Implementing the Agenda 2030 – What is the Role of Forums?

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Abstract

The implementation of the Agenda 2030 and the 17 Sustainable Development Goals (SDG) requires collaboration between actors from different sectors. One way of facilitating exchange between different actors are forums. This article investigates the contribution of different types of forums for SDG implementation. We use the case of Switzerland's implementation of SDG 6 in the Global South to explore this question and rely on a small-N comparison of four forums. Based on a broad set of different empirical sources such as interviews, document analysis, and survey data, we characterize the forums according to important dimensions emphasized in forum research and use the forum characteristics to explain three types of first order forum outputs: participation patterns, information exchange, and trust and procedural fairness. We observe that a mix of different forum characteristics accounts for different forum outputs. One forum that is actively promoting networking opportunities for example manages to reach many participants that are not reached by other forums. Furthermore, our results indicate that new types of forums that focus more on the implementation of the Agenda 2030 in general rather than single SDGs might become crucial to foster information exchange among actors.

Introduction

In 2015, the member states of the United Nations (UN) developed and passed the Agenda 2030 for sustainable development, including the 17 Sustainable Development Goals (SDG) (United Nations 2015). The goals cover the social, environmental and economic dimensions of sustainability and are supposed to serve as a guideline for all UN member states as well as non-state actors such as NGOs and private companies for taking action towards sustainable development. Besides considering this set of goals individually, the Agenda 2030 also states that the interconnectedness of the global problems requires a “collaborative partnership” (United Nations 2015,1) among the many different types of actors involved in working on the SDGs. This focus on collaborative partnerships does not only include breaking the silos between different disciplines of knowledge (engineering, natural sciences, social sciences, etc.) or the joint work on the implementation of interrelated SDGs (Weitz et al. 2018; Nilsson et al. 2018; Allen et al. 2019; Dawes 2019; Schneider et al. 2019). The focus on collaborative partnerships is also meant to encourage actors from all different sectors of public administration, academia, civil society and the private sector to work together (United Nations 2015).

Experiences in natural resource governance show that tackling complex and interconnected goals requires the interaction of different actors (Leach and Sabatier 2005; Ansell and Gash 2008; Leach et al. 2014). If successful, one potential outcome of successful information exchange and communication among different types of actors is political learning (Crona and Parker 2012) or trust building (Berardo 2009). However, interacting with similar people often requires less effort, as certain core ideas and ways of thinking and functioning are shared (McPherson et al. 2001). Similarities between actors are especially important for structuring information exchange if the discussed topic contains many uncertainties and risks, as it is the case for many socio-ecological problems (Coleman et al. 1957; Berardo and Scholz 2010). Thus, connecting actors of different types requires more effort as it means overcoming problems in communication due to different sets of knowledge and different professional languages (Janse 2008) and connecting actors with different functions in the system, and different agendas (Huxham et al. 2000; Wiek et al. 2012; Maag and Fischer 2018).

Forums, defined as “issue-based intermediary organization where diverse types of political and societal actors repeatedly interact” (Fischer and Leifeld 2015, 363), are one example of venues facilitating interaction and exchange between different actors. Forums provide a space for actors from different fields and backgrounds (academia, public administration, civil society and private sector) to exchange and collaborate (Hahn et al. 2006). However, forums can differ with respect to several organizational characteristics, and actors can participate in forums in order to achieve many different individual or collective goals (Fischer and Leifeld 2015). Specific combinations of forum characteristics are expected to affect the outputs of forums. Against this background, this article addresses the following research question: *How do different types of forums facilitate SDG implementation?*

We provide answers to this question based on a study of four different forums dealing with the implementation of SDG 6 in Switzerland. In a first step, we describe the forums in terms of first order outputs of forums. First order forum outputs relate to elements such participation patterns, different types of information exchange as well as trust and procedural fairness within forums (Bryson et al. 2006a; Berardo 2009; Reed et al. 2009; Leach et al. 2014). While these outputs do not correspond to the actual implementation of SDG 6, they can be important for a successful implementation. Polycentric governance approaches for example see trust as indispensable to foster cooperation (Ostrom 2010). In addition, one element of polycentric governance is regular interaction, what is a core element of many forums. We systematically identify differences between the forums with respect to these outputs, that is, we identify forums that differ from the others in a certain output.

In a second step, we then aim at relating these differences in forum outputs back to differences in forum characteristics (Fischer and Leifeld 2015). Following the basic logic of most similar systems designs (Mill 1884) our comparative strategy thus assumes that whenever we find a difference between forums in terms of their outputs, this difference can be explained by a difference in forum characteristics. We discuss the possible relation between differences in forum outputs and forum characteristics based on a rich set of qualitative and quantitative empirical

material stemming from face-to-face interviews with forum leaders, document analysis, and survey results from 55 actors participating in the four forums.

