# WWF: A Transversal Bridging Organization

Exploring the Role of WWF in the Urban Climate Governance Arena

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A 'behind the scenes' of this thesis, which was made possible thanks to:

*Figure 1: "Panda-Palace", the Swedish Office of WWF in February 2019*

# Abstract

In the last years, a lack of trust in multi-lateral agreements has been rising, in part because of the absence of a global legally binding environmental regime, since the end of the Kyoto Protocol. The urban climate governance arena has been emerging as a much more promising scenario for climate action. Municipalities have been setting an ambitious climate agenda, planning for climate mitigation and adaptation at the local level in order to build resilient communities. This has been possible also thanks to the collaboration of municipal bodies with new, emerging non-state actors, such as bridging organizations. The role of these stakeholders has still not been defined, mapped, or institutionalized. This thesis aims to examine the role Worldwide Fund for Nature (WWF) is playing in the urban climate governance arena, finally providing recommendations to three audiences: namely WWF, municipalities and researchers. After producing a comprehensive literature review matrix, twenty-four interviews were carried out with relevant stakeholders, guided by pre-selected key themes derived from the literature streams. The qualitative data obtained from these semi-structured interviews were synthesized through an integrated analytical framework, built on both stakeholder mapping and middle-out theory. The key findings of this thesis have led both to a practical and theoretical contribution, by identifying WWF as a bridging organization and by contributing to an in-depth analysis of this new emerging stakeholder role.

**Key words:** urban climate governance, bridging organizations, stakeholder mapping, WWF.

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# The inspiring city of Zenobia described by Italo Calvino

*"Now I shall tell of the city of Zenobia, which is wonderful in this fashion: though set on dry terrain it stands in high pilings, and the houses are of bamboo and zinc, with many platforms and balconies placed on stilts at various heights, crossing one another, linked by ladders and hanging sidewalks, surmounted by cone-roofed belvederes, barrels storing water, weather vanes, jutting pulleys, and fish poles, and cranes.*

*No one remembers what need or command or desire drove Zenobia's founders to give their city this form, and so there is no telling whether it was satisfied by the city as we see it today, which has perhaps grown through successive superimpositions from the first, now undecipherable plan. But what is certain is that if you ask an inhabitant of Zenobia to describe his vision of a happy life, it is always a city like Zenobia that he imagines, with its pilings and its suspended stairways, a Zenobia perhaps quite different, a-flutter with banners and ribbons, but always derived by combining elements of that first model.*



**This said, it is pointless trying to decide whether Zenobia is to be classified among happy cities or among the unhappy. It makes no sense to divide cities into these two species, but rather into another two: those that through the years and the changes continue to give their form to desires, and those in which desires either erase the city or are erased by it.***" (Calvino, 2009)*

*Figure 2: Zenobia Illustrated by the Author. Studio of AM Bisognin, April 2019.*

# Executive Summary

This thesis explores the **current role of Worldwide Fund for Nature (WWF) in the dynamic urban climate governance arena**. Although the field of environmental governance per se is broad and complex, this research aims to narrow its analysis, mainly focusing on the municipal level. Nonetheless, different scales of governance were also considered, because of the cross-sectoral nature of climate breakdown[1] as a glocal emergency. Cities were selected for the purpose of this study as they nowadays emerge as interesting, innovative hubs for sustainable development (Marvin, Bulkeley, Mai, McCormick, & Palgan, 2018). According to the United Nations, "in 2050, around 70 per cent of the world's population will live in urban areas. Cities are where economic, social, cultural and environmental aspects of human activity come together in a dynamic way" (United Nations, 2015).

The broader practical gap this thesis is trying to address is that since the end of the Kyoto Protocol, the field of environmental governance has been characterized by **political inertia.** No legally binding regime has been officially set up in order to effectively implement climate breakdown mitigation or adaptation strategies. This is also one of the reasons why **Climate Strikes** kicked off in 2018, led by the youth movement Fridays For Future (Gerretsen, Lazarus, Yoonjung, & CNN, 2019; Thunberg, Taylor, & al, 2019). These have risen in many cities around the world, asking politicians to take climate action at the local, national and international level. As a response to the above-mentioned political inertia, **new actors are emerging and new roles evolving** in the dynamic urban climate governance scenario. These non-traditional stakeholders have the **potential to lead to transversal climate action, by creating strong networks and new flows of information across different scales** (e.g. connecting expert and local knowledge). Nonetheless, their role is still largely undefined and unexplored by current literature, although it is often acknowledged that a stakeholder re-mapping is needed (Pattberg & Stripple, 2008). It seems evident that this research gap needs to be filled in as soon as possible, as these bridging organizations could potentially lead to positive results and ripple-out effects at different scales of governance, in terms of climate action. Among those positive impacts, bridging organizations could lead to increased cooperation and networking opportunities between various stakeholders, enabling easier access to cross-scale information (Boyd & Folke, 2012).

**WWF** was selected as the **unit of analysis** for this qualitative research. The main hypothesis of this thesis states that WWF (and similar such organizations) is emerging in the urban climate governance arena as a so-called **"bridging organization", "mediator" or "convener"** (Folke, Hahn, Olsson, & Norberg, 2005). This vague stakeholder category currently represents an important research gap in the field of environmental governance, as this role is constantly evolving and being re-defined in the literature. Nonetheless, it is already well recognized and acknowledged not only at the local level by municipalities, but also in the broad academic literature. Non-Governmental Organizations (NGOs) such as WWF are often described as "bridging-organizations", "conveners", "mediators" or even "middle-out actors". The value that they bring to the urban climate governance arena and to society as a whole goes well beyond the implementation of a municipal environmental agenda. By connecting local and expert information and by bridging different actors at different scales, WWF translates different multi-level visions into a coherent narrative, delivering tangible positive outcomes in terms of climate action. As George Monbiot argues, "we are creatures of narrative" (Monbiot, 2017); this explains why the vision shared by WWF has led to effective local community engagement. Local citizens successfully connected to the narrative proposed by WWF and actively contributed to

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[1] In this academic work, the author has decided to substitute the term **"climate change"** with the alternative proposed by George Monbiot: **"climate breakdown"**. This in order to encourage an alternative environmental narrative.

support it. WWF has been providing visibility as well as new networking platforms to different cities worldwide, through projects such as the One Planet City Challenge (WWF, 2019a), the We Love Cities Campaign (WWF, 2018b) and the City Solutions Project (WWF, 2019c). Nonetheless, it has to be noticed how WWF's concrete action and contributions in the urban climate governance arena have not been studied systematically by the academic community so far. This research aims to add a contribution towards that end.

This thesis aims to **examine the role WWF is playing in the urban climate governance arena** and to provide **recommendations to three main audiences: namely WWF, municipalities and researchers**.

In order to analyze the role of WWF more deeply, the broad aim above has been further broken down into sub-questions. These constitute the **three objectives** of this study:
***OBJ. 1: Where*** *is WWF positioned in the current urban climate governance arena in terms of the attributes of urgency, legitimacy, power?*
***OBJ. 2: What*** *does WWF provide to other stakeholders in the current urban climate governance arena in terms of services?*
***OBJ. 3: How*** *does WWF act? How does the flow of information and networking provided by WWF take place (bottom-up, top-down, or sideways engaging other transversal actors)?*

In order to **test the main hypothesis**, a total of **twenty-four semi-structured interviews** were held with different stakeholders. Among the selected interviewees there are WWF experts, representatives of Transnational Municipal Networks (TMNs), scientists and academics, municipal officials and a broad range of other actors. In order to answer the main research question and to address the three related objectives, an innovative analytical framework was created for the purpose of this study. It was built by integrating two existing frameworks related to stakeholder mapping (Mitchell, Agle, & Wood, 1997) and middle-out actors (Parag & Janda, 2014), to finally draw a representative map of the current role WWF plays in the urban climate governance arena. This study is also based on an accurate and **comprehensive literature review, synthesized into a literature review matrix**. The latter was organized by themes which were then translated into tags in order to conduct and guide the semi-structured interviews with relevant stakeholders. These tags revolve around macro-themes spacing from environmental governance, to climate governance, to adaptive governance, focusing on how some organizations are currently changing the language of environmental debates by effectively representing local community needs at international multilateral conferences.

**Key findings and implications**

***OBJ. 1: the three attributes of legitimacy, power and urgency***
The interviewees helped identifying WWF's role by referring to three attributes derived from Mitchell's analytical framework: power (or influence), legitimacy (or trustworthiness) and urgency of claims of a specific actor (Mitchell et al., 1997). The presence or absence of these three attributes leads to the identification of specific stakeholder categories, finally defining a stakeholder's position and role in a certain scenario (Mitchell et al., 1997). Based on this framework and the related stakeholder typologies suggested by Michell, **WWF emerges as a highly legitimate discretionary stakeholder in the urban climate governance arena.**

***OBJ. 2: The Spectrum of WWF***
"The Spectrum of WWF" visually represents what WWF provides in terms of services and contributions to the urban climate governance arena. The interviewees have emphasized how the most relevant sub-roles played by WWF in this arena are essentially three: **connecting**

**stakeholders, bridging information, and translating different narratives**. Therefore, these three are explored in depth in the Discussion (Chapter 5).

*Figure 3: The Spectrum of WWF*
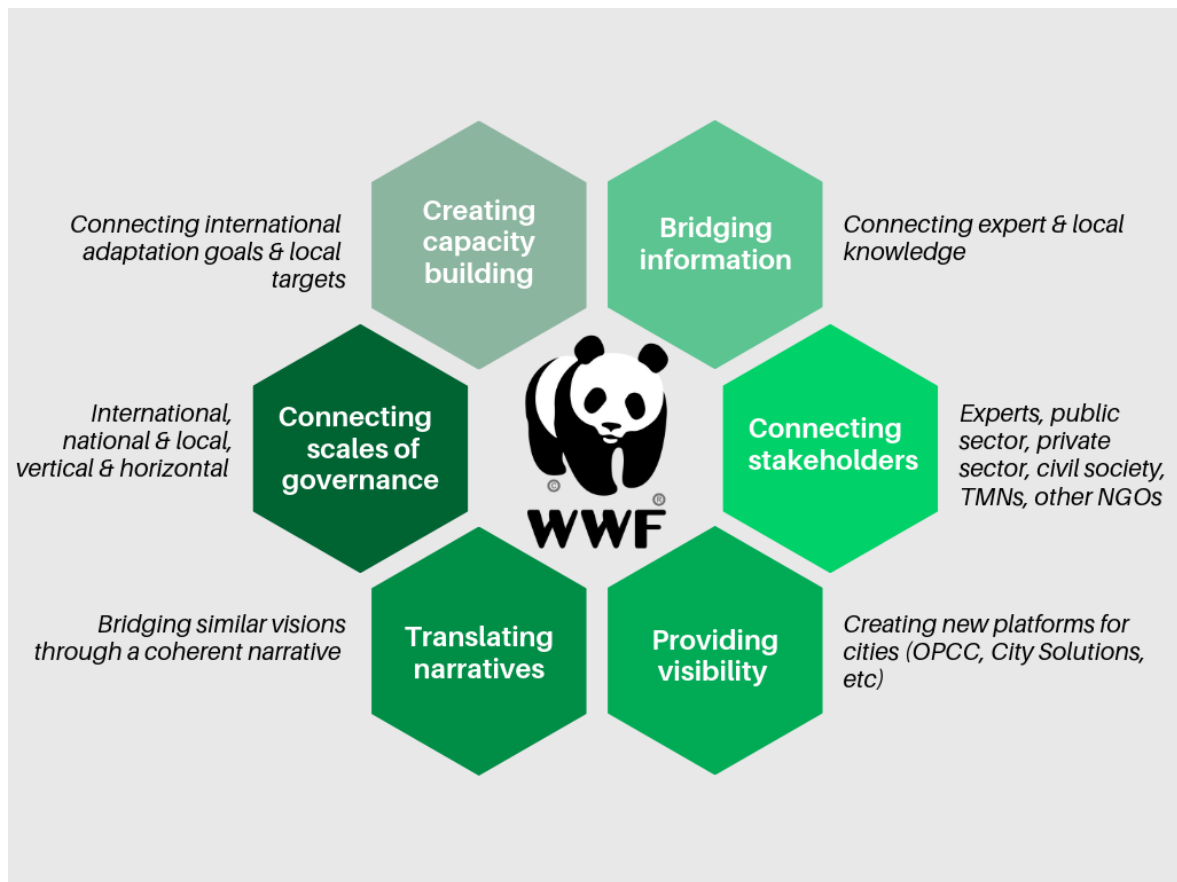


*Source: Own Elaboration.*

### OBJ. 3: The Compass of WWF

A second visual named "The Compass of WWF" was built based on the middle-out structure and analytical framework proposed by Parag and Janda (Parag & Janda, 2014). This visual represents how WWF provides its main services in the current urban climate governance arena and to which actors these services are offered. The overall aim is to present a new **innovative stakeholder map,** finally summarizing and structuring all the insights provided by the diverse array of stakeholders interviewed during the research process. Most importantly, this visual emerges as a first theoretical attempt to map the role of a bridging organization such as WWF. It visually represents the flow of information (moving upstream from civil society to the public sector and downstream in the opposite direction) as well as the networking potential of WWF (creating networks among different transversal actors, sideways).

*Figure 4: The Compass of WWF*
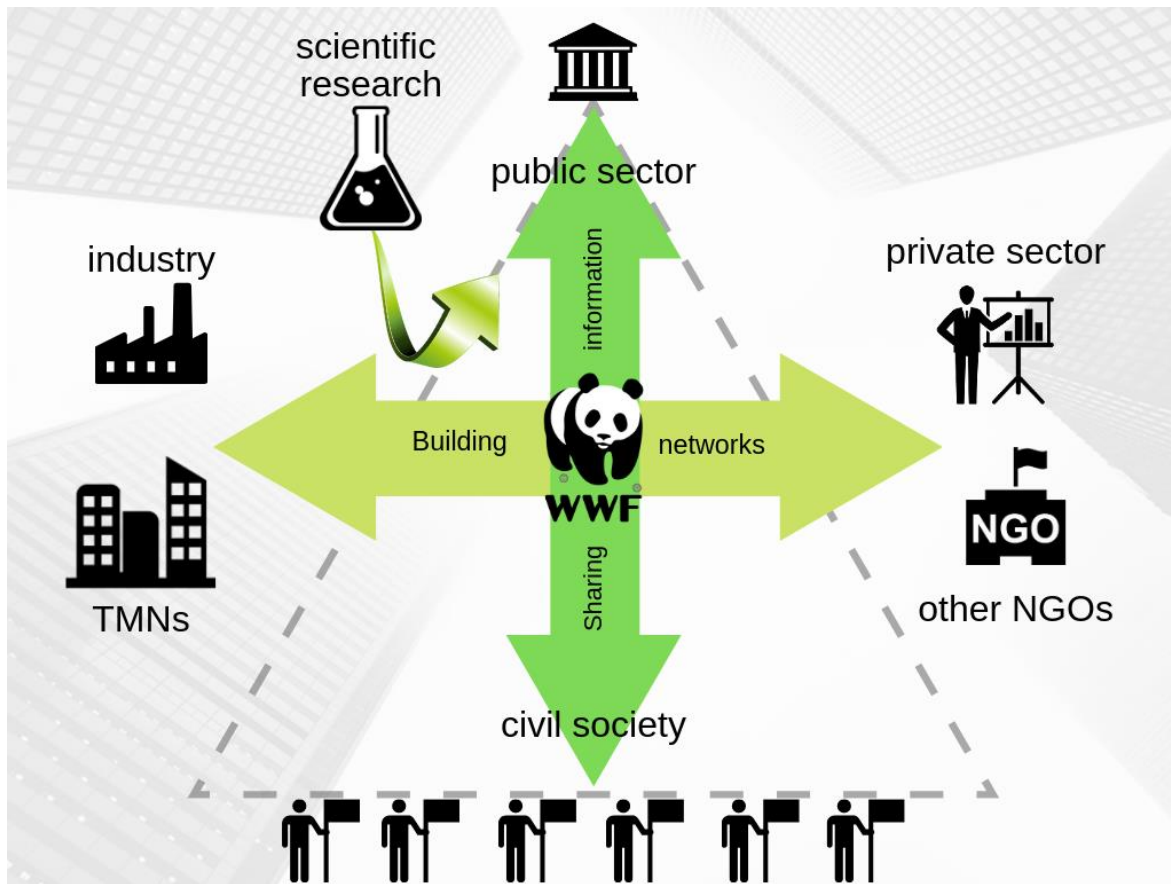


*Source: Own Elaboration.*

**Conclusion and recommendations**
**WWF emerged as a legitimate bridging organization in the field of urban climate governance**. Due to the crucial role that bridging organizations could potentially play to implement climate mitigation and adaptation strategies at the municipal level, this thesis suggests a list of recommendations to its main audiences, namely WWF and municipalities. These are further integrated in Chapter 6 (Conclusions), including suggestions for future research.

