

Views on alternative forums for effectively tackling climate change

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This year (2015) marks the 21st formal anniversary of the United Nations Framework Convention on Climate Change (UNFCCC) and in December a new climate treaty is expected to be reached. Yet, the UNFCCC has not been successful in setting the world on a path to meet a target to prevent temperatures rising by more than 2 °C above pre-industrial levels¹. Meanwhile, other forums, such as the G20 and subnational forums, have increasingly become sites of climate change initiatives^{2–6}. There has, however, so far been no systematic evaluation of what forums climate change policymakers and practitioners perceive to be needed to effectively tackle climate change. Drawing on survey data from two recent UNFCCC Conference of the Parties (COP), we show that there exists an overall preference for state-led, multilateral forums. However, preferences starkly diverge between respondents from different geographical regions and no clear alternative to the UNFCCC emerges. Our results highlight difficulties in coordinating global climate policy in a highly fragmented governance landscape.

International efforts to tackle the challenges posed by climate change have in the past two decades centred on multilateral negotiations under the UNFCCC. Several scholars note, however, that the international negotiations under the UNFCCC have produced diminishing returns over time⁷. This has generated discussions about whether multilateralism should be abandoned in favour of unilateralism⁸, along with suggestions to shift the negotiations to other smaller and more flexible forums⁹. Critics of the current multilateral approach argue that it is too cumbersome, as the decision-making process of the UNFCCC relies on finding consensus among its 195 parties^{10,11}. David Victor¹¹, for example, has argued that as only a dozen countries emit the majority of the world's greenhouse gas emissions, a club such as the Major Economies Forum on Energy and Climate (MEF) would present a good candidate for making progress on climate change. Others, however, maintain that unilateral clubs such as the MEF, G8 and the Asia-Pacific Partnership are not necessarily more effective than the UNFCCC, lack the legitimacy of the UN climate process⁶, and do not primarily focus on significantly increasing mitigation ambition⁵.

A related discussion concerns the architecture of climate change governance. Thus far the main efforts to respond to climate change have been state-led, focusing on building a universal regime through a legally binding multilateral agreement in a so-called top-down approach. Proponents of this architecture maintain that a strong, centralized regime is necessary for ensuring effective and fair outcomes^{12,13}. Critics, however, argue that a bottom-up approach, favouring more national and non-state initiatives, would provide a more effective response^{14–16}. A range of subnational and transnational initiatives, such as the C40 network of major

cities and the CDP (formerly the Carbon Disclosure Project), have shown that other actors can take ambitious steps when national governments resist strong targets and timetables³. This, however, increases the fragmentation of climate change governance¹⁷. Fragmented institutions, in turn, complicate policy coordination¹⁸ and raise questions about the legitimacy and effectiveness of hybrid governance arrangements (mix of state and non-state actors; ref. 19). The pledge-and-review system emerging since the Copenhagen Accord has moved climate governance towards a bottom-up approach, with implications for the catalytic role of the UNFCCC (ref. 13).

A pertinent question is whether there are other forums than the UNFCCC that could effectively tackle climate change? This study presents results from 922 valid responses from the International Negotiations Survey distributed to participants at two consecutive UNFCCC COPs (2013 and 2014). The question analysed reads: 'What other forums outside the UNFCCC are, in your view, important for effectively tackling climate change?' (see Methods for details). This data is presented to examine how a range of climate change policymakers and practitioners perceive the importance of forums outside the UNFCCC in terms of scales (Table 1), issue-areas (Table 2) and whether the forums are led by governments or other actors (Supplementary Table 1). These results are compared across six world geographical regions and between governmental and non-governmental (NGO) respondents.

The data show a wide spread in responses, with forums spanning from the global to local levels. The G20 (14%), the MEF (5%), the UN Convention on Biological diversity (5%) and the Montreal Protocol (4%) were the four most frequently mentioned individual forums. The low figures suggest that climate change policymakers and practitioners do not see any given alternative to the UNFCCC. Instead survey respondents state a wide range of institutions and initiatives, such as climate clubs, transnational governance initiatives, public-private partnerships and other alternative climate governance instruments, in line with the fragmented picture of climate governance as portrayed in the literature^{2,17,20}. The breadth of answers shows that there exists no lack of innovation in governance arrangements to respond to climate change, albeit with low agreement among policymakers and practitioners on which of these are important for effectively tackling climate change.

Overall, both governmental and NGO respondents identify other multilateral forums (defined here as international organizations with near universal membership) as important for tackling climate change, over unilateral forums (defined here as groupings with select state membership) and forums organized at lower administrative levels (Table 1). The preferences for multilateralism in general, and UN-led multilateralism in particular, were strongest

Table 1 | Percentage of all COP 19/20 respondents indicating forums operating at different scales and with different terms of membership divided into governmental and NGO representatives.

