came to an end.

Mr Bainimarama said that climate change was not a hoax, as US President-elect Donald Trump has claimed.

Mr Trump has promised to pull the US out of the **Paris Climate Agreement** and scrap all payments for UN global warming projects.

But as he accepted the role of president of the **Conference of the Parties** for the year ahead, the Fijian leader took the opportunity to call on to the next US president to step away from his scepticism.

"I again appeal to the President-elect of the US Donald Trump to show leadership on this issue by abandoning his position that man-made climate change is a hoax," said Mr Bainimarama.

"On the contrary, the global scientific consensus is that it is very real and we must act more decisively to avoid catastrophe."



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GREENPEACE

Image caption

Campaigners posed for this photograph at the climate conference in Marrakech

He also made a direct call to the American people to come to their aid in the face of rising seas, driven by global warming.

"We in the Pacific, in common with the whole world, look to America for the leadership and engagement and assistance on climate change just as we looked to America in the dark days of World War Two.

"I say to the American people, you came to save us then, and it is time for you to help save us now."

After two weeks of talks here in Marrakech, participants arrived at a consensus on the next steps forward for the landmark climate treaty.

This gathering saw the opening of CMA1, the Conference of the Parties meeting as the signatories of the Paris Agreement, which aims to limit global temperature rises. CMA1 will be the formal UN body that will run, manage and set the rules for the operation of the Paris treaty.

UK joins the club

The number of countries who have ratified the agreement jumped above 100 with the **UK joining** during the last few days of the conference.

"Delegates in Marrakech made crucial progress in building the foundation to support the Paris agreement, which went into force just days before COP22," said Paula Caballero from the World Resources Institute.

"Most importantly, negotiators agreed to finalise the rules of the Paris Agreement by 2018 and developed a clear roadmap to meet that deadline."



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Image caption

US secretary of state John Kerry gave an impassioned speech in Marrakech, his last climate conference while in office

The participants also agreed the **Marrakech Proclamation**, a statement re-affirming the intentions of all 197 signatories to the Paris deal.

Seen as show of unity on the issue in the light a possible US withdrawal, countries stated they would live up to their promises to reduce emissions. The proclamation also called on all states to increase their carbon cutting ambitions, urgently.

Some of the poorest nations in the world **announced that they were moving towards 100% green energy** at this meeting.

The Climate Vulnerable Forum said that the 47 member countries, including Bangladesh, Ethiopia and Yemen, would achieve this goal between 2030 and 2050. And they challenged richer countries to do the same.

Despite these steps forward there were still some areas of significant difference between the parties, especially over money. The talks will continue in 2017 with a new the US delegation picked by the Trump administration.

US envoy says climate deal is bigger than any one head of state

By Matt McGrath

Environment correspondent, Marrakech

4 hours ago

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Science & Environment

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EUROPEAN UNION

Image caption

European and Chinese lead negotiators greet each other enthusiastically at climate talks in Marrakech

The Paris climate agreement will survive a Trump presidency says the US special envoy on climate change Dr Jonathan Pershing.

He was speaking before the arrival of ministers and some heads of state in Marrakech on Tuesday.

They are coming to try to take the next steps to tackle global climate change. But the meeting has been rocked by the possibility that President-elect Donald Trump will withdraw the US from the pact.

Shape and thrust

US lead negotiator Dr Pershing told a packed news briefing that the passion and dedication displayed in the effort to deliver the Paris treaty was strong enough to withstand the impacts of Trump presidency.

“Heads of state can and will change but I am confident that we can and we will sustain a durable international effort to counter climate change,” he said.

Dr Pershing said that he expected personnel from the Trump transition team to start arriving at the State Department in the coming weeks and they would drive the “shape and thrust” of US diplomacy over the next four years.

On the campaign trail, Donald Trump sketched a plan to “cancel” the Paris Agreement and withhold US payments to the UN body tasked with stemming climate change.

He has also appointed Myron Ebell, from the Competitive Enterprise Institute, a man well known for his contrarian views on climate change, to head his Environmental Protection Agency (EPA) transition team.

Dr Pershing said that he had no information on who might lead on climate change issues in a Trump administration. Whoever it was, he said, should recognise the

strength of the last year's climate agreement and what it could help the world to achieve.

"The Paris agreement protects economic growth and the environment, all while providing nationally determined flexibility to accommodate differing circumstances," he said.

"It is durable, it is inclusive it is ambitious."

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Image caption

Climate protesters have taken to the streets of Marrakech to urge negotiators towards more ambitious actions

Negotiators from across the globe have been reluctant to directly criticise the incoming US administration.

They have instead opted to focus on the benefits to economies of a transition to greener sources of energy. The EU climate commissioner Miguel Arias Canete said that investments in renewable sources were worth more than \$329bn last year, six times the amount in 2004. But the commissioner said that Europe expects the US to stay in the agreement.

"We expect that the commitments made by the Americans on climate change will be upheld, after all they are the second largest emitter in the world and they also have to do their fair share to fix the climate."

Away from the conference the former French President Nicolas Sarkozy has been calling for a carbon tax on US goods if President Trump follows through on his promise to walk away from the Paris deal.

"Donald Trump has said - we'll see if he keeps this promise - that he won't respect the conclusions of the Paris climate agreement," Mr Sarkozy, who is a candidate for next year's French presidential elections, told the TF1 television channel on Sunday.

