

Scientists in Multilateral Diplomacy. The case of the Members of the IPCC Bureau

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Abstract

Scientific experts have become structuring actors in global environmental governance. They have put environmental problems on the agenda, facilitated the establishment of multilateral agreements, and continue to provide the information to support international policymaking. This paper, drawing on the literature on transnational professionals, introduces the notion of ‘transnational diplomat-scientists’ to describe a group of influential scientific experts that has risen to considerable power and increasingly acts as diplomatic actors in environmental agreement-making processes. Through qualitative methods and visual network analysis, we explore the case of the IPCC Bureau members and discuss the professional profiles and multipositionality of its members for the sixth assessment cycle (2015 - 2023). Strategically positioned at the science-policy interface, these actors connect different disciplines and stakeholders at different levels. Through such a positioning and their capacity to manage expectations and facilitate compromises, diplomat-scientists play a crucial role in upholding the authority of science in multilateral negotiations.

Keywords

epistemic communities – transnational professionals – diplomat-scientists - global environmental governance

Introduction

In October 2015, the Member States of the Intergovernmental Panel on Climate Change (IPCC) met in Dubrovnik, Croatia, to elect the Bureau, the body responsible for managing the production of its climate assessment reports. Five scientists were competing for the prestigious position of chairman. Several countries launched real campaigns, travelling the world with their candidate to win the support of other states. Belgium, supporting the climatologist and former IPCC vice-chair, Jean-Pascal van Ypersele, issued the following statement:

“Professor Jean-Pascal van Ypersele has been Vice-Chair of the IPCC since 2008. He is an *internationally recognized* climatologist and has shown a great interest in sustainable development and the socio-economic dimensions of climate change. He has also shown a great *ability to build consensus*, both within the IPCC and within the Federal Council for Sustainable Development, where he has chaired the ‘Energy and Climate’ Working Group for 16 years. Its scientific expertise and its knowledge of the IPCC have repeatedly enabled him to *propose solutions and compromises recognized by all*”¹.

¹ emphasis added, document saved by the authors, 2014.

As this statement illustrates, much has changed since scientists entered the international scene to alert nations to the risks of environmental degradation and speak 'truth to power'. More than an internationally renowned scientist, van Ypersele is presented as a seasoned diplomat capable of building consensus and compromise, and strategically positioned at the interface between the national and international levels and between science and politics.

Scientists are not new to international relations (IR), but their role has changed in the last decades. During the Cold War, scientists from the United States (US) cooperated with diplomats in the nuclear test ban and non-proliferation negotiations². Scientists also worked with national administrations and international organisations to put ozone depletion, climate change and biodiversity loss on the international agenda, ushering the establishment of several multilateral environmental agreements³.

While the impact of these scientific actors has been considerable, according to the literature, their influence came largely from outside formal multilateral negotiations. Acting as an epistemic community defined by shared concerns, scientists entered IR playing the role of whistle-blowers, mainly contributing to agenda-setting processes. Things, however, have changed. As this paper illustrates, not only have scientists acquired a stable seat at the negotiation table but are also increasingly in charge of setting up the table.

Drawing on the literature on transnational professionals and power elites⁴, we highlight the proximity between 'scientific' and 'political' actors in terms of socioeconomic background and views of the science-policy interface. First, we argue that the power of scientific experts in multilateral negotiations is closely linked to their trajectory and identity. Second, we show that the influence of scientific actors extends beyond agenda setting and problem framing to include diplomatic arbitration and brokering. They thus act as *diplomat-scientists*. The term 'diplomat' is understood here both in a specific sense, as skilled in understanding and accommodating states' concerns and in a broader sense, as capable of dealing with others in a sensitive or 'diplomatic' way. Becoming diplomats, however, comes at a price. While transnational diplomat-scientists may succeed in maintaining a seat for science in the negotiations, they often have to give up the possibility to openly criticise their outcomes.

To illustrate the role of diplomat-scientists, we take as our case study the 'elite of the elite' of environmental diplomacy: the leadership of the IPCC. The IPCC is an intergovernmental assessment body established in 1988 under the auspices of the United Nations Environment Programme (UNEP) and the WMO (World Meteorological Organisation) to provide regular assessments of the state of the knowledge on climate change. Mostly known for its role in alerting about the severity of climate change, IPCC assessments have become increasingly

² Harold Karan Jacobson and Eric Stein. *Diplomats, Scientists, and Politicians: The United States and the Nuclear Test Ban Negotiations* (Ann Arbor: The University of Michigan Press, 1966); Paul Rubinson. *Redefining Science: Scientists, the National Security State, and Nuclear Weapons in Cold War America* (Amherst: University of Massachusetts Press, 2017).

³ Peter Haas. "Banning Chlorofluorocarbons: Epistemic Community Efforts to Protect Stratospheric Ozone." *International Organization* 46 (1) (1992b), 187–224; Karen T. Litfin. *Ozone Discourses. Science and Politics in Global Environmental Cooperation* (New York: Columbia University Press, 1994); Marie Hrabanski and Denis Pesche. *The Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES). Meeting the challenge of biodiversity conservation and governance* (Abingdon-on-Thames: Routledge, 2016); Bentley, Allan B. "Producing the Climate: States, Scientists, and the Constitution of Global Governance Objects." *International Organization* 71 (2017), 131–62.

⁴ Niilo Kauppi and Mikael R Madsen. "Fields of Global Governance: How Transnational Power Elites Can Make Global Governance Intelligible." *International Political Sociology* 8(3) (2014), 324–30.

relevant in the debate about climate solutions⁵. The IPCC is composed of a Panel (open to all UN Member States), three Working Groups (WG I on the physical science basis of climate change, WG II on impacts, adaptation and vulnerability and WG III on mitigation), one Task Force (TF) on National Greenhouse Gas Inventories and one Secretariat (hosted by WMO in Geneva). It thus brings together a wide range of government representatives and experts in climate science, economics, engineering, etc.

Since its establishment, the IPCC has published six Assessment Reports (ARs) – AR1 (1990), AR2 (1995), AR3 (2001), AR4 (2007), AR5 (2014) and AR6 (2023) – and several Special Reports. Particularly policy-relevant are the reports' Summaries for Policymakers (SPM), which are approved line by line by governments and whose content have a "perceived binding force"⁶. Providing a scientific and technical knowledge base for the United Nations Framework Convention on Climate Change (UNFCCC), IPCC reports have informed international decision-making processes. More generally, the IPCC has become a negotiating site where issues of relevance (or contention) for the UNFCCC are discussed through a scientific and technical lens, often in the hope that a scientific consensus can keep negotiations on a rational basis and facilitate political compromises⁷.

As a hybrid institution between science and diplomacy, the IPCC has been extensively researched⁸. Less attention, however, has been paid to the professionals who organise its activities. Studies explored the national⁹ and institutional origins¹⁰ of IPCC authors and identified geographical, disciplinary and gender bias¹¹. Extending these researches, we propose to study the members of its Bureau. These professionals not only ensure the management of the IPCC, but are also active in a larger social space, mingling institutions, networks and

⁵ Kowarsch, Martin et al. "A road map for global environmental assessments." *Nature Climate Change* 7(6) (2017), 379–382.

⁶ Rioussset, P., Flachsland, C. and Kowarsch, M. "Global environmental assessments: Impact mechanisms." *Environmental Science and Policy* 77 (2017), 260–267.

⁷ See e.g. Fogel, C. "Biotic carbon sequestration and the Kyoto protocol: The construction of global knowledge by the Intergovernmental Panel on Climate Change." *International Environmental Agreements: Politics, Law and Economics* 5(2) (2005), 191–210; Jasmine E. Livingston and Markku Rummukainen. "Taking science by surprise: The knowledge politics of the IPCC Special Report on 1.5 degrees." *Environmental Science and Policy* 112 (2020), 10–16.

⁸ Bernd Siebenhüner. "The Changing Role of Nation States in International Environmental Assessments—the Case of the IPCC." *Global Environmental Change* 13(2) (2003), 113–23; Jessica O'Reilly, Naomi Oreskes, and Michael Oppenheimer. "The Rapid Disintegration of Projections: The West Antarctic Ice Sheet and the Intergovernmental Panel on Climate Change." *Social Studies of Science* 42(5) (2012), 709–31; Jasmine E. Livingston, Eva Lövbrand, and Olsson Johanna Alkan. "From Climates Multiple to Climate Singular: Maintaining Policy-Relevance in the IPCC Synthesis Report." *Environmental Science and Policy* 90 (2018), 83–90; Bård Lahn. "Changing Climate Change: The Carbon Budget and the Modifying-Work of the IPCC" *Social Studies of Science* 51(1) (2020), 3-17; Kari De Pryck. "Intergovernmental Expert Consensus in the Making: The Case of the Summary for Policy Makers of the IPCC 2014 Synthesis Report." *Global Environmental Politics* 21(1) (2021), 108-129.

⁹ Claudia Ho-Lem, Hisham Zerriffi and Milind Kandlikar. "Who Participates in the Intergovernmental Panel on Climate Change and Why: A Quantitative Assessment of the National Representation of Authors in the Intergovernmental Panel on Climate Change." *Global Environmental Change* 21(4) (2011), 1308–17.

