

COMMENTARY:

# No more summaries for wonks

Richard Black

IPCC assessments present an unparalleled opportunity for climate science to speak directly to power. Re-thinking the summaries written for policymakers would enable scientists to communicate far more effectively with political leaders and the public.

IPCC assessments are the best opportunities that climate academics have to engage ministers, right up to heads of state and government, with their conclusions. Governments, after all, commission the assessments.

No minister will ever read an assessment in full — hence the potential utility of the Summary for Policymakers (SPM). What a shame, then, that SPMs are so ill suited to that audience, and to another that is even more important — the general public. The IPCC has shown a remarkably consistent capacity to turn out documents that defy comprehension by the non-specialist, despite the undoubted quality of the underlying assessments.

The IPCC's failure to communicate its conclusions directly and effectively to policymakers and the public is perhaps one reason why the public in the United Kingdom<sup>1</sup> and elsewhere does not appreciate the scale of the scientific consensus on man-made climate change, with potentially profound consequences for policymaking.

### Puncturing the 'bubble'

The most important policymakers are not specialists in climate science or the economics of mitigation. They may employ bureaucrats or advisors who are, although

that is not guaranteed, particularly in governments of small developing countries. If the SPMs are to allow science to speak directly to power, they must be appropriately constructed for time-poor generalists who spend virtually all of their working lives outside the climate 'bubble'.

For some insights into how the SPMs could be re-tooled, we can usefully look at the norms and practices of a communication channel with which policymakers are inevitably familiar, as instigators, subjects and recipients: news media.

Although it may not always appear this way from the outside, news writing is a mature discipline with its own set of rules. They govern the structure of the article or broadcast, and the sentences within it. These days, the rules can be found distilled into curricula by journalism trainers, but they principally exist as instincts that the new recruit develops through the simple method of being shouted at by dyspeptic editors. They exist because they work, shaped not by academic theorizing but by the Darwinian winnowing of the market for journalism. And the apotheosis of the reporter's craft is located in the radio newsroom.

Consider the constraints of radio news. The listener hears the words only once; ergo,

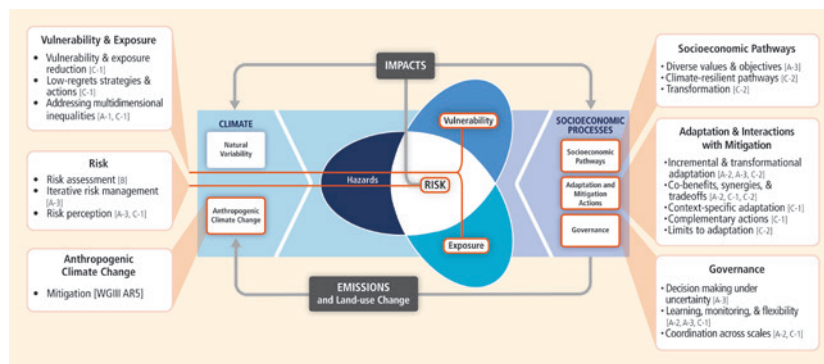
they must follow a logical order. The story must begin at the beginning and end at the end, taking the listener on a linear journey in between. If the broadcaster chooses words or syntax that engender even a few seconds of incomprehension, the listener loses the thread. There is no chance to re-read; no diagram or graph to clarify.

News website writing increasingly follows similar principles, driven largely by the number of options that the audience possesses. Flicking to a new article is as easy as scrolling down the page. Readers can go back and revisit a phrase that they did not quite understand — but they may not bother. In any case, why should they need to?

Principles from journalism can be applied to far more weighty projects, including IPCC SPMs. These documents too need to communicate effectively with an information-overloaded, time-poor, non-specialist audience — if the IPCC wants to reach the top branches of the policymaking tree directly.

### Jumbled up in jargon

For an example of how the IPCC needs to raise its game, we can look to the SPMs produced by each of the Working Groups of the Fifth Assessment Report (AR5).



**Figure 1 |** AR5 saw extensive use of infographics such as this example from the WGII Summary for Policymakers: but did they all live up to Einstein's dictum that "If you can't explain it to a six-year-old, you don't understand it yourself"? Schematic reproduced with permission from ref. 4, © IPCC, 2015.

WGI highlights the really vital pieces of information by putting them in brown boxes and bold text<sup>2</sup>. So long as the time-pressed reader does not make the mistake of delving into the introduction or the first block of text following it, and instead homes in on the first highlighted box, (s)he will find an important message: “Warming of the climate system is unequivocal... the atmosphere and ocean have warmed, the amount of snow and ice have diminished, sea level has risen, and concentrations of greenhouse gases have increased.” The next few boxes do not quite meet the same standard of clarity and importance, but still, the SPM is easily skim-read.

