# The Panel on Climate Change and the Intergovernmental Platform on Biodiversity and Ecosystem Services

Establishment and Significance

Steinar Andresen<sup>\*</sup> G. Kristin Rosendal, PhD<sup>\*\*</sup>

ajor regional and global environmental agreements often feature scientific advisory panels. The most comprehensive and sophisticated advisory body is the Intergovernmental Panel on Climate Change (IPCC). Established in 1988, the panel is tasked with providing scientific overviews of the current state of knowledge on climate change and the potential environmental and socioeconomic impacts, based on research produced worldwide.

The Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) was established in 2012 to strengthen science–policy relations and interface "for the conservation of biodiversity, ecosystem services, long-term human well-being, and sustainable development."<sup>1</sup> The United Nations (UN) Framework Convention on Climate Change (UNFCCC) and the Convention on Biological Diversity (CBD) had a common start at the 1992 Rio Conference. The many regional and global efforts to stem the problem of biodiversity loss predates Rio by

<sup>\*</sup>The author is a research professor at the Fridtjof Nansen Institute, Norway. He has been a guest researcher at the University of Washington-Seattle, Princeton University, and the Brookings Institution, Washington, DC. He has also held a part-time position at the International Institute of Applied Systems Analysis in Austria and has been a full professor in the Department of Political Science, University of Oslo, Norway, and an adjunct professor at the Pluricourts Center of Excellence, University of Oslo. Professor Andresen has worked mostly with international issues and has published extensively worldwide.

<sup>\*\*</sup>G. Kristin Rosendal is a research director and professor at the Fridtjof Nansen Institute. She holds a doctorate in political science and has published extensively on issues relating to international regimes on environment and trade, with a focus on access and benefit sharing and intellectual property rights to genetic resources (see *www.fni.no* for a complete list of publications). With Sebastian Oberthür, she is the editor of *Global Governance of Genetic Resources: Access and Benefit Sharing* in the aftermath of the Nagoya Protocol to the Convention of Biological Diversity in 2010.

several decades, and the IPCC predated Rio by four years. Modeled after the IPCC, the IPBES did not appear until almost 30 years later.<sup>2</sup>

We first examine the two formation processes, asking how could the IPCC be formed so quickly, compared to the IPBES? And secondly, what has been the significance of the IPCC in influencing decisions within the UNFCCC, and more generally in framing perceptions outside the UN framework? Given the similarities in design, what are the chances that the IPBES can influence the CBD?

## Analyzing IPCC and IPBES Formation and Significance

Our analytical point of departure for the first research question is the theory tradition of analyzing the conditions necessary for international regimes to be created.<sup>3</sup> There are three schools of thought on this issue: realist, liberalist, and social constructivist. For realists, a precondition for regime creation is the presence of a hegemon willing and able to take on the sizable costs involved. As the significance of hegemons regarding the establishment of international environmental regimes has been found to be limited,<sup>4</sup> we focus on the more general concept of power, clearly relevant also for the creation of environmental regimes.<sup>5</sup> The liberal school of thought underlines the significance of interests for regime creation, whereas social constructivists emphasize the key role played by knowledge and epistemic communities.<sup>6</sup>

Might the delay in establishing the IPBES be due primarily to interestbased factors, or was it a matter of knowledge-based factors? One explanation could be that the initial demands for the IPBES were politically controversial and advocated by weak parties. If the delay was due mainly to political conflicts, we may assume that the establishment of the IPBES happened because of changes in the interests of dominant actors. Alternatively, the establishment of the IPBES might be due to the emergence of new scientific evidence as to the need for such a body to respond to common problems.

