



# THE HEALTH BENEFITS OF IGNORING THE IPCC

Mikko Paunio

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## **About the author**

Mikko Paunio, MD, MHS was born in Turku, Finland in 1961. He graduated and then completed and defended his doctoral thesis at the University of Helsinki in 1990. He has post-graduate training from the Free University of Brussels in 1991 and has graduated from the Johns Hopkins Bloomberg School of Public Health (Master of Health Science in 1993). He is a certified (University of Helsinki) specialist in public health (1999) and is an adjunct professor in general epidemiology at the University of Helsinki.

He comes from a family with academic traditions and is a third generation social democrat. He joined Finland's Social Democratic Party in 1977. He has worked in the following institutions: the Institute of Health and Welfare of Finland, University of Helsinki, Johns Hopkins Bloomberg School of Public Health, the European Commission, the World Bank and Finland's Ministry of Social Affairs and Health. He is a member of the American Council on Science and Health Board of Scientific and Policy Advisors. He has 40 publications listed in the US National Library of Medicine at the National Institutes of Health.

As a junior medical researcher in 1987–88, he was responsible for analysing health impacts of primary energy sources in the Energy Committee set up by the Finnish Prime Minister. Throughout his career, he has continued to work on energy issues.

## **Disclaimer**

*The views presented in this paper are mine alone, and do not necessarily represent those of my employer.*

## Executive summary

Under the Paris Climate Treaty, there is a strong impetus to reduce energy and water use, no matter what the impact. Rich countries have highly successful environmental health practices, which rely on abundant use of water and energy and they show no sign of abandoning them, but the climate 'machine' seems determined that people in poor countries should not enjoy these same benefits. This policy could cost 200 million lives by as early as 2050.

With its recent report on keeping global warming below 1.5°C, the International Panel on Climate Change (IPCC) introduced false information into the public health debate – in particular into the recent WHO report on climate and health and the first World Health Organization Global Conference on Air Pollution and Health (WHOGCAPH). The IPCC report made some remarkable claims:

- Decarbonisation can be achieved via a global transition to bioenergy, a policy that could be seen as a 'highway to hell'.
- 'Poor people in the developing countries will suffer the most' from global warming. However, in order to do so, it had to omit the official WHO estimates of the effect of climate change on public health, which suggest a relatively limited impact.
- Aggressive decarbonisation policies will, over the 21st century, prevent over 100 million deaths that would otherwise be caused by air pollution.

Air pollution is a real problem, but the proposed solutions are false. Fortunately, governments in the developing world seem disinclined to follow the IPCC's recipe, or indeed Hillary Clinton's idea of dealing with indoor air pollution through use of 'healthy' cookstoves. Instead they will focus on fossil fuels, and in particular, liquefied petroleum gas, which are not only more convenient than coal or biomass but can also effectively mitigate indoor and ambient air pollution in urban areas.

Up to 1 billion of the world's poorest may see the benefits of ignoring the IPCC by 2030.





# 1 Introduction

The first Global Conference on Health and Climate, held in Geneva in August 2014, was outwardly a relatively low-key affair, but was an important departure for the public health lobby, marking the beginning of its 'engagement' to the climate lobby.<sup>1</sup> The conference, organised by the World Health Organization (WHO), the World Meteorological Organization and the United Nations Framework Convention on Climate Change (UNFCCC), was attended by only a handful of ministers, from countries like Barbados, Grenada, the Maldives, Moldova, Nepal, Panama, Sudan, Surinam, Tuvalu and the Ukraine. Other countries were represented, but not at a ministerial level. Also in attendance were the usual mixture of non-governmental environmental organizations, as well as prominent individuals like the editor of the *British Medical Journal*, Fiona Godlee, who played a major role in facilitating discussions, and the general secretary of the UNFCCC, Christiana Figueres, an ardent promoter of the alleged health co-benefits of climate action.<sup>2</sup> Figueres desperately needed help to get nations behind the Paris climate treaty, which was due to be signed the following year. Her intention was to use the meeting to get the global public health bureaucracy behind those efforts. A hint of the pressure to fall into line can be seen in a video message from the Prince of Wales, who told delegates that 'our planet needs a doctor'.

