



universität
wien

MASTERARBEIT / MASTER'S THESIS

Titel der Masterarbeit / Title of the Master's Thesis

„Governance of Climate Change Adaptation in Policy making and Praxis – Interaction between Federal states and Alpine wide frameworks and strategies“

verfasst von / submitted by

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angestrebter akademischer Grad / in partial fulfilment of the requirements for the degree of
Master of Arts (MA)

Wien, 2022 / Vienna, 2022

Studienkennzahl lt. Studienblatt /
degree programme code as it appears on
the student record sheet:

UA 066 589

Studienrichtung lt. Studienblatt /
degree programme as it appears on
the student record sheet:

Masterstudium Internationale Entwicklung

Betreut von / Supervisor:

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Für Manuela, Paul und Theo, die mein Leben auf den Kopf gestellt haben und es Tag für Tag bereichern,

For Manuela, Paul and Theo, who have turned my life upside down and enrich it day by day,

Für meine Eltern, die mich mein ganzes Leben lang unterstützt sowie mit Liebe und Wertschätzung überschüttet haben,

For my parents who have supported me all my life and showered me with love and appreciation,

Für meinen Bruder, der immer an meiner Seite ist und für Aufheiterung sorgt.

For my brother who is always by my side to cheer me up.

Danke euch von ganzem Herzen!

Thank you from the bottom of my heart!

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1 Introduction

The average global temperature changed dramatically over the last decades and is still steadily rising. Recent studies¹ talk about a global warming of 3 °C, which is severely dangerous for the poorest countries, especially in (sub-Saharan) Africa. Increasing heat and drought cause the loss of harvest and the death of cattle. Hence, millions of people suffer from massive malnutrition and hunger. However, global warming also shows its effects, of course to another extent, in countries of the Global North which are mainly responsible for the global emissions. Regarding Europe there are more storms and floods observable, hail destroys the harvest and glaciers start to melt. Such ecological incidents all around the world make the anthropogenic climate change (IPCC 2014: 5) evident.

Austria also has an indicator for global warming. As a part of the Alpine region it depends economically on the prosperous environment of the Alps. Despite its importance as a beloved tourist resort, it further is a natural heritage for essential water and wood reserves. Due to the increasing average temperature, the whole ecosystem and biodiversity start to change. Consequently, there are more natural hazards that endanger the vegetation as well as the agriculture and forestry. Since the Alps represent a living environment for millions of people it is inevitable that a large number will lose their livelihoods.

Climate change is one of the most important topics for the near future to deal with. Thus, it requires substantial programs for climate change adaptation and climate change mitigation. The United Nations declared the fight against climate change and its impacts as number 13 of the Sustainable Development Goals² in 2015. One year later the Paris Agreement entered into force to achieve a limitation of the rising global temperature and a reduction of emissions. In regard to the Alpine region the Alpine Convention³ of 1995 contains general measures for a sustainable development in this area. Although a majority of countries ratified and adopted these agreements there are still some global players who deny the existence of climate change. Furthermore, there are many institutions that try to emit their responsibility to combat climate change and its impacts. The worst example in this regard is the United States of America with its former president Donald Trump, who withdrew the US from the Paris agreement in 2017

¹https://www.oxfam.de/blog/neuer-schwung-klimaschutz-beim-g20-gipfel?utm_content=buffer1517b&utm_medium=social&utm_source=facebook.com&utm_campaign=buffer
[Access: 27.02.2021]

²<http://www.un.org/sustainabledevelopment/climate-change-2/> [Access: 27.02.2021]

³<https://www.alpconv.org/en/home/> [Access: 27.02.2021]

and kept on denying climate change. As another common example, there is emissions trading which is a market-based approach in order to control pollution. It creates tradable pollution certificates that permit a certain amount of greenhouse gas emissions. Thus, the incentive for companies or other entities is to minimize their carbon emissions in such a way, as to enable them to sell their surplus of certificates on the market. Hence, the biggest polluters will never attempt to reduce their emissions, because they can cover every ton of pollution with the purchase of such certificates. Unfortunately, big players are able to purchase certificates from “offset projects⁴”, from carbon reduction projects in the developing world, where environmental integrity and social standards are usually insufficient (see also Brunnengräber 2009).

Climate change is a big problem and a serious threat for future generations. There have been a lot of conferences on climate change over the time, also known as Conference of the Parties (COP). The most known treaty from COP3 was the Kyoto Protocol in the year 1997. The Paris climate conference in December 2015 was COP21, where 195 countries adopted the first-ever universal, legally binding global climate deal⁵. One year later at COP22 in Marrakech, nations of the world gathered again to discuss strategy about the implementation of the Paris Agreement. In 2019, the so far last COP25 took place in Madrid, Spain.

Hence, the question rises why, in spite of this number of conferences with regard to tackle climate change, there are so few results. Since most of the environmental agreements seem to have failed, at least partly, the same question occurs to the Paris Agreement. Amongst others, Austria is obliged to counteract this development and has a number of instruments to react to climate change and its effects, such as the Austrian Climate Change Act, or the Austrian Strategy for Adaptation to Climate Change, as well as a number of other regional strategies.

The Alpine Convention and the EU Strategy for the Alpine Region (EUSALP) are two transnational strategies that play an essential role in this discourse. The strategies have a focus on the Alpine states, such as Austria. Among other things, both aim to protect the Alpine region from climate change and its effects through cross-border collaboration and thus concern Austria as well. However, an effective governance between all horizontal and vertical levels is inevitable in order to guarantee the success of both strategies and reach their objectives. Due to the rising temperatures and a declared climate emergency since 2019 in

⁴ <https://www.global2000.at/emissionshandel> [Access: 27.02.2021]

⁵ https://ec.europa.eu/clima/policies/international/negotiations/paris_en [Access: 27.02.2021]

Austria, there is the impression that Austria is struggling with tackling climate change and the implementation of the Alpine Convention as well as the EUSALP.

This thesis aims to analyze the challenges related to multi-level, cross-sector and multi-actor governance of climate change adaptation processes and explore governance and implementation capacities on vertical levels in Austria. Therefore, it aims to examine potential factors for the challenges of the implementation of the Alpine Convention and the EUSALP. Furthermore, it analyzes the various governance levels of both strategies. It takes a closer look at improvement opportunities with regard to the enhancement of the implementation process. Additionally, there is a case study of Styria to exemplarily show the implementation of the Alpine Convention and the EUSALP in Austria.

The thesis is divided into eight main parts. After the first chapter gives a brief introduction to the topic and introduces the reader to the basic considerations behind the thesis, chapter two presents the research design. It discusses the objectives of the study in more detail. In addition to presenting the research questions, the purpose of the research is also addressed. The content of the thesis continues in chapter three, which will explore the background of climate change and its impacts. It also sheds light on climate change as an anthropogenic phenomenon. Furthermore, it focuses on climate change adaptation and explains why it is crucial for a sustainable development. Chapter four will turn towards an overview of the central theory used in this research. It provides definitions of specific terms and explains the core subjects to the reader. This is essential for the thesis, because concepts such as governance have a variety of different perceptions and thus must be exemplified in depth to understand the author's point of view. It will also describe the two main strategies for this research, the Alpine Convention and the EUSALP.

Chapter five starts to give an overview about climate change adaptation in Austria, including some relevant stakeholders for this discourse, and continues with providing a foundation about Styria and its environmental situation and policies. Hence, there is some data of different environmental parameters followed by an analysis of climate change adaptation strategies of Styria. This is important to get a better understanding of the federal state. The methodology used in this research will be discussed in chapter six, focusing on the intricacies of qualitative data as well as the field research process and the methodology behind the analysis of the gathered data.

Chapter seven will take a closer look at the Alpine Convention and the EUSALP. It analyzes both their structures and contents as well as highlights potential governance patterns. Then the chapter draws a comparison between these two strategies to search for overlaps or dichotomies. Moreover, the chapter covers the research process and starts with an explanation of the research method and how it was implemented. Afterwards, the chapter continues to specify the results of the data collection and findings during the interviews including a comparison of the Alpine Convention and the EUSALP based on the information of the interviewees. Chapter seven finishes with the analysis of the situation of climate change adaptation measures in Styria and what roles the Alpine Convention and the EUSALP play thereto. Finally, chapter eight ends this thesis with a conclusion and a foresight for future research possibilities.

2 Research

2.1 Research purpose

Austria, as a member state of the United Nations, signed and ratified all environmental agreements of the United Nations Framework Convention on Climate Change (UNFCCC) to meet the targets of greenhouse gas emission reduction as well as the protection of the climate (Umweltbundesamt 2018: 25f). When taking a look at the numbers for 2016, there are greenhouse gas emission levels of 79.7 million tons, which is 0.8 million tons above the levels of 2015 (ibid.: 6). As levels of greenhouse gas emissions are still rising, Austria fails to fulfill its obligation to tackle climate change.

As mentioned above the Alpine region is a good indicator for climate change impacts. Due to its widespread surface over eight countries, it is inevitable to improve cross-border cooperation as well as identify common goals and implement them effectively to address the challenges of climate change. One important treaty for the Alpine region is the Alpine Convention, which is a central part for this master's thesis. Since it entered into force in 1995 it is legally binding under international law for each of the Alpine countries, which are (in order of surface area covered): Austria, Italy, France, Switzerland, Germany, Slovenia, Liechtenstein and Monaco. Additionally, there is the EU Strategy for the Alpine Region (EUSALP) which is another central part for this thesis. Both will be discussed more detailed in another chapter. The crucial part is the implementation of such strategies and the political coordination between all states. Hence, governance is an essential concept for the success of climate change adaptation as well as climate change mitigation processes.

The thesis' objective is to shed light on governance processes of the Alpine Convention and the EUSALP in Austria. Therefore, the focus will be on national and regional level with the case study of Styria. Looking at these governance structures on the vertical level, the thesis seeks to identify:

- which institutions are responsible for implementation structures,
- who is in control of decision-making processes
- who is influenced by whom and how
- where does implementation work and where not.

This includes especially national authorities responsible for policy-making on climate change adaptation, but not to forget NGOs, public actors and other interest groups. Governance and climate change adaptation are an interacting system. This interacting system is obligatory for the successful transition from adaptation strategies in theory to the implementation of these strategies in practice. Therefore, the overall focus of this thesis is to analyze to what extent these two diverse strategies with the same objective need to be governed. It gives a new perspective to an old, yet common, phenomenon in a current and more than ever important discussion.

2.2 Research questions

Thus, result the following main research question:

What governance structures of climate change adaptation strategies can be identified within the Alpine Convention and the EUSALP and what do they imply for regional implementation of both strategies in Styria?

Further, there are several sub-questions:

- What are the main challenges for climate change adaptation governance?
- In how far does vertical cooperation influence climate change adaptation governance?
- How could the mainstreaming of climate change adaptation be enhanced?
- Where are potential overlaps or contrasts between these two strategies?
- Who is responsible for a successful implementation of climate change adaptation strategies?

2.3 Research structure

The basis for this research is on one side the Alpine Convention and on the other side the EUSALP, which are each an individual and autonomous strategy. Both strategies are published and information is available on each website. Hence, the documents of the Alpine Convention and the EUSALP are used on the one hand to introduce and discuss both the strategies and on the other hand are used as empirical material. After an in-depth analysis and

comparison of these strategies, there is a case study of Styria to exemplarily show their current implementation on federal state level. Therefore, interviews with several stakeholders of different thematic fields were conducted. Additionally, this research is supported with content by the department for Environmental Impact Assessment and Climate Change of the Environment Agency Austria. It provides secondary information as well as possible expert knowledge. Moreover, the department serves as a contact point to the interviewees for this research. The research is based on a transdisciplinary approach over governance processes.

After this overview about the research design, the thesis continues with the introduction of the core topic for this research. It shows the complexity of climate change and its immediate effects on society. It further outlines the importance of adaptation to climate change in order to achieve a sustainable development.

3 Climate Change

The following chapter starts with exploring the problematic issue of climate change and its multitude of impacts. It further discusses the negative externalities of global warming and stresses climate change as anthropogenic. After taking a look at climate change effects in Austria, the following section presents the central part of this thesis and examines the indispensability of adaptation processes to climate change. Therefore, it is necessary to illustrate the diverse concept of adaptation und its definitions. Moreover, adaptation to climate change as an emerging policy field must be considered as a complement to climate mitigation and requires an in-depth analysis. The chapter continues by emphasizing the interdependence of climate change adaptation and sustainable development. Adaptation measures reflect the principles of sustainable development, especially in order to pursue the Sustainable Development Goals. Thus, the chapter finally rounds up the general concept of sustainable development and highlights the fact that all countries bear the responsibility for sustainable development and increase resilience to climate risks.

3.1 Climate change

As mentioned above the average global temperature has increased about 3°C over the past decades, with severe consequences on the environment. Land and sea temperatures have raised precipitation patterns and quantity altered significantly, resulting in an increasing global sea level, risks of coastal erosion and an expected increase of weather-related natural disasters (European Commission 2009: 3). Hence, all these changes will in turn affect food supply, health, industry, as well as transport and ecosystem integrity. Climate change will further lead to economic and social impacts on some regions and sectors with different effects, especially parts of society like elderly, disabled or low-income households were expected to suffer more (ibid.).

The Environment Agency Austria identifies anthropogenic climate change as a reality which will continue:

Recent studies have shown that a further temperature increase is unavoidable, even with a complete halt in the emission of greenhouse gas. As a result, over the past few years, the necessary steps for adaption to the inevitable consequences of climate change have increasingly come under discussion. (Prutsch et al. 2014: 6)

Due to climate change and further increasing temperature some major impacts became evident like the retreat of glaciers, the thawing of the permafrost, the increasing intensity and frequency of heavy rains and the rising number of hot days (ibid.: 11). As a result, qualitative and quantitative changes occurred in water resources. Hence, “[m]any terrestrial, freshwater and marine species have shifted their geographic ranges, seasonal activities, migration patterns, abundances and species interactions [...]”. (IPCC 2014: 6) Not to forget negative impacts of climate change on crop yields were more common (ibid.).

Moreover, impacts on agriculture also affect livestock management and the location of production. Climate change therefore increases the risk of crop failure. Additionally, it will affect soil by depleting organic matter, which is important for soil fertility. These effects were likely to cause changes on forests, regarding forest health and productivity and changes to the geographic range of certain tree species. Finally, not only agriculture, but also aquaculture sectors and fisheries suffer severely from changing climate (European Commission 2009: 4).

The IPCC (2014) identifies anthropogenic greenhouse gas emissions as the main cause for climate change. The most important drivers of anthropogenic climate change are global economic and population growth. Increased use of coal, fossil fuel combustion as well as other industrial processes contributed about 78% of CO₂ emissions since the 1970s (IPCC 2014: 5).

This has led to atmospheric concentrations of carbon oxide, methane and nitrous oxide that are unprecedented in at least the last 800,000 years. Their effects, together with those other anthropogenic drivers, have been detected throughout the climate system and are *extremely likely* to have been the dominant cause of the observed warming since the mid-20th century. (IPCC 2014: 4)

Dietz (2011) also refers to capitalism, based on the economic model of neoliberalism with its assumption of sharp growth and centralization, as the main driver of greenhouse gas emissions (Dietz 2011: 35). Moreover, she refers to the idea of a “triple inequality” between the North and the South resulting of different social vulnerabilities about, lack of responsibilities for and various mitigation possibilities for, the case of climate protection policies (ibid.: 34).

Figure 1 below shows the world’s biggest greenhouse gas emitters in 2015. China on the undisputable top with more than twice as much kilotons CO₂ emissions than the second ranked United States of America. Followed by the European Union as the third biggest emitter and closely behind are India and Russia.

Greenhouse gases can endure for thousands of years in the atmosphere and have a global impact, regardless of where they were first emitted⁶ (European Parliament, see footnote 6).

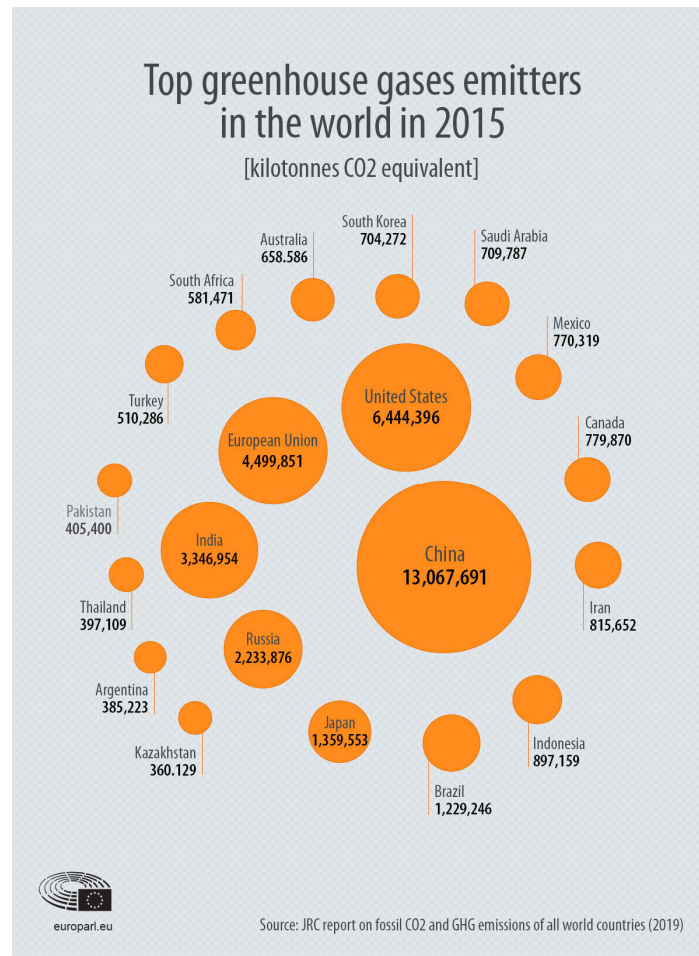


Figure 1: World's top greenhouse gas emitters in 2015 (Source: <http://www.europarl.europa.eu/>)

Climate change in Austria became evident in the mid-nineteenth century with the beginning of industrialization. Ever since, records indicate an increase in the average annual temperature in Austria of about 2°C. The past three decades alone cover 1°C and an increasing precipitation by 10-15% (BMLFUW 2017a: 37) which equals in a plus of about 8,2 hot days and a minus of 13,8 frost days. Foresight for the end of the 21st century proclaims three times more greenhouse gas concentrations if Austria keeps its “business-as-usual” strategy and does not achieve the Sustainable Development Goals. Temperature is expected to increase for another +4°C, while the number of frost days will decrease up to 70 days (ibid.: 42).

⁶ <http://www.europarl.europa.eu/news/en/headlines/priorities/climate-change/20180301STO98928/greenhouse-gas-emissions-by-country-and-sector-infographic> [Access: 27.02.2021]

When Austria signed the Kyoto Protocol in 1997 it further committed to the UN Framework Convention on Climate Change (UNFCCC), which was formed five years earlier on the global level. Together with the EU and other industrial nations, Austria was bound to tackle the challenge of climate change with binding emissions targets (Brand; Pawloff 2014: 780f). Austria itself is one of the wealthiest countries in the world with an efficiently producing industry and a comparatively high level of renewable energy production. Although it has a rich history of environmental action and good preconditions for progressive climate action, emissions of greenhouse gases in Austria are still very high (ibid.: 781). Compared to the 1990 levels emissions have risen to 6% in 2011, which is an equivalent of 82.8 million tons of CO₂. Transport sector, industry and energy production were the three largest emitters and were responsible for 73% of total emissions in Austria. Especially motorized individual transportation receives a lot of privileges, like the regularly increased commuter tax allowance which encourages commuting by automobile. Moreover, Austria has one of the lowest rates of taxation on petroleum in Europe (ibid.).

With 2016 being the fourth warmest year in Austria since the first records about 250 years ago (EAA 2017: 20), the damages of temperature increase and climate change have reached to annual average costs of one billion euros (ibid.: 21). As temperature is expected to increase steadily, so will the economic and social consequences with costs up to five billion euros per year, in worst case scenarios even eight billion euros. What cannot be estimated yet are more costs caused by climate change like migration. Increasing temperature has severe consequences for countries of the Global South, which results in social insecurity. In the near future a number from 74 to 250 million people over Asia and Africa are affected (ibid.: 22).

Hence, a transformation of society and economy is inevitable and climate change adaptation programs more than necessary.

3.2 Climate change adaptation

The meaning of the word “adapt” can be defined as changing in a certain way to fit better or to be better suited for something. “Adaptation” can describe the changing process as well as the already changed condition (Smit et al. 2000: 227). Adaptation to climate change refers to adjustments in a system in response to (or in the light of) climatic stimuli and simultaneously indicates differences in scope, application and interpretation of the term “adaptation”.

For example, the question “adaptation to what?” is answered in different ways. It can refer to climate change, to change and variability, or just to climate. It can be in response to adverse effects or vulnerabilities, but it can also be in response to opportunities. It can be in response to past, actual or anticipated conditions, changes or opportunities (Smit et al. 2000: 228)

The process of adaptation can also vary depending on the subjects or objects that are addressed. Are they natural people or man-made systems? What size and complexity do they have? Do they have special characteristics: are they versatile, resilient, vulnerable, flexible viable, etc. (ibid.)? Finally, adaptation can be distinguished as “how does adaptation occur?” which refers to both to the process of adapting and to the resulting outcome or condition. Adaptations can be passive, reactive or anticipatory; they can be spontaneous or planned (ibid.).