The analytical backdrop to our second research question concerns how scientific assessments can influence global governance.<sup>7</sup> Most scholars have focused on the significance of organizational design, pointing to the significance of securing a mix between the credibility and legitimacy of scientific advice.<sup>8</sup> This implies securing a balance between scientific integrity and stakeholder involvement. Scientific research should be carried out independently, but some political involvement is needed to make it useable to policymakers.<sup>9</sup> This is the chief argument for making both the IPCC and IPBES intergovernmental bodies. The extent to which advisory panels make a difference does not depend solely on a more or less "optimal" organizational design; at least equally important is the nature of the issue-area within which the regime operates.<sup>10</sup> The first dimension is the intensity of political conflicts characterizing the issue-area: the more politically controversial ("malign") the issue-area, the less are the chances that scientific advice will be heeded. The second is the extent to which scientific consensus or uncertainty characterize the issue-area within which the advisory body and the political regime exist. The more scientific conflicts and uncertainty, the lower will be the chance of scientific influence. Other characteristics of the problem structure may also make a difference for the influence of science.<sup>11</sup> Of relevance for the two issue-areas in question are the following: whether a feasible (technological) cure is available; if the effects are close in time; if problems affect the social center of the international community; if problems are developing rapidly; and if the effects are evident to the public. In each instance, a "yes" makes it more likely that scientific advice will be heeded.

# The IPCC: Formation and Influence

### **Regime Formation Process**

Although the IPCC was established quickly compared to the IPBES, it still took some 30 years from when the issue surfaced in scientific circles until the IPCC was established. Systematic scientific research on the earth's climate system started in the late 1950s. In the 1970s, the political relevance of climate change was highlighted by the UN Environmental Program (UNEP). The World Meteorological Organization (WMO), UNEP and the International Council for Science played key roles in organizing a series of workshops in the 1980s. At a 1985 meeting organized by these three organization (the Villach Conference), scientists declared: "in the first half of the next century a rise of global mean temperatures would occur, which is greater than any in man's history."<sup>12</sup> The Villach Conference initiated the establishment of a scientific body, the Advisory Group on Greenhouse Gases (AGGG), under the auspices of the same organizations.

Not until 1988, however, did climate change enter the international political agenda, boosted by the Toronto Conference on the Atmosphere. This was not an intergovernmental conference but a forceful combination of activist scientists, activist policymakers, environmental nongovernment organizations (NGOs) and business representatives.<sup>13</sup>

It was within this expanding and creative science-policy interface that the IPCC was established. Accounts differ as to who was the main architect behind

the IPCC. Some credit the UNEP and General Secretary Mustafa Tolba; others attribute it to informal discussions in the WMO. According to Shardul Agrawala, the United States was in a unique position, with by far the most cumulative expertise in climate-change research.<sup>14</sup> However, there were strong differences of opinion among key US actors on how to proceed with this issue. According to Hannah Hughes, the Environmental Protection Agency and the Department of State preferred a knowledge-led convention process, whereas the Department of Energy opposed policy action.<sup>15</sup> The outcome was a US proposal in 1986 to establish an intergovernmental scientific mechanism, which was expected to reduce the pressure for policy action.<sup>16</sup> The US viewpoint was communicated to the WMO, which in 1987 decided to set up such a mechanism with UNEP. Formally the WMO and UNEP were thus the founding fathers of the IPCC, but what is perhaps its major feature—its intergovernmental nature—was the result of a proposal from the most powerful climate actor at the time, the United States.

Science clearly played an important role—as otherwise the IPCC would probably never have seen the light of day—lending support to the social constructivist approach for explaining regime creation. On the other hand, it is equally probable that if the scientists had dominated the field all by themselves, there would never have been an IPCC with its key intergovernmental component. This was largely the result of internal divisions of opinion within *one* actor. The fact that this actor was the United States reminds us that the power aspect should not be neglected when studying regime establishment. In fact, the IPCC proved much stronger than the United States envisioned. Moreover, it did not serve to divert attention from the policy impacts—rather the contrary. Also prominent in the process was leadership of several kinds, exerted by various types of actors.

