Polycentric Climate Governance and Indigenous Epistemologies and Ontologies in the Amazon

Preliminary results

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INTRODUCTION

The white people do not ask themselves where the forests´s value of growth we call 'ne rope' comes from. They probably think that plants grow alone, without a reason. Or else they take themselves for great workers, able to make plants grow solely through their own efforts. They even call us lazy because we do not destroy as many trees as they do.

(Kopenawa and Albert 2013, 382)

The above citation comes from the remarkable first-person account of the life story and cosmo-ecological thought of Davi Kopenawa, shaman and spokesman for the Yanomami of the Brazilian Amazon. Kopenawa´s work provides a plea for local action and people-centered development that respects indigenous rights to preserve the Amazonian rainforest. Amazon protection is necessary as the biome is a so-called tipping element in the world´s earth climate system (Lenton et al. 2008), which means that if no action is taken, it might reach its tipping point and transform into a dry Savannah and a carbon emitter (Nepstad et al. 2008; IPCC 2014). The Amazon tipping point is expected to be crossed, when Amazon deforestation reaches a total of 20 to 25%, which is a mere increase of 5 percent in relation to the current deforestation (Lovejoy and Nobre 2018).

Tipping elements, such as the Amazon, are of great concern for global climate governance and require a restructuring of governance arrangements (Folke 2016; Galaz, Biermann, et al. 2012). Decades of international environmental conservation efforts show that neither the international community nor national governments alone can ensure conservation: governing climate change is a multi-level and multi-sector process that needs a polycentric approach (E. Ostrom 2010), characterized by multiple governing authorities at different scales (E. Ostrom and Parks 1999). Research on Polycentric Climate Governance (PCG) is rapidly increasing and highlights the importance of local action, site-specific conditions, mutual adjustment, experimentation and learning, and trust building (see: Dorsch and Flachland, 2017; Jordan et al, 2018).

Previous research on PCG has mainly focused on western societies and their knowledge systems: in her article on polycentric systems for coping with collective action and global environmental change, Elinor Ostrom (2010) highlights examples of U.S. city networks, state-level projects in the United States, and European efforts to reduce greenhouse gas emissions. However, there is a lack of empirical research on PCG in non-western societies and on the incorporation of indigenous knowledge systems in climate politics. In the culturally diverse Amazon, perspectives rooted in diverging ontological and epistemological foundations shape the local understandings and responses to environmental challenges (Castro and Skafish 2014). This so-called Amerindian perspectivism, portrays the world as being pluralistic and emphasizes the interrelation between humans and nature (Viveiros De Castro 2004).

Research highlights the importance embrace a diversity of knowledge systems (Tengö et al. 2014) and meaningful participation of indigenous people and local communities (Schroeder

2010; Goldman, Turner, and Daly 2018) for climate governance leading to not only safe but also *just* future development pathways. The purpose of this study is to go beyond current research on PCG and analyze ways to incorporate indigenous worldviews and knowledge systems into Amazon governance. By looking at two subnational examples of collaboration between government and indigenous peoples, we aim to highlight the potentials and risks of such bottom-up strategies. This paper is a first attempt to structure data from fieldwork that was carried out in both the Brazilian and Peruvian Amazon. First, I will describe the emergence of PCG and its connection to equity and justice, with special attention to the need for participation of indigenous peoples. Second, I will provide a description of the used methodology and the case study areas where my fieldwork took place: the Brazilian State of Acre and the Peruvian regional department of Ucayali. Finally, I will present my preliminary research results, followed by a discussion on the outcomes, its limitations and (policy) recommendations for incorporating indigenous perspectives in PCG.

