

Article

Climate Change Politics through a Global Pledge-and-Review Regime: Positions among Negotiators and Stakeholders

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Abstract: Pledge-and-review is an essential pillar for climate change mitigation up until 2020 under the auspices of the United Nations Framework Convention on Climate Change. In this paper, we build on a survey handed out to participants at the Seventeenth Conference of Parties in 2011 to examine to what extent climate negotiators and stakeholders agree with existing critiques towards pledge-and-review. Among the critique examined, we find that the one most agreed with is that the pledges fall short of meeting the 2 degree target, while the one least agreed with is that pledges are voluntary. We also find that respondents from Annex 1 parties are more critical than respondents from Non-Annex 1 parties. Negotiators display strikingly similar responses regardless of where they are from, while there is a remarkable difference between Annex 1 and Non-Annex 1 environmental non-governmental organizations. We build on these results to discuss the legitimacy of pledge-and-review.

Keywords: climate change; critique; legitimacy; negotiations; pledge-and-review; politics

1. Introduction

Aside from a second commitment period of the Kyoto Protocol, and the Durban platform, under which a new climate agreement to take effect as of 2020 are negotiated, the Copenhagen pledges [1] are one of three essential pillars for climate change mitigation under the United Nations Framework Convention for Climate Change (UNFCCC). The Copenhagen pledges express negotiation parties' [1,2] proposed targets and actions to reduce greenhouse gas emissions until 2020. In the aggregate, they make up the building blocks for a pledge-and-review approach to an international climate agreement [3–6]. Pledge-and-review implies designing a potential climate agreement that differs dramatically from the Kyoto Protocol. Rather than departing from a joint international agreement with a global emissions target to be subsequently allocated to parties in a top-down fashion, pledge-and-review departs from a bottom-up idea, based on voluntary pledges on what each party is willing to do to mitigate climate change. The ideas of a bottom-up-based agreement are not new to the climate change negotiations. It was discussed already in the 1990s efforts in drafting the UNFCCC, and seriously revitalized with the 2009 Copenhagen Accord. Since then, it has been officially recognized in the Cancun Agreements in 2010.

The Copenhagen Accord encouraged Annex 1 (A1) parties, *i.e.*, mostly developed countries, to submit quantified economy-wide emissions targets for 2020, and Non-Annex 1 (NA1) parties, *i.e.*, mostly developing countries, to submit descriptions of proposed Nationally Appropriate Mitigation Actions (NAMAs). In a map of these pledges, the United Nations Environment Program (UNEP) classified countries into three categories: those that submitted pledges formulated in terms of emission targets for 2020; those that submitted proposed actions, such as emission-cutting projects; and those that did not submit any pledge at all [7]. The number of parties that submitted a pledge as a response to the Copenhagen Accord amounted to 66, 16 of which were A1 parties, including the European Union's 27 member states [8], and 47 were NA1 parties [9], representing 89 countries in total. Thus, the Copenhagen pledges covers a substantially larger amount of emissions (around 80%) than the Kyoto Protocol's in either commitment period (around 25% in the first commitment period and 15% in the second period), and parties that have submitted pledges include large emitters, including the United States, China, and India. Pledge-and-review has an obvious benefit in terms of providing flexibility, which attracts more parties, but it has also been questioned. Its shortcomings have been highlighted in the literature, as well as by negotiators themselves and non-state actors in the vicinity of the negotiations.

We treat the critique towards pledge-and-review as a point of departure for this paper. To what extent do climate negotiators and stakeholders agree with commonly voiced critique towards pledge-and-review? We analyze how opinions cluster across A1 and NA1 parties, as well as across negotiators and environmental non-governmental organizations (ENGOS). This study is the first empirical systematic examination of how prevalent the critique towards pledge-and-review is among negotiators and how those relate to stakeholder critiques. Such insights offer a basis to discuss the legitimacy of pledge-and-review and may also indicate communication challenges related to particular target groups.

We continue this paper by elaborating on perspectives on pledge-and-review brought forward in the literature to date and the need for surveying opinions on particular climate policy initiatives. A separate section on method and data explains our considerations in developing and interpreting the survey, handed out to participants at the Seventeenth Conference of Parties (COP-17), in December

2011, which formed the basis for our empirical results. The results are presented according to two essential questions. Which critiques were considered most serious among a sample of all participants at COP-17? In addition, what differences were identified across groupings, comparing in particular respondents from A1 parties and NA1 parties, as well as from negotiators and ENGOs? The empirical section presents our findings to these questions, as well as a discussion about possible explanations. The discussion is predominately related to developments in the intergovernmental climate negotiations, but we also reflect upon the legitimacy for pledge-and-review in light of the critique examined, before concluding the paper.