Climate change adaptation is an emerging policy field. Individual and societal adaptation to new climatic and environmental conditions becomes increasingly important. Existing systems and structures are modified in order to benefit from changing conditions and to minimize damages due to climate change (Clar; Prutsch; Steurer 2013: 1). According to the UNFCCC⁷, the development of adaptation measures as well as the implementation of various actions is crucial to react to climate change effects hitherto and in the future (UNFCCC, see footnote 7).

Moreover, adaptation solutions are very diverse and depend individually on a community, business, organization, country or region. There is no “one-size-fits-all-solution”. Hence, successful adaptation may be undertaken across various regions, and sectors, and at various levels, and does not only depend “[...] on governments but also on the active and sustained engagement of stakeholders including national, regional, multilateral and international organizations, the public and private sectors, civil society and other relevant stakeholders, as well as effective management of knowledge.” (UNFCCC, see footnote 7)

Hallegatte, Lecoq and de Perthuis (2011) differentiate between two types of adaptation. On the one hand, there is reactive adaptation, which consists of reacting ex post to adverse impacts of climate change when they occur. On the other hand as a contrast, there is anticipatory adaptation, which prepares today for future results of climate change either to eliminate, lower or benefit from the changes. They further stress the distinction of both types of adaptation as essential regarding public policies, as the reasons which one to use are different (Hallegatte; Lecoq; de Perthuis 2011: 5).

⁷ <https://unfccc.int/topics/adaptation-and-resilience/the-big-picture/what-do-adaptation-to-climate-change-and-climate-resilience-mean> [Access: 27.02.2021]

While anticipatory adaptation applies current means to prevent future damages or to benefit from climate change, reactive adaptation works with means that are available at the actual moment that the results of climate change happen. Even though anticipatory adaptation is often much cheaper it is more difficult to reach political consensus about it. It is easier to decide on actions after climate change effects have occurred, even if they are more expensive in comparison to preventive actions (ibid.).

Another acknowledged distinction of adaptation typologies can be drawn between autonomous and planned adaptations. The first may also be called automatic, spontaneous, passive or natural adaptations, which occur in systems as a matter of course. The second is also called strategic or active and require or result from deliberate policy decisions. In socio-economic systems, autonomous adaptations can be grouped according to their degree of spontaneity (in-built, routine and tactical), planned adaptations may be distinguished by the intent and timing of the initiative and/or by the actors involved (private individual or governments). Furthermore, there is the recognition that adaptations to systems in response to non-climatic stimuli may unintentionally or incidentally serve as an adaptation to climate change or variability (Smit et al. 2000: 239).

Nonetheless, actions taken in either autonomous or planned adaptation processes are always imbedded in the political and social context in which they occur and are not independent of one another. Clar, Prutsch and Steurer (2013) emphasize that autonomous adaptation can fail for several reasons. In General, people only take actions if they can profit in some way from the results. Also, a lot of people do not know that they are affected by climate change or do not have the means or the knowledge to address those challenges. These aspects result in poor choices and insufficient measures taken by individual people. Thus, governments need to step in and facilitate climate change adaptation with a broad variety of public policies. In order to implement climate change activities in a coordinated and knowledge-based way, governments are working on adaptation policies and strategies as well as governance structures and mechanisms (Clar; Prutsch; Steurer 2013: 1).

The UNDP stresses the necessity of adaptation to climate change for survival as the priority for all countries, as climate change can lead to unknown negative developments or new environmental catastrophes. Therefore, strategies for disaster risk management as well as enhancing other policies and measures, such as early warning systems and emergency plans, are crucial in order to reach an effective adaptation to the changing climate and other climate-related risks (UNDP 2010: 7).

However, adaptation is not simply about better risk reduction or coping with a stochastic climate. The extent of vulnerability to climate change is a function of changing risks as well as the levels of exposure, sensitivity, and adaptive capacity to new and emerging hazards. [...] Effective climate change adaptation requires long-term planning approaches at the national, regional and local levels. (UNDP 2010: 7)

Hence, long-term investment decisions are essential to cut the direct local costs of global warming (ibid.: 8).

3.3 Climate change adaptation and sustainable development

Climate change is nowadays one of the largest global challenges and already has had and will further have severe effects in all corners of the world. Especially the poorest countries bear the biggest burden and suffer the most from climate change and its impacts, such as hunger, security, droughts, floods or heat shocks. Moreover, developing countries are not able to deal with climate change adaptation so readily, as it is projected to cause an additional USD 168 billion dollar of debt payments over the next ten years among the most climate change vulnerable countries⁸.

Hence, climate change is not just an environmental, but also an economic, social as well as political issue. It is therefore necessary to adapt to the impacts of climate change within the framework of sustainable development. Sustainable development has emerged as a discourse for transformations in economic, social, technological and political decisions and actions which can enhance adaptation (ibid.: 20). To understand the emergence of sustainable development with its numerous definitions it is indispensable to amplify the broad roots of the concept.

According to Harvey (2012), sustainable development is an approach “[...] of different diverging aspects of what can be considered development in a society, taking into account what would be best way forward to ensure a lasting effect that brings the best outcomes on an economic, social and environmental level.” (Harvey 2012: 57) Sustainability has become a central part of everyday life and refers to many areas of human life. Harvey stresses its holistic approach to all three aspects of development (see Figure 2) as an ideal pathway for growth without depleting the environment, exploiting communities or profligate spending (ibid.). An interesting exemplification draws a picture of sustainability in its original sense as “[...] a forest, which, unlike a plant, which develops linearly from seed to flower to

⁸ <https://unfccc.int/news/climate-change-is-driving-debt-for-developing-countries> [Access: 27.02.2021]

decomposition, constantly renews itself in an organic life cycle.” (Harvey 2012: 58) To ensure true sustainability, civil society has to be involved as soon as governments or private actors take a leading part in development projects. Otherwise, these projects are doomed to a linear development process toward failure as they will ultimately be steered toward growth (ibid.). The global challenge of sustainable development lies in complex interdependencies of environment as well as social and economic development (Elliott 2006: 9).

Three Parts of Sustainability

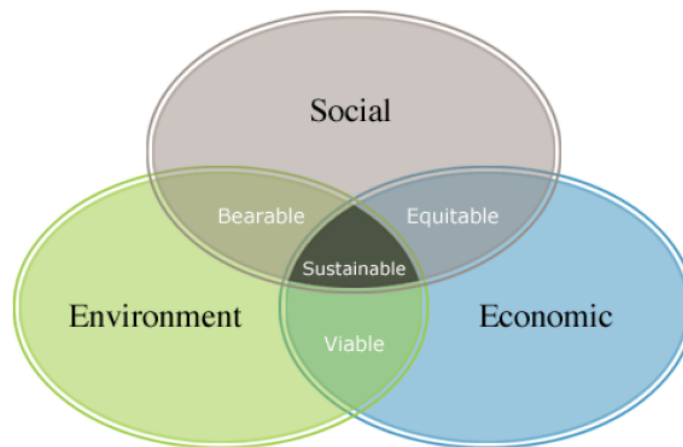


Figure 2: Three Parts of Sustainability (Harvey 2012)

Limiting the effects of climate change is necessary to achieve sustainable development and equity including poverty eradication, which provides a basis for assessing climate policies. Delaying mitigation shifts burdens from the present to the future, and insufficient adaptation responses to emerging impacts are already eroding the basis for sustainable development. Hence, comprehensive strategies in response to climate change that are consistent with sustainable development take into account the co-benefits, adverse side effects and risks that may arise from both adaptation and mitigation options (IPCC 2014: 17).

When the United Nations member states declared the set of 17 goals as part of the 2030 Agenda for Sustainable Development in September 2015⁹ their common denominator was to transform our world. Until 2030 countries and other stakeholders are determined to end poverty, protect the planet and ensure prosperity for all. Hence, this agenda builds on the Millennium Development Goals and shall complete what these did not achieve. Furthermore, the UN calls this a collective journey for sustainable development, where no one will be left

⁹ <http://www.un.org/sustainabledevelopment/sustainable-development-goals/#> [Access: 27.02.2021]

behind¹⁰. Hence, the path is obviously clear what countries have to do, but also what they should have done some decades ago.

Sustainable development is nothing new. Since the beginning of the ‘limits to growth’ debate in the 1970s (Rodriguez-Ariza; Frias-Aceituno; Martinez-Ferrero 2013: 1) the limits of economic growth and welfare became evident. Social and economic policies had to adapt to this challenge and considered global sustainable development as a common goal for the future. In 1987 the Brundtland Commission defined sustainable development as development that satisfies present needs without compromising the ability of future generations to meet their own needs (ibid.: 2). In its publication it further indicates sustainable development as preservation of the earth’s ability to sustain life in all its forms. With regard to a basis of

[...] democratic principles, gender equality, a state based on the rule of law and respect for fundamental rights, including those of freedom and equal opportunities, in order to achieve a continuous improvement in the quality of life and well-being of the planet’s present and future inhabitants. (Rodriguez-Ariza; Frias-Aceituno; Martinez-Ferrero 2013: 1)

Steurer and Nordbeck (2016) address sustainable development to the Brundtland Report as well as the documents of the UNCED Conference in 1992, particularly Agenda 21.

These policy documents emphasize the necessity of meeting human needs equitably within and between generations, given limits imposed by environmental considerations. This emphasis led to the widely shared view that SD is mainly concerned with balancing environmental, economic and social concerns – with economic and social concerns deduced from human needs. (Steurer; Nordbeck 2016: 741)

Moreover, they argue that the Brundtland Report opens up a wide spectrum of interpretations of what sustainable development actually is, because as stated in the report, even an activity with negative environmental effects can be sustainable. Consequently, governments had to define their notion of sustainable development and how they wished to implement it. Governments in Europe enacted certain sustainable development strategies with the main objective that the quality of growth must change towards “doing more with less” (ibid.). Hence, the key concepts in most strategies are dematerialization and decoupling of economic activities from environmental degradation.

One central role among sustainable development strategies of the EU and its Member States played the Lisbon strategy which was launched by the European Council in 2000 (Steurer; Berger 2011: 99) with the focus on economic and social policies. Only one year later the Gothenburg European Council agreed on a 14-paragraph strategy attachment that adds a third, environmental, dimension to the Lisbon strategy. However, the “double-track” of these

¹⁰ <https://sustainabledevelopment.un.org/post2015/transformingourworld> [Access: 27.02.2021]

complementary strategies was imbalanced from the outset (ibid.) and thus the EU started to revisit its strategic approach to sustainable development a few years later. While most EU Member States began the planning to draw up their own national sustainable development strategies, the European Council adopted a comprehensive sustainable development strategy (EU SDS) in June 2006 as a linkage to, as well as a completion of, the Lisbon strategy (ibid.). Both strategies strove for sustainable development with the difference of the EU SDS being essentially concerned with quality of life, social equity and coherence between all policy areas. Whereas the Lisbon strategy focused mainly on economic factors (ibid.: 100).

Together, these sustainable development strategies set objectives and measured the progresses in achieving them with indicators. They aimed to reshape disjointed and incremental policy-making for sustainable development into better integrated and systematic strategy cycles (Steurer; Hametner 2013: 227). Hence, with this monitoring approach their incentive was to identify, monitor and reverse unsustainable trends based on sets of a broad variety of single indicators that serve as alternative or complementary indices to GDP. Probably the most common one of such indicators is the Ecological Footprint concept (ibid.). Unfortunately, none of these indicators are aggregated in official policy documents, though they have some essential functions. On one hand, they reduce the number of measurements necessary to give a description of a situation, meaning that they are important for measuring progress towards policy objectives and also for evaluating the effectiveness of policies (ibid.: 228). On the other hand, indicators simplify the communication of positive and negative developments to politicians, administrators and the public. Furthermore, they provide crucial guidance for policy-making regarding the better horizontal integration of policies across sectors and vertical integration between different levels of government (ibid.).

An interesting point regarding EU SDS was its vertical integration through bottom-up processes with the strong involvement of Member States, meaning that the objectives of the EU SDS from 2006 reflect priority areas of a number of Member States (ibid.: 236). Since the majority of all national sustainable development strategies were already in place when the EU SDS was adopted, its political salience has deteriorated. Hence, the EU failed to live up to its aim of vertical policy integration (ibid.). Moreover, the national sustainable development strategies in Europe could unfold only a fraction of their potential to better coordinate sustainable development policy-making, horizontally across sectors as well as vertically across levels of government. Thus, the EU SDS did not lead to more coherent sustainable development strategies across Europe (ibid.).

One central topic in the foreseeable future of sustainable development will remain the sustainable development goals (SDGs). Especially the European Union still needs to define concrete strategies regarding the fulfillment of the SDGs (Obrovsky 2017: 1). Furthermore, the EU still has to face its biggest problem of financing their strategies to achieve the sustainable development goals. One important factor is the collectively commitment to provide 0,7% of Gross National Income as Official Development Assistance for the poorest and most vulnerable countries. Another emphasized factor is the allocation of private funds in regard to climate change finance (ibid.: 3).

3.4 Summary

Summing up, climate change has become the biggest threat to society. Even though most of its impacts are already well-known, such as an increasing number of hot days and droughts, floods and increasing global sea level, or an expected increase of weather-related natural disasters, there are still some economic and social consequences yet to become evident. Especially elderly and disabled people or low-income households are expected to suffer more. Furthermore, increasing temperature severely affects countries of the Global South, which run the risk of social insecurity or heat-related migration. The global economic and population growth over the last decades indicate climate change as anthropogenic and greenhouse gas emissions as the main drivers for global warming. Thus, an additional projected world population growth of roughly 83 million¹¹ people every year, an increasing economic activity and lifestyle, advance of technology, as well as energy use and land use patterns, are likely to unfold new challenges for climate policy and present an obstacle for sustainable development. That also applies to Austria who has a rich history of environmental action and good preconditions for progressive climate action, but emissions of greenhouse gases are still very high.

Climate change adaptation is an essential policy field to respond to such climatic and environmental conditions that are already happening (reactive adaptation), as well as prepare for future impacts (anticipatory adaptation). Therefore, governments and other national, regional, multilateral and international organizations, the public and private sectors, civil society and other relevant stakeholders have to collaborate in order to undertake adaptation

¹¹ <https://www.un.org/development/desa/en/news/population/world-population-prospects-2017.html> [Access: 27.02.2021]

successfully across various regions, and sectors, and at various levels. Moreover, climate change adaptation plays an important role in the sustainable development discourse as delaying effective adaptation measures shifts burdens from the present to the future. Both approaches are closely related with potential for synergies and trade-offs. Hence, strategies and actions can be pursued that will move towards climate-resilient pathways for sustainable development, while at the same time helping to improve livelihoods, social and economic well-being and effective environmental management (IPCC 2014: 90).

The thesis continues with the theory of governance and its different concepts. Moreover, it draws a line to the adaptation to climate change and why an effective governance of climate change adaptation is essential for a sustainable development. Additionally, it provides a first insight into the Alpine Convention and the EUSALP as well as of both their field of interest, the Alps and the Alpine Space.

4 **Theory**

4.1 **Governance**

The term “governance” is multidimensional and there are multiple interpretations for it. Its origin derives from a Greek word that means “to steer” which can be defined as all those activities of social, political and administrative actors that can be seen as purposeful efforts to guide, steer, control or manage societies. Furthermore, the European Commission has described governance as the rules, processes and behavior by which interests are articulated, resources are managed and power is exercised. Moreover, it specified governance concerns the state’s ability to serve the citizens (Slocum-Bradley; Bradley 2010: 32f).

Grande (2012) emphasizes that governance is more than mere hierarchic ruling of the state. He identifies five central elements as common denominator for the great variety of governance concepts. The most important one is the criticism of hierarchy as a coordination mechanism, meaning the hierarchic-bureaucratic state, hierarchic organizations and hierarchic strategies. Secondly, associated is the criticism of the state as the exclusive producer of public goods, meaning the enhanced collaboration between non-governmental actors and organizations with governmental in “Public-Private-Partnerships”. The third attribute of governance covers the emerging interdependencies caused by globalization between social systems (e.g. between state and economy), between different decision-making levels (e.g. EU and its member states), as well as between diverse policy fields (e.g. environment, transport, energy). Thus, governance is fourthly an approach to cope with the increasing complexity of political actions. As a result, the collaboration and coordination between various actors are the central point for the governance concept. Moreover, governance seeks to identify and reflect the conditions for cooperative problem solving and the coordination of social activities for the production of public goods (Grande 2012: 566f).

Grande further summarizes the scope of the governance discourse within a network of three diametric pillars. On the one end, there is the sovereign and hierarchic structured state, and the competitive markets and civil society on the other ends. He stresses the role of the state as *an* actor of governance amongst others included in a non-hierarchic structure built on cooperation with non-governmental actors (ibid.: 567). Figure 3 illustrates this interdependence of the three different poles.

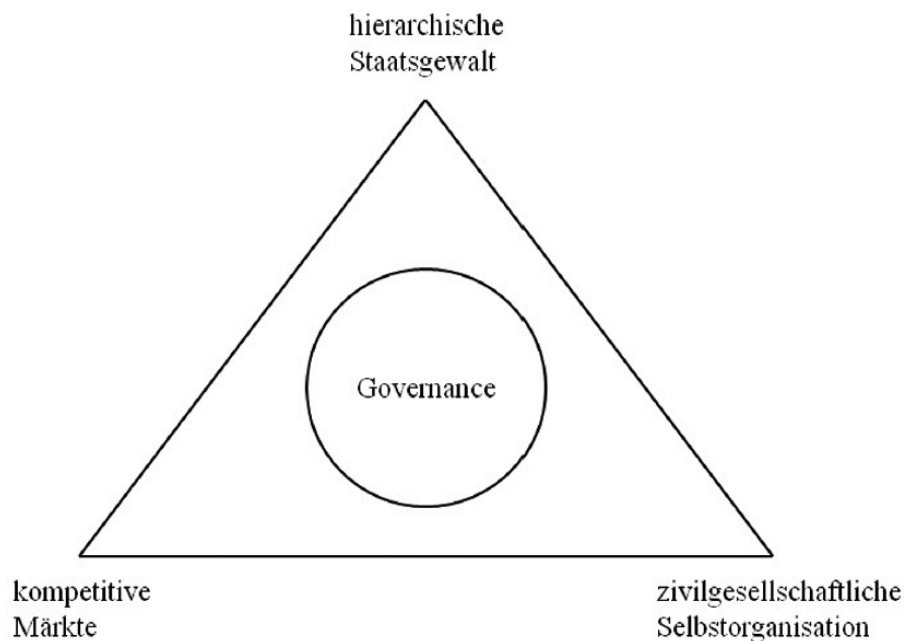


Figure 3: Subject area of Governance research (Grande 2012)

Another interesting concept of governance was published by Schuppert and Zürn (2008). In their monography they see the roots of governance in four disciplines. At first they talk about institutional economics and the essence of an efficient cooperation between nation state and economy. In this regard, governance is essential for market regulations as well as traditional allocation models as it works as a regulatory mechanism. The second root refers to political science and its branch of international relations. Governance is central to address transnational problems like environmental pollution and climate change, taking into account international Organizations and NGOs. An important part herewith is the term “Global Governance” meaning to govern beyond the nation state. Thirdly, there is “Good Governance” as a normative concept of the World Bank for efficient constitutional criteria about credits for development countries. The fourth and final category summarizes the former to one discipline, which can be translated as “from regulation to governance” (Schuppert; Zürn 2008: 16f).

This concept by Schuppert and Zürn makes the diversity of the term “governance” evident. Whereas it is not simply the hierarchal ruling within a national state, it is much more the interdependence between player of the state and society. According to Ulrich Brand (2005) this process substantially started since the beginning of the post-Fordist discourse. He writes about “Global Governance” in terms of profound and dynamic structural changes of (international) politics. Moreover, he sees “Global Governance” as an equal to the re-

regulation of the world economy and particularly of the changing role of the state and of institutions in international politics. Brand further compares this discourse to Antonio Gramsci's hegemonic theory, in which ruling actors gain consent in society for their particular interest, usually by making concessions and compromises (Brand 2005: 156f).

Hence, the term "Global Governance" is essential for this research. Especially when talking about global problems like climate change which only can be solved through transnational cooperation. A good explanation was given by the UN Commission on Global Governance (1995: 2):

Governance is the sum of the many ways individuals and institutions, public and private, manage their common affairs. It is a continuing process through which conflicting or diverse interests may be accommodated and co-operative action may be taken. It includes formal institutions and regimes empowered to enforce compliance, as well as informal arrangements that people and institutions either have agreed to or perceive to be in their interest.

The European Commission took this definition a little bit further in its White Paper (2001: 6) about reforming European governance: "Governance means rules, processes, and behaviour that affect the way in which powers are exercised at European level, particularly as regards openness, participation, accountability, effectiveness and coherence." The main goal was to address the question of how the EU could better use its powers given by its citizens and in return could connect more closely to the citizens. Or in brief, open up policy-making to make it more inclusive and accountable.

The term Governance, according to Benz (2007: 14f), can be classified within four different purposes:

- Analytic: reflection of causal relations between structures, interests and interactions in a broad and scientific perspective
- Descriptive: description of structures, mechanisms, characteristics and effects of non-hierarchic forms of cooperation between public and private actors
- Normative: description of a "Good Governance" concept which includes norms such as responsibility, rule of law, transparency and independency
- Practical: a form of governing deriving from the "Good Governance" concept which is focused on the management of interdependencies, networks and negotiation processes

For Biermann (2004), Global Governance implies a theoretical tool to face complex and global problems on a conceptual level. He describes the normative notion of Global Governance as a

political programme or ‘project’, mainly in an affirmative sense that demands the construction of a ‘global governance architecture’ as a counterweight to the negative consequences of economic and ecological globalization. Typically, this involves the call for the creation of new institutions, such as multilateral treaties and conventions, of new and more effective international organizations, and of new forms of financial mechanisms to account for the dependence of current international regimes on the goodwill of national governments. (Biermann 2004: 7)

Brand et al. (2000) also describe the concept of Global Governance as an opportunity to counter the problems of neoliberal globalization and refer to the concept as a progressive alternative to neoliberalism (Brand et al. 2000: 13). Since climate change is an anthropogenic (Dietz 2011: 35; IPCC 2014: 5) phenomenon there is a need for a global governance system on adaptation on climate change, because the required level of adaptation may exceed the institutional capacities of many nations (Filho; Hurlbert; Diaz 2016: 174). Moreover, experts point to failures and limitations of traditional international institutions as well as national governments in addressing the problem of climate change, like difficulties with an agreement upon and implementation of effective global climate treaties. Thus, with governance of climate change being a complex, multilevel process, attention needs to be focused on the international level and also on how climate protection policy is shaped locally (ibid.).

