Can the world leaders now meeting in Paris make any progress on reducing greenhouse-gas emissions?

The 21st Conference of the Parties (COP21) to the United Nations Framework Convention on Climate Change (UNFCCC) is taking place from 30 November to 11 December. It is being held in Paris, 20 years after COP1 in Berlin in 1995. You may feel you not have heard of these ‘COPs’ but in fact you have. The 1997 Kyoto Protocol was adopted at COP3. COP21 has a ‘big’ aim: to negotiate legally binding targets for emissions reductions and thus mitigate future global warming.

UNFCCC and COP

The UNFCCC was negotiated in 1992 at the Rio Earth Summit. That landmark meeting of world leaders brought environmental issues such as biodiversity loss, deforestation and anthropogenic climate change on to the global agenda. Annual COP meetings (there were actually two in 2001) are the mechanism to negotiate greenhouse-gas reductions. COP3 in Kyoto negotiated emissions reductions targets among many of the developed-world countries (the USA famously did not agree to this). Since Kyoto, further agreement has been hard to reach. COP16 in Cancun, Mexico recognised the need to limit global warming to 2°C, but without a mechanism to achieve this.

The need for action

Since 1995 the case for emissions reductions has grown stronger. Atmospheric carbon dioxide levels are now very close to 400 ppm (parts per million), some 43% above the pre-industrial level of 280 ppm. When world leaders met 24 years ago in Rio the level was 353 ppm, or 26% above ‘natural’ levels. In November 2015 the UK Met Office reported that 2015 was likely to be a full 1°C warmer than pre-industrial temperatures for the first time. These may seem like small numbers, but 1°C warming is 50% of the way to the 2°C generally considered ‘dangerous’ to human and ecosystem wellbeing.

Will Paris be different?

The COP21 approach has been to get countries to ‘pledge’ emissions reductions before the conference...
itself. These are snappily entitled ‘intended nationally determined contributions’ (INDCs) (see table). It is hoped that COP21 might at the very least turn these pledges into legally binding goals, or perhaps negotiate even bigger reductions. However, it is unlikely any agreement will come into force before 2020.

Examples of INDCs submitted to COP21

<table>
<thead>
<tr>
<th>Country/group</th>
<th>Pledged INDC emissions reduction</th>
<th>Base year (from)</th>
<th>Target year (to)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU-28</td>
<td>−40%</td>
<td>1990</td>
<td>2030</td>
</tr>
<tr>
<td>USA</td>
<td>−26–28%</td>
<td>2005</td>
<td>2025</td>
</tr>
<tr>
<td>China</td>
<td>China pledges that its greenhouse-gas emissions will peak by 2030</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brazil</td>
<td>−37%</td>
<td>2005</td>
<td>2025</td>
</tr>
</tbody>
</table>

Will it work?

Critics of the COP21 process argue that:

- INDCs allow countries to set their own targets, rather than making them agree to targets that might achieve the reductions needed to avoid ‘dangerous’ climate change.
- Many of the reductions have already been achieved because the base years used are in the past.
- The agreement of developing countries is likely to be conditional on a huge transfer of money, technology and assistance from the developed world to help them switch to renewables and lower carbon economies. This looks unlikely.

Scientists have suggested that avoiding 2°C will require a 50% cut in today’s global annual carbon emissions by 2050 (see graph). COP21 looks unlikely to agree to cuts on that scale, leaving a large ‘emissions gap’. On the other hand, about 150 pledges have been sent to the UNFCCC so far. If countries worked toward these it might form the basis of a ‘twenty-first-century Kyoto Protocol’ that could be strengthened and deepened in the future.

Questions

1. Is the process of ‘voluntary pledges’ likely to work, or would a different approach be more successful?
2. Are developing countries (such as India, Indonesia and Nigeria) right to expect financial, technical and other help from developed countries to reduce their emissions?
3. Which countries, companies, organisations and global leaders could be most influential in persuading others that emissions need to be reduced?

Weblinks to follow up

Keep an eye on the COP21 meeting and its outcomes using these websites.

The UNFCCC website in the 2015 COP21 meeting: [www.tinyurl.com/p7tfg7m](http://www.tinyurl.com/p7tfg7m)

The host country’s website dedicated to the COP21 meeting: [www.cop21.gouv.fr/en](http://www.cop21.gouv.fr/en)

UNEP’s 2014 Emissions Gap report: [www.tinyurl.com/mhkc2rm](http://www.tinyurl.com/mhkc2rm)

and a 2015 update on INDCs: [www.tinyurl.com/p2bl7rs](http://www.tinyurl.com/p2bl7rs)