Discussions were lively, but they had little impact: the meeting was always going to reach just one conclusion. After the meeting, Dr Margaret Chan, the director general of the WHO, sent a letter to UN general secretary Ban Ki Moon stressing an urgent need to finalise the Paris climate treaty because of its alleged benefits to health.

The following year the Paris climate accord was agreed between the UN member states.

## 2 The no-co-benefits policy

The Geneva 2014 meeting marked the start of a series of technical and higher-level meetings at which the health co-benefits of action against global warming were discussed. At each one of these, it was posited that action on climate change would bring important 'co-benefits' in terms of improved public health. High-ranking officials from both the UN and the WHO have promoted the erroneous<sup>3</sup> public perception that power production, industry and traffic are to be blamed for the now estimated 7 million annual deaths attributable to air pollution.<sup>4</sup> 'When we have beaten the pollution from these sources and are living in a low-emission, carbon-neutral world', the simple and persuasive narrative goes, 'these 7 million deaths will be prevented'. This fable has been assiduously promoted by the mass media.

Air pollution, and, in particular, indoor air pollution, is a genuine problem, particularly in poor countries, where wood and dung fires and crude coal-burning stoves are often the main ways of heating and cooking. But the suggestion that action on climate change will reduce the death toll is grossly misleading. The real solution has been understood for decades, and lies in a progressive movement away from solid fuels, firstly to cleaner fossil-fuel alternatives, such as liquified petroleum gas, and eventually to centralised power production and modern electricity grids.

Centralised power production has, time and again, cleaned ambient air and also reduced indoor air pollution. More importantly, it has enabled a revolution in environmental health practices: electricity grids not only give us clean indoor air but also clean and abundant water supplies – the basis of public health in all advanced economies – and cold-chain food storage, a vital component of effective environmental health practice. For example, the measles

vaccine, which has saved 15.6 million children's lives since the year 2000, needs to be stored at 4°C.<sup>5</sup>

Neglecting institutional environmental health in favour of action on climate change is therefore a policy that is likely to have disastrous consequences. I have recently shown that it might cause as many as 200 million deaths by as early as 2050.<sup>6</sup>

### **3 Deep decarbonisation**

#### **The IPCC's plans**

The IPCC and the WHO seem unmoved, however. In recent months, they have redoubled efforts to give the impression that radical climate change mitigation policies will produce health co-benefits. In this section, I review the latest publications from both organisations, and examine the effect the policies they are considering will have on public health.

In October 2018, just a few weeks before UNFCCC COP24, the IPCC published its special report on how the world can keep global warming below 1.5°C.<sup>7</sup> The centrepiece of the report was the conclusion that such a temperature stabilisation would require a drastic 45% reduction in global carbon dioxide emissions by 2030, and these extraordinary details were widely disseminated by the mass media, accompanied by terrifying predictions of what would happen if the decarbonisation effort failed.

In Chapter 3 and again in Chapter 5 of the IPCC report, the reader is given the impression that with warming above 1.5°C, a terrible fate awaits the poor, particularly in the developing world. For example a statement in Chapter 3 says:

Regionally differentiated multi-sector risks are already apparent at 1.5°C of warming, being more prevalent where vulnerable people live, predominantly in South Asia (mostly Pakistan, India and China), but these risks are projected to spread to sub-Saharan Africa, the Middle East and East Asia as temperature rises, with the world's poorest people disproportionately impacted at 2°C of warming....