The interaction on all horizontal and vertical levels is obviously the core of climate change mitigation. Since the Austrian Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology claims a change of society and thereby a re-regulation of the world (economy), there is an indispensable necessity of comprehensive governance. Thus, the term “Global Governance” gets more and more important in political debates as well as in everyday life. According to Reinhard Steurer (2013), governance aims to capture the full complexity of rule-making in poly-centered, globalized societies in which “the state is far from the only game in town” (Steurer 2013: 388).

[...] Governance is regarded as synonymous with the broad notions of steering and regulation, all three referring to formulating, promulgating, implementing and/or enforcing societally relevant rules (binding or voluntary ones) by government, business and/or societal actors, whereby the rules can apply to others or to themselves. (Steurer 2013: 388)

Hence, governance does not decide who is governing or what resources are used, but rather describes how governing is achieved (ibid.).

As mentioned before, Brand et al. (2000) refer to the concept of Global Governance as an answer to the problems of neoliberal globalization and an actual progressive alternative to neoliberalism. It is thereto interrelated with the term of “good governance” which is common in development policy, meaning efficient and corruption-free governance and administration. However, Global Governance not only applies to governments, but to the interaction and collaboration between governments, international and supranational institutions, economic and non-governmental organizations in a network of formal as well as informal relations (Brand et al. 2000: 13).

One problem, according to Steurer, is the difficulty to oversee how modern societies are steered or in other words “who is in charge” (Steurer 2013: 388). Thus, it is difficult to comprehend how public policies and non-state types of regulation relate to each other. On the one hand, there are several taxonomic contributions, but on the other hand, they either fail to differentiate adequately between actors from government, business and societal domains or blind out important (often informal) types of regulation (ibid.). He further refers to the dichotomy of state and non-state actors, because in his opinion conceptual contributions pay little attention to the actors engaged in particular governance settings as regulators. The main focus is on how societal steering is dispersed across society. Based on a tripartite classification of governance Steurer distinguishes types of regulation between “governance by government” and “governance without government” and “governance with government” (ibid.: 389).

When reading recent newspapers about right wing movements it is hard to believe that the “governance by government” approach is going to work. Especially for the 2030 Agenda for Sustainable Development and the realization of the Sustainable Development Goals (SDGs), there is a critical importance of governance, because “[...] it is a concept that operates at various levels, comprises multiple facets and dimensions, and interlinks with other important concepts that are relevant to the realization of the SDGs. Governance for sustainable development is particularly complex, given the integration of social, economic and environmental dimensions.” (Orellana 2016: 50)

Furthermore, Orellana (2016) describes international agreements and institutions as essential factors for various governance levels and emphasizes, that there is still the obligation at the national level to establish public policies that include and foster the SDGs (ibid.). Governance also “[...] has clear connections with notions of accountability, inter- and intra-generational equity, human rights and democracy. Governance does not just refer to power structures, the

ways decisions are taken or the design and structuring of institutions.” (Orellana 2016: 50). Governance structures that can uphold rights and secure accountability for the realization of the SDGs are key to the attainment of the values underlying the United Nations Charter: a global democratic order founded on respect for human rights (ibid.: 50f).

Hence, the rise of the political conservative and right-wing parties across the European Union (EU) is a serious threat to all fundamental rights and basic democratic principles. Their discourse not only splits the society, but it jeopardizes every achievement made so far by democratic means. Already in 2001, the European Commission published a White Paper about reforming the European Governance as a reaction to the beginning feeling of alienation of Europeans from the EU. However, this feeling is not limited to Institutions of the European Union, but also affects international politics and political institutions around the world (European Commission 2001: 5). For the EU “[...] it reflects particular tensions and uncertainty about what the Union is and what it aspires to become regarding its geographical boundaries, its political objectives and the way these powers are shared with the Member States.” (European Commission 2001: 5) Although people did not feel less European and still expected Europe-wide action in many domains, they no longer trusted the complex system to deliver what they wanted. People had disappointed expectations, but expectations nevertheless (ibid.).

Consequently, the European Commission decided to launch the reform of European governance as a strategic objective. The EU had to better combine different policy tools such as legislation, social dialogue, structural funding and action programs. This process would contribute to strengthening the “Community method”. The goal of the “Community method” is to ensure a diverse and effective European Union, by treating all Member States in an equal way and to mediate between different agendas. Thus, all interests are looked at from different points of view: the European Commission, the Council of the European Union and the European Parliament (ibid.:6).

Reforming governance addresses the question of how the EU uses the powers given by its citizens. It is about how things could and should be done. The goal is to open up policy-making to make it more inclusive and accountable. A better use of powers should connect the EU more closely to its citizens and lead to more effective policies. (European Commission 2001: 6)

One phenomenon, which has to be taken into account within this discourse, is neoliberal globalization. Global Governance becomes crucial at moments “[...] when the contradictions of neoliberal globalization become obvious and are politicized in the form of crises and

criticism. Global Governance is thus a part of the search process of the complex treatment of the contradictions in institutions and references.” (Brand 2005: 165) Due to the contrasting of politics and the economy, the economy is conceived as the core process of globalization and therefore as being in its core not object of political regulation. Hence, the Global Governance concept with its orientation towards the political secures the “post-Fordist” frontier between politics and economy (ibid.). Especially today there is an upgrading of the state observable, not so much as a welfare state, but in its “efficient” form, which is promoted by political and scientific approaches that see the state as the embodiment of the general interest of society and as a neutral player. Furthermore, its role should be to contain the negative consequences of a basically unassailable “economic” globalization (ibid.: 166).

Global Governance classifies globalization as the creator and sharpener of “[...] world problems such as economic instability, poverty, wars, environmental destruction, migration, etc.” (Brand 2005: 166) Even though these problems have been recognized and should be addressed, problem-solving and order-creating political regulation is also attached to the competition discourse. This means, that only politics that builds competitiveness, enhances economic activities and improves the use of capital, is seen as successful. There is a connection between the solution of problems and the orientation towards competition: world problems such as poverty, climatic change, the erosion of biological diversity and distributional or gender-specific problems, and the efficient treatment of them, are interpreted by means of these criteria (ibid.: 166f).

After providing some insight into the term “Governance” it is necessary to define its meaning for this research.

4.2 Governance of climate change adaptation

Firstly, climate change adaptation refers to actions to increase resilience of the environment to the impacts of climate change (BMLFUW 2017a: 24). The goal is to decrease potential damages of climate change, to benefit from changing conditions and to build resilience. To reach these goals, actions can include, among others, proactive or reactive actions, individual or public actions, actions addressing different levels, etc. (ibid.).

In combination with governance, the Intergovernmental Panel on Climate Change noted in its report (2014) a considerable increase in national and sub-national plans and strategies on

adaptation and mitigation. The focus was on policies designed to integrate multiple objectives, increase co-benefits and reduce adverse side effects. Therefore, national governments played key roles in adaptation planning and implementation through coordinating actions and providing frameworks and support. Hence, institutional dimensions of adaptation governance, including the integration of adaptation into planning and decision-making, were essential in promoting the transition from planning to implementation of adaptation. Institutional approaches of adaptation involving multiple actors include economic options, laws and regulations and national and government policies and programs (IPCC 2014: 29f).

Brand and Wissen (2013) identify fossilist patterns of production and consumption as the heart of the ecological crisis, which form the basis of the so-called “imperial mode of living” of the global North. Such patterns are deeply rooted in everyday and institutional practices as well as societal orientations in the industrial nations. This implies a disproportionate claim on global resources, sinks and labor power which results in a crisis of international environmental governance (Brand; Wissen 2013: 687). Therefore, it is important that the state is been analyzed as connected to socioeconomic and cultural and socio-ecological relations. That includes norms of production and consumption, societal interests, hegemonic and marginal value orientations, as well as power relations and the role of capital in modern societies and in the structuring of the dominant forms of the appropriation of nature (ibid.: 694). According to Brand and Wissen, to gain a more comprehensive understanding when talking about governance of environmental problems it is essential to look at social processes of exploitation, in particular property relations and structures of power and class, or processes of subjectivisation, on both the local and global scales (ibid.: 703).

Nevertheless, the Austrian Strategy for Adaptation to Climate Change (BMLFUW 2017b) does barely mention governance structures. There is merely an “Action Plan” of the national adaptation strategy with recommendations for 14 fields of activity, which include amongst others agriculture, forestry, energy, health, ecosystems/biodiversity, business/industry and cities. Governance first comes up in the fields of natural ecosystems and biodiversity, which are essential for people, their nutrition, health, and well-being, as well as for the economic activity (BMLFUW 2017b: 229). National climate change adaptation has an inherent global dimension. Hence, external effects need to be considered. Global biodiversity and its adaptability to climate change need to be prevented from negative externalities. For a proper

implementation it is indispensable to work in close accordance with various actors and with sufficient political support (ibid.: 254).

Governance is one tool that is used for the implementation of all bilateral programs and projects in Austria's partner countries. The Austrian Development Agency (ADA) is responsible for the administration as well as for disseminating information in this regard. Moreover, its aim in the international context is to end poverty, secure peace and preserve the environment. Within the Austrian Strategy for Adaptation to Climate Change the ADA provides governance-support with environmental projects (ibid.: 255f). Furthermore, the Austrian Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK) recommends the development for Regional Governance models of climate change adaptation. Thus, a better networking, cooperation and integration of stakeholders are required with regular network meetings at federal state levels or regional levels. Governance models should lead to an extensive knowledge base and therewith a better knowledge transfer of the consequences of climate change in order to promote responsible behavior and individual responsibility and raise awareness in the population (ibid.: 286f).

Finally, at the website¹² of the BMK, there is a clear commitment to a Governance-Regulation for the achievement of climate change mitigation objectives for the 2030 Agenda for Sustainable Development. This process must be coordinated with the European Commission to develop a national Energy- and Climate Action Plan. The core of the regulation is the consequences of non-compliance with national or European objectives. In addition, it compiles the diverse and often overlapping measures and reporting obligations in the field of climate and energy. Especially the development of inclusive national Energy- and Climate action plans should establish a coherent and transparent governance system, which will reduce administrative burden as well as double regulations. Until the end of the year 2018 the BMK had to hand in the draft of the national Energy- and Climate action plan to the European Commission and finalize this document until the end of 2019.

¹² https://www.bmk.gv.at/themen/energie/nachh_entwicklung/governance_vo.html [Access: 27.02.2021]

4.3 The Alpine Convention

The Alpine Convention¹³ is an international treaty. It includes all Alpine countries such as Austria, France, Germany, Italy, Liechtenstein, Monaco, Slovenia and Switzerland, as well as the EU and pursues the sustainable development and conservation of the Alps (see footnote 13). It entered into force on March 1995 and contains different protocols and declarations that set out specific measures for implementing the principles laid down in the framework Convention. The Alpine Convention is the first of its kind: binding international law that targets a geographical area - a mountain region - reaching over several nations (see footnote 13).

The Alpine Conference is the political decision-making body of the Alpine Convention and consists of the Ministers of the Contracting Parties. Each Member State holds the presidency of the convention alternating every two years. For the years 2016-2018 Austria took over the Presidency. Additionally, the Alpine Convention adopted the so-called Multi-Annual Work Programs (MAPs) in order to organize the different priorities in an overarching and longer-term way, each for a period of six years. Meanwhile the third MAP for the period 2017-2022 got adopted and sets out a vision for sustainable living in the Alps (see footnote 13). It is structured along six main themes of which two are important for this research: on one side, there is a priority on “taking action on climate change” which focuses on efforts towards climate change adaptation and mitigation of threats to natural resources and people. Thus, climate change efforts will be integrated into different policy sectors such as economic development, spatial planning, transport and agriculture. The Alpine Conference will further support municipalities in capacity building efforts as well as in strengthening networks and governance systems to implement programs and activities (see footnote 13).

On the other side, there is a priority on “playing a leading role in the EU Strategy for the Alpine Region (EUSALP)”. The focus hereby is to consolidate the Alpine Convention’s position within the EUSALP and to actively shape EUSALP activities that are relevant to the Alpine Convention. As the EUSALP itself just had started in 2016 to be operative, it is important to follow and influence further governance developments like decision-making procedures, information flows and involvement of non-state actors. As an overall vision, the Contracting Parties decided that governance processes at all levels will follow a participatory

¹³ <https://www.alpconv.org/en/home/> [Access: 27.02.2021]

a trend to urbanization of many Alpine valleys followed by growing conflicts connected with the limited soil reserves in the Alps. Moreover, the consequences of global warming caused an increase of temperature in the Alps by almost 2°C during the 20th century. This trend is likely to continue in future decades. It already causes serious natural hazards as a result of more frequent heavy rains or permafrost melting in mountain heights, like an increase in floods or rock falls or landslides (see footnote 14).

4.5 EU Strategy for the Alpine Region (EUSALP)

There is no specific document of the EUSALP, thus all the information for this purpose is based on the official website. The EU Strategy for the Alpine Region¹⁵ (EUSALP) is a macro-regional strategy meaning an integrated framework endorsed by the European Council. It addresses common challenges faced by a defined geographical area relating to Member States and third countries located in the same geographical area (see Figure 5). Hence, they benefit from strengthened cooperation contributing to achievement of economic, social and territorial cohesion. The EUSALP aims at ensuring mutually beneficial interaction between the mountain regions at its core and the surrounding lowlands and urban areas. Furthermore, it promotes the Alpine region in its function as an EU laboratory for effective cross-sectorial and multi-level governance, deepening the cross-border cooperation of institutions and actors in this environmentally sensitive key European area. The strategy is initiated in a bottom-up approach by the people and backed by the States and Regions (see footnote 15).

¹⁵ <https://www.alpine-region.eu/eusalp-eu-strategy-alpine-region> [Access: 27.02.2021]

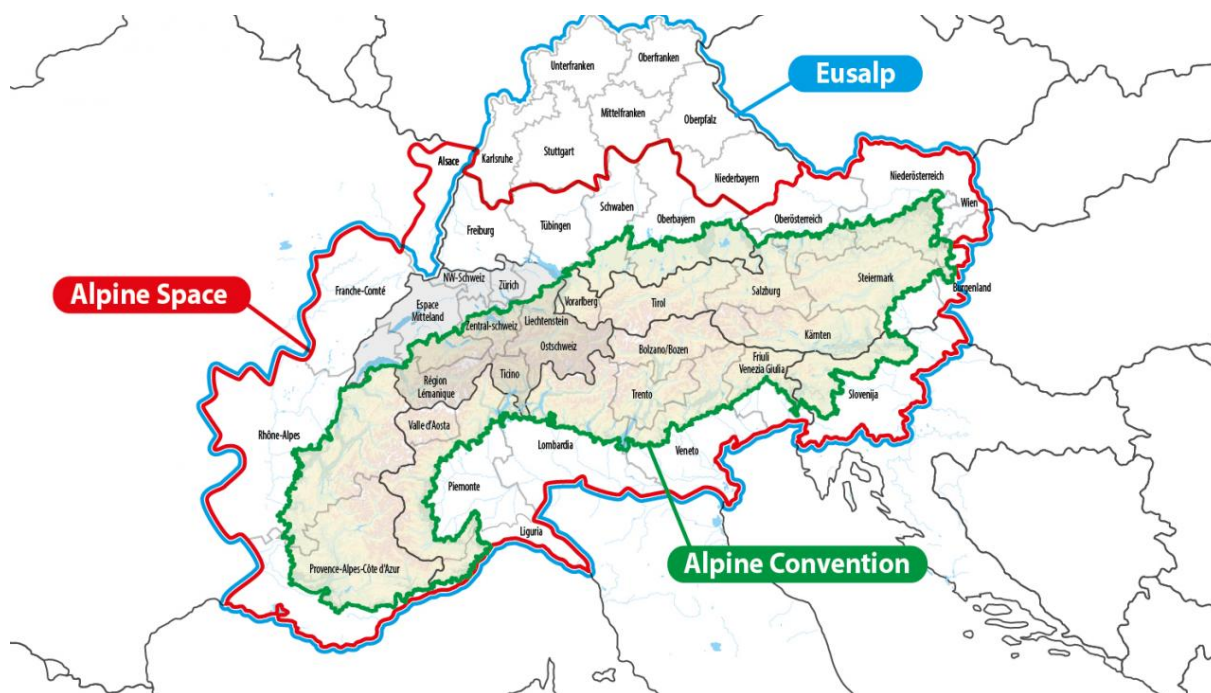


Figure 5: Overview EUSALP compared to Alpine Space & Alpine Convention (Source: <https://www.alpine-region.eu/>)

The EUSALP was launched in 2016 with its adoption of the European Council after several years of preparatory work. The strategy concerns seven countries, of which five are EU Member States (Austria, France, Germany, Italy and Slovenia) and two Non-EU countries (Switzerland and Liechtenstein), involving 48 regions. The governance of the EUSALP starts with the General Assembly, which gathers the high-level political representatives of States and Regions on the one hand. On the other hand, there is firstly the European Commission and secondly, there is the Alpine Convention as an observer. The European Commission has no voting right, but still organizes and co-chairs the meetings. Moreover, it supervises the compliance between EU legislation and EUSALP decisions (see footnote 15).

Another management structure and level of governance of the EUSALP is the Executive Board, which is formed by representatives of States and Regions and including representatives from the European Commission. As observer, there are the Alpine Convention and the Alpine Space Program, which is a European transnational cooperation program for the Alpine region. It provides a framework to facilitate the cooperation between economic, social and environmental key players in seven Alpine countries, as well as between various institutional levels (see footnote 15).

In particular, the Executive Board is responsible for the monitoring of the implementation of the EUSALP. The core of the implementation level is the Action Groups and Action Group leaders, who are the drivers of day-to-day implementation. Their role, capacities, resources and engagement are key elements to the success of the Strategy. Finally, the EUSALP does not come with extra EU financing and has to mobilize existing EU and national funding instruments (see footnote 15).

The next chapter sheds light on the status quo of climate change in Austria as well as on the existing measures for climate change adaptation. Furthermore, it provides a foundation about Styria and its environmental situation and policies, to get a better understanding of the federal state. The following chapter rounds up by giving an overview about the most important institutions for climate change adaptation in Austria, which play a key role in the governance process, as an information for the reader.

5 Climate change in Austria

This chapter bridges theory to praxis and sheds light on the climate change adaptation policy situation in Austria. It starts with giving a general overview about the importance of the implementation of an effective adaptation strategy in Austria, what challenges could come alongside and what factors could enhance adaptation policies. Furthermore, this chapter briefly shows the basis of Austrian adaptation policies by exemplifying the most essential strategies at this time. After a short introduction of Styria with some basic environmental data of this federal state, there is an insight into the political framework of some state-specific strategies for adaptation. Finally, the last section presents the most important actors across the overall adaptation governance framework in Austria, who are also a crucial factor for climate policy making in Styria.

5.1 Climate change adaptation in Austria

United Nations Parties agreed at the Paris climate conference in 2015 that there is a “[...] need for an effective and progressive response to the urgent threat of climate change on the basis of the best available scientific knowledge” while “also recognizing the specific needs and special circumstances of developing country Parties, especially those that are particularly vulnerable to the adverse effects of climate change [...]”. (United Nations 2015: 1) Therefore, each Party shall prepare, communicate and maintain successive nationally determined contributions which reflect their highest possible ambition as well as their common but differentiated responsibilities and respective capabilities (ibid.: 4). Hence, 195 countries adopted the Paris Agreement¹⁶ which sets out a global action plan to combat climate change by limiting global warming to well below 2°C. It is the first-ever universal, legally binding global climate deal.

However, Prutsch et al. (2014) argue that even with an immediate significant reduction in greenhouse gas emissions or a stabilization of emissions at current levels, a further temperature increase over the coming decades is no longer avoidable. Strategies and measures for adaptation must be developed and implemented, in order to counter the impacts of climate change, in addition to indispensable measures to reduce greenhouse gas emissions (Prutsch et

¹⁶ https://ec.europa.eu/clima/policies/international/negotiations/paris_en [Access: 27.02.2021]

al. 2014: 11). Hence, when talking about adaptation there is mitigation as a complementary strategy for responding to climate change.

Adaptation is the process of adjustment to actual or expected climate and its effects in order to either lessen or avoid harm or exploit beneficial opportunities. Mitigation is the process of reducing emissions or enhancing sinks of greenhouse gases (GHGs), so as to limit future climate change. (IPCC 2014: 76)

Unfortunately, the planning and implementation of climate change adaptation policy is often hampered by a great number of barriers. Thus, this discourse is a dynamic and complex process that must allow for flexible adjustments to new conditions. According to the Austrian Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMLFUW 2017a), one key challenge for any adaptation measure would be to finding a proper way to deal with uncertainties which result from global and regional scenarios for the future evolution of the climate (BMLFUW 2017a: 51). Scenarios are always merely approximations of reality that show a range of plausible future developments, but can never account for all influencing factors. Additionally, other uncertainties with regard to future greenhouse gas emissions occur. This issue is dependent on factors like population growth, economic growth, trends in energy prices, changes in land use as well as in how far technologies enabling reductions in greenhouse gas emissions gain worldwide acceptance (ibid.).