POLYCENTRIC CLIMATE GOVERNANCE AND INDIGENOUS PARTICIPATION

The emergence of Polycentric Climate Governance

The concept of polycentricity was first introduced in the 60s and defined as "many centers of decision-making which are formally independent of each other…" (V. Ostrom, Tiebout, and Warren 1961). Based on the principle of subsidiarity, polycentricity research claims that government services are best provided at the lowest level of government consistent with their effective application (Cole and Cole 2011). Almost fifty years later, Elinor Ostrom (2010) pointed to emerging polycentric systems for coping with climate change, highlighting the need to align the diverse levels, sectors and actors to enable the definition of collective goals. A polycentric climate system - in contrast with the monocentric United Nations Framework Convention on Climate Change (UNFCCC) or state-led governance systems – is characterized by multiple governing authorities (e.g. subnational governments, networks of governments, companies) that have considerable independence to make norms and rules in relation to climate change. Ostrom (2010) warned that polycentric systems are not a panacea but added that "there are no panaceas (…) for complex problems such as global warming" (p.555). She underlined the need to critically study the strengths and weaknesses of PCG.

Propositions of Polycentric Climate Governance

In an attempt to summarize the essential features of PCG, Jordan et al (2018) provide five key propositions drawn from polycentric theory which can be used to explain the rapidly changing landscape of climate governance. The first proposition highlights *local action*, and states that governance initiatives are likely to take off at a local level, through processes of self-organization. The second proposition, *mutual adjustment*, highlights that governing units are likely to spontaneously develop collaborations with one another, which over time produce more

trusting relationships. A third proposition states that the willingness and capacity to *experiment* is likely to facilitate governance innovation, which in turn leads to learning about what works best. Fourthly, *trust* builds up quicker in polycentric systems in which units self-organize. The fifth and last proposition drawn from polycentricity theory states that local initiatives are likely to work best when bound by a *set of overarching rules* that enshrine the broader goals to be achieved and allow any conflicts to be satisfactorily resolved.

Dorsch and Flachsland (2017) add that experimentation does not only lead to learning and innovation, but also to the production and diffusion of knowledge and norms. Cole (2015) shows how in a PCG approach, the enhanced direct communication of individuals positively affects trust levels and consequently increases cooperation. Jordan et al. (2015) critically discuss research on PCG and call for scientific and political efforts to strengthen the understanding and effectiveness of these diverse polycentric patterns. Making PCG effective requires ongoing research to refine, revise, and adapt the regime's rules and practices (Spreng, Sovacool, and Spreng 2016).

Indigenous knowledge and participation in climate governance

Although considerations on climate justice have pushed climate governance in a more polycentric direction, it is not clear if PCG is also leading to greater justice (Okereke 2018). Climate justice considerations can be divided in three dimensions of asymmetries: asymmetrical contributions, impacts and participation (Okereke and Dooley 2010). A dimension of climate justice and participation is engaging local knowledge and perspectives, such as that of indigenous people and local communities, in climate decision-making (Schroeder 2010). As PCG is based on the proposition of local action, Marshall (2009) notes that it has been associated with advantages such as better access to local knowledge, due to the diverse mix of state and non-state actors in PCG. On the international level, Ford et al (2016) analyze the inclusion of indigenous knowledge in reports of the Intergovernmental Panel on Climate Change (IPCC) and note that there is little critical engagement with indigenous knowledge systems and a need for more robust, nuanced and appropriate inclusion and framing of indigenous issues in future assessment reports.

Already in the 90s, in his work on dismantling the divide between scientific and indigenous knowledge, Agrawal (1995) discussed the importance of *in-situ* over *ex-situ* knowledge conservation. *Ex-situ* conservation is related to establishing national indigenous knowledge databases, whereas in *in-situ* conservation those who possess the knowledge, also "possess the right to decide on how to save their knowledge, how to use it, and who shall use it" (1995, 29). Agrawal claims that "only when we move away from the sterile dichotomy between indigenous and western, or traditional and scientific knowledge … a productive dialog can ensue for the safeguarding of the interests of those who are disadvantaged" (1995, 31). Tengo et *al* (2014) discuss the importance of creating synergies and cross-fertilization across knowledge systems and the need for a true intercultural dialogue for improved ecosystem governance.