¹⁰ Esteve Corbera, Laura Calvet-Mir, Hannah Hughes and Matthew Paterson. "Patterns of Authorship in the IPCC Working Group III Report." *Nature Climate Change* 6(1) (2016), 94–99; Hannah R. Hughes and Matthew Paterson. "Narrowing the Climate Field: The Symbolic Power of Authors in the IPCC's Assessment of Mitigation." *Review of Policy Research* 34(6) (2017), 744–66.

¹¹ James D. Ford, Will Vanderbilt, and Lea Berrang-Ford. "Authorship in IPCC AR5 and Its Implications for Content: Climate Change and Indigenous Populations in WGII." *Climatic Change* 113(2) (2012), 201–13; Miriam Gay-Antaki and Diana Liverman. "Climate for Women in Climate Science: Women Scientists and the Intergovernmental Panel on Climate Change." *Proceedings of the National Academy of Sciences of the United States of America* 115(9) (2018), 2060–65.

individuals to spread the words of science and support global environmental governance. While the case of the IPCC Bureau is only one example of such complex networks of professionals, it is an important one because the IPCC is one of the most sophisticated instances of multilateral scientific diplomacy¹².

Studying the IPCC Bureau members, we hope to provide insight into a new and increasingly important professional group. Diplomat-scientists are not scientists who occasionally engage in multilateral negotiations, but a group of individuals who orient much of their career to bridge the gap between science and policy. Because we want to investigate the careers of these individuals, their election in one of the most prestigious scientific and technical bodies and the way in which they shape multilateral negotiations, our research is based on a mixed method approach. We combine CV analysis (qualitative and visual network analysis), document analysis, interviews with Bureau members (conducted by the authors or available online) and direct observation of IPCC plenary sessions between 2014 and 2022, including the election of the Bureau for AR6 in Dubrovnik (Croatia) in 2015. These different levels of analysis, we believe, have seldom been considered together to study the role of experts in global governance. We are thus less interested in examining the details of individual career paths than in drawing attention to the growing professionalisation and transnationalisation of scientific actors in global environmental governance and the effect of such trends.

In the following sections, we present how scientific actors have been conceptualised in IR and discuss the new insights provided by thinking about them as transnational professionals and diplomat-scientists. The empirical demonstration is divided into three parts. The first investigates the empanelment process of Bureau members and the diplomatic dynamics at play. The second considers the members of the current Bureau and dives into their multipositioned professional careers – i.e. their tendency to occupy multiple positions in different fields. The third discusses the power of the Bureau members as epistemic arbiters and consensus builders and how such power shapes ‘agreement-making processes’ – within and beyond formal negotiations¹³.

The main conclusion of this paper is that, because of their multipositional and diplomatic power, transnational diplomat-scientists support a consensual management of climate change and succeed in maintaining a seat for science at the negotiating table. At the same time, their success is not without downsides. On the one hand, their centrality in the negotiations can reduce the space available for other non-scientific stakeholders. On the other hand, their efforts to adjust to states’ expectations and support political compromises may lead to maintaining an uncritical view of climate (in)action.

From epistemic communities to transnational power elites

The interest in scientific experts is congruent with an increased attention to the role of non-state actors in the international system and to the micro mechanisms of global governance¹⁴. Several concepts have been introduced to make sense of the ways in which these social groups produce

¹² Pierre-Bruni Ruffini. “The Intergovernmental Panel on Climate Change and the Science-Diplomacy Nexus.” *Global Policy* 9 (2018), 73–77.

¹³ Hannah R. Hughes et al. “Global environmental agreement-making: Upping the methodological and ethical stakes of studying negotiations.” *Earth System Governance* 10 (2021), 100121.

¹⁴ Joseph S. Jr. Nye and Robert Keohane. “Transnational Relations and World Politics: An Introduction.” *International Organization* 25(3) (1971), 329–49; Bruce Cronin. “The Two Faces of the United Nations: The Tension Between Intergovernmentalism and Transnationalism” *Global Governance: A Review of Multilateralism and International Organizations* 8(1) (2002), 53–71.

authoritative claims and influence states' agendas. These concepts differ in their understanding of the relational dynamics within and between groups (highlighting cooperation or competition), of the degree of autonomy that they exercise (ranging from transgovernmental to transnational) and of the processes through which they shape global governance (through learning or the performativity of knowledge).

Scientific experts have been primarily apprehended through the framework of epistemic community (EC) introduced by Haas and colleagues. ECs are “networks of professionals with recognised expertise and competence in a particular domain and an authoritative claim to policy-relevant knowledge”¹⁵. ECs gain influence at the national and international levels through different practices such as drafting reports, organising scientific workshops, pressuring delegates and sometimes even capturing decision-making channels¹⁶ – in other words, framing the context in which negotiations occur. They produce usable knowledge in the form of information that is accurate, accessible, and thus capable of contributing to the achievement of collective goals¹⁷. In line with this framework, many studies have investigated how these networks form and act as well as the conditions under which they succeed in supporting the establishment of international treaties.

The EC framework has come under scrutiny on at least four main grounds¹⁸. First, critics have questioned the insufficient attention reserved to interactional dynamics. Internally, the framework may overstate the unity and cohesion of ECs and neglect the conflicting interests and the political struggles that lie beneath their collective action. Externally, it has been challenged for failing to understand the mechanisms, other than learning, through which these professionals acquire their power, for instance by collaborating or competing with other state and non-state actors – e.g., transgovernmental networks, advocacy networks or coalitions and interpretative communities¹⁹. Secondly, many scholars have been rather sceptical about epistemic communities' ability to influence policy outcomes. For instance, Bernstein in his study of the institutionalisation of liberal environmentalism in the 1970s and 1980s found that scientific experts were successful in raising awareness about environmental problems, but substantially unable to contribute to decisions regarding these problems²⁰. Similarly, both Paterson and Newell²¹ highlighted the efficacy of ECs in framing early debates about climate change – especially in the World Meteorological Organization (WMO) and the IPCC – but also their incapacity to sustain such influence during the negotiations of the UNFCCC. A third

¹⁵ Peter Haas. “Introduction: Epistemic Communities and International Policy Coordination.” *International Organization* 46(1) (1992a), 3.

¹⁶ Peter Haas. “Banning chlorofluorocarbons: epistemic community efforts to protect stratospheric ozone.”

¹⁷ Peter Haas and Casey Stevens. “Organized Science, Usable Knowledge, and Multilateral Environmental Governance”, in *Governing the Air: The Dynamics of Science, Policy, and Citizen Interaction*, eds. Rolf Lidskog and Göran Sundqvist (Cambridge MA: MIT Press, 2011), 125–62.

¹⁸ Jean-Frédéric Morin. “Paradigm Shift in the Global IP Regime: The Agency of Academics.” *Review of International Political Economy* 21(2) (2014), 275–309.

¹⁹ Anne-Marie Slaughter. *A New World Order* (Princeton: Princeton University Press, 2005); Margaret E. Keck and Kathryn Sikkink. *Activists beyond Borders. Advocacy Networks in International Politics* (Ithaca: Cornell University Press, 1998); Paul Sabatier. “An Advocacy Coalition Framework of Policy Change and the Role of Policy-Oriented Learning Therein” *Policy Sciences* 21 (1988), 129–68; Diana Stone. “Partners to diplomacy. Transnational experts and knowledge transfer among global policy programs.” *The Politics of Expertise in International Organizations. How International Bureaucracies Produce and Mobilize Knowledge*, eds. Annabelle Littoz-Monnet (Abingdon: London, 2017), 93-110.

²⁰ Steven Bernstein. *The Compromise of Liberal Environmentalism* (New York: Columbia University Press, 2001).

²¹ Matthew Paterson. *Global Warming and Global Politics* (London: Routledge, 1996); Peter Newell, *Climate for Change* (Cambridge: Cambridge University Press, 2000).

critique concerns the nature of the knowledge produced by ECs. The framework has been challenged for holding a simplistic view of scientific consensus and paying little attention to the performativity of scientific knowledge²². Fourthly, by focusing on the supranational, the approach has fallen short to consider the extent to which these experts remain influenced by professional and national cultures within and across countries²³.

Other concepts have emerged to complement the EC framework and study how scientific actors engage across social domains to maintain a seat for science in multilateral negotiations, once a treaty or institution has been established. They investigate the diversity of the membership of transnational actors, the relations between them and the practices through which they make authoritative claims and compete for power. International political sociologists have increasingly conceptualised transnational professionals as power elites, drawing on the work of sociologists such as Max Weber, Charles Wright Mills and Pierre Bourdieu. Elites, according to Madsen and Christensen,²⁴ are defined by virtue of “being superior in terms of competence (knowledge and savoir faire) and/or because they enjoy a superior status (socially, economically, or intellectually)”. For Dezalay and Garth²⁵, their power is shaped by their positions at the national level and their capability to act at the interface of different social activities as “double agents”.