Another challenge for adaptation emerges from the fact that adaptation is a cross-cutting issue. There are multiple areas for action like infrastructure, energy supply or water management in interaction with stakeholders from various fields. Moreover, interdependencies and different areas of responsibilities arise on horizontal as well as on vertical levels, benefits in one area might result in damages in a different area (ibid.). This can lead to problems and harm potential collaborations. Therefore, it is essential to coordinate adaptation actions and to form cooperations between different actors and decision-making levels. It is inevitable that a cross-sectoral perspective and the integration of adaptation in diverse policy areas are pursued (ibid.).

Bauer and Steurer (2014) also highlight the importance of a sustainable cooperation between stakeholders and refer to adaptation partnerships as catalysts to innovation in climate change adaptation policies. Since respective measures of climate change mitigation do not fit into a single policy domain there is the approach of an adaptation partnership, a collaborative arrangement in which actors from government, business and civil society strive for common goals in a particular issue area (Bauer; Steurer 2014: 819). On the one side at the international

level, the main partnerships exist between developed and developing countries. On the other side at national and sub-national levels, most partnerships are public-private and have either a comparatively narrow thematic focus or limited spatial scope (ibid.). However, such partnerships represent new political spaces that could provide more innovative policies than hierarchies do. Bauer and Steurer identify three ways in which partnerships catalyze policy innovations.

The primary factor for catalyzing innovations is through internal collaboration in projects and working groups, resulting in the two main types of policy innovations, which are:

[...] informational policies enacted by the partnerships and also (multi-)sectoral strategies and plans to be adopted and implemented in partnering authorities. [...] These policies are designed to build a knowledge base, raise awareness for and provide guidance about climate change, its regional, local, and sectoral impacts, and respective adaptation options. (Bauer; Steurer 2014: 826)

Another important factor in this regard is to scale up all activities and disseminate successful actions (ibid.: 829). The activities should unfold knock-on effects far beyond their immediate scope and thus public parties can benefit from generated “guidance and assessment tools” (ibid.) that need to be adopted for their individual situation. Hence, partnerships understand their strategies and (re)formulated plans as blueprints for other political authorities to adopt similar policies (ibid.). The third factor in which partnership catalyze policy innovations is through consultation of national adaptation policy formulation. Therefore, partnerships provide insights on regional and local needs as well as experiences. Moreover, such interactions between partnerships and national governments are characterized by learning processes where national policymakers highlight the importance of local and regional feedback (ibid.: 830).

Austria as one of the 195 countries that ratified the Paris Agreement urgently has to start its path to climate change adaptation. Although it is regularly praised as an environmental policy leader it actually has missed its Kyoto targets by about 19% (Steurer; Clar 2015: 85). The 2030 Agenda for Sustainable Development¹⁷ provides a shared blueprint for all United Nations Member States in order to reach peace and prosperity for people and planet. It is also an urgent call for action by all countries, developed and developing, in a global partnership. Hence, all countries and stakeholders should implement this plan, which requires comprehensive national strategies. The EU can build on its renewed European Sustainable

¹⁷ <https://sustainabledevelopment.un.org/?menu=1300> [Access: 27.02.2021]

Development Strategy¹⁸ (EU-SDS) from 2006. This strategy supplements the Lisbon Strategy by adding the environmental dimension and dedicates itself to ways and means in which political decisions and courses of action could accommodate the aspect of “sustainability”. Furthermore, it represents a cross-sectoral approach where economic, social and environment policies go collaborate. It is a mandatory framework for EU member states and sets requirements, general and operational objectives, as well as concrete measures for sustainable development.

The Austrian Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology published a Strategy for Sustainable Development of the Federal Government and the Federal Provinces¹⁹ (ÖSTRAT) on the basis of the EU-SDS and with a focus on the Millennium Development Goals. In addition, a work program for ÖSTRAT was established together. The work program includes targets, obstacles and actions for nine topic areas. The federal ministries, the Federal Provinces and the Federal Government are able to realize the actions by themselves or in various collaborations with each other (BMK, see footnote 19).

In regard to climate change the Austrian Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology published the revised Austrian Strategy for Adaptation to Climate Change in 2017 (BMLFUW 2017a). It includes 14 fields of activity that need to be addressed by the adaptation strategy. Therefore, on the one hand the ministry claims a “policy of small steps” (BMLFUW 2017a: 5) that must allow for flexible adjustments to new environmental developments. On the other hand, it claims an inevitably fundamental change of society as well as a new awareness of sustainability in the long term.

Another strategy for climate change adaptation in Austria is the Austrian Climate and Energy Strategy²⁰. It is a mission to end the use of fossil energy sources completely and thereto reduce the greenhouse gas emissions by 2030 by 36% compared to 2005. The key objective of this strategy is to cover 100% of total national electricity consumption from renewable energy sources. Increased awareness-raising is a central part and effective measures necessary to make this strategy a success. Furthermore, a close collaboration of politics, economy and society is essential at federal, regional, local and also international level.

¹⁸ <https://www.bmk.gv.at/en/topics/climate-environment/sustainable-development/eu-sds.html> [Access: 27.02.2021]

¹⁹ <https://www.bmk.gv.at/en/topics/climate-environment/sustainable-development/oestrat.html> [Access: 27.02.2021]

²⁰ https://www.bmk.gv.at/themen/energie/nachh_entwicklung/klimaenergiestrategie.html [Access: 27.02.2021]

Federalism is one important factor for adaptation processes and climate change mitigation in Austria. According to Steurer and Clar (2015) horizontal policy integration is often impossible without integrating climate policies also vertically across levels of government, or diagonally across sectors and levels at the same time (Steurer; Clar 2015: 87f). In addition, Austrian provinces cannot be reduced to administrative sub-units or “agents of the federation”, because their political significance of informal arrangements such as the Conference of Provincial Governors or the provinces’ competences regarding building policies need to be taken into account (ibid.: 89f). Provincial policy-makers also are important for federal ones, because all political parties depend largely on mobilization and party financing in the provinces. “Since provincial governments and governors are politically strong in terms of agenda setting and informal veto power, federal ministries usually refrain from pressuring provinces towards certain policies.” (ibid.: 90) Hence, the interaction between these climate policy actors requires governance.

5.2 Styria – The country and its environment

With an area of 16,399km², Styria²¹ is the second largest federal state of Austria. It is divided into 13 political districts and counts 1.24 million inhabitants. Furthermore, Styria is covered with an area of 58% forest and 76% mountains.

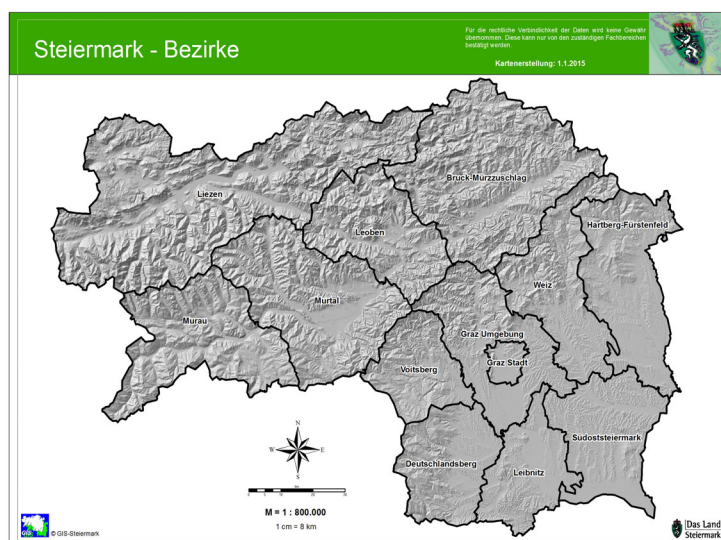


Figure 6: Regions of Styria (<https://www.landesentwicklung.steiermark.at/cms/ziel/141976122/DE/>)

²¹ <http://www.landesentwicklung.steiermark.at/cms/beitrag/12651400/141979572/> [Access: 27.02.2021]

About a quarter of the inhabitants live in the city Graz, the capital of Styria. The Tertiary Sector (Services) with 64.9% is the most important economic sector in Styria, followed by the Secondary Sector (Industry, Energy, Construction) with 33.2% and the Primary Sector (Agriculture, Forestry) with 1.9% regarding its Gross Value Added. With a population share of 14,1%, Styria generates 12,6% of Austria's GDP. Finally, an important factor when it comes to environmental issues is the motor vehicle stock of 1.059 million in Styria, which is a vehicle-density of 854 per 1.000 inhabitants (see footnote 21).

The following sub-chapters give some more specific data and overviews for environmental topics that are relevant for this thesis. Thereafter, the focus will be on the political environment of climate change adaptation in Styria.

Water and Precipitation

Styria has a yearlong sufficient amount of precipitation due to its geographical position. Nonetheless, there is a big difference of 300% of the average annual accumulated precipitation between the north-west region with its mountain range with over 2400mm and the south-east region with 700mm (Land Steiermark 2015: 33). A decisive factor in this regard is the different seasonal precipitation. Whilst the North is more affected during winter months, the South especially has to deal with heavy rains and storms during summer months. Over the last 30 years, as a result of the increasing average temperature, the average annual accumulated precipitation in northern regions of Styria has increased by over 10%. The generally low-precipitation southern regions had to deal with a decrease (ibid.). For the future, there is an expectation of an overall increasing annual precipitation. In a worst-case or a business-as-usual scenario there could be an increase of average annual accumulated precipitation of 5,9% until 2050 and 8,0% until 2100 (Land Steiermark 2016a: 7).

Climate and Temperature

Since 1880 the temperature in Austria increased by 2°C, which is about 0,8°C over the global average. Hence, Austria with its Alpine region is already more affected by climate change than other regions on the planet (Land Steiermark 2017a: 12). In regard to Styria, in a worst-case or a business-as-usual scenario the temperature could increase by 1,4°C until 2050 and by 4,0°C until 2100, compared to 2020. Especially the southern regions will be affected the

strongest (Land Steiermark 2016a: 5). Greenhouse gas emissions are a key factor for the temperature increase and responsible for climate change. Thus, the use of fossil fuels has to be reduced dramatically. To reach the Paris Agreement and prevent the rising temperature, Austria has set its annual greenhouse gas emissions limit to 49 megatons (Land Steiermark 2018: 9). The main driver for greenhouse gas emissions in Styria in 2016 was industry with 41%, followed by transport with 25%. The proportion of energy supply was 10% and agriculture 11%. As a total greenhouse gas emission there was 13,2 megatons in 2016 for Styria (ibid.: 11).

Energy

Energy supply in Styria has risen by 33% since the last three decades with a continuous increase since 2005. After the economic crisis in the midst 2000s, a small decline of about 2% was observable. Other factors such as warmer winter temperatures due to climate change and the improvement of energy-saving measures were also responsible for this development (Land Steiermark 2017b: 16).

In 2015 the biggest proportion of end energy in Styria was oil with 34,1%, which was mainly used for transport and private household heating systems. The second fossil energy source was natural gas with 18,6%, which was used in industry and heating systems. Furthermore, electric energy consumption with 19,3% had an important role, which has steadily increased by 45,3% since 1990. It is expected to get even more essential as fossil energy has to be reduced and modern technologies such as heat pumps, air conditioner and electro mobility have more power demand (ibid.).

Mobility

Transport is still the main cause for greenhouse gas emissions. As mentioned above Styria has got a very high vehicle-density. Since 1990, transport emissions in Styria have increased by 68% to 3,45 megatons of which two-thirds are caused by passenger traffic and one-third by freight traffic (Land Steiermark 2018: 27). Especially short routes are energy-intensive and cause a high number of emissions. In regard to Styria, 18% of the routes covered by motorized vehicles are shorter than 2,5km and even 40% of the routes are shorter than 5km. In recent years there was a small decline of transport emissions due to the expansion of public

transport as well as the improvement of pedestrian and bicycle traffic (Land Steiermark 2017b: 60f). In consideration of the increasing temperature, stronger precipitation and more extreme weather conditions, there is a risk of interruptions of transportation infrastructure, possible heat-related material damages or impairments of road and railway networks (Land Steiermark 2017a: 59).

Health and Social aspects

In 2019²², Styria had an employment rate of 74,5% and an unemployment rate of 6,0%. Life expectancy for men were 79,5 years and 84,7 for women. The overall quality of life in Styria is excellent. Fundamental factors in this regard are an intact environment, stable economic situations, and extensive education and transport offers. Moreover, the quality of life is influenced by the state of health, which is closely related to other social aspects (Land Steiermark 2017a: 117). The increase of climate change-induced heat stress will cause more illnesses and fatal casualties. In addition, changing climatic conditions cause the spread of pathogens and infectious diseases as well as the spread of allergenic plants and animals. The compliance of hygiene-standards could exhibit greater levels of problems as a result of a possible contamination of drinking water or general water quality due to an increase in water temperatures or flooding. Higher levels of ozone and particulate pollution levels as well as greater levels of ultraviolet radiation will represent an additional burden and could affect the health of the population (ibid.).

Sustainability

Resource consumption in Austria lies at 22,2 tons per capita which is drastically over the European Union (EU) average of 13,5 tons. Furthermore, Styria has a supermarket density which in comparison is twice as much as in Germany or Italy (Land Steiermark 2016b: 3). Consequently, the absolute decoupling of waste generation is not possible. The willingness to separate waste is decreasing while littering is increasing. As a result, there is a yearly total generation of municipal waste in Austria of 566kg per capita, which is considerably higher than in many other EU member states. Meat consumption is around 100kg per inhabitant every year and can only be sustained with feed imports. At the same time, around 160,000 tons of edible food from Austrian households land in the trash (ibid.: 4). Styria started many

²² <http://www.landesentwicklung.steiermark.at/cms/beitrag/12651400/141979572/> [Access: 27.02.2021]

initiatives in order to counteract these trends. Some of them will be described in the following chapters of this thesis.

This overview about some environmental situations in Styria provides an insight for the subject of this thesis. Sustainable development is now more than ever necessary for tackling climate change and building a better world for people and the planet. Styria's vision and approach²³ for sustainability include the environment, the economy and the society. On the one side, all people have the same basic needs, but they do not know how to treat the environment. Hence, Styria has to raise more awareness for the protection of a livable environment. On the other side, economic growth is considered as being the foundation of every social system, but it must not contravene with environmental protection or proper working conditions. Thus, Styria makes an effort of unifying ecological frame conditions and basic social needs with economic success. Finally, the demographic development in Styria requires greater attention, especially the increasing number of elderly people who are in the need of care. Moreover, the importance of integration and equality became much more evident during the recent social developments.

The political framework for environmental initiatives in Styria will be discussed in the next chapter of this thesis. Special attention will be devoted to the governance of these programs.

5.3 Environmental system Styria

The majority of the nations across the Global North are on one hand the main cause of climate change, while on the other hand they feel its effects and consequences much more intensified. Thus, it investigates possibilities for climate change mitigation and smart adaptation, which not only serve to protect ecosystems.

In the best case, they also provide definite social advantages, as they anticipate potential social effects and seek to minimize risks to democracy, health, safety, and social justice, drawing upon social integration and cohesion, respecting fundamental rights and cultural diversity, guaranteeing the equality of men and women, and fighting against discrimination of any kind. (BMLFUW 2017a: 55)

Individual factors as well as the social environment influence the treatment of the environment and the related risk perception. Whether and in what way people confront climate change and are capable of implementing appropriate strategies or dedicating available

²³ <https://www.nachhaltigkeit.steiermark.at/cms/beitrag/12321654/1031659> [Access: 27.02.2021]

resources to adaptation depend largely on the social conditions of those affected, from individual prerequisites and the social-cultural environment (ibid.).

In Styria, there are several strategies in regard to tackling climate change. Climate policy has two major pillars. First, there is climate mitigation, which has the further reduction of greenhouse gasses and counteraction of temperature rise as an objective. Styria developed a plan together with representatives from politics, science, NGO's, associations and organizations with an environmental orientation. The result is the "Climate and Energy Strategy Styria 2030" (Land Steiermark 2017b). The second pillar is climate change adaptation, which represents a necessary complement to climate mitigation. Styria's "Climate Change Adaptation Strategy Styria 2050" (Land Steiermark 2017a) was developed in close collaboration between science and practice, and with the involvement of administrative levels from state governments. Thus, essential competencies of both Federal and State governments were included in the strategy.

The Climate and Energy Strategy is primarily focused on the Paris Agreement and thereby on the Austrian Climate and Energy Strategy. It formulates the actions necessary for the causal fight against climate change. To fulfil the vision of a climate-neutral and energy-secure Styria it requires a well-coordinated approach that mediates between an efficient climate policy and the economy (Land Steiermark 2017b: 13). Thus, the strategy includes four major objectives: firstly the reduction of greenhouse gas emissions by 36%, secondly the improvement of energy efficiency by 30%, thirdly increasing the contribution of renewable energy sources by 40% and fourthly affordable energy as well as ensuring security of supply (ibid.: 21).

In this regard, the strategy focuses on eight different fields of action including among others waste management, agriculture and forestry, mobility or economy. However, most importantly the strategy also focuses on education and lifestyle, and the exemplary function of the public administration units (ibid.: 28). Lifestyle is the fundament for every approach and measure to cope with the various challenges of climate change. Hence, it is inevitable that the majority of the population promotes a responsible and climate-friendly behavior. The area of education and lifestyle is a social and political challenge which requires more research and development on the one hand, and education and disseminating information on the other hand, in order to establish a resource-saving lifestyle as well as climate-friendly consumption (ibid.: 34f).

When it comes to the exemplary function of the public administration units, Styria and its governmental authorities have the opportunity to continuously implement climate mitigation measures and thereby serve as a role model for the population. Furthermore, with the information and advice for the people there is a chance for participation in transnational partnerships for the support of global sustainable development projects. Thus, the networking and coordination of the local and regional state and municipality strategies are an essential basis for the implementation of this objective. Additionally, Styria needs to further participate on federal and EU-levels for an increase in lobbying of climate change mitigation (ibid.: 66f). An Action Plan for the implementation of the Climate and Energy Strategy regulates every measure and is reviewed every three years in order to evaluate the effectiveness of the strategy. This process ensures the quality of the strategy with regard to changes of technological possibilities, or international as well as national climate and energy agreements. The annual report to the government guarantees the transparency of the implementation and the achievement of objectives (ibid.: 78).

The Climate Change Adaptation Strategy Styria 2050 formulates the necessary measures in response to already occurring inevitable climate change impacts, in order to reduce or avoid negative effects on natural, social and economic systems. Adaptation initiatives are essential due to the uncertainty about future impacts of climate change which could lead to higher adaptation costs in the long-term (Land Steiermark 2017a: 9). The strategy is built on agreements such as the Buenos Aires programme (2004), the Nairobi Work programme (2005-2010), the Bali Action Plan (2007) as well as the EU Adaptation Strategy (2013) and thereby on the Austrian Adaptation Strategy (ibid.: 10).

As mentioned above, climate change impacts vary across regions in Styria due to its geographical position. Hence, the Climate Change Adaptation Strategy Styria needs to be individually implemented on the local level. It covers 13 different action areas to protect the public and the environment. Furthermore, it aims to, among others, define relevant stakeholder, include them in the process and appoint responsibilities. The strategy resembles a “living document” for additional implementation processes, which regularly has to be evaluated in order to continuously adapt or extend its measures (ibid.: 15). A key factor in this regard is an intensive dialog between all actor- and decision-making levels as well as collective learning of those affected. Thus, the strategy is realized in close collaboration of governmental and non-governmental actors with mutual input and introduction of individual expertise and experience (ibid.: 16).

5.4 Institutions

When taking a look across the Austrian climate change adaptation landscape there are several institutions that play a key role for governance processes, with regard to each of their overall legal and sectoral role. Styria is embedded within a framework of different actors of organizations and agencies, from public administration, politics, science and research, business and industry, as well as civil society.

Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK)

The BMK, in particular the Department of Climate Coordination, is responsible for the coordination and the implementation of climate change adaptation policies at national level. The central policy document in this discourse is the above mentioned Austrian Adaptation Strategy (BMLFUW 2017a). Furthermore, the ministry is extensively supported by the Environment Agency Austria (EAA).

Environment Agency Austria (EAA)

The EAA²⁴ is Austria's most important environmental expert organization and one of Europe's leading environmental consultants. It is a government-owned limited liability company, acting under private law and stands for a transformation of the economy and society to ensure sustainable living. Hence, it provides the basis for decision making at local, regional and international level while engaging in dialogue with politics, administration, business, science and civil society. The EAA, in particular the Department of Environmental Impact Assessment & Climate Change, plays an essential role in the Austrian adaptation governance landscape. It acts as a semi-public support unit providing expertise and policy support to the responsible Federal Ministry, the Climate and Energy Fund as well as federal state governments. Moreover, the EAA has a "bridging" function which leads to knowledge generation, capacity-building and provision of policy- and practice-related decision support for stakeholders. Thus, the EAA was involved in the drafting of the Austrian Adaptation Strategy and some of the federal states own adaptation strategy development processes, such as Styria's "Climate Change Adaptation Strategy Styria 2050" (Land Steiermark 2017a: 16).