The interests of the industrialized states were dominant, with the developing countries remaining more passive and skeptical. However, the IPCC may have been easier to accept thanks to its intergovernmental nature, which gave the developing countries some control over the process.<sup>17</sup> Also, while the North won through on the IPCC, the South won regarding the political dimension, as the UNFCCC negotiations would be held directly under the auspices of the UN General Assembly.

## IPCC: Influence in General and on the UNFCCC

### A Balanced Institutional Design

The IPCC is organized into three working groups, various task forces, and a secretariat. Simply put, working group (WG) 1 works on science, WG 2 on im-

pacts, and WG 3 on response strategies. The WGs publish full reports and summaries for policymakers. The main conclusions of these reports provide the basis for the synthesis report. After the WGs have resolved the final questions, the entire IPCC meets to approve these and finally to approve the synthesis report.<sup>18</sup> Government representatives conduct a detailed review of the summary for policymakers. Thus, in the end, political control is tight, and political conflicts are not infrequent.<sup>19</sup>

Still, the scientific process is characterized by scientific independence and thorough review processes. Lead authors prepare the first drafts by synthesizing relevant scientific literature. Contributing authors help write special sections. These drafts then undergo two rounds of scientific review. With the Fourth Assessment Report, experts from more than 130 countries contributed; more than 450 lead authors received input from more than 800 contributing authors; and an additional 2,500 scientists reviewed the draft documents. The IPCC published Assessment Reports in 1990, 1995, 2001, 2007, and 2013.<sup>20</sup>

Many observers conclude that the IPCC has managed to ensure a good balance between legitimacy and credibility, thereby increasing its potential for influencing decision makers and the public at large.<sup>21</sup> Bernd Siebenhüner stresses the significance of its inclusive intergovernmental nature, securing government ownership in the IPCC.<sup>22</sup> This stood in contrast to the more independent AGGG, which did not achieve much. Others, however, have been more critical to the political control, which they see as diluting the scientific component.<sup>23</sup>

The IPCC has undergone significant changes over time, due not least to criticism from developing countries and actors skeptical to climate change.<sup>24</sup> Efforts have also been made to increase the legitimacy of the IPCC towards the South by recruiting more scientists from the South and by providing them with financing from the Trust Fund. However, given the structural imbalance in scientific expertise between the North and the South, this represents a challenge that the IPCC must work on continuously.

The 2009 "Climategate" incident reinforced criticism from climate-skeptical groups. Renowned climate scientists had apparently sought to minimize the influence of critical views, while failing to document their own disputes. Moreover, the 2007 IPCC Report's prediction that the Himalayas could lose all their glaciers in 25 years was shown to be wrong. These events prompted several reviews of IPCC procedures and the substance of its work.<sup>25</sup> The report written by a committee chaired by former Princeton University president Harold Shapiro, along with others, endorsed the main conclusions of the IPCC. However, it was held that the IPCC had failed to live up to the calls for transparency and accountability characterizing the recent "governance revolution."<sup>26</sup> In response to the

recommendations given, the IPCC established a task force to advance revisions of its procedures to restore its credibility.

Publication of the 2013 IPCC Report did not spark any major controversies. Although such incidents have harmed the IPCC's reputation, when viewed over the course of its long existence, the IPCC has generally managed to balance credibility and legitimacy fairly well. In line with our analytical framework, the IPCC should therefore have a basis for influencing the climate negotiations and the public at large. More recently, a different issue has surfaced: the accusation that the lack of social science input is making the IPCC irrelevant to climate policy.<sup>27</sup> It has also been held that the IPCC needs to become more solutions-oriented.<sup>28</sup> The question remains: could making such adjustments reduce the deep-seated political conflicts surrounding the IPCC and its work?

## Climate Change: A Malign Problem

The level of scientific consensus is now high, thanks not least to the IPCC. This does not mean there are no dissenting voices. But the level of scientific consensus or the organizational setup of this science–policy nexus are not the main problems when it comes to dealing with climate change. More challenging are the North–South political conflicts which contribute significantly to reducing the influence of scientific advice. Although the IPCC has convincingly argued why emissions should be reduced, they keep rising sharply in the Global South as the countries there continue their pursuit of industrial development.