It appears that only aggressive climate mitigation policies can transform these prospects, with increased prosperity and equity just around the corner, even though Chapter 5 admits that these aggressive policies will themselves cause harm, particularly affecting the poor:

Emerging evidence indicates that future mitigation efforts that would be required to reach stringent climate targets, particularly those associated with carbon dioxide removal...may also impose significant constraints upon poor and vulnerable communities...via increased food prices and competition for arable land, land appropriation and dispossession...with disproportionate negative impacts upon rural poor and indigenous populations...

Although the report is clear that global warming is bad news for the world's poor, it is strangely reticent about precisely what the health impacts of unabated climate change are. This omission seems even stranger when one notes that the report repeatedly cites the paper on which the official WHO quantitative estimates of the health impacts of climate change are based;<sup>8</sup> the mortality estimates are never explicitly set out. The explanation only becomes clear, when the estimate itself – 250,000 deaths each year after 2030 – is placed in the context of the total annual number of deaths each year: around 50 million. Clearly, a 0.5% increase in the death rate due to climate change is not going to motivate much by way of a policy response, let alone the kind of economy-transforming measures that the re-

port's authors have in mind. Justification for transforming the economy is therefore set out elsewhere in the text.

Much of the report consists of a detailed examination of the various ways in which the 1.5°C warming target might be achieved. In all of the 'pathways', it is envisaged that there will be widespread adoption of biofuels and bioenergy, with the carbon dioxide produced when these are burnt being removed from the atmosphere using one of two approaches:

- afforestation
- carbon capture and storage, an approach known as BECCS (bioenergy with carbon capture and sequestration).

In some of the pathways, however, much more focus is given to drastic reductions in energy demand, although bioenergy would still be required even in these. The report also looks at the benefits of keeping global warming below 1.5°C and declares that these would be substantial: there would be 'more than 100 million avoided premature deaths over the 21st century'. Here then is justification for drastic policy action.

## The WHO's supporting role

A week after the publication of the IPCC report, the WHO released its 'Health synthesis report'.<sup>9</sup> According to the WHO, this paper amounts to a 'near-literal transcription' of the sections in the IPCC report related to human health, so it is not surprising that it repeats the IPCC's claim that radical reduction of fossil fuel use will simultaneously improve air quality, and in doing so save 100 million lives. Everyone involved in the WHO report must have known that this was not true, which perhaps explains the disclaimer at the start of the report, which says that it 'in no way aims to replace, dispute, or reinterpret the findings of the IPCC-SR1.5'.

## 4 The bigger problems with the IPCC plan

So the IPCC's claims that deep decarbonisation through BECCS would save lives are spurious. However, there are deeper problems with the report.

The ultimate source for the claim in the two reports that action on global warming would bring important co-benefits in terms of global health was a scientific paper by a group led by Drew Shindell,<sup>10</sup> who said that the benefits of keeping temperatures below 1.5°C were as follows:

The decreased air pollution leads to 153±43 million fewer premature deaths worldwide, with ~40% occurring during the next 40 years, and minimal climate disbenefits.

However, the detail of the Shindell paper shows that, while there may well be 'minimal climate disbenefits', this is not even half the story. The important details are revealed, in a somewhat roundabout fashion, in the paper's discussion of how 1.5°C might be achieved in practice, and in particular the use of BECCS to give negative carbon dioxide emissions:

The bulk of these negative emissions come from technologies that have not been demonstrated at commercial scales and may not materialize. The primary negative emissions technology in these scenarios is biofuel energy with carbon capture and sequestration (BECCS). This faces biophysical, logistical and social constraints, and if it were to be deployed at the scales envisioned would require a substantial fraction of the world's arable land and water resources, with potentially severe consequences for biodiversity and food security.

In other words, a low-carbon future enabled by biofuels and bioenergy might never materialize, and if it did it would require such a large area of land that it would cause famine, depletion of water resources and wholesale destruction of flora and fauna. It is perhaps worthy of note that the IPCC's second approach – biofuels with carbon dioxide sequestration through afforestation – would require even more land than BECCS!

