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AOSIS in the UNFCCC negotiations: from unity to fragmentation?¹

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Abstract

Small island states were able to obtain some remarkable achievements in the climate change negotiations by building a cohesive coalition, the Alliance of Small Island States (AOSIS). Yet, this cohesiveness – a key strength of the Alliance – has come under stress, we submit, by a growing fragmentation of the UNFCCC regime. We contend that the multiplication of issues on the climate agenda and the increasing number of negotiation groups make it more difficult for AOSIS to speak with one voice.

In this paper, we therefore compare the activities and positions of AOSIS as a group, and of individual AOSIS members, over three distinct periods in the climate change regime: its early phase from 1995 to 2000; an implementation phase from 2001 to 2005; and the more recent period from 2006 to 2011. We then look in more detail at two issue areas – mitigation and adaptation as well as Land Use, Land-Use Change and Forestry (LULUCF) and Reduced Emissions from Deforestation and Forest Degradation (REDD). Our analysis indicates that fragmentation has negatively affected the Alliance. We find that submissions as a coalition have declined in relative terms, and differences in single issue areas have become more pronounced.

Keywords: Alliance of Small Island States (AOSIS); coalitions; fragmentation; climate change negotiations.

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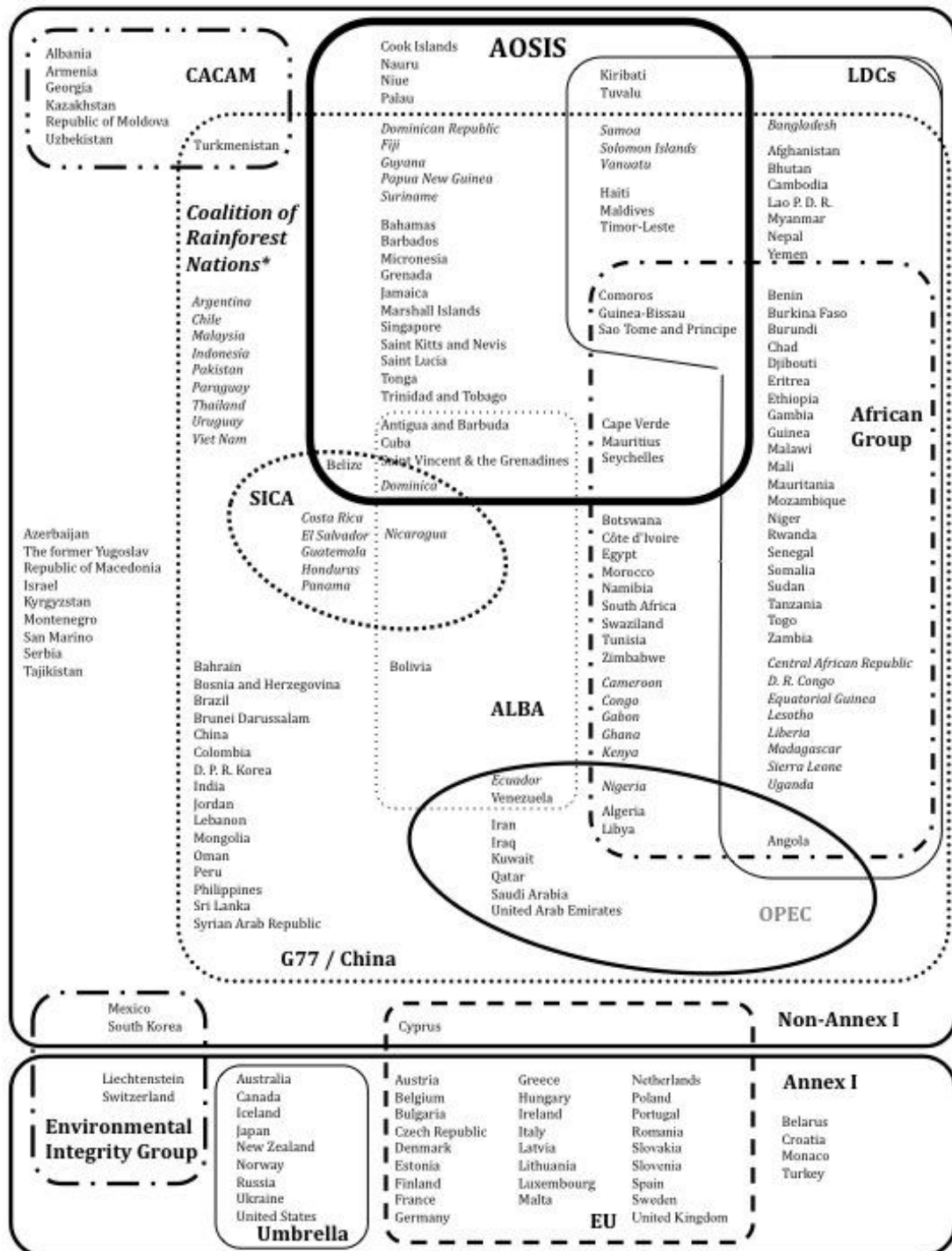
1. Introduction

Already in the late 1980s and early 1990s, island countries worldwide recognized their disproportionate vulnerability to the negative consequences of climate change, as well as their individual powerlessness. As a result, they formed an ad-hoc negotiating bloc, the Alliance of Small Island States (AOSIS), so as to make sure the voice of these 43 countries most vulnerable to climate change would be heard in the international negotiations under the United Nations Framework Convention on Climate Change (UNFCCC).

Although finding common ground among the highly heterogeneous members of the Alliance is not easy, the coalition can point to some remarkable accomplishments. Despite the smallness and lack of political clout of its members, AOSIS has become one of the key players in the UNFCCC negotiations. This recognition itself is a notable success for island microstates; it is manifest in the practice to grant small island developing states (SIDS) a specific seat on the various bodies established under the Convention and its 1997 Kyoto Protocol, as well as in the explicit recognition of island vulnerability in the Convention text. In light of these successes, Davis (1996, p. 18) concludes that "these small and relatively powerless developing states have managed to exert a profound and continuing impact on global climate policy", while former AOSIS negotiators Ashe et al. (1999, p. 209) even claim that the UNFCCC "represented a singular triumph for the geographically dispersed group of island states and low-lying coastal developing countries". This "triumph" is related to island states forming a coalition. By coming together in a negotiating bloc, SIDS were able to overcome some of their individual limitations and make their voice heard (Betzold, 2010; McMahan, 1993). Yet, observers note that this voice has declined since the early period of the UNFCCC (Gillespie, 2003; Shibuya, 1996).

At the same time, we observe a politicization and fragmentation of the UNFCCC process. Not only are more and more issues placed under the ever-growing climate change agenda; also, more and more country groups are formed in the negotiations, with diverging positions on the various agenda items. By now, a plethora of overlapping country groups exist in the negotiations (see Figure 1), which makes it more difficult for any one of them to get their voice heard.

Figure 1: Country groups in the climate change negotiations



* countries in italics form part of the Coalition of Rainforest Nations.

Source: Adapted from Castro et al. (2011, p. 6).

If coalition formation and tight coordination of small island states are key to AOSIS's achievements, we might suspect a link between these two trends, a decline in AOSIS's success and the fragmentation of the climate negotiations. We therefore take the fragmentation of the negotiating process as the starting point for this paper, and ask to what extent the multiplication of issues as well as country groups has affected AOSIS's positions and strategies in the climate

negotiations over time. Have island states managed to hold together, or has the cohesiveness of the Alliance, one of its key characteristics and strengths, diminished over time, as issues multiplied and differences among members have become more visible? We first map the activities and positions of AOSIS as a group, and of individual AOSIS members over time, comparing three distinct periods in the climate change regime: its early phase from 1995 to 2000; an implementation phase from 2001 to 2005; and the more recent period from 2006 to 2011 focusing on a follow-up to the 1997 Kyoto Protocol and its first commitment period. We base our analysis on a range of sources, including official submissions from AOSIS members; protocols of the negotiations as reported in the Earth Negotiations Bulletin; and the lists of participants to selected meetings, in order to trace the evolution of island positions and interests from COP1 until today.

While our sources do not allow us to make robust claims on the effect of AOSIS's negotiating strategies on its success in the negotiations, the data indicate that the multiplication of issues has negatively affected AOSIS's cohesiveness as a group. Submissions and interventions as a group have decreased relative to individual activities. Differences in positions become even more evident when looking in more detail at specific issue areas: mitigation and adaptation as well as Land Use, Land-Use Change and Forestry (LULUCF) and Reduced Emissions from Deforestation and Forest Degradation (REDD). In particular with regard to the latter, it has proved difficult, if not impossible, to find a common denominator among its members. While AOSIS still remains a fairly tight negotiating coalition, it seems ever more difficult to uphold unity. This trend is particularly dangerous for island states, for whom strength in numbers is key to negotiating success. Beyond endangering island states' voice in the negotiations, this growing fragmentation may also endanger the governability of the climate change process more generally.

In the remainder of this paper, we first survey the existing literature on AOSIS in the climate change negotiations and then present theoretical arguments for AOSIS's success from bargaining theory, which lead to our contention that fragmentation has a negative effect on AOSIS's unity. After a short overview of our methods and data, we test this contention by comparing AOSIS's positions generally, as well as with regard to adaptation/mitigation and LULUCF/REDD, over three periods, 1995 to 2000; 2001 to 2005; and 2006 to 2011. Section 6 summarizes and concludes.