The concept of transnational power elites (TPEs) and associated notions (e.g., transnational policy community, clubs or guilds) draw attention not only to the collective, but also and crucially to the individuals and their trajectories. Such approach challenges a comprehension of transnational professionals as “denationalised²⁶” and disinterested, as a global “superclass²⁷” who transcends national boundaries and loyalties. According to Kauppi and Madsen, TPEs “are neither entirely international nor national but effectively transnational, and it is precisely from this vantage position that they can exercise power relying on both national and international resources and capitals²⁸”. They are deeply rooted in national society and, at the same time, share affinities and interests with professionals from other countries. Bigo describes for instance transnational professionals in police activities and intelligent services as “guilds” because they share specific knowledge (or “craft”) and develop “professional solidarities at a distance²⁹”. For Tsingou who studied the Consultative Group on International Economic and Monetary Affairs (or G-30), transnational professionals may also be connected “by elite peer recognition,

²² Rolf Lidskog and Göran Sundqvist. “When Does Science Matter? International Relations Meets Science and Technology Studies.” *Global Environmental Politics* 15(1) (2015), 1-20; Karen T. Litfin. *Ozone Discourses. Science and Politics in Global Environmental Cooperation* (New York: Columbia University Press, 1994); Charlotte Epstein. *The Power of Words in International Relations. Birth of an Anti-Whaling Discourse* (Cambridge MA: MIT Press, 2008).

²³ Antoine Vauchez. “Le prisme circulaire. Retour sur un leitmotiv académique” [The Circular Prism: Revisiting an Academic Leitmotiv]. *Critique internationale* 59 (9) (2013), 9-16; Yves Dezalay and Bryant G. Garth. “‘Lords of the Dance’ as Double Agents: Elite Actors in and around the Legal Field.” *Journal of Professions and Organization* 3(2) (2016), 188-206; Mai’a K. Davis Cross. “Rethinking Epistemic Communities Twenty Years Later.” *Review of International Studies* 39(1) (2013), 137–160.

²⁴ Mikael Rask Madsen and Mikkel Jarle Christensen. “Global Actors: Networks, Elites, and Institutions”, in *Oxford Research Encyclopedia of Politics* (Oxford: Oxford University Press, 2016), 8.

²⁵ Yves Dezalay and Bryant G. Garth. “‘Lords of the Dance’ as Double Agents: Elite Actors in and around the Legal Field”.

²⁶ Mikael Rask Madsen and Mikkel Jarle Christensen. “Global Actors: Networks, Elites, and Institutions”.

²⁷ David Rothkopf. *Superclass: The Global Power Elite and the World They Are Making* (New York: Farrar, Straus and Giroux, 2008).

²⁸ Niilo Kauppi and Mikael R Madsen. “Fields of Global Governance: How Transnational Power Elites Can Make Global Governance Intelligible.” *International Political Sociology* 8(3) (2014), 327.

²⁹ Didier Bigo. “Sociology of Transnational Guilds.” *International Political Sociology* 10(399) (2016), 399.

common and mutually reinforcing interests, and an ambition to provide global public goods in line with values its members consider honorable³⁰”. While competition can exist among their members (as they may have different professional identities and ideological commitments), “the club acts as a hub which irons out differences and illustrates how [...] diversity does not entail divergence or conflict”³¹.

TPEs may exercise multiple (often combined) forms of power – e.g. expert, cultural, network, economic³². The power of experts often lies in their capacity to use their knowledge to shape global governance, for instance by acting as epistemic arbiters and supporting institution and agreement building³³. According to Seabrooke, they may strategically “play off different forms of knowledge to provide policy solutions and, in doing so, generate markets for their services³⁴”. The positioning of experts between different professional fields often allow them to become arbiters of what knowledge is most policy relevant.

While such a perspective has been applied to humanitarian action³⁵, security³⁶, international law³⁷, the European Union³⁸, and finance³⁹, it has not yet been employed in global environmental governance to investigate scientific actors. Reflections about TPE extend the EC framework by highlighting the multipositionality of these elites between science and diplomacy and between the national and international levels. Transnational scientists are no ordinary experts, and their identity is defined by the more complex socio-professional background of transnational professionals. The TPE framework thus contributes to reveal the professionals standing behind dominant policy-relevant knowledge claims and their influence on global governance. It also positions scientific actors not only as agenda setters but also as influential governance agents⁴⁰.

In the next section, we discuss how such a framework can help conceptualise transnational diplomat-scientists. By introducing this notion, we adapt the TPE framework to the scientific elites in global environmental governance and highlight their diplomatic and bargaining skills.

³⁰ Eleni Tsingou. “Club Governance and the Making of Global Financial Rules.” *Review of International Political Economy* 22(2) (2015), 226.

³¹ Eleni Tsingou. “Club Governance and the Making of Global Financial Rules.”, 341.

³² Mikael Rask Madsen and Mikkel Jarle Christensen. “Global Actors: Networks, Elites, and Institutions.”, 8.

³³ Leonard Seabrooke. “Identity Switching and Transnational Professionals.” *International Political Sociology* 8(3) (2014), 335–337; Leonard Seabrooke and Eleni Tsingou. “Distinctions, Affiliations, and Professional Knowledge in Financial Reform Expert Groups.” *Journal of European Public Policy* 21(3) (2014), 389–407.

³⁴ Leonard Seabrooke. “Epistemic arbitrage: Transnational professional knowledge in action.” *Journal of Professions and Organization* 1 (2014), 49–64.

³⁵ Monique Beerli. “Saving the Saviors: Security Practices and Professional Struggles in the Humanitarian Space.” *International Political Sociology*, 12(1) (2018), 70–87.

³⁶ Anna Leander. “The Power to Construct International Security: On the Significance of Private Military Companies.” *Millennium* 33(3) (2005), 803–25.

³⁷ Niilo Kauppi “Knowledge Warfare: Social Scientists as Operators of Global Governance.” *International Political Sociology* 8(3) (2014), 330–32

³⁸ Mikael R. Madsen. “The International Judiciary as Transnational Power Elite.” *International Political Sociology* 8(3) (2014), 332–34.

³⁹ Leonard Seabrooke and Eleni Tsingou. “Distinctions, Affiliations, and Professional Knowledge in Financial Reform Expert Groups.”

⁴⁰ Eleni Tsingou. “Club Governance and the Making of Global Financial Rules.”, 226.

Introducing transnational diplomat-scientists

The study of transnational professionals shifts the research focus from global institutions to the constellations of actors and practices that govern them. Studying scientific elites, we may ask: who are those professionals who occupy leading positions in global environmental research and assessment, and develop close ties with government officials? What skills and specific expertise do they develop? How do they exercise power? Are there constraints and limits to this exercise of power? In this section, we present the general traits of the transnational diplomat-scientists, drawing on the literature and existing empirical studies on environmental experts.

Transnational diplomat-scientists share similar professional backgrounds (e.g., high scientific and technical qualifications) and similar career features (e.g., high international mobility). They occupy a privileged position because of a long-standing reliance on scientific knowledge to understand and solve global environmental problems. Their authority is based on the claim that science is neutral and universal, and that social progress should be informed by it. These claims are characteristic of a technocratic culture that is widespread and shared by many policymakers⁴¹. The establishment of the IPCC is a good illustration of this culture as many of its founders hoped that its reports would “sweep away some of the confusion and have reset the international dialogue over global warming on a more rational discourse”⁴². Even today, the assumption still prevailing in the organisation is that once the science is settled, policy should follow. Besides this common culture, transnational diplomat-scientists also share common assumptions about the science-diplomacy interface and how it should be organised. They for instance see consensus as the appropriate practice through which collective decisions should be made.

Diplomat-scientists are *transnational* in the sense that their power lies “in their combined experiences and capabilities in more national and international fields⁴³”. They maintain close ties with national bureaucracies (ministries, agencies and universities) while actively taking part in the globalisation of scientific knowledge through their participation in international scientific institutions and intergovernmental expert bodies. As scholars have shown, these bodies do not operate outside formal negotiations and have become important sites where struggle over knowledge and objects of governance takes place⁴⁴. Transnational diplomat-scientists are also engaged in multilateral processes. This is increasingly true of many climate scientists who regularly participate in UNFCCC meetings as researchers, members of national delegations or advisory groups⁴⁵.

A particularity of the scientists studied in this paper is their ability to engage in multilateral science diplomacy and agreement making processes. Their power lies in their capacity not only to speak the language of both science and diplomacy, but to switch identities and act as brokers between the two. Doing so, they define what constitutes appropriate science-diplomacy interactions. They contribute to the legitimisation of the expertise of specific communities and ultimately influence the policy options available. Transnational diplomat-scientists are also

⁴¹ Daniel Compagnon and Steven Bernstein. “Nondemarcated Spaces of Knowledge-Informed Policy Making” *Review of Policy Research* 34(6) (2017), 819.

⁴² Stephen H. Schneider. “Three Reports of the Intergovernmental Panel on Climate Change.” *Environment* 33(1) (1991), 26.

⁴³ Mikael R. Madsen. “The International Judiciary as Transnational Power Elite.”, 334.

⁴⁴ Hannah Hughes et al. “Global environmental agreement-making: Upping the methodological and ethical stakes of studying negotiations.”

⁴⁵ Paul E. Little. “Ritual, Power and Ethnography at the Rio Earth Summit.” *Critique of Anthropology* 15(3) (1995), 265-288; Martin Skrydstrup. “Tricked or Troubled Natures?: How to Make Sense of ‘Climategate’.” *Environmental Science & Policy* 28 (2013), 92–99.

crucial in making connections between different worlds and social networks and working out compromises. They are characterised by their multiple positionalities and identities and their capacity to move around professional sectors.