**WWF** should be clearly recognized as a bridging organization. In this role, it should:
-   Involve the scientific community in WWF projects;
-   Institutionalize its convening role, communicating it strategically to other stakeholders;
-   Build horizontal networks with other bridging organizations.

By investing in long-term relationships with bridging organizations, **municipalities** would:
-   Invest in long-term partnerships with a diverse array of stakeholders;
-   Provide trustworthy, third-party information to urban citizens;
-   Seek external validation and support for their own municipal policies.

# Table of Contents

## List of Figures

## List of Tables

## Abbreviations

EEA = European Environmental Agency
FCV = Fuel Cell Vehicle
IPCC = Intergovernmental Panel on Climate Change
KTH = Kungliga Tekniska Högskolan
NGO = Non-Governmental Organization
OPCC = One Planet City Challenge

OPC = One Planet Cities
TMN = Transnational Municipal Network
WWF = Worldwide Fund for Nature
ZEB = Zero Emissions Building
ZEV = Zero Emissions Vehicle
ZNB = Zero Net Building

# 1 Introduction

This work is placed in the broader academic context of environmental governance. It connects concepts derived from literature streams such as adaptive governance, climate governance and decentralized urban governance. The emergence of new critical stakeholders in these fields is calling for a deeper analysis of their current role, in order to understand how these actors can be actively involved in cross-scale processes of climate breakdown[2] adaptation and mitigation (Bulkeley, 2010; Hamdi, 2004; Koontz, Gupta, Mudliar, & Ranjan, 2015; Marvin et al., 2018; Monbiot, 2017; Pattberg & Stripple, 2008).

**This study aims to explore whether the role of Worldwide Wildlife Fund (WWF) is that of a so-called bridging organization[3] in the current urban climate governance arena.** In this context, WWF emerges as one of the most well-known international Non-Governmental Organizations (NGOs), with national offices in circa 100 countries (WWF, 2019b). WWF (the department of WWF Cities in particular) was chosen as the unit of analysis of this study, in order to map its role and relations with other stakeholders in the urban climate governance arena. WWF has been actively re-shaping the international dialogue as well as local agendas in terms of climate adaptation and mitigation strategies. By working on the ground with cities, this NGO actively created capacity building at the local level, helping municipalities to effectively implement their environmental agenda through different projects and campaigns. In particular, the 2019 City Solutions Project (Appendix C) was co-managed by the author of this thesis, as a WWF intern. The author interviewed different OPCC stakeholders for WWF, finally writing articles on panda.org and producing short movies, showcasing those sustainable solutions which municipalities developed with the external support of WWF Cities.

The urban dimension has been selected as the main arena for the purpose of this study because of the crucial role that cities are increasingly playing in relation to climate breakdown. Cities account for "just over half of global greenhouse gas emissions and 75 per cent of global energy consumption" (United Nations, 2015). As stated by the former United Nations Deputy Secretary General Jan Eliasson, **"cities are where the battle for sustainable development will be won – or lost if we fail" (United Nations, 2015)**. In the future, by 2050 "around 70 per cent of the world's population will live in urban areas" (United Nations, 2015). Therefore, cities emerge as the main centers "where economic, social, cultural and environmental aspects of human activity come together in a dynamic way" (United Nations, 2015).

The pivotal role of urban areas as hubs for sustainable development and for effectively implementing climate adaptation and mitigation strategies at the decentralized, local level has been highlighted also by an increasing number of researchers (lately by Marvin et al., 2018). Many researchers have been focusing on combined urban responses to mitigation and adaptation strategies as well as on the potential of "efficient urban carbon governance" in cities (Dhakal, 2010).

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[2] In this academic work, the author has decided to substitute the term **"climate change"** with the alternative proposed by George Monbiot: **"climate breakdown"**. This in order to encourage an alternative environmental narrative.

[3] According to Folke et al., an organization can be defined as **"bridging organization"** when it "encompasses the function of a boundary organization by communicating, translating, and mediating scientific knowledge to make it relevant to policy and action" (Folke, Hahn, Olsson, & Norberg, 2005).

*Table 1: Synthesis Table Presenting the Logical Structure of this Thesis*

| | |
|---|---|
| **Situation** | After the Kyoto Protocol, **environmental governance and climate governance do not rely on any legally binding regime at the national or international levels**. There is a need to find new effective strategies to govern climate breakdown, prioritizing adaptation and mitigation at multiple levels of governance. Due to the complexity of climate breakdown, an ideal form of governance would involve as many different actors as possible, finally pushing them to take climate action. |
| **Knowledge gap** | **Non-traditional actors are emerging in the urban climate governance arena**. Their role is still not well defined and has not been analyzed yet, although they could potentially contribute to achieve climate breakdown adaptation and mitigation targets. |
| **Analysis** | This knowledge gap requires a solution from a different field: a **stakeholder map** is necessary to visually represent the role of emerging actors in the urban climate governance arena. This thesis analyses the role of bridging organizations, with WWF being its main unit of analysis. An innovative stakeholder map is created by mapping WWF's role in relation to other actors such as municipalities, scientists, and Transnational Municipal Networks. |
| **Evaluation** | **WWF emerges as a legitimate, yet not institutionalized, bridging-organization** in the current urban climate governance arena. Its main sub-roles are sharing information and connecting stakeholders. |

*Source: Own Elaboration.*

## 1.1  Problem Definition & Knowledge Gap

This work highlights an important research gap in the literature review of environmental governance and particularly climate governance. **Through the years, many scholars have increasingly asked for a representative map of those non-conventional stakeholders which are playing an important role in the urban climate governance arena** (Aytur, Hecht, & Kirshen, 2015; Bulkeley, 2010; Hamdi, 2004; Marvin et al., 2018; Monbiot, 2017; Okereke, Bulkeley, & Schroeder, 2009; Pattberg & Stripple, 2008). It has to be noticed how Bulkeley highlighted that an increasing number of geographers, sociologists, anthropologists, economists, and business studies scholars are becoming more engaged in studying the role of emerging actors in the urban climate governance scenario (Bulkeley, 2010). This thesis aims to bring the environmental sciences perspective to that discussion.

## 1.2  Research Question & Objectives

This study aims to lead to theoretically and practically significant outcomes. From the theoretical perspective, it aims to advance academic research in environmental governance by providing an alternative interdisciplinary cross-cutting methodology to re-map stakeholders. From a practical perspective, it aims to provide recommendations to WWF, municipalities and researchers, which are the three main audiences this thesis is actively addressing.

The three sub-questions, or objectives, related to the main research question of this thesis are:
***OBJ. 1: Where*** *is WWF positioned in the current urban climate governance arena in terms of the attributes of urgency, legitimacy, power?*
***OBJ. 2: What*** *does WWF provide to other stakeholders in the current urban climate governance arena in terms of services?*
***OBJ. 3: How*** *does WWF act? How does the flow of information and networking provided by WWF take place (bottom-up, top-down, or sideways engaging other transversal actors)?*

## 1.3 Limitations and Scope

This study recognizes its limitations, defined by its scope. The restrictions which were set upon this thesis include the fact that cities were selected from previous participants to the WWF's One Planet City Challenge in 2018. This was crucial in order to be able to access information and to contact a relatively high number of interviewees. At the same time, this presents a limitation, as the array of cities among which the sample was chosen was relatively limited and already pre-screened.

Secondly, after an extensive, overarching literature review, the main scope of the study had to be increasingly narrowed down. This research aims to fill in an important gap by mapping the role of a bridging organization (WWF) in the field of environmental governance, considering a complex system which emerges as both multi-scalar and multi-actor. This thesis focuses mainly on one scale, the one related to urban climate governance, and on one type of emerging stakeholder, the so-called "bridging organization". Although the outcomes of this research are backed up by a relatively high number of representative interviews, some stakeholders could not be included in the interviewing process. For instance, civil society, the private sector and financial institutions were not selected among the interviewees, because of the intrinsic time limitations characterizing this study.

This thesis aims to stand out as a preliminary attempt to fill in an important research gap. The limitations listed above offer opportunities for future academic research.

## 1.4 Ethical Considerations

This study does not deal with any type of personal or sensitive information. The majority of the information and data used are publicly available, in the form of articles and videos on WWF's City Solutions (WWF, 2019c) webpage

http://wwf.panda.org/our_work/projects/one_planet_cities/city_solutions/

as well as on the official WWF YouTube channel

https://www.youtube.com/channel/UC5MDIy3yhWDrx0MyDo4QmYg.

The stakeholders interviewed by the author during her internship at WWF were all informed that their interview would have been used also for this academic purpose. They were all willing to be listed among the official interviewees.

This work relies on both transparency and academic integrity.

## 1.5 Audience

Since this study focuses on stakeholder mapping, its findings can be useful for an array of different stakeholders, institutions or organizations. Therefore, the three main audiences this thesis aims to directly address are:

1. **WWF**;
2. **Policy makers**, especially those working **at the municipal level**;
3. **Researchers** interested in deepening and following up on this study with future research.

Specific recommendations are provided to each audience in the Conclusions (Chapter 6). Because of the background and nature of the first two audiences, an infographic has been selected as the main tool to effectively support this research, by synthesizing and conveying the main research findings through a visual medium of communication.

## 1.6  Disposition

In order to provide a brief overview of this academic work:

**Chapter 1** provides an executive overview of the current multi-scale, multi-actor urban climate governance arena, introducing how new roles and stakeholders are emerging in it. The main research gap in knowledge is outlined; a much more accurate and updated re-mapping of actors is needed in the current urban climate governance arena. A specific research question is formulated and then broken down into three related objectives. Finally, the Chapter identifies both research limitations and scope of the study, highlighting the intended audiences for whom it is written as well as the specific ethical considerations on which it is built on.

In **Chapter 2**, the main hypothesis as well as the methodology of this study are both presented. This Chapter focuses on the specific research design, methods for data creation and collection and methods for data analysis. The overarching triangulation approach of this thesis is presented. Most importantly, the main analytical frameworks are explained in this Chapter. They have been retrieved from the literature review, in a second time merged and used as a tool to analyze and synthesize the qualitative data gathered for this study through the twenty-four interviews with relevant stakeholders.

**Chapter 3** aims to provide a comprehensive synthesis of the literature review matrix created as the foundations of this study. The Chapter provides an overview of environmental governance, highlighting one of the main research gaps which currently characterizes this field. Different scales of environmental governance are considered, focusing on decentralized urban climate governance and on the concept of adaptive governance. In conclusion, the theory of ecogovernmentality is examined in relation to the attributes of power and legitimacy. The analytical frameworks are also re-examined in relation to the main literature streams.

The analysis presented in **Chapter 4** aims to answer the main research question as well as the first sub-question related to the attributes of urgency, legitimacy and power. The integrated analytical framework is hereby applied as a tool in order to analyze the qualitative data gathered through the interviewing process. Two municipal case-studies are explored at the end of the Chapter: Los Mochis (Mexico) and Verona (Italy).

**Chapter 5** follows with the Discussion. In this section, the second and third objectives are deeply examined. The "The Compass of WWF" and "The Spectrum of WWF" are hereby presented: these two pivotal visuals aim to summarize the findings of this study by visually mapping the role of WWF. They are further analyzed in relations to the twenty-four semi-structured interviews, following sub-themes derived by the literature review matrix and streams. Additionally, the national case-study of WWF India is presented. The relationship between bridging organizations and the scientific community is further discussed in detail.

In **Chapter 6,** the main conclusions emerge based on the previous Analysis and Discussion. The practical and theoretical implications of the findings are hereby presented. Most importantly, Chapter 6 aims to provide tailored recommendations to the three main audiences of this thesis: namely WWF, municipalities, and academia. By doing so, this Chapter also outlines the areas for future research.

# 2 Research Methodology

This academic work aims to explore what role WWF plays in the urban climate governance arena. The main hypothesis of this research is derived from its extensive literature review. It states that **WWF, as a large, international environmental NGO, is emerging as a "bridging-organization"** (Folke et al., 2005).

To **test this hypothesis, twenty-four interviews** were held with different stakeholders. The interviewees were pre-selected for the final qualitative data to be trustworthy, representative and less biased. Therefore, the interviewees were working for different organizations currently playing an active role in the urban climate governance scenario. The interviews were held with municipality officials (mainly working for a local municipality or in close collaboration with it, leading municipal projects), WWF experts, researchers and scientists, and finally representatives of Transnational Municipal Networks or TMNs (namely ICLEI and C40).

Because of the geographical representativeness of this study, the vast **majority of interviews had to be held via Zoom, Skype, or phone call**. Only a few of them were held via email and then eventually integrated with a follow-up via phone call. Finally, four interviews were held in person. For the complete list of interviewees, refer to Appendix A.

## 2.1 Research Design and Main Hypothesis

The overall research design of this study is **qualitative** in its nature and **interdisciplinary** in the way it integrates theoretical approaches from different academic fields to finally create an innovative transdisciplinary analytical framework. This thesis has gathered mainly **qualitative primary data through twenty-four semi-structured interviews as well as qualitative secondary data through an extensive literature review**.

The overall methodology was selected to effectively answer the main research question as well as the three objectives of this thesis, based on the methodological inputs derived from Six and Bellamy (6 & Bellamy, 2012). Since these driving questions are all qualitative in their nature and focus on WWF as their main unit of analysis, the methods were further adapted to the final aims of this study. This has led to an attempt to re-map the field of urban climate governance by analyzing the role that WWF actively plays in it. WWF's urban action was studied through a snapshot of ten cities which have been collaborating with WWF and which are considered in this thesis as the case-studies related to the main unit of analysis. An array of WWF projects has been examined in order to gather a much broader understanding of the role played by this NGO in the urban climate governance arena (for instance in relation to the One Planet City Challenge, the City Solutions Project and the We Love Cities Campaign). An alternative case-study, the City of Verona, was also selected as an external example of a municipality which is currently not collaborating with any so-called "bridging-organization".

In a first time, a **comprehensive literature** was consulted, analyzed and summarized into a literature review matrix. After finalizing the literature review matrix:
- The main **research gaps** were clearly identified.
- **Sub-themes, tags and connections between fields** emerged (Table 2).
- The **main hypothesis** of this study emerged directly from the literature review matrix. After consulting different sources, the unit of analysis of WWF was identified as a "bridging organization".
- It was possible to build the main **analytical framework** of this thesis. The framework related to stakeholder mapping (Mitchell et al., 1997) emerged as the most relevant from the literature review. In a second time, an additional analytical framework related to middle-out actors (Parag & Janda, 2014) was integrated to the first one, as suggested by

Andrew Karvonen, Associate Professor of Sustainable Urban Development at Kungliga Tekniska högskolan (KTH) in Stockholm. This produced an **innovative cross-disciplinary integrated analytical framework,** used to test the hypothesis and explore the role of WWF in the urban climate governance arena.