Biggs et al (2012) point to building blocks for resilience: the capacity of a system to deal with change and continue to develop. As one of the seven building blocks, they highlight the

importance of promoting polycentric governance, as it enhances resilience by: providing opportunities for learning and experimentation; enabling broader participation; improving connectivity; creating modularity; improving potential for response diversity, and building redundancy that can minimize and correct errors in governance (Simonsen et al. 2014). As example of polycentric governance for resilience, Solomon et al (2018) highlight the use of indigenous knowledge to inform decision-making and the sharing of decision-making authority through co-management arrangements.

When it comes to perspectives on climate change, Brace and Geoghegan (2011) propose new ways of understanding climate change on a local level, with distinctive spatialities and temporalities. They propose the use of ´climate and the ways it may change´ as opposed to ´climate change´ as this acknowledges the way climate change is locally understood by other kinds of knowledge systems and allows different ways of knowing to play a legitimate part in framing a culture of climate change. Recognizing experiential ways of knowing enables and legitimates more diverse communities of action, resists the extraction of climate change from its complex socio-ecological system with a place-based meaning, and provides culturally specific understandings of what is at stake with climate justice (Rice, Burke, and Heynen 2015).

Indigenous Ontologies and Epistemologies

The climate politics landscape is predominantly focused on scientific expertise used for technological solutions to climate change (Bäckstrand 2003). This techno-scientific hegemony, which is very much focused on climate change as a physical process and limited to scientific knowledge, often dismisses alternative ways of climate knowledge (Rice, Burke, and Heynen 2015). However, different political actors, shaped by different cosmologies, ideologies and values, will hold different views as to what counts as valid evidence upon which climatic knowledge claims are based (Hulme 2017).

Next to different knowledge systems in relation to climate change, diverse worldviews, or ontologies, also lead to various perspectives. Ontological anthropology is concerned with the study of reality and looks at ways in which we humans engage with the world (Kohn 2015). Already in the early 60s ontological anthropologists started analyzed indigenous ontologies in the Amazon, such as anthropologist Lévi-Strauss, who claims that indigenous worldviews are conceptual in its own right and in ways that undermine western metaphysical concepts (Lévi-Strauss 1966)

Building on earlier Amazonian ethnographical studies, the Brazilian anthropologist Viveiros de Castro (2014) introduced the concept of Amerindian perspectivism, which he defines as "…a reconfiguration of a nexus of ideas and practices with a vast diffusion through the American continents, which presents a reversal of some core aspects of western ontology" (p.49). Amerindian perspectivism, contrary to western ontology, is based on *multi-naturalism* and holds the external world to be pluralistic, polyvalent, and deeply participatory (Wells 2018). The Amerindian multi-natural world, in contrast to the western multi-cultural world, sees a world with many natures, "each comprising a set of affects particular to a given kind of body" (Wells 2018, 319).It is based on the notion that there is no distinction between nature and

culture, and culture are consciousness are attributed to other beings. Another important element of Amerindian perspectivism, is the key role for shamanistic practices, which is defined as "the authorization of certain individuals to cross the corporeal barriers between species, adopt an exospheric subjective perspective, and administer the relations between those species and humans" (Castro and Skafish 2014, 60).

However, the concept of Amerindian perspectivism has been highly criticized, not only for being too generalizing towards the indigenous peoples of the Amazon (Turner 2009), but also for having little political relevance in the current complex reality of high Amazonian deforestation (Ramos 2012).

METHODOLOGY

Study Area

The nine countries that make up the Amazon have very diverse social, cultural, political, economic and institutional characteristics, which complicates the evaluation of its regional environmental governance strategies. To grasp more of the Amazon´s geopolitical diversity, we assessed subnational climate governance and the incorporation of indigenous perspectives, in the two countries that hold the largest land area of the Amazon basin: Brazil and Peru. Brazil holds approximately 65% of the Amazon, followed by the Peruvian share that makes up for 10% of the basin (Global Forest Atlas 2018). The case study method enables us to capture the complex institutional context and gain in-depth understanding of interactions and perspectives of different stakeholders to be able to interpret a particular case (Yin and Heald 2016).