²⁴ <https://www.umweltbundesamt.at/en/about-us> [Access: 27.02.2021]

National Climate Protection Committee (NKK)

The NKK²⁵ is the highest-ranking national coordination body for climate policies. Its tasks are defined in the Austrian Climate Protection Law (Klimaschutzgesetz) where it holds potential for enhanced horizontal and vertical policy integration in regard to climate adaptation. It is also asked to include questions of adaptation to unavoidable effects of climate change in its principal debate on national climate politics against the background of the Paris Agreement. The NKK is composed of one representative per each political party of the National Assembly, one high-ranking representative each of the Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK), the Federal Chancellery (BKA), the Ministry of Finance (BMF), the Ministry of Justice (BMJ), the Ministry for Transport, Innovation and Technology (BMVIT), the Ministry of Science, Research and Economics (BMWWF), the Ministry of Labor, Social Affairs and Consumer Protection (BMAK), the Ministry of Health and Women's Affairs (BMGF), all nine Provinces, the Austrian Economic Chambers, the Federal Chamber of Labour, the Chamber of Agriculture, the Austrian Trade Union Federation (ÖGB), the Federation of Austrian Industries, the Association for Consumer Information (VKI), the Austrian Association of Cities and Towns, the Austrian Association of Municipalities, the Association Austrian Energy, the Association Renewable Energy Austria, the Science community as well as three representatives of NGOs. The NKK meets at least once a year and is chaired by the BMK.

Conference of Provincial Environment Ministers (LURK)

Participants of the LURK (LandesumweltreferentInnenkonferenz) are those members of the nine provincial governments who are responsible for environmental issues and the Minister for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK). The conference holds its meetings once a year with the purpose of common deliberations on fundamental questions in the fields of environmental protection. Considering the fact that LURK is often trend-setting for (national) political decision-making in regard to important environmental questions, on subordinated administrative level, in particular on the level of climate coordinators, intense preparatory consultations take place more frequently. In recent

²⁵

<https://www.ris.bka.gv.at/GeltendeFassung/Bundesnormen/20007500/KSG%2c%20Fassung%20vom%2004.07.2013.pdf> [Access: 27.02.2021]

years, resolutions of the LURK have paved the way for stronger cooperation between the federal government and the federal states on adaptation policy making.

Climate Coordination Officers (Units of the Federal States)

Climate coordinators are primarily responsible for the development and implementation of adaptation strategies on federal state level and essential intermediaries between levels, sectors and other provinces. On the one hand, they are the main agents of vertical coordination and cooperation towards national as well as regional and local levels. On the other hand, they are in charge of horizontal coordination within the provincial governments and administration. Their tasks include both climate mitigation and climate change adaptation policies, which are usually carried out by just one person or by small sub-units within the respective departments. Furthermore, for implementation-oriented activities (advisory services, capacity-building, awareness-raising) climate coordinators can to some extent make use of the capacities of intermediary organizations working close to the level of municipalities. Once a year, the climate coordination officers of all nine federal states and the responsible federal ministry meet for joint cooperation initiatives between the federal states and the federal government. In addition, the climate coordination officers hold informal meetings in order to prepare resolutions of the LURK.

Regional Climate Adaptation Managers in model regions

The regional adaptation manager is responsible for operative project management and coordination as well as for monitoring and reporting. Usually they are employed by the public entity executing the KLAR! (Klimawandel-Anpassungsmodellregionen) funding program for climate adaptation model regions. The adaptation managers are experienced regional coordinators, who have been active previously in the management of equivalent funding programs.

5.5 Summary

Summing up, climate change is a serious problem in Austria and makes proper adaptation measures indispensable. Together with other 194 UN member states Austria adopted the Paris Agreement and with it pledged to tackle as well as to respond to the threats and impacts of climate change. Hence, adaptation and mitigation strategies often go hand in hand to reduce further greenhouse gas emissions, which cause an unavoidable temperature increase for decades. One challenge for adaptation policy making is to find a way to deal with uncertainties that result from global and regional scenarios for the future evolution of the climate. Another challenge results from the cross-cutting issue of adaptation. On the one side, there are multiple areas for action, whereas on the other side there are interdependencies and different areas of responsibilities across horizontal as well as vertical levels. Thus, a lack of cooperation and coordination between the different areas of action, actors and decision-making levels can cause conflicts.

With regard to Austria, effective climate change adaptation measures are urgently needed to respond to its missed Kyoto targets by 19%. As a mandatory framework for all EU member states in order to implement the 2030 Agenda for Sustainable Development there is the European Sustainable Development Strategy, which sets requirements, general and operational objectives, as well as concrete measures for sustainable development. Therefore, the Austrian Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology published the Austrian Strategy for Adaptation to Climate Change, which includes 14 fields of activity that need to be addressed by the adaptation strategy. An additional strategy for climate change adaptation is the Austrian Climate and Energy Strategy, which aims to end the use of fossil energy sources completely and therewith reduce greenhouse gas emissions.

An indispensable factor for successful adaptation measures in Austria is the integration of the federal states. Moreover, their competences regarding building policies need to be taken into account as well as their incentives for a variety of initiatives ranging from research projects to concrete adaptation measures in individual sectors (BMLFUW 2017a: 73). Governance is an essential concept regarding the interaction between the federal government and the states, especially in terms of implementation of adaptation strategies. The case study of Styria with its environmental situation gives an insight into this topic.

Styria focuses on sustainable development for tackling climate change and seeks to include the environment, the economy and the society in this approach. Hence, Styria makes an effort of unifying ecological frame conditions and basic social needs with economic success. With climate change mitigation and adaptation as complementary objectives in climate policy making, Styria developed two major strategies, the Climate and Energy Strategy Styria 2030 on the one hand and the Climate Change Adaptation Strategy Styria 2050 on the other hand. The first formulates the actions necessary for the causal fight against climate change with the vision of a climate-neutral and energy-secure Styria, as well as a balanced relationship between an efficient climate policy and the economy. The latter formulates the necessary measures in response to already occurring inevitable climate change impacts, in order to reduce or avoid negative effects on natural, social and economic systems.

Due to its geographical position, climate change impacts vary across regions in Styria which requires the Adaptation Strategy to be individually implemented on the local level. It also aims to define relevant stakeholder and include them in the process, and to appoint responsibilities. A central point to this matter is an intensive dialog between all actor- and decision-making levels, as well as a close collaboration of governmental and non-governmental actors with mutual input and introduction of individual expertise and experience. Styria is embedded in a network of several institutions and different actors of organizations and agencies, from public administration, politics, science and research, business and industry, as well as civil society. To name the most important actors across the overall adaptation governance framework in Austria it is necessary to characterize them by their legitimate role and decision-making power, sufficient resources and a network of relationships to relevant other actors.

The Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK) is responsible for the coordination and the implementation of climate change adaptation policies at national level. It is supported by the Environment Agency Austria (EAA) which provides the basis for decision making at local, regional and international level while engaging in dialogue with politics, administration, business, science and civil society. Moreover, there is the National Climate Protection Committee (NKK) which is the highest-ranking national coordination body for climate policies. The participants of the Conference of Provincial Environment Ministers (LURK) meet once a year with the purpose of common deliberations on fundamental questions in the fields of environmental protection. Additionally, there are Climate Coordination Officers who are primarily

responsible for the development and implementation of adaptation strategies on federal state level and essential intermediaries between levels, sectors and other provinces. Finally, there are regional adaptation managers who are responsible for operative project management and coordination as well as for monitoring and reporting in the fields of climate adaptation model regions.

The following chapter describes the methodology of this thesis and the process of qualitative research. Moreover, it explains the advantage of interviews for generating data and breaks down the implementation of interviews conducted for this thesis.

6 Methodology

This thesis aims to analyze the challenges related to multi-level, cross-sector and multi-actor governance of climate change adaptation processes and explore governance and implementation capacities on vertical levels in Austria. Therefore, the research uses a transdisciplinary approach for the analysis. According to Novy, Beinstein and Voßemer (2008) an advantage of transdisciplinarity is the equal collaboration of different disciplines in order to reach a problem-oriented holistic research. It examines important problems and searches a better understanding of (social) phenomena by combining scientific theories with praxis. Additionally, it includes non-scientific actors in the research process and by doing so exceeds scientific boundaries (Novy; Beinstein; Voßemer 2008: 33). Hanschitz, Schmidt and Schwarz (2009) take one step further and describe transdisciplinarity as an attempt of forming a completely new and particular (scientific) discipline according an epistemological classification (Hanschitz; Schmidt; Schwarz 2009: 187). In this thesis there are influences from political sciences, social-ecology and economics, which will be used in an integrative approach to answer the research questions.

6.1 Qualitative Research

Dannecker and Englert (2014: 7) describe qualitative research as a very broad and sometimes confusing field, due to its diversity of concepts, conditions, perspectives and methods across various numbers of disciplines. It seeks to specify the living environment from within, out of the people's point of view. Hence, it helps to get a better understanding of social realities and indicates certain processes, interpretative patterns as well as structural features (Flick; Kardorff; Steinke 2004: 14). The advantage herewith, in comparison to quantitative research, is a much more open approach and thus it is more closely related to the reviewed phenomena. Qualitative research is open to discover new things during the research even though it was apparently known. By doing so, it includes the perception of each subject and also respects their subjective and social structures of their world. This openness and inclusiveness is the central source for generating a grounded theory (ibid.: 17).

This qualitative method is the basis for this research, because it is not possible to measure challenges or improvements of governance processes with standardized methods. It also

allows to be more flexible with qualitative research and could open some new and unknown windows.

6.2 Data collection

One of the central methods for this thesis is an extensive literature research on governance processes in Austria. It is essential to show their impacts on different levels, but also to enlighten their challenges in this regard. Furthermore, declarations, publications and other strategy documents of Austria about governance of climate change adaptation policies were researched. Primarily, the documents of the Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (2017a, 2017b) about the Austrian strategy for adaptation to climate change seemed appropriate, because of their detailed content of the adaptation discourse in Austria including specific measures. With regard to the case study of Styria, the Climate Change Adaptation Strategy Styria 2050 (2017a) was the central document that contained all the relevant information about climate change in Styria, as well as adaptation objectives in the federal state. Another interesting point of view about climate change mitigation policy in Austria was provided with Steurer and Clar (2015).

Besides literature research, an empirical study was carried out to gather more data for this thesis. For this purpose, semi-structured interviews with different stakeholders were conducted. In this regard, it is crucial to mention that the author of this master's thesis works at the Environment Agency Austria at the time of the writing process. Nonetheless, no one of the interview partners was known personally before the research. Thus, there is neither a conflict of interest nor an existing influenceability and bias due to personal advantages.

6.3 Data analysis

After the data collection, a qualitative content analysis after Mayring (2010) was carried out, which is a technique for the analysis of large quantities of text. According to Mayring, it is hard to find a proper definition for content analysis. However, at the core of this method is the analysis of communication based on categories (Mayring 2010: 13). It aims to facilitate a more objective analysis of interpretative texts on the basis of three main techniques (ibid.: 65):

1. Aggregation, aims to reduce texts to its essential contents, to reach key statements of data. Categories are created inductively.
2. Explication, aims to clarify unclear passages by providing context to the respective statements.
3. Structuring, aims to show connections between text passages using previously defined categories, which are used to structure the material.

For this research, the first method has a key role, because it is possible to sum up all results to a manageable amount without losing important content. This form of paraphrasing is necessary to break all the content down to one level of language, which is the case when there are several actors of different organizations consulted. Hence, the information gets categorized into a coding scheme which is helpful during the analysis process (ibid.: 69).

Moreover, as this thesis aims to search for facts that verify the analysis it is crucial, according to Mayring, “[...]to develop the aspects of interpretation, the categories, as near as possible to the material and to formulate them in terms of the material.” (ibid.: 83f) Thus, “scope qualitative content analysis” uses the method of “inductive category development” which bears similarity to the coding of “Grounded-Theory” (ibid.) where it is constituted as a “open coding procedure”. Categories within the classical quantitative content analysis follow a more systematically approach with a specific logic and specific reductive processes. Category development derives from theoretical background and the research question, which determines the aspects of the textual material taken into account. Hence, categories are adapted and revised throughout a series of loops within the process to make sure that the categories are appropriate for the data and eventually reduced to main categories. Thus, insignificant or off-topics can be excluded (ibid.: 84f).

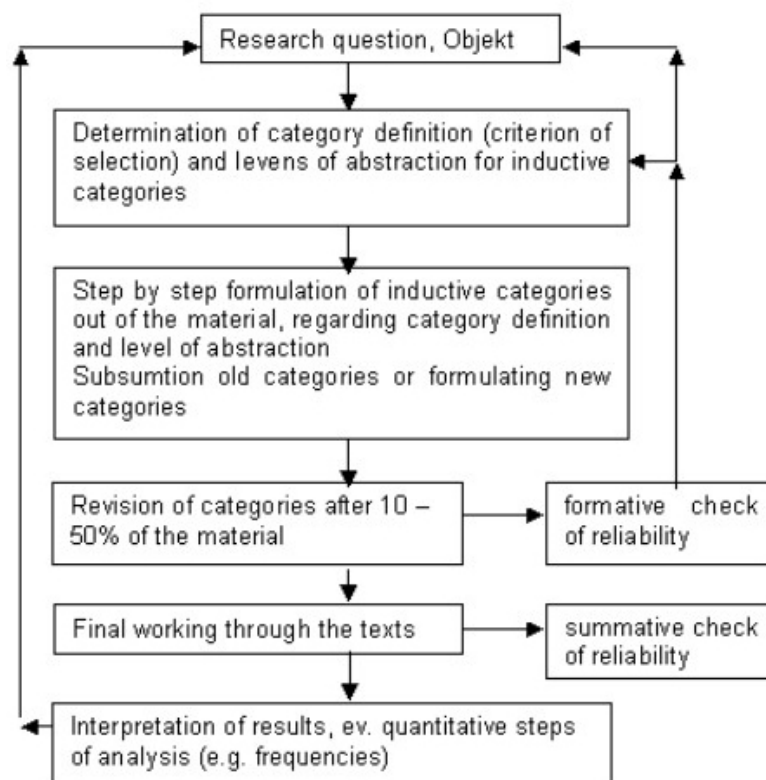


Figure 7: Process model of inductive category development (Mayring 2010)

6.4 Interviews

Interviews are, according to Bricki and Green (2007), a central method for qualitative research, because you generate data that is primarily in the form of words, not numbers. There are many different types of interviews that resemble everyday conversations, although they are focused to a greater or lesser extent on the researchers' needs for data. Not to forget they are conducted in the most rigorous way in order to ensure reliability and validity. To guarantee that the findings reflect what the research set out to answer, the researchers' techniques should aim to be reproducible, systematic, credible and transparent (Bricki; Green 2007: 11).

For this research semi-structured interviews were used. These are conducted on a loose structure made up of open-ended questions defining the area to be explored (ibid.). Furthermore, a topic guide can be used, "[...] that usually has a list of the key questions the interviewer would like to cover, with some useful prompts to encourage the interviewee to talk about specific issues if they do not come up spontaneously." (Bricki; Green 2007: 12)

However, it is crucial to develop the right questions to ask and to keep in mind that the respondent is unlikely to share the perspective of the interviewer (ibid.).

Together with the department of Environmental Impact Assessment and Climate Change of the Environment Agency Austria, a sampling of possible candidates was conducted. Samples in qualitative research are usually purposive, which means participants are selected, because they are likely to generate useful data for the project (ibid.: 9). Hence, it was of interest to talk with some experts and project managers, who are responsible for the coordination and the implementation of climate change adaptation programs. The author has contacted the selected interviewees. Additionally, it would have been interesting to talk with representatives of NGOs and hear their point of view about challenges or improvements of governance processes. However, this would have gone beyond the scope of this thesis.

After the transliteration of the interviews, a software program for qualitative data analysis, “Atlas.ti”, was used. The major advantage of the software program is to keep an overview about coded texts and essential information. It is also a good option to compare the results, analyze and interpret their contents.

6.5 Implementation

As mentioned above, interviews are a central method for qualitative research, because you get a lot of data in the form of words. Therefore, interviews must be conducted in the most rigorous way in order to ensure reliability and validity (Bricki; Green 2007: 11). Such a “conversation with a purpose” (Mason 2002: 225) is based on the “[...] active engagement by interviewer and interviewee around relevant issues, topics and experiences during the interview itself. This provides an interactive, situational and generative approach to the acquisition of data.” (ibid.)

To include the perspectives and experiences of different actors and to understand how the governance levels of the Alpine Convention and the EUSALP work, I chose the method of semi-structured interviews, which are conducted on the basis of a loose structure created by open-ended questions defining the area to be explored (Bricki; Green 2007: 11). The protocol of open-ended questions serves as a guide, a foundation on which the interview is built. It is drafted in a way that allows to collect information regarding the topic of this master’s thesis and to be able to draw comparisons between interviews. Even though the questions are

prepared beforehand, there is still room for flexibility during the interviews (Knox; Burkhard 2009: 3). Hence, the interviewer asks all questions to each respondent and on the one side may pursue in more depth particular areas that emerge from each interviewee, while on the other side may also vary the sequence in which questions are asked. That allows creativity and flexibility to ensure that each participant's story is fully covered (ibid.; see also Dannecker; Englert 2014).

In order to guarantee that the findings reflect what the research sets out to answer, rather than reflecting the bias of the researcher, or a very atypical group, the interviews have to be conducted using four crucial skills for maximizing validity and reliability (Bricki; Green 2007: 11), which aim to be:

- “Reproducible, meaning someone else could use the same topic guide to generate similar information;
- Systematic, meaning to ensure that one is not just picking interviewees or data that support pre-existing ideas about the answers;
- Credible, meaning the questions one asks and the ways in which they are asked should be reasonable ones for generating valid (or truthful) accounts of phenomena;
- Transparent, meaning methods should be written up so that readers can see exactly how the data were collected and analyzed.” (Bricki; Green 2007: 11)

Keeping this structure in mind and that such a “conversation with a purpose” in qualitative research does not follow a strict path and the interview itself should be fluid, giving both parties the possibility to react to the conversation, the preparation of the data collection for this research could begin.

The preparation of the semi-structured interview guide started after the extensive content analysis of the Alpine Convention as well as the EUSALP. A set of open-ended questions was developed to connect to the topics and issues relevant for this study, in order to keep the flow of the conversation going as well as to gather specific data for this study. The primary goal of the interviews was to compare different perceptions of the Alpine Convention and the EUSALP with regard to their implementation and governance across the vertical level. Therefore, various representatives responsible for or involved in the process were contacted. At first, the potential candidates were contacted via email and if suitable, invited for an

interview. Some of the contacted persons did not respond, whereas those who did mostly proved to be very useful sources. Furthermore, some inquiries yielded additional suggestions and contacts for new interview possibilities.

In the first instance, it was interesting to get different perspectives on the ministerial level, since both the strategies consist of ministers as decision-making bodies. In Austria, the responsible institution for the environmental sector is the Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology, in which I had the highest expectations to get the most possible data from. Another institution relevant for this thesis and also for the case study was the Provincial Government of Styria. Finding the proper interview partner there turned out quite difficult due to the plurality of potential departments, but also because some people felt like they might not fit as the right person for the questions. Additionally, as an intermediate institution and consultant of both the federal ministry and the federal state, the Environment Agency Austria was an appropriate interview partner. This was a good opportunity to get more detailed information from a neutral perspective about the implementation of both the strategies across the horizontal as well as the vertical level. Finally, to get some insights on the meso level regarding climate change adaptation processes and the implementation of the Alpine Convention and the EUSALP, I was able to talk to a Regional Adaptation Manager in Styria.

For this thesis, five interviews were conducted. Three of these interviews were conducted in person at each of the interviewees' offices located in Vienna. The other two interviews with interview partners in Styria were conducted via telephone, due to the long and time consuming distance and the lack of time as well as other resources on my side. All interviews were conducted in German to avoid language barriers and thus get the maximum of information and data. Moreover, all interviewees were asked for permission to record the interview, to which all of them agreed. Hence, all the interview partners are anonymized for the analysis to ensure confidentiality and data protection. The interviews were transliterated by the interviewer and subsequently analyzed using qualitative content analysis.

Each interview was prepared separately, whereas the overall setup of topics, questions and structure of the interview remained largely the same. This allowed adaptations in every following interview after additional topics came up which could further be discussed. The preparation also depended on the interview partner and its level of profession in order to give the impression that they are talking to someone who is prepared for the topic, which opens the way for a more open and cooperative conversation.

Every interview started with a question about the personal background of the interviewee and its basic occupational routine. This kind of introduction enables an easy entrance to the conversation as well as first information of personal experiences and area of expertise of the interview partner. Thus, the interview continued with some general questions about climate change adaptation in Austria regarding the implementation of adaptation strategies and the mainly responsible institutions or actors hitherto. Afterwards, the thematic focus shifted towards the interview partners' expertise as well as the topics at the heart of the research. Finally, the interview partners had the opportunity to make final remarks or provide additional information.

Generally, the conversations have been quite pleasant and easygoing. All the interview partners seemed to enjoy the possibility of talking about each their profession and expertise. I tried to support them with letting the interviewee talk as they pleased and merely interrupted when the conversation obviously drifted too far away from the topic in order to avoid too many unnecessary stories or stress the duration of the interview.

For this thesis, the following five interviews were conducted that proved relevant to the research:

INTERVIEW	INTERVIEW PARTNER	AFFILIATION
Interview 1	Head of Division	BMK
Interview 2	Project Manager	BMK
Interview 3	Expert	EAA
Interview 4	Climate coordinator	Provincial Government of Styria
Interview 5	Project Manager	Self-employed, Styria

7 Analysis

The following chapter analyzes two different climate change adaptation strategies. At first, there is the Alpine Convention, which is a framework that contains general measures for the sustainable development in the Alpine region and the protection of the Alps. Secondly, there is the European Union Strategy for the Alpine Region (EUSALP), which aims to promote sustainable economic and social prosperity of the Alpine region, by improving its attractiveness, competitiveness and connectivity, while at the same time preserving the environment and ensuring healthy and balanced ecosystems. The chapter starts with a qualitative content analysis to examine the governance structures of adaptation to climate change within the Alpine Convention and the EUSALP. Moreover, it explores possible parallels and differences between both strategies as both cover the same field of action, the Alpine region. Finally, to round up the analysis there is a closer look to Styria as a case study.