This article provides at least two crucial contributions to the literature. First, it contributes to the literature on SDG implementation (e.g. Weitz et al. 2018; Smith et al. 2018; Allen et al. 2019; Schneider et al. 2019) by introducing a potentially important element that could help SDG implementation by fostering interactions across different types of actors representing different types of expertise, different sectors, etc. Forums as institutional venues where different actors meet can lower transaction costs of actor interactions (Fischer and Leifeld 2015) and thereby foster actors' jointly addressing the challenge of SDG implementation. Second, this study complements current literature on forums. Forums have been conceptualized and empirically studied related to environmental issues (Lubell et al. 2017; Fischer and Schläpfer 2017), issues of natural hazard protection (Maag and Fischer 2018) or sustainable resource use (Leach et al. 2014). This article expands this knowledge to the domain of SDG implementation. Furthermore, many studies on forums rely on large-N, quantitative studies on forum participants (Lubell et al. 2017; Maag and Fischer 2018), or on description of single forums (Crona and Parker 2012). Small-N comparisons combining qualitative and quantitative information about forums are rare but can be valuable as they combine in-depth case knowledge with some potentially generalizable comparative insights (Fischer and Schläpfer 2017).

The remainder of this article is structured as follows. The next section on materials and methods covers a description of the case (Switzerland, SDG 6, etc.) and describes the data used to describe forum characteristics and outputs. The first section of the results presents which forums differ from other forums in terms of outputs. The second part of the results presents forum characteristics that could potentially explain the identified differences in forum outputs. In the discussion, we discuss how the differences in forum outputs relate to the differences in characteristics. We end the article by discussing the results and proposing further hypotheses and open research questions, as well as practical lessons for forum design for SDG implementation.

Materials and Methods

SDG 6, Switzerland, and four forums

For the present study, we explore the specific case of Switzerland's implementation of the SDG 6 in the Global South. SDG 6 aims at "Ensuring availability and sustainable management of water and sanitation for all" (United Nations 2015) and is composed of six substantive targets and two procedural targets. Although Switzerland itself performs well regarding the SDG 6 and the related targets in its own country territory, it has a high virtual water footprint, which has a major impact on the water situation in the Global South where quantity and quality of water are often problematic (Gnehm 2012). Only 18% of the water consumption happens inside the country while the other 82% accrue abroad, for example to produce water intensive crops. Thereby, Switzerland's virtual water consumption influences other countries' water quality and use, and thus their implementation of the SDG 6. A similar pattern can be observed for many other industrialized countries as well as many other SDGs (Sachs et al. 2017). Yet, according to the UN resolution covering the Agenda 2030, countries should not only implement the SDGs nationally, but also support other countries in their implementation, and an SDG is only fulfilled once all countries have achieved it (United Nations 2015). One way of taking responsibility of Switzerland's high impact in the Global South is to mobilize Swiss expertise to address water problems in these countries, according to the procedural targets of strengthening of international cooperation and fostering local participation. By bringing different stakeholders together, forums can help to do this.

In Switzerland, three forums (RésEau, AGUASAN, Swiss Water Partnership - SWP) are covering the implementation of the SDG 6 in the Global South as their core issue. Additionally, Switzerland established the Sustainable Development Solutions Network Switzerland (SDSN), a forum specifically established to accelerate and facilitate SDG implementation within and through Switzerland. We include SDSN as a relevant forum as it aims to foster interconnectedness between different actors involved in the SDG implementation process in general. While SDSN has a more general focus than the other three, strongly water-related forums, the thematic focus is only one (potentially important) characteristic of forums, and the four forums differ in their

organizational structure, types of activities, or further characteristics. The four forumsⁱ thus provide four diverse cases allowing for an exploration of how characteristics of forums influence first order forum outputs.

Theoretical bases for forum characterization

This study distinguishes between three types of outputs. First order forum outputs relevant for the implementation of SDGs include participation patterns, information exchange, and the level of trust and procedural fairness. A first aim of forums is the connection of different types of actors (Hahn et al. 2006; Fischer and Maag 2019). Participation of different actors in the forum are a basic condition to connecting them. We focus on the types of actors participating in each forum, and on the overall distribution of the different actor types across the four forums. Additionally, this output includes information on the degree to which a forum has exclusive participants that are not attracted by any other of the studied forums (Fischer et al. 2019). A second goal of forums is to foster information exchange among actors (Leach et al. 2014). The output information exchange includes how much interaction is happening between actors participating in the forums and whether certain actor types are more involved than others are. As other authors (Leifeld and Schneider 2012) we distinguish between political and technical information exchange for every measure, thus covering two important types of information that actors can exchangeⁱⁱ. Third, forums can be important for building trust between participants. This again might increase interaction and exchange between participants (Leach and Sabatier 2005; Berardo 2009; Leach et al. 2014). Trust and procedural fairness have been shown to significantly increase the uptake of information exchanged in forums (Leach et al. 2014), which is why we included both as relevant outputs.