2. Literature Review: AOSIS' sources of negotiation success

SIDS are a highly heterogeneous group of countries and territories, spread out across the world's oceans. While the diversity of SIDS cannot be underestimated, SIDS face common challenges, including their disproportionate vulnerability to the adverse effects of climate change (Kelman and West, 2009; Mimura, et al., 2007).

Early on, island states worldwide recognized the potentially devastating consequences from global warming for their territories and populations, and the need for inter-regional cooperation, given their very limited individual economic and political clout. Consequently, under the leadership of the Maldives and Trinidad and Tobago, 24 island states from all UN regions formed AOSIS in 1990 as a trans-regional, informal coalition in the negotiations for the UNFCCC (Chasek, 2005; Heileman, 1993; Taplin, 1994).

Since then, membership has increased to currently 43 members (AOSIS, 2011; Fry, 2005). Without a formal charter, budget, or secretariat, the Alliance works largely based on consultation and coordination (Honoré, 2004, p. 7). Although AOSIS has in recent years somewhat broadened its scope (see Chasek, 2005; Fry, 2005), its main focus remains on the climate change negotiations. Here, AOSIS is by now recognized as a major player (Yamin and Depledge, 2004) – no small feat for these microstates that lack both exogenous as well as endogenous power sources and rarely appear on the international stage. Even combined, the Alliance members have less than 1% each of world territory, population, GDP, and greenhouse gas emissions.¹ Nonetheless, the Alliance can point to some remarkable accomplishments. The text of the 1992 Convention, for example, explicitly acknowledges the special situation of small island developing states as vulnerable countries (INC, 1992). Importantly, SIDS were also granted a seat on the Bureau, a position that until then had been the privilege of the five UN regional groups.² AOSIS has managed to perpetuate this key achievement, as it has become common practice to include a SIDS seat in other Convention and protocol bodies, such as the Executive Board of the Clean Development Mechanism (CDM), the boards of the Adaptation Fund or the Green Climate Fund and the Transitional Committee that oversees the fund's design.³

Early studies on the UNFCCC process thus ascribe considerable influence to AOSIS. Davis (1996, p. 18), for instance, argues that "these small and relatively powerless developing states have managed to exert a profound and continuing impact on global climate policy". Shibuya (1996, p. 554) similarly writes that "AOSIS has developed a voice of no small import", while former AOSIS negotiators Ashe et al. (1999, p. 209) even claim that the UNFCCC "represented a singular triumph for the geographically dispersed group of island states and low-lying coastal developing countries" (Betzold, 2010; Taplin, 1994).

Several factors have been identified as important in explaining the remarkable influence of these otherwise fairly powerless countries. Davis (1996) lists four main factors: the "truth and justness of its cause" (p. 19), the support by the best available scientific evidence, the Alliance's sense of unity due to the common threat of climate change, and the strong and skilled leadership by AOSIS's first chair, ni-Vanuatu ambassador Robert Van Lierop. What Davis calls "truth and justness" is generally referred to as vulnerability. This extreme sensitivity of small islands to the consequences of climate change gives AOSIS moral leverage. Larson (2003, 2005)

hence argues that AOSIS successfully highlighted their strong exposure to changing climatic conditions, as well as the negative effects of climate change for all countries worldwide, which helped to forge coalitions with more powerful groups of countries, especially the EU and more progressive countries within the G-77 and China. In a similar vein, the group's former vice-chair Tiuloma Neroni Slade (2003) underlines the cooperative nature and consensus orientation of small island state diplomacy more generally, as well as the inclination toward coalitions and like-minded countries. He notes that islands "instinctively [...] recognise strength in acting together, whether as regional sub-groups of the Caribbean or Pacific countries, or as the larger Alliance of Small Island States" (p. 534).

These soft negotiation strategies also figure prominently in Betzold (2010). According to her analysis of the climate regime up to the 1997 Kyoto Protocol, AOSIS managed to highlight common interests, raise moral concerns, as well as "play by the rules". AOSIS as a group very actively participated in the process, making many submissions and interventions in the various groups and meetings (see also Ashe et al., 1999; McMahon, 1993). This active participation, however, was only possible by forming a coalition and pooling resources, since SIDS individually have limited negotiating capacity, with many of their delegations consisting only of one or two representatives (e.g. Chasek, 2005; McMahon, 1993; McNamara and Gibson, 2009).

This review indicates clearly that an important ingredient to the successful representation of small island interests in the negotiations lies in coordination and participation as a bloc. Coordinating positions and pooling resources allows island states not only to overcome some of the challenges inherent in their limited human and financial resources. With over one fourth of developing countries and close to one fifth of total UN membership, coalition building gives island states also some negotiating power by sheer numbers. On the other hand, it is not easy to find a common denominator among over 40 countries. Despite their common vulnerability, small island states are threatened by climate change in different ways. Whereas some states that consist exclusively of low-lying atolls such as the Maldives, Kiribati or Tuvalu, have to worry about their very existence as states (Yamamoto and Esteban, 2010), other countries face serious impacts in coastal zones, but may be able to adapt, such as Papua New Guinea, Belize, or Cuba. Similarly, climate regulations affect AOSIS members differently. With large tropical forest covers, countries like Papua New Guinea, Suriname or Guyana are interested in compensation payments as part of REDD. Yet others, in particular Singapore, have a stake in bunker fuels and taxation of maritime transport, while countries in tropical storm zones, like many Caribbean states, push for policies on insurance and climate-related risk. In other words, as the UNFCCC process increases in scope and complexity, different and often diverging interests should become more pronounced, potentially at the expense of the Alliance's unity.

This resonates with observations on the waning influence of AOSIS. As early as 1996, Shibuya (1996, p. 552) notes that the Alliance's "greatest influence [...] may have now passed, as

the discussion moves from the agenda-building phase towards the policy formation and implementation steps". In a similar vein, Gillespie (2003, p. 128) argues that the "SIDS have slowly disappeared from making the substantive suggestions and actions akin to their original privileged role in the FCCC forum" (see also Barnett, 2005).

Do these observations also have theoretical foundations? What does bargaining theory suggest on fragmentation, coalition-building, and success?

3. Bargaining Theory: Coalitions in multilateral negotiations

Coalitions are a defining feature of multilateral negotiations. As soon as there are more than two parties, negotiators start forming groups. As Dupont (1996, p. 48) writes, "coalitions turn out to be a major variable in understanding and explaining the process and outcome [of negotiations]". The reason for this phenomenon lies in the two main functions of coalition, managing complexity and power maximization (Chasek, 2005).

Multilateral negotiations are inherently complex, and environmental negotiations even more so (Depledge, 2005; Zartman, 1994). Coalitions help to manage this complexity. When negotiating parties cluster together based on similar interests or values, these patterns structure and simplify the negotiation process by highlighting similarities within coalitions and differences across them. Hence, coalitions contribute to a better visibility of actors (see Dupont, 1996, p. 49).

On the other hand, and more importantly in the context of this paper, coalitions are mechanisms for individual countries to increase their bargaining power. Power matters in international negotiations, a point on which both realists and liberal thinkers agree (see Milner, 1992; Weiler, 2012). By pooling their sovereignty, countries have more possibilities to affect the outcome of negotiations (Starkey, Boyer, and Wilkenfeld, 2008), yet this comes at a price. The coalition's position is a compromise of the positions of all coalition members, and if a particular coalition member's ideal policy is far from the coalition's overall position, it may face high costs and even consider leaving the coalition. The more heterogeneous the members, the more difficult it is hence to build and maintain a coalition (Constantini, Crescenzi, Fillipis, and Salvatici, 2007).

The decision to join or leave a coalition also hinges on the effectiveness of a coalition. Here, Dupont (1996, p. 54f) identifies several factors that determine effectiveness, including size, leadership, cohesion, and proximity. Size plays a role, although there is no clear optimal size. Larger coalitions may have more bargaining power, but with size, the heterogeneity of coalition partners increases, which makes it more difficult to find common ground. Leadership may help here to identify common interests and thus to mobilize members; in other words, leadership is

needed for group cohesion. Cohesion is necessary on the one hand to ensure effectiveness; on the other hand, it serves to keep the coalition intact, that is, it "guard[s] against the ever-present danger of dislocation", as Dupont (1996, p. 55) puts it. Strongly linked to the above factors is finally proximity, often also referred to as "ideological distance". There needs to be some common interest, or common values or ideologies, that make coalition formation possible in the first place.

The last point has a long tradition in negotiation theory. Axelrod (1970) pointed out more than forty years ago that there must be a connection between parties involved in a coalition, or else the alliance will fall apart. This idea was later reiterated by Garrett and Tsebelis (1996), who believe that coalition partnerships are only formed among spatially closely linked parties (the spatial link refers to proximity on issue dimensions, not geography).

When applying these theoretical insights to the case of AOSIS, we would expect a negative effect of fragmentation on the Alliance's cohesion, and thus indirectly on its effectiveness and success. This is because more issues in the UNFCCC negotiations provide more opportunities for diverging interests to appear among AOSIS members. As described above, island states differ in how they are affected both by climate change and climate policies and regulations. We might therefore expect that putting issues such as forests on the agenda should lead to a decline in cohesiveness, as island countries stand to gain or lose from these agenda items in very different ways. This should be reflected also in how much importance different countries within AOSIS attribute to different issues. The empirical analysis of AOSIS and its member states' positions and preferences over time presented in the following sections intends to shed light on these developments.