7.1 Alpine Convention

As mentioned in chapter three, the Alpine Convention is an international treaty between the Alpine countries (Austria, France, Germany, Italy, Liechtenstein, Monaco, Slovenia and Switzerland) as well as the EU, for sustainable development and protection of the Alps. The Alpine Conference is the political decision-making body of the Alpine Convention and consists of the Ministers of the Contracting Parties.

The Alpine Convention (1995) is a Framework Contract and includes 14 articles. In its preamble the Contracting Parties commonly agree and acknowledge the importance of the Alps as “[...] one of the largest continuous unspoilt natural areas in Europe, which, with their outstanding unique and diverse habitat, culture and history, constitute an economic, cultural, recreational and living environment in the heart of Europe, shared by numerous peoples and countries [...]” (ibid.: 54) Furthermore, the Contracting Parties are aware of the substantial differences existing between each country, especially with regard to the national legal systems, natural conditions, population distribution, the state and development of the economy. This part is characteristic in regard to governance processes, because it shows a mutual understanding of the subject and thus builds the basis for effective collaboration and cooperation between the various actors. It is a clear pattern to Grande (2012) and the importance of enhanced collaboration between non-governmental actors and organizations

with governmental in “Public-Private-Partnerships”, as well as the emerging interdependencies between social systems (e.g. between state and economy), between different decision-making levels (e.g. EU and its member states), as well as between diverse policy fields. Moreover, it matches with the concept of “Global Governance” by Brand (Brand et al. 2000) of interaction and collaboration between governments, international and supranational institutions, economic and non-governmental organizations or Schuppert and Zürn (2008) the interdependence between player of the state and society.

The beginning of Article 2 stresses this argument:

The Contracting Parties shall pursue a comprehensive policy for the preservation and protection of the Alps by applying the principles of prevention, payment by the polluter (the ‘polluter pays’ principle) and cooperation, after careful consideration of the interests of all the Alpine States, their Alpine regions and the European Economic Community, and through the prudent and sustained use of resources. Transborder cooperation in the Alpine region shall be intensified and extended both in terms of the territory and the number of subjects covered. (Alpine Convention 1995: 55)

In order to achieve its objective the Convention covers twelve areas that require appropriate measures. Separate Protocols lay down details for the implementation of this Convention.

At first, Article 1 states the overall scope of the Convention including the Republic of Austria as the depositary of the Convention. Each Contracting Party may, when depositing its instrument of ratification, acceptance or approval or at any time thereafter, extend the application of the Convention to additional parts of its national territory by making a declaration to the depositary, provided that this is necessary to implement the provisions of the Convention. Any declaration made may also be withdrawn by a notification addressed to the depositary.

Within the specified twelve areas in Article 2, the Contracting Parties further agree in Article 3 to cooperate in the carrying out of research activities and scientific assessments, to develop joint or complementary systematic monitoring programs, as well as to harmonize research, monitoring and related data-acquisition activities. Moreover, in Article 4 the Contracting Parties commit to legal, scientific, economic and technical cooperation. As they seek to facilitate and promote the exchange of legal, scientific, economic and technical information relevant for this Convention, they also shall inform each other of planned legal or economic measures which are expected to have particular effects on the Alpine region or parts thereof, in order to give the utmost consideration to cross-border and regional requirements. In addition, the Contracting Parties shall cooperate with international governmental and nongovernmental organizations to ensure the effective implementation of the Convention and

the Protocols to which they are a Contracting Party. Finally, they shall ensure that the public are regularly kept informed in appropriate manner about the results of research, monitoring and action taken (ibid.: 57).

Both Articles 3 and 4 show clear patterns of governance across the horizontal as well as the vertical level. Being a macro-regional strategy the Alpine Convention herewith indicates the indispensable necessity of a network between the Contracting Parties, in order for cooperative problem solving and information exchange on an equal hierarchic level. Furthermore, the inclusion of the public into the Convention is essential for the cooperation across the vertical level. Again, it matches with the concept of “Global Governance” like Biermann (2004) or Brand et al. (2000) to face complex and global problems, as well as the indispensable interaction on all horizontal and vertical levels (Steurer 2013).

These governance structures continue in Article 5. It starts with the commitment of regular meetings, normally every two years, of the Conference of the Contracting Parties (Alpine Conference) to discuss the common concerns of and cooperation between the Contracting Parties. Every Party has the same right to have their individual items included on the agenda and shall forward information on the measures which they have taken in implementation of the Convention and the Protocols. The Alpine Conference further enables the United Nations and its specialized agencies, the Council of Europe and all European countries, cross-border associations of Alpine territorial authorities, as well as relevant international nongovernmental organizations to take part in the meetings of the Conference as observers. Hence, this structure resembles the governance concept of Grande (2012) in regard to “Public-Private-Partnerships” and the collaboration between non-governmental and governmental actors.

Article 6 covers the functions of the Alpine Conference, which explains how to adopt possible amendments to the Convention, adopt the Protocols, adopt its Rules of Procedure, and make necessary financial decisions, over taking note of assessments of scientific information, to decide or recommend measures to achieve its objectives. Subsequently, Article 7 states that the decision making within the Conference shall be reached unanimously, only on rare occasions the decision shall exceptionally be reached by a three-quarters majority of the Contracting Parties. Each Contracting Party has a vote at the conference. However, within the areas of its competence, the European Union exercises its right to vote with a number of votes equal to the number of its Member States which are Contracting Parties to this Convention. The European Union does not exercise its right to vote in cases where the Member States exercise theirs. This implies cooperation on several institutional levels in terms of a multi-

level-governance involving the European Union, the Alpine states and the regions, as well as local authorities. Especially normative patterns of governance (see Benz 2007) can be found thereto, as decision making is clearly governed in consideration of responsibility and the rule of law.

Responsibility is further stressed in Article 8 with the Permanent Committee of the Alpine Conference as an executive body, which consists of delegates of the Contracting Parties. It mainly carries out functions such as analyzing and assessing the information submitted by the Contracting Parties related to the Alpine Convention and its Protocols with regard to their implementation. Additionally, it prepares programs for meetings of the Conference and may propose items for the agenda as well as other measures relating to the implementation of the Convention and its Protocols. Thus, the Permanent Committee appoints Working Groups to formulate Protocols and recommendations and coordinates their activities. Finally, it examines and harmonizes the contents of draft Protocols from an overall point of view, as well as propose measures and recommendations for the achievement of the objectives contained in the Convention and its Protocols.

Article 9 covers another essential link in the governance structure of the Alpine Convention, with the setup of a Permanent Secretariat, which was optional in the Framework Convention. The secretariat was established in 2002²⁶ as a reference point for an efficient coordination of all Alpine States and is located in Innsbruck since 2003. It is responsible for political-administrative duties. Additionally, there is a branch office in Bolzano (Italy), which is responsible for technical-operational duties. The main tasks of the Permanent Secretariat cover administrative and technical support to the bodies of the Alpine Convention, public relations (meaning communicating and disseminating information about the Convention and its Protocols and both their implementation), coordination of the Alpine research projects, facilitating the implementation of the Convention and the compliance with its Protocols, observation and information system for the Alps, as well as translating and interpreting tasks (see footnote 27).

Thus, Article 8 and 9 strongly refer to the analytic and the practical concept of governance by Benz (2007), with the Permanent Committee being responsible for the reflection of causal relations between structures, interests and interactions in a broad and scientific perspective, and the Permanent Secretariat that is focused on the management of interdependencies,

²⁶ <https://www.alpconv.org/en/home/organization/permanent-secretariat/> [Access: 27.02.2021]

networks and negotiation processes. Furthermore, both these articles can be linked to Orellana (2016) as an essential part for the implementation of the Alpine Convention at the national level and subsequently promote the realization of the SDGs.

With Article 10 and Article 11, the Contracting Parties may submit proposals for amendments to the Convention and its Protocols. As such, proposals shall be communicated to the Contracting Parties and signatory States by the Contracting Party presiding over the Conference at least six months before the Conference meeting at which they are to be considered. In order for a Protocol to come into force at least three ratifications, acceptances or approvals are necessary. Hence, Article 12 covers the signature and ratification process of the Convention. Every amendment to the Convention and its Protocols shall be signed at the Conference meetings or subsequently at the depositary. Amendments to the Convention come into force three months after the date of deposit of the instrument of ratification, acceptance or approval.

Article 13 claims that any of the Contracting Parties may at any time denounce the Convention by means of a notification addressed to the depositary. A denunciation becomes effective after an expiration period of six months after the date of receipt of notification by the depositary. Finally, Article 14 includes the notification duties of the depositary, who shall notify each of the Contracting Parties and signatory States of any signature, any deposit of an instrument of ratification, acceptance or approval, any date of entry into force of the Convention and amendments, as well as any date on which a denunciation becomes effective.

When looking at the Alpine Convention the governance structure is quite clear. On first sight it reveals attributes of vertical governance processes with the Alpine Conference as the political decision-making body of the Alpine Convention, with meetings usually held every two years at ministerial level, followed by the Permanent Committee as the executive body of the Alpine Conference to ensure that the Convention's ideas, principles and aims are out into practice. The Compliance Committee²⁷ is a body that controls if the commitments and obligations resulting from the Alpine Convention are complied with. In this regard, the Contracting Parties have to present every ten years a report concerning the implementation of the Convention and its Protocols. The first report was adopted at the 10th Alpine Conference in March 2009. At the last level, the Permanent Secretariat is the reference point for an efficient coordination of all Alpine States. Vertical Governance of the Alpine Convention

²⁷ <https://www.alpconv.org/en/home/organization/compliance-committee/> [Access: 27.02.2021]

further includes the cooperation with international governmental and nongovernmental organizations.

Moreover, articles 10 to 14 again show patterns of an effective communication and collaboration on the vertical level in order to reach a successful governance. There is a clear criticism of hierarchy as a coordination mechanism like Grande (2012), since all various actors are involved in the implementation process and all have a self-determined voice as well as a decision-making power. This is also a reference to Steurer (2013) that the hierarchic ruling of the state does not denote efficient governance and that “the state is far from the only game in town”. However, at the same time there is the question by Steurer (2013) about the difficulty of how modern societies are steered (or “who is in charge”) and the dichotomy of state and non-state actors (see tripartite classification of governance Steurer 2013). Hence, the interviews conducted for this thesis analyzed how the theory of the Alpine Convention and its articles went to praxis.

Since the Alpine Convention is a multilateral international treaty, effective horizontal governance is an essential part for its implementation. The cooperation of the Contracting Parties is decisive to achieve unanimity with regard to the decision making within the Alpine Conference. There are ten Protocols and six Ministerial Declarations²⁸ hitherto, which contain specific measures for implementing the principles laid down in the Framework Convention. Furthermore, the Protocols set out concrete steps to be taken for the protection and sustainable development of the Alps.

According to the Protocols, the Contracting Parties are responsible to adopt specific measures on each the national and regional level, in the framework of current laws and regulations, to achieve the particular objectives. Article 2 of the Spatial Planning and Sustainable Development Protocol (1991) exemplarily states that “[t]he Contracting Parties undertake to ensure the measures necessary for achieving the objectives stated in article 1, in compliance with the principle of subsidiarity.” Article 7 stresses more precisely:

Each Contracting Party shall define, within its institutional frame work, the best level of coordination and cooperation between the institutions and regional and local authorities directly concerned so as to encourage solidarity of responsibility, in particular to exploit and develop potential synergies when applying spatial planning and sustainable development policies and implementing measures under them.

The same paragraph applies to the other Protocols. Also most of the other Articles in each Protocol have got the similar content. Thus, every country has to develop its own measures to

²⁸ <https://www.alpconv.org/en/home/convention/protocols-declarations/> [Access: 27.02.2021]

implement all the Protocols and shall regularly report to the Permanent Committee on measures taken under the Protocols, as well as report on the effectiveness of these measures. Subsequently, the Permanent Committee draws up a report on the compliance of the Contracting Parties with the obligations arising from the Protocols, for the attention of the Alpine Conference, who shall take note of this report and may adopt recommendations if it finds that obligations have not been met.

Unfortunately, not all the Protocols have yet been ratified²⁹ by all Contracting Parties. Hence, horizontal governance should be enhanced to foster a proactive implementation of the Alpine Convention and its Protocols, as the Alpine Conference claims in the “Multi-Annual Work Programme of the Alpine Conference 2017-2022”. Therein the Contracting Parties commit to a bottom-up approach (2017: 7) to identify the challenges for the Alpine region and its inhabitants. Moreover, governance processes at all levels shall follow a participatory approach with the objective of integrating the needs and interests of all societal stakeholders in decision-making processes (ibid.: 5). The Contracting Parties also intend to build strong partnerships for the implementation of the Multi-Annual Work Programme while involving different actors from various governance levels (ibid.: 6).

Compared to the Framework Convention and the Protocols, the Multi-Annual Work Programme shows clear measures of how to achieve the objectives of the Alpine Convention. As a transversal approach, which aims at balancing environmental protection and socio-economic development, the Multi-Annual Work Programme includes six priorities for cooperation to deal with the increasing interconnectedness of challenges, processes, institutions and actors (ibid.: 9). With one priority focus on people and culture, the Contracting Parties shall improve and adapt public services and governance structures to future needs of the population by working together with inter alia civil society organizations, municipalities, and organizations of volunteers. A particular attention is placed on young people and their needs and prospects as they represent the future of the Alps (ibid.: 10).

Taking action on climate change as another priority involves a broad range of sectors and stakeholders from areas such as: transport, energy, agriculture, tourism, buildings and spatial development. The local level, in particular local authorities, plays a key role in this effort, which requires the Alpine Conference to further support municipalities in capacity building efforts as well as strengthening networks and governance systems to implement programs and

²⁹ <https://www.alpconv.org/en/home/convention/state-of-ratifications/> [Access: 27.02.2021]

activities. Additionally, the Contracting Parties dedicate more attention to climate research, which should be capitalized on in order to inform smart climate adaptation and mitigation strategies (ibid.). Furthermore, the Alpine Convention stresses to play a leading role in the EUSALP as another priority in the Multi-Annual Work Programme. This entails to follow and influence further governance developments, relating to, for example, decision-making procedures, information flows and involvement of non-state actors (ibid.: 13).

With regard to Austria³⁰, 64.8% of total state surface is part of the Alpine region and covers 3.14 million inhabitants, equalizing 40.2% of Austria's population. The responsible institution for the implementation of the Alpine Convention is the Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK). All the Protocols are legally binding, came to immediate effect with their ratification and are applied by law. Besides the BMK, there is a National Committee responsible for the implementation process functioning as a national coordination-platform consisting of representatives of the federal states, compulsory ministries, national NGOs and social partners. Another important institution for the consistent implementation of the Alpine Convention is the legal service point of CIPRA-Austria³¹, an NGO that has been committed to the protection and sustainable development of the Alps since 1952 and provides legal advice for the coordination of the Alpine Convention and its Protocols. Finally, there is a legal database³² available online as a source for public agencies implementing the Protocols with information about governmental decisions regarding the complex application of the Alpine Convention. It is also available for private individuals, offering transparency about the implementation processes.

Summing up and narrowing down, the Alpine Convention is an international treaty for the sustainable development and protection of the Alps. Ever since it entered into force in 1995 there is clear governance structure. At the top there is the Alpine Conference as the political decision-making body consisting of the Ministers of the Contracting Parties, followed by the Permanent Committee as the executive body of the Alpine Conference to ensure the implementation of the Convention's decisions, principles and objectives. In addition, there is the Compliance Committee as a body that controls if the commitments and obligations resulting from the Alpine Convention are complied with. Finally, the Permanent Secretariat which provides support to the decision-making bodies of the Convention. Each of their tasks

³⁰ https://www.bmk.gv.at/themen/mobilitaet/transport/international_eu/alpenkonvention.html [Access: 27.02.2021]

³¹ <https://www.cipra.org/de/cipra/oesterreich> [Access: 27.02.2021]

³² <https://secure.umweltbundesamt.at/alpenkonvention/green/public/pz09search.pl> [Access: 27.02.2021]

and responsibilities is defined in the Framework Convention whose content is held too generally with regard to specific measures to protect the Alpine region. Thus, there are Protocols which contain specific measures for implementing the principles laid down in the Framework Convention. Moreover, in 2017 a Multi-Annual Work Programme was adopted in order to foster a proactive implementation of the Alpine Convention and its Protocols.

Every Member State of the Alpine Convention is responsible to adopt own measures to implement the objectives of the Convention and its Protocols. This requires effective governance on the horizontal level, especially due to the substantial differences existing between national legal systems. Hence, the Contracting Parties agree to a comprehensive policy for the preservation and protection of the Alps as well as to intensify and extend cross-border cooperation in the Alpine region. Signs of governance across the vertical level can be found with the commitment to the cooperation with non-governmental as well as civil society organizations and the inclusion of the public into the Convention. When taking a look at the governance landscape in Austria, the BMK, as the responsible body for the implementation of the Alpine Convention, collaborates with the National Committee and the legal service point of CIPRA-Austria in order to integrate the Convention and its Protocols in the vertical level.

The next step of this thesis is to draw a comparison to a second strategy for the protection of the Alpine region, and analyze if they both support or hinder each other with regard to effective measures to tackle climate change as well as the implementation of those measures.

7.2 EU Strategy for the Alpine Region (EUSALP)

The EU Strategy for the Alpine Region is a macro-regional strategy, involving Austria, France, Germany, Italy, Slovenia, Liechtenstein and Switzerland, to improve cooperation in the Alpine States as well as identify common goals and implementing them effectively through transnational collaboration. It constitutes a strategic agenda that should guide relevant policy instruments at EU, national and regional level, by closely aligning and mutually reinforcing them. There is no specific document of the EUSALP, thus all the information for this purpose is based on the official website³³ of the European Commission.

The promotion of sustainable economic and social prosperity of the Alpine region is the overall objective of the EUSALP. It also aims to ensure that this region remains one of the most attractive areas in Europe, taking better advantages of its assets and seizing its opportunities for sustainable and innovative development in an European context. Therefore, the strategy focuses on areas of (macro) regional mutual interest and thus defined thematic policy areas and specific objectives, which should reflect genuine commitment to working together to achieve common solutions to challenges or unused potential. The EUSALP is structured around the following three thematic policy areas and a cross-cutting policy area as well as to the corresponding objectives (see footnote 35):

1. “Thematic policy area: Economic growth and innovation with the objective of fair access to job opportunities and building on the high competitiveness of the Region
2. Thematic policy area: Mobility and connectivity with the objective of sustainable internal and external accessibility to all
3. Thematic policy area: Environment and energy with the objective of a more inclusive environmental framework for all and renewable and reliable energy solutions for the future
4. Cross-cutting policy area: Governance, including institutional capacity with the objective of a sound macro-regional governance model for the Region to improve cooperation and coordination of action”³⁴ (see footnote 35)

With these objectives, the EUSALP wants to boost investments and foster cooperations between stakeholders such as the civil society, states and regions, etc. (see footnote 35).

³³ <https://www.alpine-region.eu/> [Access: 27.01.2021]

³⁴ <https://www.alpine-region.eu/objectives> [Access: 27.01.2021]

Furthermore, the strategy seeks to complement rather than duplicate existing cooperation structures in the Alpine region. Hence, the EUSALP is built on a strong governance system that aims to ensure a sound and effective implementation of the strategy and its thematic objectives (see footnote 13).

These thematic schemes resemble the first two disciplines of governance by Schuppert and Zürn (2008), where governance is crucial for market regulations as well as traditional allocation models, and crucial for addressing transnational problems like environmental pollution and climate change, taking into account international Organizations and NGOs. Thus, it is essential that the EUSALP is able to manage the step from regulation to governance in order to complement existing cooperation structures. This is the place for a Global Governance like Brand (2005), which is an equal to the re-regulation of the world economy and particularly of the changing role of the state and of institutions in international politics.

Governance within the EUSALP starts with the European Commission as an independent facilitator and active participator in the overall coordination of the strategy. It also acts as coordinator and co-chair of the meetings of the Executive Board and the General Assembly, without a voting right, and confirms that decisions taken in such meetings comply with EU legislation, when appropriate. The General Assembly mainly is responsible for laying down the general political guidelines of the strategy. Additionally, it has the possibility of organizing ministerial meetings in order to create the necessary political awareness for the strategy. The General Assembly gathers the high-level political representatives of States and Regions involved in the EUSALP and can annually meet in an extended format, open to all relevant stakeholders (see footnote 13).

Moreover, there is the Executive Board, which is formed by representatives of States and Regions and representatives from the European Commission. It is mainly responsible for the overall horizontal and vertical coordination of the strategy and the preparation of the General Assembly meetings. Furthermore, it monitors the implementation of the EUSALP and it is meant to provide strategic guidance with respect to management and implementation of the EUSALP. The rotating chair of the Executive Board coincides with the presidency of the General Assembly in order to ensure coherence. Presidency can be allocated to all participating States and Regions with the agreement of the Commission. The crucial part herewith is strong and structured political support, with ministers determining the overall direction of the Strategy, taking ownership and responsibility, aligning policies and funds, and

providing the resources and status for decision making. Thus, political leadership implies both a political and operational dimension (see footnote 13).