The State of Acre-Brazil

Our first case study area is the Brazilian State of Acre (see fig.1), one of Brazil´s nine Amazon States, that is situated on the Brazilian border with Bolivia and Peru, and considered one of the world´s most advanced statewide programs in low-emission rural development (Stickler 2014). Already in the 1980s, Acre became internationally known because of the murder of Chico Mendes, rubber tapper from Acre, who fought for forests preservation and the rights of the 'People of the Forest' (*Povos da Floresta).* In the 90s, inspired by Mendes's ideals, Acre's movement for social justice and forest conservation became allied with the regional Worker's Party (*Partido dos Trabalhadores-PT),* which led to the election of Jorge Viana, a forest engineer, as Acre's Governor in 1998. Viana inaugurated his Forest Government (*Governo da Floresta*) with a series of innovative policies in support of sustainable forest extractivism and social inclusion (Perz 2016). The State´s experiments with forest-based development and forest citizenship (so-called *Florestania*) have led to a comprehensive approach that links policies across sectors, involves civil society and continuously builds institutional capacity (Schminck et al. 2014).

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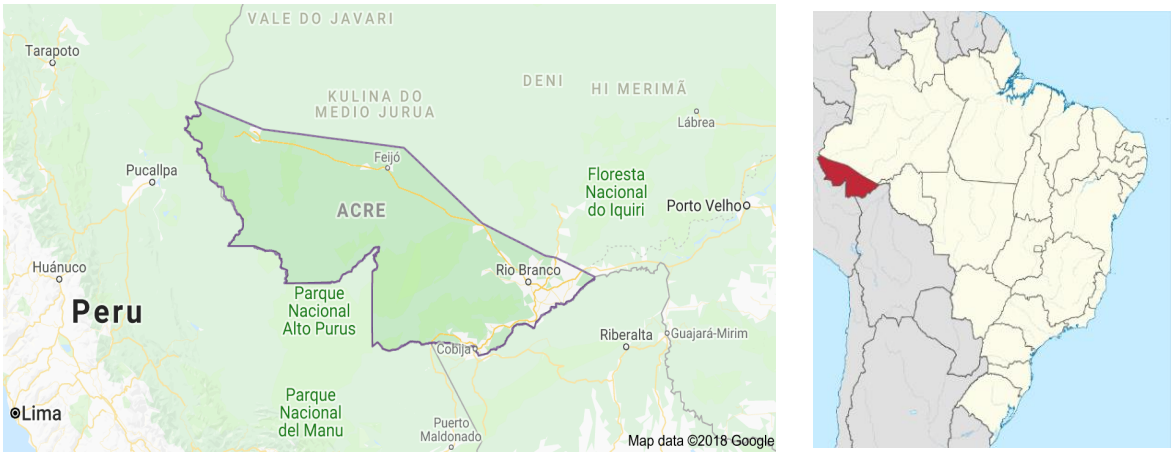

Fig 1 The Brazilian State of Acre.

In 2010, Acre consolidated its pioneering sustainable development model in a progressive law that established the State System of Incentives for Environmental Services – SISA. SISA is considered as the world´s first and most advanced subnational (also called jurisdictional) program to reduce emissions from deforestation and forest degradation (REDD) (Alencar et al. 2012). Acre´s SISA law created, amongst others, the State Institute of Climate Change and Regulation of Environmental Services (*Instituto das Mudanças Climáticas* - IMC), responsible for regulation, registry of program participants and issuing of carbon credits, and the Commission for Validation and Accompaniment (CEVA), responsible for monitoring SISA. An important component of CEVA is its Indigenous Working Group (IWG), representing the needs and demands of Acre´s 15 ethnic groups. The mission of the IWG, officially established in 2012, is to contribute to decision-making in the area of indigenous issues, by establishing a communication channel between indigenous peoples, the state government and institutions that make up SISA

The department of Ucayali-Peru

The second case study area is the regional department of Ucayali, one of Peru´s five departments that are situated in the Peruvian *selva* (Amazon jungle) (see fig 2). Although the department of Ucayali borders the Brazilian state of Acre, its socio-political context is very different. Compared to Acre, Ucayali does not have a long-standing experience with climate governance. On the contrary, research shows the department´s land conflicts with its indigenous populations and climate governance structures where untitled communities are ´hidden´ under investment opportunities (Leal Pereira et al. 2015).

