

The background of the cover is a photograph of a wide river in the Colombian Amazon. The water is a light, milky brown color. In the middle ground, a dolphin is captured mid-leap, its dark body arched above the water's surface. The far bank is lined with a dense, lush green forest of tropical trees. The sky above is overcast and grey, creating a soft, diffused light across the scene.

***The Anthropology of Climate Change
in the Colombian Amazon***

A.M. Vredegoor

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Maps



Figure 1: Indigenous territories

Source: http://amazonas.gov.co/apc-aa-files/64623166346437653538393234306365/Mapa_resguardos_2.JPG



Figure 2: Amazon river basin

Source: http://sinchi.org.co/images/BASE%20DE%20DATOS%20NIRIDA/REGIONES%20DE%20LA%20AMAZONIA.GA_01CUENCA%20AMAZONICA3.jpg

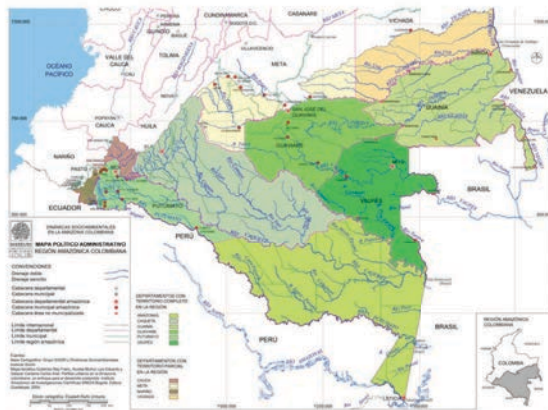


Figure 3: Colombian Amazon region

Source: http://sinchi.org.co/images/BASE%20DE%20DATOS%20NIRIDA/regiones%20de%20la%20amazonia%20colombiana/RACOL_03-DivisionPoliticaGrande.jpg

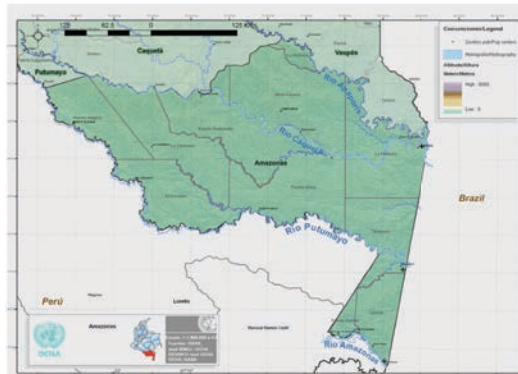


Figure 4: Amazon department

Source: <http://www.xonu.com/fullsize2/2011-08-18-14347/Mapa-fisico-de-Amazonas.html>



Figure 5: National Natural Parks in Colombia

1 Introduction

“Climate change is spoken about, but mostly in the sense of what the Amazon region means to the rest of the world and how it can help mitigate and reduce global climate change. This discourse is stronger than the one regarding the local impacts of climate change in the Amazon itself.”¹

The above quoted comment was made by one of my interlocutors during my fieldwork in Leticia, Colombia. It illustrates how the global climate change discourse is perceived and interpreted in the Colombian Amazon and implies the structured way in which a global discourse reaches local levels. Additionally, it refers to the power of such discourses in the overshadowing of local concerns and debates.

These issues describe the process of localisation of global discourses which has been part of my research that explores how such localisation of the global climate change discourse takes place in Leticia and the Colombian Amazon. The comment might be correct regarding the greater attention to how the Amazon may be of service to the world in combating climate change impacts instead of the consequences for the Amazon. However, the global discourse is not only imposed as such; as it is localised, it becomes embedded and entangled with important local issues and as a result, climate change can become a tool or a resource.

Let me first return to the topic of climate change² and further introduce this. Global atmospheric warming is a fact and humans have been the primary contributors to this process. Although the climate is constantly changing, the rate of current global warming and climate developments appear to be novel and consequences of these climate shifts are difficult to predict. However, it is clear that they will affect both the natural environment as well as human populations (Hegerl, et al. 2007; Houghton 2009). Global climate change is therefore increasingly considered to be one of the most significant and urgent issues for the world to deal with. In countries as Colombia, where a large number of the population depends greatly on the natural environment for their livelihoods, this is especially important.

Realising that climate change is not only a phenomenon that deals with the physical environment, but has important social consequences as well, has encouraged the involvement of social science and anthropology in particular. The anthropology of climate change is a new focus within

¹ Quote by A.A. Santos, linguist at the *sede Amazonia*, *Universidad Nacional de Colombia* (personal communication, April 11, 2013)

² Throughout this thesis, unless indicated otherwise, whenever I use the term ‘climate change’ I refer to the interpretation of it as a global phenomenon that describes the physical and chemical processes involved in the recent warming of our planet as a result of anthropogenic influence (Hegerl, et al. 2007).

anthropology with growing participation, reflecting the significant contributions anthropology can and should make in the global climate change debate.

Anthropological studies of the relationship between humans and their environment and forms of adaptation are among the most known contributions to climate change research. However, some discussion still exists regarding the best possible areas of involvement for the anthropology of climate change (Batterbury 2008; Crate 2011; Crate and Nuttall 2009). Two important methods of approach that have been suggested, are ‘critical collaboration’ and ‘multisited ethnography’ (Crate 2011). These methods encourage the inclusion of local stakeholders in research and a multisited focus, the latter among research sites as well as between local and global levels.

My belief is that anthropology’s main contributions can take place in three areas. First, it can contribute in research into climate change impacts on human populations and their environments (e.g. adaptation). Secondly, the process of localisation and local articulations of climate change need to be explored. Lastly, anthropology should study debate and research processes itself to critically examine the structures of power and influence that determine local contexts. These considerations led to the following central question for my research:

What is the contribution of anthropology in climate change debate and research in the Colombian Amazon?

A theme like global climate change cannot be studied as such on a local scale; what this theme constitutes in a local context, will not be clear until it has been integrated at that level. Global topics are not necessarily important on other levels, but they are made relevant by the connection to important local issues. Therefore, since global topics become embedded in locally important themes, they are articulated in terms of those issues. During my fieldwork I have explored such themes in Leticia and how climate change articulations were formed.

This process of localisation and embedment takes place through structuring actors and networks. These influence the local framework that determines how and where the climate change discourse is incorporated as well as the ways that the global discourse reaches local levels. In this thesis I will describe how for instance scientific actor networks in Leticia communicate with the global climate change debate through their research programs and subsequently pass climate change articulations on to other local actors.

Combinations of such networks and governmental structures also determine the availability of climate change as a resource for initiatives. The globally important topic of climate change is transferred through to local levels by the ‘culture of projects’ that exists in the Colombian Amazon. As such, climate change becomes a source of funding due to its availability on a global level, which in turn determines that it is also incorporated locally. This process changes with the changing popularity

of global topics, as has been obvious in the Colombian Amazon regarding previous discourses such as sustainable development and currently the attention is shifting to the '*regalias*'.

In conclusion my research shows, much like the quote at the beginning of this introduction, that there is a considerable disjunction between the global climate change discourse and local experiences. This is of importance because many policies and projects that are supposed to address climate change impacts are implemented in a top-down manner. Notwithstanding the practical relevance of research and projects of climate change effects and objectives towards the improvement of people's lives and their environment, these can only function when they are aware of local contexts. This is why anthropology should focus on the localisation of climate change and its local articulations. By employing anthropological methods such as 'critical collaboration' and 'multisited ethnography' (Crate 2011) insight into the realities of people's lives and their local context can be achieved. In this way, anthropology may contribute to locally appropriate policymaking and contribute in transdisciplinary research projects.

Fieldwork for this project has been carried out in the city of Leticia in the Colombian Amazon, between February 6 and April 19 of 2013. Additionally, several interviews were held in Bogotá.

Thesis structure

This first part of my thesis starts with an introduction, followed by a discussion of the methodology used during fieldwork. Chapter two describes the theoretical framework of the anthropology of climate change and discusses a part of the literature that has been published in this currently developing subfield of anthropology. After this discussion of social sciences in the climate change debate, and anthropology in particular, I will turn to the location of my fieldwork; Leticia, Colombia. In chapter three I will provide the context for this research project; a short introduction regarding climate change issues and indigenous communities in Colombia and subsequent paragraphs introduce the Colombian Amazon region, the Amazon department and Leticia in particular. I will also briefly discuss climate change experiences in these areas.

The next part of this thesis, chapter four to six, are the empirical chapters in which I present my fieldwork data and analysis. Chapter four portrays the research programs, institutional projects and actors present in Leticia. This provides an overview of the local context and the framework that influences the local embedment of climate change. Since locally relevant themes determine how a topic as global climate change is interpreted and incorporated on a local level and because effects of extreme events are experienced in relation to other issues, climate change becomes articulated through relevant local themes. In chapter five, I will describe the most important themes in Leticia and how they relate to the climate change discourse. Chapter six connects the various relevant themes and actor networks in Leticia and the Colombian Amazon to explore how climate change articulations are formed and thus how the localisation of the global discourse takes place.

Chapter seven is the conclusion in which I will discuss how the insights from my fieldwork relate to the theories of the anthropology of climate change. I will illustrate how some of the principal areas of anthropological contribution relate to my findings in the field.

Lastly, this thesis concludes with a bibliography and three appendices. The first appendix includes my acknowledgements. The second appendix is a reflection on this research project and my role as a researcher. However, this is not so much a personal reflection as a theoretical elaboration through the inclusion of anthropological theories on a few main themes of my research. Finally, the last appendix is a summary in Spanish of this thesis, which will be send to my interlocutors in Leticia.

Methodology

At the start of my fieldwork I approached the stakeholders I already knew in Leticia from my stay in 2012 and used open interviews to obtain an overview of climate change research in the area and stakeholders involved herein. Initially I had planned to begin with semi-structured interviews, but it soon became clear that these first contacts with interlocutors had to be open interviews since they were the ones who could tell me where I would be able to find information. The interviews were meant to localise the climate change discourse and provide further direction, therefore I could not place any restrictions on the interviews in order to be open to the input from my interlocutors. During these interviews I presented some topics to address, but the lack of structure enabled the interlocutors to take the lead in what they wished to say and discuss topics that they considered important.

Additionally, this was part of a ‘snowball-approach’ which means I hoped that through my first interlocutors, I would get into contact with other people and institutes which in turn would provide further direction and information.

Institutional interlocutors

Most of my interlocutors were (employees of) ‘institutions’. This meant that for several of these, initiating contact had to go through official channels. Official letters from my supervisor at the university resolved these issues however, in two cases these processes interfered to a degree that I was not able to speak with intended interlocutors. Miscommunication, delayed contact and lack of availability, prohibited me from meeting with the director of the National Natural Park Amacayacu³ for the entire duration of my stay in Leticia. Though, I was able to conduct an interview with several employees of the ‘*Dirección Territorial Amazonía*’ of the National Natural Parks System in Bogotá.

The other instance in which I was not able to have further contact with an interlocutor was in the case of an indigenous association in Leticia. The president required that I go through the ‘*Consulta Previa*’ process to conduct an interview with him. However, I did not have the means and at that point in my fieldwork not the time, to do so. Unfortunately, this limited my possibilities and eventual contact with indigenous representatives.

In general I had not sufficiently considered the difficulties of establishing contact with institutional interlocutors. Although they all were very cooperative, most had busy schedules which complicated the planning of meetings. I also perceived some hesitance towards me as ‘yet another researcher in town for a short time period’, which was possibly enhanced by the fact that my research did not provide a clear and direct reciprocal incentive. In my opinion, a combination of these reasons, coupled with the cliché but true fact that everything runs at its own pace in the Amazon, made it difficult to organise follow-up interviews with several interlocutors.

³ From this point on, I will refer to the National Natural Park Amacayacu by its acronym in Spanish: PNN Amacayacu.

Nevertheless, in the end I was able to at least address my most pressing remaining questions with key interlocutors. Moreover, with time my network widened which provided the opportunity to triangulate information through other interlocutors as well as archival research.

Access and participant observation

Linked to the above mentioned issues with availability of institutional actors, came the difficulty of access to them and thus the ability to carry out participant observation. Since my research area was a small town and my interlocutors were occupied at their respective work places, I needed to find a place where more frequent contact and interaction would be possible.

This was resolved when I was offered the use one of the workspaces at the '*Laboratorio de Semillas y Productos Naturales*' at the *sede*⁴ of the *Universidad Nacional*. Moreover, I was also invited to participate in the interdisciplinary and joint master/doctorate course '*Historia ambiental y ecología política de America Latina*'.

My presence at the university was essential to the success of my fieldwork; the every day contacts and forming of friendships with some key actors, assisted in obtaining a place in the community. In general, the climate change discourse consists of a few key actors and institutions in Leticia. Among these is the university which as such had a central function for my fieldwork. Once I had established contacts here, those interlocutors were helpful in locating other people and organisations I could include in my research.