To account for potential differences in these three first order outputs, we base the systematic characterization of the four forums on Fischer and Leifeld's (2015) systematic discussion of the literature relevant to forums, with minor adaptations. We focus on the following five characteristics: *Composition* depends on the type of actors included in the forum. Participants can be individuals or representatives of organizations and the types of organizations (private sector, civil society, academia, public administration) involved can differ. *Size* of the forum is another

characteristic which influences the functionality but also the coverage of a forum. *Organization and Leadership* includes whether a forum has certain hierarchies and rules or bases on expression of opinion and discussions. Additionally, some forums have specifically designed a leader to facilitate interactions, while others are self-organized. *Transparency* stands for the degree to which forums are sharing their activities with its participants and the wider public. Forums can decide not disclosing information concerning their operations or to communicate openly to the public. Transparency can increase legitimacy while sometimes reducing effectiveness. For this study, we distinguish between transparency in terms of how accessibly the forum shares information with its participants and the public (e.g. minutes of meetings available on website), and transparency in terms whether the forum is actively promoting its activity to the public through social media, press releases or similar channels. With this additional dimension of transparency, we consider whether a forum is advocacy-oriented, which means that it is actively advocating for the interests of its participants (Maag and Fischer 2018). *Specificity* describes the broadness of the scene of action of a forum. While some forums focus on one specific issue, others cover a broader range of potentially interconnected issues.

In addition to the five borrowed from Fischer and Leifeld (2015) we include three additional forum characteristics. To get more insight in the forums area of activity we included the *Main Goal* and *Activities* of the forums. This is important given that forums and their participants might have different goals ranging from information exchange on a certain issue to forming coalitions for a certain policy process (Maag and Fischer 2018). In order to achieve these goals, different forums might have different activities. We finally add forum *Experience*, indicating how long a forum already exists. Repeated interactions over a longer period can create trust among actors (Öberg 2002; Ostrom 2010; Dorsch and Flachslund 2017), thus forums that exist for a longer time might show higher levels of trust.

Empirical bases for the characterization of forums

For the characterization of the four forums and the analysis of the forum outputs, we apply a mixed methods approach, combining quantitative and qualitative methods of analysis as well as quantitative and qualitative data. Our data comprise document review, expert interviews for the

characterization of the forums and an online survey to assess the forum outputs. The expert interviews were conducted with people which were either chairperson of or working for one of the forums. The aim was to ask the interviewees about the characteristics and peculiarities of the forums to characterize the forums according to the eight introduced characteristics. Overall, we interviewed five experts in four interviews according to an interview guidelineⁱⁱⁱ.

The online survey targeted the set of most important actors related to SDG 6 in Switzerland and its implementation in the Global South. We worked at the level of an organization instead of the level of individual persons, since this is where long-term exchange and cooperation on the SDG 6 happens (Knoke 1993; Fischer et al. 2017). Thus, we contacted one person per organization and asked them to represent their organization. We sent the survey to 142 organizations that potentially participate in the forums, of which 80 responded to the survey and 55 participated in at least one of the four forums. For the identification, we categorized the actors in four categories according to their professional background: private sector, civil society, academia and public administration. To be included in the analysis an organization needed to be based in Switzerland and working on the implementation of the SDG 6 in the Global South. We used a broad range of secondary sources such as official member lists of the forums, participant lists of events on the topic and research databases to establish the first selection and to provide an overview of important actors.

While the membership in one of the four forums was one identification criteria, we explicitly also included other sources for identifying Swiss actors involved in the implementation of SDG 6 in the Global South. Actors were thus explicitly not surveyed as participants in a given forum, but more generally as «important Swiss actors dealing with issues of SDG 6 implementation in the Global South». This has the important methodological advantage that we are less likely to observe a social desirability bias in the form of forum participants potentially over-emphasizing the positive outcomes of forum participation (Nederhof 1985). To triangulate the identification of actors, the interview partners as well as the respondents of the survey campaign were able to add additional actors.

The different forum outputs are assessed as follows. The assessment of all outputs relies on information from the survey. For each of the four forums, we analyze the subset of actors participating in the specific forum separately. Actors that filled out the survey but did not participate in any of the four forums are not included in the present analysis. The subsets of actors participating in each forum are of different size, according to the size of the forum in terms of participants, as well as to the share of the participants that responded to the survey. What is more, the actor subsets can be overlapping, because several actors participate in more than one forums (see Figure 1). First, participation patterns are assessed by a survey question asking all actors about their degree of participation within the four forums^{iv}. Participation patterns include the number and type of actors participating in each forum, as well as the exclusivity of a forum with respect to the participating actors – that is, the degree to which forums include actors that do not participate in any other forum. The type of actor relates, as during the identification process, to the professional background (public administration, academia, civil society and the private sector).