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Fig 2 The Peruvian department of Ucayali

Due to lobbying by Peru's national and regional indigenous organizations, nowadays Ucayali's regional policies have a stronger focus on interculturality. In 2015, following the national example of the vice-ministry on interculturality, Ucayali created its Regional Working Group on Indigenous Policies (RWGIP), with the objective to guarantee the full exercise of the rights and equal opportunities of the indigenous peoples of its jurisdiction to participate in decision-making on policies and programs that concern them, as has been established in articles 6 and 7 of the ILO 169 Convention. The RWGIP, creates a space where representatives of the various departments of the regional governments and representatives of 12 indigenous organizations come together, to work on the following thematic areas: 1) Cultural identity, linguistic rights and eradication of all forms of discrimination; 2) Recognition, protection and titling of the communal territories of indigenous peoples; 3) Participation and political representation; 4) Intercultural bilingual education and intercultural health 5) Food security, economic and productive development with identity. One of the main results stemming from the work of the RWGIP has been the recent creation of the Regional Department for the Development of Indigenous Peoples (RDDIP) in June 2018 and led by the indigenous Diana Mori.

Process of data collection and analysis

In this paper I analyze data that was collected during fieldwork in Ucayali-Peru and Acre-Brazil, using qualitative research methodologies. Between August and October, I spent 7 weeks in Ucayali's capital Pucallpa and conducted a total of 25 semi-structured interviews with regional government officials (4), government technicians (6), NGOs (3), university professors (3), private sector (2) and indigenous organizations (7). The first interviewed institutions were chosen because of their membership of Ucayali's RWGIP, followed by interviews with institutions that were suggested during the first interviews.

For Acre-Brazil, a state where I lived from 2011 to 2016 and personally know most of the institutions involved in climate governance, I decided to work in a different way. Partly because of financial constraints and partly because of the political unrest and risky situation for a foreign researcher to conduct research on indigenous affairs in the Amazon, I decided to ask for assistance from a local Brazilian researcher, based in Acre, to conduct part of the interviews.

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The other part of the interviews was conducted using *Skype*. For Acre, we conducted a total of 19 semi-structured interviews with state government officials (4), government technicians (4), NGOs (4), university professors (3) and indigenous organizations (4). We first interviewed the institutions mentioned in SISAs governance structure, followed by interviews with institutions suggested during the first interviews.

Both for the semi-structured interviews in Ucayali and Acre, I made use of an interview guide, with pre-formulated questions on four topics: 1) institutional work on climate change; 2) climate collaborations and governance; 3) climate justice and indigenous participation; and 3) recommendations for improved climate governance. Next to the interviews, I was able to collect the reports from the meetings of Acre's IWG and Ucayali's RWGIP, which were also used for qualitative analysis. A conventional content analysis (Hsieh and Shannon, 2005) was conducted using MaxQDA software, starting with open coding of the collected data (Berg, 1989), followed by an analytical process to come to core categories.

RESULTS

Potential of indigenous participation in Acre's climate governance

Stakeholder interviews in Acre indicate a more holistic and systemic perspective as the main potential of indigenous participation in climate governance. SISA's IWG has been able to introduce new topics to the climate agenda, such as respect for indigenous cultures and territorial rights. Therefore, 10% of the total funding for indigenous peoples from the German funded Redd for Early Movers program (REM) is now going to the organization of indigenous cultural festivals. As stated by one of the governmental interviewees: "Acre's dialogue between the subnational government and the indigenous peoples has shown us to look at indigenous lands not a problem for development, but actually as a strategy towards sustainable development". Various interviewees emphasize Acre's pioneering position and the fact that Acre's implementation of REDD differs from what other Brazilian states are doing, as it is not only focused on emission reduction, but also on social inclusion and quality of living.