4. Data and Methods

Since we are interested in tracing in detail the interests and positions of small island states, we opted for a case study design. We use descriptive statistics and graphs to map the evolution of AOSIS and its members in the climate negotiations, and to analyse changes over time and across issue areas. Since decision making within AOSIS takes place behind closed doors and cannot be observed directly, we rely on a range of sources to increase the validity of our claims. Hence, we have compiled information from the written submissions of AOSIS and its members to the UNFCCC; protocols of the oral negotiations contained in the *Earth Negotiations Bulletin* (ENB); the lists of participants to the most important UNFCCC meetings; and interviews with some AOSIS delegates to the negotiations.

Information has been gathered for the whole negotiation process since the first Conference of the Parties (COP1) in 1995, but with a special focus on the more recent negotiation rounds, in particular since the Bali climate summit (COP13) in December 2007. We chose to focus on

these last years because the few articles specifically analysing AOSIS in the climate negotiations cover the early period of the climate change regime (Ashe, et al., 1999; Betzold, 2010; Larson, 2003; Shibuya, 1996). Furthermore, the Bali Action Plan, adopted in Bali in 2007, officially started negotiations on a new, more comprehensive climate change agreement, which is expected to include not only a long-term emissions reduction target, but also provisions for enhanced action on mitigation, adaptation, technology development and transfer, and financial support (UNFCCC, 2008). The Bali meeting thus led to negotiations on a variety of topics and issue areas that had not been so important earlier, appealing to a broader constellation of interest groups and new coalitions, which we expect may be related to the above described fragmentation of AOSIS.

As the intensity of the negotiations – and thus participation in the form of written submissions or delegation members – varies importantly throughout the years, our analysis compares three distinct periods of negotiations with regard to the evolution of positions and interests of AOSIS members over time:

- In the first period from 1995 to 2000, the negotiations centred around the design of the Kyoto Protocol.
- After the 2001 Marrakesh Accords and up to 2005, negotiations focused on the detailed rules and operationalization of the Kyoto Protocol and its flexibility mechanisms.
- Since 2006, and especially since COP13 in Bali in December 2007, the focus shifted to new negotiations about the second commitment period for the Kyoto Protocol and on an eventual new protocol.

If our contention is correct, that is, if the diversification of the negotiations into new topics has made coalition maintenance and speaking with one voice more difficult over time, we should see a decline in group activity as compared to the participation of individual AOSIS members. Similarly, if countries give more weight to national interest, we should see a strong representation of these interests in the negotiations, whereas a cohesive Alliance should focus on common interests rather than divisive issues.

We use several indicators to trace the cohesiveness of AOSIS across the three time periods. In order to compare group activity with overall AOSIS participation in the negotiations, we look at all official submissions to the UNFCCC from AOSIS members, as well as oral interventions in the debate. A (relative) decline in the number of submissions or interventions as a group is a sign of fragmentation. Similarly, we can compare the relative importance of negotiation topics. A growth of divisive issues again signals fragmentation. Divisive issues are those on which there exists no or few common positions, but on which individual AOSIS countries have taken a stance, or where individual countries have opposing views. If these divisive issues are represented in the delegations of AOSIS member states, we take this as an indicator of

fragmentation, whereas representatives from unifying issues indicate group cohesiveness. Table 1 summarizes our indicators.

Table 1: Indicators used in the analysis and their meaning for AOSIS's level of fragmentation or cohesiveness in negotiations

Indicator	Meaning for AOSIS fragmentation/cohesiveness
More written submissions are sent by individual small island states as compared to submissions by AOSIS as a group	Fragmentation
More written submissions are made jointly with parties outside AOSIS	Fragmentation
Negotiation topics for which AOSIS group submissions exist	Cohesiveness for these topics
Negotiation topics for which no AOSIS group submissions but several individual submissions by small island states exist	Fragmentation for these topics
Negotiation topics for which oral interventions by AOSIS as a group are more frequent than by individual small island states	Cohesiveness for these topics
Negotiation topics for which oral interventions by individual small island states are more frequent than by AOSIS as a group	Fragmentation for these topics
Oral interventions by two or more individual small island states oppose each other	Fragmentation
Composition of delegations predominantly from environmental, climate change, meteorological agencies, the foreign service or supporting NGOs / research institutions	Concern about climate change impacts: cohesiveness on main AOSIS concern
Composition of delegations includes representatives of finance, economy or development ministry	Concern with financial interests: meaning unclear
Composition of delegations includes representatives from business or other government agencies	Other interests are represented: fragmentation likely
Affiliation of delegates includes frequently the words “forest”, “CDM”, “markets”, “aviation”, “maritime”, “transport”, “energy”	Other interests are represented: fragmentation likely

In the following subsections, we describe in more detail the sources of information, and lay out how we coded and analysed them in terms of the indicators listed above.

4.1. Written submissions

Progress in the negotiations of the different issues at stake in the UN climate change regime is based on the proposals and positions of parties. Such proposals and positions are usually communicated either orally, during the meetings of the diverse Convention bodies, or in written form, by means of submissions on specific topics that are then compiled by the Convention Secretariat and available for download at its website.

With the goal of identifying the issue areas that have been most important for AOSIS and its member countries over time, we downloaded and manually coded all written submissions by AOSIS as a group as well as by individual AOSIS members since 1995, the year in which the Convention entered into force. In each submission, we identified the author(s), possible patterns of collaboration (whether the submission was made individually, jointly by a group of countries, or by AOSIS), and the main topic of the submission. We also searched for specific key words that identify the main negotiation topics and counted their frequencies to detect changes over time and differences across individual AOSIS countries. Table 2 shows the keywords utilized and the negotiation topics they represent.

Table 2: Negotiation topics and respective keywords

Negotiation topic	Keywords	Negotiation topic	Keywords
Adaptation	Adapt Vulner	Market mechanisms Finance and support	Market Support
Mitigation	Mitig Reduc Commitm Target	Technology transfer, capacity building	Financ Fund Technol Capacity
LULUCF and REDD	LULUCF REDD Forest	Impact of response measures	Response measure

4.2. Protocols of oral negotiations

For the period between COP13 in Bali (December 2007) and COP15 in Copenhagen (December 2009), the protocols of the oral negotiations reported in the ENBs (International Institute for Sustainable Development, IISD, 2007-2009) were also hand-coded. The ENBs provide detailed daily reports of the open negotiation meetings, containing summaries of statements made by the different countries and of reactions by others. Count variables were created that provide information on how often a country made an oral intervention on a specific negotiation topic, how often a country's statements were supported by another country, and how often a country's statements were opposed by another country. For more details about the coding of the ENBs, see Castro et al. (2011). The analysis of this data is expected to provide further information on AOSIS members' varying degrees of interest with respect to different negotiation issues, and on patterns of collaboration or of opposition between countries.

4.3. Participant lists

In each meeting of the bodies of the UNFCCC, a list compiling all the names and affiliations of participants (including the party or observer organization they represent, and their specific

position and organization therein) is published.⁴ The information about the AOSIS members' delegations was extracted for the meetings listed in Table 3,⁵ which include all those years in which major stepping stones in the climate regime were achieved, as well as the main negotiation meetings since Bali. AOSIS states' delegation members were coded in terms of their affiliation (governmental sector, research, business, international cooperation agencies, NGOs, media) and of additional topic categories that may denote specific interest groups beyond the broad affiliations. Appendix A shows the detailed coding rules for the participant lists.

Table 3: Negotiation meetings in which the participant lists were coded

Meeting	Location/Date	Importance
COP1	Berlin, April 1995	First COP, UNFCCC entered into force
SB6 ²	Bonn, August 1997	Year in which the Kyoto Protocol was negotiated
COP3	Kyoto, December 1997	Adoption of the Kyoto Protocol
SB12	Bonn, June 2000	Negotiations on the detailed rules of the Kyoto Protocol
COP6	The Hague, November 2000	Negotiations on the detailed rules of the Kyoto Protocol
COP6 <i>bis</i>	Bonn, July 2001	Negotiations on the detailed rules of the Kyoto Protocol
COP7	Marrakesh, October 2001	Adoption of the Marrakesh Accords (detailed rules of the Kyoto Protocol)
SB22	Bonn, May 2005	Year in which the Kyoto Protocol entered into force
COP11	Montreal, December 2005	The Kyoto Protocol enters into force; initiation of the negotiations towards a second commitment period (Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol, AWG-KP)
COP13	Bali, December 2007	Adoption of the Bali Action Plan; initiation of the negotiations towards a comprehensive long-term climate agreement (Ad Hoc Working Group on Long-term Cooperation under the Convention, AWG-LCA)
SB28	Bonn, June 2008	AWG-KP and AWG-LCA continue
COP14	Poznan, December 2008	AWG-KP and AWG-LCA continue
SB30	Bonn, June 2009	AWG-KP and AWG-LCA continue
COP15	Copenhagen, December 2009	AWG-KP and AWG-LCA are supposed to finish their work; Copenhagen Accord
SB32	Bonn, June 2010	AWG-KP and AWG-LCA continue
COP16	Cancún, December 2010	Cancún Agreements