Participant observation was the main research method during my fieldwork. It allowed me to become known among the community, build rapport and widen my social network. Moreover, by 'being there' it was possible to gain insight into the interactions and negotiations between stakeholders.

Data collection and consent

As I made contact with more people in Leticia, I continued to have first, open interviews with various interlocutors. In several cases, these were followed-up by semi-structured, second interviews. However, in general I was not able to have more than two meetings with key institutional interlocutors.

Informal conversations took place throughout the fieldwork period and were essential to establish contacts, build rapport and learn about the area. Notes were taken during interviews and after (informal) conversations, which I specified in field notes at a later time. Most interviews were recorded and transcribed.

As mentioned before, I noticed a certain hesitance regarding my research with some interlocutors. Many people commented on the short-term presence of external actors in the area for

⁴ '*Sede*' refers to the local seat of the university.

research or project purposes and this was regarded with considerable critique due to many experiences with unsuccessful and, in the eyes of local inhabitants, exploitative policies and projects. These comments and attitudes made me reflect on how to present my research and objectives as well as how I and my project could reciprocate my interlocutors' time, help and friendliness. It had been an important objective for me from the start, to carry out a research that would not only participate in the academic debate of the anthropology of climate change but that would benefit the research community and area as well.

First, agreements were made that I would send my thesis to the interlocutors so that the information is returned to the research area and actors involved. However, whether all of them will be able to make use of my interpretations and reflections, I cannot guarantee. Secondly, I attempted to reciprocate to interlocutors in personal ways, for instance through the exchange of documentation and information. Regarding the presentation of my research, I realised that I needed to take care not to use the word '(research) project' and stress the fact that I was carrying out the final assignment of my bachelor degree and fieldwork for my thesis. This seemed to help somewhat to avoid connotations of experiences with projects in the area.

When presenting myself to a new contact or interlocutor, I described my research and objectives briefly in a way that I hoped would not influence or guide subsequent conversations or interviews. During these presentations I would mention that I meant to use the conversations, interviews and notes as data for my thesis and give the interlocutors the opportunity to approve that or not. At the end of my fieldwork I asked all the interlocutors once more for permission to use the information they had given me and whether I could cite them by name.

2 Theoretical Framework

2.1 Climate change

Climate change has become a globally debated topic with increased urgency. Over the years, much progress has been made in the natural sciences to understand changes that are taking place, which is important to project future scenarios, address causes and formulate solutions (Hegerl, et al. 2007; Houghton 2009). Humans are included in this topic as contributors to, and cause of, global warming (anthropogenic climate interferences) however, humans are also affected by impacts of extreme climate events for instance (Hegerl, et al. 2007; Houghton 2009; United United Nations 1997).

The debate is complicated due to the global scope of the problem and the great variety of people and perspectives involved. Disagreements still exist regarding the nature, causes and effects of climate change, which is clear in the discussion about the attribution of impacts to either climate change or climate variability. However, no matter the perspective; global warming is a fact and consensus regarding the anthropogenic contribution is growing (Batterbury 2008; Houghton 2009).

Social science and climate change

The impact of extreme climate events on human societies has led to an emerging awareness of the necessity to include social sciences in the debate on climate change. Even though the majority of the debate is carried out by the natural sciences, the input of social sciences is growing. Nevertheless, a solid discourse is lacking and a lot of the focus is political.

However, participation is important since “social scientists can productively contribute to analysis and solutions of climate change challenges through theoretical advancement, empirical research, and policy engagements” (Agrawal, et al. 2012:329). Moreover, I believe that it is crucial that natural and social sciences collaborate across disciplinary boundaries since their knowledge is complementary and in practice, disciplines crosscut and blend together as well. The social sciences can provide perspectives on the human consequences of climate and environmental changes, add to the understanding of the diversity of effects on different groups of people as well as assist in communications among different stakeholders (Agrawal, et al. 2012).

Therefore, I attempt to use an all encompassing approach that recognises both disciplines as well as other stakeholders that play a role in the climate debate in a local context for this exploratory research.

Anthropology and climate change

Studying the effects of weather and climate on human populations and the relationship between humans and nature, or environment, is not new to anthropology. Archaeological studies for instance,

have provided insight into the history of humans and their environments. Additionally, environmental and ecological anthropology, as well as various other fields of research (e.g. human ecology, cultural ecology, political ecology), have explored the interactions and relationships between humans and nature (Crate 2011).

These studies are currently connected with the global climate change debate in different ways. An important field of research is adaptation to climate change impacts, for instance by indigenous populations in Siberia (Crate 2009). Other examples include research into the anthropogenic causes of climate change to provide understanding of the actions of human beings thus partaking in debates on mitigation (Magistro and Roncoli 2001; Milton 2008). Furthermore, anthropology participates in transdisciplinary research projects and engages in policymaking by advising different actors regarding effects of climate change in local settings (Agrawal, et al. 2012; Batterbury 2008).

Anthropology is a social science that has specific qualities to contribute to explorations of the relationship between humans and nature in the context of the global climate change debate.

“Anthropologists are strategically well placed to interpret, facilitate, translate, communicate, and advocate [...] in response [...] to the cultural implications facing communities as they cope with [...] climate change” (Crate and Nuttall 2009:24). It is clear that studies into adaptation, perception and causes of change (social, political, economic) are necessary. Anthropology’s rich experience with these, ethnographic research methods and unique position between stakeholders, are definite attributes for this (Agrawal, et al. 2012; Cassidy 2012; Crate 2011; Crate and Nuttall 2009).

Climate change presents a challenge in the sense that it causes effects that most people have little understanding of or direct relationship with. Therefore it is important to explore how it is embedded in local discourses and understand how it is interpreted and made relevant on a local level. My research in the Colombian Amazon shows how climate change has become entangled with important local themes and that actors incorporate it as a tool in locally relevant discourses.

2.2. Anthropology and transdisciplinary research

The complex interactions between humans and nature require that research into climate change and impacts includes perspectives from different disciplines; effects cannot be isolated and are best understood from a holistic viewpoint. Various ways of combining the strong points of different disciplines and the inclusion of a variety of research methods is necessary. Nonetheless, questions on how to achieve this cooperation still remain (Crate 2011). Transdisciplinary research is an approach that attempts to combine disciplinary efforts, however this is complicated due to the multiple perspectives involved.

Additionally, transdisciplinary climate change research has to cope with a sensitive division in science, namely the distinction between nature and humans. This division lies at the roots of many

paradigms, the limits of disciplines and society even. Yet, humans cannot be seen as separate from nature; they depend on it and adapt to it for their existence and livelihood. The relationship between humans and their environment is given meaning through its incorporation into cultural and social systems. These mutual interactions between human populations and their physical surroundings and ways that they are embedded and expressed in cosmovisions, has been the topic of much anthropological research (Crate 2009; Crate 2011; Croll and Parkin 1992). Ingold (1990) describes this dichotomy as “humanity’s separation from the world of nature, and the counter-thesis that humankind exists alongside other life-forms on an uninterrupted continuum or chain of being” (209).

The binary way of thinking about humans and nature, is an obstacle for collaboration between, and even within, disciplines. Due to the interconnectedness of humans and nature, research topics cannot be effectively limited or categorised and especially transdisciplinary research should recognise this. Global climate change impacts are examples of the necessity to combine disciplinary efforts. Changes in climatic conditions and physical surroundings require human adaptations which creates continuously mutual reactive processes between humans and their environment which is further acted upon by extreme climate events. Since hardly any area in the world is void of human presence nowadays, as such, impacts on the natural environment are analogous to impacts on human populations and neither can be isolated.

Furthermore, causes and effects of climate change are not bounded to specific localities, but dispersed around the globe. Much research points to the ‘Western’ world as the main cause for carbon dioxide emissions and thus global warming however, consequences are felt around the world (Houghton 2009). This becomes clear for instance in the climate changes and impacts of extreme weather events that indigenous communities of the Colombian Amazon are experiencing.

‘Culture of projects’

Projects are “the major form within which development work has been carried on [and] a major proportion of public sector investment in developing countries has taken place through projects” (Shepherd 1998:120). Moreover, it has become a “universal language of international development” and a “means of raising and channelling aid funds” (Shepherd 1998:120-121) to a degree that some areas now know a ‘culture of projects’ where projects abound and they often have a long history with different actors bringing ‘new’ discourses and subsequent projects to the area.

No matter the initiating organisation, governmental, NGO or private, they all rely on available ways to finance their programs and projects and as such projects are determined by funding (Shepherd 1998). Global discourses play an important role in this since what is considered important on a global or international level influences relevance on subsequent levels. This works two ways; global interests are pushed onto levels and local actors turn to national and global levels in search for financing. The latter means that in practice relevant issues might continue to be the same on a local level, but to be able to include them in projects, they need to be labelled and expressed in terms of relevant global

issues. This affects the implementation of projects due to the discrepancies between local and global discourses and different interests of local actors, project initiators and donors (Shepherd 1998). Top-down project management like this is often not sustainable and the Colombian Amazon has experienced many examples of such initiatives, linked to popular global discourses of which climate change is one of the recent expressions.

Participation in projects has been a much discussed topic in development theories as well as in anthropology, through theories such as Participatory Action Research as well as the previously discussed ‘critical collaboration’ method (Button and Peterson 2009; Crate 2011). However, notwithstanding discourses of development through participation, in many cases local collaboration remains marginal or top-down instructed. An abundance of projects and lacking local participation are recognised issues in areas with a ‘culture of projects. Other problems include power and knowledge imbalances, top-down implementations, short-term initiatives, fixation of and on objectives and sustainability (Cassú N.d.; Shepherd 1998).

2.3 Current anthropology and climate change

As mentioned above, anthropologists have long since studied relations between humans, culture, climate and environment. These studies have formed a basis for current research that focuses on the effects of global climate change.

The anthropology of climate change is a recently formed, new subfield in anthropology which partially formed as anthropologists found themselves confronted with climate change issues in local contexts. A good example of the recognised significance of this new focus, is the formation of the ‘Global Climate Change Task Force’ by the American Anthropological Association in 2011. The goal of this task force is to gather information on current anthropological research regarding climate change effects, but also to promote the contributions that anthropology could make to the climate debate and to encourage involvement, education and further research (American Anthropological Association 2012; Fiske 2011).

This new subfield is enriched with recent literature by anthropologists researching various relations between human populations, the environment and the changing climate (Agrawal, et al. 2012; Cassidy 2012; Crate 2011; Crate and Nuttall 2009; Echeverri 2009; Echeverri 2010; Ulloa, et al. 2008; Ulloa Cubillos 2011). Additionally, courses in anthropology and climate change and relevant graduate degrees are being developed (American Anthropological Association N.d.). In all, the anthropology of climate change is a growing subfield within anthropology and this reflects the increased attention to the effects of climate change on humans and the realization that social sciences, and anthropology in particular, can and should make contributions in this global debate.

One of the difficulties of the climate change debate is in the differences in scale, temporal and spatial, and the variety of stakeholders. Debates, research and policies are often shaped globally or nationally and it is complicated to reconcile the distinct discourses and experiences of different levels. This complex matrix needs careful consideration and exploratory research, such as this project, can attempt to map out the local context including its discourses, networks and connections across scales. My fieldwork has illustrated how for example the local context of indigenous communities in Leticia is framed by the national and departmental governments thus influencing their possibilities at participation in climate change discourses. However, it also demonstrated how indigenous communities do participate in aspects of the discourse such as environmental services projects and their perceptions of these.

Various scientists have proposed ways that anthropology can approach studies of the global climate change debate and its local articulations and the matrix of scales and stakeholders. An example is the recommendation by the new anthropology of climate change to include explorations of global structures and connections that link to local experiences of a changing climate (Crate 2011). This is necessary to inform research and policies of the lived experiences 'on the ground'. In addition, Milton proposes that anthropology should be "questioning everything-the science, the politics, the economics, the morality-exposing implicit assumptions and hidden agendas" (2008:58). Consequently, my exploratory research has examined the societal framework that climate change is embedded in at the local level of the Colombian Amazon.

Climate ethnography

Crate (2011) has introduced the term 'climate ethnography' as part of the suggestions of new approaches that anthropology can take to participate in the climate change debate. This climate ethnography requires "a new multisited, critical collaborative ethnography" and should also analyse the "multistressors of a dynamic human-environment system" (Crate 2011:185).

Multisited ethnography can connect the local and global, or put differently, it can link specific lived realities with external influences and structuring systems. Additionally, this can be complemented with research into the local-global interactions at multiple sites. My research illustrates how the global climate change discourse is incorporated and embedded in a local context. This process of embedment occurs through different sites and actors and therefore a multisited approach is necessary to consider and include all influencing factors. The other aspect of Crate's 'climate ethnography' is what she calls the "critical collaborative ethnographic method", which "explicitly problematises collaboration" (2011:186). This method implies two approaches; the necessity to include local stakeholders and the examination of the cooperation between stakeholders.