Representatives of subnational indigenous organizations highlight the fact that their participation in climate governance has also strengthened them internally. They are not only looking at what the government and the others should do but have become protagonists of improvements inside their lands. In addition, as SISA's IWG brings together 15 indigenous organizations, participation has also unified the indigenous movement and reinforced their voice.

"Before the Indigenous Working Group, the state was our enemy, now there is an intercultural dialogue and more respect", as was stated by one of the indigenous representatives. A mentioned advantage of the established dialogue between IMC and representatives of its Indigenous peoples is increased social inclusion and participation, leading to higher levels of trust. In Acre, this dialogue between IMC and indigenous peoples is seen as unique and does

not happen with any other department of the Acre government. A result of the subnational dialogue between IMC and the indigenous peoples has been the elaboration of REDD social and environmental safeguards, with a strong emphasis on free, prior and informed consent for the consultation of indigenous peoples and local communities.

Pitfalls of indigenous participation in Acre's climate governance

The most frequently mentioned challenge of SISA´s governance is related to benefit sharing. According to IMC, 30% of their annual budget goes to SISA governance and 70% to its subprograms. SISA's subprograms, include indigenous peoples (17% of the budget), smallholder farmers and extractivists (37%), and private agriculture properties (46% of the budget). The indigenous organizations complain that they were never informed why their subprogram only receives 17% of the budget, and higher percentages are given to SISAs other subprograms. The main complaint is related to the fact that the IWG is not involved in any structural and financial decisions for SISA and are only asked to decide on smaller level projects.

Related to this demand on the co-designing of benefit-sharing, our data also points to a lack clear communication and transparency. Climate communication is also mentioned as a challenge. Defining climate change and looking at it, not only from an environmental, but also economic and social perspective, is difficult when working together with diverse organizations. Also, informing their community members on the issues discussed in the IWG and the importance of the issue and the possible impacts of climate change is seen as a challenge. As a representative of an indigenous association puts it: "our people do not understand the link between the international political debate on climate change and their daily lives". The concepts and terminologies used are often new and difficult to grasp." This could be seen in practice with the REM program: many REM beneficiaries did not clearly understand why they were receiving benefits.

According to Acre's anti-REDD movement, the ones participating and profiting from REDD are the State's elite. They criticize REDD in general and Acre's SISA in specific and call it "false solutions incentivized by green capitalism", as they are based on carbon emission compensation, instead of improving the State's sustainability. Related to this is the lack of effective monitoring on SISA's impacts. Due to a lack of available data, it is impossible to assess whether current policies are effectively addressing the causes of deforestation and climate change.

A last-mentioned challenge for the IWG is to overcome both internal and external bureaucracy. The indigenous stakeholders complain that there are no governmental technicians available to help them with the State's bureaucratic processes. Only the experienced indigenous organizations are able to submit project applications, which results in the fact that most indigenous organizations have never received funding, whereas other projects (such as the successful "Training Program of Indigenous Agroforestry Agents of Acre") regularly receive

funding. Related to this challenge, is the described risk of the IWG to be a mere discussion group, not leading to actions being implemented.

Potential of indigenous participation in Ucayali's climate governance

A key category that stems from data analysis is the potential of an intercultural dialogue. Ucayali's RWGIP has discussed the indigenous, more holistic conception of their lands and the importance of ancestral care and spirituality. In the RWGIP meetings, the indigenous organizations emphasize the importance of the use of *ayahuasca*, a traditional spiritual brew used in indigenous ceremonies. "Ayahuasca is part of our culture. Through its use we have visions of mother nature. We think we should respect every plant, every tree, because they are like a person. Through ayahuasca, we can speak with nature", as put forward by an interviewed indigenous leader.

An important theme discussed in the RWGIP meetings, is safeguarding indigenous identity and making indigenous people proud of their identity. This has resulted in 15 colorful wall-paintings of indigenous faces and traditions in Ucayali's capital Pucallpa (see fig. 3 and 4).
Next to safeguarding identity, the RWGIP has also promoted indigenous culture by promoting dances and songs from the different indigenous peoples.