The authors of the IPCC report were fully aware of what Shindell had to say about the considerable drawbacks of keeping warming below 1.5°C; indeed Shindell himself was a lead author of Chapter 2. The amount of land required for biofuels and forests is discussed in the Summary for Policymakers:

Model pathways that limit global warming to 1.5°C with no or limited overshoot project the conversion of 0.5–8 million km<sup>2</sup> of pasture and 0–5 million km<sup>2</sup> of non-pasture agricultural land for food and feed crops into ... energy crops and ... forests by 2050 ...

So up to 13 million km<sup>2</sup> of agricultural land would be removed from production in order to achieve the 1.5°C target. To put this in perspective, the FAO currently estimates that there are 49 million km<sup>2</sup> of agricultural land, so the proposal is to manage with 27% less. In the face of a growing population, this would appear to be somewhat reckless. It is perhaps worth noting that on top of this, the IPCC's example 'sustainability oriented' scenario also envisages a further 7 million square kilometers of 'other natural land' – presumably wilderness – being diverted to forestry.

As the IPCC report itself puts it:

Such large transitions pose profound challenges for sustainable management of the various demands on land for human settlements, food, livestock feed, fibre, bioenergy, carbon storage, biodiversity and other ecosystem services

The authors of the WHO report also knew that the land-use requirements of carbon dioxide removal technologies were a problem. In their foreword, say that:

Not every mitigation actions [sic] is beneficial for health, however. Increasing the use of biofuels could for example affect the availability of land for agriculture, thus affecting food security

So it seems quite clear that both author teams were fully aware that the biofuels route to a 1.5°C future would involve famine and environmental desecration, but were willing to cite the alleged health co-benefits of carbon dioxide removal as if this wasn't a concern.

As noted above, the IPCC also looked at pathways that used dramatic reductions in demand to achieve the 1.5°C target. Their sources to justify such an approach were two hastily crafted studies<sup>11,12</sup> that reduced demand for energy using a heady combination of 'lifestyle change, additional reduction of non-CO<sub>2</sub> greenhouse gases and more rapid electrification of energy demand based on renewable energy...'

Apparently, the authors of these papers realised that they would be criticised if the futures they imagined did not incorporate electrical grids for the poor, and they therefore stress rapid electrification. However, as solar and wind do not produce either baseload nor load balancing, they cannot supply modern electrical grids without fossil fuel back-up or the availability of vast electrical storage capacity in the form of pumped hydro, and only with difficulty then, as the troubles of the German *Energiewende* show.<sup>13</sup> Battery technology is unlikely ever to advance sufficiently to fill long gaps in wind and solar power generation.<sup>14,15</sup>

One can also wonder how the IPCC imagines African families will cook their food or warm or cool their homes in a world that is low-carbon but doesn't use bioenergy? Currently, 90% of *total* energy consumption for the billion people who live in sub-Saharan Africa excluding

South Africa is based on bioenergy. What will happen to Africa's flora and fauna when the continent's population has quadrupled (by 2080, according to the UN) if they are not given access to cheap fossil fuels and still cook their meals with charcoal?<sup>6</sup>

It is reasonable to conclude, therefore, that these studies were based on even less rigorous thinking than even the literature on BECCS. These studies and those who promote these ideas will bring nothing but misery to poor people, especially in the developing world.<sup>16,17</sup>

## 5 The WHO/CAP conference

As made clear in the introduction, the WHO has been working hand in hand with the IPCC in its decarbonisation mission for several years. The WHO's parroting of the IPCC line on the alleged co-benefits of climate mitigation action, and its transparent attempt to caveat its way to a measure of 'plausible deniability' are thus unsurprising. However, in a subsequent conference it organised on air pollution, the WHO went further. It was no longer enough to gloss over the problems with BECCS while hinting at multiple benefits from dramatic emissions reductions. The new agenda appears to be to bury the problems entirely, while pushing decarbonisation as hard as it can.