Local articulations of global discourses or processes, can only be studied through collaboration with local stakeholders. On a local level climate change becomes embedded into themes that are relevant to the area and for its populations which means that the perceptions and knowledge of

local stakeholders are crucial. Moreover, a collaborative method could encourage cooperation between stakeholders in the climate change debate; actors from different scientific disciplines as well as from different, local and global, scales. Such collaboration could improve mutual understanding and negotiation. In this thesis, I will describe how local articulations of populations of the Colombian Amazon allowed me to locate climate change in relevant themes in the area.

In addition, collaborative ethnography can problematise the “dialogic exchange between local and global discussions of climate change” (Crate 2011:186). Through the problematisation of collaboration, local articulation processes of global issues, but also the networks of actors and power, can be examined. This can shed light on the discrepancies between local and global discourses. This research shows that important disparities exist between the global climate change discourse and its articulations in the Colombian Amazon. Not only is the discourse on a local level entangled with other relevant issues instead of isolated, climate change also turns from a global phenomenon to a resource that can provide political or economic capital to local actors.

Anthropological contributions

Publications from the new field of anthropology and climate change deal with the debates among anthropologists regarding the directions for current and future investigations. These debates pose questions that concern the preferred focal points of research, specific contributions that anthropology could make and the collaboration with other disciplines and different stakeholders (Agrawal, et al. 2012; Cassidy 2012; Crate 2011; Crate and Nuttall 2009). As such, the discussions concern how anthropology can contribute in the global climate change debate and what its role can be. These are important questions and various anthropologists have formulated suggestions and provided ideas to answer them (Cassidy 2012; Crate 2011).

Next I will elaborate on what I consider to be the three main areas for anthropological participation in the climate change debate. Following the suggestions of Crate’s (2011) ‘climate ethnography’, I believe that there are three different processes that anthropology could contribute in; research into climate change impacts, exploring the localisation of climate change and research into the process of climate change investigation and debates itself.

Anthropology has already provided valuable insights with studies about human adaptation to the environment and continues to do so (Moran 2008). Most anthropologists in the new field of anthropology and climate change agree that this is one of the research areas where anthropology can make important contributions regarding the effects of climate change that are taking place, but also as a way of building knowledge about adaptive strategies for future climate impacts (Agrawal, et al. 2012; Crate 2011). Multisited ethnography (Crate 2011) provides a workable approach for this by connecting different situations and experiences across time and space. For participation in transdisciplinary teams or to inform policymaking, it could be an advantage to have information from various local perspectives.

The second research contribution of the anthropology of climate change would be to carry out exploratory research, in collaboration with local stakeholders, to identify local articulations of climate change. Much like globalisation theories about ‘glocalisation’ (Eriksen 2007), climate change is incorporated and embedded into local contexts which means that studies into this topic need to start by locating the articulations of climate change in the research area. By doing this, relationships, structures and networks can be identified which is necessary to understand the concept of climate change in a particular locality. Such an approach is for instance essential to generate data that may inform policy making.

In addition, there is another aspect of the climate change debate that could benefit from anthropological insights and that is the area of transdisciplinary research and debates itself. Climate change research and debates take place among various disciplines, on different scales and between a variety of stakeholders. The consequent negotiations and interactions in this field are intricate and complicated by the interests of different actors and power distributions. Anthropology as a discipline has experience in the critical and holistic examination of actor networks, scales of interaction and negotiations of power and knowledge. These skills can be used to look at the climate change debate itself. The urgency and complexity of climate change effects, facilitates confusion as well as inefficacy and inefficiency of research, communication and policies. Anthropology can explore these processes and its stakeholders and function as a mediator, or as Crate (2011) describes it; “problematise collaboration”.

3 Context

In this chapter I will describe the context of my research area; Leticia (Colombia)⁵. First I will elaborate on climate change in Colombia and ways that the country is addressing this phenomenon. This is followed by a description of the position of indigenous communities in Colombia. Next I will narrow my focus from the Colombian Amazon region to the Amazon department and Leticia. For all these areas I will also briefly illustrate their experiences with climate change issues.

3.1 Colombia and climate change

Manifestations of the *Ola Invernal*⁶ have caused extreme flooding in various parts of Colombia in recent years, which in turn has had severe social and economic impacts. These events have been much discussed and attributed to climate change by both the government and the media, even though this attribution could be contested (Cárdenas Giraldo 2011; Urrutia Vasquez 2011).

The above mentioned manifestations have alerted the Colombian government to the fact that Colombia needs to prepare itself for possible climate change impacts. Likely impacts include extreme versions of the *Ola Invernal* (e.g. severe rains, river floods) and other increased effects of La Niña⁷. These phenomena affect households and livelihoods (especially poor populations are at increased risk), economic interests, infrastructure and ecosystems (Urrutia Vasquez 2011).

The Colombian government has taken several steps to manage and include climate change in its policies. It has ratified the Kyoto Protocol and joined the United Nations Framework Convention on Climate Change (Mendoza S., et al. 2008). Furthermore, in 2011, it presented new policy guidelines which aim to approach climate change as an economic and social development issue and this includes strategies to coordinate and fund mitigation and adaptation⁸ (Consejo Nacional de Política Económica y Social 2011). These strategies are incorporated in the National Development Plan for 2010-2014 and specified for local use in departmental and municipal plans as well (Departamento Nacional de Planeación 2011; Lozano Guzman 2012; Rodríguez Celis 2012).

⁵ My official research area was Leticia, however throughout this thesis I will refer to Leticia and/or the Colombian Amazon, due to the important interconnections between this town, the Amazon department and the Colombian Amazon region. With this I follow the practice of my interlocutors who did not limit their scope with Leticia but consistently included other sites and areas of the Colombian Amazon in their perspectives (I do not imply to have carried out research or be able to draw conclusions about that area).

⁶ *Ola Invernal* is a vernacular term that refers to the wet season in Colombia, which is influenced by the La Niña phenomenon. In recent years it has produced excessive precipitation, winds and tropical storms.

⁷ La Niña is part of the El Niño/Southern Oscillation (ENSO). It "is defined as cooler than normal sea-surface temperatures in the central and eastern tropical Pacific ocean that impact global weather patterns" (NOAA-National Oceanic and Atmospheric Administration 1998).

⁸ "In general adaptation is aimed at reducing the effects and mitigation is aimed at reducing the causes of climate change, in particular the emissions of the gases that give rise to it" (Houghton 2009:14-15).

As part of its climate change mitigation and adaptation plans, Colombia is looking at ways to participate in international ‘clean development mechanism’ programs⁹ that aim to reduce emissions, as well as the UN-REDD Programme¹⁰ (Mendoza S., et al. 2008; Ministerio de Ambiente y Desarrollo Sostenible - Colombia 2011).

3.2 Indigenous communities in Colombia

In Colombia, indigenous communities (and populations from African descent) enjoy special protection by law, which is advanced in terms of rights for indigenous populations (see figure 1). The modified Colombian constitution of 1991 ratified ILO Convention 169 regarding the “identification of indigenous and tribal peoples” and Colombia also signed the UN Declaration on the Rights of Indigenous Peoples, even though the latter was not an undisputed process (Aboriginal Affairs and Northern Development Canada 2010; Constitución 1991; OIT N.d.; Vicepresidencia de la República de Colombia N.d.).

The national framework regarding indigenous populations is stated in the 1991 Constitution, the National Development Plan 2010-2014 and in subsequent regional and local level policies. In these policies the Colombian government describes its ‘differential focus’ in order to assure equal opportunities to all its citizens. This means that Colombia’s cultural and ethnic diversity are recognised and that the government has adapted its development goals appropriately. Moreover, this policy is complemented with ‘affirmative action’ towards populations that have been discriminated against in the past (Departamento Nacional de Planeación 2011).

An important aspect of Colombian law with respect to indigenous communities, is that of the ‘*Consulta Previa*’¹¹. It requires that indigenous populations be consulted by outside actors regarding any development that might affect them in their territories. This consultation implies to inform communities and ask their consent, in order to respect and protect indigenous populations and cultures. The process addresses the sovereignty of indigenous populations in their assigned territories and potentially empowers communities. However, in reality they do not have complete property rights which makes contestation difficult and limits their agency.

These problems of contestation have become obvious in cases regarding indigenous participation in environmental services projects or resource extraction activities (Laborde 2009). Whereas significant areas of the country are determined as indigenous territories with the communities

⁹ Clean development mechanisms (CDM) promote sustainable development initiatives in developing countries by countries that have committed to reduce emissions under the Kyoto Protocol. Such projects allow for the accumulation of “certified emission reduction (CER) credits [...] which can be counted towards meeting Kyoto targets” (United Nations Framework Convention on Climate Change 2013a).

¹⁰ REDD: Reducing Emissions from Deforestation and Degradation. The REDD initiative provides a framework for climate change mitigation and deforestation based on the idea that “countries that are willing and able to reduce emissions and deforestation should be financially compensated for doing so” (Parker, et al. 2009:14).

¹¹ The ‘*Consulta Previa*’ stems from ILO Convention 169 and was ratified in Colombian legislation in 1991 with *Ley 21* (ILO N.d.; OIT N.d.; Santos Calderón, et al. 2012).

as ‘environmental authorities’, the indigenous populations only have rights to the land or topsoil because the subsoil and its resources belong to the Colombian State. Moreover, there have also been negotiations concerning new laws that aim to designate the ownership of trees or the area above the ground (*‘vuelo’*). These issues relate directly to questions of territorial sovereignty and the ownership of resources and can have considerable consequences. Especially since resource extraction is an essential part of Colombian development plans for the future, notably in the Amazon region (Revista Semana 2013). For actors who wish to participate in environmental services programs this determines who stands to gain from the resources (Laborde 2009; Palacio Castañeda 2009b).

Until recently, in spite of the official consideration of indigenous populations and cultural diversity, popular and even national political discourse often portrayed indigenous communities as obstacles for the country’s development. Now, at a time of international attention to indigenous rights and resource conservation, they are portrayed as guardians of Colombia’s biodiversity.

3.3 Colombian Amazon

The Amazon basin or *‘Amazonía’*, is the South American region covering the Amazon river and its tributaries (see figure 2). It stretches out over nine different countries, from which Colombia holds about 5,5% (Instituto Amazónico de Investigaciones Científicas SINCHI N.d.). The Colombian Amazon region or *‘Amazonía colombiana’* covers an area of 41,8% of the country, from which 86% is preserved in the form of protected areas for biodiversity conservation, forest reserves or indigenous territories (Mendoza S., et al. 2008). The Colombian Amazon region comprises six different political-administrative departments; Amazonas, Caquetá, Guainía, Guaviare, Putumayo and Vaupés (plus parts of four other departments; see figure 3), and is generally divided into the northwest and the southeast Amazon. Notwithstanding popular attention to the Amazon and its biological diversity and richness nowadays, the Colombian Amazon region remains fairly marginalised in economic and social sense and experiences a lack of connection with the rest of the country (Palacio Castañeda 2009b).

The region is characterised by fragmented, multiethnic populations and experiences difficulties in the management of its territory caused by tensions between different inhabitants, such as ‘colonos’ and indigenous communities. Furthermore, territorial issues are complicated due to the overlapping constructions of indigenous territories, national parks and forest reserves. In these cases, sovereignty and governance are negotiated and it is not always clear how laws and regulations are to be interpreted. Even though the region is known for its low population density and high incidence of indigenous populations, according to a census in 2005 only 12.3% of the inhabitants of the Amazon region considered themselves indigenous. In the Amazon department, this percentage was 40.5.

Colombian Amazon and climate change

The Colombian government is including different stakeholders in its projects to address issues that form obstacles to deal with climate change mitigation and adaptation (Consejo Nacional de Política Económica y Social 2011). Various governmental departments are now including climate change in their planning and assessments, but they are also collaborating with private research institutions. Among the stakeholders in climate change research and policy in the Colombian Amazon are Corpoamazonia, the IAvH (Instituto de Investigación de Recursos Biológicos Alexander von Humboldt), IDEAM (Instituto de Hidrología, Meteorología y Estudios Ambientales), SINCHI (Instituto Amazónico de Investigaciones Científicas), Tropenbos International and the *Universidad Nacional de Colombia*. These institutions carry out multidisciplinary research in cooperation with other (inter)national (non-)governmental organisations and occasionally indigenous populations or representations.

Climate change impacts on the Colombian Amazon are still debated and difficult to predict due to the local variation of effects. An example of this are the perceived changes in climate, along the Amazon, Caquetá and Putumayo rivers (Echeverri 2010). The Amazon region is especially vulnerable to anthropogenic stresses such as “deforestation, fragmentation of natural forests, the existence of endangered species, the trafficking of flora and fauna, and the introduction of invasive species” (Mendoza S., et al. 2008:19). These stresses cause and reinforce environmental change which, coupled with changes by humans and climate, increase population’s vulnerability to climate change.