## 2.2  Methods for Data Creation and Collection

### 2.2.1  Secondary Data Collection

Before conducting the interviews, not only **grey literature, but also WWF documents and relevant municipal documents** (provided by the interviewees) were reviewed and analyzed (Bojórquez, 2018; City of Cape Town, n.d.; CIty of Santa Monica, 2019; City of Vancouver, 2017; Climate System Analysis Group, n.d.; Ford, 2018; Green, 2018; Institute for Transportation & Development Policy, 2019; Japan For Sustainability, 2010; Lund Municipality, n.d.; *MANUAL DE BARRANQUEROS. Plan de habilitación participativa de barrancos*, 2018; *Zero Emissions Building Plan*, 2016; Pune Municipal Corporation, 2017; Tokyo Metropolitan Government, n.d.; Uppsala klimatprotokoll, n.d.; Welch, 2018). Thanks to an overarching triangulation approach (explained in depth in paragraph 2.4), this thesis selected various sources in order to build a holistic literature review based on WWF documents, municipal documents, grey and academic literature. The comprehensive literature was gathered by searching for keywords related to Environmental Governance, Climate Governance, Adaptive Governance and Stakeholder Management and Mapping on search engines such as Google Scholar. The relevant literature sources were synthesized and organized into a literature review matrix. The literature streams which emerged from the matrix were further organized into themes and tags (listed below in Table 2) and became the foundations supporting and guiding the research and interview process of this thesis.

In a second time, **semi-structured interviews** were held with twenty-four stakeholders, to gather a much more holistic picture of the current urban climate governance arena and of how different actors perceive the role WWF plays in it. The specific **method of semi-structured interviews** was selected for its open nature, allowing new themes to be discussed and explored as they were spontaneously brought up by the interviewees (Appendix B). Nonetheless, the interviews were guided through **pre-set sub-themes retrieved from the literature review and organized into tags**. The answers of the interviewees have then been collected and organized into a matrix, structured by four main macro-themes (in orange in Table 2, below) and nine related sub-themes (in green below). Through these themes and sub-themes, the narrative of this thesis was later identified, leading to a much more coherent and solid analysis and discussion. Finally, these themes have been explored and deepened by the different interviewees, providing interesting insights and inputs which actively contribute to enrich the main outcomes of this thesis and which will be hence presented in much more detail in Chapter 5 (Discussion).

*Table 2: Themes & Related Tags Used for Data Collection & Organization*

| Themes | Stakeholder Mapping | | | Role of WWF (Main RQ) | | | Levels of Governance | | | Speaking Truth to Power |
|---|---|---|---|---|---|---|---|---|---|---|
| **Tags** | Power | Legitimacy | Urgency | Convening Stakeholders | Sharing Information | Conveying a Narrative | Multi-scalar | Adaptive Governance | De-centralized (Urban) | Bridge the Science/Politics Gap |

*Source: Own Elaboration.*

The themes and tags reported above are deeply connected to the main research question (RQ) of this study, as well as to its three objectives.

This thesis aims to **examine which role WWF is playing in the urban climate governance arena**. The three objectives which are guiding the narrative of this thesis are hereby re-stated:

*OBJ. 1: Where is WWF positioned in the current urban climate governance arena in terms of the attributes of urgency, legitimacy, power?*

*OBJ. 2: What does WWF provide to other stakeholders in the current urban climate governance arena in terms of services?*

*OBJ. 3: How does WWF act? How does the flow of information and networking provided by WWF take place (bottom-up, top-down, or sideways engaging other transversal actors)?*

## 2.2.2 Primary Data Collection

**WWF experts**

To present the crucial perspective of the people working at WWF, six experts were interviewed. These were selected among the WWF Cities Core Team, as well as among WWF national offices such as the one in South Africa and the one in India. These were chosen as interesting national case studies, as both countries have been facing serious climate crisis situations. On the one hand, the biggest Indian cities emerge at the top of international rankings for the worst urban air pollution (Schultz, Gettleman, Kumar, & Venkataraman, 2018). On the other hand, South Africa has just faced the risk of a climate crisis situation, with Cape Town and the surrounding region being very close to a water crisis (the so-called 'Day Zero') in 2018 (Welch, 2018). Moreover, WWF Cities emerges as the most relevant WWF department to be analyzed for this study, as it is actively involved in the urban climate governance arena in many ways. WWF Cities has been running transnational urban projects and campaigns such as the One Planet City Challenge (OPCC)[4], the We Love Cities Campaign[5] and the City Solutions Project[6].

**Transnational Municipal Networks (TMNs)**

Some stakeholders argue that WWF's convening role gets confused with the role of Transnational Municipal Networks, although the aim of TMNs is just to represent cities. Therefore, representatives of two TMNs (C40 and ICLEI) were interviewed to clarify the relationship between WWF and TMNs and how these two actors play a different role in the urban climate governance arena.

**Scientific and academic community**

To include the perspective of the scientific community, Karvonen (KTH) and Luis Mundaca, Professor of Low-Carbon and Resource Efficient Economics and Policy and Lead Author for the Intergovernmental Panel on Climate Change (IPCC) Special Report on Global Warming of 1.5°C, were both interviewed. These stakeholders have contributed to the understanding of how WWF is managing the flow of information produced by researchers and how this is translated to different target groups. Mundaca (Lund University) argues that it is still hard for the scientific community to access the political arena, and NGOs such as WWF could help

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[4] The One Planet City Challenge or OPCC is an international contest organized by WWF, involving different cities worldwide. An external panel reviews the climate breakdown mitigation strategies adopted by different municipalities and finally honors the "winning city", which is selected based on a set of pre-determined criteria.

[5] The We Love Cities Campaign "is WWF's social media campaign designed to encourage people around the globe to express their love and support for the actions cities are taking to tackle climate change, and to ensure a climate-safe future for us all" (WWF, 2018b). Through this campaign, WWF aims to raise awareness and engagement among citizens, by encouraging them to vote online for their favorite sustainable city.

[6] The City Solutions Project aims to showcase positive, inspiring examples of cities which have been collaborating with WWF through the OPCC and the We Love Cities Campaign. The aim is to inspire new cities to collaborate with WWF.

bridge the science/politics gap. The topic of "speaking truth to power" is explored in paragraph 5.2.1.

**OPCC 2018 finalists: a selection of ten municipalities collaborating with WWF**

*Table 3: Selected OPCC Finalists & Strategies for Climate Breakdown Mitigation*

| OPCC Finalist | Climate Breakdown Mitigation Strategy Adopted |
|---|---|
| Santa Monica, USA | Zero Net Buildings (ZNB), focusing on solar panels |
| Vancouver, Canada | Zero Emissions Buildings (ZEB) & related ZEB Plan |
| Lund, Sweden | Sustainable mobility |
| Pune, India | Sustainable mobility |
| Cape Town, South Africa | Water scarcity & avoiding "Day Zero" |
| Guatemala City, Guatemala | Urban Jungle & Urban Greenery |
| Uppsala, Sweden | Uppsala Climate Protocol |
| Tokyo, Japan | Bullet trains, Zero Emissions Vehicles (ZEVs), Fuel Cell Vehicles (FCVs) |
| Yokohama, Japan | Smart City Plan |
| Los Mochis, Mexico | Community Engagement & Environmental Awareness |

*Source: Own Elaboration.*

This thesis presents a snapshot of ten municipalities which have collaborated with. Cities have been accurately selected to be as geographically representative as possible. These include Santa Monica, Vancouver, Lund, Uppsala, Pune, Cape Town, Guatemala City, Tokyo, Yokohama and Los Mochis. The ten cases were selected among the finalists of the last One Planet City Challenge, which took place in 2018. This scope was motivated by the need to collect the most recent data on cities which have been and still are collaborating closely with WWF Cities; this to ensure the representativeness, relevance and trustworthiness of the data. At least one relevant local stakeholder was interviewed for each of the ten selected cities, explaining in detail the main climate adaptation and mitigation strategies that their city is currently investing in. The specific strategies adopted by the selected ten OPCC finalists are listed in Table 3. Many of these cities are simultaneously investing in various plans and policies; nonetheless, those presented in the Table are the ones WWF is showcasing through its City Solutions Project (WWF, 2019c).

Among the interviewees there were several Sustainability Officers and Analysts, an Environmental Strategist, an Urban Architect, an Environmental Engineer focusing on green buildings and other experts which were either working directly with the municipality or in close collaboration with a municipal body. The diversity in the professional background of the above-mentioned interviewees ensures more representative and less politically biased data.

**The municipal case-study of Verona**

Verona represents an additional, alternative example, as its urban climate governance arena is characterized by the absence of any so-called bridging organization. Adding Verona to the list of municipalities selected for this study provides the opportunity to both compare it to the OPCC cases as well as to provide recommendations to those municipalities which are not currently investing in a long-term partnership with a bridging organization. To get a broader perspective of this specific urban governance scenario, the former Mayor of Verona Federico Sboarina was interviewed, as well as Elisa La Paglia (Councilwoman from the opposition, selected to avoid any risk of political bias). The Mayor's perspective emerges as particularly

relevant, since he had previously been assessor of the City of Verona with responsibility for Ecology and Environment, and Sports and Leisure for a period of at least 10 years.

**Limitations in terms of scope of the interviewees**
As the dynamic urban climate governance arena emerges as a multi-scale, multi-actor context, it was not possible to provide a completely representative and holistic stakeholder map related to the role of WWF in it. This was not possible also because some stakeholders' perceptions were not included because of the intrinsic time and scope limitations of this thesis.

## 2.3  Methods for Data Organization and Analytical Framework

After collecting qualitative data through twenty-four semi-structured interviews, these were broken down and organized by tags, related to the macro themes identified through the literature review. In order to directly answer the research question of this study and to effectively address its three objectives, two summarizing visuals were created as the final outcome of this research: **"The Spectrum of WWF" (Figure 3) and "The Compass of WWF" (Figure 4)**. Moreover, an **infographic (Figure 13) has been developed to effectively communicate the findings of this research to the its audiences** (mainly WWF and municipalities, but also researchers). Having worked both at WWF as an intern focusing on communications as well as in close collaboration with municipal officials, I have personally experienced how these target-groups are more sensitive to visual messages. Summarizing figures and infographics have the potential to effectively synthesize complex messages and to convey a concept in a much more direct and time-efficient way, if compared to a written thesis. Nonetheless, these visual outcomes emerge as the final product of a complex academic research aiming to fill in an important research gap in the academic literature. Therefore, the visuals need to be supported by a strong literature review, methodological background, analysis and discussion. This is what this written work aims to provide.

As already mentioned, the innovative integrated analytical framework of this thesis is based on two pre-selected frameworks; the first one is related to stakeholder mapping (Mitchell et al., 1997) and the second one to middle-out actors (Parag & Janda, 2014). These will be both presented in detail in the following paragraphs. It has to be noticed how applying two different analytical frameworks to this specific study has led to innovative and theoretically-relevant processes and outcomes. Although on the one hand this methodological choice implies some intrinsic limitations in relation to the findings, on the other hand, it also presents many opportunities, opening the ground to similar future cross-cutting research in the field of stakeholder mapping.

### 2.3.1  First Framework: Stakeholder Mapping

The first framework selected from the literature review matrix, is related to stakeholder mapping and was developed by Mitchell in the late nineties (Mitchell et al., 1997). This framework is borrowed from a different field (business management), which is not often connected to environmental and climate governance. Nonetheless, its relevance for the purpose of this study has been highlighted by many different stakeholders during the interviewing process, in this way validating and supporting its representativeness. The main objective of the framework developed by Mitchell, is "showing how power and legitimacy interact and, when combined with urgency, create different types of stakeholders with different expected behavioral patterns" (Mitchell et al., 1997). Identifying how a stakeholder is perceived by other actors operating in the same arena, provides a much more accurate picture of their specific role in that social, economic and political context.

**Key constructs of Mitchell's theory of stakeholder identification and salience** were explained and defined prior to each interview, to provide all interviewees with common tools to assess the role of WWF. The three main attributes through which WWF was defined are power, legitimacy and urgency. In order to be more specific:

- **Power** is viewed by Mitchell as "a relationship among social actors in which one social actor, A, can get another social actor, B, to do something that B would not have otherwise done" (Mitchell et al., 1997). It could also be defined as the influence an actor has on the arena and on the stakeholders operating in it.
- **Legitimacy** is defined as "a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, beliefs, definitions" (Mitchell et al., 1997). The concept of legitimacy was usually perceived as clear and intuitive by all stakeholders. It was even spontaneously linked to WWF by the interviewees themselves, before them being asked about this attribute.
- **Urgency** emerges as the "degree to which stakeholder claims call for immediate attention" (Mitchell et al., 1997). This attribute is heavily influenced by external factors such as other stakeholders' more urgent claims, political or economic agendas and so on.

Mitchell points out that there are different typologies of stakeholders (represented in Figure 6). Among those, "definitive stakeholders" emerge as "those possessing all three attributes" (Mitchell et al., 1997). In order to compensate the biased perception of WWF's experts, which would have described WWF as a definitive stakeholder, other actors from different backgrounds have been interviewed. Their perceptions in relation to the attributes WWF possesses have been synthesized and analyzed in Chapter 4 (Analysis).

Mitchell stresses on the point that he is offering "this preliminary theory as a way of understanding which stakeholders do really count" in a specific arena (Mitchell et al., 1997). Therefore, this generic and adaptable theory represents the main foundations on which the innovative analytical framework of this study has been developed and built on.

*Figure 5: Framework 1 - Mitchell's Stakeholder Typology Classification*
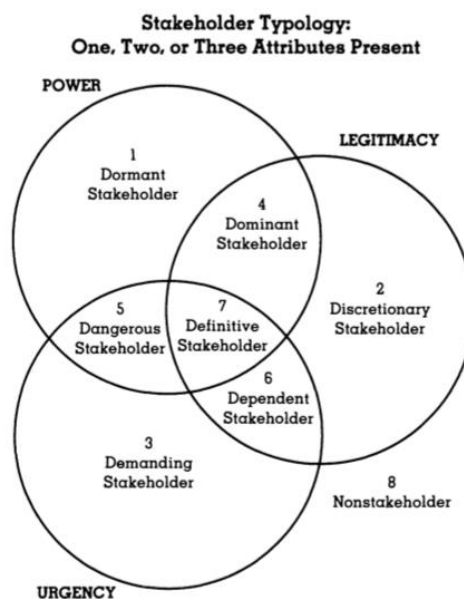


*Source: Mitchell et al., 1997.*

## 2.3.2 Second Framework: Middle-Out Actors and Sideways Action

The middle-out framework emerges "as a complement to 'top-down' and 'bottom-up' strategies" (Parag & Janda, 2014) and was proposed by Parag and Janda in their recent academic work. Middle-out actors influence top actors upstream and bottom actors downstream as well as other different stakeholders sideways. Therefore, their main role is similar to the so-called bridging organizations, in the way that **middle-out actors are responsible for "mediating, enabling and aggregating both themselves and others"** (Parag & Janda, 2014). This theory emerges as a "new socio-technical analytical framework for the examination of actors' action, behavior and behavioral change" (Parag & Janda, 2014) and in this way it is relevant to the research question and objectives of this thesis. The main unit of analysis selected by Parag and Janda is the "actor"; which, they argue, could be an individual, but also a group, an institution or an organization (Parag & Janda, 2014). This is why WWF was selected as the main unit of analysis of this thesis, as it emerges as an actor in the urban climate governance arena. The importance of the sideways action of WWF has been highlighted by different interviewees and will be presented and discussed in the next Chapters.

