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Master Thesis

**Climate Protection Policy in Federal Countries:  
Vertical Coordination between Federation and States  
in Austria, Germany and Switzerland**

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## **Abstract**

Climate protection policy is a relatively young phenomenon, despite which a comprehensive collection of scientific literature examining this fascinating field of political sciences already exists. The fact that climate protection is a cross-sectional topic is frequently emphasized, with most scientific investigations focusing on horizontal integration and coordination. Inquiries concerning vertical coordination are missing, which is of special importance in the field of climate protection policy. This work aims to contribute a small share to fill this scientific gap.

The achievements of climate protection targets in federal states are dependent upon the collaboration of the states with the federation. The federation's task is to "motivate" the states to back the federation's targets and do their share in achieving these targets. This is a very complex process, which extends through all levels of the nation, beginning with the influence of the states in federal legislation and ending in the competences of the states concerning single measures.

Certainly, the examined countries Austria, Germany and Switzerland are subject to international influence; all three of them have ratified the Kyoto Protocol. However, in the case of Austria and Germany the EU mainly determines the targets. The starting point, though, remains the same. In all three cases, the federation has pledged to a certain federal target and has been in charge of coordinating the measures to reach this target.

Through three case studies on Austria, Germany and Switzerland, the different approaches of the countries to achieve their climate targets are examined. The examination of all three states uses a similar structure, starting at the federal political system, then looking at climate protection policy in particular, over the comprehensive programs of the three countries and ending with some of the states' specific measures. The case studies reveal some relevant coordinative measures of the states.

A comparison in the final chapter of the work emphasizes the differences between the countries in their efforts to reach their targets. The results show clear differences caused by the different basic understanding of federalism, leading to different possibilities in participation in federal legislation and the elaboration of a comprehensive national program. The varying success in implementation and enforcement are a consequence of these preconditions. Similarities among the countries include the measures used to meet targets and the financing schemes.

## Kurzfassung

Klimaschutzpolitik ist ein ziemlich junges Phänomen. Trotz dieses Umstands gibt es bereits eine umfangreiche Sammlung wissenschaftlicher Literatur zu diesem faszinierenden Bereich der Politikwissenschaften. Oft wird betont, dass es sich beim Klimaschutz um eine Querschnittsmaterie handelt, wobei sich der größte Teil der wissenschaftlichen Untersuchungen auf die horizontale Integration und Koordination konzentriert. Untersuchungen zur vertikalen Koordination, die für den Bereich der Klimaschutzpolitik von großer Wichtigkeit ist, fehlen fast vollständig. Das Ziel dieser Arbeit ist es, einen Beitrag zum Füllen dieser wissenschaftlichen Lücke zu leisten.

Das Erfüllen von Klimaziele ist in föderalen Staaten abhängig von der Zusammenarbeit der Länder mit dem Bund. Die Aufgabe des Bundes ist es, die Länder zu "motivieren", die Ziele des Bundes mitzutragen und ihren Beitrag zu leisten, diese Ziele zu erreichen. Hierbei handelt es sich um einen sehr komplexen Prozess, der sich durch alle Ebenen des Staates zieht, beginnend mit dem Einfluß der Länder auf die Legislative des Bundes, bis zu den Kompetenzen der Länder hinsichtlich einzelner Maßnahmen.

Natürlich unterliegen die drei untersuchten Staaten Deutschland, Österreich und Schweiz internationalem Einfluss; alle drei Staaten haben das Kyoto-Protokoll unterzeichnet. Im Fall von Deutschland und Österreich werden die Ziele jedoch hauptsächlich von der EU vorgegeben. Trotzdem bleibt der Ausgangspunkt der Staaten gleich: In allen drei Fällen hat sich der Bund einem bestimmten Ziel unterworfen und ist verantwortlich für die Koordination der Maßnahmen, die nötig sind, um das Ziel zu erreichen.

Aufbauend auf drei Fallstudien zu Deutschland, Österreich und der Schweiz untersucht diese Arbeit die unterschiedlichen Zugänge der Staaten, um ihre Klimaziele zu erreichen. Die Fallstudien sind gleichartig gegliedert, beginnend mit dem föderalen politischen System, der Klimaschutzpolitik im Speziellen, über die umfangreichen Programme der drei Staaten bis zu einzelnen Maßnahmen der Länder. Dabei werden wichtige koordinative Maßnahmen der Staaten dargestellt.

Ein Vergleich der drei Fallstudien im letzten Kapitel der Arbeit betont die Unterschiede der Staaten im Bemühen, ihre Ziele zu erreichen. Die Ergebnisse zeigen klare Verschiedenheiten, die bereits durch das unterschiedliche Verständnis von Föderalismus entstehen. Dieses Verständnis beeinflusst die Möglichkeiten, auf die Gesetzgebung des Bundes zu wirken und den Anteil, den die Länder bei der Erstellung von Klimaschutzprogrammen nehmen können. Als Konsequenz zeigen sich unterschiedliche Erfolge bei der Umsetzung der Maßnahmen. Ähnlichkeiten oder Gleiches zwischen den Ländern findet sich in Maßnahmen selbst und in ihrer Finanzierung.

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## Abbreviations

AEE	Agentur für erneuerbare Energien und Energieeffizienz, Agency for Renewable Energies and Energy Efficiency
APA	Austrian Press Agency
ARGE	Arbeitsgemeinschaft, Work Group
BAFU	Bundesamt für Umwelt, Federal Agency for Environment
BBSR	Bundesinstitut für Bau, Stadt- und Raumforschung, Federal Institute for Research on Building, Urban Affairs and Spatial Development
BFE	Bundesamt für Energie, Federal Agency for Energy
BLAG KliNA	Bund/Länder-Arbeitsgemeinschaft "Klima, Energie, Mobilität – Nachhaltigkeit", Federation/Länder Working Group "Climate, Energy, Mobility – Sustainability"
BMF	Bundesministerium für Finanzen, Federal Ministry of Finance
BMLFUW	Bundesministerium für Land- und Forstwirtschaft, Umwelt und Wasserwirtschaft, Federal Ministry for Agriculture and Forestry, Environment and Water Management
BMWA	Bundesministerium für Wirtschaft und Arbeit, Federal Ministry for Economy and Work
BMWFJ	Bundesministerium für Wirtschaft, Frauen und Jugend, Federal Ministry of Economy, Family and Youth
BMWI	Bundesministerium für Wirtschaft, Federal Ministry for Economy
BMU	Bundesministerium für Umwelt, Naturschutz und Reaktorsicherheit, Federal Ministry for Environment, Nature Conservation and Nuclear Safety
BUWAL	Bundesamt für Umwelt, Wald und Landschaft, Federal Agency for Environment, Forest and Landscape
B-VG	Bundesverfassungsgesetz, Federal Constitutional Law
CIPRA	Internationale Alpenschutzkommission, Commission Internationale pour la Protection des Alpes, International Commission for the Protection of the Alps
COP	Conference of Parties
CO2	Carbon Dioxid