2. Perspectives on Pledge-and-Review

2.1. Top-Down vs. Bottom-Up Approaches

Recent efforts to formulate a successor to the Kyoto Protocol, to take effect after its expiry in 2012, paved the way for studies on what form the next international agreement should take [10]. Research on pledge-and-review in the run-up to the Copenhagen summit [11,12] was often highly normative, looking beyond 2012. Pledge-and-review can be designed in a number of different ways [13], and some normative studies presented far-reaching ideas in recommending specific design features [12]. After the Copenhagen Accord had established the fundamentals for a pledge-and-review system, in 2009, scholarly discussions of its potential were revitalized [3–5,14].

In general, the literature on pledge-and-review, to date, contrasts a top-down approach to an international climate treaty with a bottom-up approach [3–5]. Two resembling concepts are the global-deal-approach and a building-block-approach, discussed by Falkner *et al.* [13]. Another related discussion was brought forward by Lewis and Deringer [11] through their proposals of combining a policy-based approach with a target-based approach in a bottom-up fashion, with different obligations for different countries. Although researchers have argued that different meanings may be attached to these terms [15,16], the core distinction, *i.e.*, whether the imperative for action predominantly originates from the international or national level, is the same [15].

The principles of a top-down approach, on which the Kyoto Protocol rests, represent an established model of international environmental regimes that dates back to the 1970s, which has been successful in constructing, for example, an international regime to combat the depletion of the ozone layer, or setting up the pioneering sulphur dioxide (SO₂) emissions trading scheme in the United States [5,13]. Falkner *et al.* [13] ascribed the top-down approach's previous success in environmental politics to four benefits; (1) legally binding measurable commitments are likely to be more effective in achieving environmental objectives than are voluntary pledges; (2) multilateral cooperation tends to strengthen institutions that support the overall global environmental governance; (3) a legally binding global agreement sends clear signals to the private sector and facilitates necessary long-term investment decisions; and (4) a global deal strengthens the political momentum in intergovernmental negotiations.

Scholars analysing the post-Copenhagen climate regime emphasized advantages, both with the top-down approach [4] and the contrasting bottom-up-based pledge-and-review system [5,15]. In the climate change negotiations, pledge-and-review was an option discussed already in the formulation phase of the UNFCCC [3]. For example, it was discussed within the Intergovernmental Negotiating

Committee for a Framework Convention on Climate Change, in 1991 [11,17]; the committee that were given the mandate to negotiate a framework convention on climate change in time for the Earth Summit, held in Rio de Janeiro, in 1992 [18]. However, several researchers have argued that pledge-and-review is only “second best” [13] for intergovernmental cooperation on climate mitigation; something that the world “will have to settle with” [6] as a result of the Copenhagen summit. Pledge-and-review has been criticized for being “scientifically inadequate” [19] (see also Appendix II) and incapable of yielding the efforts necessary to fight climate change as it may lead to a race towards the lowest common denominator [5,20]. Others have, in a more realistic tone, argued that “it is time to consider an alternative path” and that pledge-and-review is more promising than a top-down approach [13] and have given credit to pledge-and-review due to its departure from political feasibility and its potential to break deadlocks [6]. In addition, a contemporary pledge-and-review approach may help coordinate and bring transparency to the abundance of local, regional, and national initiatives that have mushroomed in many parts of the world recent years [6]. In the words of Dubash and Rajamani [3], a top-down approach takes, as a starting point, science and collective emissions targets, while a bottom-up approach privileges economic and institutional issues necessary for implementation. Pledge-and-review means that climate change is dealt with at the lowest possible level of decision-making [5].

2.2. *Advocates and Opponents of Pledge-and-Review*

In addition to normative literature that has sought to recommend how an international agreement should be designed, there are also studies in which attention is directed to how pledge-and-review has been subject to negotiations. This line of research has predominantly demonstrated official positions or proposals by negotiations parties. Scholars have described how several large emitting A1 parties, such as Japan, the USA, and the EU, discussed a pledge-and-review approach from the early 1990s discussion within the Intergovernmental Negotiating Committee for a Framework Convention on Climate Change [17], to the negotiations preceding the Kyoto Protocol [4,6], and the Copenhagen Accord [4].

The discussions leading up to the Copenhagen summit were colored by the idea that a top-down regime with a legally binding global agreement would be most suitable [3,5]. The suggestions of a different, bottom-up, alternative, that would build on individual national schedules demonstrating mitigation commitments or actions to form an integral part of a treaty, were brought forward by Australia [21] (p.594). It has also been argued that a climate agreement, based on a bottom-up architecture, would be the only option to get it through the United States’ Senate [4]. Indeed, Saran dubbed it “the USA’s proposed pledge-and-review framework” [20] (p. 681). One of the few things that researchers have mentioned about non-state actors’ views on pledge-and-review is that the environmental movement criticized Japan’s suggestions for pledge-and-review in the run up to the Earth Summit in 1992 [22].

2.3. *The Need for Examining Opinions*

While researchers have examined parties’ positions in the pledge-and-review process, no study to date has directed particular attention to climate negotiators and stakeholders and their opinions. We argue that opinions towards pledge-and-review are useful to examine in order to launch a discussion

about the legitimacy of this fairly new climate initiative. The UNFCCC's annual Conference of Parties (COPs) constitute an arena which attracts both negotiators and "observers" such as intergovernmental organizations and a range of non-state actors including ENGOs, business and industry, local authorities, research organizations, indigenous people, *etc.* [23]. However, with the exception of a few recent studies [24–26], little empirical investigation has been carried out with regards to the opinions of these stakeholders: their preferences, perceptions and views.