Finally, as *consensus builders*, diplomat-scientists build trust, mediate and negotiate agreements, learn to work across boundaries and use the knowledge gained in this process to their advantage. They are capable of negotiating their credibility not only with different scientific communities but also with diplomats. In the negotiations, they learn to avoid acting in ways that would, on the one hand, ignore diplomatic realities and, on the other hand, jeopardise scientific credibility. Transnational diplomat-scientists find ways “to meet the interests of multiple parties to reach an agreement consistent with science⁴⁶”. Auer identified for instance such bargaining power in the work of the expert-diplomats engaged in the Baltic Sea environmental regime, whose knowledge considerably shaped policy development in that area⁴⁷.

The Case of the IPCC Bureau

The profiles of the members of the IPCC Bureau reflect not only the competences needed to conduct the assessment work but also the bureaucratic and diplomatic process through which they are nominated. In this section, we discuss the process which underpins their election, to illustrate the proximity that exists between Bureau members and national government representatives.

The Bureau was established to conduct the assessment process and coordinate the work of the IPCC. Its mandate is “to provide guidance to the Panel on the scientific and technical aspects of its work, to advise on related management and strategic issues, and to take decisions on specific issues within its mandate [...]”⁴⁸. The Bureau includes today:

- The Chair of the IPCC;
- The 3 Vice-chairs of the IPCC;
- The 6 Co-chairs of the three Working Groups (2 for each WG);
- The 22 Vice-chairs of the WGs;
- The 2 Co-chairs of the Task Force (TFI) on National Greenhouse Gas Inventories.

Since 2012, the IPCC has an Executive Committee, which includes the IPCC Chair and Vice-chairs and the WG/TFI Co-chairs. Like the Bureau, it is accountable to the Panel.

The Bureau has a diplomatic function. Member States seek to be represented to have their perspectives reflected in one of the key executive bodies of the IPCC. To account for greater diversity between ‘developed’ and ‘developing’ countries and regions, the size of the Bureau has considerably increased over time (from 15 to 34 members). The procedures (first introduced in 2006) allocate a given number of seats per region: Africa (7), Asia (6), South America, North America, Central America and the Caribbean (4), South-West Pacific (4) and Europe (8). The procedures also note that the Chair does not represent a region; that the IPCC Vice-chairs should be from three different regions (including at least one from a developing country and one from

⁴⁶ William R. Moomaw. “Scientist Diplomats or Diplomat Scientists: Who Makes Science Diplomacy Effective.” *Global Policy* 9(S3) (2018), 79.

⁴⁷ Matthew R. Auer. “Colleagues or Combatants? Experts as Environmental Diplomats.” *International Negotiation* 3(2) (2003), 267–287.

⁴⁸ IPCC. *Terms of Reference of the Bureau* (2011), 1.

https://www.ipcc.ch/site/assets/uploads/2018/02/TOR_Bureau.pdf (accessed 17 May 2023)

a developed country); that one Co-chair in each WG/TFI should be from a developing country; and/or from a country which is ready to host a Technical Support Unit (TSU) – a small scientific and technical secretariat⁴⁹.

Since 1988, 120 individuals have occupied the position of Bureau member. In the early days of the IPCC, the distinction between Bureau members and Member State representatives was blurred and it was agreed that the Co-chairs and Vice-chairs of the WGs should be chosen among the principal delegates. Such practice continued in the 2000s⁵⁰, but a more pronounced distinction between Bureau members and government delegations was introduced starting from the fifth assessment cycle (2008-2014).

Becoming a member of the IPCC Bureau

Bureau members are elected at the beginning of each assessment cycle. In the first elections, members were mainly elected following behind-the-scenes negotiations. Election by secret ballot was formalised in 2002, following disagreements about the nomination of the Chair for AR3, which opposed the British chemist Robert T. Watson (the outgoing Chair) to the Indian engineer and economist, Rajendra K. Pachauri, who eventually won⁵¹.

Candidates are nominated by the Member States and must therefore have the support of the representatives who compose the delegation of their country at the IPCC. They must be seen as promoting the scientific or political interests of their country, which sometimes means not being too critical of its national policies. For instance, in the AR3 election Watson was running without the support of the US which had previously backed him. According to media reports, Watson's critical stance on the climate policy of the US (which had just pulled out of the Kyoto Protocol) and pressure from ExxonMobil prevented his re-election to the Bureau⁵².

In practice, the election of the Bureau is an extremely complex process whose unfolding is difficult to anticipate. It is a delicate exercise of abiding by the procedures while also reflecting the geopolitics of climate change. The process needs to ensure the representation of the great powers – and often the main funders of the IPCC – while projecting an image of scientific objectivity and independence. It is difficult to imagine a Bureau without a representative of the US, the United Kingdom (UK), Canada, Australia, Russia, China, Brazil and India - and in fact, these countries have been present in the Bureau for all six assessment cycles. For smaller countries too, making it to the Bureau brings visibility and a foothold in one of the key institutions of global climate governance and in the UN system.

Once elected, Bureau members can distance themselves from the government that nominated them, drawing from the legitimacy of being elected by the Panel. As spokespeople for the IPCC, they are enjoined to remain factual and objective in their communication and to "refrain from public statements that could be interpreted as advocacy and compromise the IPCC's reputation

⁴⁹ IPCC. Information Note on Voting Procedures and Practices for Elections. Voting and Conduct of Business at the 42nd Session of the IPCC (2015). <https://www.ipcc.ch/meeting-doc/ipcc-42-dubrovnik-croatia-5-8-october-2015/> (accessed 17 May 2023).

⁵⁰ For instance, the chemist R.T.M. Sutamihardja was Vice-chair of WG III and Head of the Indonesian delegation for the Third and Fourth Assessment Reports (AR3 and AR4). The climatologist, Yuri A. Izrael, was also both a Bureau member and Head of the Russian delegation over four assessment reports (AR1-AR4).

⁵¹ Andrew Lawler. "Pachauri Defeats Watson in New Chapter for Global Panel.", *Science* 296(5568) (2002), 632.

⁵² Jim Giles. "Climate Panel Unsettled by Public Battle for Top Job." *Nature* 416 (2002), 774.

for neutrality⁵³". The difficulties of the task that awaits Bureau members – respecting the assessment timeline and managing the expectations of hundreds of delegations and thousands of authors – contributes to creating a sense of proximity and solidarity within the group. This does not mean, of course, that disagreements cannot arise about the management of the assessment, the type of knowledge and perspectives to include. It is also important to note that not all Bureau members have the same power. The WG Co-chairs for instance hold greater and more direct influence on WG activities than other Bureau members. In general, members from developing countries find it more difficult to have their views considered, while developed country members sometimes complain that their developing country counterparts do not always have the appropriate scientific and technical credentials. Finally, gender imbalance in the Bureau has also long been an issue, one former member deploring “some sense of old boys’ network⁵⁴”.

The process that we have described reveals the diplomatic nature of the election of the Bureau. It also shows the proximity (institutional, political or epistemic) that may exist between the government officials represented in the Panel and the members of the Bureau. While political interests influence the election process, national delegations invest much effort in convincing other delegations of the adequacy of their candidate, underlying their scientific excellence, their communication skills and experience of the science-policy interface. Member States must thus strike a balance between electing someone who is politically acceptable and someone who is able to gain the support of the scientific communities that write the assessment reports.

The physique du rôle

In this section, we analyse the careers of the members of the AR6 Bureau and show that their trajectories and their proximity with the policy world are crucial to understand their nomination in one of the most prestigious scientific bodies in global environmental governance. We focus in particular on two features of the Bureau members. On the one hand, the authority obtained from being part of a highly skilled and mobile scientific and technical elite as well as from a long-time engagement with IPCC activities. On the other hand, their multipositionality across disciplines, between science and policy, at the national and international levels, and their ability to mould their identity to suit different audiences. To illustrate our arguments, we discuss the profiles of the members of the AR6 Bureau and zoom-in on the profile of a few of them.

Bureau members as elite scientists

The AR6 Bureau is composed of 34 members (Table 1), among which 28 are men and 8 are women – a record in comparison to past Bureaux, yet still below the average (34%) for AR6⁵⁵. 21 members are from developing countries and 13 from developed countries – which is well above the average (35%) for AR6. All qualify as middle-aged or old. Most Bureau members are highly qualified and transnationally mobile. 28 hold a Doctor of Philosophy (PhD). Nearly half (15) holds a diploma from a university ranked in the top 150 according to the Shanghai world ranking (2022 results⁵⁶). Nearly a third (11) received their diploma from universities in

⁵³ IPCC. Communication Strategy (2012), 5.

https://archive.ipcc.ch/meetings/session35/IAC_CommunicationStrategy.pdf (accessed 17 May 2023).

⁵⁴ InterAcademy Council. 2010. “Responses to the IAC Questionnaire.” p. 101.

<https://www.interacademies.org/project/review-ipcc> (accessed 17 May 2023).

⁵⁵ Adam Standring and Rolf Lidskog. “(How) does diversity still matter for the ipcc? instrumental, substantive and co-productive logics of diversity in global environmental assessments.” *Climate* 9(6) (2021), 1-15.

⁵⁶ <https://www.shanghairanking.com/rankings/arwu/2022>. Consulted by the authors on 27 January 2023.

the UK or the US, revealing the dominance of these countries as training sites⁵⁷. Considering only developing country members, more than half of them (14/21) received their degree from European or American institutions.