The integration of the middle-out theory with the stakeholder mapping developed by Mitchell has led to the creation of a new innovative framework. The latter has been used in this thesis in order to assess how the main unit of analysis, namely WWF, is perceived by other actors in the urban climate governance arena. This framework has also helped to assess whether and how WWF emerges as a bridging organization in the same arena. Through this integrated framework, it has been possible to show how both the flow of information as well as the convening process take place through the mediation of a middle-out actor: WWF. Chapter 4 (Analysis) and Chapter 5 (Discussion) will examine both the role of WWF in the urban climate governance arena as well as how this NGO acts as a mediator in it. In particular, the main visual analyzed in paragraph 5.2, representing "The Compass of WWF", has been built on the structure of Parag and Janda's framework (Figure 7). This thesis will explore how the visual of "The Compass of WWF" emerges as a preliminary stakeholder map representing the role of this bridging organization in the current urban climate governance arena.

*Figure 6: Framework 2 - Middle-Out Actors*
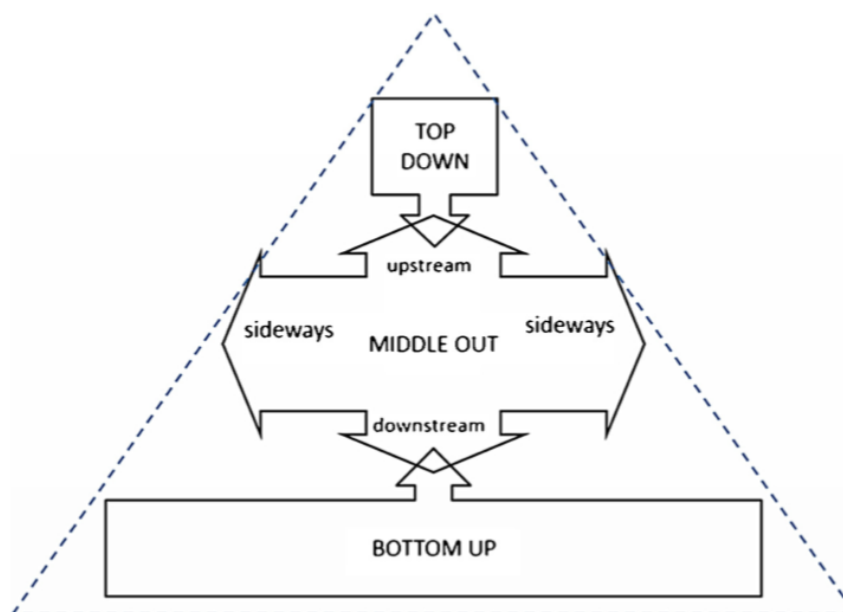


*Source: Parag & Janda, 2014.*

## 2.4 Data Validity and Reliability

**Triangulation** has been selected as the main, overarching approach to guide the research design process. **Triangulation of both theories and methods was employed in order to finally achieve an overall consistency of results.** As argued by Altrichter, **triangulation "gives a more detailed and balanced picture of the situation"** (Altrichter, 2008). Therefore, in a first time, the relevant literature review was examined and organized into different sub-themes. In a second time, semi-structured interviews were held with relevant stakeholders; municipal representatives, WWF experts, representatives of both Transnational Municipal Networks as well as of the scientific and academic community. In a third time, an innovative stakeholder map was produced as the main output of this study. In the visual below, it is possible to notice how the main research question of this study, concerning the role of WWF, is at the center of the triangulation approach. The three external triangles represent three selected methods for data collection and analysis which were all influenced by the overarching triangulation approach. Each of these three interlinked methods has led to concrete outputs in the research process. The literature review matrix led to the main hypothesis and to secondary data. The twenty-four semi-structured interviews produced raw qualitative data (primary data). Finally, an innovative stakeholder map emerged as the outcome after the analysis of primary and secondary data.

*Figure 7: Overarching Triangulation Approach Selected for This Study*
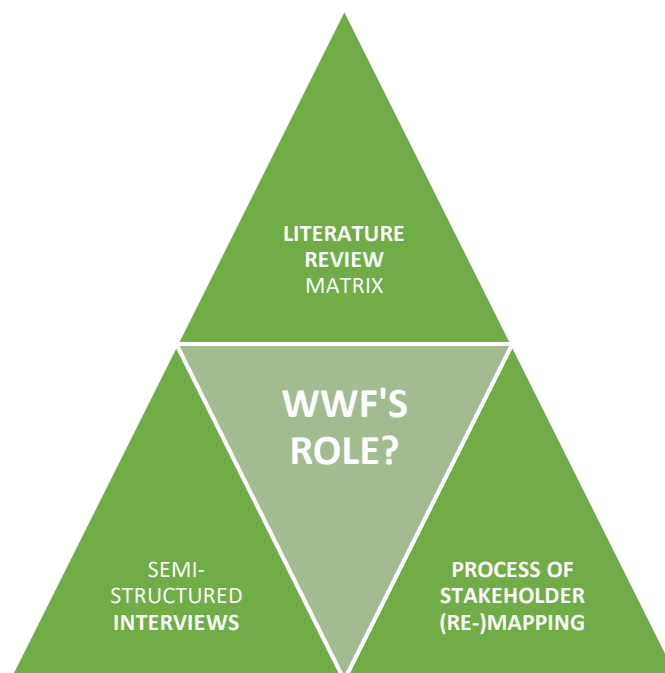


*Source: Own Elaboration.*

# 3 Literature Review

## 3.1 Environmental Governance: an Overview

Environmental governance emerges as a broad overarching field. It is usually discussed in relation to other interconnected concepts such as climate governance, environmental globalization, ecological modernization, political ecology, environmental politics and policy and many others. In order for this literature review to be as comprehensive and exhaustive as possible, I am going to heavily draw on the chapter **"Environmental Governance"**, written by Lemos and Agrawal (Lemos & Agrawal, 2006) and, in a second time, I will be specifically focusing on adaptive Climate Governance. In their work, Lemos and Agrawal managed to provide a representative picture of the broad field of Environmental Governance. They have structured it into four domains of scholarships: globalization, decentralization, market and cross-scale governance. Because of the specific research question of my study, I hereby focus on two of these sub-topics: namely decentralization and cross-scale governance. This scope is motivated by the need to capture those theoretical contributions related to decentralized urban governance and Transnational Municipal Networks, which I will be examining in a second time.

First of all, in order to provide a definition, Lemos and Agrawal describe environmental governance as "the set of regulatory processes, mechanisms and organizations through which political actors influence environmental actions and outcomes" (Lemos & Agrawal, 2006). They stress on the point that governance does not refer only to government as it encompasses the state, including also communities, businesses and NGOs, such as WWF in the case of this thesis. Therefore, Lemos and Agrawal highlight the multi-scale and multi-actor nature of environmental governance. In the latest years, an increasing number of scholars focused their research on the emergence of so-called "**hybrid modes of governance** across the state-market-community divisions" (Lemos & Agrawal, 2006). These studies investigate the alternative, transversal, cross-scale modes of governance that have been emerging in the last years; this academic work aims to contribute to the discussion. Through their research, Lemos and Agrawal focus in particular on comanagement, public-private partnerships and social-private partnerships as emerging hybrid modes of governance. Comanagement views collaboration as involving both state agencies and communities. Public-private and social-private partnerships, on the other hand, focus on the potential collaboration between the market and, respectively, state agencies and communities (Lemos & Agrawal, 2006). Moreover, **non-traditional actors** have been increasingly emerging in the arena of environmental governance; not only the typical market or state actors, but instead civil-society-based-actors such as NGOs. This is why Lemos and Agrawal argue that **"the conventional roles and capacities of important actors and institutions are getting reconfigured"** (Lemos & Agrawal, 2006).

As it has been stated also by Hoffman, **a new era of so-called "governance experimentation"** is emerging, with regard to climate breakdown adaptation and mitigation in particular (Hoffmann, 2011). This experimentation is not only happening vertically at different scales, but also horizontally between scales, as in the case of Transnational Municipal Networks (TMNs) which are bridging different municipal realities. As stated by Kern and Bulkeley, "TMNs are networks of pioneers for pioneers" (Kern & Bulkeley, 2009). They argue that environmental governance in Europe is nowadays emerging as multilevel: taking place at the local, national, international level. By activating different arenas, environmental governance is also involving a rich spectrum of actors. Non-state, sub-state and transnational actors are being increasingly included in the narrative as well as in the decision-making processes (Kern & Bulkeley, 2009).

Thus, Pattberg and Stripple have highlighted how environmental governance scholars should focus on **remapping the main stakeholders which are supporting climate action in the 21st century** (Pattberg & Stripple, 2008). This could lead to a re-conceptualization of the emerging arena of transnational climate governance. Pattberg and Stripple provide an overarching analysis of how the public/private divide has been traditionally conceptualized in the fields of both Political Science and International Relations. The authors argue that a remapping process of climate governance is currently necessary, as it needs to consider different spheres of authority, going beyond the traditional public and international ones. In this process, alternative horizontal realities such as Transnational Municipal Networks have to be explored, in parallel to the emerging actors on different scales (Pattberg & Stripple, 2008).

Finally, based on the authors cited above, I would like to highlight here how this thesis aims to fill in an important **research gap** connected to the existent academic literature related to environmental policy. **Scholars of environmental governance have been increasingly asking for a more representative re-mapping of the current stakeholders**. As a first attempt to fill this research gap by producing a stakeholder map, I based my methodology on both a stakeholder management plan (OGC, n.d.) and on Mitchell's specific stakeholder classification, which I will present in a second time (Mitchell et al., 1997). Although stakeholder mapping is mainly used in the fields of business administration and conflict management, this thesis aims to integrate it to the middle-out framework (Parag & Janda, 2014) and apply it to the field of environmental governance.

## 3.2  Scales of Environmental Governance

Traditionally, policy makers have identified the nation-state as the main legitimate body to address those externalities related to misuses of environmental resources (Lemos & Agrawal, 2006). Nonetheless, in the last years, "scholars of common property and political ecology have helped prepare the ground for "**decentralized environmental governance**" (Lemos & Agrawal, 2006). Decentralization of environmental governance could potentially lead to several co-benefits, such as greater efficiency in decision-making, better participation and accountability, specific time- and place- information regarding natural resources at the local level and so on (Lemos & Agrawal, 2006).

In the last years, alternative scales of governance have been emerging as much more relevant arenas in order to effectively tackle environmental issues. These new arenas are gaining momentum due to the inertia that has usually characterized multi-lateral agreements at the international level (Anguelovski & Carmin, 2011). The awareness and concern that has been arising in the last decades has not met any coherent legally binding global regime since the Kyoto Protocol. This has led to a widespread **lack of trust in international multilateral agreements** aiming to solve climate breakdown. The International Panel for Climate Change (IPCC) has defined mitigation of global climate breakdown as "an anthropogenic intervention to reduce the sources or enhance the sinks of greenhouse gases" (IPCC, 2018). This intervention could take place at different scales of governance and could be led and promoted by various actors, potentially creating new dynamics and collaborations in the current climate governance arena.

### 3.2.1  Decentralized Urban Climate Governance

Birkmann, Garschagen, Kraas and Quang have studied urban areas as "hotspots of high risk" (Birkmann, Garschagen, Kraas, & Quang, 2010). Because of their concentration of population and infrastructure, **cities nowadays represent both a unique opportunity as well as a risk**. Municipalities also play a key role in larger economic, political and social processes. Urban realities manage to link temporal and spatial scales through adaptation and mitigation strategies, actively integrating different inputs from an array of different stakeholders. **Expert and local**

**knowledge is thus synthesized in the urban arena** (Birkmann et al., 2010). According to Anguelovski and Carmin, the lack of resources, capacity-building and institutions to support local climate action is actively fostering urban entrepreneurship (Anguelovski & Carmin, 2011).

As previously mentioned, the traditional view of climate governance is based on the assumption that local action is shaped at a higher level of governance, through international agreements and national policies (Anguelovski & Carmin, 2011). Nonetheless, most cities are nowadays motivated by internal goals, taking independent ambitious action to implement their own climate agenda (Anguelovski & Carmin, 2011). Developing decentralized environmental governance is becoming crucial in order to actively move towards climate breakdown mitigation and adaptation. **Decentralized governance effectively leads to better access to social capital, as well as deeper and more democratic access to specific local information, among several other co-benefits** (Anguelovski & Carmin, 2011).

As Boyd and Juhola have stated, there are three literature strands of the city when examining urban governance: technical, social and ecological (Boyd & Juhola, 2015). The authors have pointed out how these three are intrinsically interconnected and therefore must be considered simultaneously in the decision-making processes. **Urban climate governance is the perfect laboratory in order to test how dynamic social networks and co-management can deal with system complexity and effectively tackle climate breakdown at the local level** (Boyd & Juhola, 2015). Cities are nowadays testing new institutional arrangements; therefore, urban climate governance refers to the strategies employed in both reducing greenhouse gas emissions and adapting to the inevitable impacts of climate breakdown. This is why Boyd and Juhola have focused on analyzing those "governance approaches that are also able to deal with issues of uncertainty and non-linearity" (Boyd & Juhola, 2015). Bulkeley's research has also been examining how municipal authorities are currently facing the challenge of climate breakdown mitigation in terms of creating a local climate agenda (Kern & Bulkeley, 2009). Although much has been experimented, this is a learning-by-doing process, characterized by knowledge and action gaps on how to manage uncertainties (Kern & Bulkeley, 2009).

## 3.3  Adaptive Governance

Different strategies, diplomatic mechanisms and response measures are being developed in order to steer social systems towards not only preventing and mitigating but also adapting to climate breakdown, as this is a reality that is affecting communities at the local level. As Aytur, Hecht and Kirshen have defined it, adaptive governance is an "integrative approach for analyzing the social, institutional, ecologic, economic aspects of decision-making to build resilience against climate change"(Aytur et al., 2015). Adaptive governance thus emerges as a distinct framework, focusing on decentralizing the process of decision-making and building adaptive capacity at the local level. Capacity building is created through social processes such as collaborative learning, networking, the promotion of cross-sectoral partnerships and the engagement of various actors (Aytur et al., 2015). As argued by Aytur, **"by drawing connections to the community's experiences, cultural memory, values, upcoming decisions", adaptive governance could effectively lead local communities towards decentralized climate action** (Aytur et al., 2015).

Another study conducted by Folke, Hahn, Olsson and Norberg analyzed which specific social sources of renewal and reorganization can effectively enable adaptive ecosystem-based management to thrive (Folke et al., 2005). Adaptive governance, as an analytical framework, successfully engages with the global uncertainty caused by climate breakdown. It takes into consideration different alternative networks in order to co-manage natural resources and ecosystem services (Folke et al., 2005). Boyd and Folke have analyzed adaptive governance systems as "decision-making systems comprising formal and informal institutions and social

networks that are able to adapt in the face of uncertainty" (Boyd & Folke, 2012). **Adaptive governance emerges as a framework that successfully integrates and represents the different non-state actors which are emerging in the arena of environmental governance**.

Moreover, Hamdi interestingly noticed how **"NGOs have been increasingly effective in bringing the voice of civil society to the global arena"** (Hamdi, 2004). This shows how they have been actively bridging different scales, connecting various stakeholders. NGOs have a so-called "bridging organization" capacity. According to Folke, this is crucial in order to reduce the costs related to cooperation and conflict resolution (Folke et al., 2005). Hamdi focuses on the same point, arguing that **NGOs have been trying to "bridge realities"**; creating new arenas by re-shaping the existing ones and by connecting different actors (Hamdi, 2004). Hamdi believes the role of big NGOs such as WWF is structured in three main ways. First of all, NGOs are constantly **changing the language of debates**, by including social and human dimensions and by "humanizing" broader political discussions. Secondly, NGOs are the main negotiators of regimes by **representing local realities and their specific needs at the multi-lateral discussions and policy-making processes**. Finally, NGOs are responsible of **monitoring and enforcing global agreements at different levels of governance (Hamdi, 2004).** These services provided by NGOs have emerged also from the twenty-four semi-structured interviews of this research and are represented in "The Spectrum of WWF" (Figure 19).