A large body of research has stressed the importance of political processes to be legitimate [27], yet, concerns that international environmental law is insufficient in terms of legitimacy are not new [28]. In fact, the outcome of the Copenhagen summit has been examined through the lens of a legitimacy crisis for the UNFCCC [29]. The sources for legitimacy can be ascribed to the "internal and external audiences who observe organizations and make legitimacy assessments" [30], a description which fits well with observers' activities at COPs. Stevenson and Dryzek [31] proposed that bringing in people who represent particular discourses would help secure both effectiveness and legitimacy. However, as pointed out by Alcock [32], much of the literature on non-state actors in environmental and climate governance have focused on what influence they have over negotiations in order to contribute to a broader scholarly debate on how decisions are shaped and formed [33–36]. In addition, this research stream should be attentive for empirical studies of opinions, as they are likely to constitute a basis for non-state actors' activities and roles through which they may exert influence. Finally, stakeholder opinions may reveal the presence of elitist *versus* marginalized voices with important implications on democratic issues [37].

We align with studies that pay attention to particular groups of non-state actors one at a time; in particular ENGOs and their relationships with state actors in climate politics [33,38,39]. Non-governmental organizations (NGOs), to which ENGOs belong, have been described as representing civil society and public opinion in environmental issues [33] but, as highlighted by Muñoz Cabré [40], NGOs participating in the UNFCCC also have missions of their own. McCormick [41] argues that the most fundamental division in the NGO community is the one between the North and the South. He describes the former to more often focus on the environmental consequences of industrial development and the latter to be inclined to engage in issues related to poverty and inequality. These studies tell us that differences in opinions can not only be expected between ENGOs and negotiators, but also between A1 and NA1 representatives.

Nevertheless, empirical investigation is needed to map prevalent opinions among stakeholders, not least for emerging climate initiatives. Although non-state actors are permitted observer status in the negotiations, they are subject to rules and guidelines that delimit their ability to voice opinions [42,43]. This paper examines climate negotiators' and stakeholders' opinions about pledge-and-review, or more specifically, what issues that they feel are particularly important to address. Next, we describe how we went about to examine these views.

3. Method and Data

This article draws on empirical data collected through a survey distributed to participants at COP-17 in Durban, 28 November–10 December, 2011. The interest for attending this prominent arena for climate talks has increased significantly recent years, and the amount of observers at the UNFCCC's COPs are

now similar to negotiators [24,40,44]. All COP-participants have met criteria for admittance [42] and, thus, they can be perceived as important stakeholders to the international climate negotiations. COPs have proven to constitute an excellent empirical setting to pursue research on climate governance [24–26,37,40,45,46].

We use the survey to capture how participants at COP-17 in Durban perceived the pledge-and-review system. The method of sampling was stratified, *i.e.*, subgroups were sampled independently according to the respondents' self-proclaimed role at the negotiations and geographical domicile (including A1 and NA1 belonging) in order to increase the chances of achieving a sufficient number of responses for each category. The respondents were asked to answer in total 10 questions; one of which was designed exclusively for this study. The other questions in the survey were not related to our particular research question and therefore not used in the analysis. For the exact phrasing of the survey question, in English and French, see Appendix I. The survey was offered either in English, which is the most common language at COPs, or French, which we assumed would be preferred by the many participants expected from the host country's own continent Africa.

A total of 405 surveys were collected. However, 33 surveys, or 8% of the respondents, had to be dropped directly in the analysis, either because they did not answer the particular question of interest to this paper, they marked too many primary roles making it difficult to interpret the result, or they marked only one alternative for all survey questions which we interpreted as a sign that the respondent did not reflect on their response. In addition, there was a lack of data regarding geographical origin (continent) and gender so these observations were dropped as well. The final dataset, thus, consisted of a total of 333 observations. Not all respondents gave their view on every response option, for example they might have graded two of the identified six options. If so, the respondent's answer was not dropped. Observations were only dropped if the respondent did not give their view on any of the options, hence, the dataset is unbalanced. The data were analyzed in relation to (1) the respondents' self-proclaimed primary role at COP-17 and (2) A1 or NA1 belonging. In addition, the respondents' gender and geographical belonging was included in the statistical tests as control variables. Table 1 shows the number of respondents' for proclaimed primary role.

Table 1. Number of respondents, according to primary role at the Seventeenth Conference of the Parties (COP-17) to the United Nations Framework Convention on Climate Change (UNFCCC) and Annex1/Non-Annex 1 belonging.