ECCP	European Climate Change Program
EEA	European Energy Agency
EEC	European Economic Community
EEG	Erneuerbare-Energien-Gesetz, Renewable Energies Law
EEWärmeG	Erneuerbare-Energien-Wärmegesetz, Renewable Energy Heating Law
EC	European Community
EIWOG	Elektrizitätswirtschafts- und organisationsgesetz, Electricity Industry and –Organization Law
EnAW	Energieagentur der Wirtschaft, Energy Agency of the Economy
EnDK	Konferenz Kantonaler Energiedirektoren, Conference of Kantonal Energy Directors
EnEV	Energieeinsparverordnung, Energy Saving Ordinance
EnFK	Energiefachstellenkonferenz, Conference of Energy Departments
ETHZ	Eidgenössische Technische Hochschule Zürich, Confederated Technical University of Zurich
ETS	Emission Trading System
EU	European Union
FCCC	Framework Convention on Climate Change
GEAK	Gebäudeenergieausweis, Buildings Energy Pass
GG	Grundgesetz, German Constitution
GHG	Green House Gases
GVFG	Gemeindeverkehrsfinanzierungsgesetz, Community Traffic Financing Law
IEKP	Integriertes Energie- und Klimaprogramm, Integrated Energy and Climate Program
IMA	Interministerielle Arbeitsgruppe "CO2-Reduktion, Interministerial Wor- king Group "CO2 Reduction"
IMK	Interministerielles Komitee zur Koordinierung von Maßnahmen zum Schutz des globalen Klimas, Interministerial Committee for the Coordina- tion of Measures to protect the Global Climate
IPCC	Intergovernmental Panel on Climate Change
K.u.K	Kaiserlich und Königlich, Imperial and Royal
KWKG	Kraft-Wärme-Kopplungsgesetz, Cogeneration Law
MP	Member of Parliament

MuKE	Mustervorschriften der Kantone im Energiebereich, Sample Prescriptions of the Kantons for the Energy Sector
NAP	National Allocation Plan
NGO	Non Governmental Organisation
OECD	Organisation for Economic Cooperation and Development
OeMAG	Abwicklungsstelle für Ökostrom AG, Order Processing Center for Green Electricity
OTS	Original Text Service
ÖPNV	Öffentlicher Personennahverkehr, Public Short Distance Traffic
P&D	Publishing and Design
RegG	Regionalisierungsgesetz, Regionalization Law
R&D	Research and Development
S.A.F.E	Schweizerische Agentur für Energieeffizienz, Swiss Agency for Energy Efficiency
UBA	Umweltbundesamt, Federal Environmental Agency
UFG	Umweltförderungsgesetz, Environmental Promotion Law
UFI	Umweltförderung Inland, National Environmental Promotion
UGB	Umweltgesetzbuch, Environmental Code
UMK	Umweltministerkonferenz, Conference of Environmental Ministers
UN	United Nations
UNFCCC	United Nations Framework Convention on Climate Change
USA	United Nations of America
UVEK	Eidgenössisches Department für Umwelt, Verkehr, Energie und Kommunikation, Confederated Department for Environment, Traffic, Energy and Communication
WKO	Wirtschaftskammer Österreich, Austrian Federal Economic Chamber
WoFG	Wohnraumförderungsgesetz, Law for Housing Support
WWF	World Wide Fund for Nature

# 1. Introduction

Today, the correlation between global warming and the rise of anthropogenic greenhouse gas (GHG) emissions is widely accepted as a fact. The main producers of these emissions are the industrialized countries (IPCC, 2007). It is necessary to stop global warming if far-reaching impacts, especially concerning many of the poorest countries, are to be avoided. This requires a reduction of greenhouse gas emissions; a target value often mentioned is a reduction of 45 – 60 % by 2050 with the base of 1990s emissions. The share of industrialized countries should at least be 80 % of this target. Only a few countries were able to reduce their emissions, e.g. Germany (Ziesing, 2006). A reason for the poor results of certain countries may be the different approaches to climate change policy requirements concerning structures and instruments, especially in federal countries.

Traditionally, the method of policy and decision making is based on vertical and sector specialization as well as division of work. In the beginnings of environmental policy it was thought that specialized government departments would be able to cope with environmental problems. Traditional models and means rooted in legislation and administrative regulations were applied by specialized "environmental units" (Weale, 1992).

Over the years it became clear, that complex problems – which environmental concerns mostly are – cannot be successfully treated only through narrow, sectoral environmental policies. So-called cross-cutting themes – such as environmental protection and gender balance – called for an integrated approach to decision making and collaboration of state and non-state actors. The traditional model of administration with its narrow bureaucracies of experts was unable to tackle complex and interdependent problems in a holistic manner (Torgerson, 1990).

It is now widely recognised that the achievement of sustainable development and environmental protection requires a substantial institutional change, and the integration of environmental concerns into other areas of public policies (WCED, 1987).

The integration and coordination of environmental concerns – like climate protection policy – is faced with many obstacles. Integration and coordination must happen in the horizontal, vertical and even diagonal directions (Steurer und Berger, 2010). In recent years the focus has been laid on the development of horizontal structures and the re-

search of the same, resulting in abundant literature. The case of vertical coordination has received far less attention, which becomes apparent by the lack of respective literature. Vertical coordination is, however, very important especially in federal states, as it often strongly influences the efficiency of federal policies or – as in the case of climate protection policy – even makes the achievement of certain targets possible. This backlog in research and the importance of vertical coordination in climate policy in the three examined countries are the reason for this examination.

Vertical coordination is especially important in federal states. Federalism is defined as *“an organizational principle for a structured community, in which there are on principle equal and independent members confederated to a comprehensive entity. In doing so the competences of the members are not annulable, possibly including the right of its own legislation and taxation”* (Prittwitz, 2007). In practice several ideal typical forms exist with certain combinations and peculiarities, which are noted throughout the case studies. The enduring discussion about federalism as an organizing principle emerges mainly from its reference to the question of the division of political power between territorial levels (Benz and Lembruch, 2002). This division differs in the three examined countries, making different measures necessary to “motivate” the states to do their share for the achievement of federal targets negotiated on the international or EU level.

Within this work vertical coordination of climate protection policy is examined from the "highest" level, the understanding and characteristics of federalism in the respective countries and its constitutional definitions, down to singular climate change mitigation measures, in which the impact of the "higher" levels finally find their result. By examining this path the work reveals on the one hand the way in which the countries institutions and policies attempt to coordinate climate protection policy. On the other hand the work compares the different approaches of three federal countries and points out the differences at the various levels. Through this process the master thesis investigates the following guiding question:

**How does vertical coordination of climate protection policies between federation and states differ in Austria, Germany and Switzerland?**

In answering the research question the following sub-questions are answered:

- How are climate protection policies in the three states coordinated between the federation and the states?
- How do the federal characteristics of the countries influence the relation and collaboration of federation and states regarding climate protection policies?
- How can the states influence climate protection policies of the federation?