	Multilateral forums			Minilateral forums	Regional forums	Bilateral forums	National forums	Local forums	No scale
	All	UN IGOs	Other IGO						
All governmental	47	43	13	27	18	4	10	7	12
COP 19*	55	52	12	28	17	2	5	1	11
COP 20	43	40	13	26	17	5	13	10	13
Africa	42	41	6	9	24	5	14	8	17
Asia	46	40	16	10	15	4	9	3	21
Europe	43	39	17	61	5	4	7	6	6
North America	42	42	5	68	16	11	11	5	0
Oceania	54	54	4	17	46	0	8	0	8
S&L America	66	66	17	9	21	4	6	6	11
All NGO	36	32	10	20	13	5	17	15	14
COP 19*	34	30	8	16	11	3	14	17	22
COP 20	36	32	10	22	14	5	18	16	11
Africa	38	38	15	10	27	2	8	12	15
Asia	36	31	8	18	10	8	6	1	28
Europe	36	32	10	30	12	5	21	14	13
North America	34	28	10	21	14	5	25	23	12
Oceania	41	38	10	31	7	3	34	14	7
S&L America	38	34	9	10	11	2	7	21	10

Respondents could indicate several forums and, consequently, the total percentages do not sum up to 100% (in each row of the table). This also applies to the Multilateral forums column, which means that the sum of the percentages for UN IGOs and Other IGOs do not sum up to the percentage for multilateral forums. *COP 19 values were compensated for variations in sample sizes in world regions using the regional governmental respondent shares of the COP 20 sample.

among government representatives. These preferences were relatively similar across geographical regions, with respondents from South and Latin America (S&L America) standing out for expressing the strongest preferences for multilateral, UN-led forums (66%).

The preferences for minilateral forums varied more significantly amongst government representatives across geographical regions. Those from Europe and North America express surprisingly strong preferences for minilateral forums—about two-thirds of the governmental respondents from these regions. This indicates great potential for such forums in these regions. In contrast, the preferences for minilateralism are very weak among government representatives from the other four regions. This finding is expected, given the weak role of most of these countries in such minilateral forums, reflecting political power imbalances in such governance arrangements. For example, although several Asian countries have participated in prominent minilateral forums, such as the Asia-Pacific Partnership on Clean Development and Climate, these tend to be initiated and driven by other states²¹.

Interestingly, government representatives' preferences for bilateral (2 to 5%), national (5 to 13%) and, most notably, local (1 to 10%) forums strengthened markedly from COP 19 to COP 20. Moreover, the preferences for regional, minilateral and IGO-led forums remained stable, whereas the data suggest weakening of the preferences for UN-led forums (52 to 40%). Consequently, the data imply a shift in preferences from the multilateral governance level towards lower administrative levels rather than to governance forums with a more select state membership.

Overall, NGOs identified national and local forums to a larger extent than governmental respondents, indicating support for bottom-up approaches (Supplementary Information). Our data suggest relatively stable NGO preferences over time, with the exception of a growing support for minilateral forums from COP 19 to COP 20 (16 to 22%).

The data were also categorized according to the forum's primary issue-area. This sheds light on the extent to which respondents

view that effective responses to climate change will require action in other topical areas. Besides climate forums, government representatives indicate preferences for economic and environmental forums (Table 2).

Significant differences in the responses on issue-areas are found across geographical regions. The preferences of North American government representatives are stronger for climate (MEF and the Climate and Clean Air Coalition), environment (specifically atmosphere forums, notably the Montreal Protocol) and economic (G20) forums, whereas preferences for social forums are very weak. The preferences of European government representatives are significantly stronger for economic forums (predominantly the OECD) and slightly weaker for environmental forums. The preferences of S&L American government representatives are stronger for climate and social forums (indigenous peoples forums) and weaker for economic forums. The preferences of Oceanian government representatives are weaker for climate and economic forums but stronger for general forums (notably the Pacific Islands Forum) and atmosphere forums. African and Asian government representatives' views were more similar to the world averages, with the exception that African government representatives' preferences for economic forums were significantly weaker and those for biodiversity forums (UN Convention on Biological Diversity) stronger.

Comparing Tables 1 and 2 shows that preferences for minilateral forums noticeably overlap with preferences for economic forums, highlighting the concern that minilateral approaches risk limiting not only membership but also the issues under discussion^{6,8,22}.

Supplementary Table 1 examines whether the identified forums are led by states, IGOs, non-state actors or hybrid arrangements. Government representatives clearly view other state-led and IGO-led forums outside the UNFCCC as important for effectively tackling climate change. This is most pronounced among North American and European government representatives. In contrast, S&L American and Asian government representatives indicate weaker preferences for state-led forums. The preferences for

Table 2 | Percentage of all COP 19/20 respondents indicating forums according to their primary issue-area divided into governmental and NGO representatives.