Primary role at COP-17	A1	NA1	Total
Negotiator in national delegation	36	53	89
National government	10	46	59
Local government	0	4	3
UN or intergovernmental organisation	15	14	29
Media	4	11	14
Environmental NGO	27	33	58
Business	20	4	24
Researcher/scientist	24	10	35
Indigenous peoples	0	3	3
Other	8	12	22
Total	144	190	334

This study focused exclusively on critique in order to go straight into the features of pledge-and-review that are perceived as problematic among climate negotiators and stakeholders. We identified six critical statements and used them as response alternatives in our survey. The critical statements were identified by observing workshops about the Copenhagen pledges, held in conjunction with the negotiations in 2011, both live and through webcasts [47]. Respondents were asked to indicate, on a scale from 1 to 7, to what extent they agree or disagree with the identified critiques (where 1 denotes disagree strongly and 7 agree strongly). The following critiques were identified (these critiques will hereafter be referred to in short names as parenthesis): (1) ‘the pledges are voluntary’ (*voluntary*); (2) ‘many pledges are conditional’ (*conditional*); (3) ‘the pledges have been calculated on different assumptions’ (*different assumptions*); (4) ‘no common guidelines for measuring, reporting and verification exists’ (*no guideline MRV*); (5) ‘not all parties have submitted a pledge’ (*not all parties*); and (6) ‘the pledges fall short of meeting the 2 °C target’ (*2 degree target*). As the respondents were accredited participants at COP-17 and the alternatives are fairly well-known, we assumed that respondents would be familiar with the content of the critique. With the purpose of transparently displaying in this paper what each critique contains, we have added a short contextual explanation in Appendix II.

The data analysis was based on a schematic summary of the responses by categories of respondents as well as statistical tests to compare different groups of respondents. To analyze the differences between A1 and NA1 and different roles at the negotiations, we compared differences in mean responses with standard Two-sample t-test. While initial regression analyses were set up, we decided to exclude them since the models were not statistically significant [48]. However, these regression analyses generated results that strengthen the arguments we make in this paper.

Some respondents ticked more than one number between 1 and 7, and in these cases, we replaced the interval with the mean value. For example, if the respondents ticked 4–6, we replaced the observation with 5. In one survey, it seemed like the respondent answered the questions on an inverted scale throughout the entire survey, which is why we inverted the response before the data analysis. Finally, we removed the alternative “other” from the analysis, due to few responses in this category.

Nine respondents marked more than one primary role at the conference. In order to avoid double counts, while maintaining observations, we kept only one primary role for each respondent. In general, the respondent selected similar roles, for example negotiator and national government. One observation was deleted, where the respondent marked both negotiator and ENGO, as these categories were to be analytically counter-posed.

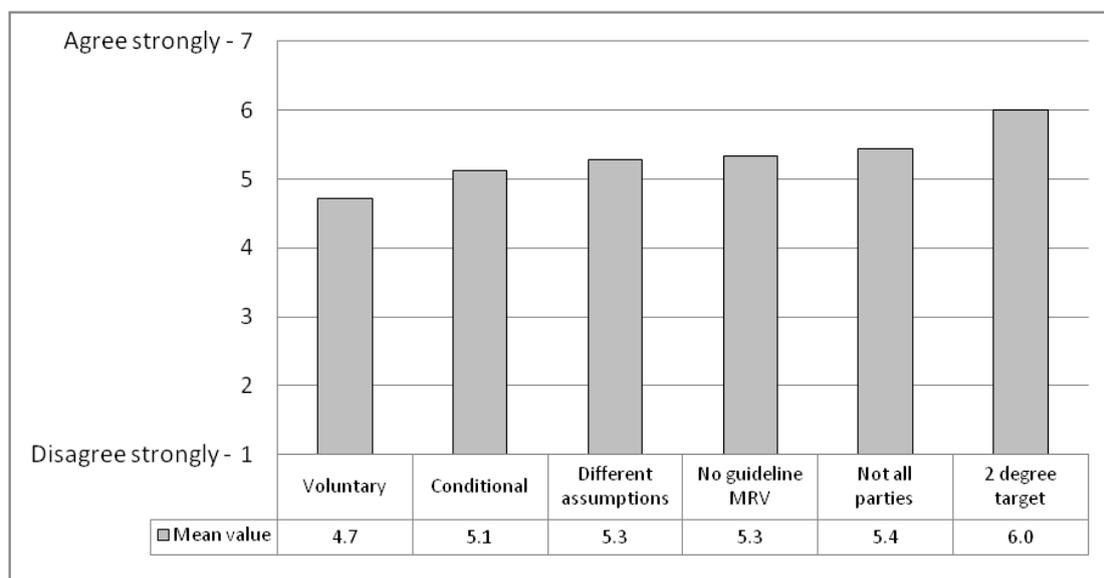
4. Analyzing the Empirical Findings

In this section, we present the empirical findings in three blocks. We begin with an overall view of what critiques that were perceived as most serious by all respondents. We then continue by examining the difference between all A1 and NA1 responses. Finally, we compare how A1 negotiators and ENGOs, and NA1 negotiators and ENGOs, responded. We discuss the key findings for each question in turn; bring in reflections from the state and character of climate negotiations; and relate the findings to the literature.