Second, to assess information exchange within the different forums, the survey asked actors which other actors they regularly exchanged information with regarding SDG 6. If a surveyed actor A indicated information exchange with actor B on the list of actors included in the survey, this creates a network tie between actors A and B. Based on these networks, we first compare the average ties within the information exchange network of the forums. This measure represents how many information exchange ties a participant of the forum in average has with other participants of that forum (Borgatti et al. 2018). A higher value thus indicates that the average participant has a higher number of information exchange partners. Additionally, we measure fragmentation of the networks. This measure stands for the number of node pairs that cannot reach each other by any network connection. A higher value for fragmentation represents a situation with more unconnected nodes (Borgatti et al. 2018). The measures are calculated for both types of information exchange and provide information on information exchange patterns. We calculate the average degree centralities of the different types of actors within each forum. Degree centrality describes the number of ties a node possesses (Freeman 1977; Borgatti et al. 2018) and thus

represents how actively an actor group is participating in information exchange. This value is normalized with the number of potential information exchange partners per forum. Third, in order to assess trust, actors were asked to answer questions on trust and procedural fairness within the forums^v. We calculated the average value per forum based on all actors participating in the respective forum.

Differences among the Forums in Terms of Outputs

We systematically identify differences between the forums with respect to the three types of first order outputs. More specifically, we identify forums that differ from the others in terms of any of the output elements belonging to the three types of first order outputs.

Participation Patterns

A first important dimension of first order forum outputs is the mix of forum participants, especially regarding the different types of actors that are participating in the forum's activities. We assess two aspects of this dimension, a) the composition of forums in terms of actor types, b) the exclusiveness of forums in terms of actors participating exclusively in the given forum vs. participating in two or more forums on SDG implementation. Figure 1 shows in what forums the Swiss actors relevant for the implementation of SDG 6 in the Global South are active. The black round nodes at the four corners of the figure represent the four forums; the squared nodes connected to these forums represent the actors. The colors of the actor nodes represent the different types of actors (academia, public administration, private sector, civil society). Additionally, the pie chart next to the label of each forum indicates its composition in terms of the four actor types. We observe that each of the forums has exclusive participants, that is, participants not participating in any other forum (represented as nodes only connected to one forum). While the number of exclusive participants is small for AGUASAN, RésEau and SDSN (2-3), SWP has 11 exclusive participants, most of which are actors from the private sector. SWP also shows to have the highest overall share of private sector actors. Further, we observe that the subset of actors which is participating only in the water related forums (SWP, AGUASAN, RésEau) is larger (11 actors, set of actors in the middle of the figure, at the bottom) than the group of actors participating in all the four forums (8 actors, set of actors in the middle of the figure,

center). Other actor groups such as academia show no distinct pattern of participation across the four forums.

Figure 1 Actors and their participation in forums

Besides SWP standing out due to its high share of private sector actors and its large number of exclusive participants, SDSN differs from the other forums because it attracts significantly less participants (13) among the Swiss actors relevant for the implementation of SDG 6 in the Global South.

Information Exchange

Next, we explore different aspects regarding information exchange within forums. These different aspects are average ties and fragmentation of the networks, which we assess for the network of technical information exchange, and for the network of political information exchange. Table 1 shows political and technical information exchange between the forum participants for all the four forums. The size of the nodes represents the degree centrality. The bigger the node the higher is the amount of incoming and outgoing ties, what indicates higher involvement in information sharing within the respective forum.

Table 1 Information exchange and composition of the four forums

	Technical Information	Political Information
AGUASAN		
	Average Ties: 9.88 Fragmentation: 0.029 N: 34	Average Ties: 6.76 Fragmentation: 0.144 N: 34
Réseau		
	Average Ties: 10.13 Fragmentation: 0.032 N: 31	Average Ties: 7.42 Fragmentation: 0.127 N: 31
SWP		
	Average Ties: 9.67 Fragmentation: 0.024 N: 41	Average Ties: 5.7 Fragmentation: 0.255 N: 41
SDSN		
	Average Ties: 1.38 Fragmentation: 0.840 N: 13	Average Ties: 1.53 Fragmentation: 0.641 N: 13

We observe the following differences between the forums with respect to information exchange. SDSN, as the only not water focused forum has less participants among the Swiss actors relevant for the implementation of SDG 6 abroad, and the respective participants do connect to each other through information exchange ties less than participants of other forums do. Six out of the 13 participants are not connected to any other participant at all. The average number of information exchange ties for technical as well as political knowledge is clearly lower for SDSN as compared to the other three forums.