## 3.4 Ecogovernmentality: the Heritage of Michel Foucault

Another important research gap related to climate governance re-conceptualizations concerns two key concepts that are being constantly re-defined and re-shaped by the academic debate: **power and legitimacy**. These broad concepts have been theoretically examined by Michel Foucault through its governmentality theory ("governamentalité" in French). Therefore, this thesis aims to present how various researchers have elaborated Foucault's heritage, applying his concept of governmentality and his analysis of power and legitimacy to the environmental governance scenario.

Foucault's concept of governmentality finds a relevant modern dimension with the concept of **ecogovernmentality**, which belongs to the overarching field of political ecology. Ecogovernmentality explores how government agencies, and those actors which act as conveners of information and expert knowledge, construct the environmental narrative. Monbiot's thought is often linked to ecogovernmentality. In his latest book, "Out of the wreckage", Monbiot argues that nowadays we need to build a participatory culture at the neighborhood level, in particular by creating political communities embedded in local communities (Monbiot, 2017). This is connected to a decentralized, polycentric vision of climate governance which is clearly related to the concept of ecogovernmentality and relies on the above mentioned concept of adaptive governance. Monbiot also argues for **the need of a new political narrative**, summarizing the complexity of environmental governance, which is not only multi-scale, but also multi-actor. In line with Foucault's thought, Monbiot believes that **Neoliberalism** cannot frame our complex glocal decentralized reality any longer.

Lemke argues that "the semantic linking of governing ("gouverner") and modes of thought ("mentalité") indicates that it is not possible to study the technologies of power without an analysis of the political rationality underpinning them" (Lemke, n.d.). This is also why Mitchell argues that stakeholder theory must account for power and urgency as well as legitimacy, when exploring the role an actor is playing in a certain arena (Mitchell et al., 1997). **Mitchell's stakeholder typology classification is deeply connected to power and legitimacy**, as he identifies stakeholder typologies by assessing them through a set of three attributes: power, legitimacy and urgency (Mitchell et al., 1997).

Carole Rakodi, cited by Hamdi, once said that "the relationship between national and local government, poor residents and cities, and other stakeholders are characterized by **uneven distribution of power**" (Hamdi, 2004). Therefore, it appears clear that different kinds of relationships in various arena are shaped and characterized by the crucial concept of power (often defined as "influence" by many of the interviewees in this thesis). Bulkeley examined where **power and authority for governing climate breakdown** are currently placed (Bulkeley, 2010). She focused on how **authority is usually mediated** by a number of different socio-spatial relations which take place on the multi-level, multi-actor arenas of transnational climate change governance (Bulkeley, 2012). In relation to that, Koontz, Gupta, Mudliar and Ranjan have highlighted the current importance of **polycentricity** (Koontz et al., 2015), a concept which is deeply connected to Foucault's theory and the symbol of panopticon. They argue that adaptive governance of social-ecological systems depends on adaptive institutions. Adaptive institutions then depend on the presence of different factors: among those there are federalism, networks and learning. The question that these authors formulate is: "how do social and ecological conditions interact across scales?"(Koontz et al., 2015). This brings back the discussion to the uncertain location of **legitimacy and power** in the current environmental governance arena. This uncertainty, once again, represents a barrier to a clear representative map of the main actors and relationships which are characterizing the urban climate governance arena. Nonetheless, it has to be noticed how "social science can play an important role in identifying factors that foster adaptability in different contexts, so that policy makers can promote such adaptability" (Koontz et al., 2015). Therefore, although adaptive governance is difficult to analyze and map, mainly because of its intrinsic multi-scale and multi-actor nature, greater academic efforts are needed to examine it at a deeper level.

# 4  Analysis

This chapter aims to provide a comprehensive answer to the main research question, by exploring the role of WWF. Moreover, it deepens the analysis of the first objective related to the attributes of power, legitimacy and urgency. The last two sub-questions will be further examined in the following Chapter (Discussion). **The hypothesis on which this study is based is that WWF is currently acting as a "bridging-organization" in the urban climate governance arena** (Folke et al., 2005). It emerges from the literature review matrix produced prior to the research process and it is mainly derived from Folke's article on adaptive governance of socio-ecological systems (Folke et al., 2005).

Finally, the above-mentioned hypothesis has been confirmed by the Analysis of this study.

## 4.1  The Three Attributes of Power, Legitimacy, Urgency

This thesis aims to explore the main research question by applying both the first framework related to **stakeholder mapping** (Mitchell et al., 1997) as well as the **middle-out** framework (Parag & Janda, 2014), discussed more in detail in the next Chapter. This research draws on the stakeholder typology developed by Michell (Figure 8); stakeholders are being classified in relation to the specific amount of power, legitimacy and urgency they are perceived to have. The interviewees of this study are hereby considered as what Mitchell refers to as "the manager" or "the firm", while WWF is examined as the main stakeholder or unit of analysis (Mitchell et al., 1997). In order to examine the first objective, this Chapter examines how various stakeholders perceive WWF's role in the current urban climate governance arena, based on the three attributes highlighted by Mitchell.

*OBJ. 1: **Where** is WWF positioned in the current urban climate governance arena in terms of the attributes of urgency, legitimacy, power?*

Although various actors operating in the urban climate governance arena have slightly different perceptions on the current role of WWF, these seem to ultimately converge towards the area 2 of Mitchell's classification (Figure 8), corresponding to the role of a discretionary stakeholder (Mitchell et al., 1997). As a matter of fact, **the legitimacy of WWF is an attribute that has been recognized and highlighted by all the interviewees.**

### 4.1.1  The Perception of WWF Experts

After interviewing WWF Cities experts, it appears clear how their perception of WWF might be biased and therefore must be integrated with the opinion of other external stakeholders (which will be presented in the next paragraph) to ensure the representativeness and trustworthiness of the findings of this thesis. Nonetheless, WWF experts perceive this NGO as a so-called "definitive stakeholder", which is represented in area 7 of Figure 8. According to Mitchell, "definitive stakeholders are those possessing all three attributes" and for them, "the most common occurrence is likely to be the movement [of a dominant actor] into the 'definitive' category" (Mitchell et al., 1997).
**Jennifer Lenhart, Global Lead WWF Cities**, argues that "WWF is a powerful brand", and that WWF's power is directly derived from its legitimacy. Similarly, **Anthony Pearce, Program Manager of Sustainable Cities at WWF Cities**, confirms that "WWF derives its power and influence from its high legitimacy"; this legitimacy is then derived from the deep connection of the NGO with the scientific community. This link with the science-based knowledge is also highlighted by **Sabina Andrén, WWF Cities Program Manager**, who adds that WWF is also "perceived as a bearer of an urgent task", therefore its urgency nowadays is also very high. Lenhart (WWF Cities) continues her analysis by saying that "the youth movement has also raised the urgency of WWF's claims and projects concerning sustainable cities and climate action at

the local, municipal level". Following the wave of protests that gained media and political attention, in particular after the Global Climate Strike on 15 March 2019 (Gerretsen et al., 2019; Thunberg et al., 2019), WWF's claims and projects have gained momentum at the urban, national and international level. According to Andrén (WWF Cities), it is the indirect influence of WWF that is the true genuine source of power of this NGO. This indirect power translates into the visibility that WWF provides to those cities which choose to actively collaborate with the NGO, through its projects and through long-term partnerships. Deeply connected to the concepts of visibility, power and governance, WWF emerges from these descriptions as an example of decentralized ecogovernmentality (Hamdi, 2004; Koontz et al., 2015). WWF's power is being defined as "indirect" also by **Carina Borgström-Hansson, Senior Advisor at WWF Cities**. She believes the strong connection of WWF with media and civil society is the key element which makes its claims and projects more influent in the urban climate governance arena, as she argues that finally "WWF emerges as more powerful than many other environmental NGOs which are acting in the same arena".

The specific perception of the WWF Cities Team is also reflected in the national offices of WWF South Africa and WWF India. **Louise Scholtz, Program Manager Urban Futures at WWF South Africa**, believes WWF has a "good uptake" with the OPCC (WWF, 2019a), as it is more visible and influent, although she points out how "it is still not possible to talk about power of WWF". Scholtz (WWF South Africa) argues that the "fair amount of legitimacy" and "high urgency" of WWF are undiscussed, as the NGO "is responding to the crucial environmental issues of today's world".
**Suchismita Mukhopadhyay, Associate Director of Climate Change and Energy at WWF India**, argues that the main problem of WWF is that in general it is still perceived as an NGO focusing solely on wildlife conservation. Therefore, WWF has been actively trying to gain more recognition and a much more defined and institutionalized role in the urban climate governance arena. Finally, she confirms that the overall credibility and respectability of WWF as a big international organization are well-established and ensure its strong legitimacy and urgency in the Indian context.

## 4.1.2 Other Stakeholders' Perceptions

After interviewing the selected municipal stakeholders, WWF emerged as a discretionary stakeholder (typology 2, Figure 8), sometimes leaning towards the dependent side (typology 6, Figure 8) or towards the dominant side (typology 4, Figure 8); but not fully embodying these roles.

It is particularly interesting how TMNs such as ICLEI or C40 perceive WWF, as they view this NGO as powerful and influent, finally emerging either as a dominant or dangerous (typology 5, Figure 8) stakeholder. As a matter of fact, **Guilherme Johnston, Program Manager of Global Resilient Cities at ICLEI**, and **Andrea Fernández, Director of Governance and Global Partnerships at C40**, perceive WWF as an influent institution with a strong presence online, but also many offices spread globally; overall having the potential in terms of capacity-building to create new initiatives and to convene different stakeholders. Nonetheless, Fernández (C40) pointed out how, although WWF holds a legitimate position, it is sometimes accused of being too close to the private sector. Fernández (C40) pointed out how the fact of playing a convening role directly implies a broader reach to connect as many actors as possible. On the other side, Johnston (ICLEI) believes "other organizations such as the International Committee of the Red Cross are addressing much more directly those urgent resilience needs of cities". Therefore, WWF is often being overshadowed by these organizations such as the Red Cross, which have more urgent claims and projects. Without that high urgency, WWF emerges as a dominant stakeholder, with strong attributes of legitimacy and power. The dominant role of WWF in the current urban climate governance arena has also been pointed out by academics such as

Karvonen (KTH). He argues that WWF "is internationally known and trusted and this is a great help for when it gets involved into international projects. WWF's strategy is based on its projects, which can be scaled up and replicated in their global network." Finally, Luis Mundaca (Lund University) argues that, although WWF is characterized by a high level of legitimacy, it is often perceived by the scientific community as having a low level of effective power. The urgency of its claims is not clear as well and this collocates WWF in the discretionary area, once again.

In conclusion, **WWF is currently a highly legitimate discretionary stakeholder**; a role which could evolve into another close one (namely a dependent, dominant or definitive one). Nowadays, it is difficult to place WWF in a fixed box because, as Johnston (ICLEI) said "the urban climate governance arena has grown and evolved a lot in the last five to ten years, and new dynamics and actors are always emerging". This is also why it is hard to forecast how exactly the role of WWF will evolve in the future.

*Figure 8: Framework 1 - Mitchell's Stakeholder Typology Classification*
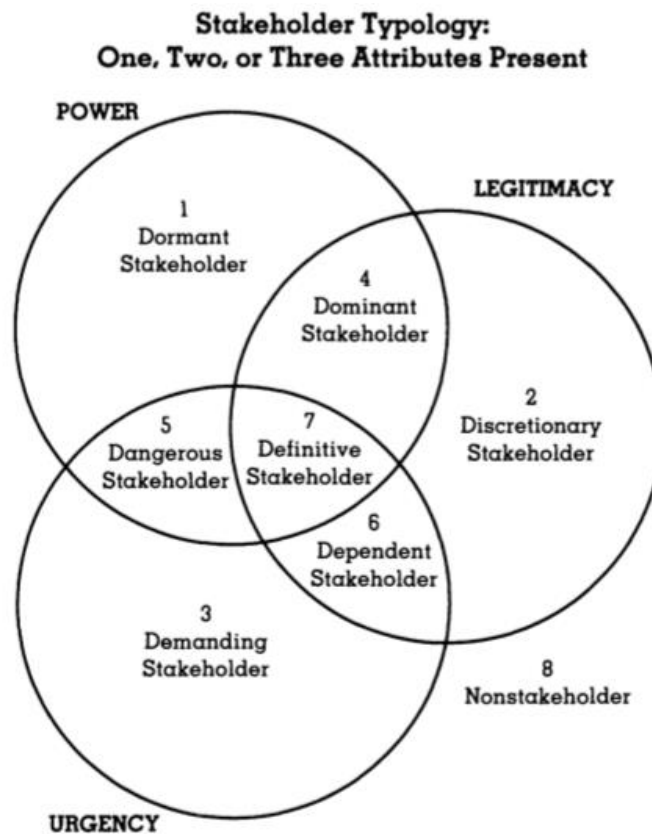


*Source: Mitchell et al., 1997.*

## 4.2  The Role of WWF

Since the interviews were qualitative in nature and provided rich complex data, these were broken down and re-structured under specific tags, in a second time. They were then finally synthesized into two main visuals (which will be examined in the next Chapter): "The Spectrum of WWF" and "The Compass of WWF".

This paragraph will provide an overarching description to the broad convening role of WWF. As Folke has argued, a so-called **bridging organization "encompasses the function of a boundary organization by communicating, translating, and mediating scientific knowledge to make it relevant to policy and action. The organization also uses its network of stakeholders to mobilize knowledge and social memory in turbulent times, which in turn help deal with uncertainty and shape change"** (Folke et al., 2005). According to Folke, **the emergence of "bridging organizations" has the potential to lower the costs of both collaboration and conflict resolution.** When asked what role WWF is currently playing in the urban climate governance arena, all the interviewees have described it as a "mediating", "convening" role, sharing information with different stakeholders and creating new long-lasting partnerships as well as opportunities for future collaboration. In order to effectively succeed in this role, WWF acts simultaneously on different scales (international, national, regional, local), in this way embodying a concrete example of **adaptive governance and ecogovernmentality**.

"What WWF is developing globally has to be general enough so that it is relevant for all" explains Lenhart (WWF Cities), adding that "in a second time, national WWF offices contextualize the broad guidelines to their specific context, planning effective on-the-ground action and projects." This means that what differentiates WWF from other actors, is its effective **cross-scale approach**, adapting its broader goals to specific national or even local contexts. According to Pearce (WWF Cities), this is why WWF can be defined as a bridging organization: as national offices are effectively delivering action and capacity building on the ground, creating new networks of partners and sharing information at the local level. Borgström-Hansson (WWF Cities) highlights the same point, by arguing that "different scales of governance are all considered by WWF" and that "the global WWF platform is flexible and adaptable to the specific needs and urgencies of its different national offices". What happens is that "**WWF operates like a franchise**", as Scholtz (WWF South Africa) has described it. In the case of South Africa (SA), the national office of WWF SA is mobilizing non-party actors, such as other local NGOs like Sustainable Energy for Africa. WWF SA is collaborating with these local stakeholders in order to explore and re-question energy governance in the region, trying to make it more equitable than it is right now. As this is the main priority of WWF in the South African region, its main goals, targets, projects and local partnerships have been adapted towards that end.