The other indicators listed under point two assumed to affect the influence of scientific advice show this is a "malign" problem. When a feasible technological cure to the problem exists, scientific influence tends to be quite high.<sup>29</sup> Simply put: It is easy to take on board scientific advice to reduce emissions when this can be done at little or no cost, as the international ozone regime has shown.<sup>30</sup> However, with GHG emissions there are no similar quick technological fixes available, although technology has gradually made a positive difference. As to whether effects are close in time, here lies a major challenge for policymakers: the effects are long-term and uncertain, whereas the costs are up-front and high. That makes it difficult for scientists to influence decision makers. Furthermore, the effects are most severe for the South, which may reduce Northern willingness to act. However, the effects for the North are sufficiently negative to keep the issue high on the political agenda, contributing to sustained interest in scientific information. Are the negative consequences evolving rapidly and visibly? Here we find a mixed picture. For a long time, the consequences of climate change evolved gradually, with many effects remaining invisible. More recently, reports of natural disasters and dramatic media scenes have contributed to the growing impression of more

rapid change and visible dangers around the globe, and that may make policymakers more inclined to listen to the warnings from the IPCC.

Overall, climate change is still a politically malign problem where it is difficult for scientists to get their message across. Still, while the North–South conflict has remained fairly constant, there have been changes in some of the other dimensions that may make it easier for scientists to make their message heard. Can we see signs of this among the public at large as well as in the climate negotiations?

## **IPCC** Influence

We start with the question of the IPCC influence on the public, noting that this cannot be answered conclusively, as the issue of "complex causality" looms large. There are so many different sources of influence that it is impossible to ascertain precisely how much change in attention and behavior can be ascribed to the IPCC. Still, some indications can be noted. Especially in the Western world, perceptions have changed, and variations in climate are now more widely interpreted as effects of climate change. Climate considerations are also increasingly brought up in domestic decision making.<sup>31</sup>

The climate panel has probably been instrumental in contributing to this development. The panel has also used the media to an increased extent, and the environmental movement and the media have amplified the scientific message and spread it to reach the public. In 2007, the IPCC was awarded the Nobel Peace Prize (together with former US vice president Al Gore), a clear sign of a period characterized by optimistic "climate hype."

However, with the financial crisis came lessened interest in climate matters, showing that the attention span of the media and the public is vulnerable to the influence of other forces.<sup>32</sup> More recently, general interest in climate change has again picked up, as shown both by the considerable attention given to the latest IPCC Report in 2013, and even more so the Paris Conference of the Parties (COP) in late 2015.

On balance, the IPCC can be said to have played an important role in raising awareness among the public, and its influence has increased over time. It is hard to envision the increasing calls for a green transformation without the significant contribution of the IPCC.

What has been the effect on the UN climate negotiations? Measuring this is easier, thanks to the closeness between the IPCC and the UNFCCC. Overall, the influence must be said to have been modest: the IPCC message has consistently been to reduce emissions, but instead they have increased by some 50 percent since the adoption of the UNFCCC. The first IPCC Report was prepared quickly, which may have contributed to the rapid adoption of the UNFCCC as well. However, while the IPCC Report called for a 60 percent reduction of carbon dioxide emissions, the convention proved weak on this point. Due to differing views on the role of the IPCC, the panel was not acknowledged as the advisory body until later. Moreover, the Kyoto Protocol can hardly be said to be based on IPCC advice: it was a political compromise, and greenhouse gas emissions increased more steeply in the decade after its adoption than in the previous decade.