5. Results and Discussion

5.1. AOSIS' and AOSIS members' interests over time

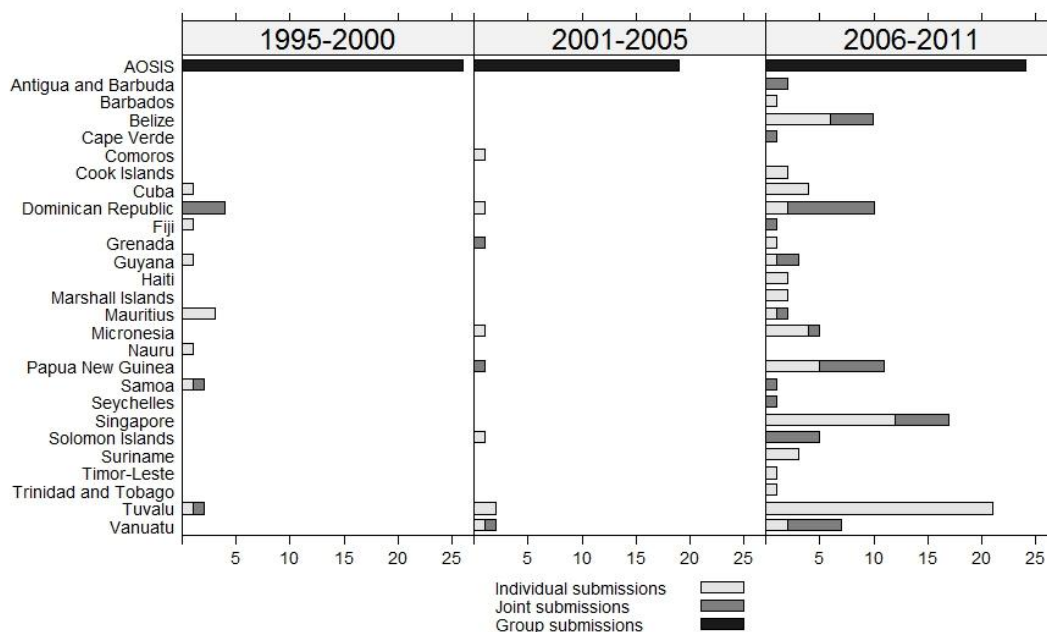
Written submissions

Figure 2 shows the evolution in the amount of written submissions sent by AOSIS and its member countries to the UNFCCC in the three periods described above. For the analysis, we

² SB stands for subsidiary bodies. The Convention has two subsidiary bodies, the Subsidiary Body for Scientific and Technological Advice (SBSTA) and the Subsidiary Body for Implementation (SBI). They usually meet during the COPs as well as every June in Bonn.

have differentiated three types of submissions: those made by AOSIS as a group;⁶ those made by individual AOSIS members; and those by AOSIS members jointly with other countries. These countries may or may not be AOSIS members themselves; if a submission was made by two or more AOSIS members jointly, they were counted more than once. The graph clearly shows how in the first two periods (i.e. between 1995 and 2005), most submissions were made by AOSIS as a group, with relatively few AOSIS countries making few individual or joint submissions. From 2006 on, we see that the majority of AOSIS countries (with the exception of Comoros and Nauru) have made at least one submission independently of AOSIS (either individually or jointly with other countries). While AOSIS group submissions are still high in number, their proportion, when compared to the individual or joint submissions, has declined notably.

Figure 2: count of AOSIS and AOSIS member submissions, 2006-2011

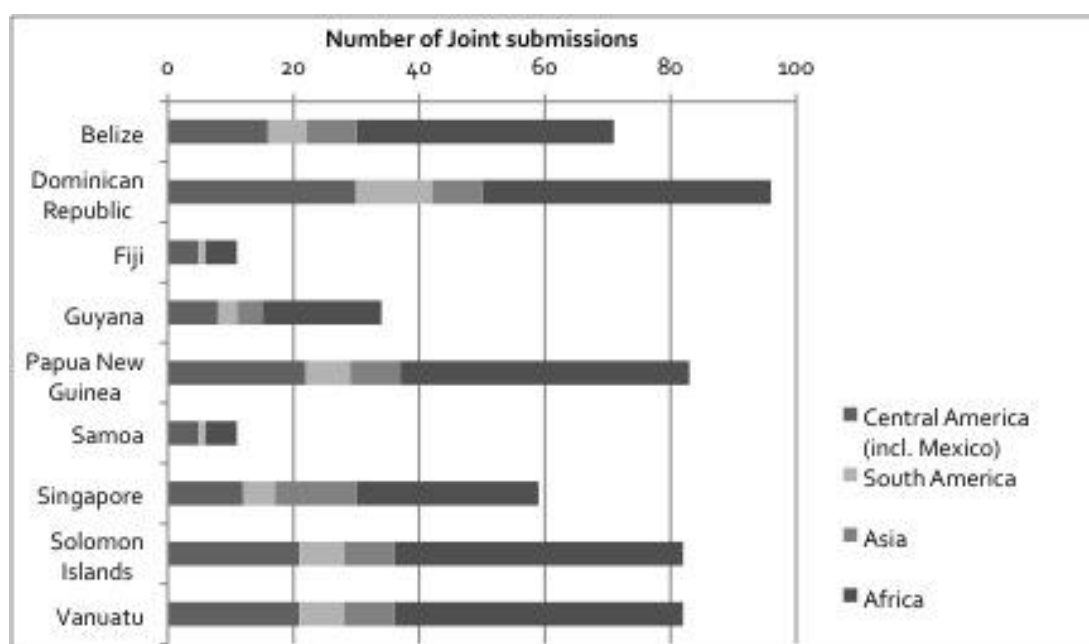


The countries that become most active (with five or more individual submissions over the period 2006-2011) are Belize, Papua New Guinea, Singapore and Tuvalu. Several countries also have a relatively high amount of joint submissions. Dominican Republic, for example, frequently makes submissions with other Latin American countries that are not in AOSIS, and did so already in the 1990s. Besides the Dominican Republic, also Belize, Papua New Guinea, Singapore, Solomon Islands and Vanuatu have several joint submissions from 2006 on.

With which countries do AOSIS members collaborate most frequently? We take REDD as an example. For the most active countries on REDD, Figure 3 shows how often AOSIS countries have made joint submissions with non-AOSIS countries on the topic of REDD. Joint

submissions are most frequently made with African and with Central American countries, but several Asian and South American countries also participate in some joint submissions. Guyana, although it has a similar position in favour of REDD markets as the countries mentioned above, participates less frequently in joint submissions. Even less often participate Fiji and Samoa, which might indicate that these two countries are somewhat more cautious with respect to REDD. At the extreme is Tuvalu, which does not appear in the graph as it only has individual submissions on REDD, and thus seems to be acting quite alone in its opposition to using REDD in the carbon market.

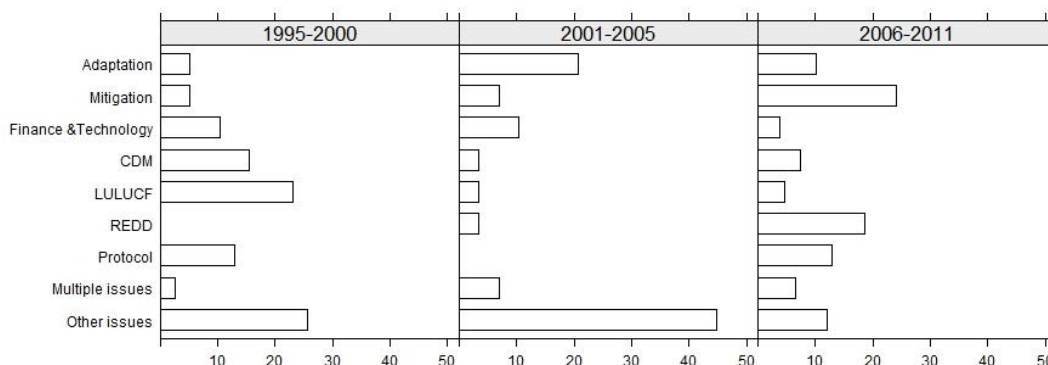
Figure 3: joint submissions of selected AOSIS members on REDD, by continent



When looking at the main topics of the written submissions by AOSIS and its member countries (Figure 4), we see that the relative importance of the different topics has also changed over time. In general, topics related to mitigating climate change (including mitigation targets, LULUCF, REDD and CDM) were very important in the 1990s in the run-up to Kyoto and again from 2006 on. However, in the 1990s, LULUCF and the CDM, this is, the detailed rules about how to operationalize the Kyoto Protocol, were more important, while in 2006-2011, more general mitigation targets and REDD became the topics with most submissions. The topic of adaptation, in theory very important for the subsistence of small island states, is generally less prominent in the submissions than mitigation. Its relative importance was highest during the period between 2001 and 2005. Surprisingly, finance and technology appear to have been more important in the two first periods than in the last one in relative terms, although in recent years negotiations on a new financial mechanism of the Convention have gained in relevance. Not

surprisingly, submissions regarding a protocol were important in the 1990s (towards Kyoto) and from 2006 on (new protocol, or reform of Kyoto).