Chapter three briefly describes the development of international and European climate protection policy and illustrates the influence on the countries. The federal characteristics of each country are shown at the beginning of each country case study in chapters five, six and seven. The main part of the case studies is dedicated to the actual instruments of vertical coordination in the climate protection policies of the three countries. Chapter eight finally compares the approaches of the three countries along these points of contact and brings out their differences. Chapter nine finalizes the work with a final conclusion.

## **2. Method**

The work at hand is a descriptive comparative analysis on the basis of three case studies. Climate (protection) policy in federal states is a contemporary and complex phenomenon which is investigated here in its real life context and therefore can not be covered comprehensively by any other research method aside from case studies (Yin, 2009). The decision to use case studies as a research method was thus a given from the start.

The research design follows the recommendations of Yin (2009). After a thorough literature review, which helped to identify the relevant vertical instruments of climate policy in the three countries, the already outlined research question was specified and adopted. The next step was the creation of a basic raw structure, which could be applied to each of the three countries and make it possible to present the different instruments of vertical coordination, making them easy to compare. By comparing the different vertical instruments in the analysis chapter the similarities and differences of the different policies are outlined thereby providing the method by which to answer the research

question.

According to Yin (2009) the work at hand complies with a holistic multiple-case design. The complexity of the phenomenon demands this kind of design; additionally a clear presentation of the results should be secured this way. Thus each of the country's policies are investigated separately in single-case studies and finally compared in a separate section, the cross-case chapter, of the work.

The used data and information have been acquired by the analysis of text documents (official sources of public reporting and documentation, implementing and monitoring institutions, respective research work, and media). Using multiple sources of evidence should satisfy construct validity and show the process of development. In one case, as there was not enough text information available, an expert interview was carried out.

### **3. Concepts and Definitions**

#### **3.1 Governance and Multilevel-Governance**

The term "Governance" has a long history in political science and was used in earlier years as a synonym for government (e.g. Finer, 1970). Today these two terms are considered distinctive in political analyses (Jordan et al., 2007). "Government" in contrast to "Governance" signifies the governmental system of a country (Benz, 2004).

Originally, the term "Governance" stems from the economy, used to describe institutional regulations in companies, meaning the management and administrative structures as well as a company's vertical and horizontal patterns of interaction<sup>1</sup> (Benz, 2010). Today, "Governance" in a political sense not only describes the activity of governance, controlling or regulation and coordination but also the manner and way of this activity is carried out. Above, the term refers to procedural as well as to structural, functional and instrumental aspects of these activities (Benz, 2010). For the field of political science it can be assumed that "Governance" comprises the overall relation of polity, politics and policy. Today, the term is used to describe how decisions are shaped and taken; with an emphasis on a pattern in which public and private actors are involved. In "Governance" interactive non-hierarchical and informal forms of communication can be

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<sup>1</sup> In the meantime economic science speaks of "Corporate Governance" regarding these structures (Benz, 2010).

found, in which negotiations (instead of simple majority-type decisions) with a tendency towards consensual decisions play a prominent role (Hrbek, 2010). Within the field of government studies and administrative sciences, not only regulation and coordination but also the administration's activity, are considered central functions of government. This "Governance"-concept highlights the fact that regulation and coordination occur more often within the framework of network relations (Benz, 2004). The interaction within these networks may occur across arenas (horizontally) or across levels (vertically) (Héretier, 2002).

Multi-level governance is a relatively new expression for an old phenomenon, namely the processes in organizations and regimes among different levels. Within the field of political science the expression multi-level governance is used for political processes, which cross different levels of competency and responsibility. This implies the need for a (hierarchical) political system structured in levels, in which – on the one hand – competency and responsibility are separated between the levels, and – on the other hand – the compliance of tasks is subject to interdependency and coordination between the levels. In this context a "level" is considered as political unit organized by territory, e.g. a "Kanton" in Switzerland (Benz, 2004). At least two, mostly three levels (federation, states, and communities) are typical for federal states. On the one hand this organization is based upon the assumption, that no central or single level of government is capable of carrying out all of the tasks. On the other hand it is understood, that different political levels (European, national, regional and local) own different competences and expertise, which makes them more capable to oversee differing problems and policy fields. The task is to improve the cooperation and coordination between the levels for better integration of the different policy fields (Steurer and Martinuzzi, 2005).

In this sense multi-level governance shows the following characteristics:

- Interdependency between levels
- Cooperation between public and private actors
- Institutional regulation systems within levels
- Coordination modes between the levels
- The character of the linking between internal and external regulation systems (Benz, 2010; Piattoni, 2010)

Multilevel-Governance is directly linked with the principle of subsidiarity, which is applied in the three examined countries. Subsidiarity means that competences and responsibilities lie with the lowest level (i.e. the communities), as long as this level is able to cope with a problem or task and only in the event that the lower level is not capable, will the next higher level take charge (Piattoni, 2010).

Multilevel-Governance is often equalized with "vertical policy integration"(VEPI) which is, for example, very important for climate policy. However, cooperation between the different policy levels is an important precondition for an effective vertical integration of policy fields, for instance between the federal and the state (Länder, Kantons) level.

### **3.2 Policy Coordination**

In literature the differences between integration, coordination and co-operation have been discussed for years. In contrast to the definition of coordination, integration is, for instance, considered more far-reaching and sophisticated, which in turn is more sophisticated than co-operation. While some see coordination as more or less the same as integrated policy-making (e.g. Mulford and Rogers, 1982), others note differences (OECD, 1996). The OECD observes that policy integration is quite distinct and more sophisticated than policy coordination (OECD, 1996). The main differences concern two aspects: the level of interaction and the output. Policy integration requires more inter-sectoral interaction than policy coordination. This can partly be explained by the difference in output. While coordination aims at adjusting sectoral policies in order to make them mutually enforcing and consistent, policy integration results in one joint policy for the involved sectors (Sgobbi, 2007).

As concerns this work, coordination is understood as the manner by which federations get their states to pursue national targets and implement the necessary measures.

Coordination is a central function of a government, which is especially the case in federal states (Piattoni, 2010). Coordination as such normally concentrates on two levels because the complexity of the tasks and the variety of interests could not be managed, due to the big number of actors (Benz, 2010). The two levels considered in this work are the federation and the states. In multilevel-systems the territorial authorities' policies

can be coordinated in a number of different ways, according to structural conditions. The emerging structures of interaction can develop through collaboration (given the possibility for participation) or formal regulations (given by laws for instance) (Benz, 2010).

Governance research has developed different typologies for patterns and mechanisms of coordination. Usually one distinguishes between hierarchies, networks, negotiations and competitions. All these patterns are important for multilevel-systems; however, the first two are restricted to supplementation, while intergovernmental decisions happen primarily in negotiations or competition (Benz, 2010).