WGI enhances the offering by drawing all of the highlighted boxes into a two-page ‘headline statements’ document<sup>3</sup>. Although a step forward, this falls short of the ideal in two ways. First, the fact that language is transposed directly from the SPM means that it contains a number of jargon phrases (“radiative forcing,” “RCP2.6”). Second, it does not have the cachet of being titled “Summary for Policymakers”.

WGII opens with a contents page — a good idea — and the first sentence is an important one<sup>4</sup>: “Human interference with the climate system is occurring, and climate change poses risks for human and natural systems.” But the rest of the segment explains the scope and approach of the Working Group rather than continuing with the important findings. Visually, WGII inverts the WGI approach by putting ancillary text, rather than key findings, in highlighted boxes. Some early paragraphs contain important conclusions (“Many terrestrial, freshwater, and marine species have shifted their geographic ranges...”), while others are a little baffling both in terms of their meaning and selection. Overall, the lack of structure makes ‘do-it-yourself’ summarizing difficult.

The Introduction to the WGIII SPM<sup>5</sup> gives us background; so does the next section (“Approaches to climate change mitigation”). When on page 5 we eventually reach something that looks like a set of important conclusions, we read: “Sustainable development and equity provide a basis for assessing climate policies... Many areas of climate policy-making involve value judgements and ethical considerations... Among other methods, economic evaluation is commonly used to inform climate policy design...” — all statements of the obvious. Nothing makes the semi-engaged or time-pressed reader move on faster.

The Synthesis Report<sup>6</sup> offers an even greater opportunity. Imagine the state of climate science, economics and policy options for adaptation and mitigation,

distilled down to a two-page briefing of the type that world leaders are used to receiving from their aides. It could be done; but in 2014, it wasn’t. Jargon continued to be a problem even in the most condensed statements, and the persistence of AR5’s formal structure proved an impediment to streamlined communication — like a novel in which the locations of the various plot elements determine the narrative structure.

What these observations demonstrate is that rather than producing SPMs, the IPCC is in fact producing SfWs — Summaries for Wonks.

### Saying what you mean

What would the radio reporter do with this material?

WGI, for example, could start with something like: “Evidence that the climate is changing is now unequivocal, and it is at least 95% likely that human activities are the main cause.”

WGII might choose: “Climate change is affecting societies and nature on every continent, and poses significant risks for the future, particularly in poor countries.”

For WGIII, how about this? “Keeping global warming below 2 °C may be possible if strong climate policies are implemented worldwide, but becomes less likely if greenhouse gas emissions do not peak within the next decade.”

A well-written introduction to a radio report or newspaper article stimulates questions. The WGI sentence above makes one ask: “What evidence?” The WGII opening leads naturally to a discussion of how societies and nature are being affected, and which risks are posed. The WGIII sentence provokes the question of what it would take to meet the 2 °C target.

If the IPCC does not provide summaries of this simplicity and clarity, others will. Many government delegations produce their own two-page briefings for ministers and senior bureaucrats. NGOs and think tanks produce summaries for the public and for reporters<sup>7</sup>. Some are well written; but all contain a degree of adjustment, depending on the priorities of the particular organization, and none carries the gold standard imprimatur of the IPCC itself. By this early stage in the chain of communication, the IPCC has already lost control of its conclusions.

I was recently involved in a project<sup>8</sup> that distilled the findings of WGII and III into briefings for 11 business sectors such as tourism, agriculture and energy. On each document, we included a summary of WGI, which we condensed into five paragraphs on a single page. So it can be done.

### Making SPMs fit for purpose

The IPCC tacitly acknowledges that the SPM is not intended to be a full account of the underlying report by also providing a Technical Summary. There is nothing to prevent the SPM being re-tooled as a two-page document that could be put directly on the desk of a Prime Minister and that any citizen on Earth could comprehend, with the Technical Summary retained as the Summary for Wonks.

Three things would have to change. First, each Working Group would have to abandon the idea that the SPM must acknowledge every underlying chapter. There are chapters in AR5 WGII, for example, that are purely conceptual; although they may reflect the thinking of a school of academic study, they contain nothing of relevance to those (including policymakers) who live outside the bubble.