"Well, I will demand that Europe put in place a carbon tax at its border, a tax of

1%-3%, for all products coming from the United States, if the United States doesn't apply environmental rules that we are imposing on our companies."

Delegates in Marrakech though were cool on the idea.

"Before the results of the US elections, we always said we didn't like carbon taxes," said Miguel Arias Canete. "The EU commission is not thinking to make any proposal on that issue."

On Tuesday, the King of Morocco will welcome heads of state including French President Francois Hollande and many African leaders to the high level segment of these talks here in Marrakech.

The leaders are expected to issue a call for countries to go further and faster with their emissions cuts than under their current pledges.

'Trump threat' to dominate UN climate negotiations

By Matt McGrath

Environment correspondent

2 hours ago

From the section

[Science & Environment](#)

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Image caption

Donald Trump says climate change is a "hoax" and promised to revive the US coal industry

Concerns over a Trump presidency are set to dominate the early days of global climate talks in Morocco.

Some 20,000 participants will meet in Marrakech for two weeks, starting on Monday,

to agree new rules to limit warming on the planet.

These plans were boosted when the **Paris Climate Agreement** came into force last week.

However Mr Trump, who calls climate change a "hoax", has vowed to cancel the deal if elected.

New rules

Signed by 193 countries in the French capital last December, the Paris Agreement is now international law, having been ratified by at least 55 countries representing over 55% of global emissions.

The UN deal, hammered out after years of failed talks, aims to keep the rise in global temperatures under 2 degrees Celsius by the end of this century, and "will pursue efforts" to limit the rise to 1.5C.

When countries put forward their own plans, or intended nationally determined contributions (INDCS) on what they will do to cut emissions and transition to renewables, much of the detail about how to verify these plans was left vague.



Image copyright [redacted]

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Image caption [redacted]

The Eiffel Tower was bathed in green light to celebrate the coming into force of the Paris Climate Agreement

This will be one of the tasks that negotiators from all over the world will face in Marrakech at the Conference of the Parties (COP22) over the next two weeks. But the early days of the talks will be dominated by the prospect of Donald Trump gaining the White House.

Earlier this year Mr Trump **said he would "cancel" the Paris agreement** if elected. The deal was "bad for US business" and would allow "foreign bureaucrats control over how much energy we use", he said.

Concern over the rise of Mr Trump helped galvanise the global push to bring the Paris agreement into force. Now that it is operational and binding on countries,

taking the US out of the deal would not be easy.

"The Paris agreement prohibits any exit for a period of three years, plus a year-long notice period, so there will be four stable years," said Segolene Royal, the French environment minister who played a role in negotiating the treaty.

While Mr Trump would not be able to withdraw easily from Paris, his scepticism about climate science and his determination to revive the coal industry put him at odds with most international leaders.

"Electing a climate science conspiracy theorist like Trump would make America a global laughing stock and embarrassment, all the while relinquishing our leadership role in the world," said Khalid Potts from US environmental group, the Sierra Club.

"The ice caps don't negotiate, and neither do rising seas. Donald Trump's moral failure to acknowledge the climate crisis might very well mean planetary disaster if he is elected."

Greater ambition?

While negotiators await the outcome of the US election, there are several other factors that might also slow progress in these talks.

One key element that might hold things up is the fact that so far only 100 have ratified the Paris agreement. There is a concern that it would be unfair if these early adopters had the chance to set the future rules under which all countries would have to operate.

"The momentum of the entry into force will help to push for progress in discussing the overall implementation process," Dennis Taenzler from **adelphi**, a climate change think tank, told BBC News.

"There is some reason to expect that key decisions will be postponed until additional parties will have ratified as well."

Another big question for the Marrakech meeting is whether countries will see it as an opportunity to push for greater action and go further than they did in Paris.



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Image caption

The giant solar farm at Noor is part of Morocco's attempts to switch to renewables

In recent days, an **analysis from the UN Environment Programme** suggested that the national plans on the table will need to have their level of ambition increased by about 25% if the Paris targets are to be met.

There are some positive signs. Last month at a meeting in Rwanda, countries agreed to **phase out the use of HFCs**, gases with significant global warming potential.

International aviation has taken the **first, limited steps to put in place a global limit on aircraft emissions**. In recent days China has announced a plan to tighten the level of carbon emissions per unit of GDP.

"There are actually some remarkable things going on, even in North America, with Canada introducing a carbon tax. Canada, US and Mexico had a remarkable tri-party agreement on methane for example," said Andrew Steer from the World Resources Institute.

"You've got a surprising number of countries around the world that are putting in place carbon pricing - something like 40 countries have committed to do that. Already there are 200 million Chinese under a price on carbon, and by this time next year we hope there will be 1.1 billion Chinese under a price on carbon."

The Marrakech meeting will also see significant debate about the format for a future "global stock take" - a five yearly review of progress that countries have made against the targets that they have signed up to. It is a key part of the Paris agreement, designed to ratchet up ambition over time.

There will also be reviews on finance to see if richer countries have made progress on the promise to deliver \$100bn in climate aid to developing nations by 2020.

One issue that could see sparks fly is the question of loss and damage. The question of compensation for the long term impacts of climate change is one of the most contentious as poor countries see it as a moral obligation of the rich, while the developed world is extremely wary of establishing a legal liability for the damage caused by their greenhouse gas emissions.

It has been lurking on the sidelines since it **almost derailed the entire UN talks process back in 2013**. It will be interesting to see if it causes similar rancour in Marrakech.