However, in line with our expectations, the influence of the IPCC seems to have increased over time. The 2° C target adopted at the 2009 Copenhagen COP was endorsed by the IPCC. This was taken a step further in the Paris Agreement with the aspirational 1.5° C target, an indication that policymakers are paying greater attention to scientific messages from the IPCC. Further, the climate negotiators have commissioned the IPCC to make a special report on how the 1.5-degree target can be achieved. It remains to be seen whether this increased attention to and the use of IPCC expertise will translate into necessary action on the ground.

## **IPBES:** Formation and Influence

#### **IPBES:** Regime Formation Process

The concept of biodiversity surfaced in the 1980s,<sup>33</sup> but awareness about human-induced species loss dates to the late seventeenth century and the extinction of the dodo. There is some scientific uncertainty regarding estimates as to the total number of species, but practically no scientific disagreement concerning the severity of biodiversity loss, estimated at about 100 times the natural background rate, that is what it would have been without human intervention.<sup>34</sup>

Numerous national and international efforts to stem the loss of biodiversity kept failing, and then scientific and political attention to biodiversity loss exploded in the late 1980s. A *World Resources Institute (WRI)* report warned that a quarter of the world's species might have disappeared by 2050;<sup>35</sup> this was followed by similar studies by the WRI, IUCN and UNEP.<sup>36</sup> Along with the *WRI* and *Environmental Data* reports and the annual *UNEP State of the Environment* reports, this provided authoritative and unsettling overviews of the state of global biodiversity loss.

The international response was to negotiate the CBD (1989–1992). There were also early, but unsuccessful, efforts to create an IPCC-like scientific body for biodiversity.<sup>37</sup> Then renewed efforts started outside of the CBD, with the call for the multistakeholder UN Millennium Ecosystem Assessment (MA).<sup>38</sup> The MA

involved more than 1,360 scientists from all over the world in assessing the consequences of ecosystem change for human well-being. Their findings provided a state-of-the-art scientific assessment of conditions and trends in the world's ecosystems and the services they provide, as well as the scientific basis for action to promote conservation and sustainable use.<sup>39</sup> Along with The Economics of Ecosystems and Biodiversity report,<sup>40</sup> the MA stressed how the loss of ecosystem services linked to biodiversity loss has devastating effects on human well-being all over the world.<sup>41</sup>

In 2004, preceding Gore and the IPCC by three years, Wangari Maathai of Kenya was the first environmentalist to receive the Nobel Peace Prize, which was awarded for her work on tree planting with the Green Belt Movement. In the aftermath of the MA, calls for an independent scientific platform gained added weight, leading first to an International Mechanism of Scientific Expertise on Biodiversity (IMoSEB). The idea of the IMoSEB appeared in 2005, when French president Jacques Chirac launched a call for an "IPCC" for biodiversity. With the IMoSEB, an international steering committee was established, with 90 members from a range of disciplines and representing all regions. A consultative process ensued, and regional support for an IPCC-like platform for biodiversity began building up.

The new acronym, IPBES, emerged from the IMoSEB steering committee process in 2007. This was a European initiative, again headed by France. The parties debated how to secure scientific credibility and political legitimacy. Some called for a panel of scientific and political actors, while others preferred strengthening existing scientific networks, such as the CBD Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA). When the CBD COP 10 (held in Nagoya in 2010) recommended the establishment of the IPBES, this marked an important political step.<sup>42</sup>

The IPBES was established by UNEP at the request of the 65th session of the UN General Assembly in 2011. The UNEP, in cooperation with the UN Educational, Scientific and Cultural Organization, Food and Agricultural Organization, and the UN Development Group, convened two plenary meetings to operationalize the IPBES. The first session was held in Nairobi in 2011 and the second in Panama City in 2012, where the IPBES was launched.

## Assessing the Formation Process: Interest or Knowledge-based Delay?

A significant difference between the IPCC and IPBES concerns the role of key actors in the formation phases. The IPBES was promoted by European countries (primarily France and Norway), whereas the intergovernmental nature of the IPCC had been largely the idea of the United States. The IPBES was also opposed by the actors most crucial for addressing biodiversity issues—the Global South. To explain this, we need to examine the political and scientific arguments against the IPBES.