Another observation is that while all the three forums with a focus on water show a higher and very similar number of average ties and a lower fragmentation for technical information exchange, there is more difference in terms of political information exchange. While for RésEau the political information exchange is similar to the technical information exchange, for SWP it is clearly less dense and more fragmented. Of all the water-related forums, SWP shows the strongest difference in fragmentation and average ties between technical and political information exchange (with the first network being much more connected than the second one). By contrast, the political information exchange network among actors participating in SDSN is more connected and less fragmented than the technical information exchange network.

Trust and Procedural Fairness

Finally, we look at trust between the forum participants and levels of perceived procedural fairness within forums. Both should be beneficial for future information exchange and collaboration in forums more generally. Figure 2 and Figure 3 show the average levels of trust and procedural fairness for the four forums. Overall, the forums show similar levels of trust and procedural fairness. However, AGUASAN shows slightly higher average values for trust and procedural fairness and the lower quartile is, for both outputs, on a higher level than for the other forums.

Figure 2 Level of procedural fairness for each forum

Figure 3 Level of trust for each forum

To sum up, there are seven important differences between forums with respect to the three dimensions of first order forum outputs that we seek to explain by looking at forum characteristics. These are a) SWP differing from other forums due to a high share of exclusive participants and b) a high share of private sector actors; c) SDSN differing from other forums due to its small number of participants from the water sector and d) differing from other forums due to lower levels of connectedness and higher levels of fragmentation of their information exchange networks; e) SWP showing the largest difference between (more intense) technical and (less intense) political information exchange; f) SDSN showing more intense political information exchange than technical information exchange; g) AGUASAN differing from other forums due to higher levels of trust.

Characterization of the four Forums

Table 2 summarizes the eight characteristics of the forums and shows that each forum is unique in its combination of characteristics. A more detailed characterization of the forums for all eight dimensions can be found in the appendix. The characterization relies on the four interviews with forum-leaders and on available documents such as statutes, websites etc.^{vi}

Table 2 Summary of the key characteristics for each forum

	AGUASAN	RésEau	SWP	SDSN
(1) Main Goal	Consultative body for strategic decisions of the Swiss Development Cooperation (SDC). Main goal is information exchange.	Information exchange between SDC water employees and project partners.	Multi-actor platform to connect actors involved in water issues in	To connect actors to accelerate overall SDG implementation.

			the Global South.	
(2) Activities	Mostly face-to-face meetings	Face-to-face meetings, webinars, information exchange platform	National and international events. Creating networking opportunities	Events, support solution initiatives, advice policy makers
(3) Composition	Organizations, all types of actors except private sector	Individuals, mostly public administration but also others	Organizations, all types of actors, focus on inclusion of private sector	Organizations, mostly NGOs and research organizations
(4) Size	SDSN 30 AGUASAN Ca. 40 SWP Ca. 60 RésEau Ca. 250			
(5) Experience	AGUASAN 1984 RésEau 2008 SWP 2012 SDSN 2017			
(6a) Transparency (participants)	AGUASAN Some information on website. Minutes only through mailing list SDSN SWP Website with all the information RésEau Interactive information sharing platform			
(6b) Transparency (public)	RésEau AGUASAN No active engagement with public SDSN SWP Active engagement through social media, media releases etc.			
(7) Organization & Leadership	AGUASAN Highly informal. Rotating lead of meetings RésEau Coordination through focal point. No formal decision-making system SDSN SWP Statutes in place. General assembly and secretariat.			

Discussion

The characterization of the four forums should allow us to discuss possible explanations for the differences between forums in terms of the three types of first order outputs (participation patterns, information exchange, trust and procedural fairness). We have identified seven instances where one forum differs from the other three forums in terms of first order outputs. In what follows, we discuss one forum after the other, and discuss how the forum characteristics can explain the differences of that forum as compared to the other forums. We do not discuss the forum RésEau, given that it did not appear to be clearly different from the other three forums in any of the three types of first order outputs. The numbers in brackets indicate the respective forum characteristics as presented in Table 2.