This all became clear at the first WHO Global Conference on Air Pollution annual deaths that are attributable to air pollution.

The first revelation came in the first plenary session, with all the main dignitaries present, including WHO Director General Theodore Ghebreyesus, WMO Secretary General Petteri Taalas, Queen Letizia of Spain, and the former Secretary General of the UNFCCC Christiana Figueres. The session was addressed by Drew Shindell himself, who surprisingly chose not to mention BECCS at all, preferring to focus on the afforestation option. And despite his own paper admitting that the decarbonisation plan might lead to twin humanitarian and environmental disasters, he finished his talk with this message for world leaders:

Achieving 1.5°C is challenging, but means improved public health, more jobs, more fresh water, less poverty, less expense for disaster relief, less biodiversity loss, etc.<sup>18</sup>

In almost all of the plenaries, the talk was of industry and traffic and pollution from power stations. The video played at the first plenary was a case in point, and several other speakers made similar points. Christiana Figueres spoke of the high smokestacks of industry and power production and the exhaust pipes of cars and trucks as 'open sewers', in an analogy with the 'Great Stink' of London in 1858.<sup>19</sup> The solutions to these pollution problems, it was said, were centred around renewable energy. As this paper has made clear, this is a deception and to follow such a policy would be a humanitarian disaster.

But these important facts were mostly only heard in side meetings, in particular the one dedicated to household energy. Here, unnoticed by the attendant press corps, a series of speakers – including world-renowned health engineer, Professor Kirk Smith of Berkeley, and Ghana's second lady, Hajia Samira Bamuria – all spoke out in favour of a rapid shift of domestic energy away from solid fuels, like coal and biomass. But not to renewables – in reality a plaything for wealthy westerners – but to a cleaner fossil fuel, in the shape of liquefied petroleum gas (LPG). (Because of this urgent need to move away from solid fuels for public health reasons, Hillary Clinton's Global Alliance for Clean Cookstoves has, somewhat embarrassingly, been forced to change its name to the 'Global Alliance for Clean Cooking'.)

## **6 Conclusions**

The speakers in the side meeting on domestic energy made it clear that poor countries intend to push on up the energy ladder, moving to clean liquid fuels like LPG. For them the moral imperative is, quite properly, to get abundant energy and progressively cleaner energy to their people. To their shame, those at the top of the WHO have another agenda entirely: an agenda that involves reckless decarbonisation, in the process preventing the world's poorest from getting access to the energy they so desperately need, and deceiving the rest of the world into thinking that there are 'co-benefits' from doing so.

## Notes

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## **About the Global Warming Policy Foundation**

The Global Warming Policy Foundation is an all-party and non-party think tank and a registered educational charity which, while openminded on the contested science of global warming, is deeply concerned about the costs and other implications of many of the policies currently being advocated.

Our main focus is to analyse global warming policies and their economic and other implications. Our aim is to provide the most robust and reliable economic analysis and advice. Above all we seek to inform the media, politicians and the public, in a newsworthy way, on the subject in general and on the misinformation to which they are all too frequently being subjected at the present time.

The key to the success of the GWPF is the trust and credibility that we have earned in the eyes of a growing number of policy makers, journalists and the interested public. The GWPF is funded overwhelmingly by voluntary donations from a number of private individuals and charitable trusts. In order to make clear its complete independence, it does not accept gifts from either energy companies or anyone with a significant interest in an energy company.

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2	Philipp Mueller	The Greening of the Sahel
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5	Matt Ridley	The Perils of Confirmation Bias
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12	Madhav Khandekar	Floods and Droughts in the Indian Monsoon
13	Indur Goklany	Unhealthy Exaggeration
14	Susan Crockford	Twenty Good Reasons not to Worry about Polar Bears
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19	Indur Goklany	The Papal Academies' Broken Moral Compass
20	Donoughue and Forster	The Papal Encyclical: a Critical Christian Response
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