In conclusion, the effective cross-scale approach of WWF has been highlighted also in the interviews with the representatives of TMNs. Johnston (ICLEI) recognized that although ICLEI is focusing on the municipal, regional and international scales, WWF is active on all of these, plus the national one. This has been confirmed also by Fernández (C40), arguing that "WWF has a really strong national focus as well", if compared to C40. She believes that what makes WWF different from other stakeholders in the same urban climate governance arena is that "**WWF is great for initiatives that are globally coordinated, locally driven**"; this because the decentralized approach of WWF makes it easier to effectively engage different national offices at the local level.

When considering the ten municipalities selected for this study, it is important to notice how both WWF Cities' Core Team as well as WWF national offices are actively involving and showcasing these cities through projects such as the OPCC (WWF, 2019a) and the We Love Cities campaign (WWF, 2018b). By doing so, **WWF offers a city the opportunity to both connect with and learn from other municipalities** which have successfully implemented climate breakdown mitigation and adaptation strategies at the local level. This happens not only through WWF's main projects, but also through other secondary channels created by the NGO,

such as its closed Facebook group "We Love Cities Heroes", in which urban policy-makers which are actively collaborating with WWF are conveyed together on the same online platform.

Lastly, **WWF provides visibility to its partner cities**, as they are showcased through the positive, strategic narrative of WWF in order to inspire other urban realities. This is a crucial point, as the support from an independent and legitimate NGO such as WWF can ultimately support those unpopular municipal policies which often find resistance from other stakeholders (e.g. civil society, municipal opposition, private sector).

## 4.3  The Municipal Case-Study of Los Mochis

One interesting example selected from the list of ten City Solutions cases (listed in Table 3) is the city of Los Mochis in Mexico. With a population of around 250.000 inhabitants, Los Mochis was one of the smallest cities to take part in WWF's OPCC. When cities qualify as finalists in WWF's OPCC, they are then invited to participate in a public engagement campaign called "We Love Cities" (WWF, 2018b). Through this campaign, municipalities seek votes of confidence from their own citizens to validate and support their sustainability commitments. This campaign is also a way to gather additional citizen suggestions to further accelerate climate action at the policy-level, providing inputs from a bottom-up perspective. Among other participants such as Jakarta, Tokyo or Vancouver, Los Mochis is an interesting case because it gathered more votes than almost any other city, with over 8.000 votes and nearly 6.000 suggestions. I have interviewed Gustavo Arteaga, the Coordinator of the Municipal Planning Institute of Los Mochis, in order to analyze the successful phenomenon of community engagement which happened in Los Mochis. "We Love Los Mochis made us feel so proud, as citizens" argued Arteaga (Municipal Planning Institute of Los Mochis). He believes that **a strong sense of place and belonging is the catalyst for active citizenship**. **"Citizens must feel part of a bigger process in order to strongly feel the local identity"; this is what creates momentum, leading to deeper, long-lasting change at the community level**, according to Arteaga (Municipal Planning Institute of Los Mochis).

The campaign We Love Los Mochis (WLLM) pushed the citizens of Los Mochis to create new bottom-up organizations and initiatives at the local level.
"An international contest made us realize that we share a lot of problems with other cities around the world" noticed Arteaga (Municipal Planning Institute of Los Mochis). He highlighted that it was this insight which changed people's mindset from a problem oriented to a problem-solving one: "The citizens realized that leading cities are prepared to experiment to actively solve the climate challenges at the local level". The most interesting part of the campaign which was pointed out by Arteaga (Municipal Planning Institute of Los Mochis), was the fact that civilians "brought something to the table" in order to complete the municipal program; "it was the first time that people took leadership like this", he argues.

According to Arteaga (Municipal Planning Institute of Los Mochis), the **"We Love Los Mochis Fest"** was the main highlight of the campaign (WWF, 2018a). During this event, the community of Los Mochis gathered on their hillside, which was also included in the campaign logo as a community symbol. In this occasion, the municipality anchored its commitments with a precise program; at the same time, new citizens' connections were built and local supporters got more visibility.

The iconic **beach of El Maviri** emerges as another example of how it was possible to clean the area thanks to community engagement. There was active participation of different social groups,

such as the youth initiative "Maviri Clean", a campaign organized by university students. In a first time, citizens were informed of the main ecosystem services provided by the beach through a program of environmental awareness. Since then and until now, the sustainable beach certification of El Maviri has been actively maintained by the efforts of civil society (WWF, 2018a). The WLLM campaign acted "as a platform, attracting more people to be part of the cleaning process, aiming to raise awareness among the majority of citizens" concludes Arteaga (Municipal Planning Institute of Los Mochis).

*Figure 9: Community Clean-Up Organized at the Beach of El Maviri, Los Mochis*



*Source: Noticiero Altavoz.*

## 4.4   The Municipal Case-Study of Verona

This paragraph explores Verona as an additional case-study, analyzing its different urban climate governance scenario, which is currently characterized by the **absence of any so-called bridging organization.** Verona is a North-Italian city located in the Po Plain ("Pianura Padana" in Italian). Since this is the most polluted area in Italy (Scarinzi et al., 2013), the municipality of Verona has received formal warnings and officials admonitions from higher governance levels, such as from the Regional Council of Veneto, the National Ministry of Environment and the European Environment Agency (EEA), as well as other actors (Guerreiro et al., 2018).

From the policy-making perspective, a **macro-regional agreement** was achieved, involving both regional and national policy-makers, namely the Italian Ministry of the Environment as well as the northern regions of Emilia-Romagna, Lombardia, Piemonte and Veneto. This political agreement aims to **control and mitigate air pollution in the entire Po Plain** by heavily investing in modal shifts as well as by improving the measuring and monitoring efforts

in the entire area, to provide accurate data on the main pollutants which are currently affecting the region.

From a European perspective, the Po Plain has been included by the **EEA** in the broader geographical area of the Mediterranean region. A recent study published by the EEA, has shown how **"the projected damage costs from climate change are the highest in the Mediterranean region"** (EEA, 2017). The main effects of climate breakdown on the Mediterranean region would affect all sectors; leading to "increasing water demand for agriculture", "most economic sectors negatively affected", and finally "decrease in summer tourism" just to name a few (EEA, 2017). Therefore, Verona has been urged to actively implement climate mitigation and adaptation strategies as well as much more effective environmental policies focusing both on the short- and long-term scenario.

Verona's case study emerges as a different scenario because its **municipality is currently not involved in collaborating with bridging organizations**. The municipality of Verona took part in short-term collaborations with research centers such as the University of Trento, with private partners such as Trenord, as well as with one TMN (being a member of the Covenant of Mayors since 2008). Although the city of Verona has been involved in various short-term collaborations and partnerships with different actors, these have not managed to evolve into strong, long-lasting networks. The Mayor of Verona Federico Sboarina suggests that Verona may be lacking behind in terms of environmental policies and climate action because "just a decade ago, to be labelled as 'environmentalists' was associated with the mainstream left discourse and, therefore, with a political identity". Since Verona has historically emerged as a right-wing municipality, its policies have not been focusing on the environment as it was perceived as a "left-wing priority", according to Sboarina. Therefore, the Mayor Sboarina argues that "it has been hard and it took time to get over this mainstream narrative and to establish a new one in Verona; one in which the environment is perceived as a shared asset to be preserved and not associated with any political orientation".

The reason mentioned by Sboarina could be considered as a secondary, socio-political one to explain the poor environmental action in Verona. The main reason is a structural one, namely the fact that the municipality of Verona is not involved in any collaboration with a bridging organization. It has to be noticed how the Mayor Sboarina highly values the process of engaging different actors to actively collaborate with the municipality towards sustainable development targets and goals. Nonetheless, the partnerships and collaborations which are now in place result in being mainly short-term ones. This because the stakeholder map of Verona emerges as less cohesive and integrated if compared to any of the OPCC cases listed in Table 3. What clearly emerges is the absence of a central "bridging organization", responsible for curating cross-scale, solid and long-lasting partnerships. This could be the main reason why Verona is advancing relatively slow in implementing some crucial environmental policies, such as the PUMS (Sustainable Urban Mobility Plan or "Piano Urbano della Mobilità Sostenibile", in Italian) which had to be ideally finalized in the late nineties and will be implemented in Verona within a year.

# 5 Discussion

This Chapter aims to analyze the two visuals representing the synthesized findings of this thesis, namely **"The Spectrum of WWF"** (Figure 10) and **"The Compass of WWF"** (Figure 11). Both figures represent WWF as the main unit of analysis. The first one is based on the outcomes of Chapter 4, building on the first analytical framework developed by Mitchell (Mitchell et al., 1997). The second one integrates both the primary and secondary data of this research into the structure of the middle-out framework developed by Parag and Janda (Parag & Janda, 2014).

## 5.1 The Spectrum of WWF

***OBJ. 2: What*** *does WWF provide to other stakeholders in the current urban climate governance arena in terms of services?*

*Figure 10: The Spectrum of WWF*
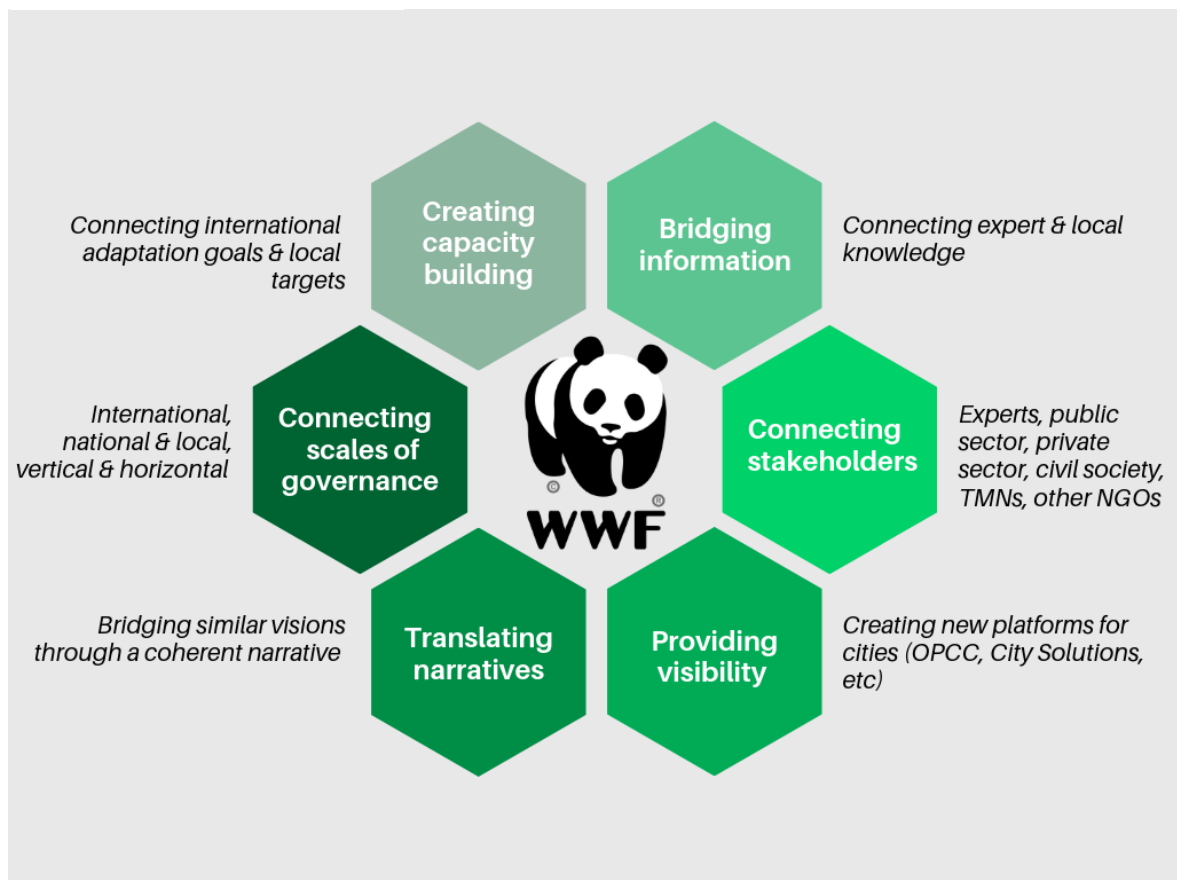


*Source: Own Elaboration.*

"The Spectrum of WWF" is a visual representation of the inputs, services and contributions which WWF offers in the urban climate governance scenario (mainly to municipalities but also to other actors). The figure shows a broader, complex spectrum of sub-roles played by WWF as a transversal actor. Nonetheless, the interviewees emphasized the crucial importance of three specific roles of WWF: **convening different stakeholders, sharing information, and finally conveying a coherent narrative**. These will be examined in-depth in the following paragraphs, supported by the qualitative data that were gathered through the interviews.

## 5.1.1 Convening Different Stakeholders

To convene various stakeholders is the main overarching role of WWF. It is recognized as such by the majority of interviewees; from municipal stakeholders, to WWF experts, to academic and scientific researchers, to representatives of the main TMNs.

First of all, as pointed out by Karvonen (KTH), by connecting different stakeholders, WWF articulates its main discourse and action along the logic of the **quadruple helix** (Guerreiro et al., 2018), engaging and facilitating collaboration not only between public sector, private sector and academia, but also including civil society as the fourth helix.

Secondly, not only WWF conveys stakeholders from different fields, but also different levels of governance. This multi-scale approach creates the precondition for WWF in order to effectively achieve adaptive governance. "We actively engage local stakeholders in order to take ownership of their own initiatives; in the end, WWF just mediates" argues Andrén (WWF Cities). More specifically, **WWF is connecting not only different scales of governance vertically** (bridging local, regional, national and international scenarios) **but also horizontally** (including transnational organizations and networks).

Overall, **"collaboration is the main vision of WWF, as a transversal convener"**, argues Borgström-Hansson (WWF Cities). The main problem she highlights is that some other actors have been assuming this NGO is coming into the urban climate governance arena as a competitor, although its role is a different one. WWF's convening role is not always recognized by other stakeholders as it has not yet been institutionalized. WWF could communicate its convening role as well as its main objectives and priorities to its partners in a clearer and more institutionalized way. Paragraph 6.1 of this thesis aims to provide recommendations to WWF and will further examine this point.

Lastly, representatives of TMNs recognized that the role of WWF is different than the one of C40 or ICLEI, in the way that, according to Johnston (ICLEI), "it is more of a convener and supporter of innovation". Overall, Fernández (C40) argues that "**WWF has a unique role: it is a convener, to advance climate action**".

### 5.1.1.1 The National Case-Study of WWF India

A case-study which directly shows how WWF effectively acts as a transversal multi-scale and multi-actor bridging organization is the one of WWF India. The strategy of WWF India is based on the broader international strategy of WWF, but it is adapted to the specific national context of India. The office of WWF India has been effectively organizing stakeholder consultations as well as stakeholder dialogues at different levels of governance, involving various actors in the process (such as so-called "subject experts").

At the city level, the main strategy has been to organize **stakeholder consultations and stakeholder dialogues**. This is how Mukhopadhyay (WWF India), describes how WWF creates capacity-building as a convener at the local level: "we go to a particular city and try and convene different city departments - also with the municipal corporation - to come together. We aim to sensitize them on the pivotal role of cities in addressing climate change." Another strategy WWF India has been greatly investing in, is **to connect cities with so-called "subject experts"**. The national office of India has organized workshops and consultation sessions with specific "subject experts". These are representatives from organizations, aiming to consult and guide cities on best practices in terms of climate breakdown mitigation and adaptation.

Last year, WWF India managed to organize a site visit as an opportunity to get four to five cities to come together and visit another group of three to four cities, which had been pre-selected to **highlight and share their best urban sustainable practices**. Towards the end of the year, WWF India organized a national conference specifically targeting urban policy-makers. They

invited all the Indian OPCC Cities to Delhi (seven to eight of these cities took part in it) in order to connect them to various stakeholders (e.g. some financial institutions, think-tanks, the state governments and other ones) dealing with sustainable development projects and sustainable finance.