SWP differs from the other forums on three aspects. It has the highest number of exclusive participants, and the highest share of actors from the private sector. SWP also shows the largest difference between the technical and the political information exchange network, the latter being much more fragmented and less dense. The first two differences in terms of exclusive participants and strong presence of private sector actors might lay in SWPs specific aim **(1)** to be a multi-actor platform and to integrate the private sector **(4)**. However, not all the exclusive participants are from the private sector. An explanation for the comparatively high amount of exclusive participants could be that SWP is the only water-focused forum that actively promotes its work by media releases, public events and social media presence, which might attract actors **(6b)**. Additionally, the service structure of SWP, offering matchmaking of projects and donors, may also attract many participants from the private sector but also other actor types, as this service is not offered by any other forum **(2, 8)**. The interview partner from SWP emphasized that a core idea behind the development of SWP as a new forum on international water issues was to attract the private sector by designing a service-oriented platform. The interview partner further

mentioned that one of the main goals of SWP is connecting different forum participants (e.g. project implementers with donors), through networking events and joint projects. The third difference – higher density of technical than political information exchange – could be explained by the fact that compared to AGUASAN and RésEau, the SWP is neither led by nor acts as an information organ for the Swiss Development Cooperation Agency **(1)**. Additionally, SWP has a stronger focus on project implementation, by enabling networking between different actors or by connecting donors and implementers, rather than focusing on policy processes. Political information exchange is thus less relevant **(2)**.

SDSN shows three differences to the other three forums. First, it includes less participants than other forums. Second, its information exchange networks are of lower density and more fragmented. Third, it is the only forum where political information exchange shows a higher number of average of ties and less fragmentation than technical information exchange. There are two main explanations for these observations. First, SDSN has only been founded in 2017 and the official launch was only shortly after our survey was sent out **(5)** thus the forum might just be too young to be known to many actors. Second, SDSNs core goal is to accelerate overall SDG implementation and it is thus not focusing on SDG 6 and related SDGs as the other forums **(1)**. The integration of strongly disciplinary actors in SDSN was discussed as a potential challenge for the forum. During the interview, the chairperson of SDSN emphasized that SDSN focuses on the creation of unlikely partnerships that are important to address the implementation of the highly interconnected SDGs, but that this requires the willingness of the actors to participate in such a forum. Third, the stronger focus on political than technical information exchange can again be explained by the focus of SDSN on overall SDG implementation **(1)** and related information of decision makers **(2)**. In such a context, political knowledge sharing is more important than technical knowledge on one single SDG. This is in line with other studies on information exchange, which conclude that the type of knowledge primarily exchanged might depend on the context and the issue at stake (Fischer et al. 2017).

AGUASAN differs from the other three forums with respect to higher levels of perceived trust and procedural fairness. The following forum characteristics appear as important explanatory factors for that difference. The forum exists since 1984 and is the oldest of the studied forums (5). Thus, trust and fairness could be established over a long period. The higher levels in trust could further relate to the rather small size (4) of the forum and its focus on regular face-to-face (2) exchange. This is supported by the literature that describes regular interaction over time as very important for the forming of trust (Öberg 2002; Ostrom 2010; Dorsch and Flachslund 2017). The flat hierarchies of the forum could explain the higher level of procedural fairness (7). Especially the “rotating head” of the AGUASAN meeting could lead to a higher perception of procedural fairness (7). A last characteristic that may have led to a higher level of trust and procedural fairness is that information (such as meeting minutes or participant lists) are exclusively circulated with other participants via mail (6a) what may increase willingness to disclose information. The interview partner for AGUASAN mentioned that the forum only works well if all the participants provide information, and if the participants are certain that the disclosed information is treated confidentially.

Conclusion

Forums are venues for exchange and coordination between different actors (Hahn et al. 2006) and thus facilitate joint work on wicked socio-ecological problems (Fischer and Leifeld 2015). Thus, forums may also be useful to support the implementation of the Agenda 2030 and the UN SDGs. However, forums differ regarding their characteristics (Fischer and Leifeld 2015), which again is expected to influence their capacity to produce certain outputs. This analysis focuses on first order outputs such as participation patterns, information exchange, and trust and fairness, which we expect to be key elements for a successful implementation of SDGs. Specific combinations of forum characteristics appear as important for understanding these forum outputs.

SDSN is the forum that focuses on overall SDG implementation. Such forums could be powerful when it comes to identifying synergies across the political processes of the individual SDGs, and might also lead to a connection of unlikely allies, what is not only described as important by the literature (Bryson et al. 2006b) but also at the core of the Agenda 2030 (United Nations 2015).

Besides the general focus of SDSN, a collaboration between different specific forums such as Réseau, Aguasan or SWP might be a useful approach. Each forum is potentially important, especially as attending events of all the different forums increases the overall chances of actors to meet and interact (Fischer et al. 2019). In line with theories of polycentric governance, this is beneficial for cooperation and learning among actors (Ostrom 2010).