Competition refers to a solely decentralized process, which causes horizontal coordination between territorial authorities. This competition influences the willingness of the states to work together with the federation and push its own terms through. The states of the three examined countries differ in this regard.

Negotiation is the most commonly used form within multilevel-coordination. It is based upon the mutual exertion of influence through direct communication. The participants attempt to coordinate their own policy (targets) making concessions and bring in their arguments (Benz, 2010). Agreements are finally reached by making a compromise or mutual concessions. In the participatory process, starting with the development of federal targets to the implementation of the necessary instruments (for instance by the Länder), early involvement promises better achievement of the targets (Piattoni, 2010). For the purposes of this work, the aforementioned involvement process occurs within the coordination of climate policy. This can already be seen within the basic definitions and understandings of federalism and how it determines federal constitutions, in terms of possibilities to influence the content of laws within the legislative process, which thus affects the implementation and enforcement, as well as participation in the elaboration of national strategies and programs and finally the development of specific programs of the states themselves.

Contrary to governance research, federalism research considers legal regulation and fiscal policy as the most important measures for governance and coordination (Benz, 2010). Therefore, this multilevel-interweavement, based upon instructions of the federation (e.g. laws) for the states, defines how to accomplish the tasks. To secure the realization of the tasks the federation provides financial measures. In federal countries legal regulations are normally negotiated between the federation and the territorial au-

thorities (i.e. Länder and Kantons). In many cases the states are responsible for their implementation and enforcement. The conditions for financial support are also frequently negotiated between the levels and are often only granted for a specific use (Benz, 2010). In the case of the examined countries these patterns are obvious, although , in various different forms.

The different instruments, which emerged during the research for this work, are explained by the above mentioned approaches and illustrated in the respective case studies.

## **4. International and EU Policy**

Climate Policy is a special case within the field of environmental policy due to the fact that a successful proceeding against global warming requires a worldwide approach and international cooperation to reduce (GHG-) emissions in the global atmosphere. In many cases international pressure is the driving force behind national action, which also becomes apparent throughout the case studies. In other cases particular countries are the driving force behind the development on the international and EU level. Thus the interaction between single states and superior institutions is of certain importance for the work at hand.

### **4.1 International Climate Policy**

Today, climate change is an important part of the international political agenda. This development began in the late 70s with one of the first important international events, the "First World Climate Conference" 1979. Here scientists interested in climate change and its relationship with human activities met and established a scientific research program, which led to the creation of the Intergovernmental Panel on Climate Change (IPCC) in 1988. The IPCC's first assessment report in 1990 and the "Second World Climate Conference" the same year supported raising awareness of climate within the governments. Eventually, the UN General Assembly founded the "Intergovernmental Negotiating Committee for a Framework Convention on Climate Change" in December 1990 aimed at creating international protocols dealing with climate change (UNFCCC, 2011).

From then until the 1192 UN Conference on Environment and Development in Rio de Janeiro representatives of more than 150 countries negotiated the "Framework Convention on Climate Change" (FCCC).

The stated aim of the FCCC is the

*"stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time-frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner<sup>2</sup>".*

The UNFCCC came into force in 1994 after it was ratified by 50 countries. It is called a framework convention because it only represents a general understanding of the common climate protection goals. The most important consequence of the UNFCCC ratification was the creation of the Kyoto-Protocol<sup>3</sup> (UNFCCC, 2011).

The conventions overriding authority is the "Conference of Parties" (COP), which was established in 1995. The COP-meetings were held to negotiate the details of how GHG-emissions reduction should be achieved. From the start, and still today, the share of developing countries' responsibility and the assistance that developed countries would offer poor countries in promoting sustainable development was a critical point in negotiations. The principle of "common but differentiated responsibility" emerged, referring to a common responsibility in addressing the climate change but a differentiated one concerning the countries obligations. A first peak of these negotiations, held in Berlin 1995 (COP1), in Geneva 1996 (COP2) and finally in Kyoto in December 1997 (COP3), was reached with the agreement on the well-known "Kyoto-Protocol". It requires most developed country parties to reduce their aggregate GHG-emissions by 5.2 % below the level of 1990 between 2008 and 2012. Not all the countries agreed to be bound by the protocol, the most prominent being the USA (Wordpress, 2011; UNFCCC, 2011).

The next meetings brought negotiations and agreements concerning concrete measures on how to reach the 5.2 % goal (COP4 in Buenos Aires 1998), a timetable for completing outstanding details of the Kyoto-Protocol as well as an empowerment of the conference president in favor of accelerating negotiations (COP5 in Bonn 1999). Due to disagreements, especially on the question of carbon sinks, the negotiations were halted at the meeting in The Hague in November 2000 (COP6) and resumed in July 2001 in Bonn.

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<sup>2</sup> Article 2 of the United Nations Framework Convention on Climate Change, 1992

<sup>3</sup>The Kyoto-Protocol is an agreement under international law (völkerrechtliche Vereinbarung). International Law is a supranational legal system, which regulates the relations between coequal nations (one nation – one vote). An agreement under international law is formed by a conclusion of a contract with a subsequent ratification. Only with the ratification – usually done by the Head of State – the wording of the contract becomes mandatory. However, the enforcement of international law is problematic.

In the Bonn agreement topics like emission trading, carbon sinks, compliance mechanisms and aid for developing countries were agreed upon. The 2001 meeting in Marrakech (COP7) resulted in the so-called Marrakech Accords, a mix of proposals for implementing the Kyoto-Protocol, designed to bring about an agreement of enough countries to ratify and put into force the Kyoto-Protocol. Agreements were reached upon increased funding for the FCCC's financial mechanism as well as the establishment of three new funds, namely the Least Developed Countries Fund, the Special Climate Change Fund and the Adaption Fund. These funds should support aid to poor countries. A new direction in addressing global warming was taken at the COP8 in New Delhi. Rather than focus on mitigation and having to reduce their GHG-emissions, a few countries, first and foremost the USA, along with a few other developed countries and several important developing countries like China and India decided inwardly on supporting developing countries through the implementation of adaptation measures. The trend to foster adaptation measures rather than mitigation measures was continued in the COPs 9 (Milan 2003) and 10 (Buenos Aires 2004), the latter was even called the "Adaption COP". Russia finally ratified the Kyoto-Protocol in 2004 and thus the agreement entered into force in February 2005. Despite the attempts of the USA to derail the COP11 in 2005, rules for implementing the Kyoto-Protocol (concerning emission trading and joint implementation<sup>4</sup>, emission sinks, penalties for non-compliance and clean development mechanisms) were agreed upon and negotiations for the period beyond 2012 were even started. Several developing countries showed new interest in undertaking voluntary measures. The COP12 is considered a disappointment as it was not possible to develop a common strategy for the post-Kyoto period. Results were to review the Kyoto-protocol and accept a necessary reduction of GHG-emissions of 50 % until 2050. The USA still refused to enter into the protocol. The COP13 in Bali 2007 was strongly influenced by the Fourth Assessment Report of the IPCC. The report removed any remaining doubt about the importance of global warming and the crucial role of the population. In spite of the critical topics discussed in the report, the whole process of negotiations was permeated by a push and pull between the European states, the USA and developing countries. European states demanded deeper commitments, the USA opposed them and the developing countries requested more assistance. Despite these setbacks, they were able to reach