Second, the week-long Plenary would have to be re-designed. One way of approaching it would be to make the Technical Summary the document that delegates review. Delegates could arrive with the Technical Summary in a more honed condition than currently, and devote the first few days of discussion to finalizing it, perhaps largely through parallel committees. The SPM could then be drafted using extracts from the Technical Summary; this could be turned into plain language by a group of specialist writers, submitted back to Plenary, and signed off in a day.

Third, the assemblage of government delegates who are the IPCC’s *de facto* decision-makers would have to see the rationale. That might not be straightforward: some may be very happy at having the opportunity to edit the messages going back from the Working Groups to their ministers. And the academics who lead the Working Groups would have to recognize that however distinguished they may be as academics, their instincts on how to draft an SPM are not necessarily attuned to the requirements of policymakers — or, indeed, to the general public who in the final analysis fund the IPCC.

Effective communication always begins with the audience. It would be useful for the IPCC to run workshops with representatives of its audience, such as ministers, journalists and business advisors, prior to commencing its next project (whatever that may be) with a view to embedding communication excellence from the outset.

With the end of every IPCC assessment comes an opportunity to re-visit its processes and output. With AR5, the discussion is already starting. I would begin with the premise that the SPMs are the

most important documents that the IPCC produces, and try to make them live up to their titles. □

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COMMENTARY:

# The IPCC in an age of social media

Leo Hickman

How should the IPCC communicate its findings, not just to policymakers, but to a wider audience? In today's online environment, readers demand an open and transparent interaction, but the responses must be both rapid and authoritative. As the IPCC debates its future, it must be bold in engaging with social media.

In September 2013, the IPCC published *The Physical Science Basis*, the Working Group I contribution of the IPCC's Fifth Assessment Report (AR5)<sup>1</sup>. The 1,552-page report was 6 years in the making and the collective work of more than 600 scientists<sup>2</sup>. Its headline findings were reported around the world<sup>3</sup>: "Warming of the climate system is unequivocal"; "Human influence on the climate system is clear"; and "Continued emissions of greenhouse gases will cause further warming and changes in all components of the climate system."

A week later at a two-day conference held at the Royal Society in London, scientists gathered to discuss the findings and also to debate possible next steps for both the IPCC and climate science more broadly. Sir Mark Walport, the UK government's chief scientific adviser, told the audience that "science is not finished until it's communicated"<sup>4</sup>. To reinforce his point, he projected one of the report's complex figures on a screen. "We can't show graphs like these," he said.

Walport was highlighting a problem with the IPCC that has long been discussed by journalists, civil society representatives and even many scientists themselves: how do you best communicate the IPCC's often dense, highly technical findings, not just to policymakers, but to the wider world?

The Summary for Policymakers, or SPM, has been the IPCC's vehicle for doing so. A team from each working group is tasked with boiling their full report down to a summary document, which is then further refined by (with the involvement and approval of the report's co-chairs) and unanimously 'accepted' by government representatives from across the world. In addition, each assessment report concludes with a synthesis, which presents the key findings from each working group in one publication. The world's media — as well as various other organizations, such as NGOs — then report and disseminate these findings to a wide variety of audiences.

This system of summation largely worked well in the period from the first IPCC report in 1990 up to the fourth in 2007, when the IPCC gained global recognition and attention as it was jointly awarded the Nobel Peace prize with Al Gore. Over that period, policymakers and the public gradually 'woke up' to the topic of climate change, and the IPCC reports played a considerable role in this awakening.

This same period also saw the rise of the Internet as a means of disseminating vast volumes of digital data. By the mid-2000s, the Internet had also started to facilitate peer-to-peer mass communications, with services such as MySpace, Flickr,

Youtube and Facebook. Everyone with an online connection then had a voice and a means to project it via the 'social network'. Underneath online articles, readers could also leave comments. There was a sense that the Internet was undergoing a profound wave of democratization.

There is a lively debate on whether or not this is the case — but whether it is accurate is almost beside the point. What is significant is that there is now an expectation of democratization among online audiences. People want to have their say and, in addition, expect a response. At *The Guardian*, where I worked from 1997 to 2013, journalists were explicitly told to 'engage' with readers who were now leaving comments, sometimes in their thousands, under articles. Some of my colleagues found this to be profoundly challenging and unsettling. Others, such as myself, found it to be an exhilarating, if sometimes bruising, experience. This new open and interactive relationship quickly shaped and influenced the way many journalists worked. It heralded a new era of transparency and accountability. If you made a mistake, or argued a point poorly, your readers would be quick to correct you — and often relished doing so. In some respects, journalists were now engaged in a crude form of peer review, where their readers were very much their