The majority of the members (20) occupy high-ranked academic positions as university professors, heads of research centres or senior researchers. The others (14) serve in local, national or international bureaucracies – although this does not mean that they do not produce research. A few members (3) have close ties to ministries as employees or consultants. With one exception (the Pakistani Muhamad Irfan Tariq), all have held previous positions in the IPCC, as authors (Coordinating Lead Author (CLA), Lead Author (LA) or Review Editor (RE)), government representatives or members of the Technical Support Units (TSUs). Nearly one third of the members (10) already held positions in the Bureau. Most have pluridisciplinary profiles and possess expertise on a wide range of scientific and technical topics. Only two of them have an expertise in the social sciences (economics).

⁵⁷ See also Esteve Corbera, Laura Calvet-Mir, Hannah Hughes and Matthew Paterson. “Patterns of Authorship in the IPCC Working Group III Report.” *Nature Climate Change* 6(1) (2016), 94–99.

Name	Country	Gender	Birth	Bachelor	Master	PhD	Highest title	Institution of highest degree	2022 Shanghai ranking	Current position	Bureau position	Previous role	First time in IPCC (AR)	Expertise	Type of profile
Hoesung Lee	KR	M	1945	1969	n/a	1975	PhD	Rutgers university (US)	101-150	Endowed Chair Professor, Korea University and board member, Korean Academy of Environmental Sciences	Chair	* IPCC Vice-chair	AR2	Economics, energy, sustainable development	[Academia]
Thelma Krug	BR	F	1951	1975	1977	1992	PhD	University of Sheffield (UK)	101-150	Former Researcher and Head of the International Affairs Office, National Institute for Space	IPCC Vice-chair	* TFI Co-chair	AR3	Physical, natural and applied sciences, statistics	[Ministry/Agency]
Ko Barrett	US	F	n/a	1994			BS	University of North Carolina (US)	n/a	Senior Advisor for Climate, National Oceanic and Atmospheric Administration	IPCC Vice-chair	Delegate	AR4	Environmental development and project management	[Ministry/Agency]
Youba Sokona	ML	M	1950	1976	1978	1981	PhD	Paris School of Mines and Pierre and Marie Curie University (FR)	43	Special Advisor, South Centre	IPCC Vice-chair	* WG III Co-chair	AR2	Environmental sciences, energy, sustainable development	[International institution]
Valérie Masson-Delmotte	FR	F	1971	1991	1993	1996	PhD	École centrale de Paris, Paris Saclay (FR)	16	Research director, Climate and Environment Sciences Laboratory	WG I Co-chair	WG I CLA	AR4	Physical, natural and applied science, paleoclimatology	[Academia]
Panmao Zhai	CN	M	1962	1984	1990		MS	Nanjing University (CN)	101-150	Professor and Senior scientist, Chinese Academy of Meteorological Sciences	WG I Co-chair	WG I LA	AR4	Physical, natural and applied science	[Ministry/Agency]
Debra Roberts	ZA	F	1961	1982	n/a	1991	PhD	University of Natal (ZA)	501-600	Head, Environmental Planning and Climate Protection Department of eThekweni Municipality	WG II Co-chair	WG II LA	AR5	Environmental sciences, urban biogeography	[Local authority]
Hans-Otto Pörtner	DE	M	1955	n/a	n/a	1983	PhD	University of Münster and Düsseldorf (DE)	201-300	Professor and Head of section, Alfred Wegener Institute and Bremen University	WG II Co-chair	WG II CLA	AR4	Environmental sciences, animal physiology	[Academia]
Jim Skea	UK	M	1953	1975	n/a	1978	PhD	University of Cambridge (UK)	4	Professor, Imperial College London	WG III Co-chair	* WG III Vice-chair	AR2	Energy policy, technological innovation	[Academia]
Priyadarshi Shukla	IN	M	1950	n/a	1976	1979	PhD	Stanford University (US)	2	Distinguished Professor, Ahmedabad University	WG III Co-chair	WG III LA	AR2	Engineering, energy, environment policy	[Academia]
Eduardo Calvo Buendia	PE	M	n/a	n/a	1991	1994	PhD	Comenius University (SK)	701-800	Associate Professor, National University of San Marcos	TFI Co-chair	* WG II Vice-chair	AR3	Environmental sciences	[Academia]
Kiyoto Tanabe	JA	M	1968	1991	1993		MS	University of Tokyo (JA)	24	Principal researcher, Institute for Global Environmental Strategies	TFI Co-chair	TFI TSU	AR3	Geophysics, environmental sciences, GHG inventories	[Academia]
Edvin Aldrian	ID	M	1969	1993	1998	2003	PhD	University of Hamburg (DE)	201-300	Professor, Agency for Assessment and Application of Technology, and member of the Meteorological, Climatological and Geophysical Agency	WG I Vice-chair	WG I LA	AR5	Physical, natural and applied sciences, meteorology	[Ministry/Agency]
Fatima Driouech	MA	F	n/a	1989	1994	2010	PhD	Paul Sabatier University, Toulouse (FR)	201-300	Associate Professor, University Mohammed VI Polytechnic	WG I Vice-chair	WG I LA	AR6	Physical, natural and applied science, meteorology	[Ministry/Agency]

Muhammad Irfan Tariq	PK	M	n/a	1985	1998		MS	University College London (UK)	18	Former Director General, Ministry of Climate Change	WG I Vice-chair	No experience	AR5	Environmental management	[Ministry/Agency]
Carolina Vera	AR	F	1962	n/a	1986	1992	PhD	University of Buenos Aires (AR)	201-300	Full Professor, University of Buenos Aires and Principal Researcher of the Argentinian National Council of Sciences	WG I Vice-chair	SREX LA	AR5	Physical, natural and applied science, meteorology	[Academia]
Gregory Flato	CA	M	n/a	1984	1988	1991	PhD	Dartmouth College (US)	301-400	Senior research scientist, Environment Canada and Adjunct Professor, University of Victoria	WG I Vice-chair	WG I CLA	AR4	Physical, natural and applied science, engineering	[Ministry/Agency]
Jan Fuglestedt	NO	M	1960	n/a	n/a	n/a	PhD	University of Oslo (NO)	67	Researcher and Director, Centre for International Climate and Environmental Research	WG I Vice-chair	WG I LA	AR5	Atmospheric chemistry	[Academia]
Noureddine Yassaa	DZ	M	1973	1995	1997	2001	PhD	USTHB (DZ) and Institute of Atmospheric Pollution Research (IT)	n/a	Director, Centre for Development and Renewable Energy and Professor, University of Science and Technology – Houari Boumediene	WG I Vice-chair	Delegate	AR5	Chemistry, environmental sciences	[Academia]
Carlos Mendez	VE	M	n/a	n/a	1999	2010	PhD	Simon Bolivar University (VE)	n/a	Head, Venezuelan Institute for Scientific Research	WG II Vice-chair	Delegate	AR5	Environmental sciences, biology	[Academia]
Andreas Fischlin	CH	M	1949	n/a	1975	1982	PhD	ETH Zurich (CH)	20	Professor emeritus, ETH Zurich	WG II Vice-chair	WG II RE	AR2	Environmental sciences, ecology	[Academia]
Joy Jacqueline Pereira	MY	F	n/a	1989	1991	1996	PhD	University of Malaya (MY)	301-400	Professor and Principal Research Fellow, University Kebangsaan Malaysia and fellow of the Academy of Sciences	WG II Vice-chair	WG II CLA	AR5	Geosciences, risk reduction	[Academia]
Mark Howden	AU	M	n/a	1983	n/a	1990	PhD	Griffith University (AU)	201-300	Researcher, Commonwealth Scientific and Industrial Research Organisation and Director, Australian National University	WG II Vice-chair	WG II LA	AR2	Environmental sciences, food and agriculture	[Academia]
Pius Zebhe Yanda	TZ	M	1960	1986	1989	1995	PhD	Stockholm University (SE)	90	Professor and Director, University of Dar es Salaam	WG II Vice-chair	SREX LA	AR4	Physical geography	[Academia]
Taha Mohammed Zatari	SA	M	1958	1984	n/a	1996	PhD	University of Newcastle Upon Tyne (UK)	201-300	Consultant, Ministry of Energy, Industry and Mineral Resources	WG II Vice-chair	* WG III Vice-chair	AR1	Environmental engineering	[Ministry/Agency]
Roberto A. Sanchez-Rodriguez	MX	M	n/a	n/a	n/a	1984	PhD	University of Dortmund (DE)	901-1000	Professor, College of the Northern Border	WG II Vice-chair	WG II LA	AR5	Environmental sciences, Urban Planning	[Academia]
Sergey Semenov	RU	M	1948	n/a	1970	1974	PhD	Moscow State University (RU)	101-150	Researcher and Director, Institute of Global Climate & Ecology	WG II Vice-chair	* WG II Vice-chair	AR1	Physical, natural and applied science	[Academia]
Amjad Abdulla	MV	M	1970	1996	2000		MS	University of Bath (UK)	401-500	Director General, Ministry of Environment and Energy	WG III Vice-chair	* WG II Vice-chair	AR5	Strategic planning, management and innovation	[Ministry/Agency]
Ramón Pichs-Madruga	CU	M	1962	1985	1991	1998	PhD	National Autonomous University of Mexico (MX)	201-300	Director and Researcher, University of Havana	WG III Vice-chair	* WG III Co-chair	AR3	Economics	[Academia]
Diana Ürge-Vorsatz	HU	F	1968	n/a	1992	1996	PhD	University of California (US)	5	Professor and Director, Central European University	WG III Vice-chair	WG III CLA	AR4	Environmental sciences and engineering	[Academia]
Nagmeldin G.E. Mahmoud	SD	M	1958	1982	2000		MS	University of Khartoum (SD)	n/a	Researcher, Higher Council for Environment and Natural Resources	WG III Vice-chair	TFI LA	AR3	Natural resources, environment and development	[Ministry/Agency]