3.4 Amazon department and Leticia

With 109.665 km², the Amazon department (*departamento Amazonas*) is one of the smallest Amazon departments which, according to a 2005 census, had a population of 67.729 inhabitants (SINCHI and Ministerio de Ambiente 2009). The Amazon department has a low population density, in rural as well as urban areas, compared to other departments of the Colombian Amazon. Its southern ‘peninsula’ is colloquially known as the ‘*Trapezio amazónico*’ which refers to the area limited by the Putumayo river in the north, the Amazon river in the south, Peru and Brazil (see figure 4).

There are two municipalities in the Amazon department; Leticia and Puerto Nariño. The capital of the department, Leticia, covers an area of 5.829 km² and has 37.832 inhabitants (SINCHI and Ministerio de Ambiente 2009). Its location is, apart from geographically strategic in the utmost southeast corner of the department, also relatively isolated from the rest of the department. As the main urban centre in the area, it has an intermediate population density of 6,5 inhabitants/km² (SINCHI and Ministerio de Ambiente 2009:100).

Leticia forms an important logistical hub for the region, including for Peru and Brazil. It has an airport with regular flights to Bogotá, the port is the main site for import and export in the area and

also provides for the movement of people, mainly to and from Iquitos, Peru and Manaus, Brazil. Additionally, Leticia promotes itself as the main location for “eco-ethno-academic tourism” (Palacio Castañeda 2009b:47) in the area and as a ‘green’ destination with convenient access to the cultural and biological diversity of the Amazon.

In contrast, the other face of Leticia is that of a frontier town which, as an island in the forest and bordered by a river, does not have much room to grow. There is a constant flux of construction, a high overturn of businesses, poorly maintained infrastructure and public (sanitary) services, issues with waste disposal and noise and air pollution due to increased traffic in the centre of town.

The department has indigenous populations from multiple ethnic backgrounds, but the area around Leticia and along the Amazon river are mainly inhabited by Ticuna. ‘*Resguardos*’, national parks and forest reserves take up about 95% of the territory of the Amazon department, thus making negotiations between actors a necessity (Palacio Castañeda 2009b). The PNN Amacayacu covers an area of 293.500 ha and is located between the two municipalities, upstream from Leticia (see figure 5). It is the main national park in the area and overlaps with indigenous ‘*resguardos*’. As such, coordination with indigenous authorities to jointly address conservation issues, biological as well as cultural, is an important objective of the park (Castellanos 2010).

Amazon department, Leticia and climate change

The distinction between climate change and climate variability is particularly difficult on a local level. It is hard to contribute impacts or events to climate change when long-term data, or data in general, is lacking. The attribution of events in recent years in the area of Leticia are therefore disputed: droughts and floods might be local signs of global climate change, but they could also be due to normal climate variability. The latter refers to patterns such as the El Niño/Southern Oscillation (ENSO) which has a varying influence in the area and recent events might simply be extreme manifestations of these fluctuations (Davidson, et al. 2012).

The area has a dependence on fluvial and aerial import of food which supplies much of the city’s population. Indigenous communities, to a varying degree, depend on their own cultivations to provide in their livelihoods. These dependencies cause a high vulnerability to climate changes and subsequent environmental impacts.

4 Research and projects in the Colombian Amazon

Research in the Colombian Amazon is carried out by several key institutes and is both privately initiated or requested by the government. The most important local institutes are the *Universidad Nacional* and SINCHI, which work with external institutes such as the IAvH (Von Humboldt), other national universities, national and international NGOs and they have alliances with research institutes in Peru and Brazil. Environmental and social research is carried out between these organisations, including different actors and areas for distinct research programs.

Participation in the global climate change debate occurs mostly by scientific actors in Leticia, who participate through their research projects. People outside of scientific or institutional circles are less informed about the scientific particularities of the climate change phenomenon, impacts and policies. What they know they have learned through popular discourse or copied from other people's arguments; to most the topic still seems esoteric.

Below I will describe the various general research programs, institutional projects and actor collaborations that exist in the Colombian Amazon, as well as those related to climate change issues. This will provide a contextual framework for the understanding of how climate change is interpreted, incorporated and articulated by different actors.

4.1 Climate change research

The global climate change discourse can be found in various research endeavours in the Colombian Amazon. These research programs participate in the most important concepts of this global discourse, such as carbon uptake and storage in the Amazon, climate and environmental changes and social impacts. In Colombia, the IDEAM is generally responsible for climate change monitoring and one of the main actors to recommend national policies. SINCHI is a governmental research institute that works to advise on environmental issues in Amazon departments.

The *Universidad Nacional* in Leticia has different research programs that participate in the global climate change debate, most of them initiated from the natural science departments. These programs are focused on the Amazon Department as well as other departments in the Colombian Amazon region and also cooperate with international actors as part of pan-Amazonian networks (Phillips, et al. 2009).

The university's research group 'Ecology of tropical terrestrial ecosystems' has been carrying out long-term monitoring programs at its biological station "El Zafire" (Ministerio de Educación Nacional 2007; Universidad Nacional de Colombia 2009) and provides valuable information regarding the dynamics of different Amazonian ecosystems. Additionally, the Limnology department contributes through research on carbon uptake and storage in the Amazon's aquatic systems (Rueda Delgado

2012). Much of the focus of climate change related research goes to the Amazon forests, but preliminary results of these studies of wetlands indicate that aquatic systems play vital roles in the carbon cycle as well. Considering the lack of detailed regional and local data from the Amazon region, these programs are important contributions to the understanding of global climate change processes.

The PNN Amacayacu hosts a plot -the *parcela permanente Amacayacu*- which is part of a large, cooperative research program between various actors (SINCHI, PNN¹², *Universidad de Medellín* and international institutes). The objective of this program is to increase knowledge about Amazon forest systems, monitor possible climate change effects and inform sustainable forest management. This plot is linked to international initiatives that aim to provide long-term, detailed regional data from tropical forests and is expected to be an important contribution to climate change research in the region (Instituto SINCHI 2011).

Research from social science disciplines focuses mostly on indigenous communities, climate change perceptions and seasonality (Echeverri 2009; Echeverri 2010; Ulloa Cubillos 2011), however there is also attention to climate change from a political ecology perspective (Palacio Castañeda 2009a). An anthropologist of the *Universidad Nacional* has written about climate change perceptions by indigenous communities in the Colombian Amazon (Echeverri 2010). For this research he employed an anthropological perspective but also made use of meteorological data thus making an effort to combine disciplinary approaches.

In addition to research, the *sede Amazonia* of the *Universidad Nacional* offered a course on global change in 2012. This was an interdisciplinary course, which focused on the physics of the global climate change phenomenon as well as the social and political discourses surrounding it. The perspective ranged from global to the Colombian Amazon and the course concluded with a seminar on climate change, hosting international guests.

4.2 General and transdisciplinary research

The before mentioned research programs are directly connected to the global climate change discourse and participate in the debate. However, there exists much research in the Colombian Amazon for which climate change is only a partial topic or a theme that crosscuts through different projects. Aspects of climate change are incorporated in ways that they are relevant to existing local issues or research since “it is [...] not the changes in average climate that are generally noticeable, but the extremes of climate -droughts, floods, storms and extremes of temperature [...] - which provide the largest impact on our lives” (Houghton 2009:154-155).

¹² PNN: National Natural Parks System in Colombia

SINCHI has carried out research on food security¹³, traditional indigenous subsistence modes and well-being indicators (Acosta, et al. 2011; Peña-Venegas, et al. 2009). These research programs assess indigenous governing and organisation as well as how cultural transmissions between generations have changed in recent years. Indigenous communities are accustomed to climate variability and well able to adapt to changing environments through their traditional knowledge systems which allow them to interpret their surroundings. The knowledge system is been passed on between generations and despite its traditional origin, it is also capable of interpreting current changes. This makes it possible to understand and diffuse impacts, which is important in the light of climate change. However, social disintegration in communities has led to less cultural affinity, lack of authority of elders and less communication of knowledge. This increases the population's vulnerability to climate and environmental changes.

The Limnology department of the *Universidad Nacional* in Leticia has carried out a research program that closely cooperated with the local population of the area around the Yahuaraca lakes. This program's objective was to address environmental degradation and poverty through the promotion of sustainable use of resources, which is also important in the context of climate and environmental change (Cassú 2012). It proved necessary for social and natural science to cooperate in this program, so an anthropologist and linguist collaborated with the Limnology department. This was important in the relationship with the indigenous communities, to align scientific and cultural discourse and achieve mutual understanding.

Climate change is embedded in the previously mentioned transdisciplinary research programs, however it is not the overriding purpose in these cases. It is made relevant to the objectives of the stakeholders and what they consider important features of their projects. When it is thus incorporated into multi-stakeholder research programs, this can be seen as the inclusion of a current, significant issue (climate change) as a resource. In the case of programs including governmental actors, it follows guidelines regarding the implementation of governmental strategies for climate change policies.

4.3 Projects

Part of the research in the Colombian Amazon takes place in the form of projects. Various of these are set up in a participatory way, including a specific target population in the methodology and objectives of the research. These projects can then be twofold in the sense that they study a particular topic, while simultaneously promoting or improving for instance community goals or welfare standards.

The concept of 'projects' is well known in the Colombian Amazon and looked upon with a certain ambiguity. It is generally expressed that the area has seen an excess amount of projects through time and their successes are disputed. As such, many projects are considered political and economic

¹³ "Food security is a situation that exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life" (FAO, et al. 2012:57).

tools which are implemented in a top-down manner, poorly adapted to local circumstances and have objectives that are not locally relevant. These perceptions apply to projects from institutional organisations, NGOs as well as governmental ones.

Another common complaint, is that many actors who carry out research projects, are short-term visitors. According to local actors (this includes actors who are not originally from the Amazon, but who have been living there for many years) this creates suspicion regarding the project's objectives which are considered to primarily serve the external actors. Such perceptions are reinforced by the limited time frames of projects, lack of transparency of the processes and actors involved and this in turn diminishes chance at success. Inhabitants of the Leticia area have become tired of the projects that come their way which they regard as mere variations of the same model. As a result, if participation is agreed upon, this frequently stops when the project is ended thereby not achieving long-term sustainability of results.

Indigenous communities are said to take advantage of the supply in projects and that as such, the term 'project' has turned into a synonym for resources and a magical key to initiate contact with them. Moreover, indigenous communities are said to have become more demanding and particular about their participation in projects. They often require a '*Consulta Previa*', which could be interpreted as a way to sift through initiatives and test which ones would be worth the effort to become involved in.

The main criticisms of this "culture of projects" include the lack of local participation and related to this, the use of top-down, external objectives. However, this is further complicated by the dividedness of communities and number of different organisations and representatives. This makes collaboration a complex and time-consuming process. The combination of poorly framed project initiatives (with regard to local conditions), the continued stream of new and short-term projects and the above mentioned criticisms, has caused a ambiguous and distrustful reception by local populations of the Colombian Amazon. Participation seems calculated according to possible gains and interest in its success varies (Cassú N.d.).

These problems emphasise the necessity of critical collaboration for a chance at success by projects and research with specific participatory community objectives. With the experience of extreme climate events and issues of environmental degradation, collaborated efforts towards improvement are as important and relevant as ever. In the following paragraphs, I will describe some examples of how this takes place in Leticia and the Colombian Amazon.

4.4 Critical collaboration

Crate has coined the term "critical collaborative ethnography" (2011:186) as an important tool for climate ethnography because it allows for a real dialogue between stakeholders, the examination of

collaboration itself and comparison of global and local discourses. For the purpose of climate ethnography this is a central component, however it is also important for research and projects in general. The latter has been acknowledged by various actors in the Colombian Amazon who work with transdisciplinary or multi-stakeholder efforts and it is illustrated by the problems I mentioned in the previous paragraph.

SINCHI carries out research and projects concerning indigenous cultures, community well-being and food security, that aim to make indigenous populations conscious of the importance of social disintegration and its effects. The methodology of these programs is based on indigenous collaboration in order to make the communities aware that it is their own livelihoods that are at stake. This way, SINCHI tries to start from local concerns, assuring that initiatives are bottom-up and it also places the institute primarily in a support function. The institute proposes that mutual understanding and equality in the dialogue between actors is considered vital for the feasibility of any proposal.

The research project of the *Universidad Nacional* with the communities around the Yahuaraca lakes, set out according to explicit goals that also attempted to make the populations aware that they themselves can influence their future livelihoods (Cassú 2012). Part of the university's arguments to enable collaboration is to stress the fact that both stakeholders, the university and indigenous populations, share responsibilities and consequences. The university tried to emphasise that any climate change effects on indigenous communities, will impact the rest of the area's population as well and this realization creates trust and equality among stakeholders.

The fact that issues in the Colombian Amazon are always interconnected means they cannot be isolated by discipline or actor. In addition, whenever research has the objective to improve the livelihood of local actors, it is necessary for those stakeholders to be able to identify with the project objectives and agree with them. This way they can be continued independently after a project has ended. The distrust has grown between actors in this area, due to the stream of different discourses, projects and initiatives makes collaboration difficult. The university's approach assisted to improve the relationship between the communities and the university or scientific world and its success is reflected in the continued activities of the established conservation associations (Cassú N.d.). This project is an example of the entanglement of themes and issues in a local context and it illustrates the localisation of a global topic as climate change.