Figure 4: main topics of AOSIS and AOSIS member written submissions



The analysis of the keywords counted in the written submissions⁷ shows a similar picture: Mitigation commitments were important in 1995-2000 and 2006-2011, which is intuitive, as it follows the main topics of negotiations (Kyoto Protocol in the 1990s, new mitigation commitments after 2005). The topic adaptation, conversely, increased in importance during the 2000-2005 period, to decline again from 2006 on, probably because during this time the interest in new reduction targets for Annex I countries increased. Interestingly, LULUCF, REDD and forests has remained quite important over the whole period, but with a slight reduction from 2006 on. While the focus until 2005 was on LULUCF, from then on there was a shift towards REDD. In terms of word counts, market mechanisms seem to have lost importance in the submissions by AOSIS countries, in relation to other topics. While support in terms of finance or funding seems to have gained in importance over time, technology and capacity building seem to have lost some importance. Response measures remains over the whole period an unimportant topic, with a slight increase in the second and third time periods analysed.

Overall, the descriptive analysis clearly hints towards a reduced importance of AOSIS group submissions in the latest negotiation years, while at the same time the different negotiation topics have varied in importance, or new topics have emerged. Is there a relationship between these two observations?

A more detailed analysis of submission topics by member countries, on the basis of keywords, reveals that AOSIS as a group remains prominent in submissions related to adaptation or vulnerability, financial support, and technology or capacity building, followed by Tuvalu. Tuvalu is the AOSIS country that has made most individual submissions in the whole period of analysis, and has been particularly active in the most recent period from 2006 to 2011. Tuvalu's predominance may be due to several reasons. On the one hand, it is known that already early on, the Tuvalu delegation joined forces with a highly skilled former NGO

representative, thus “borrowing power” from external groups as described by Betzold (2010). On the other hand, Tuvalu might either be a driving force in support of the AOSIS’ traditionally strong position towards ambitious action to prevent climate change and tackle its impacts, or it might have other interests that motivate it to be so active in the negotiations. The analysis by topics further on will shed more light on this issue.

Other topics show a larger dispersion of interests: with respect to mitigation commitments, Tuvalu, Papua New Guinea, Vanuatu and Dominican Republic are the most active AOSIS countries, followed by Solomon Islands and Singapore, mainly in the period 2006-2011. Land-use and forestry issues were mentioned most frequently by Tuvalu, followed by Vanuatu, Papua New Guinea, Dominican Republic, Solomon Islands, Belize, and Singapore. The interest of most of these countries in the forestry sector (except for Tuvalu, Dominican Republic and Papua New Guinea) seems to have started only recently, during the 2006-2011 period, pointing towards a special focus on REDD (see below). The word “market” follows a very similar pattern to the terms related to forestry: Tuvalu, Papua New Guinea, Vanuatu and the Dominican Republic are again the most prominent countries mentioning this topic in their written submissions. Interestingly, both for the forestry keywords and for markets, some individual countries appear to be more active than AOSIS as a group, as revealed by the fact that the word counts are larger for these individual countries than for AOSIS group submissions (see e.g. Figure 7 below).

Oral interventions

The analysis of the oral interventions in the negotiations, as reported in the ENBs, reflects the same as the analysis of the written submissions above. Table 4 compares the topics that, according to the ENB coding, were most relevant for AOSIS as a group and for the AOSIS countries that had more than 10 oral interventions over the period between Bali and Copenhagen. While AOSIS as a group has participated repeatedly on topics such as adaptation, mitigation, finance and capacity building or technology transfer, which are of general interest to all countries that are vulnerable to climate change, it has made very few group interventions on LULUCF and REDD. Some individual AOSIS members, however, have participated actively in the LULUCF and REDD discussions, among them Tuvalu, Papua New Guinea, Guyana, Singapore and Micronesia. Suriname and Solomon Islands, not shown in Table 4, also participated in the REDD discussions, and this was the only negotiation topic for which they have been mentioned in the coded ENBs.

Table 4: Number of oral interventions of most active AOSIS countries per negotiation topic, December 2007 – December 2009

Country	Adaptation, vulnerability	Mitigation, compliance	Kyoto flexibility mechanisms	Sectoral mechanisms, national policies	Monitoring, reporting and verification	LULUCF	REDD	Finance	Capacity building, technology transfer, R&D	Consequences of climate policies	Shared vision
AOSIS	51	76	26	1	12	3	1	65	32	8	14
Tuvalu	7	40	27	7	2	20	16	16	0	4	3
Singapore	1	23	5	3	1	0	2	0	0	3	1
Micronesia	4	17	8	4	4	1	0	1	0	0	1
PNG	0	5	3	0	0	10	18	3	1	0	0
Guyana	1	3	0	0	0	1	15	2	2	0	1
Barbados	2	3	0	1	0	0	0	4	2	4	2

Note: PNG stands for Papua New Guinea. Source: Earth Negotiation Bulletins (IISD, 2007-2009), own coding.

The coding of the ENBs also shows some instances in which AOSIS member countries have openly held opposing positions in the negotiations. In the Bonn meeting in August 2009, Papua New Guinea and Tuvalu were reported to have opposing views on how to account LULUCF activities, and on what LULUCF activities should be eligible under the CDM. The forestry sector thus appears to be one of the contentious issues among SIDS. But other issues have also generated disagreement: In the Bangkok meeting in October 2009, while Singapore joined some non-AOSIS countries in proposing that the International Civil Aviation Organization (ICAO) and the International Maritime Organization (IMO) take the lead in regulating emissions from aviation and maritime transport, Tuvalu and Micronesia suggested that such regulations need to be guided by the Convention. During the Copenhagen meeting in December 2009, Papua New Guinea reportedly stated that they did not support the AOSIS proposal for a continuation of the Kyoto Protocol and an additional protocol to enhance action under the Convention.

Country delegations

Over the period 1995-2010, the delegations of small island states to the UNFCCC meetings have grown importantly in size, as shown in Table 5. Especially for COP meetings in which important decisions are expected, the aggregated AOSIS delegation is quite large. In the Copenhagen meeting in December 2009, for example, the total AOSIS delegation was larger than the delegations of Brazil, China, and the US. If coordination among AOSIS members is high, such a delegation is an important resource for small island states. Upon closer analysis, however, we see that the growth in delegation size has not been equal across AOSIS members – Singapore, Papua New Guinea, Samoa, Micronesia and Tuvalu are the countries that have had the largest delegations at some point.

These differences across AOSIS members could be due simply to different economic or human resources available, but they could also be evidence of a diversification of interests within some AOSIS members as the negotiation progressed. We thus look next at the composition of the delegations of the countries found above to have had the largest delegations over time. In broad terms we expect that, if concerns about the impacts of climate change are the main drivers of small island states' participation in the climate change negotiations, then their delegations should include many representatives from the agencies related to environment, climate change and meteorology, and probably also from NGOs or research institutions that may be supporting the governments in these areas. Having many representatives from the ministry of finance, economy or development may be an indicator of concerns about how to finance climate-related action, either in adaptation or mitigation. A large fraction of representatives from the foreign service may be an indicator of the reliance on career diplomats for the negotiations, rather than on technocratic experts. Finally, representatives from other governmental sectors or from business may indicate the existence of other interest groups beyond those concerned with the impacts of climate change.

Table 5: Number of delegates from AOSIS countries participating in UNFCCC meetings, descriptive statistics (1995 – 2010, selected meetings)

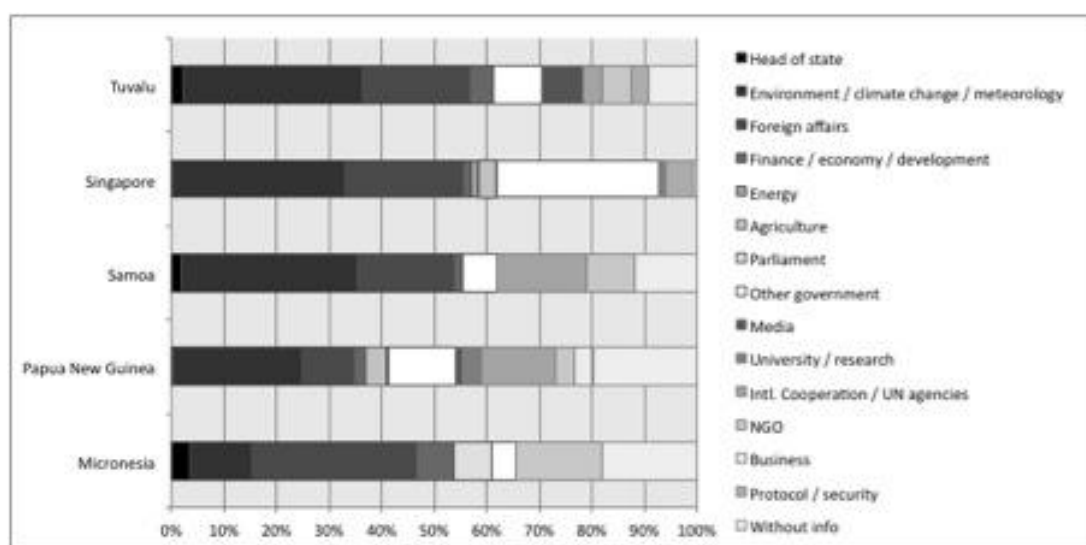
Meeting	Date	Total AOSIS	Share of all party total	Mean per country	Min per country	Max per country	St. Dev.	Country/ies with most delegates
COP1	April 1995	67	8.85%	2.09	1	5	1.18	Micronesia, Papua New Guinea
SB6 ³	August 1997	31	n/a	1.55	1	5	1.02	Singapore
COP3	December 1997	115	7.50%	3.83	1	15	2.98	Micronesia
SB12	June 2000	39	4.84%	1.56	1	5	0.98	Samoa
COP6	November 2000	153	6.97%	4.25	1	12	2.49	Micronesia
COP6 <i>bis</i>	July 2001	117	6.45%	3.34	1	9	2.19	Papua New Guinea, Samoa
COP7	October 2001	61	2.53%	2.26	1	6	1.35	Samoa
SB22	May 2005	45	4.86%	1.61	1	5	1.08	Tuvalu
COP11	December 2005	137	4.89%	3.91	1	15	3.13	Papua New Guinea
COP13	December 2007	344	9.81%	9.05	1	61	11.80	Singapore
SB28	June 2008	94	7.15%	2.76	1	17	2.67	Singapore
COP14	December 2008	220	5.56%	5.64	1	27	5.56	Singapore
SB30	June 2009	121	6.92%	3.36	1	19	3.71	Singapore
COP15	December 2009	638	6.03%	16.36	5	82	14.43	Papua New Guinea
SB32	June 2010	143	8.57%	3.86	1	28	4.62	Singapore
COP16	December 2010	418	8.06%	11.00	3	41	9.33	Singapore