One major shortcoming of this study is that at the time of data collection the forum SDSN was just founded very recently, which of course explains the lower level of overall popularity. More generally, while the forum landscape is likely to change over time— partly based on the need of actors in the field – the relations between forum characteristics and forum outputs as identified in this article certainly has some more general validity. Further, we still know rather little about why individuals participate in a forum or not and on what exactly influences their degree on involvement (Berardo et al. 2014; Fischer and Maag 2019). To address this question, we propose that further research focuses on actors' opinions regarding the role of forums for the implementation of the Agenda 2030, as well as on individual reasons for participation or non-participation in forums.

Forums and their outputs are not only relevant for the SDG 6 on water but for all the SDGs and the Agenda 2030 in general. Even though we studied a quite specific case, we assume that the results of this study are relevant for the academic and practice-related literature on SDG implementation. For example, before developing a new or reforming an established forum dealing with SDG implementation it might be beneficial to first clarify the desired outputs and then relate back to the characteristics that may influence this output. Our findings are also important for the literature on forums. We have shown that characteristics of a forum may influence its outputs regarding participation patterns, information exchange as well as trust and procedural fairness. More specifically, our detailed discussion of four cases has emphasized that a complex combination of forum characteristics is responsible for creating the conditions for given types of outputs. Forum characteristics should thus ideally be studied by taking such configurational causality into account (Fischer and Schläpfer 2017).

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Appendix

Key characteristics for each forum

	AGUASAN	RésEau	SWP	SDSN
1) Main Goal	Consultative body for strategic decisions of SDC (Swiss Agency for Development and Cooperation) for global water issues. Community of practice that aims to provide space for information exchange between science and practice.	Information exchange network within water-related topics for employees of SDC and project partners.	Multi-actor platform who aims to bring together Swiss actors from academia, civil society, public and private sectors to tackle water issues in the Global South. Special focus on integrating private sector.	Bringing together all the different actors to facilitate and accelerate the implementation of the Agenda 2030 and the SDGs.
2) Activities	-Four full-day network events per year where participants present current projects and new research results. Face-to-face exchange of information between researchers and practitioners -Yearly one-week workshop organized through SDC and a consortium of AGUASAN participants	-Information exchange platform, webinars and newsletters (4x per year) -Webinars and e-discussion to foster information exchange between participants -Involved in AGUASAN workshop -Water Team Days: face-to-face exchange, similar to AGUASAN Workshop	-Dynamic learning: foster contacts among participants, connect participants to potential donors and international water partnerships -Swiss voice: Unified position for communication abroad etc. (e.g. Swiss representation at World Water Week in Stockholm). -Water dialogue: Informing about current water-related trends	-Solution initiatives: Scale-up and implement initiatives that foster SDG implementation -Resources: Develop and collect resources (studies etc.) to inform decision-makers, opportunity for participants to showcase their work and transmit their opinions through SDSN -Events: participatory events to connect participants. Provide opportunity to find unlikely allies
3) Composition Participants can be individuals or representatives of organizations. The types of	-Representatives of organizations. -Research institutions, NGOs and governmental	-Individuals. -Mostly SDC staff (within Switzerland and country offices) and staff from	-Representatives of organizations. -All organizations registered in Switzerland can participate.	-Representatives of organizations. -Organizations additionally become

organizations involved can differ.	organizations. No private sector organizations.	partner organizations that are involved in SDC projects.	Mixture of research institutions, civil society organizations, private sector and governmental organizations.	participant of SDSN global. -Participants are representatives of either research institutions, civil society organizations. -Other actors may join as partners.
4) Size Number of participants. The size of a forum influences its functionality. The larger a forum the more difficult is the self-coordination of actors.	Ca. 40 participants. During AGUASAN meetings mostly Swiss organizations are involved, AGUASAN workshops are open for individual participants from all over the world.	More than 250 participants (individuals) in spring 2015. Several sub-forums for regions where SDC water projects lie. A large share of participants is working in cooperation offices of SDC in the project countries.	Ca. 60 participants in Spring 2018. Participants are organized in several working and discussion groups. Only organizations registered in Switzerland allowed. However, SWP has close relationships with other international water partnerships.	Number of participants increasing. When data was collected (Spring 2018) the forum counted 30 participants while until now (Summer 2019) it increased to 35 participants. The participants of SDSN Switzerland are organizations based in Switzerland. However, it is one out of more than 30 national/regional networks that are part of the UN SDSN.
5) Experience Operation time	Founded in 1984	Founded in 2008	Founded in 2012	Founded in 2017, official launch in Mai 2018
6a) & 6b) Degree of Transparency Forums can operate behind “close doors” or communicate openly. This includes communication and information sharing with its participants (6a) as well as with the public (6b).	Workshop documentations can be easily accessed on the website. Minutes from AGUASAN meetings or announcement of meeting dates are circulated only among participants (e-mail list). Information on governance	RésEau runs a Shareweb (online platform) with relevant technical and policy documents, links to webinars, reports about RésEau activities, policy processes etc. This information is all publicly available. The	The SWP runs a website where thematically relevant documents as well as administrative documents and information about SWP activities are all publicly available. It further communicates events, calls and news from SWP participants and	SDSN informs about their running projects on their website and through a newsletter. All the relevant administrative documents are available on the website. SDSN engages with the public through media releases, policy