4.1. Which Critiques Are Considered Most Serious?

The question of what critique is perceived as most serious by a sample of all COP-participants is rewarding for an overall assessment of the legitimacy of pledge-and-review. Figure 1 illustrates mean answers from all 333 respondents, for the six critical statements towards pledge-and-review (see also Table A1 in Appendix III for summary statistics).

Figure 1. Critique Towards Pledge-and-Review: Mean Values for All Respondents.



A first interesting observation from Figure 1 is that, overall, there was a fairly large agreement with the critique. None of the alternatives had a lower mean value than 4.7 and one of the alternatives had a mean value of 6.0. Among the critique proposed in our study, the most worrying factor of pledge-and-review was that the pledges fall short of meeting the *2 degree target*. Thereafter follows, in descending order: *not all parties*; *no guideline MRV*; *different assumptions*; *conditional*; and finally *voluntary*. Below, we elaborate on the critique that respondents expressed as most and least concerning.

Consider first the highest concern that the pledges fall short of meeting the *2 degree target*. This target was established within the UNFCCC as the Copenhagen Accord recognized “the scientific view that the increase in global temperature should be below two degrees Celsius” [49] (p. 5). Since then, the literature has pointed to a serious “ambition gap” between the mitigation efforts needed to reach this target and the Copenhagen pledges’ emissions targets in the aggregate (cf. Appendix II). This ambition gap received a lot of attention at the time of data collection, e.g., through the widely cited UNEP Emissions Gap Reports 2010 [50] and 2011 [51], which may have contributed to the high score. Our finding suggests that efforts to deal with the ambition gap have broad support. Finding support for increasing the collective ambition level is not surprising; rather, the challenges lie in discussions about burden sharing [52].

The least worrying factor among respondents in our study is that the pledges are *voluntary*; that is, it is relatively low compared to the other alternatives. Still, almost all responses were above 4, *i.e.*, the neutral numerical score. Hence, on the one hand, critique does exist towards the voluntariness of the pledges, but on the other hand, the respondents were, relatively speaking, not particularly critical

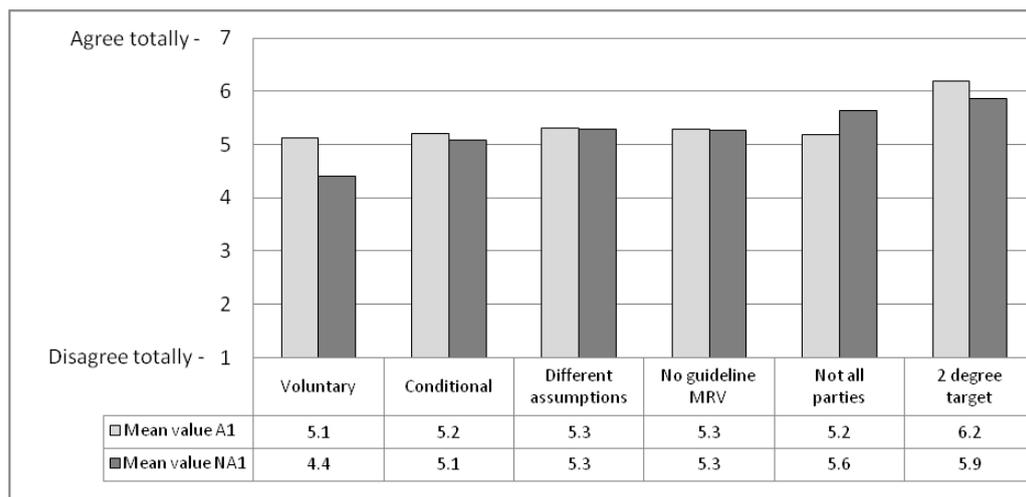
towards it. In our broader research, concerns related to voluntariness was related to the fact that it leaves no guarantee that emissions reductions will be implemented. In considering the relatively low critique, one should keep in mind the wide-spread support for non-binding pledges among parties [53]. Binding pledges may turn out to be a heavy burden for the individual party and seen as unfair compared to what other parties commit to. This may be particularly true in times of economic recession, which was a real threat in several parts of the world by the time of data collection. In addition, some of the responses may reflect opinions that a voluntary pledge-and-review system may offer a platform to develop subsequent formal commitments, or, is better than no international agreement at all. Moreover, respondents may be less concerned about voluntariness due to experiences that even binding climate commitments can be withdrawn, as was the case when the United States left the Kyoto Protocol. However, the results are surprising in light of the mounting pressures recent years, not least in the run-up to the Copenhagen summit in 2009, to formulate a binding international climate agreement.

4.2. Comparing A1 and NA1

Figure 2 compares responses from A1 and NA1 parties. A1 party respondents were generally more critical to the pledge-and-review system than NA1. This was the case for all alternatives, except for *not all parties*. In particular, A1 parties voiced *voluntary* as a greater concern than NA1 parties, although both respondent groups assessed it as least serious overall. For three of the alternatives (*conditional*, *different assumptions* and *no guideline MRV*), there was a marginal difference between A1 and NA1 respondents. For the two statements most agreed with, NA1 respondents were more critical than A1 towards *not all parties*, whereas A1 parties were more critical than NA1 parties towards *2 degree target* [54].

