Scientists welcome climate pact but still alarmed

December 13 2015, by Marlowe Hood

A demonstrator wearing a mask of the Anonymous group holds a banner reading "For a climate of Peace" during a rally called near the Eiffel Tower in Paris on December 12, 2015 on the sidelines of the COP21, the UN conference on global warming

Climate scientists Saturday welcomed a pact to battle global warming as a major political advance, but warned of a gaping hole—the lack of a detailed roadmap for cutting greenhouse gases that cause the problem.

The new accord, embraced by 195 nations, aims to cap warming to "well below" two degrees Celsius (3.6 degrees Fahrenheit) above pre-industrial levels, and to "pursue efforts" to limit the increase to 1.5C.

"This is an historic agreement," said Steffen Kallbekken, director of the Centre for International Climate and Energy Policy.

"But this ambitious temperature goal is not matched by an equally ambitious mitigation goal," he said, using the scientific term for the drawing-down of heat-trapping gases.

To have a two-thirds chance of limiting warming to two degrees, emissions would have to fall by 40-70 percent by mid-century, according to the Intergovernmental Panel on Climate Change (IPCC), the UN's climate science body.

And to reach the 1.5C target also embraced in the newborn pact, those mid-century cuts would have to be even deeper: 70 to 95 percent.

Without these hard numbers—dropped from an earlier draft—the climate pact "does not send a clear signal about the level and timing of emissions cuts," Kallbekken cautioned.

Many scientists highlighted the imbalance created by boosting the ambition of the temperature target on the one hand, while removing the yardsticks against which progress toward that goal could be measured, on the other.

"How are we going to reach our objective unless we set out in the right direction?" asked Professor Bill Collins at the University of Reading in southern England, pointing to the need to slash CO2 output by 70 percent by mid-century.

"Until governments accept this, we should restrain our optimism."

Foreign Affairs Minister and President-designate of COP21 Laurent Fabius gestures after adoption of a historic global warming pact at the COP21 Climate Conference in Le Bourget, north of Paris, on December 12, 2015

Keveh Madani, a professor at Imperial College London, said international summits were better at setting aspirational goals than laying out a pathway for achieving them.

"What matters more is how to get to the target," he noted.

Some major emerging nations—especially India—were reluctant to include quantifiable milestones that could constrain their use of fossil fuels in growing their economies.

But scientific reality is unyielding, said Miles Allen at Oxford University.