Another important aspect of critical collaboration with indigenous populations is that their traditional knowledge can complement scientific knowledge. Some scientists have already explored this complementarity (Alexander, et al. 2011; Echeverri 2009; Echeverri 2010) and especially in a region as the (Colombian) Amazon where scientific data is still scarce, indigenous knowledge could be a valuable attribution. Recognition of traditional knowledge in the academic world might prove a challenge, but it should be undisputed that many indigenous populations have a longer history of living in and with their environment than many scientists. Their information is finely tuned, well

founded and includes details that could contribute to the local data that is needed for climate change research.

4.5 External collaboration

Many research programs from local actors are carried out in cooperation with actors from outside Leticia; either from other Amazon departments or (inter)national stakeholders and these same actors can be found in different research or project networks. This collaboration of local and external actors can be complementary. Letician actors face disadvantages of difficult access to communication or information, however they can provide essential perceptions of the daily and local context of issues and regarding the compatibility of regional or national initiatives. External actors generally have greater access to information, communication and other stakeholders and they can offer an different or larger perspective than local actors which may facilitate comparison.

Multiple external actors carry out research in the Colombian Amazon region, for instance the NGO Tropenbos Colombia, based in Bogotá. This organisation is well known throughout the region and has carried out many (international) projects with indigenous communities. Between 2011 and 2012, one of their projects concerned traditional indigenous knowledge and its use for climate change adaptation (Tropenbos International 2013). Tropenbos is valued for its bottom-up approach; they have gained a reputation of being open and available to populations to assist in concerns and to conserve indigenous cultures (personal communication with Dr. C.A. Rodríguez¹⁴, April 17, 2013). As such, “critical collaboration” is one of their foremost methods used and it has proven effective in realizing long-term achievements as well as bridging gaps between different level actors and providing a platform for indigenous expressions.

Especially for external actors it is important to first identify how climate change is embedded in local discourses. In addition, due to this embedment, the topic cannot be approached in an isolated manner and connected issues will need to be taken into the equation. Exploratory, anthropological research can assist in the localisation of climate change at a particular site and critical collaboration is essential to achieve insight into locally important themes.

This chapter has provided a brief overview of the research programs, projects and actor networks in Leticia (and parts of the Colombian Amazon region). Several key institutes carry out research that is transdisciplinary and includes a variety of local as well as external actors. The closest resemblance of the global climate change debate can be found in natural science research programs, however in most programs climate change is incorporated as part of the context, an objective or a resource. This shows

¹⁴ Dr. C.A. Rodríguez is the director of Tropenbos Colombia.

how local conditions determine the ways a global issue becomes relevant in a specific situation and how it is locally embedded.

In my next chapter, I will illustrate how and where climate change is incorporated and embedded in Leticia and the Colombian Amazon.

5 Climate change themes in Leticia

Since “it is in the regional or local changes that the effects and impacts of global climate change will be felt” (Houghton 2009:149), it makes sense that, locally, climate change is articulated differently from the global discourse. However, local impacts of climate change are felt not in isolation, but in relation to other relevant issues. Therefore, climate change and its effects are articulated through important local themes.

This chapter describes the locally relevant themes in Leticia and surrounding areas, as expressed by my interlocutors. In Leticia, climate change is both contextualised and entangled with these local issues and it also functions as a framework of reference for the interpretation of local problems. The latter becomes clear in discussions of extreme events, such as the river flood in 2012. On the other hand, the use of climate change as an explanatory discourse also fades whenever it is no longer considered relevant or when other discourses become available. For example, when the most immediate impacts of the flood in 2012 had passed, attention to it (and discussions regarding climate change) faded and currently the ‘*regalias*’ concept has become a major discourse.

5.1 ‘Global change’

Extreme weather events that have taken place during the last few years in Leticia and surrounding departments, have been attributed to climate change in political and popular discourses. Nonetheless, awareness of the difficulty of linking these two concepts is acknowledged. Especially in academics, there exists a strong recognition of the interconnectedness of climate change, climate variability and environmental change. For instance, changes in seasonality and extreme events could be manifestations of climate variability and human induced environmental change might have aggregated the direct effects. This raises the question what change is to be attributed to climate change and what to people using and inhabiting the Amazon?

At the *Universidad Nacional* in Leticia, the term ‘global change’ is used to connect the above mentioned concepts with the social factor of human populations. ‘Global change’ considers the region’s and population’s history as well as the political, economic and social processes that affect populations. By regarding climate change as only part of a process that could be called ‘global change’, it becomes embedded into other processes of change and themes that determine and shape people’s lives. This holistic perspective facilitates the encompassing of issues that are related on a local level and also affirms that climate change cannot be isolated as a topic.

Even though global changes are generally recognised, stakeholders have varying perceptions on whether climate change is something that can be perceived in Leticia and surroundings. Some refer

to recent droughts and floods as examples, others state that the population of Leticia has not noticed any major effects just yet. Indigenous communities are often brought up as examples of populations who are experiencing impacts and who are vulnerable not only to climate change, but facing global changes in general.

5.2 Indigenous communities

Indigenous communities are an important topic in Colombia. The topic is double in that indigenous populations are participating actors in this discourse as well as passive objects of discussion by other, non-indigenous actors. Through the ‘culture of projects’ that exists in the Colombian Amazon region, people and topics can be converted into resources, which has happened with climate change as well as indigenous communities. In Leticia, indigenous communities are mostly linked with climate change via two themes; vulnerability through impacts on livelihoods and the topic of environmental services. The latter topic will be explained further on in this chapter.

Even though indigenous populations are very knowledgeable with regard to their environment and capable to adapt to changes herein, their dependence on the environment also makes them vulnerable. Research and projects distinguish indigenous populations as examples of those who have mostly been confronted with, and noticed, changes in seasonality (Echeverri 2009; Echeverri 2010; Ulloa, et al. 2008).

As mentioned in chapter four, problems with social disintegration (among other ‘global changes’) have rendered indigenous communities more susceptible to recent, extreme, changes in climate and environment. However, the indigenous communities in and around Leticia differ greatly with respect to levels of urbanization, modes of subsistence, perceptions of nature and continuance of traditional culture. This means that the way the ‘outside world’ permeates their lives, and therefore their level of vulnerability, is also different. The communities closest to Leticia tend to use only a small, very productive, part of nature and therefore perceive less change.

The focus on indigenous communities and how ‘global changes’ are affecting their lives is apparent in Leticia. Various local institutes as well as national and international organisations are part of this ubiquitous attention to the communities (Echeverri 2009; Ortega-P, et al. 2011; Peña-Venegas, et al. 2009; Ulloa, et al. 2008). What is interesting in this situation is the ‘indigenous discourse’ about or on indigenous communities and the level of participation by the populations themselves.

‘Indigenous discourse’

There is a longstanding interest in indigenous cultures and traditional knowledge in the Colombian Amazon, not only by anthropologists, but nowadays also from natural scientists and a variety of organisations. This interest is however, not uncontested, by both indigenous as well as non-indigenous

actors. Many communities have grown tired of what they conceive to be an exploitative interest in their ways of life and have responded to this by closing themselves off or organizing into representative organisations. This in turn, has given them a reputation of being difficult to get into contact or deal with.

Debates on intercultural communication and even the representation of communities as pitiful and in need of outside help, reflect a history of paternalistic dealings with indigenous communities by institutions and government. The discussion on how to deal with indigenous communities in the Amazon department is complex and debated on many levels, by political, non-governmental and academic actors. And even though more participatory approaches are being used, indigenous communities are still often talked about and not included in issues that do affect them.

When it comes to indigenous actors as active participants in the discourse about experiences with climate variability or change, there is much difference between communities. Some of them that have experienced impacts and are not sure what they can do about it, have communicated their concerns to political or academic actors in the area. As a result, problems regarding for instance food security and water supply are known and discussed (Chaparro 2007; Corpoamazonia y Corporación Sinergiaz 2008). However, problems due to internal disagreements and conflicts concerning official representation, scatter whatever indigenous discourse there is. As such, the *Gobernación de Asuntos Étnicos* in Leticia, does not have an official climate change discourse on behalf of the surrounding indigenous communities.

A lack of information, and subsequently of understanding, affects indigenous participation in discourses and also their agency in dealing with impacts that affect their territories. Even though climate changes in the region are perceived, the global climate debate is often not understood and indigenous communities around Leticia mostly copy institutional and scientific language from other actors. Yet there have been some initiatives to inform the populations about the climate change phenomenon and what local effects may entail for them (Ortega-P, et al. 2011). These initiatives are partially intended to empower communities in negotiations with environmental services programs.

‘Bottom-up’ initiatives from communities that attempt to address their situation as affected by global and climate changes, are still developing in Leticia. In other parts of the Amazon department, more established platforms of dialogue exist which in recent years have paid increasing attention to environmental issues, including climate changes. These experiences with the inclusion of indigenous populations and a variety of stakeholders have motivated the introduction of similar platforms in the Leticia area (e.g. CIPITA¹⁵).

5.3 Urbanization

¹⁵ CIPITA: Consejo Interinstitucional de Pueblos Indígenas del Trapecio Amazónico.

The impacts of extreme events such as floods or droughts are imprinted on Leticia as they reinforce existing pressures due to urbanization. Population growth, insufficient sanitary systems, poor drink water supply, food security and changes in land use are existing preoccupations (Chaparro 2007; Corpoamazonia y Corporación Sinergiaz 2008). Political and academic actors connect these concerns to climate change in their discourses.

Changed weather patterns have influenced local agricultural production and the availability of other food sources such as fish, which endangers an adequate food supply for the urban inhabitants. Furthermore, this issue is aggravated by a growing dependency on imported goods, which in itself is a complicated issue due to Leticia's geographical location. This became obvious during the 2010 drought when ships could no longer navigate parts of the Amazon river and air traffic was suspended due to smoke from deforestation in neighbouring countries (Palacio Castañeda 2009b).

Changes in seasonality also threaten the subsistence modes of local indigenous populations. Although these communities are used to fluctuating environmental circumstances and have developed adaptations to this (Tropenbos International 2011), they also depend on local conditions that form a framework determining the level of adaptation possible. For instance, the community of Mocagua has, due to population growth and lack of available land for cultivation, started using an island in the Amazon river for food production on *chagras*¹⁶. However, the river level increase in 2012 was such that the island flooded and much of the cultivation was lost, forcing the population to buy food and even new seedlings at the markets in Leticia. This example shows how impacts of extreme climate events are aggravated because of existing conditions and pressures.

There is a strong connection between climate and environmental change with regard to issues due to urbanization, especially in the case of Leticia which is an urban island bordered by forests and the Amazon river. Modifications to the environment (e.g. cleared space for housing or overfishing) or people living in high risk areas are considered reasons why the region has become more vulnerable to extreme events. The human induced pressures on the environment are, in places, reaching unsustainable levels, which has caused a reduced resistance to alterations. Even though the causes of recent extreme events are still disputed, it is generally agreed upon that the level of change in recent years appears novel and when the mutually enforcing effects of environmental and climate change are discussed, the consequences of the floods and droughts are mentioned as examples.

5.4 Politics

Extreme events or disasters require policies and money to deal with the impacts. Whereas scientific actors in Leticia debate whether extreme events are caused by climate variability or climate change,

¹⁶ 'Chagras' are the fields of agricultural cultivation by indigenous populations in the Colombian Amazon. Types of *chagras* and forms of cultivation differ, depending on the specific community and their location (e.g. in areas with seasonal flooding or on 'higher ground' (Echeverri 2009)).

political actors tend to indicate the latter as the main cause. Climate change forms a framework that can be employed to understand or explain events and it can generate funding. Especially since Colombia has integrated climate change into its most recent National Development Plan, it has become a topic that can mobilise social, political and economic support (Consejo Nacional de Política Económica y Social 2011; Departamento Nacional de Planeación 2011). Nevertheless, the attribution of extreme events to climate change has been criticised as a short-term approach to what essentially are structural issues in the area.

In Leticia, climate change articulations centre around institutions, such as the departmental and municipal governments, Corpoamazonia, SINCHI and the *Universidad Nacional*. Various platforms exist where these actors discuss research, projects and policies, at times joined by indigenous communities and non-local actors. These platforms are collaborations between different actors, such as the CIPITA council meetings, the ‘*Comités Regionales de Competitividad*’ and the ‘*Comités Departamentales de Ciencia y Tecnología*’ (Rodríguez Celis 2012). Environmental change and climate change have become more important topics at some of these platforms. However, the topics are also influenced by governmental frameworks and popular discourse.