Transparency can increase legitimacy while sometimes reducing effectiveness.	structure of forum or participants is not available online. AGUASAN is not actively informing the public.	platform is interactive, participants can also upload items. RésEau is not actively informing the public and its events are mainly for SDC employees and project partners.	provides a list of participants. SWP engages with the public through media releases, public events and activity on social media.	briefs and activity on social media.
7) Organization & Leadership Some forums are following hierarchies and rules, while others base on expression of opinion and discussions. Some forums are facilitated by a leader while others are self-organized.	No official head of the forum. Every AGUASAN meeting is led by one participant while another participant writes the minutes. The roles are distributed during the prior meeting. Decisions (e.g. about new participants) are based on a majority vote of the participants participating in the network. In practice, who participates has mostly grown historically.	One overall focal person and one focal point per sub-RésEau who organize and coordinate activities and events. No formal decision-making system in place. Participation is confirmed by focal point.	Official statutes in place. Organs are the steering board, the general assembly and secretariat. The steering board and general assembly as decision-making organs while the secretariat is responsible for execution of SWP events and initiatives and administrative issues. The forum is partially financed through a membership fee.	Official statutes in place. The participants and partners of the forum form the SDSN Switzerland Assembly that appoints the Leadership Council based on the opinion of the Executive Committee. The secretariat is responsible for the day-to-day tasks. The forum is partially financed through a membership fee.
8) Specificity Forums can either focus on one specific issue or have a broader sphere of action.	Historically strong focus on WASH (Water, Sanitation and Hygiene) especially in AGUASAN meetings. Workshop is thematically more open. Within the forum, the discussion of broadening the focus is ongoing	Historically strong focus on WASH. In recent years shifting to thematically broader projects such as IWRM (Integrated Water Resource Management).	The SWP takes a rather broad approach to water issues by focusing on IWRM, the Water-Energy-Food nexus and water governance. They also target SDGs related to the SDG 6	Sustainable Development in general. SDSN targets all SDGs and especially the interactions between them.

	but a majority of participants is in favor of keeping the rather narrow scope.			

ⁱ www.aguasan.ch, www.sdsn.ch, www.shareweb.ch/site/Water, www.swisswaterpartnership.ch

ⁱⁱ We defined technical information as *information on technical or scientific aspects of the implementation or monitoring of the SDG 6 or related SDGs* and political information as *information related to political affairs that allows your organization to organize with others during the policy process and influences our organizations working priorities and strategies*.

ⁱⁱⁱ The interview guideline included one part on the main goal, the activities and the organizational structure of the forum. The second part included questions on the role of the forum regarding the implementation of the SDG 6, including the contribution of the forum (information exchange, connecting different actors etc.), the general involvement of the forum in consultations and events around the SDGs and the differentiation of the forum in comparison to the forums studied.

^{iv} We asked the actors to indicate to what extent their organization uses the services (participation in meetings and events, newsletters, online forums etc.) provided by policy forums. (Scale: never, 10%, 30%, 50%, 70 or 90% of the services) For this study, we considered an actor to be a participant if it uses 30% of the services or more.

^v To assess procedural fairness the actors were asked to indicate their level of agreement for the following statements: 1) *“All parties participating in the forum are treated fairly and consistently”*, 2) *“The discussions between the participants of the forum are civil, and marked by mutual recognition and respect”*, 3) *“The forums decisions are made adaptively in response to new information”* (Scale: 10%, 30%, 50%, 70%, 90% of the forums activities). To assess the level of trust the actors were asked to indicate to what share of participants the following statements apply: 1) *“Are honest, forthright, and true to their word”* 2) *“Have the same values and priorities that you do”* 3) *“Have transparent motives and concerns”* 4) *“Are willing to listen, and sincerely try to understand other points of view”* (Scale: None, Few, Half, Most, All). Both questions were only asked to participants that indicated to use at least 30% of the services of a policy forum.

^{vi} www.aguasan.ch, www.sdsn.ch, www.shareweb.ch/site/Water, www.swisswaterpartnership.ch, SDSN

Organizational Principles (2018), SDSN Membership Flyer, SWP Statues (2012), SWP Action Plan 2017-18, AGUASAN Report ‘Learning from a remarkable Community of Practice’ (2004).

^{vii} WASH stands for Water, Hygiene, Sanitation and mostly covers targets 6.1 and 6.2.