³ SB stands for subsidiary bodies. The Convention has two subsidiary bodies, the Subsidiary Body for Scientific and Technological Advice (SBSTA) and the Subsidiary Body for Implementation (SBI). They usually meet during the COPs as well as every June in Bonn.

Source: participant lists to UNFCCC meetings.

Figure 5 shows our findings in terms of the composition by sector of the delegations of the countries mentioned above, aggregated over time. Some important differences become evident. While technocrats from environmental, climate change or meteorology agencies represent over 30% of the delegations of Tuvalu, Singapore and Samoa, they are about 25% of Papua New Guinea's delegations and about 10% of Micronesia's. In contrast, the participation of diplomats (members of the foreign affairs sector) seems to be largest in Micronesia, but also important in Singapore, Tuvalu and Samoa. This indicates that concerns about climate change impacts and reliance on career diplomats explain a large part of the selected countries' delegations, but not all of them. From the other governmental sectors, Singapore is the only country in the sample that includes representatives of the energy sector, and Papua New Guinea and Singapore the only ones with representatives from agriculture. In addition, over 30% of Singapore's delegation consists of representatives of other governmental agencies not detailed in our analysis.

Figure 5: Composition of selected AOSIS member delegations, by sector (percentage of total delegates in analysed meetings, 1995-2001)



Note: See Appendix A for a description of how sectors were coded.

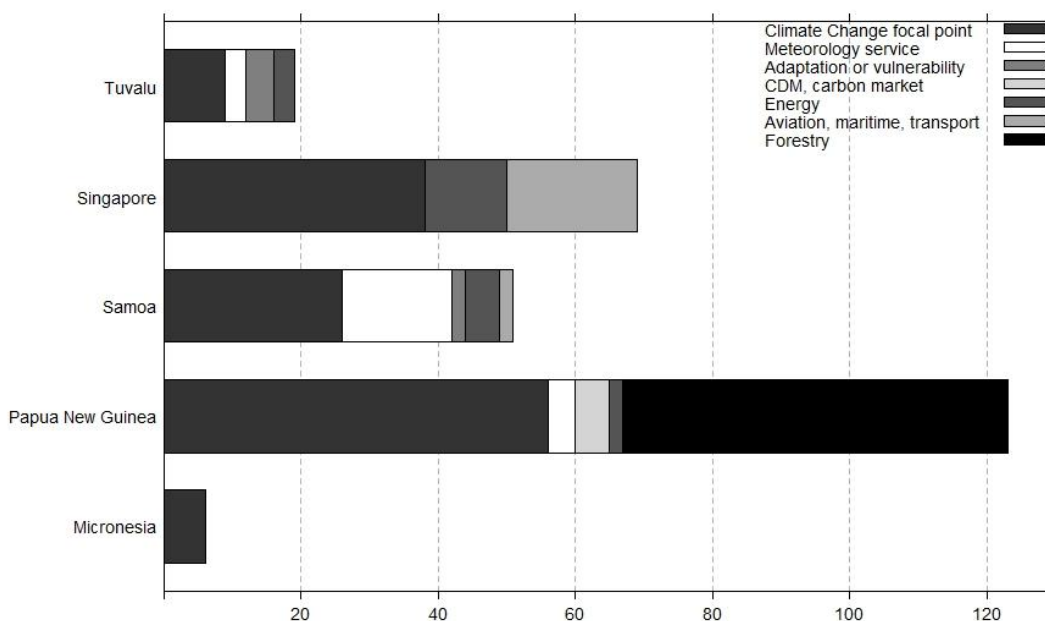
Source: participant lists to UNFCCC meetings.

Outside the government, while the presence of the media seems to be most important for Tuvalu, cooperation with NGOs, international agencies and universities or research institutions seem more important for Samoa, Papua New Guinea and Micronesia, representing over 20% of the official delegations in the first two countries. In the case of Papua New Guinea, the representatives from international agencies come mainly from the Coalition of Rainforest

Nations, in the case of Samoa they come from the Pacific Regional Environment Programme. Singapore, in contrast to all other countries, almost exclusively includes governmental representatives in its delegation, with just three representatives of universities and one of businesses over the whole period of analysis.

Looking beyond sectors, Figure 6 shows the composition of the five delegations described above, on the basis of word counts in the affiliation of delegates as described in Appendix A. The differences across the five countries become more evident. References to climate change or meteorology remain important for all countries, but adaptation or vulnerability only appear in delegates from Papua New Guinea, Samoa and Tuvalu. Specialist on forestry, the CDM and carbon markets appear only in the delegation of Papua New Guinea. While the words “CDM” or “markets” appear only few times, “forestry” is a very common word in the affiliation of Papua’s delegates. Finally, references to energy and aviation or maritime transport appear to be important only for the delegation of Singapore.

Figure 6: Representation of interest groups in selected AOSIS member delegations (number of delegates in analyzed meetings, 1995-2010)



Note: See Appendix A for a description of how sectors were coded.

Source: participant lists to UNFCCC meetings.

The evidence from the participant lists thus confirms differences across AOSIS member countries. While climate change and environmental considerations are still the most important topic among all delegations, more specific issue areas such as carbon markets, forests and emissions from energy and transport seem to be relevant negotiation topics for certain countries, among them Papua New Guinea and Singapore.

Summarizing this section, while some topics appear thus to be negotiated by AOSIS as a group, some others seem to be negotiated by individual member countries. Has it become more difficult for AOSIS to coordinate group positions, as more issues are included in process, such as forests and REDD, where individual AOSIS members have divergent views and interests? Does narrow self-interest challenge AOSIS's overall coordination and hence power? We look at two issue areas, adaptation and mitigation as well as LULUCF and REDD in more detail in order to answer these questions.

5.2. Positions on adaptation and mitigation

This section analyses positions of AOSIS countries regarding adaptation and mitigation more closely. As before, we first examine how the importance of these two issues evolved over time on the aggregate level to gain a picture where AOSIS as a group stood at different points in time. Then we analyse within-group differences on adaptation and mitigation to check whether the gap within AOSIS on these topics has widened over time.

Unsurprisingly, adaptation and mitigation figure prominently in the overall picture of issues of relatively high importance to AOSIS. Of a total of 176 submissions produced by the group or its members since 1995, 30 or 17% are directly concerned with mitigation, while 19 or 11% have adaptation as the main topic. This implies that mitigation is the topic that received the most attention over the years from AOSIS and its members, while adaptation ranks third, beaten by a small margin by REDD.⁸ Looking at the development of importance over time, using again the three time spans 1995-2000, 2001-2005, and 2006-2011, we find that both issues increased in significance. This can easily be seen looking again at Figure 4. Both issues – on their own – where not very high on the agenda of AOSIS during the early phase of the negotiation process, when AOSIS was most concerned with proposing an overall protocol. These submissions did not specifically focus on mitigation and adaptation, although a consequence of the protocol is, of course, the implementation of mitigation targets for Annex I countries. During the second phase, both issues became more important, yet this increase is particularly pronounced for adaptation, which accounts for more than 20% of all submissions made during that period. This is especially true for 2001, when more than 35% of the submissions by AOSIS were concerned with adaptation. We suspect that with the Kyoto Protocol in place, mitigation was settled for the first commitment period ending 2012, which is why SIDS during that time paid more attention to adaptation instead. This suspicion is affirmed when looking at the last period of our analysis starting in 2006, when discussions about the second commitment period of the Kyoto Protocol started to take off. As can be seen in the graph, AOSIS attention shifted remarkably to mitigation since then, with almost 25% of all submissions being directly concerned with the

reduction of greenhouse gas emissions. These findings are confirmed when using the manually coded frequencies of issues (count of keywords) in the submissions.⁹

Given the results so far we conclude, comparing only adaptation and mitigation that the latter is of higher importance for AOSIS as a group. However, this is certainly not the case for every single country within the group, which shows again that the SIDS cannot be considered to be an entirely homogeneous block. For example, in an interview with a delegate from the Maldives, when asked how much money Annex I countries should contribute annually to either of the two issues, the delegate responded that 1% of GDP was in the Maldives view appropriate overall, but with more money being earmarked for adaptation. The reason, in the Maldives view, is the existence of a carbon market, which will act as a natural driver of mitigation efforts.¹⁰ Similarly, we find that some countries such as Papua New Guinea, Grenada, or Vanuatu do not give adaptation a lot of consideration in their individual submissions or those jointly with non-AOSIS countries. Papua New Guinea, for example, gives adaptation only room for 0.25% of its statements, while mitigation gets much more attention (31%; forest receives most attention, with 40% of statements). The opposite extreme is Comoros, which does not consider mitigation in its individual submissions at all, while talking about adaptation more than 63% of the time.

