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IPCC Chief Pachauri Says Carbon Must Be Sucked From Air

From the UK Times Online yesterday, interesting to see these kinds of statements....

December 1, 2009

Carbon must be sucked from air, says IPCC chief Rajendra Pachauri

<!-- /* Global variables that are used for "image browsing". Used on article pages to rotate the images of a story. */ var sImageBrowserImagePath = ''; var aArticleImages = new Array(); var aImageDescriptions = new Array(); var aImageEnlargeLink = new Array(); var aImageEnlargePopupWidth = '500'; var aImageEnlargePopupHeight = '500'; var aImagePhotographer = new Array(); var nSelectedArticleImage = 0; var i=0; var aImageAltText= new Array(); //--> <!-- aArticleImages[i] = '/multimedia/archive/00606/news_solar_606072a.jpg'; //--> <!-- aImageAltText[i] = "Artificial trees in road" ; aImageAltText[i] = aImageAltText[i].replace(/"/g,"\""); //--> <!-- aImageEnlargeLink[i] = '/multimedia/archive/00606/news_solar_606072a.jpg'; i=i+1; //-->

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Robin Pagnamenta, Energy Editor
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Drastic cuts in carbon emissions may not be sufficient to avoid the worst ravages of global warming and the world will need to suck carbon from the atmosphere to avert permanent damage to the climate, according to a leading world authority on climate science.

In an interview with *The Times*, Rajendra Pachauri, chairman of the UN's Intergovernmental Panel on Climate Change (IPCC), proposed that new techniques should be applied to help to mop up atmospheric levels of carbon dioxide that have been pumped into the atmosphere from the burning of fossil fuels.

"There are enough technologies in existence to allow for mitigation," he said. "At some point we will have to cross over and start sucking some of those gases out of the atmosphere."

Speaking days before the start of the UN climate summit in Copenhagen, Dr Pachauri, who collected the 2007 Nobel Peace Prize on behalf of the IPCC with Al Gore, said that such a strategy needed to be pursued as a matter of urgency.

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The Indian scientist, 69, also said that the target adopted by the 192 governments that are due to attend the conference, of restricting average global temperature rises to less than 2C (3.6F), may be insufficient to prevent catastrophic warming impacts such as a rise in sea levels of between 0.5m and 1.4m (1.6ft and 4.6ft) and enough to devastate many coastal cities around the world such as Shanghai, Calcutta and Dhaka. Instead, he said, a 1.5C rise was a safer target.

Dr Pachauri raised the prospect of so-called geo-engineering, whereby carbon dioxide is actively stripped from the atmosphere. A range of techniques have been proposed including seeding artificial clouds over oceans to reflect sunlight back into space, sowing the oceans with iron ore to boost plankton growth and using carbon capture and storage technology to fix emissions from power stations.

About 27 billion tonnes of pure carbon dioxide are pumped into the atmosphere every year — equivalent to 7.3 billion tonnes of pure carbon.

Total atmospheric concentrations of carbon dioxide are now at 387 parts per million, up from an historic average of 180 to 280 ppm. Even if radical cuts were adopted by world governments in Copenhagen and adhered to, the lowest level at which they could be expected to stabilise is 450 ppm, say scientists. To prevent a further temperature rise of more than 2C, emissions would need to be stabilised around that level.

Dr Pachauri, speaking to *The Times* on Saturday before travelling to Paris to brief President Sarkozy, suggested that the fossil fuel lobby could be behind a hacking incident last month that led to the publication of thousands of leaked e-mails between climate scientists. He said that it was entirely possible that “corporate interests” had had a hand in the leak.

Dr Pachauri, who was in London for a lecture at the Wellcome Trust organised by the BBC World Service, demanded an immediate investigation into the hacking of e-mails from the University of East Anglia’s climatic research unit, which he branded an “illegal act”.

He said: “One needs firstly to find out personally who is responsible, who the culprits are and what were their motives. And unless we do that it is likely that similar things will happen in the future.”

A prominent climate change sceptic, Steve McIntyre, told *The Times* yesterday that he was “unaware of any evidence that the fossil fuel lobby had anything to do with this and I doubt that they did”.

Dr Pachauri dismissed the suggestion that biased research had crept into the IPCC’s most recent report on the science of climate change. A complex system of checks and balances was in place to prevent bias being insinuated into the panel’s work, he said.

The third way

Governments have focused their attention on mitigation — reducing their carbon output — and more recently on transition — redeveloping existing assets to ensure carbon control. According to the Institute of Mechanical Engineers, there is a third way, geo-engineering; measures that do not just reduce emissions, but take them out of the environment:

Artificial trees These 12m boxes, filled with absorbent materials, soak up and store carbon. The devices, which could be placed by roads, would be emptied regularly and the carbon buried. About 100,000 artificial trees would require about 600 hectares of land, but the carbon that they remove from the atmosphere would be equivalent to all the non-stationary and dispersed emissions to the UK

Algae-coated buildings Strips of algae are fitted to the outside of buildings in units called photobioreactors. Algae naturally absorbs C02 through photosynthesis. Periodically the algae are harvested and used for biofuels that have an energy rating similar to coal. This solution requires no extra land use

Reflective buildings Between 10 and 50 per cent of solar radiation can be reflected back out of the atmosphere by painting buildings and road surfaces in light colours

Category: Geoengineering

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