However, there is the notion of a too far hierarchic governance within this structure. So far, there are primarily political actors or institutions listed to be responsible for the coordination and implementation of the EUSALP, whereas NGOs or civil society are not even mentioned with regard to being involved. Hence, this concept of governance collides with Grande (2012) and his criticism of hierarchy as a coordination mechanism, meaning the hierarchic-bureaucratic state, hierarchic organizations and hierarchic strategies. Furthermore, it misses the comparison of Brand (2005) to Antonio Gramsci's hegemonic theory, in which ruling actors gain consent in society for their particular interest, usually by making concessions and compromises.

Finally, the core of the implementation level is the Action Groups and their Action Group leaders, who are the drivers of day-to-day implementation. Their role, capacities, resources and engagement is a key element to the success of the Strategy. There are nine Action Groups organized across the three thematic policy areas mentioned above with each having separate objectives. Three Action Groups operate within the first thematic policy area "to develop an effective research and innovation ecosystem, to increase the economic potential of strategic sectors" as well as "to improve the adequacy of labour market, education and training in strategic sectors." ³⁵ (see footnote 36) Another two Action Groups operate within the second thematic policy area to "promote inter-modality and interoperability in passenger and freight transport" as well as "to connect people electronically and promote accessibility to public services" (see footnote 34). The last four Action Groups operate within the third thematic policy area to promote a sustainable use of natural and cultural resources, "to improve risk management to better manage and tackle climate change" as well as "to make the territory a model region for energy efficiency and renewable energy" (see footnote 34).

Overall, there is a distinctive commitment to a required governance system for political steering and decision-making within the EUSALP. As with the fourth cross-cutting policy area and its objective to improve cooperation and coordination of action, the EUSALP governance model takes into account a high diversity of structures across the Alpine region with a wide variety of governance systems. Countries, regions, policy strategies, sectors, and funding resources shall avoid compartmentalization, be it between sectorial policies, actors, or

³⁵ <https://www.alpine-region.eu/objectives> [Access: 27.02.2021]

different tiers of government. The EUSALP is an approach that encourages participants to overcome not only national frontiers, but also sectors and barriers, in order to allow thinking that is more strategic and imaginative concerning the opportunities available (see footnote 13).

Moreover, it is stressed that the governance of a macro-regional strategy requires greater dialogue and substantial coordination across all decision-making levels, and sectors inside each state and region as well as between participating States and Regions, to reduce fragmentation, improve realization of actions and encourage effective participation from the actors involved. Additionally, it requires the capacity to exchange information and to detect policy gaps when they arise. Hence, each country has to make sure that the key partners in the implementation of the strategy, such as coordinators and implementers at objective and actions level, get the necessary recognition and legitimacy to fulfill their tasks. It is essential that they receive a clear mandate and appropriate resources and time allowing them to work in satisfactory conditions and in effective collaboration with the relevant national or regional administrative departments and policy-making and implementing bodies (see footnote 13).

There is a clear pattern to Grande (2012) herewith, where the collaboration and coordination between various actors are the central point for the governance concept. Additionally, there is a correlation to the “Global Governance” concept by Steurer (2013) and Brand et al. (2000), which not only applies to governments, but to the interaction and collaboration between governments, international and supranational institutions, economic and non-governmental organizations in a network of formal as well as informal relations.

To sum it up, the governance structure of the EUSALP is laid at three levels. The level of political leadership is represented by the General Assembly which ensures the overall political orientation as well as providing strategic thematic guidance and decisions on actions. A rotating presidency guarantees a balanced distribution and can be allocated to all participating States and Regions. The overall coordination level is represented by the Executive Board to ensure an efficient dialogue and substantial coordination across all decision-making levels, and sectors inside each state and region as well as between participating States and Regions. Nine Action Groups cover the implementation level, which is a key step, as it is mainly based on the results of joint actions and projects completed at macro-regional level that better and informed decisions can be taken at political level to improve the efficiency of the policies concerned and to reach the objectives assigned to the strategy (see footnote 13).

7.3 Alpine Convention and EUSALP: different discourses – same destination?

Since both strategies cover the Alpine region it is necessary to take a closer look at each of their strategic approaches and search for overlaps or dichotomies. This comparison draws the lines from theory to praxis and further includes some lessons learnt.

The Alpine Convention was already involved in the development³⁶ of the EUSALP since the beginning and thus is an essential part of the strategy. Therefore, a specific Working Group, namely “The Macro-regional Strategy”, was implemented to facilitate the coordination of the contributions that the Alpine Convention provides for the EUSALP. Furthermore, the Alpine Convention contributes substantially to the design and implementation of the EUSALP by actively making use of its observer function in the General Assembly and in the Executive Board of the strategy. Regarding its involvement on the implementation level, the Alpine Convention was assigned the co-leadership of Action Group 6 of the EUSALP, which is the responsible entity to preserve and valorize natural resources, including water and cultural resources. Additionally, the Alpine Convention is actively involved in the Work of Action Groups 4, 7 and 8 as well as an official observer of Action Group 4 by the Permanent Secretariat. Finally, the Alpine Convention is represented in the EUSALP process jointly through the Presidency and the Permanent Secretariat working in close cooperation with the Permanent Committee, the Macro-regional strategy Working Group and other Working Groups and Platforms.

As mentioned above, the Alpine Convention seeks to play a leading role in the EUSALP as a priority in its Multi-Annual Work Programme. Hence, it is important that the Alpine Convention positions itself vis-à-vis the EUSALP and promotes the Convention’s balanced approach between nature protection and sustainable development as well as calling for EUSALP activities to be mutually beneficial for mountain territories and surrounding areas. The focus is to consolidate the Convention’s position within the EUSALP and to actively shape EUSALP activities that are relevant to the Convention. This entails to follow and influence further governance developments, relating to, for example, decision-making procedures, information flows and involvement of non-state actors. Communication and coordination among the Alpine Convention bodies are needed as well as regular assessments of Alpine Convention priorities regarding contributions to the EUSALP. In this coordination

³⁶ <https://www.alpconv.org/en/home/projects/eusalp-action-group-6/> [Access: 27.02.2021]

framework, the Macro-regional Strategy Working Group plays an essential interface role (2017: 13).

The partnership of the Alpine Convention with the EUSALP is part of multilevel network of different stakeholders (see Figure 8). Partnerships are crucial for exchanging experience across thematic fields and knowledge groups.

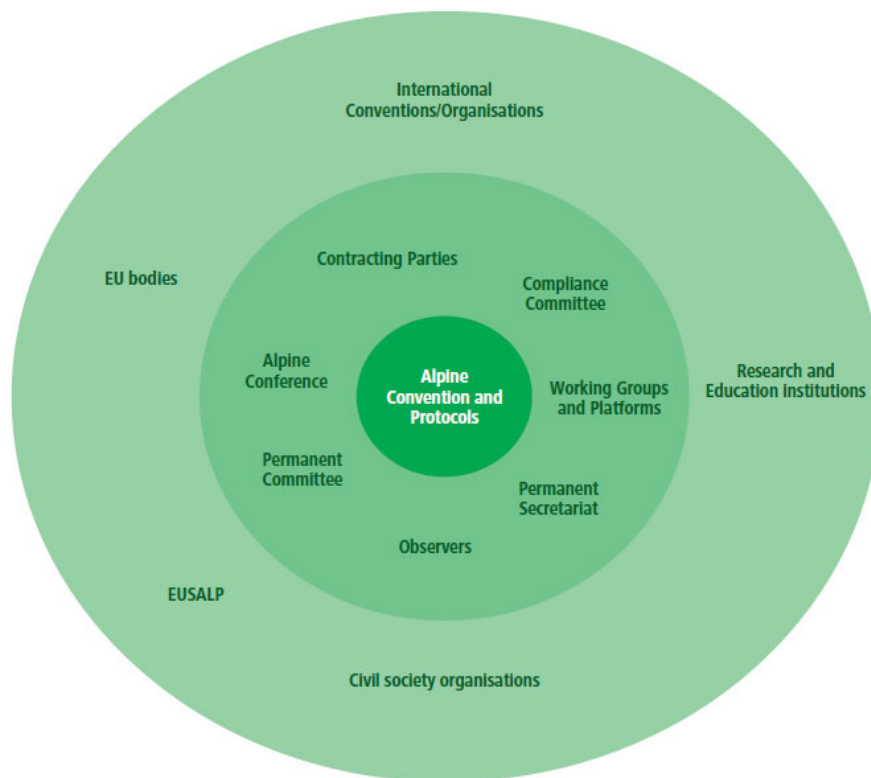


Figure 1: Partnerships of the Alpine Convention (Permanent Secretariat of the Alpine Convention 2017)

An interesting difference between the Alpine Convention and the EUSALP is the perception of the economy. While both strategies accredit economic development as a central part for a sustainable development, the Alpine Convention primarily focuses on an environmental discourse. In its Framework Convention the Contracting Parties are “[...] convinced of the need for economic interests to be reconciled with ecological requirements [...]” (Alpine Convention 1995: 54) and “[...] through the prudent and sustained use of resources [...]” (ibid.: 55) seek to “[...] promote a system of farming which suits local conditions and is environmentally compatible [...]” (ibid.: 56) or “[...] restricting activities harmful to the environment, to harmonize tourism and recreational activities which [sic!] ecological and social requirements [...]” (ibid.) as well as “[...] introduce methods for the production,

distribution and use of energy which preserve the countryside and are environmentally compatible, and to promote energysaving measures [...]” (ibid.).

These statements are a clear dedication to the protection of the environment. Moreover, the Alpine Conference adopted a Ministerial declaration on strengthening of the sustainable economy in the Alps (2016) on the basis of the implementation of the Paris Agreement and the Sustainable Development Goals (ibid.: 2) with the objective of the mitigation as well as adaptation to climate change in the Alpine Space. Recently, the Alpine Conference adopted a Ministerial declaration on Climate-neutral and Climate-resilient Alps 2050 (2019) to, amongst others, foster a sustainable economy in order to meet the climate-related challenges of the Alpine region and to contribute to the reduction of greenhouse gas emissions at global level (ibid.: 2). Hence, economic activities in the Alpine Convention area respect the specific topography, the natural resources, the climate as well as the sensitive Alpine environment.

Within the EUSALP it is difficult to identify a clear commitment to the protection of the environment or to the mitigation as well as adaptation to climate change. In its mission statement³⁷ the EUSALP wants to enhance the “[...] attractiveness and competitiveness of the Alpine Region [...]” and aims to “[...] ensure that this region remains one of the most attractive areas in Europe, taking better advantage of its assets [...]”. Furthermore, all three thematic policy areas of the EUSALP include mainly economic features and sustainability is more or less marginalized. The objective of the first area is declared as economic growth and innovation and constitutes the Alpine Region as the largest European economic and productive hub with still a lack of economic, social and territorial cohesion. Mountains are considered as a challenge to homogenous development as they entrench disparities among different territories in the Alpine Region. Thus, the EUSALP aims to improve and develop support for enterprises as well as promote high levels of employment with the overall goal to show that a competitive economy can successfully combine prosperity, energy-efficiency, a high quality of life and traditional values.

Additionally, the objective of the second area seeks to enhance mobility and connectivity for the Alpine region with a better transport system and a higher accessibility to Information and Communication Technologies, that should also embrace communication infrastructure and services (including tourism). However, the third area, and its objective of a more inclusive environmental framework for all and renewable and reliable energy solutions for the future,

³⁷ <https://www.alpine-region.eu/mission-statement> [Access: 27.02.2021]

aims to build further on the position of the Alpine Region as world-class in terms of energy efficiency and sustainable production of renewable energy. Although the EUSALP does not totally miss out sustainability and protection of the environment, there is still the notion to bring a new impetus for co-operation and investment to the benefit of all involved that puts economic growth in the core of its discourse.

Moreover, on the vertical level it seems that the Alpine Convention does involve more stakeholders than the EUSALP. Especially the civil society, NGOs and other public organizations play a crucial role in the Alpine Convention in regard to decision-making procedures and information flows. For instance, while the Alpine Convention currently has 16³⁸ official observers the EUSALP only mentions two³⁹. Article 4 of the Framework Convention explicitly stresses the essential cooperation with nongovernmental organizations to ensure the effective implementation of the Alpine Convention and the Protocols, whereas in the EUSALP nongovernmental organizations remain unmentioned. Merely with its objective for cooperation and investment to the benefit of all involved the EUSALP includes civil society and European citizens as some of its stakeholders. Thus, it appears that they are rather seen as probable customers or beneficiaries than partners.

However, to get a more in depth understanding of both the Alpine Convention and the EUSALP and their everyday implementation from the theory to praxis, as well as to identify possible overlaps or dichotomies, it was crucial to conduct interviews with experts in the field. As a case study and concrete example for the implementation in Austria, the federal state of Styria has been consulted.

7.4 Results of the Data Collection

This chapter will sum up the results of the interviews and will look at the problems of the Alpine Convention and the EUSALP with oneself on the one hand, and between each other on the other hand. Furthermore, it draws a comparison to the findings of the differences between these strategies in the chapter above. However, not all issues, which were voiced in the interviews, can be included in this study, because of the amount of data gathered in the field.

³⁸ <https://www.alpconv.org/en/home/organization/observers/> [Access: 27.02.2021]

³⁹ <https://www.alpine-region.eu/observers> [Access: 27.02.2021]

Alpine Convention

Like other international strategies, the Alpine Convention has fundamental difficulties to get from theory to praxis. Starting with the implementation, the most crucial part of the whole climate change adaptation process is the inclusion of and the interaction with the people. As one interviewee pointed out, the social dimension in the discussion about climate change has been left out since its beginning and still is missing. Hence, there is a lack of acceptance and credibility with an enacted implementation among the society (Interview 1: 2). Implementation needs to be a bottom-up process, because people are an essential multiplier in this discourse. Moreover, “[t]hey have ideas, they are creative and they have contact with people and ultimately everything is only as strong as it is implemented and accepted by people”. (ibid.)

The implementation of the Alpine Convention and its Protocols in Austria, based on the integrative approach, is more advanced compared to the other alpine states. Nonetheless, the Austrian administration still needs to improve to deal with as well as to incorporate international legal sources, especially if they are directly applicable in a specific case. Although there are several judicial decisions in reference to the Alpine Convention, the Austrian administration often misses or is afraid to apply this source of law (ibid.: 3). A key factor for the judicial implementation are the federal states. According to competencies, three quarters of the legal acts concern the federal states. Whether it is tourism, spatial planning, nature conservation or hunting rights, these are all competencies according to the constitution that are granted to the countries. Thus, every federal state has its own way to approach the implementation, but it was not until recently that they recognized the benefits of the Protocols as a source of law (ibid.: 5).

As the interviewee further emphasized, there is also project-specific implementation, besides judicial implementation, as a crucial factor, because “[...] only with projects do you get to the people and make it understandable.” (ibid.: 4) There is already a number of successful projects on municipal levels where people can see an additional value for themselves. Furthermore, municipalities implement many things without knowing the connection to the Alpine Convention. On the one hand, the rural development represents a core element for the implementation of the Alpine Convention und its Protocols on the vertical level (ibid.: 6). On the other hand, there is always the problem of convincing or enthusing people, e.g. or a mayor

in the case of municipalities, for a certain project when there is a lack of funding, subsidies, manpower or other resources (ibid.: 5).

The biggest problem of the Alpine Convention and its Protocols is the communication between all stakeholders, both on the horizontal and vertical level. Particularly, the process of “do good things and talk about it” (ibid.: 7) needs to be further enhanced. That is, all the success and expertise of various sectors within the Alpine Convention does not or hardly reaches the required stakeholders, such as civil society as well as experts. This deficit is caused by the four official languages of the Alpine Conference, which are French, German, Italian and Slovene. As a fifth language and as an attempt for more international range there is English, in order to bundle the topics and results of the Alpine Convention to consequently apply them there as best as possible (ibid.). However, as the interviewee stressed, to work with four languages costs a huge amount of money, whether it is interpreting or in written form. Although collaboration in English would be easier and cheaper, there is a barrier of merely reaching

[...] the ones who are good in English, but not at the subject. So that means you can only reach the people by offering the language. And for many people the Alpine Convention is something decreed from above, because it was simply signed by the ministers, the protocols have all been signed, have come into force, have gone through parliament like a law, so it is already a process that comes from above. The Alpine Convention has always had that, from the top down. (Interview 1: 9)

Moreover, this “docking on the ground” (ibid.) is an issue that the Alpine Convention still has to learn and once more, the civil society is very much in need of it. Since civil society participates as an observer in the work of the Permanent Secretariat and the Alpine Conference, it is a highly respected circle of participation and collaboration. Hence, civil society has the right to question the implementation or reveal obvious deficits of the implementation, which can lead to a legal procedure (ibid.). As mentioned above, the integrative approach of the Alpine Convention would present an opportunity for civil society to participate in the implementation process. People can base their decisions on matters that were not previously considered, which means that the public interest in nature conservation, environmental protection and access to nature takes on a different significance, due to the fact that it is simply written down somewhere. Thus, it is still always necessary “[...] to constantly kick people in the butt and tell them, take it, use it, and work with it.” (ibid.: 4)

Nonetheless, according to the interviewee, it is still mainly the responsibility of the government on the one side to adopt regulatory measures as well as to provide financial

support, in order to structure the organization of and ensure the effective implementation of the Alpine Convention. The Provincial Governments on the contrary have neither the means nor the interest in this regard (ibid.: 15). On the other side, the government has the responsibility to raise more awareness about the Alpine Convention and enhance dialogue with the people to do a lot of persuading within a municipality or a region. Because

[...] people are very open-minded by now and they get to know the things via the internet anyway. They are not stupid, and blind, and deaf. So I think if you give people the feeling that they can make a difference and by doing something themselves, they can also show responsibility or contribution. Then people are quite willing to do something. (Interview 1: 16)

Especially the knowledge of the people who were living in the Alpine region over the centuries must not be underestimated. Their sustainable lifestyle over generations is the main factor for the good state of preservation of the Alps. Hence, this fact makes them an essential asset for the implementation of the Alpine Convention, because they are not some “hillbillies”, but extremely modern people (ibid.: 17).

EUSALP

Due to the fact that the EUSALP is relatively young (2016), compared to the Alpine Convention (1995), there is not just yet as much data available. According to one interviewee, who is a member of one Action Group, there are some successful projects with regard to the implementation of the EUSALP in the Alpine region (Interview 2: 3). An essential fact thereby is the exclusion of the European Commission as a part of the implementation process. It is more an observer and revises the outcome as well as the deliverables of the implementation process. Hence, if Alpine States do not reach their goals or fulfill their obligation within EUSALP projects, they consequently will not get any EU financing. The Commission seeks the successful implementation of the EUSALP (ibid.).

Just like the Alpine Convention, there is a number of effective projects, which are well received on the municipal level. Nonetheless, one of the biggest problems of the EUSALP is the communication and its publicity among the population. Even some climate change adaptation experts still have not heard of the EUSALP. Furthermore, as the interviewee mentions, there also are members of Action Groups who do not specifically know what they

have to do (ibid.: 4). Thus, it is crucial, just like the Alpine Convention, to get to the people and raise awareness of the EUSALP and its projects.

A major challenge for the EUSALP in this regard is to find multiplier or to develop some communication tools (ibid.: 9) for knowledge transfer with other Alpine States and where they could learn from each other. If there is a successful project in one country, it does not mean that it will work in another country. Hence, it is essential to disseminate the outputs to the stakeholders and spread the strategies for the benefit of the people. Considering climate change adaptation, a lot of people already have experience how to implement specific strategies or how to act sustainably in order to tackle global warming and its harmful externalities. Thus, the EUSALP has to enhance its communication processes as well as develop measures how to get the information to people. However, both implementations cost a lot of money (ibid.: 10).

Especially the communication within the EUSALP and its Action Groups still has plenty of room for improvement (ibid.: 6). However, a good communication is essential for the effective governance between all levels with regard to a sustainable collaboration and coordination between all actors (see Grande 2012; Brand et al. 2000). One possible reason for the lack of communication within the EUSALP as well as the Alpine Convention can be found at Steurer (2013) in the difficulty of “who is in charge”. On the one side, there might be too many actors of different fields involved with regard to the dichotomy of state and non-state actors. On the other side, with both being transnational strategies involving multiple countries there is the simple problem of the language barrier, like evidently in the Alpine Convention.

A key factor in this regard is the communication on the vertical level. According to the interviewee, there is no communication between members of the Action Groups and the Executive Board, because for the Action Group member the strategic process may not be as important as for the Action Group Leader and the Executive Board. The members are working groups and do not necessarily show interest in the decisions made from the top, whereas the Action Group Leaders, who have the role of a mediator, must represent the interests of the Action Group to the Executive Board and vice versa. However, since they meet two to four times a year, one could say this might not be sufficient (ibid.).

Additionally, the communication on the horizontal level between the Action Groups needs to be more improved. Since the beginning of the EUSALP, every Action Group had to prove their own competencies and strengths, or concede possible weaknesses. Moreover, every

Action Group focused each on its own working program. Thus, there is yet to figure out where potential overlaps or synergies could be, as well as where the Action Groups could learn from each other or could better collaborate. Problems may arise when a number of Action Groups work on the same subject, which could turn out to be too broadly based due to the various and different approaches (ibid.: 5).

The Action Groups consist of different members across various thematic fields, such as experts of ministries, NGOs or also Provincial Governments, whom each Action Group chooses as a potential partner and thus nominates it as a member. Hence, whereas this resembles a bottom-up approach, there is also the possibility of differences within an Action Group regarding the content of working programs (ibid.: 7). Members can deliver input and participate as an observer, but they are not entitled to vote in decision making processes, which makes the entire bottom-up process obsolete. Nonetheless, the collaboration of all Action Groups is crucial in order to acquire new projects for further financing, irrespective of the European Union (ibid.).