Carlo Carraro	IT	M	1957	n/a	1981	1985	PhD	Princeton University (US)	5	Professor, Ca' Foscari University of Venice	WG III Vice-chair	* WG III Vice-chair	AR3	Environmental economics	[Academia]
Diriba Korecha Dadi	ET	M	1969	1991	2005	2014	PhD	Bergen University (NO)	301-400	National Climate Scientist, Famine Early Warning Systems Network	WG III Vice-chair	Delegate	AR5	Meteorology	[Ministry/Agency]
Andy Reisinger	NZ	M	n/a	n/a	1994	1998	PhD	University of Canterbury (NZ)	401-500	Deputy Director, NZ Agricultural Greenhouse Gas Research Centre	WG III Vice-chair	WG II CLA	AR3	Environmental sciences, agricultural emissions inventory	[Ministry/Agency]

Table 1. For all Bureau members, we state their country of origin, gender, birth year (when available), graduation dates (when available), highest degree, the institution they received it from and its position in the 2022 Shanghai rankings (when listed), current profession (as of April 2023), position in the Bureau, previously held positions in the IPCC (* if already in the Bureau), expertise and type of profile (based on the institution they work for).

Let us have a closer look at the chair, the South Korean Hoesung Lee, the fourth IPCC chair and the second scientist from a developing country to hold the position. While Lee presents himself as “just an ordinary guy who studied economics and climate change”⁵⁸, he is the son of a public prosecutor and the brother of Lee Hoi Chang, a former prime minister of South Korea and three-time presidential candidate. He graduated from the prestigious Seoul National University and obtained his PhD in economics from Rutgers University (US) in 1975. Lee has close ties to business – he worked for ExxonMobil in the 1970s and was a board member of Hyundai Corporation – and government – he founded the Korea Energy Economics Institute, a government-affiliated research institution. He is currently professor of economics at Korea University, a private research university. Already involved in the leadership of the IPCC in AR2 and AR5, Lee led an impeccable campaign for the position of chair with the active support of his government. Speaking about his adequacy for the job, Lee said

“I believe my experiences in government policy making, my experiences in research – and also I had a duty to perform as a teacher in environmental policy at the University of Korea, and also I have served a number of advisory functions to the government offices in Korea, as well as the international bodies – have very much enriched not only my own professional development, but I hope my services to those organisations will also be beneficial for them”⁵⁹.

The fact that he was the only candidate from a developing country⁶⁰ worked in his favour⁶¹. In comparison to the other candidates⁶², all notable scientists in their field who heavily drew on the register of science, Lee adopted a straightforward policy-oriented message around the need for the IPCC to focus on solutions to climate change – a shift initiated by major national and international research programmes, institutions and funders in the early 2010s⁶³. Lee surfed a trend initiated in the runup of the 21st Conference of the Parties to the UNFCCC (COP21) which called for engaging more stakeholders in the definition of climate policies – and in particular to include the private sector⁶⁴. His election confirmed the ‘managerial turn’ taken by the IPCC – and global climate governance in general⁶⁵.

Considering their social and academic standing (and the example of the IPCC chair), Bureau members appear like a sort of elite (scientific and/or bureaucratic) that cumulates eminent qualifications, high mobility, multiple positions of responsibility in universities, research

⁵⁸ Chang May Chon. “An ordinary guy who helped ‘clean up’ Korea.” *The Straits Times*, 2015. <https://www.straitstimes.com/asia/east-asia/an-ordinary-guy-who-helped-clean-up-korea> (accessed 17 May 2023).

⁵⁹ Interview conducted by Roz Pidcock, 15 September 2015. <https://www.carbonbrief.org/the-carbon-brief-interview-dr-hoesung-lee>

⁶⁰ In 2015, South Korea was still classified as a developing country. It was reclassified as a developed country by the UN Conference on Trade and Development in 2021.

⁶¹ The candidate from Sierra Leone, Ogunlade Davidson, was nominated late in the process and was eventually unable to attend the plenary session in Dubrovnik because of visa issues.

⁶² The Swiss Thomas Stocker, the Belgian Jean-Pascal van Ypersele, the American Chris Field and the Austrian/Serb Nebojsa Nakicencovi.

⁶³ Kari De Pryck and Krystel Wanneau. “(Anti)-boundary work in global environmental change research and assessment.” *Environmental Science & Policy* 77 (2017), 203–210.

⁶⁴ Karin Bäckstrand et al. “Non-State Actors in Global Climate Governance: From Copenhagen to Paris and Beyond.” *Environmental Politics* 26(4) (2017), 561–79.

⁶⁵ Stefan C Aykut, Edouard Morena and Jean Foyer. “‘Incantatory’ governance: Global Climate Politics’ Performative Turn and Its Wider Significance for Global Politics.” *International Politics* 58(4) (2021), 519–540.

centres, ministries and governmental agencies and a lasting involvement in IPCC activities, in itself an authoritative institution in global environmental governance.

These professionals generally have multiple identities and maintain various links with the academic, political and economic worlds, at the national and international levels, which we explore in greater detail in the next section. While their national recognition helps Bureau members access international institutions, the prestige that they accumulate in the IPCC reinforces their credibility at the national level.

The multipositionality of Bureau members

Bureau members operate at the interface between scientific disciplines and between science and policy. They have the capacity to speak in the name of these different social worlds and mould their identity to their audiences. They have both specific and broad qualifications. Most members also emphasise their interdisciplinary background and their experience with multi-stakeholder research projects – the IPCC being a unique transdisciplinary adventure in itself. Other qualifications are put forward including management and communication skills, as well as the capability to engage with a diversity of stakeholders (business, practitioners, the general public, and even children⁶⁶). The fluidity of these practices allows Bureau members to moul their identity.

For instance, Jim Skea, the WG III Co-chair, presented himself in Dubrovnik as a physicist who “went extreme to work with the social sciences”⁶⁷. In other contexts, he is Professor of sustainable energy at Imperial College London and is often presented by the rather cryptic formula of *CBE FRSA FEI HonFSE*⁶⁸ in reference to the various excellence awards he received throughout his career. Skea has been involved in the IPCC since AR2 and was WG III Vice-chair in AR5. Over time, he has also built multiple bridges between the scientific, the policy and the business sector. As a founding member of the UK’s Committee on Climate Change (in 2008), he was involved in advising the Parliament on setting and meeting the national carbon budgets. His position of President of the UK Energy Institute (until 2017) also allowed him to work with professionals across the energy industry. This accumulation of positions gives Skea a privileged position at the national level and an authority recognised across different audiences.

Most Bureau members already had well-established national academic and/or policy networks prior to joining the IPCC. When they were not working for ministries or agencies, they were members of advisory committees or occupied advisory roles for institutions concerned with the environment, climate change, energy, agriculture, transport, etc. Bureau members thus hardly ‘escape’ the national. They are sometimes involved at different stages in the definition and implementation of climate policies. IPCC members from developing countries are often considered as key spokespersons of the scientific community of their region and play a leading role in the initiation or coordination of climate action in their country.

Let us consider, for example, the trajectory of the South African WG II Co-chair, Debra Roberts who joined the IPCC in AR5 as a Lead Author. Her election in 2015 illustrated the ‘local turn’ that the IPCC has sought to take in response to criticisms about its failure to integrate local

⁶⁶ Valérie Masson-Delmotte published three children’s books on climate change (in French, translated in Spanish, Italian, Korean and Chinese).

⁶⁷ Notes from observation, IPCC-42, Dubrovnik, 2015.

⁶⁸. Commander of the Most Excellent Order of the British Empire (CBE), Fellow of the Royal Society of Arts (FRSA), Fellow of the Energy Institute (FEI) and Honorary Fellow of the Society for the Environment (HonFSE). <https://www.imperial.ac.uk/people/j.skea> (accessed 17 May 2023).

knowledge and practitioner information⁶⁹. Roberts describes herself as “a biologist by training, who very rapidly got frustrated with an academic environment that wasn’t connected to the real world⁷⁰”. Following a PhD in urban biogeography at the University of Natal and a postdoctoral project with Nature England (the government agency responsible for conservation in England), she joined the eThekweni Municipality in 1994 and established the Environmental Planning and Climate Protection Department. She has overseen biodiversity and climate adaptation planning and developed Durban’s first resilience strategy. Roberts navigates the space between research and practice, as a local government official, practitioner and scientist. In a presentation she gave in 2015, Roberts introduced her audience to “guerrilla street science”, the science “that, we, as practitioners are using in the real world”⁷¹. She argues that such “science is equally important in understanding the way that socio-ecological systems work and probably more important than the traditional sciences in driving change [...]”.