	Climate	Environment				Economic	Social	General	Not spec
		All	Atmosphere	Biodiversity	Other environmental issues				
All governmental	37	26	7	6	11	29	14	12	17
COP 19*	34	29	10	9	14	25	16	15	10
COP 20	40	26	6	5	10	31	15	10	20
Africa	33	29	2	12	18	13	17	9	19
Asia	39	19	4	3	7	28	13	12	25
Europe	40	20	7	1	7	50	15	5	8
North America	58	37	32	5	0	37	0	11	11
Oceania	13	38	21	4	4	17	4	29	17
S&L America	49	32	4	11	21	21	23	21	11
All NGO	33	17	4	6	4	28	23	10	25
COP 19*	31	17	5	5	2	19	28	7	31
COP 20	34	17	3	6	5	30	22	11	24
Africa	21	29	0	8	8	17	37	8	27
Asia	36	18	0	6	5	25	15	6	20
Europe	29	12	5	2	1	36	23	13	26
North America	31	15	6	3	3	28	19	13	32
Oceania	31	21	3	10	0	41	14	7	24
S&L America	48	24	1	13	9	18	31	6	20

Respondents could indicate several forums and, consequently, the total percentages do not sum up to 100% (in each row of the table and the overall Environment issue-category). *COP 19 values were compensated for variations in sample sizes in world regions using the regional governmental respondent shares of the COP 20 sample.

state-led forums were unchanged between the years, whereas the preferences for IGO-led forums weakened (54 to 34%). Interestingly, government representatives across all six geographical regions indicate weak preferences for both non-state-led (19%) and hybrid (14%) forums, but the data suggest strengthened preferences for non-state-led forums from 15% at COP 19 to 21% at COP 20. This indicates a low, but growing, recognition for non-state initiatives by state actors. The pattern of identifying state rather than hybrid or non-state forums is unexpectedly most marked among government representatives from North America and Europe. This is puzzling, given the often high level of government support for non-state initiatives in these regions.

Unsurprisingly, NGO respondents overall mention non-state forums more often than government representatives. NGO representatives' preferences for non-state-led forums, however, diverge substantially across geographical regions, which may reflect the uneven pattern of non-state initiatives underway at present³.

We have established that there exists little agreement on which other forums outside the UNFCCC are important for effectively tackling climate change. Moreover, the generally strong preferences for state-led, multilateral, climate forums among our survey respondents mirrors the UNFCCC's structure in terms of scale, issue-area and actor type. Yet, the multitude of responses indicating other forums as important shows that the UNFCCC is no longer the only show in town.

Notably, our study demonstrates strong preferences among climate change policymakers for minilateral forums in two out of six world regions, harbouring around 40% of world greenhouse gas emissions. Consequently, there is great potential for pursuing climate change in minilateral forums dealing with climate change and economic issues in North America and Europe. Even in these regions, however, the results show differences in which types of organizations are deemed most important, with North American respondents highlighting the MEF, and European respondents frequently citing the OECD. However, such minilateral forums are not acknowledged by policymakers in the other four regions.

Minilateral forums in their current form are therefore unlikely to deliver legitimate global solutions to climate change.

To the extent that we can see trends in our data, government support for minilateral forums has remained stable over the two years measured. Instead, governments appear to express stronger (although still relatively weak) preferences for bilateral, national and local forums and express a growing recognition for non-state initiatives. This could be a reflection of recent developments, with the bilateral US–China climate agreement announced in November 2014 and the growing visibility of non-state initiatives (for example, those highlighted by the UNFCCC's NAZCA portal²³).

The breadth of answers to our survey question map out a highly complex and fragmented climate governance landscape, presenting both opportunities and risks. The potential advantages of the current architecture include the facilitation of learning and building of trust through an increase in interactions between different actors and initiatives¹⁴. The risk is normative contestation between different governance arrangements that foster competition over cooperation and that risk undermining the work of the UNFCCC (ref. 21). The launch of the NAZCA portal at COP 20 and other efforts to highlight international cooperative initiatives²⁴ indicate that the UNFCCC is attempting to take on an umbrella role to provide a framework for coordinating actions in the highly fragmented contemporary climate governance landscape. Establishing portals alone will, however, not ensure synergies. Future research should therefore focus on how to best combine top-down and bottom-up processes to spur innovative climate policies. Achieving effective coordination of diverse climate initiatives is likely to be a key challenge for the UNFCCC as it enters its third decade.

Methods

Methods and any associated references are available in the [online version of the paper](#).

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Author contributions

M.H. and N.N. jointly designed the study, developed the methodology, performed the analysis, and wrote the manuscript.