In conclusion, **creating capacity building at the local and national level** means building both sensitivity and awareness on the topic of climate breakdown, by actively sharing knowledge with government officials and connecting them to other relevant stakeholders. Mukhopadhyay (WWF India) argues that "this is exactly the kind of capacity that is usually lacking, not only at the urban level, but even at the state level". Tools such as stakeholder consultations, study visits, workshops with "subject experts", are what WWF India is providing as the main services to empower policy-makers in terms of know-how and climate breakdown awareness.

## 5.1.2 Sharing Information

One of the main objectives of WWF is "to assemble data and to deliver concise, simple, effective messages", argued Pearce (WWF Cities). This process of sharing information is both a top-down and bottom-up one, according to Andrén (WWF Cities) and Lenhart (WWF Cities). WWF delivers content and useful information both upstream to the public sector (by bringing the demands of civil society to the policy-making level) and downstream to civil society (by translating complex scientific and policy documents into simpler, direct messages). Even in the national offices of WWF, according to Mukhopadhyay (WWF India), information is often shared on a transversal level with the different national, regional and local actors. One of the main objectives of WWF India, for instance, is to sensitize cities and civil society on climate breakdown, bringing the current discussion which is taking place nationally and internationally at the local level.

On the other hand, Mundaca (Lund University) believes that more could be done to include the scientific community in WWF's "sharing information strategy". The crucial topic of "speaking truth to power", related to further engaging the scientific community into decision-making and policy design processes will be further discussed in paragraph 5.2.1.
The ability to effectively share information both upstream and downstream is an intrinsic characteristic of WWF, differentiating this NGO from other actors in the urban climate governance arena, such as ICLEI or C40. Although TMNs usually focus on communication and on sharing information, their target groups are mainly municipal officials. Therefore, their messages and narrative emerge as rather policy-oriented, not reaching such a broad audience as the one WWF is able to reach.

## 5.1.3 Conveying a Narrative

"We are not as conflict-seeking as many other environmental organizations; our aim is to be constructive and dialogue-seeking"; this is how Andrén (WWF Cities), defines the overarching narrative that WWF aims to convey. "WWF is not Greenpeace", adds Scholtz (WWF South Africa). The different narrative conveyed by WWF has been highlighted especially by WWF experts as well as by TMNs representatives, pointing out how WWF differentiates itself from other NGOs working in the same arena.

According to the WWF Cities Team, many environmental NGOs strategically act by exposing the failures and weaknesses of the overarching system (whether these would be political, economic, or social). This led to a common attitude of mistrust or detachment of public and private actors in relation to NGOs, as these could be collaborators as well as ruthless opponent, destroying the reputation and credibility of other institutions. WWF, on the other hand, has always been investing in building **an alternative narrative, focused on highlighting best**

**practices and inspiring examples in order to convene a greater number of stakeholders by creating a positive, inclusive process**. As Borgström-Hansson (WWF Cities) has confirmed, WWF's broad strategy in order to effectively achieve stakeholder engagement is based on conveying much more positive, inviting and optimistic messages. At the national level, this same narrative can be found both in WWF South Africa and in WWF India. WWF South Africa is currently playing an important role in "mobilizing and including non-party actors, challenging politicians and businesses to take part in a joint effort, in order to go even beyond the Paris agreement" says Scholtz (WWF South Africa). Similarly, Mukhopadhyay (WWF India) points out how WWF India is "encouraging the discussion on climate breakdown at the municipal level", by creating what she defines as a "safe space for learning", as well as "a platform for effective knowledge transfer". This not only builds momentum around climate action, but also motivates even more stakeholders to take part in the discussion on urban climate governance.

Finally, the narrative of WWF is not focused on one specific target group, as it tries to reach as many stakeholders as possible. This point has been noticed by Johnston (ICLEI), noticing that "while ICLEI mainly targets municipality officials, WWF's target group is broader".

## 5.2  The Compass of WWF

***OBJ. 3: How*** *does WWF act? How does the flow of information and networking provided by WWF take place (bottom-up, top-down, or sideways engaging other transversal actors)?*

In order to explore how WWF acts in the urban climate governance arena, its main partnerships with other actors were mapped in a second visual (Figure 11). The latter has been named "The Compass of WWF", as its structure reminds of a compass, representing how WWF is positioned in the arena among an array of different stakeholders. After analyzing "The Spectrum of WWF" (Figure 10), three sub-roles of this NGO have been highlighted by all the selected interviewees; these three are namely sharing information, building networks and conveying a narrative. The first two ones represent the main arrows which describe WWF's actions and link the NGO to other stakeholders in the arena. The third role, related to the overarching narrative conveyed by WWF, is represented in the visual by the dashed triangle which includes the partners and actions of WWF into one same structure.

This second visual explores the **upstream and downstream of information** mediated and shared by WWF. As argued by Hamdi, NGOs in general are emerging as the main negotiators of regimes, by effectively bringing local demands to the policy-making level (Hamdi, 2004), through a bottom-up process. This is represented by the upstream flow of information mediated by WWF, whose aim is to communicate the most relevant and urgent community-based demands to the public sector. On the other hand, WWF also shares information downstream. By simplifying and translating the language of experts such as bureaucrats, politicians and scientists, WWF effectively manages to share their messages with civil society.

The visual also shows how WWF builds **sideways networks** on a transversal level, by creating new opportunities for collaboration and future partnerships among different stakeholders. Actors which are connected to WWF at the sideways level are usually other local NGOs (e.g. Sustainable Energy for Africa), Transnational Municipal Networks (e.g. ICLEI or C40), industries (e.g. Volvo) and private sector (e.g. consultants, "subject experts" in the case of WWF India). Although the specific relationship and flow of information linking WWF to the scientific community are acknowledged in the visual, their representation in the stakeholder map will be further examined in the next paragraph (5.2.1).

It is important to notice how this pivotal visual has been built on the middle-out framework (Parag & Janda, 2014), represented below. Inside the dashed triangle, bottom-up, top-down and

sideways actions are all represented in relation to WWF, which has been located in the center of the diagram as the main "middle-out" unit of analysis. Middle-out actors emerge as "better equipped (…) with qualities that top actors lack (or are perceived of lacking) and bottom actors appreciate, such as trustworthiness, **legitimacy**, and ability to shape social norms and practices. They might also have resources essential for action, which the bottom lacks, such as pre-established procedures and **information** channels, available funding, administration and coordination skills, specialized tools and know-how, and/or the ability to **influence** and shape behavioral norms and practices" (Parag & Janda, 2014). After the Analysis and the Discussion of this thesis, the description above emerges as highly relevant to WWF as a middle-out actor. All the interviewees have highlighted **legitimacy** as the main attribute of WWF. The collaboration that exists between WWF and the different actors is a positive one: the more they cooperate, the more they all emerge on the urban climate governance arena as legitimate actors, raising not only their legitimacy but also their power and influence in the arena. In the end, WWF helps other actors by transferring part of its legitimacy to them as well, creating a **positive loop** according to Scholtz (WWF South Africa).

This visual finally aims to cast **new light on the themes of polycentricity, power and authority, focusing on where they are placed in the current urban climate governance arena** (Bulkeley, 2012; Koontz et al., 2015). This is connected to ecogovernmentality, as this theoretical approach aims to investigate a new political narrative not focusing on the mainstream political institutions, but rather on new emerging and not yet institutionalized actors and processes. By acting in an adaptive and de-centralized way, bridging organizations have the potential to create capacity building at the local level and at the same time to effectively connect different scales and different actors. They convey a new narrative which resonates with different stakeholders at various levels. Thus, the well-recognized legitimacy of actors such as WWF, directly translates into influence, therefore power, according to the emerging theory of ecogovernmentality (Bulkeley, 2012; Hamdi, 2004; Koontz et al., 2015).

*Figure 12: The Compass of WWF*
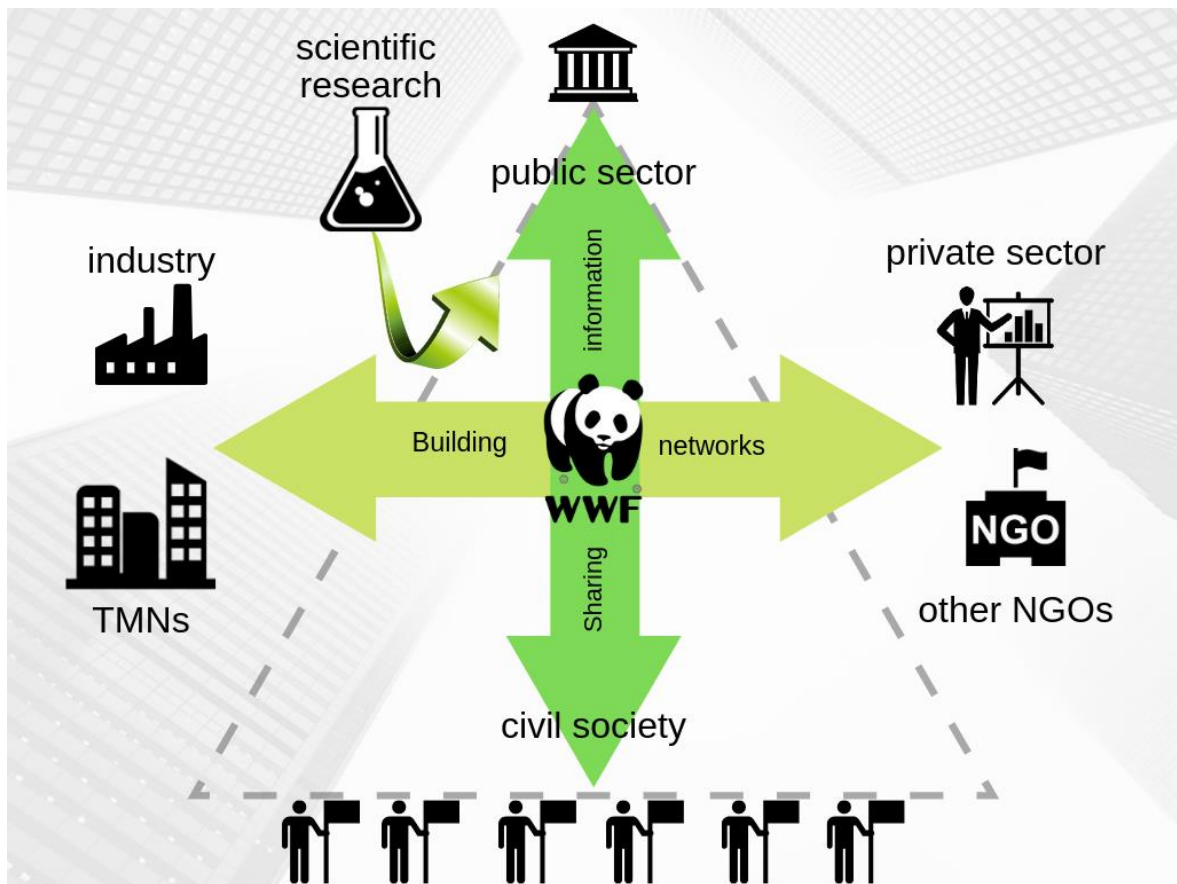


**Source: Own Elaboration.**

*Figure 11: Framework 2 - Middle-Out Actors*
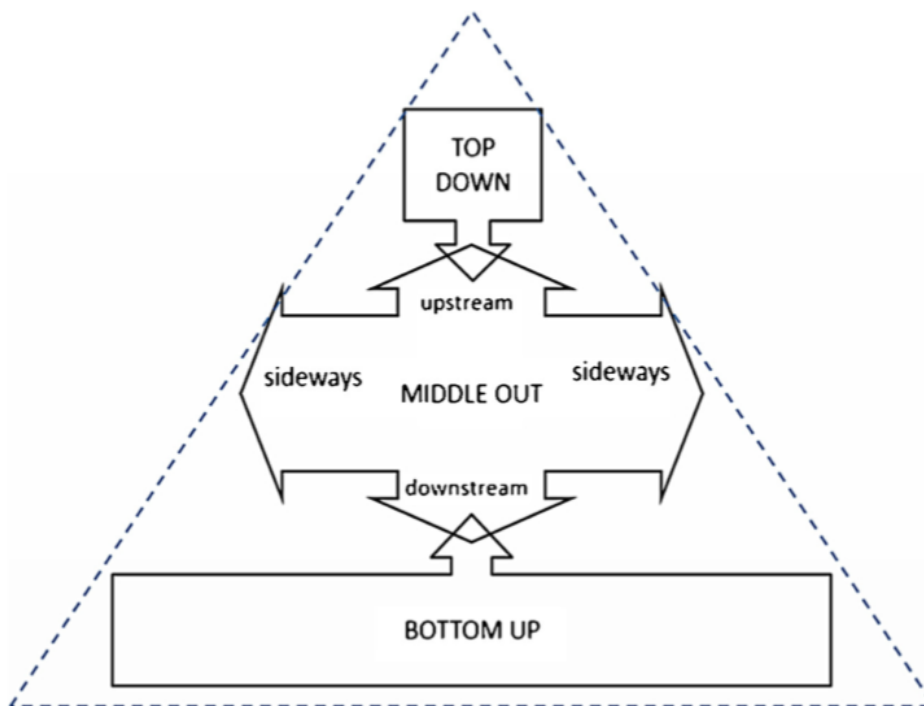


*Source: Parag & Janda, 2014.*

### 5.2.1 "Speaking Truth to Power": Locating Science in the Map

The scientific community has not been clearly integrated in the structure of "The Compass of WWF" (Figure 11). By scientific community, this research refers not only to the expert scientists, but also to the broader academic world providing research outputs that are theoretically and practically significant. These stakeholders are acknowledged in "The Compass of WWF" (Figure 11) as they directly provide solid scientific information both the public sector as well as to other organizations (such as WWF as a bridging organization). Nonetheless, the role they play in the arena is still not clear nor institutionalized. Fernandez (C40) argues that, although lately there has been good communication of the IPCC report on 1.5°C, much more has to be done to bridge the gap between science and politics. Fernandez (C40) believes the misrepresentation and partial engagement of the scientific community in the urban climate governance arena is a problem that has characterized academia and researchers for a long time, as "they should organize their discourse in order to emerge as an actor and effectively engage in the discussion".

In order to examine the perspective of scientist and academics, Mundaca (Lund University) and Karvonen (KTH) were interviewed. Mundaca (Lund University) believes that researchers are a pivotal group in the urban climate governance arena. He argues that there are three main actors which are now driving the narrative, the policy discourse and the effective implementation of environmental agenda in the current urban climate governance arena. These are TMNs, municipalities and researchers. Karvonen (KTH) also believes in the pivotal role of the scientific community in the same arena. He argues that "it is crucial to translate scientific findings for different audiences (not only the public but also practitioners, non-profits, municipalities, etc.)". Karvonen (KTH) also noticed how the process of translating scientific expert knowledge is a complex one: "I suppose the big challenge is deciding where to devote resources: what to translate? for whom? for what ends?".