The general difference between respondents from A1 and NA1 parties confirms the impression that this division continues to matter also with respect to pledge-and-review. Moreover, the greater overall critique from A1 parties can be seen as an expression of opinions that ambitions and actions should be stepped up, *i.e.*, stakeholder pressure to advance the process. In particular, that the voluntary nature of the pledges is viewed as a greater problem among A1 parties can be interpreted as a relatively significant quest for binding pledges. While A1 parties has acted as leaders or driving forces in the international climate negotiations to a varied extent [25,55], A1 parties have an explicit responsibility to take on a leading role in addressing climate change according to the principle of common but differentiated responsibilities [56]. The observation that NA1 respondents are more critical than A1 respondents towards *not all parties* raises at least two questions. It could be ascribed to NA1 concerns that some parties get away with what is perceived as insufficient responsibilities: NA1 parties often emphasize that A1 parties and/or large emitters should pave the way for addressing climate change. Assuming that the respondents knew that most A1 parties, and most large emitting NA1 parties, had submitted a pledge, the results can be interpreted as a quest for a complete or nearly universal agreement, which also includes NA1 parties that represent a relatively small share of emissions.

Figure 2. Critique Towards Pledge-and-Review: Mean Values for Respondents from A1 and NA1 Parties.



4.3. Comparing A1 and NA1 Negotiators and ENGOS

In the next step of the analysis, we compared responses from negotiators and ENGOS. Figure 3 illustrates a comparison between negotiators and ENGOS across A1 and NA1 parties.

Comparing first negotiators and ENGOS from A1 parties, the pattern is clear that ENGOS are more critical towards pledge-and-review than negotiators; this is the case across all response alternatives.

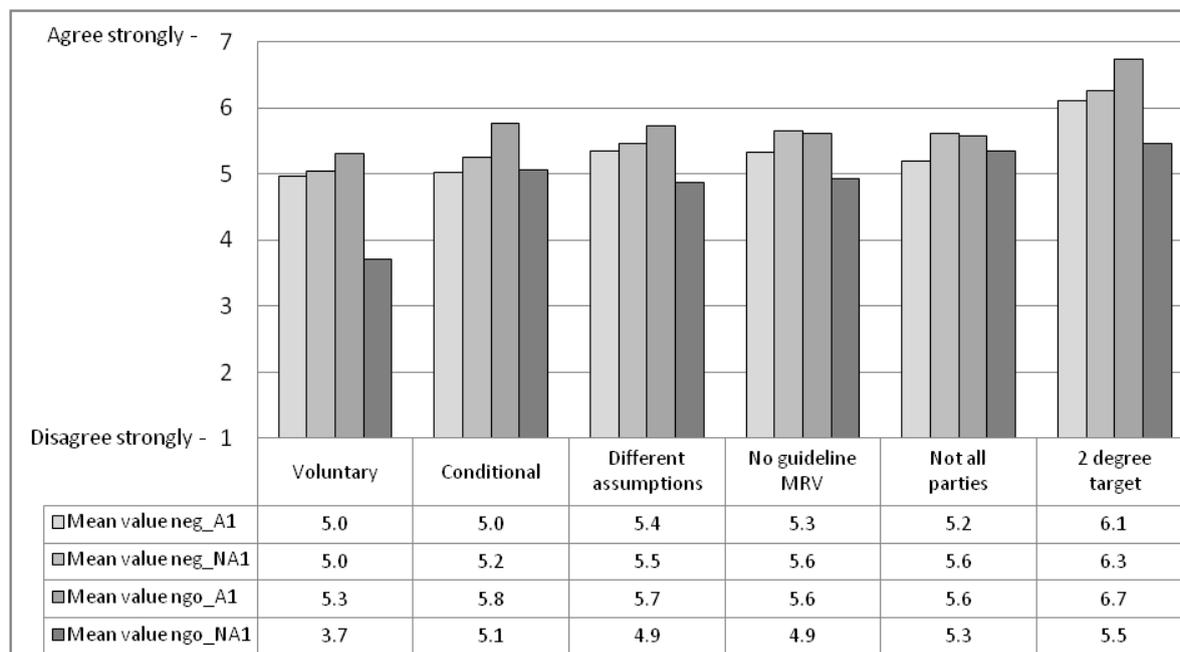
However, when comparing negotiators and ENGOS from NA1 parties, the opposite pattern emerges. NA1 ENGOS are less critical towards pledge-and-review than negotiators from NA1 parties. Hence, ENGOS are both more and less critical to pledge-and-review than negotiators from the same groupings. This finding strengthens McCormick's [41] argument, which pointed to an important difference between North and South NGOs, terms that are closely related to A1 and NA1 ENGOS. It suggests that the difference is also reflected in ENGOS' opinions about pledge-and-review, and that ENGOS from A1 and NA1 parties may take on different roles in their attempts to influence the negotiations [57].