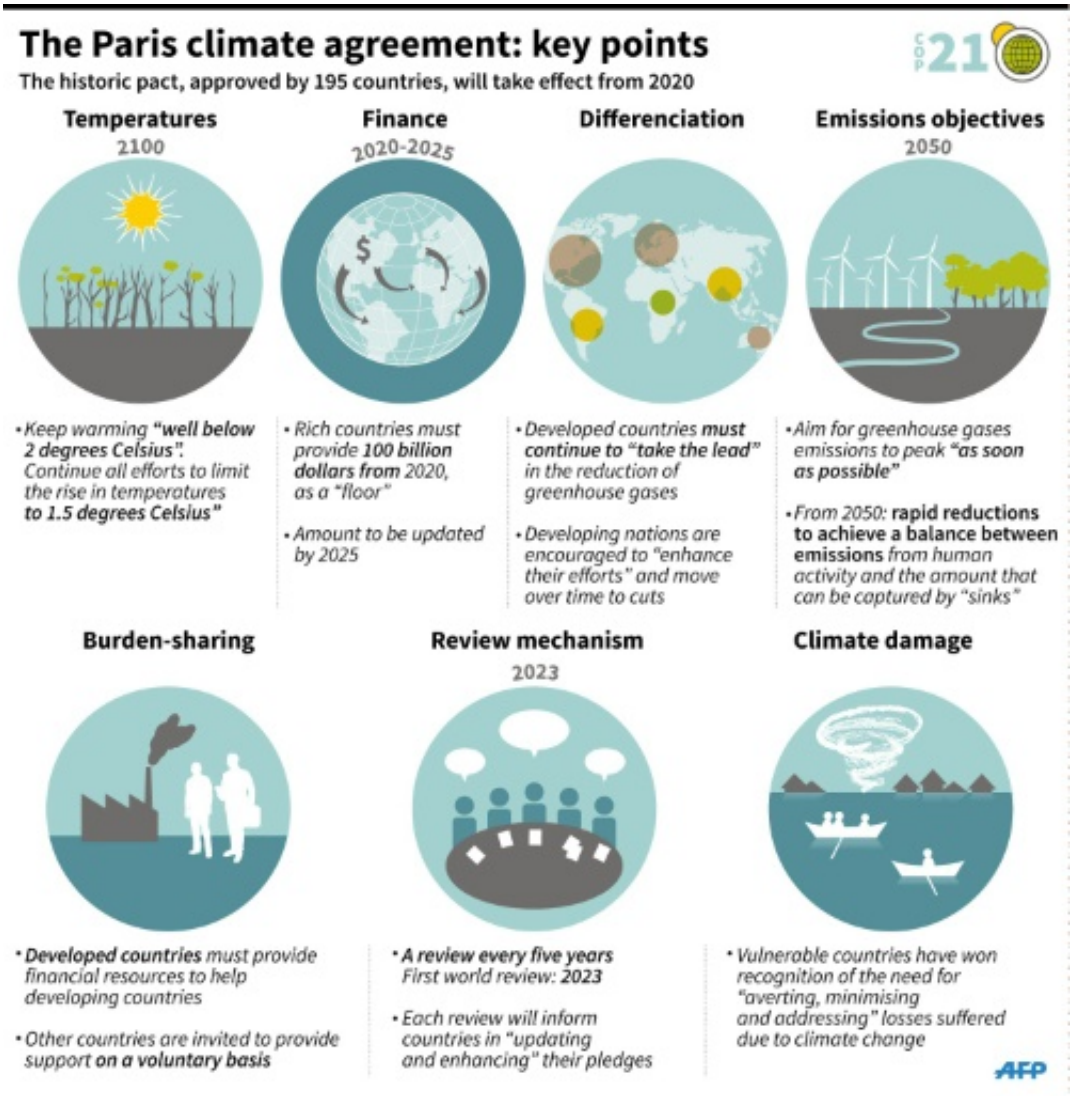
Stabilising greenhouse gases "in the second half of this century will require net carbon dioxide emissions to be reduced, in effect, to zero," he said.

"It seems governments understand this, even if they couldn't quite bring themselves to say so."

Other scientists voiced concern about the fact that the new accord allows several years to pass before ramping up emissions reduction efforts.

"For all that is encouraging in the agreement, the time scales—or the lack thereof—are worrying," said Ilan Kelman of University College London. "Little substantive will happen until 2020 whilst clear deadlines for specific targets are generally absent."

Jean Jouzel, a leading French climate scientist and a former vice chair of the IPCC, said timing was critical.



Graphic showing the key points from the agreement to stop global warming. 135x138mm

"Above all, we can't wait until 2020—acting before then is essential, we have to be very pro-active," he told AFP.

'1.5C tokenism'

Jouzel and others also questioned the feasibility of the 1.5C target,

saying it could only be achieved by overshooting the mark and than pulling back, which could take decades or longer.

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"1.5C is a dream," he added. "It's too ambitious, though I understand the position of the most vulnerable countries that fought for it."

"Humanity would be better served by a greater focus on binding

agreements and mechanisms to achieve the two degree target, rather than 1.5-degree Celsius tokenism," said Peter Cox,a scientist at the University of Exeter and a lead author on two IPPC reports.

"This agreement is a turning point for a world transformation within a 1.5-2C safe operating space on Earth," said Johan Rockstrom, director of the Stockholm Resilience Center.

"But now we need action consistent with science to reach decarbonisation by 2050."