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<sup>4</sup>JI: Developed countries can earn emission credits by investing in another's emission-reduction projects.  
CDM: Developed country entities receive emission credits by investing in emission reduction projects in developing countries.

one substantial change in the strategy of developing countries. They agreed in considering future actions – albeit unspecified – to mitigate their GHG-emissions. The COP15, held in Copenhagen in 2009, should have finalized the road map for the period after the Kyoto-Protocol but only a minimum consensus, the “Copenhagen Accords”, could be achieved. According to international law it is not binding and was only acknowledged by the contracting states. The agreement states the target to limit global warming at 2° Celsius. The last COP to date was held in December 2010 in Cancún, where they continued the search, which was started in Copenhagen, to find a successor program for the Kyoto Protocol. The last COP concluded with a minimum target to resume the Kyoto Protocol until 2012 (Wordpress, 2011; UNFCCC, 2011).

On the global level the progress made so far is a very small step in addressing the problem. The Kyoto Protocol will result in emission reductions well under 5 %. Additionally it is becoming obvious that the 5 % target is not at all enough– according to the latest research results – if severe changes are to be avoided. The current concentration of CO<sub>2</sub> – about 385 ppm – is “already too high to maintain the climate to which humanity, wildlife and the rest of the biosphere are adapted” (Hansen et al, 2008). Even the relatively ambitious aim of the European Union to keep global temperatures at only 2 degrees Celsius above the preindustrial level is considered by experts to be far too modest. (Harris, 2009).

## **4.2 Climate Policy of the EU**

Austria and Germany are members of the EU. In terms of multilevel governance this means another (a “supranational”) level for both of these countries and strongly affects the targets of their climate policy.

EU environmental policy started off in the early 1970s as a “flanking policy” to the creation of the common market (Piattoni, 2010). The European Economic Community (Europäische Wirtschaftsgemeinschaft, EEG)<sup>5</sup> already showed its apprehension for the environment in 1971 when it integrated the “Notification of the commission for a common environmental policy” into the development of a coordinated environmental policy. Because of personal and institutional weaknesses within the organs of the EEC these first approaches did not result in concrete initiatives, at least not until 1987, when envi-

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<sup>5</sup> The European Economic Community can be considered as the ancestor of the European Union. It was founded 1957 by Belgium, France, Italy, Luxembourg, the Netherlands and the Federal Republic of Germany with the Treaty of Rome, renamed 1993 in European Community (EC) and dissolved with the Lisbon Treaty 2009.

ronmental policy received a competence base in the aims of the EEC and an institutional backing in the form of the directorate-general of environment with the Single European Act. The role of environmental policy was further strengthened with the treaties of Maastricht and Amsterdam. The EU – especially pushed by Germany – became a major actor and leader in international climate policy (Geden and Fischer, 2008).

In the first half of the 1990s the EU, then consisting of 12 member states, forced international climate policy development but made little progress in developing a European policy framework. The reason for this setback was substantial disagreement on the need and content of common measures to implement the Community's emission stabilization commitment at the European level. A good example is the non-adoption of the proposed CO<sub>2</sub>-tax 1992. In the following years the elaboration of emission reduction programs was left up to the nations. Until the year 2000 only three directives concerning climate protection were approved (Directive 92/42/EEC for energy standards for hot-water boilers, Directive 96/57 EC for energy standards for refrigerators and freezers, Directive 2000/55/EC for fluorescent lighting ballasts). These binding minimum requirements were complemented by a harmonized labeling system designed to inform consumers of the energy consumption of household appliances (Directive 92/75/EEC).

In 1997 the EU ratified the Kyoto Protocol. In article 4 the Kyoto Protocol provides for the possibility to unite and fulfill the obligations as a group of nations. This opportunity was utilized by the EU. The climate policy of the EU is led by the so-called 2-degree-target. Within the Kyoto-Protocol the EU pledged to reduce the total amount of GHG emissions by 8 % in the period from 2008 to 2012 compared to the year 1990. For the achievement of its reduction obligations the EU developed an EU-wide system for the market of emission certificates (Emission Trading System, ETS), based upon so-called national allocation plans (NAPs) of the directive 2003/87/EC. This directive strongly influences the climate policies of Austria and Germany, since the targets of the sectors industry and energy production are mainly covered by the scheme. Through the ETS, emissions (CO<sub>2</sub>) get a market price and thus can provide economic benefits. The upper limit of permitted emissions was stipulated by the emission of a predefined amount of "rights of pollution" for energy producers and energy intensive branches (mainly the energy and industry sector). If a power station or an industry facility emits more emissions than it has received, it has to buy additional rights of emissions from other facilities. However, emission trading could start only after Russia ratified the Protocol in

2005. The 2003 Treaty of Nice brought no changes in the energy- and climate policy of the EU but an understanding of the rising importance of climate change and a necessary connection of energy- and climate policy. An important improvement regarding a consolidation of the European energy- and climate policy was made at the informal summit of the European Council in Hampton Court 2005, at which the European head of states emphasized the importance of common European action. The summit resulted in the publication of the Green Paper for the future of the European energy policy in March 2006 as well as a revised energy strategy and energy action plan in 2007 (Geden and Fischer, 2008).

In recent years there has also been discussion about integrating other sectors into the ETS, for example the transport sector. This is very unlikely because this would lead to a substantial rise in administration. The emission trading system is currently not applicable for one of the biggest emitters, domestic households, as emissions limits can not be controlled. For this sector a CO<sub>2</sub>-Tax has been recommended (Geden and Fischer, 2008). In the meantime the idea has been raised for discussion but there has not been sufficient support to back the tax. The most important focuses of the European climate policy are the promotion of renewable energies, the increase of energy efficiency and energy saving and the promotion of research and development (EEA, 2011).

With the ratification of the Kyoto Protocol the three countries pledged to meet the target of a GHG emissions reduction of 8 %. Strictly speaking this only accounts for Switzerland. Austria and Germany have admittedly ratified the Protocol due to international law, but being members of the EU they are subjected to the so-called "burden sharing agreement". With this agreement the EU divided the burden of the agreed reduction according to the (economic) capability of the member states. Thus countries with a "sound" economy have to bear a higher burden, i.e. a higher reduction, than countries without a high reduction possibility. For Austria and Germany this signifies a reduction target of 13 % and 21 % of GHG emissions (ECCP, 2011).