Several interlocutors argued that the climate change discourse in general as well as in Leticia, is a politicised discourse. This refers to the fact that issues such as greenhouse gas emissions or environmental services (which are contested for providing ways for countries or companies to disregard responsibilities), are in essence political and economic issues due to the statement that they are caused by humans. Therefore, anyone involved in the climate change debate, including scientific actors, is engaged in politics. In addition, not only do politicians appropriate the topic of climate change as an explanatory discourse or to acquire resources, the same can also be done, in a political way, by other actors. An example would be the international climate change seminar organised by the *Universidad Nacional* in 2012. This provided information and opportunities for local actors and students, as well as attention to the university as an institution wishing to participate in the global climate change debate.

Another important local topic is that of territories and environmental authority. Among the most important stakeholders in these debates are the municipal and departmental government, governmental institutes such as Corpoamazonia and SINCHI, the national parks system and indigenous communities or organisations. As a department with several recognised authorities (indigenous territories, National Parks, Corpoamazonia), the topic of ultimate authority is not always clear and much discussed. The before mentioned problems of urbanization and environmental change or the room for adaptive measures by communities with overlapping territories, cause debates regarding possibilities and responsibilities in the case of extreme events. For instance, during the 2012 flood, this became obvious in discussions about who needed to provide aid to the indigenous communities along the river.

The subject of environmental services adds to this discussion, although this concern was

only brought up by few interlocutors. The question of control and power is very much linked with territory and the tension between government and indigenous communities in this, is obvious. With respect to the exploitation of resources and territorial sovereignty, the government often appropriates control in negotiations through legislation. However, in the case of environmental services, external parties have entered negotiations and protected areas are potentially turned into capital and handed over to private actors. As a result, governmental control is undermined by (inter)national strategies and markets in which it means to participate.

5.5 Environmental themes

The environment is a theme that is intertwined with many other topics in Leticia; the Amazon forests and their biodiversity, research and conservation projects, but also indigenous cultures, food security, changes in seasonality and extreme events. In the following paragraphs, I will describe the discourses on extreme events and environmental services that take place in Leticia.

Extreme Events

As mentioned before, the Colombian Amazon (and Colombia in general) has experienced impacts of extreme climate events in recent years. The most frequently discussed events include the drought in 2010 and the 2012 flood of the Amazon river, which both entailed a variety of consequences for both the natural environment as well as the human populations.

In scientific circles, these events are being studied (Davidson, et al. 2012; Phillips, et al. 2009) and there is a clear discussion regarding the difference between climate variability and climate change and the appropriate attribution of these events. Generally, the consensus is that a lack of long-term, detailed information about the area complicate these attributions to a degree that no specific statements can be made yet.

In 2012 the Amazon river reached a level higher than people had seen in years. Exactly how many years it had been varied, in popular discourse, between ten-twenty years ago. People in neighbourhoods close to the river had to be evacuated and some of the populations living in communities along the river had to leave their houses for ones build on higher ground. The situation generated a considerable amount of attention in the department, including private initiatives to help the affected populations.

Most people refer to the flood of 2012 as an example of climate change when the topic is brought up. Especially since in other years (like this year, 2013) the river level rose considerably as well. Such recurring events, seem to warrant the indication of climate change as the cause. In these cases, climate change functions as an explanatory framework which facilitates political discourses by providing a cause and solutions through policies and funding. This use of climate change is contested

by some scientific actors because of the simplification of the topic and the possible political objectives. The criticism is that the suggestion of this causality reduces the incentive for further research, perpetuates limited understanding and obstructs long-term, constructive assessments of the problems the area faces now and in the future.

Environmental Services

The Colombian government is in the process of creating policies regarding the country's participation in (UN)REDD projects (although some pilot projects have already been started in cooperation with the National Parks system). These projects are part of "schemes for payments of environmental services" (Wiersum 2009:1) which aimed to encourage new forms of conservation. These have started as voluntary forestry management initiatives and have now been developed to such large programs as that of the UN. Environmental services and REDD were frequently mentioned in Leticia, especially with reference to their potential as financial resources and rumours about contract negotiations with indigenous communities in many parts of the Amazon. Specific information about this latter activity is difficult to obtain, although there is a formal warning from the ministry of the environment regarding companies that have been approaching indigenous communities and the illegality of contracts with such organisations (Castaño Uribe and Iragorri Valencia 2011).

Popular discourses about REDD projects and environmental services demonstrate the lack of information and understanding of these concepts. Some interlocutors raised questions regarding the mechanisms, the lack of transparency, the unknown companies and the large quantities of money involved. In general, the notion of carbon markets¹⁷ and payments for environmental services is something that remains very mysterious and complex to most people. The fact that many indigenous populations express these concepts as '*venta de oxígeno*' (selling of oxygen) shows the obscure nature of the concept. The question "if we sell our oxygen, then what are we going to breathe?", by a man from the indigenous community La Playa to a researcher from the *Universidad Nacional*, illustrates this obscurity very well.

The discussions about participation in environmental services projects are part of the larger debate regarding indigenous sovereignty of their territories and ownership of natural resources in Colombia. Indigenous territories make up a large part of the country and many of the areas designated for potential use in environmental services programs are encompassed within those territories. Therefore, these debates are of considerable importance since participation in conservation or environmental services programs determines who stands to gain from the natural resources available (Palacio Castañeda 2009b).

¹⁷ 'Carbon market' refers to the trade in units of carbon dioxide emissions (AAU's: Assigned Amount Units) by Annex B-parties under the Kyoto Protocol. These parties have agreed to reduce or limit their emissions by setting target levels and are allowed to trade with other parties in case of excess or required carbon units. This is known as the official carbon market (United Nations Framework Convention on Climate Change 2013b). Voluntary carbon markets exist and include private initiatives, also aimed at reducing greenhouse gas emissions.

5.6 Hypes

The Colombian Amazon has a history of one boom following another. These have included natural resources such as rubber and gold, others are discourses such as sustainable development and ecotourism. These discourses overwhelm local actors, provide chances for opportunists, attract a variety of external actors to the region but not always allow room for contemplation or long-term approaches. Currently, climate change is considered as one more of these ‘hypes’.

Where nowadays themes are connected to climate change, previously relevant issues were articulated according to the discourse of for instance sustainable development. By adding labels and objectives such as adaptation, mitigation or extreme events, projects and research programs are made relevant to climate change. This is enabled and facilitated by the fact that popular (international) discourses usually determine possibilities for funding.

Now, Colombia has a new popular discourse: ‘*regalías*’. The ‘*regalías*’ are payments that oil and mining companies make to the Colombian government for their access to natural resources. In the past, these revenues were redirected to the departments and municipalities where the extraction took place. However, starting 2012, a new system determined that the ‘*regalías*’ resources are to be distributed to all departments, to (among other objectives) create more equality and promote development and regional competitiveness (Departamento Nacional de Planeación N.d.). These resources will be assigned to specific projects that need to meet a variety of requirements and which are evaluated by different committees from a local to a national level. The sum of money that has become available to departments that previously did not participate in these revenues, is more than considerable, which has caused a lot of interest in this new concept.

Local institutes in Leticia, the *Universidad Nacional* and SINCHI, have been working on project proposals to apply for funding through the *Comité de Ciencia, Tecnología e Innovación*, which is one of the committees in charge of reviewing applications. This process is complex and requires extensive communication between scientific and political stakeholders which is complicated due to the different forms of communication and diverse interests between these actors. Moreover, political networks play a role, since the governor is the final vote for local projects to continue on to national committees.

According to some people in Leticia, climate change is still an important topic, or resource, for projects, research and policy. Attention tends to be highest at times of direct impacts from extreme events, such as the flood in 2012, after which it makes place for different, more pressing issues. To other people, the theme of climate change has faded to the background as it has been replaced by the ‘*regalías*’.

The shifting focus from climate change to ‘*regalías*’ is an example of how global and national discourses are variably incorporated into local themes. The importance of topics on a global or

national level have a direct influence on their incorporation on local levels; the importance trickles through. Nonetheless, the degree of local relevance and ways of local articulation differs from the global level. This disjunction is determined by locally relevant issues and contexts.

In the next chapter I will examine the processes of actors and networks in Leticia and the Colombian Amazon in the creation of local articulations of climate change.

6 Connections

There are many different actors in the Colombian Amazon who negotiate on different levels, depending whether they are local or external. Power plays an important role in these negotiations. The embedding of climate change into local themes in Leticia and the Colombian Amazon, occurs through actors and their networks. Different actors have varying objectives and climate change can function as a tool to achieve those aims.

In this chapter I will connect the different actor networks, their negotiations and the relevant themes in the Colombian Amazon, to examine how specific, local climate change articulations are created in Leticia.

6.1 Actors and networks

The local academic networks include the *Universidad Nacional*, research institute SINCHI and scientists employed by the government. The actors in these networks cooperate transdisciplinary and across organisations for some projects. However, I have also observed a tendency by or within institutions as well as networks, to maintain boundaries. In those cases, the first priority was often the own organisation, department or discipline. Moreover, as in any network or collaborative effort, cooperation's in Leticia are not void of politics or personal interests either. The 'global change' course at the *sede Amazonia* of the *Universidad Nacional*, is an example of a collaborative project which nonetheless appeared divided along disciplinary lines.

National and international collaboration, and actor networks, exists for example in the '*parcela permanente*' project in the PNN Amacayacu and the research programs at the university's biological station El Zafire. The local and external actors who work in these projects participate directly in the global climate change discourse; their research is a form of communication in the global debate. At the same time these actors shift between network levels and in doing so, they localise the global discourse. It is incorporated into their local networks and thus becomes embedded with other topics of their concern.

Governmental institutes like SINCHI or Corpoamazonia, take up a central place in the formation of networks between different actors. As part of the government, they are bounded to governmental policy frameworks which determine their room to manoeuvre. For instance in the case of SINCHI, which assesses governmental initiatives, this means that the development plans by the government can be evaluated but the framework of the *Ministerio del Medio Ambiente* (Ministry of the Environment), determines what is done with these suggestions.

Formal networks of governmental institutes may act as limitations. For instance according to SINCHI, the Amazon region is a distinct part of the country and any proposals for its development

should pay attention to the conservation of biodiversity and cultural diversity. However, this perspective is at odds with the fact that Colombia has designated mining and resource extraction in the Amazon region as an essential, economic development plan. These discussions are complicated due to a lack of connections between ministries and spaces for discussion, such as committees, that are not binding.

Indigenous actors and networks

The networks of indigenous communities are organised in several ways, from the level of families and villages to representative organisations that participate in governmental or national negotiations. Around Leticia, three main associations of indigenous communities are; ACITAM, AZCAITA and ATICOYA¹⁸. These organisations are sometimes disputed for their level of representation and troubled by internal conflicts. This then complicates collaborations or negotiations for not all indigenous organisations or institutions are recognised as representative or authentic.

As mentioned in chapter five, indigenous populations are often an object of discussion by other actors, for instance with regard to the special territorial structure in the Amazon Department(s) and the relevance of cultural diversity in the area. The current interest in traditional indigenous knowledge and the rise of indigenous organisation across Latin America, illustrate how indigenous populations have become a popular global discourse, even though the same attention also provides a potential source of important empowerment for indigenous populations as well. Within these frameworks they become a resource for local as well as external actors, since the popular attention tends to facilitate promotion and funding of projects. This is similar to, and sometimes coupled with, the climate change discourse for added value to proposals. However, with the shift of attention to the ‘*regalías*’, indigenous causes are now also coupled with that new discourse.

Participation in national and regional networks by indigenous communities is often limited to being subject in a program, although there are some examples where they collaborate in research efforts (for instance the previously described project with the *Universidad Nacional*). The amount of research and projects that have been targeted on indigenous communities is numerous and it is very clear that they are tired of this. Since most projects are imposed on them and although participatory, not bottom-up initiated, the often heard complaint is that the communities do not benefit in the end and that data is collected and taken away from the communities and even out of the area. For these reasons, the ‘*Consulta Previa*’, has also been employed by indigenous communities as a tool for empowerment in interactions with outsiders.

NGOs often play a mediating role in negotiations between stakeholders, such as the government and indigenous populations. Various NGOs in the Colombian Amazon emphasise their

¹⁸ ACITAM: Asociación de Cabildos Indígenas del Trapecio Amazónico, AZCAITA: Asociación Zonal Autóctonas Indígenas del Trapecio Amazónico, ATICOYA: Asociación Ticuna, Cocama, Yagua.

relationship with indigenous communities and how they can represent and further indigenous interests. This frequently involves the juxtaposition of communities and governmental institutions. However, some interlocutors have remarked on the somewhat perverse nature of such practices, especially when it concerns external organisations, since the level of representation may be disputed and it enables and perpetuates a conflictive relationship between the communities and government.

Effective sovereignty for indigenous populations and ownership of resources in their territories, would assist to make them more equal parties in negotiations. The '*Consulta Previa*' does not fully provide this conditions. Moreover, it also limits communities' agency when they wish to start initiatives with a third party as is the case with environmental services projects. These projects could provide a possible space for communities to appropriate control through their territories and manoeuvre between different stakeholders. In that case climate change would become a resource to them, providing them with political and social capital.