This is a first indication that within-AOSIS differences regarding mitigation and adaptation cannot be ignored when analysing the cohesiveness of the group. Next we check whether these differences increased over time. Thus we assess whether the coordination of the group on issues related to adaptation and mitigation has become more difficult as the negotiations progressed. For the 1995 to 2000 time period, using the frequency data, we find that of all AOSIS statements regarding adaptation, 89% were made on behalf of the group. For mitigation during this early negotiation period this figure is 71%. Most countries did not submit individual views on either adaptation or mitigation during that stage of the negotiation process, and only one country, the Dominican Republic, reached a double digit share with 11% of statements made on the subject of mitigation.

The picture for the second time period, 2001 to 2005, seems rather stable, with 72% of all statements in the submissions concerning mitigation made on behalf of the group. Almost all of the individual statements were submitted by only two group members, Tuvalu (14%) and Papua New Guinea (12%). This indicates high group cohesion with only very few outliers over a relatively long time period of more than 10 years (1995 to 2005). For adaptation the picture is slightly less clear, as the share of statements on behalf of the group drops by more than 25% to 64%. Yet only few countries contribute in large part to the individual submission's share, namely Vanuatu (10%), the Solomon Islands (8%), Tuvalu (7%), and Micronesia (6%). Thus, although group coordination seems to have been somewhat more difficult on adaptation, which played a more important role than mitigation during this second negotiation period, overall group cohesion was still in good order on both issues.

Coming to the final negotiation period of our analysis from 2006 to 2011, however, we find a much higher level of fragmentation on both issues. This division is particularly pronounced for mitigation with only 19% of submission statements concerning that issue made on behalf of the group. Again Tuvalu (21%) and Papua New Guinea (11%) are leading with regard to the number of individual and joint statements¹¹ with countries outside the group. However, a much larger share of almost 85% of AOSIS members submitted their individual views to the UNFCCC on mitigation issues, a figure that reached only 15% during the 2001 to 2006 negotiation stage. Less pronounced, but still present, we find the same trend on the issue of adaptation, with 43% of statements made on behalf of the group in the (so far) final negotiation phase. Again Tuvalu, accounting for 31% of all statements made by AOSIS during that time period, is leading the pack, with 73% of AOSIS members expressing their individual views regarding adaptation (slightly less than 30% between 2001 and 2005). Hence the decline of within-group agreement continues during that last time period, however, it is much less pronounced than for mitigation, which is now back as the single most important negotiation issue. Yet the analysis of both issues indicates that finding agreement within AOSIS, and thus coordinating the group, became ever more difficult over time, and that the self-interests of single countries slowly started to dominate the joint group-interests as the negotiation progressed (and increased in complexity).

5.3. Positions on LULUCF and REDD

The general analysis of submissions by AOSIS countries over the period 1995-2011 has revealed a noticeable evolution in the importance of the forestry negotiation topics for this group of countries. Broadly speaking, the forestry negotiations encompass rules for how industrialized countries should account for the sequestration or emission of greenhouse gases from forests and other land-use activities in their emission inventories and in their emission reduction targets (negotiations on LULUCF), rules for what types of forestry and land-use activities should be included in the CDM (LULUCF in the CDM), and, more recently, rules on a possible new mechanism to address emissions from deforestation and land degradation in tropical forests (i.e. in developing countries) (REDD negotiations¹²). As explained above and shown in Figure 7, individual SIDS seem to be more active than AOSIS as a group in the discussions about forestry issues, particularly in the period from 2006 on.

Figure 7: word counts in AOSIS and AOSIS member submissions (LULUCF/REDD/forest), per period



The negotiations on forestry-related issues reveal a divide within the AOSIS members, which started to exist already in the early negotiations in the 1990s, according to detailed analysis of the LULUCF-related submissions. Between 1998 and 2002, AOSIS as a group made five written submissions related to LULUCF, which reveal a consistently strict position regarding how land-use and forestry activities should be considered both by the industrialized countries, when using them as part of their mitigation efforts, and by developing countries, when considering them as activities under the CDM. Two quotes make this quite clear: “AOSIS is in favour of very strict considerations to be met if land use change and forestry activities are to be included in the mitigation efforts of the industrialised countries” (UNFCCC, 1998, p. 47); “the primary priority should rest with the reduction of emissions and that enhancement of sinks is an additional activity in the short term” (UNFCCC, 1999a, p. 47). A joint submission by Samoa and Tuvalu and an individual submission by Tuvalu, both in the year 2000, support this strictness. In addition, Tuvalu asks for limited acceptability of LULUCF activities as Joint Implementation projects, and for no LULUCF activities in the Clean Development Mechanism (CDM)¹⁵ during the first commitment period, due to concerns about leakage of forestry emissions, non-permanence of forests, and other accounting and institutional issues (UNFCCC, 2000). On the other hand, the Dominican Republic, together with a group of Latin American countries, made two submissions, in 1999 and 2000, proposing which forestry activities should be included in the CDM. These proposals were much more lenient than those of AOSIS as a group: they not only state that LULUCF activities should be eligible as CDM projects, but also ask for an inclusion of activities that slow, reduce or avoid deforestation, including forest management

(UNFCCC, 1999b, 2000). These submissions thus already point toward a certain fragmentation, and indicate that individual self-interests may dominate group cohesion. The Dominican Republic is interested in more lenient proposals since it stands to benefit from CDM projects in the forestry sector.

The division becomes clearer in the later submissions regarding LULUCF, which were made from 2009 on: in this period, no joint AOSIS submission exists on the topic; instead, we find individual submissions by Belize, Tuvalu, Singapore and Papua New Guinea, as well as a joint submission by Guyana and Papua New Guinea with a large group of other (non-AOSIS) non-Annex I countries. The submissions, on several technical issues as how to better account for LULUCF emissions, what types of activities should be included in LULUCF (in general and in the CDM), and what reference levels should be used to determine LULUCF emissions, point towards diverging interests and opinions. It appears likely that AOSIS countries could not agree on a group submission about LULUCF after 2009, so that individual countries have submitted their positions independently from each other.

With regard to REDD, the fragmentation of opinions within AOSIS is even more pronounced. The concept of reducing emissions from deforestation was first introduced in the negotiations jointly by Papua New Guinea and Costa Rica at COP11 in Montreal in 2005. Parties agreed to start discussing the topic as a new agenda item, and launched a 2-year consultation process. At COP13, reducing emissions from forest degradation was also included in the discussions, giving place to REDD. Since then, negotiations have continued on how to address the methodological issues required to measure emission reductions from deforestation and forest degradation, and on how to generate positive incentives to halt these emissions (Sanz-Sanchez, 2011).

All submissions from SIDS regarding this topic have been made either by individual countries or by distinct groups of countries, in 2005 or later. No group AOSIS submission exists on REDD. Diverging opinions mainly concern questions about whether emission reduction from REDD activities should be used as offsets in the carbon market in a CDM-type or a sectoral mechanism, whether and how early action by countries that have already made efforts to preserve their forests should be recognized, and how to address the balance of supply and demand for carbon credits in the market (on REDD, see MartinetandChristovam, 2009; VerchotandPetkova, 2010). Belize, the Dominican Republic, Guyana, Papua New Guinea, Singapore, Solomon Islands, Suriname and Vanuatu are generally pro-markets, pro-recognition of early action and concerned about prices for carbon offsets. Tuvalu, on the other hand, makes clear in several submissions that it is against the inclusion of REDD activities in the carbon market, even in the form of pilot projects, and against granting credits for early action. Instead of this, it has made a proposal for a non-market REDD mechanism (UNFCCC, 2007). Furthermore, Tuvalu urgently calls for respecting the rights of indigenous peoples and local

communities that may be affected by REDD activities, and argues that prior informed consent decision-making processes should be established (UNFCCC, 2009).

6. Concluding Remarks: AOSIS' role in the future: unity versus fragmentation?

Success depends on the wise use of strategies in line with one's resources, as Weiler (2012) demonstrates. Although coordination and coalition formation does not neatly fit into the distinction of hard vs. soft strategies outlined in Bailer (2012), for island states that lack in large parts both endogenous and exogenous power resources, joining forces in a negotiation coalition is an important mechanism to make their voice heard. For this mechanism to work, however, the coalition needs to speak with *one* voice. In the early period of the climate regime, this worked well. The Alliance's remarkable achievements can be explained by its unity. Despite their diversity and differences, these 43 states found common ground in their unique vulnerability to climate change.