Another interviewee also mentioned that the EUSALP does not show interest in the participation of NGOs or civil society regarding the implementation process. It rather seeks to exclude such organizations from their role as an observer to jointly distinguish possible problems or discuss specific obstacles. This is a strong conflict to the concept of governance, where it is not simply the hierarchal ruling within a nation state, but an interdependence between player of the state and society (see Schuppert; Zürn 2008). Since climate change is anthropogenic (see chapter 3.1), it is crucial to include civil society for an effective implementation of climate change adaptation measures. Thus, the concept of Grand (2012) applies, where mere hierarchy is not a proper coordination mechanism and “Public-Private-Partnerships” need to be enhanced.

On the one side, there are NGOs which had to struggle and fight for the right to participate in some Actions Groups within the EUSALP. On the other side, some Action Groups apparently even shut out NGOs or civil society from any kind of collaboration. Hence, “[d]ealing with so-called ‘noises from civil society’ is not welcome at the EUSALP.” (Interview 1: 11)

Alpine Convention vs. EUSALP

It is now important to compare these strategies regarding the findings in the interviews. As we have learned so far, the Alpine Convention and the EUSALP seem to differ in several fundamental subjects, especially when it comes to the inclusion of stakeholders into the implementation processes. This might originate from their different temporal existence or amongst others from each of their different governances. Not to forget, both strategies largely cover the same geographical region, which hence should facilitate their collaboration and enhance climate change adaptation processes thereby.

One interviewee explained that the relationship between the Alpine Convention and the EUSALP was quite difficult from the very beginning. Based on the background of the Alpine Convention as a long established transnational stakeholder over decades in the Alpine region, binding under international law and its politically binding protocols, there is all of a sudden a new stakeholder. A young macro-regional strategy with new structures and new processes, hence challenging its older and more experienced counterpart who is forced to (re)define its role more precisely (Interview 3: 7). However, that can have positive effects to set oneself apart on the one hand, but also to work towards cooperation and potential synergy on the other hand.

In the collaboration discourse between the Alpine Convention and the EUSALP there has been a draft for an official cooperation agreement, but it was never concluded by either decision-making bodies. Nonetheless, praxis clearly shows to a certain extent a mutual understanding and a way towards collaboration. It always depends on the particular subject and its respective working group. Thus, it is essential to figure out which projects would be conducted twice and where the strategies could support each other in this regard. Unfortunately, there is also room for possible points of conflicts when each interests do not match or specific topics cannot be fully discussed (ibid.: 8).

Moreover, it is inevitable for the Alpine Convention, as mentioned in its Multi-Annual Work Programme (2017), to play a leading role in the EUSALP. With its existing structures and its knowledge across the Alpine region, it is in any case in the position to play a decisive and positive role regarding the development and implementation of the EUSALP. Besides, the Alpine Convention can also provide future-oriented contents for the benefit of the entire EUSALP process. The key factor, and at the same time the biggest difference between the two strategies, is the participation of the civil society and NGOs. According to the Interview 1,

people are an essential multiplier for implementation processes, whereas in Interview 2 the EUSALP still has to find some multipliers. Furthermore, Interview 3 also emphasizes that the status of civil society and NGOs is more formally regulated in the Alpine Convention, because here the role of actors is always much more precisely defined and agreed in writing. In contrast to the EUSALP where the status of civil society and NGOs can be described as underrepresented and still has to be better defined (Interview 3: 7).

However, according to CIPRA Österreich (2014), both the Alpine Convention and the civil society must be regarded as crucial governance components within the implementation process of the EUSALP, if the EU Commission wants to do justice to the often quoted bottom-up approach in the future (CIPRA Österreich 2014: 52). Again, Interview 1 stresses the importance of the implementation process being a bottom-up approach, whereas Interview 2 only sees small patterns of bottom-up approaches in both the Alpine Convention and the EUSALP, since civil society and NGOs just play a marginal role. Also Interview 3 assigns more potential to the EUSALP in regard to the participation of civil society and NGOs, whose roles depend on the specific topics as well as particular recommended actions (Interview 3: 6).

Additionally, there is room for improvement at communication level between the Alpine Convention and the EUSALP. Due to different approaches and a different geographical area, which is twice as big at the EUSALP, it is crucial for both strategies to meet at eye level (Interview 1: 12). Unfortunately, there is the risk that the Alpine Convention and the Alpine region are degraded to a mere recreational and resource area. Thus, the Alpine region would only be “[...] good enough for vacationing, what the people there do the rest of the time is indifferent to them or whether, for example to have storage power plants to then cover some maximum electricity demand of Munich.” (ibid.)

Therefore, the Alpine Convention and the EUSALP both mutually participate as an observer and seek to collaborate more closely within common Action Groups. This is essential since it provides a room where both strategies mutually learn from each other and consequently complement each other with contributing their particular strengths. Hence, a good communication as well as a good exchange between the Alpine Convention and the EUSALP is necessary (Interview 1: 12; Interview 2: 5f).

Styria

When it comes to Styria in the context of the implementation of the Alpine Convention and the EUSALP, it got a little bit difficult during the research process. As it turned out it is not really clear which climate change adaptation processes in Styria refer to either strategy. Thus, this coincides with the statements of two interviewees that on the one hand municipalities implement many things without knowing the connection to either strategy (cf. Interview 1), and on the other hand there are some climate change adaptation experts who still even have not heard of either strategy (cf. Interview 2). Nonetheless, one could say there is already a lot happening with regard to climate change adaptation, though “[t]here are sectors, fields of action, where, compared to others, perhaps more is happening, perhaps in other fields of action comparatively even less, and overall it is not easy and difficult to get an overall picture, so to speak.” (Interview 3: 3) The problem of this discourse just seems to be the governance.

One interesting point about Styria, according to one interviewee, and its measures for climate change adaptation is the ambition to figure out what measures the Provincial Government of Styria can implement in its own administrative area first (Interview 4: 1). Thus, all measures are strongly oriented towards the styrian population who plays a key role in the implementation process. “We see climate change adaptation as a very local problem, which means that if we really want and need to go into implementation, then of course we need the community level as our partner on the side.” (ibid.: 2) Moreover, the climate change adaptation strategy in Styria corresponds with the Austrian strategy for climate change adaptation, but its focus is the local level.

Additionally, the interviewee mentioned that the subject of climate change adaptation is still relatively young for Styria, but it is well perceived at the state level. In the past, there was climate change mitigation in the center of attention. The implementation of climate change adaptation projects always depends on human resources and financial resources. To some extent from funds of the federal government as well as funds from the European Union. Hence, there is a close collaboration with the federal government, whereas there is none at the European Union level (ibid.: 3), which contradicts the collaboration and coordination concept of governance (see Grande 2012; Brand et al. 2000). For Styria, there is the obstacle of an unilateral hierarchic communication with the federal government. Hence, this is a reference to Filho; Hurlbert; Diaz (2016), who point to failures and limitations of traditional international

institutions as well as national governments in addressing the problem of climate change and emphasize the importance of governance.

This is underpinned by another interviewee who stresses the regular and close exchange between ministerial departments and climate coordinators of Provincial Governments. With regard to the Alpine Convention and the EUSALP and the fact, that climate change adaptation is just one topic among many in both strategies, there may be other communication channels including different persons at Federal and State level (Interview 3: 5).

Another essential point for the interviewee is that a lot of other measures in many different areas support climate change adaptation processes, although they are not entitled or developed as an adaptation measure per se. The crucial part is to differentiate between environmental events that are obviously an impact of climate change or happen merely once (Interview 4: 4). This is where the Alpine Convention and the EUSALP probably could play a leading role and create some input. However, the perception of both these strategies in Styria seems to be very low or, in some ways, be questioned what to do with them. The cause may originate from the transnational character of the Alpine Convention and the EUSALP, which is simply “too far away” for the state level (Interview 3: 4f).

Needless to say, there is certainly nothing that is laid down in the Styrian adaptation strategy, or formulated as an objective, or as a measure, that contradicts with what is decided in the Alpine Convention or the EUSALP. According to one interviewee, there is just not a top-down coordination from transnational level to state level. Every governance level and administration level must deal with climate change adaptation on its own level at first. The added value of the Alpine Convention and the EUSALP is to cover and approach issues that are not already covered on national level, but where there is added value transnationally or where there are tasks that can be dealt with better transnationally in the first instance, than the national level (ibid.: 8f). The biggest challenge in Styria is to get its own departments in the provincial administrations on board, to coordinate them and then ultimately to bring the adaptation measures to the Styrian regions (ibid.: 9).

Nevertheless, Styria is only at the beginning of the climate change adaptation discourse and the potential for development is very big. “The big sticking point in the area of adaptation is that, of course we know the scenarios by the end of the century, but there is no local interpretation option now.” (Interview 4: 5) It is impossible to forecast potential weather situations or climate events as well as how these conditions will have an effect on Styria.

Furthermore, it is indispensable that climate coordinators do a lot of persuading on the horizontal as well as the vertical level. One interviewee compares this mechanism to “social peer pressure” (Interview 3: 10), to get to the people and deliver all the good arguments for adaptation processes. Especially when it comes to persuading the State Governor of Styria, there is a major challenge for climate coordinators and dedicated administrative people. Hence, climate change adaptation thrives as a bottom-up process and “[t]he more the population knows what climate change adaptation is, what it is about, and that it is important and necessary, the easier it is for committed actors to get their political representatives on board and convince them.” (ibid.: 11)

Another interviewee sees the biggest responsibility for climate change adaptation in Styria in the mayors of every municipality (Interview 5: 2). They are a central part of the basis for the success of the implementation of all measures. Municipalities receive an average of three-fourths of the funds from the federal government for adaptation measures. The collaboration on the vertical level is crucial in this regard and as the interviewee mentioned there actually is a good communication and cooperation between these stakeholders (ibid.: 3). The majority of the measures are projects for education and awareness raising across all age groups, which is the key factor in the climate change adaptation discourse. One challenge that the interviewee faces herewith the most is there are still a number of people among the population who do not care or do not want to hear about such measures. This is due to the various perception of climate change effects in the municipalities, because weather-related natural disasters or other climate impacts are very different in Styria. Hence, a lot of people who are not directly affected by climate change can hardly be convinced to participate in adaptation processes (ibid.: 6).

However, this coincides to some extent with the latest progress report of Styria’s “Climate Change Adaptation Strategy Styria 2050” (Land Steiermark 2019). The publication of its first draft in 2015 covers 13 different action areas to protect the public and the environment. With the help of 97 individual measures, the aim was to ensure that Styria was not only in the best possible position in terms of climate protection, but was also prepared for the effects of climate change, some of which were already being felt today (ibid.: 7). At the end of 2017, there was only one measure completed, 21 have been partially implemented and five measures were in preparation. The rest of the measures, namely 70, were still ongoing measures (ibid.: 8). Model calculations show a significant increase in temperatures for Styria. “This will occur with a very high probability. In the business-as-usual scenario, this means an

increase of +4.0 °C by 2100, and in the climate protection scenario, an increase of +2.3 °C compared with the reference period in 1971-2000.” (ibid.: 12)

Hence, it is inevitable that Styria consistently pursues climate protection measures in order to reach the objectives of the Climate Change Adaptation Strategy Styria 2050. This is the only way to ensure cost-effective adaptation to the changing climatic conditions. Moreover, it has become evident, such as one of the interviewees claimed, that it will be particularly important to increasingly involve all administrative levels affected by climate change, especially the municipalities, in the implementation of adaptation to climate change and to better coordinate activities (ibid.: 58). Due to different natural and economic conditions in Styria the extent to which each region or municipality is affected by climate change varies greatly. The biggest asset in this regard is the knowledge about climate change, which helps to mitigate the consequences in a region or to avoid them altogether. Thus, the dissemination of knowledge and information, i.e. raising awareness, plays a very decisive role (ibid.).

One crucial factor in this discourse, according to one interviewee, is the population. The people are called upon to demand more actions from the politics and create more pressure to local authorities. Climate change adaptation, as well as mitigation, measures are both bottom-up processes, which require the participation of the people. Furthermore, it is in their own interest in order to maintain their quality of life (Interview 5: 9). Another essential factor on the vertical level is the federal government, who has to make much more funds available for climate change adaptation in Styria in the future. Hence, that could solve one of Styria’s biggest problems and challenges of getting “[...] their own departments in the provincial administrations on board, to coordinate them and then ultimately bring the adaptation measures to the Styrian regions. That is the more decisive challenge for implementation.” (Interview 3: 9) To support this process and guarantee a successful implementation, the federal government must constitute measures that are legally binding. Thus, in the long run, things must change and happen at the top (Interview 5: 10).

The municipality of Michaelerberg-Pruggern⁴⁰ in Styria was the first in Austria to declare a climate emergency in mid-2019, meaning a political commitment to the climate crisis and the admission that the measures taken so far are not enough. Soon it was followed by two other municipalities, Hartberg and the municipality of Hart bei Graz. After a number of other

⁴⁰ <https://steiermark.orf.at/stories/3003941/> [Access: 27.02.2021]

municipalities across Austria followed the lead, the National Council⁴¹ declared climate emergency for whole Austria. However, we still need to see how Austria's federal states work together and fundamentally implement sustainable measures.

⁴¹ https://www.ots.at/presseaussendung/OTS_20190926_OTS0002/nationalrat-spricht-sich-fuer-klimanotstand-aus [Access: 27.02.2021]

8 Conclusion

Climate change and its effects on the environment is a very polarizing and diverse topic. Although there is a long history of climate change mitigation measures, e.g. the Kyoto Protocol, the Paris Agreement, or the Millennium and respectively Sustainable Development Goals, the average global temperature is still expected to rise. Thus, climate change adaptation measures are a crucial part in the landscape of tackling climate change and an emerging policy field. The Alpine region represents a good indicator for the impact of climate change, because of its fragile and vulnerable environment. Unfortunately, there are already glaciers starting to melt as well as an increase in floods or landslides caused by heavy rains.

The Alpine Convention and the EUSALP are two strategies to counteract this development. Both strategies were concluded between states of the Alpine region and further include a great number of different stakeholders. Hence, the governance of each strategy is the key factor for their particular success and, as it turned out during the research process, also the most difficult as well as challenging part. The Alpine Convention and the EUSALP each struggle with communication on both the horizontal as well as on the vertical level. Consequently, information does not get to the intended persons. At first instance, both strategies lack of reaching the civil society, which is a crucial factor for the implementation of the strategies. The Alpine Convention at least seeks the “docking on the ground” (see Interview 1) and includes the civil society as an observer, whereas the EUSALP more or less marginalizes the civil society. However, implementation needs to be a bottom-up approach, since people are an essential multiplier with regard to climate change adaptation measures.

Furthermore, the relationship between the Alpine Convention and the EUSALP has room for improvement. Though both strategies largely cover the same geographical region there are difficulties within their collaboration. The Alpine Convention, as a transnational strategy, is far longer established and legally binding under international law, was involved in the development of the EUSALP and thus emphasizes to play a leading role in the EUSALP. The latter, on the contrary, is a young macro-regional strategy that might create a challenge for its counterpart.

One difference between these strategies is the perception of the economy. While the Alpine Convention clearly dedicates to a sustainable economy and sees economic interests to be reconciled with ecological requirements in order to promote an economic system that is

environmentally compatible, the EUSALP does not in particular commit to the protection of the environment in this regard. It rather pursues the attractiveness and competitiveness of the Alpine Region as well as to ensure that this region remains one of the most attractive areas in Europe, taking better advantage of its assets.

Moreover, both strategies have problems when it comes to knowledge transfer, due to the overall lack in communication. On the one hand, this originates from the variety of different languages that are used within the Alpine Convention, which makes the “do good things and talk about it” (see Interview 1) aspect hard to implement. On the other hand, there are still some stakeholders who have not heard of the EUSALP at all, or some who do not know what they have to do with it. Hence, knowledge transfer within both strategies does not or hardly reaches the required stakeholders, although both strategies emphasize awareness raising as a central part of each their discourses.

The success of both the Alpine Convention and the EUSALP depends on their perception on the micro-level. There are a number of effective projects on both sides, which are well received on the municipal level, or successful projects that are implemented without the intention of being connected to either strategy. This fact definitely applies to the climate change adaptation discourse of the federal state of Styria. Compared to other federal states in Austria, it is a role model for the organization of adaptation strategies and measures, but also struggles with their implementation. With its “Climate Change Adaptation Strategy Styria 2050” as well as its “Climate and Energy Strategy Styria 2030” it is well positioned within the climate change adaptation landscape.

The basic ambition of Styria is firstly, to figure out what measures the Provincial Government can implement in its own administrative area first and secondly, that all measures are strongly oriented towards the styrian population who plays a key role in the implementation process. Nevertheless, this ambition inheres the biggest problem at the same time. According to several interviewees (see Interview 1, Interview 3, Interview 5), there is always an obstacle in convincing and persuading majors of municipalities as well as local people to participate in projects or implement specific measures. This is mainly caused by a lack of funding, subsidies, manpower or other resources.

Thus, the biggest challenge in Styria is the coordination of the provincial administrations and then effectively bring the adaptation measures to the Styrian regions. Yet again, the decisive factor in this regard and responsible for the success of adaptation measures is the governance

on the vertical, but especially on the horizontal level. The federal government does have a crucial role in this structure, because it has to adopt regulatory measures as well as to provide financial support. This could solve the problem of convincing and persuading provincial administrations and enable a successful implementation.

Based on the Alpine Convention and the EUSALP and the results of the research conducted for the study, this thesis has attempted to analyze governance structures of two strategies established to protect the Alpine region and how they are part of climate change adaptation in Styria. Furthermore, it has emphasized that communication between stakeholders on the vertical and the horizontal level is crucial and the most important factor in this discourse. Unfortunately, what this thesis missed to accomplish was the opportunity to get an in-depth analysis on the implementation process of the Alpine Convention and the EUSALP across Styria. That is, because the possible interview candidates would not respond to multiple inquiries. Hence, the insights gained during the research process about Styria are more general than intended at the beginning of this thesis.

However, the research questions could be answered in the most part. What remains open are the potential connections between the Alpine Convention and the EUSALP with the “Climate Change Adaptation Strategy Styria 2050” as well as its “Climate and Energy Strategy Styria 2030”. As mentioned above, there is certainly nothing that is laid down in the Styrian adaptation strategy, or formulated as an objective, or as a measure, that contradicts with what is decided in the Alpine Convention or the EUSALP. Nonetheless, it could still pose an interesting topic for further research.

Climate change adaptation is a living matter that requires permanent monitoring and analysis. Thus, it would be interesting to compare the findings of this thesis in the future with the development of the Alpine Convention and the EUSALP, as well as the Styrian climate change adaptation strategies.

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Abstract

Climate change is one of the biggest problems worldwide today. Global warming poses a threat especially to poorer countries, who are confronted with a massive loss of harvest and hunger. The main culprits of this development are the countries of the Global North, including Austria. In the past, numerous climate agreements, such as the Kyoto Protocol or the Paris Agreement, have been adopted to counteract climate change. Nevertheless, the average temperature of the earth is currently expected to increase by 3 °C. Consequently, the question arises why these agreements seem to have no effect. At the regional level, there are already numerous strategies to counteract climate change, including the Alpine Convention and the EUSALP. Both strategies, although with some differences in their content, aim to protect the Alpine region and its climate from the threat of global warming. In this regard, good cooperation is needed at the horizontal and vertical levels between the Alpine countries. Nevertheless, there are also numerous problems at this point, which hinder effective governance. Especially with communication at the vertical level within both strategies, there are significant shortcomings. The case study of Styria illustrates these, where it is already difficult at the local level to convince the responsible people and thus implement appropriate measures for climate change adaptation across the population. Hence, any agreement to combat climate change requires efficient governance and more legally binding measures.

Kurzfassung

Der Klimawandel ist heutzutage eines der größten Probleme weltweit. Die Erderwärmung stellt eine Gefahr insbesondere für die ärmeren Länder dar, welche mit massiven Ernteverlusten und Hunger konfrontiert sind. Hauptverursacher dieser Entwicklung sind die Länder des Globalen Nordens, zu denen auch Österreich zählt. In der Vergangenheit wurden bereits zahlreiche Klimaabkommen, wie etwa das Kyoto Protokoll oder Pariser Klimaabkommen, verabschiedet, welche dem Klimawandel entgegenwirken sollen. Dennoch wird die durchschnittliche Erdtemperatur aktuell um 3 °C ansteigen. Folglich stellt sich die Frage, wieso diese Abkommen offenbar keine Wirkung zeigen. Auf regionaler Ebene gibt es bereits zahlreiche Strategien um dem Klimawandel verstärkt entgegenzuwirken, unter anderen die Alpenkonvention und die EUSALP. Beide Strategien, wenn auch mit einigen inhaltlichen Unterschieden, sollen den Alpenraum und dessen Klima von der drohenden Erderwärmung schützen. In dieser Hinsicht ist eine gute Zusammenarbeit auf horizontaler und vertikaler Ebene zwischen den Alpenländern erforderlich. Dennoch gibt es auch an dieser Stelle zahlreiche Probleme, die eine effektive Governance behindern. Speziell bei der Kommunikation auf vertikaler Ebene gibt es bei beiden Strategien erhebliche Mängel. Anhand des Fallbeispiels Steiermark werden diese ersichtlich. Dort ist es bereits auf lokaler Ebene schwierig die verantwortlichen Personen zu überzeugen und dadurch entsprechende Maßnahmen zur Klimawandelanpassung in der Bevölkerung umzusetzen. Es bedarf somit bei jeglichen Abkommen, die das Ziel haben den Klimawandel zu bekämpfen, einer effizienten Governance und mehr rechtlich verbindlicher Maßnahmen.