Another empirical observation is that almost all A1 ENGOS indicated 7 for *2 degree target*, there is almost no variation in these responses [58]. In other words, ENGOS representing the developed world agree almost completely with the critique that the Copenhagen pledges are not sufficient to achieve the 2 degree target. Another observation that deserves attention is that ENGOS from NA1 only scored on average 3.6 on *voluntary*, which is one of the lowest figures in our survey. The difference in opinions between ENGOS from A1 and NA1 parties are also evident in, e.g., *conditional*.

Focusing next on negotiators, it is evident that their responses are strikingly similar, whether representing an A1 or NA1 party. At most, there is a mere difference of 0.2 between these two groups as illustrated in Figure 2 [59]. Hence, negotiators' responses cannot explain the overall differences between A1 and NA1 parties noted in Figure 1. The finding that negotiators think alike while ENGOS do not, suggests that similar or even collective opinions may have formed between negotiators with regards to the shortcomings of pledge-and-review. Negotiators interact frequently and meet often and

may be largely influenced by the international context. In contrast, ENGOs seems to be more influenced by their home environment, as A1 and NA1 belongings had an impact on the overall results.

Figure 3. Critique Towards Pledge-and-Review: Comparing of Mean Values for A1 and NA1 Negotiators: and A1 and NA1 ENGOs.



5. Discussion

The finding that all respondents agree to all critique to a fairly large extent implies that significant work remains in order to improve the legitimacy of pledge-and-review, or address the possible legitimacy deficit that it may suffer from. Although the critique surveyed in this study are already subject to climate negotiations and associated workshops in which negotiators participate, policymakers should be aware of literature-based arguments suggesting that legitimacy is important for environmental agreements [27,28] and may be built through dialogue with stakeholders. In line with the reasoning by Stevenson and Dryzek [31], the critique highlighted in this paper should not only be discussed between negotiators, but also by means of bringing in people who represent particular discourses. A prerequisite for dialogue, however, is to offer access to negotiations or other arenas in order to provoke and stimulate multi-stakeholder discussions about pledge-and-review.

The critique identified as particularly troublesome by respondents are likely to represent hotspots, *i.e.*, issues that need to be addressed not only for environmental reasons but also in order to increase the legitimacy of pledge-and-review. Our results imply that it is particularly important to raise the ambition level of the pledges in order to meet the two-degree target. The finding that the voluntary nature of the pledges is of relative little concern suggests that there exist potential to develop a legitimate bottom-up international climate regime based on “an alternative path” [13]. Despite the benefits of a top-down approach to international environmental agreements [13], climate negotiators and stakeholders appear to be relatively tolerant towards the non-binding character of the Copenhagen pledges.

Our study also carries insights into what groupings among climate negotiators and stakeholders that are particularly critical towards pledge-and-review. The finding that negotiators expressed very similar opinions in our survey should be taken into consideration by researchers that have emphasized divergent positions or proposals by negotiations parties with regards to pledge-and-review [4,6,17]. Although A1 parties have argued in favor of a pledge-and-review approach over the years, negotiators were equally critical towards it at the time of our data collection. In fact, our findings contrast previous observations in that respondents from A1 parties were more critical towards pledge-and-review than NA1 parties in general. Moreover, the finding that ENGOS from A1 parties are more critical than their negotiators while the opposite is true when comparing NA1 ENGOS and negotiators, implies that certain stakeholder groups are indeed influenced by their A1 or NA1 belonging.

Hence, policymakers need to address a number of shortcomings in order to increase the legitimacy of pledge-and-review, but they also need to communicate their efforts and progress in doing so. In light of our findings, particular communication efforts may be needed towards certain target groups. For example, progress to increase the ambition levels of the pledges are likely to be of particular interest to A1 ENGOS. In this sense, our paper offers guidance for policymakers to communicate certain aspects of the critique to particular target groups already at a relatively early stage.

6. Conclusions

In this paper, we have examined to what extent climate negotiators and stakeholders agree with commonly voiced critique towards pledge-and-review through a survey handed out to participants at COP-17. The study is the first systematic examination of how prevalent the critique towards pledge-and-review is and in what groupings it has a stronghold. We structured our results according to two essential questions: (1) which shortcomings of pledge-and-review are considered most serious among all actors; and (2) what difference can be noted across groupings, comparing in particular A1/NA1 and negotiators/ENGOS? We find that the most worrying factor is that the pledges fall short of meeting the well-known two-degree target while the voluntariness of the pledges has the lowest score. We also find that respondents from A1 parties are more critical than NA1 parties in general. Negotiators display strikingly similar responses regardless of where they are from, while there is a remarkable difference between A1 and NA1 ENGOS.