## **5. Austria**

Austria is a democratic federal state that consists of nine states, so-called Länder. The struggle to divide competency and financial means dominates the relationship between federation and Länder, which also applies to the case of climate policy (Pesendorfer, 2007). The Länder only have full competency in a few fields, making it necessary to exert their influence in other ways. Austria is a federal, parliamentary-democratic republic with a two-chamber parliament (Federal Council and National Council) on the federal level (Bamberger et al., 2004). Austria has been a member state of the European Union since 1995 and is therefore subjected to the burden sharing agreement, which demands a reduction of GHG emissions of 13 %. The country ratified the Kyoto Protocol in the year 2005. For the country with its 8.4 million inhabitants the most important sector of the economy is tourism, the alps being a key attraction (Bamberger et al., 2004). Therefore, climate change is of high importance as the alps are exceptionally sensitive to changes in the ecosystem (CIPRA, 2011). The backbone of Austria's electricity production has always been hydropower, which makes up about two thirds of the electricity production. This means that the remaining renewable energy potential is relatively low (UBA, 2006). An Austrian law forbids the production of nuclear power in the country (Atomspergesetz) (BMLFUW, 2002). Regarding the supply of fossil fuels Austria is mainly dependent on imports (UBA, 2006). Thus the development of a sustainable energy system with a high level of autonomy is not only of ecological but also of economic importance (EnergieStrategieÖsterreich, 2011).

### **5.1 The Federal Political System of Austria**

The political system of Austria is based on the principles of democracy, the republic and federal state, the constitutional state, the division of powers, the liberal principle and the membership of the European Union. Austria is a semi-presidential parliamentary democracy. Elections are executed in proportional representation, meaning that in most cases there is a need for coalition building amongst parties. The responsibility assignment between Federation and Länder is regulated in the Federal Constitution (Pelinka, 2008). There are not many fields left under the Länder's competency: only building law, the promotion of domestic building and spatial planning have a crucial role

within climate policy, namely in the sector of space heating and small scale consumption. The latter also has (albeit only a theoretical) influence in the sector transport and mobility (see for instance BMLFUW, 2002). The Länder are thus forced to use their opportunities to influence federal policies on higher levels, for instance in federal legislation, financial policies and national strategies. Due to the importance of these fields they are explained in more detail below.

### **5.1.1 Federalism in Austria**

As a successor of the k.u.k.-monarchy, the Austrian Republic is a relatively young federal state, which received its federal constitution in 1920. The Austrian Federal Constitution is – due to the lack of an incorporation imperative (Inkorporationsgebot) – rather fragmented. The central document of the constitution is the Federal Constitution law (Bundesverfassungsgesetz, B-VG) of 1920 as amended in 1929 and reinstalled in 1945 (Obinger, 2002). Even though with the federal constitution a true federal system has been created, it has had a strong tendency towards a centralized state, which is why the Austrian federalism is called unitaristic (to maintain unity) federalism. Examples of this unitaristic character are the division of the competences (Kompetenzverteilung) with a considerable surplus at the federation, the financial constitution (Finanzverfassungsgesetz) and – especially atypical for federal states – the jurisdiction, which is exclusively the responsibility of the federation. The federal constitution also strongly influences the political organization of the countries. The federal council (Bundesrat) has only been endowed with a suspensive veto right concerning the legislation. Two amendments, one in 1925 and the other in 1929, strengthened the unitaristic tendency (Werndl, 1984).

The relations of the Länder to each other as well as to the federal state are regulated by intrastate legislation, what is codified in art. 2 para. 1. Each piece of the legislation and its execution are either related to the Federation or the Länder by articles 10 through 15 B-VG (Kompetenzartikel). No competing legislation exists in Austria (in contrast to Germany). Formally all governmental competences of legislation and its execution lie with the Länder (Generalkompetenz) and only precisely enumerated competences are administrated by the Federation. However, this enumeration is so comprehensive, that in practice just a few areas are left under the competency of the Länder, e.g. nature conservation, the local security policy, hunting and fishing and – important for climate policy – building law, the promotion of domestic building and parts of spatial

planning. This again shows Austria's relatively weak use of federalism – referring to the competencies of the Länder. However, the Länder play an important role in the execution of federal laws (Lehner, 2007). Different to other countries (e.g. Germany, Switzerland) there is no article referring to environmental protection in Austria's constitution (Lehner, 2007).

### **5.1.2 Legislation**

In Austria the Länder do not have much formal influence and power in federal legislation. Legislation is assumed on the federal level by the Federal Convention (Bundesversammlung), which is made up of the Federal Parliament (Nationalrat) and the Federal Council (Bundesrat). On the Länder level legislation is done by the State Parliaments (Landtage). The Austrian legislative is not a real two-chamber system because the members of the Federal Council are delegated by the State Parliaments and only the members of the Federal Parliament are elected by the people. The Federal Council does not have the same power as the Federal Parliament since Federal laws have to be enacted in the Federal Parliament and the Federal Council has the possibility of an absolute veto in only a few cases (Pelinka, 2008).

The Federal Parliament (Nationalrat) is the chamber of deputies of the Austrian Parliament consisting of 183 members. According to the Federal Constitution its competency is the legislation of the Federation (Pelinka, 2008).

The Federal Council (Bundesrat) is the second chamber of the Federal Parliament and the representation of the Länder on federal level (albeit theoretically). The members are delegated by the Länder parliaments; at the moment there are 62 of them. Hence its composition reflects roughly that of the State Parliaments. Theoretically, if a law is enacted in the Federal Parliament the acceptance of the Federal Council is needed. In fact, the influence of the Federal Council is very low in the political daily routine as the Federal Council only holds a suspending veto. Nearly every veto of the Federal Council can be overruled by a persistence decision of the Federal Parliament, only laws affecting the competences of the Länder or the Federal Council itself can be avoided by a veto (art. 44 and 50 of the Federal Constitution) (Pelinka, 2008). Because of its current powerlessness the existence of the Federal Council is widely discussed in Austria. The Länder would really like to see a more powerful council, others – particularly political scientists – constantly vote for it to be abolished (derstandard, 2007). At least a reform of the

council seems to be reasonable, above all the reduction of its members. Another possibility would be to replace it by the Conference of State Governors, which is, however, not a constitutional organ (see chapter **Fehler! Verweisquelle konnte nicht gefunden werden.**). Several political scientists argue that a two-chamber system in such a small country is pointless, pointing to countries like Sweden, Norway and Denmark as examples (Pelinka, 2008).

The legislative assemblies at the Länder level are the State Parliaments (Landtage). The strongest party usually chooses the State Governor (Landeshauptmann). The State Parliaments – according to art. 15 para. 1 of the Federal Constitution – are responsible for the legislation of the (few) fields that are not explicitly assigned to the Federation. Since the legislation of the Länder is based upon the one-chamber system (there is no second chamber) the Federal Parliament holds – according to the federal level – the suspensive veto against enactments of the State Parliaments. The same is true on the federal level and the State Parliaments can overrule such a veto by a persistence decision (Beharrungsbeschluss). Furthermore, the State Parliament is responsible for the legislation of the state constitution (Bundespressedienst, 2008). For example, in contrast to the federal constitution, Lower Austria has defined its efforts for climate protection in its constitution (Niederösterreichische Landesregierung, 2009).