At the same time, being in the IPCC also opens new doors at the national level. For instance, Valérie Masson-Delmotte quickly became a national figure in France when she stepped in as WG I Co-chair. She has been invited to speak in front of the French National Assembly, the government and the country's first Citizen's Convention for Climate. Since its establishment in 2018, she is a member of the High Council on Climate Change, an independent body in charge of assessing national climate policies and advising the government on how to align its action with the Paris Agreements. When asked to join Emmanuel Macron's government in 2022, she refused⁷².

At the international level, Bureau members are particularly invested in the science-diplomacy interface. In Figure 1, we mapped⁷³ the institutional landscape of the international collaborations mentioned in the CVs of the Bureau members. Bureau members (triangles) are linked to an institution or organisation (nodes), if they worked for, advised or collaborated with it. The bigger the triangles representing individuals, the more institutions or organisations they are connected to (and conversely the bigger the institution-node, the more people are connected to it). Not all members are equally positioned, some being more involved in scientific than in political institutions. Several members (Masson Delmotte, Flato, Zhai, Yanda, Vera, etc.) have participated in international scientific programs and projects (white nodes) – including Future Earth, the World Climate Research Programme (WCRP) or the International Human Dimensions Programme (IHDP). Others (Pich Madruga, Sanchez-Rodriguez and Roberts) have been involved in other global environmental assessments, including the Global Environmental Outlook (GEO) produced by UNEP and the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES)⁷⁴. Members also assumed different roles in a variety of international organisations and networks (light grey nodes) – including UNEP, WMO, the United Nations Development Programme (UNDP), the World Bank (WB), UN-

⁶⁹ David Viner and Candice Howarth. “Practitioners’ Work and Evidence in IPCC Reports.” *Nature Climate Change* 4 (2014), 848–50.

⁷⁰ Interview conducted by Roz Pidcock, Carbon Brief, 18 October 2015 <https://www.carbonbrief.org/the-carbon-brief-interview-debra-roberts> (accessed 17 May 2023).

⁷¹ Debra Roberts. Dealing with gaps between science, practice and policy, 2015. <https://www.youtube.com/watch?v=tHV9OMDz9aE> (accessed 17 May 2023).

⁷² Valérie Masson-Delmotte in the weekly newspaper l'Obs, November 3-9 2022.

⁷³ The network was built using excel and the software Gephi. See Venturini, Tommaso, Mathieu Jacomy and Pablo Jensen. “What do we see when we look at networks: Visual network analysis, relational ambiguity, and force-directed layouts.” *Big Data & Society* 8(1) (2021), 1-16.

⁷⁴ While such information is not included in their CVs, we also found that Priyadarshi Shukla has contributed to the Emission Gap (UNEP), that Youba Sokona has contributed to GEO-3 and that Hans-Otto Pörtner is the IPCC resource person for the biodiversity and pandemics workshop organised by the IPBES.

Habitat and the Asia-Pacific Network for Global Change Research (APN). They are significantly involved in multilateral forums (dark grey nodes), in particular within the UNFCCC, either as scientific adviser, member of a national delegation or expert in related mechanisms (e.g., the Clean Development Mechanism (CDM) or the REDD+ initiative to reduce emissions from deforestation and forest degradation). For instance, several members (Aldrian, Zatar, Tanabe, Tariq) have been involved in the Consultative Group of Experts (CGE) on National Communications from Parties not included in Annex I, which aims at assisting developing country Parties fulfil their reporting requirements under the Convention. Both international organisations (light grey nodes) and multilateral institutions (dark grey nodes) occupy a central position in the network because they connect many members. In comparison, international scientific programs and assessments (white nodes) tend to be more marginal in our network.

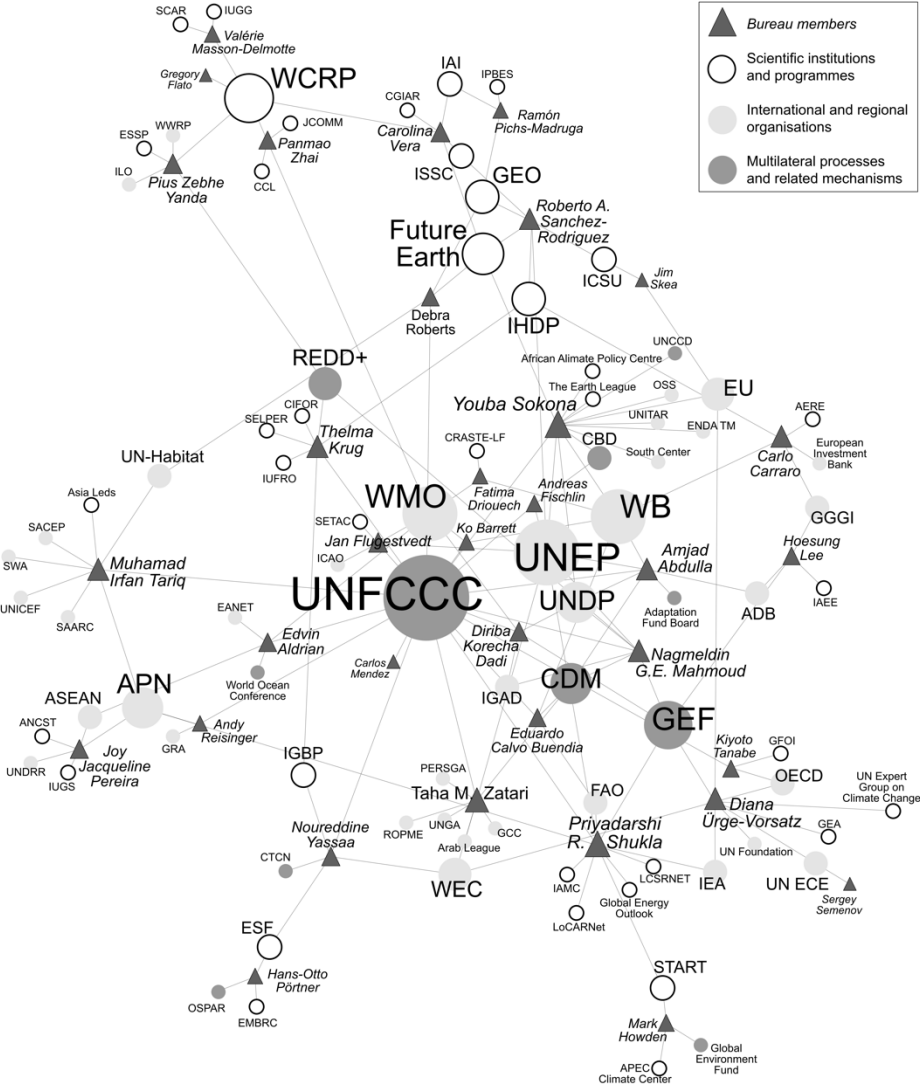


Figure 1. Institutional landscape of the international collaborations mentioned by IPCC Bureau members in their CVs. We distinguished between scientific institutions and programs (white nodes), international and regional organisations (grey nodes) and multilateral processes and related mechanisms (dark nodes).

Through their involvement in international and multilateral institutions, Bureau members are socialised to similar ways of thinking and doing. All these institutions, programs and

mechanisms for instance imbue them with similar values of consensus and balance between national interests and the codes of neutrality that characterise these arenas. As representatives or advisers of national delegations, Bureau members also know the tricks of the trade and may exert direct or indirect influence in the deliberations. Their international and national standing and their fluid profiles allow them to orient diplomats and other stakeholders in complex scientific and technical processes and to defend the centrality of science in international negotiations. At the same time, the intergovernmental context in which they evolve makes them particularly prone to adjusting expert conclusions to the language, needs and preferences of political actors, as we discuss in the next section.

Epistemic arbitrage and consensus building

The multipositionality of transnational diplomat-scientists and the many connections that they entertain with the policy world have an effect on the roles that they play in agreement-making processes. As *epistemic arbiters*, they can play off pools of knowledge and narratives from different domains and use them to steer the IPCC assessments in certain directions. As *consensus builders*, their actions are also shaped by the diplomatic context in which they navigate and which they have to accommodate to maintain a seat for science at the negotiating table.

Bureau members can influence the assessment process and act as epistemic arbiters by putting certain issues on the agenda, thus contributing to their naturalisation and legitimisation - e.g. climate ethics, sustainable development, the role of cities in the climate transition, the climate-biodiversity nexus. The Bureau also leads the nomination of the authors who write the reports, drawing from the lists provided by Member States and observer organisations, but also from their personal networks. This process, which remains largely undocumented, may result in selection bias⁷⁵. Scholars have criticised the reluctance of the WGs to mobilise the full range of perspectives from the social sciences and Indigenous Knowledge⁷⁶. In the preparation of the Special Report on Global Warming of 1.5 °C (SR15), NGOs also accused the Bureau of violating the IPCC conflict of interest policy by selecting experts from ExxonMobile and Saudi Aramco, while disregarding experts from NGOs⁷⁷.