Similar to climate change, the biodiversity agenda was initially criticized by the South as being primarily Northern, but then the developing world came to see the CBD as their main success story in Rio.<sup>43</sup> The victory of the South was largely normative, as the developing countries succeeded in broadening the scope of the CBD from purely a "preservation of wildlife" treaty to one encompassing the valuable domesticated genetic material. By including plant breeding and pharmaceutical bioprospecting, the South linked conservation issues to an access and benefit sharing regime. As major food plants originate in the South, recognition of the rapid loss of genetic diversity in domesticated plants and potential risks for food security provided the South with leverage. The North, with France and the United States as keen advocates of a wildlife preservation treaty, thus lost defining power over the CBD, and the United States never ratified the treaty.<sup>44</sup> The West European initiative behind the creation of the IPBES harked back to the early phases of the CBD negotiations, with preservation trumping issues of equity. Not only did the IPBES lack the backing of dominant key actor, the United States—it also lacked backing from the Global South.

Anne Larigauderie and Harold A. Mooney concur that the IPBES delay was due principally to political concerns, mainly among developing countries that feared that the SBSTTA would lose political control of biodiversity issues.<sup>45</sup> The SBSTTA has been criticized for being too political rather than providing the necessary salient, legitimate, and credible scientific advice.<sup>46</sup> The IPBES process kept stalling, as parties failed to resolve the dilemma of creating a panel with the necessary political mandate while also remaining politically independent.<sup>47</sup>

Another worry was that the IPBES and an increased focus on scientific assessments could entail even less attention to funding for biodiversity conservation in the South.<sup>48</sup> While the magnitude of the problem of biodiversity loss is comparable to climate change, overall attention to and relative funding for biodiversity have decreased significantly, possibly deflected by the growing focus on climate change.<sup>49</sup>

The lack of political will may have been accompanied by knowledge-based arguments against having yet another scientific assessment body. This is based on the existence of an extensive range of scientific assessments bodies within the biodiversity cluster, reflecting the long history of global and regional efforts to stem the loss of biodiversity. The Ramsar Convention has its Scientific and Technical Review Panel and is also aided by the International Union for Conservation of Nature (IUCN), Birdlife International, Wetlands International, and the World Wildlife Fund. The Bonn (Germany) Convention on Migratory Species (CMS) has a Scientific Council, and the Convention on International Trade in Endangered Species of Flora and Fauna is aided by Trade Records Analysis of Flora and Fauna in Commerce/WWF, the IUCN, UNEP, and the World Conservation Monitoring Centre. This abundance of forums also reflects broader organizational differences between the climate change and the biodiversity regimes. Climate change has one global UN treaty, whereas there are several biodiversity-related treaties within the UN family. Although the CBD is dominant here, this might make it more difficult to consolidate one scientific assessment body.

Another knowledge-based counterargument has come from within the academic community, criticizing the "pay to conserve" logic inherent in the ecosystem services approach.<sup>50</sup> While that approach has been widely embraced politically as a means of achieving much-needed funding for biodiversity conservation, a more philosophically oriented debate has attacked the efforts of the Millennium Ecosystem Assessment, the TEEB report, and in turn, the IPBES itself, depicting the ecosystem services approach as an unethical way of commercializing nature. This school of thought has been mainly confined to academic circles, and the issue was not much debated during the IPBES negotiations.<sup>51</sup>

The "commercialization of nature" debate has played out differently (or has not emerged) in the climate change debate, which is inherently characterized by markets, quotas and commercial interests. Here also, the North stands accused of paying off the poor so that it can continue its own consumerism, but this has not hampered the growth of emission markets.