Additional information

Supplementary information is available in the online version of the paper. Reprints and permissions information is available online at www.nature.com/reprints. Correspondence and requests for materials should be addressed to M.H.

Competing financial interests

The authors declare no competing financial interests.

Methods

Survey methods are increasingly used to examine preferences of, and activities performed by, different actors participating in the COPs of the UNFCCC *in situ* or by distributing surveys based on the List of Participants^{25–33}.

The data used in this study was obtained through a questionnaire distributed through the International Negotiations Survey (INS) (<http://www.internationalnegotiationsurvey.se>) to 1,500 participants at UNFCCC COP 19 in Warsaw and COP 20 in Lima. The INS has previously been used to study various aspects of climate change, such as leading actors²⁷, effective solutions to climate change²⁸, nationally appropriate mitigation actions (NAMAs; ref. 29), preferences for conceptual or proportional historical responsibility³⁰, the roles of non-state actors in climate change governance³¹, criticism of the pledge-and-review system³², and expectations on corporate climate action³³. The surveys were distributed in person at the UNFCCC COP venues, an operating environment that hampers random sampling. Quota sampling was instead used to select a strategic sample of the two most important categories of COP participants: members of party delegations, such as negotiators and representatives of government agencies (henceforth 'governmental'); and observers, that is, environmental, development, business and industry, and research and independent NGO respondents (henceforth, 'non-governmental' or NGO). Responses from the small categories Intergovernmental Organizations (IGO) and media representatives have been included in the non-governmental sample.

Roughly 40% of the 922 valid responses were from governmental (366) and 60% were from non-governmental (556) respondents, our sample under-represents governmental respondents in comparison to the composition of the frame population in COP 19 and COP 20, comprising approximately 47% governmental and 53% non-governmental^{34,35}. The sample contains fewer media and intergovernmental representatives than the frame population. In terms of geographical representation (UNFCCC Secretariat, unpublished data), the sample overall corresponds well with participation from the six world regions; with a slight over-representation of African Group and Latin American government representatives in comparison to government representatives from European and North American countries. Percentages are available from the corresponding author on request.

The question that is analysed here reads: 'What other forums outside the UNFCCC are, in your view, important for effectively tackling climate change? Please provide examples?'. Respondents were asked to indicate in free text which forum or forums they believed to be important for tackling climate change.

As the UNFCCC is a node for intergovernmental collaboration on climate change and attracts actors that work with climate change issues at different levels^{34–36}, our sample captures expert views on other forums and provides a starting point for exploring preferences for involving other institutions beyond the UNFCCC to a greater extent in climate change governance. However, given that our survey respondents are participants of a UNFCCC COP, a strong bias in favour of other UN forums in the responses is expected.

Survey responses were first categorized based on types of forums, such as UN forums, other IGO forums, climate clubs and initiatives, Regional forums, National forums, and Local forums. This analysis enriches the current understanding by shedding light on what types of other forums climate change policymakers and practitioners identify. Next, the data is used to investigate three pertinent dimensions of such forums. First, at what scales are these effective forums primarily perceived to operate (Table 1)? This enables examination of the multilateralism–minilateralism discussion. In terms of scale, responses were grouped into the following categories: multilateral forums, that is, forums with near universal state membership, subdivided into UN or other Intergovernmental agencies (UN IGO and Other IGO)—please note that this is different from the more common definition of multilateralism as collaboration between three or more states; minilateral forums, that is, groupings with select state membership, such as

climate and economic clubs like the Major Economies Forum on Energy and Climate and G8; Regional forums such as the EU and the African Union; Bilateral, National, and Local forums. The No scale category refers to responses where scale cannot be discerned, such as businesses and forests.

Second, what issue-areas do these forums primarily address? This illuminates whether effective climate change responses require collaboration outside the climate realm—that is, do respondents acknowledge other climate, environmental, economic or social forums (Table 2)? Five categories of issue-areas for the forums outside the UNFCCC were formed: climate, environmental forums, economic forums, social forums and general forums. Three subcategories of environmental forums are also presented here: atmosphere, biodiversity, and other environmental issues. The Not spec category refers to those forums where issue-area cannot be discerned, such as communities and general high-level political forums.

Third, are these forums led primarily by governments or are other actors more frequently involved? To examine who is leading these forums, data was categorized according to: state-led forums, IGO-led forums, hybrid forums (that is, a mix of state and non-state actors), non-state-led forums, and Not specified (Supplementary Table 1). These patterns are compared across the six world geographical regions and between governmental and non-governmental respondents.

To detect trends over time, values are reported for the All governmental and All NGO categories in Tables 1 and 2 and Supplementary Table 1. We compensated for variations in world region sample sizes at the two COPs by multiplying COP 19 responses with the shares of the COP 20 sample.

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