Fig 3 & 4: wall-painting to promote indigenous culture and identity in Ucayali's capital Pucallpa. Pictures taken by the author in September 2018.

As was the case in Acre, Ucayali's stakeholders also emphasize the potential of working on the subnational level, instead of the national level. "As we are from the region, we understand their cosmovision. It is the national authorities that do not incorporate it in their regulations." as was expressed by a representative of a local NGO. Although the national level organizes 'prior consultations' with indigenous peoples, they often don't take comments and demands into consideration and fail to include the local reality. Therefore, the interviewed stakeholders appreciate the space provided by the RWGIP to include the Amazonian and indigenous context into regional policies.

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Pitfalls of indigenous participation in Acre's climate governance

A frequently mentioned pitfall of Peru's governance system, in general and indigenous participation in specific is its centralist, top-down way of governing. Stakeholders mention a need for more regionalization and more regional offices. Both the international NGO WWF and the United Nations Development Program's (UNDP) "a Resilient Amazon" do not have regional offices in Ucayali. Most of the time international projects hire their consultants in Peru's capital Lima, who then once in a while visit Ucayali. These consultants are often unaware of the local context and needs. And, more importantly, hiring consultants from the national capital, makes it look as if there is no local capacity to deal with project management and does not strengthen Ucayali's regional institutions. Also, the fact that regional policies and strategies need to follow the national template, slows down the process. An example of this is the elaboration of socio-environmental safeguards for the REDD-program, which will first have to be developed on the national level and only then on the regional level. Related to this is Peru's top-down national budget law for the public sector, which obliges regional governments to ask permission for all their public expenditures. Although the Peruvian Amazon makes up 60% of the country, the interviewed regional stakeholders complain that Lima does not care about development in the Amazon.

A second mentioned pitfall is the lack of financial means to take action: both the GRPI and the RWGIP were created without assigned budget. Although the indigenous organizations appreciate the creation of mechanisms for indigenous participation, they highlight that it feels like their participation is not taken that seriously. Only five indigenous organizations participate in RWGIP meetings and they are all situated in Ucayali's capital Pucallpa in the province of Coronel Portillo. Federations from Ucayali's other three provinces (Padre Abad, Atalaya and Purus) are not able to participate, as the working group lacks financial means to cover their travel expenses. The same goes for the recently created GRPI, which was, like the indigenous stakeholders highlight, created neither with power nor budget

The creation of Peru's first Intercultural University of the Amazon (*Universidad Nacional Intercultural de la Amazonia* – UNIA) in Ucayali in 1999, which was the result of the vindication of regional indigenous groups to offer opportunities to university education for the indigenous youth, also shows a lack of willingness to invest in indigenous participation. Although since 2005 UNIA provides two graduations, the indigenous organizations complain that the general management is still in the hands of non-indigenous workers and the offered education is far from being intercultural. A second complaint is the fact that the access to UNIA is unpaved, making it impossible to access the university with heavy rainfall.

A last challenge of indigenous participation is regional climate governance is the mentality of (most) regional government employees towards indigenous peoples. They are looked upon as "backwards, exocentric and unprofessional" and "lacking the capacity to manage projects". According to local NGO representatives, the regional government lacks the capacity to discuss in an intercultural way with the indigenous organizations as well as the delicacy to explain regional projects. In the past, the regional government made promises to indigenous organizations, without explaining projects in more detail, and thereby created false

expectations, which led to a loss of trust. As mentioned by various interviewed, until so far there are not good examples of co-governance between government and indigenous peoples in Ucayali.

DISCUSSION AND CONCLUSION

Our findings of indigenous participation in Amazon climate governance, shows that both in the Brazilian state of Acre and the Peruvian department of Ucayali, examples of indigenous participation in subnational climate governance of the found. On the positive side, stakeholders in both Acre and Ucayali mention the added value of indigenous participation in expanding their view on the climate change challenge and enabling the regional governments to look at it in a more systemic and intercultural way. A second potential of regional indigenous working groups is the established subnational dialogue, which not only increases levels of trust, but also strengthens and empowers the regional indigenous organizations.