Local-external actors

The Colombian Amazon might be marginalised in some ways, but it is not an island anymore. Especially Leticia, as the most accessible location, receives many visitors from outside the region. Sometimes it functions mainly as a stage for those actors, since they do not always arrive with the objective to participate with local actors. This, coupled with short-terms stays and non-localised project objectives, receives much criticism from locals. Nevertheless, many local projects are a cooperation between both local and external actors since there are definite benefits and complementary aspects to such collaborations as well.

There also exists a paradox in that various influential actors who are considered, and consider themselves, local are actually from other parts of Colombia or even other countries. Therefore, some 'local' networks are simultaneously infused with external links from people's personal or past networks. A determining factor with regard to the label local or external, is usually the requisite of living at least several years in the region and working with a local institute. As such, incorporation into local networks is possible. Furthermore, as discussed previously, some actors shift between network levels which is one of the ways that climate change becomes incorporated into those levels and networks as well.

Negotiations

Governmental policy highly determines the types of collaboration and networks that exist in the Colombian Amazon and the negotiations that need to be carried out. Legislation regarding territorial and environmental authority in the different areas of the department require negotiations and cooperation. This way the government maintains control of negotiations.

The PNN Amacayacu is obligated to negotiate with indigenous communities whose territories overlap with that of the park. By law, the environmental authority of indigenous communities is accepted with regard to their resource management, but they are required to negotiate and collaborate with other institutions (such as the National Parks System and Departmental Environmental Corporations) depending on the specific situation. These negotiations include issues such as permissions to hunt or cut trees. Although there is a recognition of indigenous environmental authority and sovereignty in their territories, this does not necessarily imply empowerment. Nevertheless, the PNN Amacayacu and departmental environmental authority Corpoamazonia seem increasingly aware of the benefits of critical collaboration, especially local employees who know the region's context well.

Corpoamazonia, is also required to negotiate with a variety of actors in the Amazon department. The corporation has initiated a new approach for this by hiring an anthropologist who is supposed to provide cultural insight and create a more contextually appropriate focus. The chains of negotiation between Corpoamazonia and indigenous populations can be long, from village elders to indigenous representatives in spaces of dialogue with the government, which causes a loss of perspective. This is complicated by the interpretation of negotiations by governmental officials and their culturally specific reproductions of meetings and discussions. Therefore, the corporation's anthropologist, who is of indigenous descent, works to identify disjunctions in negotiations and collaborations, functioning as a mediator.

Notwithstanding the benefits of collaboration between local and external actors and different networks, local actors in Leticia do struggle with power imbalances, communication difficulties and lacking access to information which causes a lack of tools in negotiations or collaborations that are thus not fully mutual. Anthropological methods of research focussing on daily life practices can reveal the effects of global policies on local populations.

6.2 Multisited

Crate (2011) has argued for multisited research into climate change issues. In the case of Leticia or the Colombian Amazon it is clear that sites are tightly linked together and this also influences the networks of actors. Most networks are multisited and climate change articulations are thus passed on between sites and actors.

Leticia is the capital of the Amazon department, which is part of the Colombian Amazon region, which in turn is part of the Amazon river basin (different 'Pan-Amazon entities' exist, depending on the mode of definition). Moreover, the Colombian Amazon region is literally a frontier area bordered by Venezuela, Brazil and Peru and has strong connections between these areas that are

sometimes in closer contact and geographical proximity with each other than with the centres of their own countries.

Notwithstanding its relatively isolated location in the department, it is clear that people in Leticia feel part of the greater Amazon region. This is obvious in the way that people refer to their location and imply relationships and similar experiences with other parts of the Colombian Amazon. Various research programs and projects from institutes in Leticia are multisited or partially carried out at other localities in the region. A large-scale example of this is the research by the *Universidad Nacional* that is carried out at the biological station El Zafire and which is part of the global RAINFOR project (Phillips, et al. 2009).

Since the perspectives of actors in Leticia and surrounding areas transcend the boundaries of the municipality or department, a multisited approach to research of their climate change articulations is also necessary. Global discourses become localised by actors in Leticia yet, the local framework does not only encompass Leticia, but also the larger Colombian Amazon region and even the Amazon basin area. Local actors are aware of these important relationships as well as the regional differences within the Colombian Amazon (Echeverri 2010). This is an important awareness among actors in Leticia who recognise the need for collaboration and multisited approaches within the region.

6.3 Culture of projects

As previously mentioned, the ‘culture of projects’ is not undisputed in Leticia. Many projects are short-term, which affects the process and they lack insight into the specific local context. Furthermore, the formulation of particular, desired outcomes influences the way stakeholders participate, which has become subjective and with consideration of potential, monetary, gains (Cassú N.d.).

Projects in the Colombian Amazon are also perceived as political tools that mostly benefit the interests of the initiators. The area has a lot of experts in projects and the accessing of resources which have continued through participation in ‘hypes’ such as sustainable development, ecotourism, climate change and ‘*regalias*’. These ‘hypes’ or discourses have generated much interest and importance on a global level, which facilitates their appropriation as resources for local initiatives. Therefore, popular global discourses, such as climate change, inevitably manifest themselves as a boom of projects on local levels.

An obvious discourse of criticism regarding new, short-term actors and projects in the area is significant of the experienced problems with this ‘culture of projects’. Many people commented how projects and policies are just new versions of the same model with different labelling. An added issue is that of the underrepresentation of local actors in the web of projects and networks and how they are overwhelmed by external discourses. This shows how external actors also play an important role in the way that climate change becomes embedded and eventually articulated, in Leticia and the Colombian

Amazon. They have the power to determine relevance of themes and their projects influence the structure of local frameworks that climate change is incorporated in.

This way climate change has become another resource and is localised through the ‘culture of projects’. In the Colombian Amazon this is an important process which determines how projects are formulated. However, a consequence of such dependence on popular discourses for funding is the discontinuity of policies and initiatives. Furthermore, even though some stakeholders and networks have a relatively constant presence in the Colombian Amazon, each ‘hype’ also tends to attract new actors. Notwithstanding good intentions, this too adds to the discontinuity of initiatives and possible perpetuation of similar, unsuccessful approaches of the past.

In this chapter I have attempted to connect the actors, networks and structures involved in the local articulation of climate change in Leticia. Networks provide spaces where actors from different levels meet and consequently pass on interpretations of climate change. Depending on the perceptions of different actors on the relevance and usefulness of climate change as a framework, tool or resource, they incorporate it into existing, locally important themes. As such, discrepancies between the local and global discourse appear.

In chapter seven, the conclusion, I will reflect on these insights in relation to relevant theories from the anthropology of climate change.

7 Conclusion

The relatively new subfield of anthropology of climate change is contributing in the global climate change debate and research regarding the human, social and cultural aspects of the climate change phenomenon. There is however a variety of contributions and directions possible in this subfield and different anthropologists have reflected on these and suggested possible approaches.

This research project has aimed to answer the question how anthropology can contribute in climate change research and debates. In the beginning of this thesis, I posed that I believe there are three main areas of involvement for anthropology. These include research into climate change impacts, the localisation of climate change and the process of research and debate itself. Additionally, the concepts of ‘critical collaboration’ and ‘multisited ethnography’ (Crate 2011) have proven to be essential in my anthropological research of global phenomena.

In this last chapter I will return to the theories of the anthropology of climate change and discuss how these relate to the information I have found during my fieldwork, as such assessing what the contributions of anthropology are in climate change research and debates. I will describe how my findings and the local articulations of climate change in Leticia support, illustrate or challenge these theories.

Anthropology of climate change

It is important to know what potential impacts of climate change may be in the Colombian Amazon. Extreme events in the last few years have shown that there could be serious effects and that these also demonstrate considerable local variability (assuming that these effects can be attributed to climate change). The fact that in the Colombian Amazon many people strongly depend on the environment for their livelihoods, makes this an urgent and essential issue.

The impacts of extreme climate events are not only the most visible manifestations of climate change on a local level and thus what is frequently discussed, it is also the area of the climate change debate that anthropology is primarily linked to. With time, anthropology has build up a wealth of knowledge and insights into the relationship between humans and their physical environments. This includes for instance cultural expressions of these relationships, perceptions of the environment, adaptations of populations to their surroundings and traditional indigenous knowledge (e.g. Croll and Parkin 1992; Echeverri 2009; Moran 2008; Ulloa Cubillos 2011).

Understanding the relation between human populations and their environment is crucial for processes of adaptation to climate change impacts. Such knowledge is important to inform initiatives and policymaking that consequently will address these issues in a specific locality. The importance of

locally informed policies and projects is very clear in the Colombian Amazon region where ongoing experiences with problems due to the 'culture of projects', has caused a distinct weariness regarding certain research programs, projects or actors entering the area. Anthropological research that focuses on the daily lived realities and local context of populations in the Colombian Amazon can greatly benefit more adequate research and projects.

Nevertheless, the relationship between populations and their environment, their forms of adaptation and living in their surrounding is influenced by many external factors as well. In chapter five, I described how existing pressures from urbanization and human made modifications to the environment, aggravate the impacts of extreme events. Local conditions provide the framework in which populations live their lives and relate to the environment. These conditions include political, economic and social structures that are present at a local level and which in turn are also structured by regional, national and global influences. Milton (2008) has proposed that anthropologists question everything; that they include the various structures that influence localities and exactly this is what is necessary to achieve understanding about the localisation of global discourses. For anthropological studies of the localisation of climate change, exploration of the local contexts is essential and this can be done through 'critical collaboration' and 'multisited ethnographic research' (Crate 2011).

Crate (2011) has posed 'critical collaboration' as a method that includes all the relevant, local stakeholders in a research, but it can also be interpreted as a critical examination of collaboration processes between those actors. The inclusion of local stakeholders is indispensable for anthropological research on the localisation of the global climate change discourse because global issues are always interpreted by people on a local level; they are internalised and incorporated into people's lives to bestow meaning. As a result, the climate change discourse becomes a topic that is entangled with locally relevant themes and cannot be studied as an isolated concept. The embedment of this discourse makes an exploration of the local context the logical starting point for anthropological research. And this in turn can only be effectively carried out through collaboration with local actors.

The embedment of the global climate change discourse also occurs through different political and economic structures as well as various different actors and their networks. According to Crate (2011), critical collaboration also examines networks of actors and power between the local and global level. My fieldwork has shown that in Leticia, this embedment takes place through policies and projects. Additionally, climate change is incorporated through the overlapping of scientific and governmental networks and the shifting of actors between network levels. Moreover, people copy or use certain discourses and networks they might not actively participate in, thus appropriating them into their own networks as is done by some indigenous communities.

Since power plays an important role in structures and networks, climate change can be seen as a new version of power networks, similarly to other global discourses before it. Therefore, in order to understand how climate change affects localities, the existing local structures of power and influence

need to be examined closely, especially since the climate change discourse reinforces these. This is illustrated by government legislation in the Colombian Amazon that controls the sovereignty and ownership of resources of indigenous communities. However, this can be contested by communities through the participation in environmental services projects which is also an aspect of the global climate change discourse.

The influence of global discourses depends on the determination of relevance; when climate change is considered important on a global level, then it is pushed upon local issues. This process is facilitated because in such cases, climate change has become a resource, be it politically, economically or socially. In the Colombian Amazon, the possibilities of funding for research and projects have a history of influence by global discourses. The ‘culture of projects’ that exists in the area perpetuates this dependence. The flows of discourses and funding are similar to those on a national and global level, with the ‘*regalias*’ as the most recent version of this process.

The climate change articulations in Leticia are illustrations of the interconnections between sites, levels and actors. In order to achieve understanding of the local embedment of climate change, these multisited connections need to be taken into account. Anthropological fieldwork into the localisation of climate change is already multisited due to the inclusion of the local and global which are sites in itself. As such, localisation is not synonymous to just one locality.

Most topics, climate change and other, in Leticia are closely linked to experiences in the Amazon department, Colombian Amazon region and even the greater Amazon basin. Even though particular local experiences throughout these regions may vary, they also undergo similar structuring influences. The Amazon department and Colombian Amazon region are governed by Bogotá and I have described how for instance the government determines the framework for negotiations between actors and institutions. The national level is therefore an important site to consider and include in anthropological multisited research. However, the government is not the only structuring actor; a variety of local, national and international NGOs and institutions work in the Colombian Amazon region and are equally influencing. Not only on the area itself, but on other actors as well. The multiplicity and variety of connections between actors and areas found in my research, are examples for the necessity of multisited climate ethnography (Crate 2011) and as such, not everything is localised.

Critical exploration

My research shows the discrepancy between global discourses and local experiences. The continuance is illusory; the same vocabulary is used, but the semantics are different. This is why top-down climate policies will and cannot work if there is no attention to local relevance. Top-down functionality is an illusion, which is not a political or moral statement, but a reality. Therefore, processes of localisation should be one of the important foci in the anthropology of climate change. By examining these processes, light is shed on who, how and why global discourses reach local levels.