However, this unity seems in danger. As the climate agenda grows, the differences in positions and interests among AOSIS members become more pronounced, and it is more and more difficult to find uniting elements. The growing number of individual submissions to the UNFCCC and interventions in the debate relative to the number of group submissions highlights this trend, as well as the changes in the composition of country delegations to the UNFCCC meetings. While AOSIS members continue to advance joint positions on items such as vulnerability, financial support, or capacity building, other issue areas are more divisive. Where national interests are concerned, individual countries go as far as openly oppose joint AOSIS position, as was the case for Singapore in Bangkok, or Papua New Guinea in Copenhagen. On REDD, it has apparently even been impossible to find a common AOSIS position, as no joint submission exists on that topic.

Topics do not only differ with respect to their divisiveness; they also vary in their relative importance on the AOSIS agenda over time. We find that whereas many submissions detailed ideas on how to design a protocol or follow-up protocol until 2000 and since 2006, adaptation and other issues dominated AOSIS's agenda in the implementation period from 2001 to 2005. Similar differences can be found among individual members, which is not surprising in light of the heterogeneity of island countries. AOSIS includes for instance thickly forested countries such as Papua New Guinea or Belize, as well as atolls that have very little to no forest cover, such as Kiribati or Niue. That these countries hence weigh forestry differently is not surprising. Interestingly, however, these differences may hinder the emergence of a common denominator and even lead to open conflict.

Our data thus indeed suggest that the diversification of issues on the climate agenda has made coordination within the small islands coalition more difficult. Since group cohesion is

related to group effectiveness, this does not bode well for AOSIS. Our data do not allow us to make robust claims on how AOSIS's negotiation success has changed over time. However, there seems to be a fragmentation of success as well. As Weiler (2012) shows, the success scores vary considerably among small island states. According to his data, Papua New Guinea attains many of its preferences. With a score of 50, it is ranked 24th out of 58 analysed countries. The Maldives also fare rather well, with a score of 41 and rank 32. In contrast, Samoa (rank 44), Kiribati (rank 50), Micronesia (rank 53) and Comoros (rank 57) all appear at the bottom third of the rank. This may reflect a diversion of interests, however, for lack of data, we cannot conclude whether this diversion has increased, decreased, or stayed stable over time.

The negotiations towards a post-2012 climate change regime are still ongoing, so that a final measure of influence or success in terms of reaching negotiation goals cannot be made. Furthermore, even if we attempt to measure the success within certain issue areas at this point in time (e.g. the progress in negotiations about an adaptation framework or about REDD), if we only analyse the positions of AOSIS countries we cannot observe what was the influence exerted by other countries that may have similar interests and positions. A broader analysis that looks beyond AOSIS to its interaction with other countries' interests and the results of such interaction would be highly desirable to obtain a fuller picture of how AOSIS evolved in the climate change regime, as well as to reach stronger conclusions on the impact of fragmentation on AOSIS's negotiating successes.

Endnotes

1. Figures are for 2009, and for 2005 for emissions, see Betzold (2010). For a discussion of exogenous and endogenous power sources, see Weiler (2012).
2. See rule 22.1 of the draft Rules of Procedure (FCCC/CP/1996/2), or UNFCCC website at http://unfccc.int/essential_background/convention/convention_bodies/bureau/items/3431.php.
3. See CMP1 decisions (FCCC/KP/CMP/2005/8/Add.1); decision 1/CMP.4 (FCCC/KP/CMP/2008/11/Add.2); and decision 1/CP.16 (FCCC/CP/2010/7/Add.1).
4. All lists of participants are available online from the UNFCCC website at <http://unfccc.int/documentation/documents/items/3595.php>.
5. See the UNFCCC website at <http://unfccc.int/meetings/archive/items/2749.php>.
6. Group submissions are typically submitted by the Chair of the Alliance on behalf of AOSIS and were hence counted as a submission by AOSIS and not as a submission by the country holding the Chair.
7. The figures and graphs are not shown here, but are available from the authors on request.
8. Note that if we consider REDD and LULUCF as essentially the same topic, this issue would easily beat both adaptation and mitigation.
9. There is one exception. In the 1995 to 2000 negotiation period we find that both adaptation and mitigation attain a much higher percentage using the frequency data than in the analysis using submission topics only. The reason is that while overall submission topics during that time period were mostly not directly related to either of the two issues, leading to the low percentages in the analysis above, they nevertheless were regularly touched upon within these early submissions. Hence, using the frequency data, almost 29% of statements within these submissions are directly related to mitigation, and slightly more than 13.5% are related to adaptation for the first time period.
10. Another reason is that this money is for mitigation in developing countries only. Mitigation efforts in industrialized countries (which should have a lead role in mitigation) are not considered as beneficiaries of these financial flows.
11. This included joint statements of two or more AOSIS members, if the submission is not an official document for the whole AOSIS group.
12. The REDD negotiations have been expanded to include also negotiations on the conservation and enhancement of forests and on sustainable forest management, which is usually known as “REDD+”. Some countries also support the inclusion of other land-related activities in the REDD mechanism, such as agriculture and related soil carbon content, which is known by experts as “REDD++”. For simplicity, in this article we will generally refer to all these topics as REDD negotiations.
13. Joint Implementation is a flexibility instrument of the Kyoto Protocol, which allows countries with emission reduction targets to implement mitigation projects in other countries with emission reduction targets, and count the reduction as their own. The CDM allows for the generation of emission reduction credits from projects in countries without emission reduction targets (developing countries), which can be used by industrialized countries as part of their efforts to reach their emission reduction targets.

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Appendix A: Coding rules for the participant lists

Description	Coding rules
Ministry of Climate Change	Whenever "climate change" is included in name of ministry, except if "environment" is also included.
Climate change office	Whenever a climate change council, office or agency is mentioned without specifying another ministry.
Head of State / Government	All presidents or prime ministers.
Ministry of Development	Whenever "development" or "planning" is included in name of ministry, except if "environment", "economic" or "finance" is also there. Also: Ministry of Infrastructure, of Home Affairs.
Ministry of Agriculture	Whenever "agriculture" or "forest" or similar is included in name of ministry, except if "environment" or "economic" is also there. Also includes national parks or other conservation agencies, or land management agencies, whenever the word "environment" is not included.
Ministry of Energy	Whenever "energy" is included in name of ministry, except if "economic" or "finance" or "environment" is also there.
Ministry of Environment	Always when "environment" is included in name of ministry. Also when an environmental agency or service is mentioned without specifying the ministry. Also includes "Ministry of Sustainable Development".
Ministry of Finance / Economy	Always when "finance" or "economic" is included in name of ministry, except if "environment" is also included.
Ministry of Foreign Affairs	Always when "foreign" is included in name of ministry; also whenever a diplomat (e.g. ambassador) or a diplomatic mission ("permanent mission", "embassy") is mentioned.
Ministry of Transport or similar	When "transport" or similar is part of name of ministry, except if "economic", "finance", "agriculture", "environment" is also included. Includes also maritime and aviation agencies.
Other ministries	Whenever a ministry is mentioned, without including any of the above. Includes also "prime minister's office" or similar.
Other government agencies	Whenever it is clear that the delegate is from the national government, but not from a ministry, or climate change/environmental/meteorology service (e.g. state attorney, ombudsman, ...)
Protocol / security officer	Whenever it is clear that the delegate is there only for security or protocol or logistic purposes (security officer, protocol officer, aide to the minister, physician of the president, etc.). Considered not to be relevant for the negotiations themselves.
Meteorology Agency	Only whenever a meteorological service or agency is mentioned without mentioning a ministry.
Parliament	Whenever "member of parliament" is mentioned, except if the delegate also represents a specific ministry.
UN agencies	Delegates from UN agencies or projects thereof (e.g. UNDP, UNEP national offices)
International cooperation	Includes bilateral cooperation agencies or projects thereof (e.g. GTZ), but also non-UN international agencies (e.g. ACP secretary, Coalition of Rainforest Nations, Caribbean Community Climate Change Centre, etc.)
NGO	Both domestic and international NGOs, also those that may be acting as advisors to the government, if mentioning the name of the NGO. Includes also youth representatives.
University / research	Only if the delegate represents a university without being also categorized as member of another category (e.g., being in a governmental agency and in a university)
Business	Includes also utilities, carbon consultancies (even international ones), business associations, etc.
Media	Only whenever the delegate is from the media (TV, newspaper).
Without clear affiliation	If the delegate does not have enough info to categorize it (e.g. name and role (consultant/advisor) but no affiliation).
Additional categories (which may denote specific interests, but can overlap with the previous ones)	
Press officer	Count of "press", "media", "public relations", "communications officer", "prensa", "camar", and "foto" within the delegates' affiliations.

Meteorology service	Count of "meteor" and "météo" within the delegates' affiliations.
Forestry	Count of "forest" and "bosque" within the delegates' affiliations.
Land management, survey	Count of "land" and "survey" within the delegates' affiliations.
Adaptation or vulnerability	Count of "adapt", "vulnerab", "disaster" and "desastre" within the delegates' affiliations.
Climate change focal point	Count of "national communication", "snc", "focal point", "point focal", "punto focal" and "clima" within the delegates' affiliations.
CDM, carbon markets	Count of "carbon", "mechanism" and "mecanismo" within the delegates' affiliations.
Aviation, maritime, transport	Count of "avia", "maritim" and "transport" within the delegates' affiliations.
External advisors	Count of "adviser", "advisor", "consultant", "consellor" and "consultor" within the delegates' affiliations.
Energy	Count of "energy" within the delegates' affiliations.