In the end, the growing political and scientific argument favoring the IPBES was that prior efforts to consolidate and assess the state of biodiversity loss lacked the necessary political legitimacy and scientific clout. There was growing acknowl-edgement of the need for a scientific platform where advice could be communicated in an understandable manner.<sup>52</sup> The Nobel Peace Prize award may have added an extra boost at the right time. Analytically, this spells little change in the cognitive factors and gradual change in political arguments explaining the establishment of the IPBES.

# Potential for Influence

### Institutional Design

As noted, the IPBES builds on the organization of the IPCC. However, there are a few central differences, and we discuss their implications here. The IPBES is mandated to strengthen the science–policy interface on biodiversity and ecosystem services, based on the platform's three main goals of *credibility*, *legiti-macy*, *and relevance*. The IPBES is further mandated with *knowledge generation*, *assessments*, *policy-support tools*, *and capacity-building*. Thus, the IPBES aims further than the IPCC; in addition to conducting assessments, the emphasis is on capacity-building and on including a broad range of knowledge systems.

IPBES membership has expanded rapidly, with 126 member states constituting its Plenary.<sup>53</sup> The IPBES has a political body, the Bureau, with regionally balanced membership, and a multidisciplinary expert panel (MEP) with five members from each UN region. The MEP is a scientific body, but its composition is potentially open to political influence, as the regions are responsible for selecting members. About a thousand scientists worldwide contribute to the work of the IPBES on a voluntary basis. They are nominated by their governments or by organizations and selected by the MEP. Peer review is the key component, to ensure that the work of the IPBES meets the highest scientific standards.<sup>54</sup>

The knowledge component is added with stakeholder consultations preceding IPBES meetings. This is described as "breaking new ground in how research on social-ecological systems is assessed and how knowledge from different cultures is assimilated—scientific knowledge, indigenous knowledge and local knowledge."<sup>55</sup>

The first session of the Plenary of IPBES in Bonn, Germany, in January 2013 agreed that only governments and MEAs related to biodiversity and ecosystem services may make requests to the platform.<sup>56</sup> At IPBES-2 in Antalya, Turkey, in December 2013, the aim was to finalize the institutional and funding arrangements and adopt a five-year work program. The third meeting in Bonn in 2015 faced difficulties, with the many scoping reports awaiting approval, a budget with a US \$20 million shortfall for completing agreed deliverables, and uncertain procedures for agreement on stakeholder engagement—all central to achieving the goal of *legitimacy*.<sup>57</sup>

Concerning the goal of *credibility*, the International Institute for Sustainable Development has noted that IPBES-3 still struggles with *how to "strike a balance between scientific rigor and the needs of decision makers and other stakeholders.*"<sup>58</sup> Work on transparency and conflict of interest is also central; some of the experts involved in the assessment on pollinators and food production were concerned about possible conflicts of interest because of linkages with industry. Achieving the third goal of *relevance* will be costly, as it must involve all four IPBES functions.<sup>59</sup> At IPBES-4 in Kuala Lumpur, Malaysia, in February 2016, delegates reached agreement on the assessment report about pollinators and food production. The IPBES already has 126 member countries (the IPCC has 195), with equal representation from all UN regions. This indicates that the IPBES already enjoys rather high legitimacy despite the criticisms from the South. Legitimacy is increasing rapidly, compared to the early phases of the IPCC. At this early stage, the role of the IPBES is still unclear and disputed. It is basically a copy of the IPCC, with striking similarities in mandate and organization. IPBES' subsidiary bodies are still nominated by governments—which seems likely to reduce its effectiveness as a scientific body.<sup>60</sup> Still, also, the IPCC is accounted for as an intergovernmental body.

A redeeming aspect of the IPBES is that there are no formal ties between it and the CBD, and it cannot be instructed by the COPs.<sup>61</sup> Still questions remains as to what is gained by circumventing the COP, while at the same time making great efforts to secure a representative IPBES in terms of region, disciplines, and gender.<sup>62</sup>

The IPBES differs from the IPCC in addressing capacity building and indigenous knowledge holders more extensively. The aim is to strengthen legitimacy, but this may fuel controversies over effectiveness and scientific credibility. Legitimacy problems are further exacerbated by the general lack of funding for biodiversity activities.