Our results points to a number of future research directions. This study has suggested that negotiators and non-governmental organizations are influenced by both their geographical and societal belongings, but to what extent are they also influenced by other factors? Interacting variables could be examined in a quantitative manner, or qualitative research could be undertaken in order to understand how they reason and motivate their arguments. Another research idea is how people would react if some of the shortcomings were to be addressed. Would stakeholders accept a non-perfect system on a voluntary basis if it managed to increase the ambition level in order to meet the scientific requirements? Or would the failure to reach the two-degree target be overlooked if the agreement turned out to be binding? Finally, future research could delve into the formal and informal networks that underpin the creation and existence of social spheres at truly transnational arenas. As pledge-and-review evolves, researchers interested in non-state actors and its role in climate governance can be offered even richer

data on their role in shaping its continuous process. COPs under the UNFCCC auspices are likely to continue to be a vibrant venue offering rich empirical data for such research in the foreseeable future.

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Author Contributions

All authors contributed to this paper with overall discussions about the research idea and designing the survey. Katarina Buhr collected the data together with the International Negotiation Survey team, performed most of the literature review and wrote most of the paper. Susanna Roth performed statistical analyses of the data. Both Susanna Roth and Peter Stigson contributed to writing parts of the paper.

Conflicts of Interest

The authors declare no conflict of interest.

Appendix

Appendix I. Survey Question in English and French

In the present paper, we have built on the following survey questions. They were posed in an English survey and a French survey.

English Survey

Below are critiques voiced concerning the national pledges for climate change mitigation submitted to the UNFCCC. Indicate on a scale 1–7 to what extent you agree with each critique where (1) means disagree strongly and (7) agree strongly.

- The pledges are voluntary
- Many pledges are conditional
- The pledges have been calculated on different assumptions
- No common guidelines for measuring, reporting and verification exists
- Not all parties have submitted a pledge
- The pledges fall short of meeting the 2 °C target
- Other:

French Survey

Ci-dessous sont listées les critiques émises à l'égard de l'engagement national pour l'atténuation du changement climatique. Sur une échelle de 1 à 7, indiquez jusqu'à quel point vous êtes en accord avec les critiques, (1) Fortement en désaccord et (7) Fortement en accord

- Les engagements sont volontaires
- De nombreux engagements sont soumis à des conditions
- Les engagements ont été fondés sur la base de différentes suppositions
- Il n'existe aucune directive commune pour les calculs, rapports et vérifications
- Toutes les Parties n'ont pas présenté d'engagement
- Les engagements n'ont pas été suffisants pour atteindre l'objectif des 2 °C
- Autre:

Appendix II. Elaboration of Alternatives Included in the Survey

- “The pledges are voluntary”: Pledge-and-review is based on parties' voluntary pledges for mitigation action. These are subject to review, but are not inscribed in any formally binding commitments.
- “Many pledges are conditional”: Most pledges, both emissions targets and nationally appropriate mitigation actions, were made subject to certain conditions. In other words, the proposed mitigation actions are dependent on one or several conditions being fulfilled, for example other parties' mitigation commitments or financial, technical and capacity-building support.
- “The pledges have been calculated on different assumptions”: The instructions for formulating the pledges were highly flexible and parties have used different calculations and assumptions to derive emissions targets. Assumptions have for example been made about economic developments and emissions scenarios. In addition, there are differences in whether the emissions targets are economy-wide or limited to certain sectors, include or exclude land-use, land-use change and forestry (LULUCF) and if flexible mechanisms are accounted for.
- “No common guidelines for measuring, reporting and verification exist”: Measurable, reportable and verifiable (MRV) mitigation action was a key feature in the Bali Action Plan, which launched a road plan to finalize an agreement at COP-15 (which subsequently resulted in the Copenhagen Accord). MRV quantifies mitigation action and improves transparency. Common guidelines can clarify mitigation action and facilitate comparability.
- “Not all parties have submitted a pledge”: 66 parties representing 89 countries out of 195 parties to the UNFCCC submitted a pledge in response to the Copenhagen Accord [8,9]. However, almost all A1 parties and all large NA1 emitters have done so. Consequently, most parties that have not submitted a pledge are NA1 parties responsible for a relatively small share of greenhouse gas emissions.
- “The pledges fall short of meeting the 2 °C target”: A number of studies have come to the conclusion that the emissions targets in the aggregate are not sufficient to put the world on trajectory towards the 2 °C target (e.g., [7,50,51,60,61]). This is also referred to as an ambition gap, *i.e.*, the difference between what science suggests needs to be done to avoid dangerous climate change and the sum of pledges currently on the table.

Appendix III Data and Summary Statistics

Table A1. Summary statistics for different options.

Variable	Obs	Mean	Std. Err.	95% Conf. Interval	
Voluntary	317	4.725552	0.115794	4.497728	4.953376
Conditional	315	5.130159	0.097676	4.937976	5.322341
Different assumptions	304	5.289474	0.092874	5.106713	5.472234
No guideline MRV	306	5.336601	0.09887	5.142047	5.531155
Not all parties	308	5.431818	0.099683	5.23567	5.627966
2 degree target	316	6.006329	0.086686	5.835773	6.176886

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