Bureau members can further influence the selection of the key messages of the reports and adjust them to policy needs and interests. Their role as epistemic arbiters has been for instance particularly visible in discussions about the feasibility of the global temperature goals that guide the UNFCCC (the 1.5°C and 2°C targets) and the policy options available to achieve them. It has been suggested that the leadership of the IPCC adjusted to policy expectations by being more optimistic than non-IPCC experts⁷⁸. In AR5 already, the team of the WG III Co-chair Otmar Edenhofer at the Potsdam Institute for Climate Impact Research (PIK) played an instrumental role in asserting the feasibility of the 2-degree target, which was strongly promoted

⁷⁵ Stranding Adam and Lidskog Rolf. "(How) does diversity still matter for the ipcc? instrumental, substantive and co-productive logics of diversity in global environmental assessments".

⁷⁶ David G. Victor. "Embed the Social Sciences in Climate Policy." *Nature* 520 (2015), 27–29; James D. Ford, Will Vanderbilt and Lea Berrang-Ford. "Authorship in IPCC AR5 and Its Implications for Content: Climate Change and Indigenous Populations in WGII" *Climatic Change* 113(2) (2012), 201–13.

⁷⁷ The letter is available here (accessed 17 May 2023):

https://etcgroup.org/sites/www.etcgroup.org/files/files/ipcc_conflict_of_interest_letter_final.pdf

⁷⁸ Hélène Guillemot. "The Necessary and Inaccessible 1.5°C Objective." in *Globalising the Climate: COP21 and the Climatisation of Global Debates*, eds. Edouard Morena, Jean Foyer, and Stefan Aykut (Routledge, 2017), 39–56.

by the European Union in the negotiations leading up to the Paris Agreement⁷⁹. Such assertion was in part made possible by the introduction of uncertain and controversial technologies (negative emission technologies, or NETs) in the pathways developed by PIK and other modelling teams⁸⁰. In AR6, debates on the feasibility of the 1.5°C target and the role of NETs in keeping it reachable seem to have followed a similar process - what van Beek et al.⁸¹ call ‘political calibration’, i.e. the process of iterative readjustment and negotiation between scientists and diplomats. To maintain the idea that climate change remains governable, the IPCC has constructed negative emissions as a matter of necessity⁸². To balance the critique about the role of NETs in international climate policy, AR6 also brought attention to “demand-side” solutions (i.e. associated with individual choices, behaviour, lifestyle changes and social norms and culture) and the Sustainable Development Goals, an addition strongly supported by Jim Skea⁸³.

Finally, Bureau members play a key role in agreement-making between governments, in particular during the approval of the SPMs. Through their long experience of political processes, the Bureau learns to anticipate governments' comments and act diplomatically. According to a former member⁸⁴ “[...] you need to listen to the needs of the delegates, formulate these needs, find a common ground, develop a sensitivity to listen to the signals of different parties. You need some diplomatic skills”. Another acknowledged the need to be a “skilful negotiator. You need to wrap up things and should not be too direct. A scientist wants to be more affirmative, but this is all diluted in governmental diplomacy”⁸⁵. Bureau members help to provide a balanced view on climate change, its impacts and solutions, through a discourse that ensures that governments' multiple and sometimes diverging interests on climate policy are reflected.

Acting diplomatically may sometimes mean avoiding statements that governments could reject⁸⁶. For instance, Skea, asked about the reasons that led to delete a reference to the 10 largest CO₂ emitters in AR5, recognised that “the word 'blame' is probably not one that will appear in any chapter, or summary for policymakers”⁸⁷. In another interview, asked about the role of the IPCC in assessing climate obstruction by states and economic actors, Skea noted that “it is not IPCC’s job to comment on the policies of individual countries or organisations”⁸⁸. His stance echoed that of another WG III Bureau member, Diana Ürge-Vorsatz, who noted that “it is definitely not the role of the IPCC to criticise governments. That is not our business”⁸⁹. Being

⁷⁹ Eva Lövbrand. “Co-Producing European Climate Science and Policy: A Cautionary Note on the Making of Useful Knowledge.” *Science and Public Policy* 38(3) (2011), 225–36.

⁸⁰ Silke Beck and Martin Mahony. “The politics of anticipation: The IPCC and the negative emissions technologies experience.” *Global Sustainability* 1 (2018), 1–8.

⁸¹ Lise van Beek. et al. “Navigating the political: An analysis of political calibration of integrated assessment modelling in light of the 1.5 °C goal.” *Environmental Science and Policy* 133 (2022), 193–202.

⁸² Beck, Silke and Oomen, Jeroen. “Imagining the corridor of climate mitigation – What is at stake in IPCC’s politics of anticipation?” *Environmental Science and Policy*, 123 (2021), 169–178.

⁸³ Interview by Leo Hickman, Carbon Brief, 11 July 2016 <https://www.carbonbrief.org/carbon-brief-interview-prof-jim-skea> (accessed 17 May 2023).

⁸⁴ Interview 18, 11 March 2016.

⁸⁵ Interview 17, 1 March 2016

⁸⁶ John Broome. “Philosophy in the IPCC.” in *Philosophy for the Real World*, eds. Evelyn E. Brister and Robert R. Frodeman (Londres: Routledge, 2020), 95–110.

⁸⁷ Interview by Leo Hickman, Carbon Brief, 11 July 2016. See footnote 82.

⁸⁸ AR6 WG III press release : <https://www.youtube.com/watch?v=STFoSxqFQXU> (accessed 17 May 2023).

⁸⁹ Diana Ürge-Vorsatz in Science For Policy Podcast: <https://www.youtube.com/watch?v=bc9D7INZeYw> (accessed 17 May 2023).

a consensus-builder thus may sometimes mean losing the possibility to hold governments accountable for their (in)action.

Conclusion

The objective of this paper is to contribute to reflections about the role of scientific actors in multilateral negotiations. Its contribution is threefold.

First, it aimed at opening up the category of scientific actors to investigate their multipositionality between social worlds (science, policy, economy) and their privileged access to multilateral negotiations. Drawing on an understanding of scientific actors as transnational professionals, we analysed the peculiar trajectories of the members of the IPCC Bureau and the way in which their action pushes for a technical and rational management of environmental problems. Our investigation highlighted the importance of multipositionality as a way to bridge across disciplinary boundaries, between science and diplomacy and between the national and international levels, but also as a way to facilitate political compromises. We showed that most members of the Bureau share facts of origin and career: they possess high university diplomas often obtained abroad; they have pursued careers in research centres, universities or government institutions; and they have occupied various advisory or negotiating roles in national and international bureaucracies. This does not mean, of course, that transnational diplomat-scientists are all the same and that they are all equally influential. Some are more involved at the national level and others at the international; some have networks that extend more in the scientific spheres while others are more linked to political institutions. Their power also depends on their position and on the technical and institutional resources that they can build on. Yet, their similar trajectories and common multipositionality allow them to act as a group and to position themselves as spokespersons for an expert-led management of global problems. Their fluid disciplinary and professional identity also allows them to translate scientific knowledge, moulding it to the needs and expectations of policymakers. Therefore, diplomat-scientists are neither entirely scientific nor political actors but effectively both, and it is precisely from this dual position that they can exercise power.

Second, this paper highlighted the capacity of scientific actors to act diplomatically and contribute to agreement-making processes. Scientific actors are not only agenda setters, but also active participants in legitimising certain policy outcomes and building consensus between states. On the one hand, as epistemic arbiters, members of the IPCC Bureau take decisive arbitrages on the orientation of the expert recommendations, which in some cases may mean to adjust them to what they think is politically acceptable and relevant. As consensus builders, they can adapt their discourse to achieve compromises that suit all participants. They ensure that scientific experts have the last word, but a last word that does not question states' positions (at least those of the key players in climate geopolitics). The elite of the IPCC contributes to define a common science-policy culture that unites both scientists and government representatives, but also constrains it within the limits of the politically acceptable. The power of these diplomat-scientists comes from their ability to understand and represent the perspectives of both scientists and policymakers and by that preserving the authority of science (as well as their own authority) in multilateral diplomacy. Their action legitimises the pursuit of international negotiations which strongly relies on scientific and technical input, but also tends to minimise divergences about the climate crisis and, by dint of pleasing all governments, may avoid (geo)political red lines, foster lowest common denominator consensus and favour the status quo. Diplomat-scientists accept, at least while exercising their mandate, the game of multilateral bargaining, sometimes at the expense of reflexivity and scientific rigour.

Finally, the paper shows that scientific leaders can rely on solid networks of institutions that produce knowledge for use in international negotiations. On the one hand, organisations like the IPCC act as training sites for scientific experts who learn to work closely with diplomatic expectations and adjust their research agenda to their needs. On the other hand, the international collaborations of diplomat-scientists allow them to extend their network of influence beyond global climate governance. Through the years, these transnational professionals have ensured that science maintains a seat at the negotiating table, but they have also transformed the governance of global environmental problems by contributing to its increasing technocratisation. Such technocratisation means that other framings brought forward by non-scientific stakeholders (NGOs, youth, indigenous and local communities, etc.) are not given the same space and weight in global environmental governance. This means for instance that the questions of social and climate justice or reflections about the limits of capitalism are given less prominence. Such technocratisation is particularly visible when comparing the IPCC to other expert bodies such as the IPBES, which is more inclusive of diverse systems of knowledge and stakeholders. These voices should be given urgent attention and consideration; otherwise, there is a risk of marginalising the IPCC as a scientific technocratic club reserved only for a self-proclaimed scientific elite.

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