Therefore what has emerged from Karvonen (KTH) and Mundaca (Lund University) are the following insights concerning the scientific community:

- **An expert mediator is needed, in order to bridge science and politics**. Mundaca (Lund University) highlights that "when it comes to policy making, it is quite interesting how policy-makers tend to listen to NGOs more than academics, more than scientists".
- **Policy documents at the EU level usually quote reports coming from institutions like WWF** rather than from academic research institutes. Mundaca (Lund University) argues that "it is very rare that policy documents are supported directly by scientific literature. That is giving us an indication about communication and dissemination".
- Mundaca (Lund University) believes **policy makers tend to have much more effective communication with NGOs** compared to the one they have with academics and the scientific community. This has led to interest and curiosity in the academic community concerning potential collaborations with expert mediators such as WWF and other bridging organizations which could spread scientific outputs to a vast array of actors.
- **"Big NGOs like WWF can have a very important role in bridging the gap between science and policy"** as stated Mundaca (Lund University). Nonetheless, he also pointed out how this is not currently happening, as the communication and flow of information facilitated by WWF are taking place mainly between policy makers and NGOs. This flow of information is not reaching in full capacity the scientific community. Mundaca (Lund University) concludes by saying that **"bridging organizations can play a much more important and proactive role in the future, by effectively bridging the two [policy-makers and the scientific community]".**

According to both Mundaca (Lund University) and Karvonen (KTH), NGOs as well as different TMNs are nowadays both playing the role of bridging organizations. "What is missing

- argues Mundaca (Lund University) – is a bridging organization acting at the cross-scale level, including also the national dimension in an overarching and coherent narrative". Finally, he added that WWF could emerge as such in the future, due to its adaptive polycentric nature and strong focus on the national scale as well.

**WWF's experts** believe that there is already a strong connection of the NGO to the scientific community. This connection is what is actively supporting, legitimizing and validating WWF's projects and claims with sound, independent scientific knowledge and reports. Pearce (WWF Cities) believes the legitimacy of WWF directly derives from this relationship with the scientific community. On the same note, Andrén (WWF Cities) highlights how this year's OPCC is based on climate reporting (WWF, 2019a), which will be done through an internationally recognized climate data platform, in line with the latest scientific IPCC report. Finally, Mukhopadhyay (WWF India) also confirmed how this innovative and groundbreaking methodology selected by the WWF Cities Team aims to engage cities in a science-based challenge, by disclosing their data transparently and aiming for a 1.5°C scenario, bridging science and politics at the municipal level.

In conclusion, Karvonen (KTH) added another important consideration: "we have to be strategic in spreading a certain message effectively, given the crowded communication landscape" which is characterizing the urban climate governance arena. This thesis argues that bridging organizations such as WWF can effectively reduce the costs related to cooperation and sharing of information (Boyd & Folke, 2012), by connecting actors and bridging information at different scales.

# 6 Conclusions

This work highlighted an important research gap in the state of the art of environmental governance, as many scholars have been asking for a representative map of the current stakeholders involved in the specific urban climate governance arena (Aytur et al., 2015; Bulkeley, 2010; Hamdi, 2004; Marvin et al., 2018; Monbiot, 2017; Okereke et al., 2009; Pattberg & Stripple, 2008). Because of time limitations, the scope was hereby narrowed to one actor as the unit of analysis, mainly focusing on the urban climate governance arena but also taking into account cross-scale dynamics and actions. A holistic perspective was adopted in particular in Chapter 5, focusing on a deeper discussion of the interviewees' inputs and insights, linking them to the different theoretical backgrounds presented in Chapter 3.

The aim of this academic work was to **examine which role WWF is playing in the urban climate governance arena** and to provide **recommendations to three main audiences: namely WWF, municipalities and researchers**.

An in-depth literature review helped to identify the main hypothesis of this thesis, defining WWF as a bridging organization (Folke et al., 2005). After integrating two different frameworks to analyze the qualitative primary data gathered from the interviews with the relevant stakeholders, WWF finally emerged as a mediator, therefore a bridging organization. It appears clear how legitimacy emerges as the main attribute of WWF. Its actions and services are not limited to a **top-down and bottom-up flow of information**, as this NGO plays a highly valued **sideways networking** role, connecting various other actors (Parag & Janda, 2014). After the Analysis, **WWF was defined as a highly legitimate discretionary stakeholder** in the current urban climate governance arena (Mitchell et al., 1997).

In conclusion, this work aims to provide recommendations to an array of stakeholders, namely: WWF as an emerging bridging organization, municipalities which are not currently cooperating with bridging organizations and, finally, researchers interested in this research field. These findings emerge as a preliminary insight for a new cross-cutting research field related to stakeholder mapping. Thus, there is **potential for future research** and for connecting other academic fields in a cross-disciplinary perspective, in order to contribute to the existing body of knowledge with a holistic approach. This thesis contributed to move the understanding of the research problem forward, by providing an innovative approach to address the main research gap. It aims to draw academic attention to the need of a representative map of stakeholders and processes related to environmental governance.

In terms of methodological, theoretical and analytical choices, because of the intrinsic time and scope limitations of this study, two analytical frameworks were merged(Mitchell et al., 1997; Parag & Janda, 2014). In terms of **generalizability of the findings**, this study emerges as both relevant and representative by analyzing a snapshot of diverse cases as well as by interviewing an array of stakeholders coming from different geographical areas. This thesis also ensures sectoral representation, as the twenty-four interviewees were selected from different sectors of society, from architects to engineers to sustainability officers and municipal representatives.

## 6.1   Recommendations to WWF

WWF emerges as a highly legitimate, transversal, bridging organization. This NGO could take advantage from this unique position and role, in order to:

- **Engage the scientific community in WWF projects.** Strengthening the connection with the scientific community would translate not only in sharing more information provided by the scientists and academia, but also in engaging these actors in multi-level governance (e.g. local, national, international). This would mean including scientists and academia in the design of the main WWF projects, according to Mundaca (Lund University). WWF should try to close the gap between science and politics more effectively, by using its typical strategies. WWF is currently developing a set of webinars targeted to different audiences; mainly aiming to guide municipal officials who are taking part in this year's OPCC. The NGO could use the same strategy and **organize informative webinars for the scientific community, where information is shared both ways.** In this way, the scientific community could have a channel to provide feedback and additional input to WWF.

- **Institutionalize WWF's convening role and communicate it more strategically and effectively to other stakeholders.** For WWF, communicating more effectively its role of bridging organization to its partners, would lead to many co-benefits such as to decrease the elements of uncertainty and competition and incentivize long-term partnerships. Since many actors (in particular TMNs) are not sure about which role WWF is currently playing in the urban climate governance scenario, the NGO is often perceived as a potential competitor for resources. This prevents many opportunities for collaboration because of the unclear role WWF plays in the arena. On the other hand, by actively changing the narrative and embracing the role of bridging organization, WWF could present itself to different stakeholders as a convener, therefore as a medium to reach other partners, opportunities, scientific information.

- **Build horizontal networks with other bridging organizations.** WWF could invest in building a network of bridging organizations, in order to share know-how, strategies and valuable information on how to effectively emerge as a bridging organization in different arenas.

## 6.2   Recommendations to Municipalities

As this paper has highlighted, municipalities play a pivotal role in the current urban climate governance arena. They can choose to implement their agenda horizontally (through TMNs) or vertically (heavily drawing on the national or international policies in order to re-shape their local agenda). Nonetheless, urban realities should consider the value-added of collaborating with bridging organizations which could be NGOs such as WWF, but also other emerging non-state actors that have not been institutionalized yet.

The main objective of this paragraph is to provide recommendations to those municipalities like the City of Verona, which have an environmental agenda in place but are lacking the necessary resources, public engagement, momentum to effectively implement it. This thesis argues that every municipality needs to engage in a long-term partnership with a legitimate bridging-organization. A municipal collaboration with a legitimate convener would have many beneficial side-effects, leading the city to:

- **Invest in long-term partnerships with a diverse array of stakeholders.** The bridging organization would convene a diverse array of stakeholders and partners, linking them to the municipality and the municipal agenda.

- **Provide trustworthy, third-party information to urban citizens.** As in the case of Verona, citizens usually are less sensitive about environmental issues because they are not informed. Environmental action is a consequence of environmental awareness and

this can be triggered by a trustworthy, legitimate, third-party source of information, such as WWF.

- **Seek external validation and support for municipal policies.** As it emerged in the case of Verona and as it was argued by Arteaga (Municipal Planning Institute of Los Mochis), it is important for municipalities to receive external validation and support in relation to their policies. As a matter of fact, policies often lack the necessary support from citizens, the private sector, or other stakeholders. Thus the endorsement of an independent bridging organization validates the environmental efforts of a certain municipality at the transnational level.

## 6.3 Suggestions for Future Research

The main suggestions for researchers interested in deepening and following up on this thesis are derived from the important research gap at the foundations of this study. It is not possible to fill this gap only with this research, which rather emerges as an attempt to tackle it from a different, interdisciplinary perspective. A new wave of cross-cutting experimental research is needed in order to continuously improve the analysis of this field. As already mentioned, this work emerges only as a first step in order to deepen the knowledge and understanding of the shifting and emerging roles of different stakeholders in the current urban climate governance arena. **The limitations of this work and the broadness of this field are what calls for more future research on this topic**, also because of the urgency of climate action. Therefore, future research could build on the preliminary outcomes of this research, further analyzing:

- The role of other emerging actors in the current urban climate governance arena, which do not fall under the label of "bridging organization";
- The role of emerging actors to "speak truth to power": how the main channels for spreading and communicating scientific knowledge are currently changing and which actors are helping to close this gap;
- Other scales of governance and on how bridging organizations move between these, connecting actors at different scales and arenas;
- Innovative stakeholder maps developed on different set of attributes. Moreover, further integrating this stakeholder map with the perception of other stakeholders (e.g. civil society, local NGOs, the private sector) to make it even more representative.

*Figure 13: Infographic Representing WWF as a Bridging Organization*
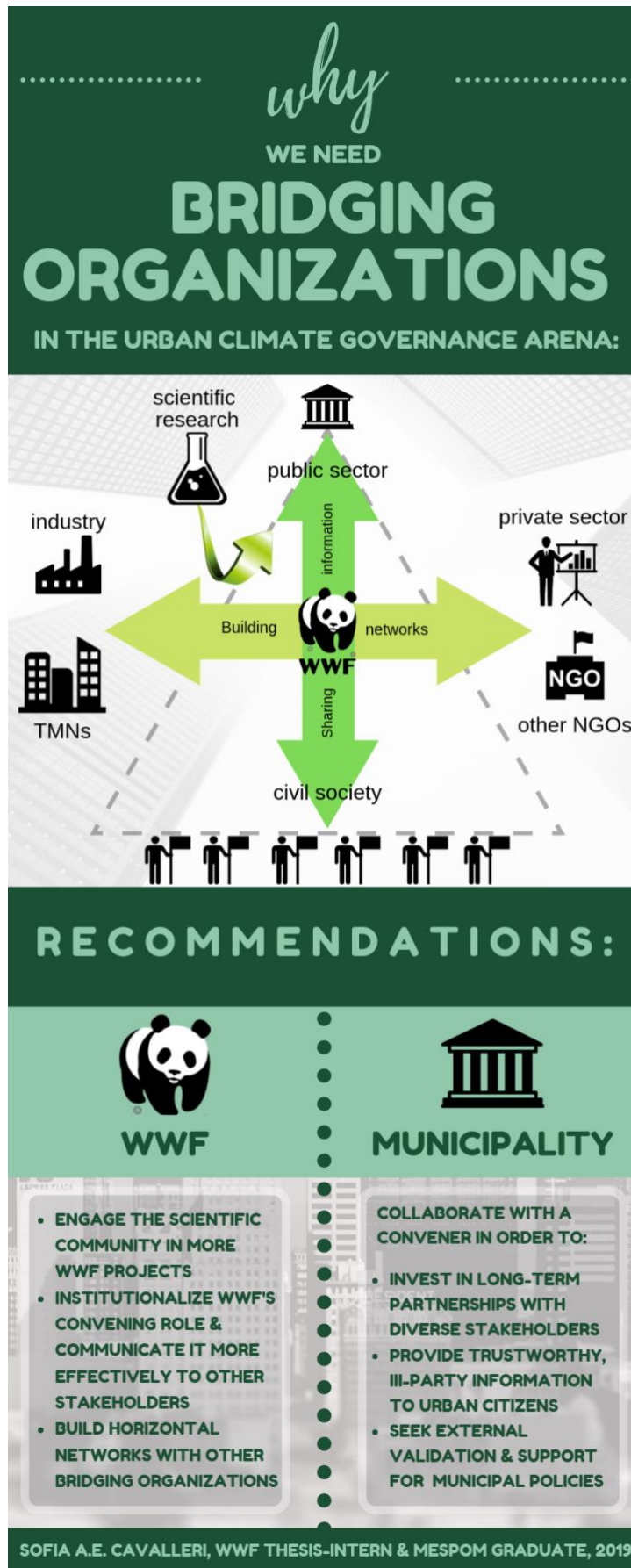


*Source: Own Elaboration.*

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# Appendix

## Appendix A – Complete List of 24 Interviewees

| Interviewees | Job Position | Organization |
|---|---|---|
| Garrett T. Wong | Senior Sustainability Analyst, Climate and Energy | City of Santa Monica |
| Brady Faught | Green Buildings Engineer, Sustainability Department | City of Vancouver |
| Linda Birkedal | Environmental Strategist | Lund Municipality |
| Mangesh Dighe | Environmental Officer | Pune Municipality |
| Jean Marie De Waal | Strategic communicator for "Informal Settlements, Water and Waste Services, Energy, Finance" | City of Cape Town |
| Julian Castillo | Urban Architect | Barranco Invertido, Guatemala City |
| Björn Sigurdson | Founder/CEO | Uppsala Climate Protocol |
| 2 anonymous interviewees | Bureau of Environment | Tokyo Metropolitan Government |
| Daisuke Nakayama | Manager | Climate Change Policy Headquarters, Yokohama City |
| Gustavo Arteaga | Coordinator | Municipal Planning Institute in Los Mochis |
| Federico Sboarina | Mayor | Municipality of Verona |
| Elisa La Paglia | City Councilwoman | Municipality of Verona |
| Gianpaolo Bottacin | Minister of the Environment and Civil Protection | Region Council of Veneto |
| Anthony Pearce | Program Manager Sustainable Cities | WWF Cities |
| Sabina Andrén | Program Manager One Planet Cities | WWF Cities |
| Jennifer Lenhart | Global Lead, WWF Cities | WWF Cities |
| Carina Borgström-Hansson | Senior Advisor Footprint and Cities | WWF Cities |
| Louise Scholtz | Program Manager Urban Futures | WWF South Africa |
| Suchismita Mukhopadhyay | Associate director of climate change and energy | WWF India |
| Guilherme Johnston | Program Manager Global Resilient Cities | ICLEI |
| Andrea Fernández | Director of Governance & Global Partnerships | C40 |
| Andrew Karvonen | Associate Professor of Sustainable Urban Development | KTH Royal Institute of Technology, Stockholm |
| Luis Mundaca | Professor of Low-Carbon and Resource Efficient Economics and Policy | IIIEE at Lund University |

## Appendix B – Sample Interview Guide

The sample below represents an overarching version, covering the main themes explored in the interviews held during this research process. Specific interviews were further adapted to the interviewees, with additional tailored questions.

| | |
|---|---|
| **1.** | Which are the main actors in the current urban climate governance arena? |
| **2.** | Which scales of governance is WWF mainly connecting? (e.g. horizontal, vertical, regional, national, international, …) |
| **3.** | What is the role of WWF Cities? After my literature review, what emerged is that WWF could be described as a mediator/convener/bridging organization? Do you agree? |
| **4.** | How does your organization perceive WWF in relation to these three attributes: power, legitimacy and urgency? (These three were further defined) |
| **5.** | How does WWF create capacity-building at the local, municipal level? |
| **6.** | In what way is WWF bridging information? |
| **7.** | How is WWF positioned in relation to the main TMNs (such as ICLEI, C40)? |
| **8.** | WWF claims to provide benefits to cities which actively engage in its projects. Which do you think are the main benefits WWF provides to cities? |
| **9.** | Do you think WWF could do more in order to effectively bridge the gap between science and politics? |

## Appendix C – City Solutions Articles on WWF Webpage



http://wwf.panda.org/our_work/projects/one_planet_cities/city_solutions/