## Biodiversity Loss: Little Scope for Scientific Influence

One criticism of the IPBES has been that it may serve to support the illusion that the loss of biodiversity is scientifically disputed.<sup>63</sup> Despite the even higher level of scientific agreement regarding the seriousness of biodiversity loss, robust scientific consensus has not managed to halt the continued loss of biodiversity—due mainly to even more deep-rooted political conflicts than has been the case with climate change.<sup>64</sup>

Another barrier to scientific influence is the lack of feasible technological solutions. Compared to the reduction of greenhouse gas emissions and pollution-control measures, it is less obvious how technological solutions can resolve the issues of biodiversity.<sup>65</sup> In turn, the problem of biodiversity loss is less attractive to investors because it is less amenable to commercially attractive solutions.<sup>66</sup> Moreover, the IPBES will have a harder time identifying and agreeing on manageable tasks, such as the IPCC's 2° C target. The "score" on the other dimensions used to characterize the malignancy of the issue-areas is also low: there is less visibility, the changes are more incremental, and the effects are least significant in the social center—the North.

Another complication is that while climate change is predominantly the result of unintended side effects of legitimate human activity, the loss of biodiversity also results from legitimate human activities. Such direct effects include land-use change and habitat deterioration caused by food and energy production, and harvesting depleting fish stocks. There is hence less economic revenue to be gained from mitigation activities, and it is harder to envision technological solutions. All this means that the IPBES can be expected to face even more of an uphill battle than did the IPCC.

## Conclusions

We find several reasons why the IPCC was formed more quickly than the IPBES. Perhaps the most important factor was the power-based leadership of the United States, which was absent in the process towards IPBES. Leadership by NGOs, scientists, and policymakers was also stronger in the IPCC process than with the IPBES, which became more entangled in political processes. Resistance to the IPBES was stronger in the South, where it was seen as diverting attention from what the South regarded more important political priorities. For the South, accepting the IPCC may have been easier, as it was part of a tradeoff whereby the North got the IPCC, and the South got the UNFCCC process within the UN. Scientific uncertainty was more pronounced in the IPCC than in the IPBES, where relevant scientific panels had already been established.

Regarding influence on the political processes and more generally, the IPCC has had considerable success in communicating complex issues to the public, particularly in the North. Although the IPCC has achieved a good balance between integrity and involvement, its influence on the political process has been modest. The main reason is the malignancy of the issue in focus, reducing the room for scientific influence. However, more recently, IPCC influence has increased somewhat. This may be the result of a less malign problem structure, but an improved ability to communicate the message may also make a difference.

As to the IPBES, we can note a general lesson from regime theory: ghosts from the formation process are likely to haunt the implementation phase. The political controversies are likely to remain, especially if the IPBES fails to gain greater independence from politicians. However, political independence also may prove problematic, if key actors do not recognize the scientific agenda as legitimate. Legitimacy is a major point for the South and could give IPBES more trouble than the case with the IPCC. It is mostly the rich countries that have been asked to contribute to expensive implementation policies in climate change, unlike the situation in biodiversity.

Two other problems will make the job of the IPBES especially hard. The main reason for poor implementation of the CBD objectives is not a lack of sci-

entific knowledge, but rather that biodiversity loss has not been prioritized globally, regionally, or nationally, in terms of funding. This is partly because of the difficulty in identifying focal solutions (like the 2° C target), and because biodiversity conservation is less amenable to technological solutions and less attractive to investments than climate change.

The main value of the IPBES lies in its ability to attract attention to the problem of biodiversity loss, similar to the main strength of the IPCC. Given the various challenges, the scope for the IPBES to contribute appears rather marginal. Still, an important lesson to be drawn from the IPCC is that it takes time to become relevant and influential.

#### Notes

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