Within the legislative procedures at the federal level the Länder can exert their influence only at two stages. A legislation procedure can be initiated (legislative initiative) – according to art. 41 of the federal constitution – by the federal but also by the Länder governments and the Federal Council (at least a third of the members are necessary). Before the initiative is exhibited to the Federal Parliament, it is usually sent for consultation to various affected interest groups, like for instance the social partners<sup>6</sup>. However, there is no obligation for the parliament to consider possible statements. In the three phases (Lesungen) of the elaboration the Länder have no direct influence. If the draft is accepted in the Federal Parliament, it has to be forwarded immediately to the Federal

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<sup>6</sup> The social partnership (Sozialpartnerschaft) is a special and important part of Austria's political system. It has had a strong part since the foundation of the democratic republic and was sometimes even considered a shadow cabinet (Oberösterreichische Nachrichten, 2011). In Austria the social partnership represents the neo-corporatism as it is an informal model of political decision building with the inclusion of the societal representation groups. The social partners consist of the Federal Economic Chamber (Österreichische Wirtschaftskammer), the President Conference of the Chambers of Agriculture (Präsidentenkonferenz der österreichischen Landwirtschaftskammern), the Federation of Trade Unions (Österreichischer Gewerkschaftsbund) and the Federal Chamber of Labour (Bundesarbeiterkammer). By giving the social partners the possibility to influence decisions on federal and state level the acceptance of measures shall be enhanced. Also in the legislative process the social partners are included.

Council. If the Federal Council raises an objection (veto), the draft goes back to the Federal Parliament, where a simple majority with an attendance of at least half of the members is needed for a persistence decision (Pelinka, 2008).

At the Länder level legislation is carried out by the State Parliaments according to art. 95 para.1 of the Federal Constitution. Hence a one-chamber system is needed. The further definition of the legislative procedure is up to the state constitutions. In general Länder initiatives of the government as well as of members of the parliaments are possible. The Federal Government possesses a veto against state laws. However, this veto can also be overruled by persistence decisions by the State Parliament. An exception is laws for charges (Abgabengesetze). A committee of the Federal Conviction can overrule persistence decisions made by the State Parliaments. In Austria federal law is not stronger than state law (no competing legislation), only the constitutional court (Verfassungsgerichtshof) decides the validity of state laws (Pelinka, 2008).

### **5.1.3 The Executive Branch of Government**

The Federal Government is the highest administrative body of the Federation according to the Federal Constitution. It consists of the Federal Chancellor and the Federal Ministers. The most important task of the Federal Government is the adjudication of legislative initiatives, for instance the Climate Protection Law (see chapter 5.3.3). The State Government (Landesregierung) is the highest administrative organ of the Länder. The State Governments are elected by the State Parliaments and are made up of the State Governor, his representatives and the members of the State Government (Landesräte). The State Government comprises seven to 14 members, dependent upon the different Länder. It is responsible for all executive tasks as well as tasks of the indirect federal administration (mittelbare Bundesverwaltung) in the Länder (Pelinka, 2008).

The State Governor (Landeshauptmann) is the chairman of the State Government. He is elected by the State Government and inaugurated by the Federal President. The State Governor is also responsible for the indirect federal administration and thus liable to the Federal Government. A specialty in Austria is the Conference of State Governors, which is not defined legally but of high pragmatic importance (Dachs, 2006). In spite of its informal character the Conference is politically the most important board, allowing collaboration between the Länder. The Conference tries to find a common and thus more powerful stand for the representation of the Länder in negotiations with the federation.

It was created in the 1960 and has met twice a year since the 1970s. In important cases it also comes together in extraordinary meetings. Decisions are only made unanimously, they are not legally binding but of high political importance (Parlament, 2011a).

Regarding climate policy, the Conference exhibited its importance with the enactment of the Climate Strategy and the Climate Protection Law (see chapter 5.3).

The federal principle of the Austrian constitution describes the division of tasks and competencies between Länder and the Federal Government in the fields of legislation and implementation and enforcement of laws as well as public finance (see chapters **Fehler! Verweisquelle konnte nicht gefunden werden.** and 5.1.4). There are three possibilities in legislation and implementation and enforcement, i.e. both on the part of the federation, both on the part of the Länder (in the case of climate policy building law and promotion of domestic building as well as spatial planning) and finally federal legislation and implementation and enforcement by the Länder (for instance in electricity industry). This specialty of Austria's political system is called indirect federal administration (mittelbare Bundesverwaltung). The respective regulations are treated in art. 102 of the Federal Constitution. The bearer of the indirect federal administration is the State Governor of the respective state, who uses the service of the administrative bodies of the districts (Bezirksverwaltungsbehörden) for implementation. Concerning affairs of the indirect federal administration the State Governor is bound by the instructions of the respective Federal Minister (Parlament, 2011a).

#### 5.1.4 Fiscal Policy

Together with the struggle for competency the struggle for revenues and costs has been the focal point of negotiations (also concerning measures within climate policy) between federation and Länder.

For instance, in the Climate Strategy 2002, the Länder declared their desire to increase their efforts by considering measures for energy efficiency, but only within the budget agreed upon in the Stability Pact<sup>7</sup>. This statement refers to certain agreements between the Federation and the Länder, namely the Revenue Allocation between the Federation and the Länder (Finanzausgleich) and the Stability Pact.

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<sup>7</sup> "Bund, Länder und Gemeinden haben sich im Stabilitätspakt 2001 auf einen gesamtstaatlichen Konsolidierungspfad geeinigt. Aus diesem Grunde erklären die Länder, Maßnahmen der Klimastrategie mit finanziellen Auswirkungen nur nach Maßgabe dieser eingegangenen Verpflichtungen zur Haushaltskonsolidierung umsetzen zu können. Die Länder sind aber grundsätzlich bereit, insbesondere im Rahmen der Wohnbauförderung und im öffentlichen Hochbau, energieeffiziente Maßnahmen verstärkt zu berücksichtigen" (BMLFUW, 2002).

Federation and Länder essentially have their own financial policy, i.e. their own budget and are able to levy charges. But only the federation can levy substantial charges, like income tax and value added tax. Out of the total income of the federation the Länder receive their share through the Revenue Allocation (Parlament, 2011a).