On the negative side, indigenous participation in Amazon climate governance often does not go any further than sporadic working group discussions. Both in Acre and Ucayali, the indigenous organizations do not have a stake in how project money is being spent. In Acre, due to a lack of communication and transparency, it often remains unclear how the benefits from REDD projects are shared. In Ucayali, due to Peru's highly centralized governance system, local indigenous affairs are not seen as a priority. The regional government lacks financial and human resources to incorporate indigenous demands in an intercultural way.

One explanation for the challenges of incorporating indigenous epistemologies and ontologies in climate governance is related to the impacts of PCG on justice and equity. Although demands for more equity and justice might have pushed the system towards governance with increased polycentricity by including non-state actors, the other way around is not necessarily true (Okereke 2018)(: PCG "may be helping to create the illusion that something is being done and diverting attention that might be better devoted to getting traditional state actors to take ownership for and tackle the problem (2018, 331). The creation of indigenous working groups might create such an illusion, without necessarily recognizing the added value of the indigenous perspectives and creating more impactful forms of governance. These demonstration of esteem for indigenous perspectives and participation can be seen as "an exercise in paying lip service to political correctness" (Ramos 1998, 219).

Related to this are existing structural injustices and inequalities towards and the way in which both the Amazon region and indigenous peoples are being perceived by the national and regional government. In their work on Brazil and climate change, Viola and Franchini (2018) point to increased "Amazon neglect" since 2011, which justifies behavior based on the notion that even when combating deforestation is possible, it is not a policy priority. Next to Amazon neglect, its indigenous peoples are also neglected, as the Amazon is still often portrayed as 'no man's land, everybody's business' and its original inhabitants as primitive and savage. Indigenous epistemologies and ontologies are not taken seriously, because they do not lead to economic development and their knowledge "is anchored in a whole dimension of worldviews

and lifestyles that is virtually incompatible with the rapacity of industrial activities" (Ramos 1998, 219).

Another explanation for the difficulties to incorporate indigenous perspectives in climate governance is the fragility of the governance system and the lack of more robust PCG. Polycentric theory reminds us that bottom-up governance is a perilous activity, vulnerable to lapses in funding and state support (Galaz, Crona, et al. 2012, 31). In both Brazil and Peru, regional political elections led to a change in the political party in charge, which endangers the continuity of the created indigenous working groups. On the Brazilian national level, the recently nationally elected rightwing president Jair Bolsonaro, denies climate change and undermines the territorial rights of Brazil's indigenous peoples.

This study was limited by these previously described regional and national governmental transitions: the chaotic and risky socio-political situation in Brazil made that many stakeholders did not feel comfortable to freely talk about indigenous participation in subnational governance. A second limitation is the fact that the interviewed indigenous stakeholders only represent some of the ethnicities living in Acre and Ucayali and therefore no generalizations in relation to indigenous epistemologies and ontologies can be made. A third limitation is the fact that the author does not speak any native indigenous language and conducted interviews in Portuguese and Spanish, which might have influenced the responses by indigenous leaders.

In order to improve the incorporation of indigenous epistemologies and ontologies, we recommend enhanced education and capacity building of regional stakeholders on interculturality to overcome ethnic discrimination. A second recommendation is the importance of empowering indigenous stakeholders and enhance discussions on ontological differences, instead of merely discussing how to spend project money. According to Escobar (2016), we need knowledge from ontological struggles (i.e. struggles between a western and indigenous perspective) for thinking about social transformations, as this knowledge "provides us with essential elements for thinking about the profound cultural and ecological transitions needed to face the inter-related crises of climate, food, energy, poverty and meaning" (2016, 14). The indigenous working groups in Acre and Ucayali are a first step towards a co-production model for subnational climate governance that better serves the Amazon's cultural context: an Amazon that is so much more than forest carbon stocks.

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