My fieldwork has shown that, because people incorporate global issues in ways that have meaning in their own (local) lives, the embedment of climate change is found throughout relevant themes and never in isolation. Therefore, in the case of climate change (applied) research, I believe that anthropology can contribute through exploratory research of local contexts. By identifying locally relevant themes, climate change articulations can be understood from a local viewpoint. Exploratory ethnographic fieldwork should not just identify the local articulations and embedment of global discourses, but also the processes of how these articulations are formed. It should study political, economic and social structures, actor networks and the articulations themselves. As one of my interlocutors remarked: “climate change is like a geopolitics of knowledge and reveals much about society, less about climate” (personal communication with Dr. J.A. Echeverri¹⁹, February 22, 2013). In turn this may provide insight into how policies and projects should be adapted to fit specific contexts or reveal topics that need further research. Anthropological fieldwork that explores, with the use of critical collaboration and includes multisited data, brings a holistic perspective and thus a valuable contribution to climate change research and debates.

¹⁹ Dr. J.A. Echeverri is an anthropologist at the *sede Amazonia* of the *Universidad Nacional de Colombia*.

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Appendix I - Reflection

This reflection is an elaboration on this thesis as part of my participation in the honours program of my university. In the scope of my research I have only been able to modestly explore the themes that climate change is incorporated in and I have only collaborated with a few of the actors involved in Leticia. In this appendix, I will reflect theoretically on my experiences with this bachelor project and relate these to theoretical debates in anthropology.

Multisited: global and local

As I have described in this thesis, exploratory and multisited research would be a suitable way to conduct anthropological research into the localisation of climate change in Leticia and the Colombian Amazon. In this paragraph I will reflect on the sites 'local' and 'global'.

Anthropological fieldwork was established around a micro-perspective; it studies the specific contexts of a local situation. Nevertheless, the attention to the concept or processes of 'globalisation' in recent decades have also had effects on the perception of 'one-sited', local ethnographic research. Even though the concepts of local and global are nowadays widely spread and often used without much specific explanation, some anthropologists have posed critical questions regarding the use of these concepts (Moore 2006). In general, the 'global' can be seen as yet another site and although it has a plural connotation, it usually refers to one global 'imagined' place, site or community (Anderson 2006; Moore 2006). Similarly, the 'local' is frequently used as an umbrella term for different processes and contexts of one specific location, mostly the site of ethnographic research.

In my research I have found that the local and global, and levels in between, are intensely connected in ways that for instance one could wonder if the global is not present at the local level as well. Actually, my findings about the localisation of climate change on a local level, could indicate that in a way, it is. Yet, in different forms, embedded into local networks and themes. These intricate interrelationships between levels make research into the localisation of global discourses per definition multisited. Such topics are entangled with other themes and thus crosscut levels. Moore (2006) therefore attests simplified assumptions about the 'local' and 'global'. Moreover, anthropology is supposed to look beyond boundaries and not recreate bounded spaces and places by using limited distinctions of the local and global (Appadurai 2006; Moore 2006).

These are theoretical considerations that encourage to be critical about the way concepts are used. Anthropological theory has paid much attention to the way anthropologists describe and write about their research, debating issues such as interpretation, representation, meaning and subjectivity (Moore and Sanders 2006).

Researcher bias

Participant observation as a method or approach implies subjective data collection by the anthropologist as an instrument. Therefore, reflexivity on the role of the anthropologist is important in anthropological theory and analysis. A researcher is foremost a human being with personal and professional perspectives and it is important to acknowledge this and reflect on the influence on data and analysis. Furthermore, through participant observation, an anthropologist becomes involved in the research community which has its own variety of networks, structures and politics. In practice, it can be hard to find a balance between participating, observing and maintaining a certain distance necessary for an analytical perspective.

During the fieldwork period, an anthropologist can be confronted with various ethical issues regarding the interaction with interlocutors, the interpretation and analysis of data and subsequent reporting of those. Contact with the interlocutors can influence the process of data gathering, both in a positive as well as a negative way. Becoming part of local networks is usually the researcher's objective but this may also place restrictions regarding mobility or due to loyalty towards the actors involved.

At the start of my fieldwork in Leticia I set out to learn about the different stakeholders and networks related to climate change. Due to the fact that I had previous contacts at the *Universidad Nacional* and because I was able to work from the local *sede*, the university became my key contact and main starting point for information. This had an influence on the way my field work developed. In practice, my presence at the university, participation in one of the courses and contact with students and professors, was essential for the building of a network, to learn about the area and also to present myself and become known around town.

The use of participant observation in this way was very productive, but I think that there might also have been some disadvantages to it. Generally, networks function on a basis of inclusion and exclusion and association or participation with certain networks, might imply exclusion of others. This means that possibly due to my connection with the *Universidad Nacional*, access to other actors became more difficult. Such processes also depend on local and personal politics in networks. These observations are based on theorisation since I did not encounter problems of this kind during my fieldwork. However the topic of personal and situational conditions during fieldwork have been much discussed in anthropological theory (Shaery-Eisenlohr 2012; Sluka 2012). Contact with interlocutors is a relationship equally influenced by the researcher's personality as well as the perceptions and characteristics of interlocutors and this may limit or enable contact at a research site. Furthermore, specific situations or networks may appeal to positive or negative emotions by the researcher, thus influencing interpretations (Rabinow 2012; Sluka 2012).

Reciprocity

One of the main objectives of my research was to attempt to make it useful for my research area and population as well. I believe that scientific knowledge derives from society and that it should also be

applied back to it. The critical attitude of inhabitants of Leticia with regard to external actors and the 'culture of projects' that has played a role in the area for many years, underline this principle. Discussions in anthropology regarding applied use of the discipline vary between studies of for instance engaged anthropology and social or moral orders of society (D'Andrade 2006; Schepher-Hughes 2006). The limitations of my research regarding time have been an important influencing factor of the degree of exploration I was able to carry out. As a result, the applied use of my research will be limited as well. Nevertheless, an exploratory research is to provide an overview of a situation with the purpose of pointing out areas of interest for further investigation and I hope that my study does contribute in this way.

-Moore

From *Anthropological Theory* (4)1 (2003), pp. 72-88

-App

From *Public Culture* (12)1, pp. 1-19

- Roschanack Shaery-Eisenlohr, "Fixing and negotiating identities in the field: The case of Lebanese Shiites," pp. 31-46 from *Women Fielding Danger: Negotiating Ethnographic Identities in Field Research*, ed. Martha K. Huggins and Marie-Louise Glebbeek. Lanham: Rowman & Littlefield, 2009.

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- Hughes

From *Current Anthropology* (36)3 (1995), pp. 415-20, 438-40.

- dandrad

From *Current Anthropology* (36)3 (1995), pp. 399-406, 438-40.

Appendix II - Acknowledgements

The last three years of studying anthropology have been very interesting as well as challenging. Finding out about the possibilities of ecological and environmental anthropology convinced me I have started in the right direction and I am eager to continue. During these years I have made an effort to make the most of the opportunities I had at the university and tried to broaden my scope as much as possible. Moreover, I planned to incorporate my personal interests into my final research project and consider it as a first step into the world I hope to study and work in after graduation.

This thesis is the product of these objectives and I have done my best to represent and reflect respectfully on what I have seen and learned during my fieldwork in Colombia. Here I wish to thank some of the people who have supported me, helped me and encouraged me in this process.

First I would like to acknowledge the great assistance, inspirational conversations and insightful perspectives of my tutor at the Utrecht University, Dr. Fabiola Jara Gomez. In addition I would like to thank Donja Verlaan for her support and feedback.

My fieldwork in Colombia is the basis for this thesis. So many people in Leticia (and some in Bogotá) were incredibly friendly, helpful, supportive and welcoming to me. They made time to talk with me, shared their insights and I have learned so much from them and have felt privileged to be there. I cannot name everyone here, but I will mention a few. The *sede Amazonia* of the *Universidad Nacional* was essential for my research by letting me work from their facilities and joining in one of the courses. I would like to express specific appreciation to María Cristina Peñuela Mora, Eliana Jiménez and Germán Palacio. At the SINCHI institute, Luis Eduardo Acosta Muñoz was very welcoming and I greatly appreciated that he shared some of his extensive knowledge about the area with me. Additionally, I am grateful to Carlos Lozano from Corpoamazonia, for his time and willingness to teach me about the region and share his ideas. Furthermore, I appreciate the general assistance and cooperation from the government of the Amazon department, Corpoamazonia, the National Natural Parks System and Tropenbos Colombia.

Unfortunately I cannot include everyone by name, but I am sincerely grateful to all of those who have been there for me in their own way!

Appendix III - Summary in Spanish

Hacer frente a los impactos potenciales del cambio climático es especialmente importante en un país como Colombia, donde una gran parte de la población depende directamente del medio ambiente para su modo de vida y sustentación. El discurso global del cambio climático está hecho principalmente por las ciencias naturales. Sin embargo, la comprensión que el cambio climático no solo es un fenómeno que afecta el medio ambiente sino también tiene consecuencias sociales, ha fomentado la participación de las ciencias sociales, y la antropología en particular. La antropología del cambio climático es una especialización nueva dentro de la antropología y tiene una participación creciente que refleja los aportes importantes que la antropología puede y debería hacer al debate global sobre el cambio climático.

La pregunta central de esta tesis es cómo la antropología puede contribuir en la investigación y el debate sobre el cambio climático. En mi opinión, existen tres áreas donde la antropología puede participar. Primero puede contribuir en la investigación del impacto del cambio climático sobre las poblaciones humanas y el medio ambiente (e.g. la adaptación). Segundo, se necesita explorar el proceso de localización y las articulaciones locales del cambio climático. Finalmente la antropología debe estudiar los procesos de debate y de investigación mismos, para examinar críticamente las estructuras de poder e influencia que determinan contextos locales. Adicionalmente, los conceptos de ‘colaboración crítica’ y ‘etnografía de múltiples sitios’ (Crate 2011) han probado ser esenciales en mi investigación antropológica del fenómeno global del cambio climático.

Yo pasé diez semanas entre febrero y abril de 2013, haciendo trabajo de campo. En este tiempo, hice una investigación exploratoria sobre la localización del discurso del cambio climático y sus articulaciones locales en Leticia, Colombia.

Un tema global como el cambio climático no se puede investigar como tal a escala local; lo que constituye ese tema en un contexto local, no será claro hasta que esté integrado a ese nivel. Temas globales no necesariamente son de importancia a otros niveles, sin embargo se hacen pertinentes a través de la conexión con importantes asuntos locales. El trabajo de campo etnográfico y exploratorio no solo debería identificar las articulaciones locales y la incorporación de los discursos globales, sino también los procesos que los determinan. Además, la antropología debería investigar estructuras políticas, económicas y sociales tanto como redes de actores y las articulaciones de los mismos.

Las redes facilitan espacios donde actores de diferentes niveles pueden encontrarse y pasarse interpretaciones del cambio climático. Dependiendo de las percepciones de los distintos actores sobre la relevancia y la utilidad del cambio climático como marco, herramienta o recurso, ellos lo incorporan dentro de temas locales importantes. De tal manera se articularan los temas globales en términos de temas locales y aparecen las discrepancias entre el discurso global y local.

Combinaciones de tales redes y estructuras gubernamentales también determinan la disponibilidad del cambio climático como recurso para proyectos. El importante tema del cambio

climático global se transmite hasta niveles locales a través de la ‘cultura de proyectos’ que existe en la Amazonía colombiana. De esta forma, el cambio climático se hace un recurso por su disponibilidad a nivel global lo que en su vez determina que esté incorporado a nivel local. Este proceso cambia según la popularidad de temas globales, lo que se ha mostrado en la Amazonía colombiana con los discursos pasados como el desarrollo sostenible y actualmente las ‘regalías’.

Las articulaciones del cambio climático en Leticia muestran las interconexiones entre sitios, niveles y actores. Para lograr entender la incorporación del cambio climático, es necesario tener en cuenta esas conexiones entre múltiples sitios. Así, la localización del cambio climático no es sinónimo a solo una localidad.

Al concluir, mi investigación demuestra que hay una disyunción considerable entre el discurso del cambio climático global y las experiencias locales. Eso es de importancia porque la mayoría de las políticas y proyectos, que se supone se hacen cargo de los impactos del cambio climático, son implementadas como una estrategia planificada desde ‘arriba’. No obstante la relevancia de una investigación o un proyecto sobre efectos del cambio climático u objetivos de mejorar la calidad de vida y el medio ambiente, esos solo pueden funcionar cuando toman en cuenta los contextos locales. Esta es la razón por lo cual la antropología debería enfocarse, siempre considerando el contexto local, en la localización del cambio climático y las articulaciones. Este podría brindar conocimiento sobre la realidad de las vidas de la gente y contribuir para realizar investigaciones, proyectos y políticas locales.