The Revenue Allocation between the Federation and the Länder (Finanzausgleich) regulates the division of financial measures – especially of taxes and charges – of the Federation to the governmental units (Gebietskörperschaften), i.e. Federation, Länder and communities. It serves as an instrument of financial coordination between the governmental units and allocates the tasks and its resulting expenses as well as the revenues. The framing for the allocation is provided in the Financial Constitutional Law (Finanzverfassungsgesetz), which is codified in article 13 of the Federal Constitution. The framing includes the types of charges as well as the burden sharing- and cost-responsibility principle. A particularity is on the one hand the time limit, which was fixed at 4 years in 1989 and on the other, that the Revenue Allocation is not negotiated by the Federal Government, but by the Revenue Allocation Partners (Finanzausgleichspartner). The Revenue Allocation Partners are composed of the representatives of the Federation (Federal Ministry of Finances (BMF)), the Länder (Governors) and the communities (Austrian Conference of Cities (Österreichischer Städtebund) and the Austrian Conference of Communities (Österreichischer Gemeindebund)) (Adensamer and Höfer, 2004).

Another peculiarity of Austria's financial system is the Stability Pact (Stabilitätspakt). The Federation, the Länder and the communities came to an arrangement in 2001 wherein they set certain budget targets (specified by the EU), called Stability Pact. This pact is meant to support the achievement of the EU's budget targets. Between 2001 and 2004 the Länder pledged each year to generate a surplus of 0.75 % of their economic performance (Wirtschaftsleistung), the communities were bound to balance evenly. This target was not reached in any year, except for Vienna and some communities. Thus the targets for the Länder were reduced in 2005 to 0.6 % for the years 2005 and 2006 and 0.7 % for 2007. The revised targets were also not reached. This resulted in another reduction in 2008 to 0.45 %. Since the crash of the financial institutions in 2009 the targets have not been taken seriously. The Länder were not able to reach their targets in any year. The Stability Pact is currently being negotiated anew (Wirtschaftsblatt, 2010). The Stability Pact is pertinent to the degree that it applies to the the Länder's declaration

to increase their efforts in considering measures for energy efficiency, within the budget agreed upon in the Stability Pact<sup>8</sup>.

The Law for Subsidies with Intended Purpose (Zweckzuschussgesetz) granted the Länder subsidies of the Federation, which have to be used for certain purposes. Certain purposes include the promotion of domestic building and renovation, measures to maintain and improve infrastructure and measures to reduce GHG-emissions. Therefore this instrument had its influence in the field of space heating/small-scale consumption (sector domestic building) and transport. From 2001 to 2008 the amount of these subsidies was 1.78 bn Euro. The Länder entered into the discussions of a national climate strategy provided that existing subsidies and financial allocations remain the same<sup>9</sup>. In accordance with § 4 the federation was allowed to monitor (überprüfen) the appropriate use of the subsidies. If they are not being used as intended, the federation holds the right to reclaim them. § 4 also stated the obligation for the Länder to deliver an annual report about the use of the subsidies. As GHG-reduction within the field of domestic buildings and infrastructure is of greatest importance, this law should have played an important role in climate change policy. At the end of 2008 the law was disabled and found its successor in an agreement after art. 15a B-VG.

The Promotion of Domestic Building (Wohnbauförderung) can be considered the most important instrument within the field of climate policy and the relation between the federation and the Länder. It was initially meant to support the availability of low priced housing space and had been developed in the last decades to an instrument of the promotion for higher building standards and energy efficiency within domestic building. Were the funds initially administered by the Federation, a development in favor of the competences of the Länder found its peak 1988, when the responsibility for the Promotion of Domestic Building – both in legislation and execution – was alienated to the Länder by constitutional law. The Law of the Promotion of Domestic Building (Wohnbauförderungsgesetz) and the Law of Domestic Building Renovation (Wohnhausanierungsgesetz) have since been laws of the Länder. As additional means the Law for

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<sup>8</sup> „Bund, Länder und Gemeinden haben sich im Stabilitätspakt 2001 auf einen gesamtstaatlichen Konsolidierungspfad geeinigt. Aus diesem Grunde erklären die Länder, Maßnahmen der Klimastrategie mit finanziellen Auswirkungen nur nach Maßgabe dieser eingegangenen Verpflichtungen zur Haushaltskonsolidierung umsetzen zu können. Die Länder sind aber grundsätzlich bereit, insbesondere im Rahmen der Wohnbauförderung und im öffentlichen Hochbau, energieeffiziente Maßnahmen verstärkt zu berücksichtigen“.

<sup>9</sup> "Die Länder sind ursprünglich unter der Voraussetzung in die Diskussion einer nationalen Klimastrategie eingetreten, dass bestehende Zweckzuschüsse und Finanzzuweisungen Weiterbestand haben. Wenn Kürzungen erfolgten, sähen sich die Länder finanziell jedenfalls nicht in der Lage, die Maßnahmen der Klimastrategie umzusetzen" (Klimastrategie 2002).

Subsidies with Intended Purpose has been created. As already mentioned the Promotion of Domestic Building plays a central role in the sector of space heating/small-scale consumption. Since the efficiency of this measure leaves a lot to be desired a change of the competences back to the federation is being discussed (Der Standard, 2011b).

## **5.2 Austria's Climate Policy**

While the history of Austrian environmental policy started in the 1970s (three phases: emission orientated in the 1970s, end-of-pipe strategies in the 1980s and prevention orientated since the 1990s) (Pesendorfer, 2007), the problem of global climate warming was realized in the middle of the 1980s (Del Fabro, 2007). The founding of the Interministerial Committee for the Coordination of Measures to protect the Global Climate (Interministerielles Komitee zur Koordinierung von Maßnahmen zum Schutz des globalen Klimas, IMK) in 1991 (see chapter 5.3), along with the ratification of the United Nations framework convention on climate change in 1992 (UNFCCC, 2006a) can be viewed as a first step to a federal climate policy. By ratifying the Kyoto Protocol Austria pledged as an annex-I and annex-B nation to meet its targets (UNFCCC, 2006b). With the "Burden Sharing Agreement" between the EU member states Austria has committed to reduce its GHG emissions by 13 % compared to 1990. This target, negotiated by the then minister of environment and later minister of economy, Martin Bartenstein, has been considered too ambitious, regarding the relatively low reduction potential (Bayr, 2010).

Austria was once considered a leading nation regarding environment and climate protection (Andersen and Liefferink, 1997). This image has recently changed. The Climate Report 2008 (UBA, 2008) ranked Austria second-to-last among European Union member states. Not only will Austria be not able to reach its targets, it shows an overall strongly increasing GHG emission trend, making Austria one of the most unsuccessful countries within the EU (Bayr, 2010). Other indicators, like GHG emissions per capita and GHG emissions in relation to the GDP rank Austria in the midfield and at place three respectively, due to the high rate of hydropower use (UBA, 2008).

### **5.2.1 Federal Policies**

The central political actor on the federal level has been the federal ministry for agriculture and forestry, environment and water (Bundesministerium für Land- und Forstwirtschaft, Umwelt und Wasserwirtschaft, BMLFUW, or short "Lebensministe-

rium”). Regarding Austria’s climate policy the ministry works closely with the ministry of economy and the ministry of finance. Also the ministry of traffic, innovation and technology should be mentioned here as an – at least – potential actor, but has not shown much interest in cooperation (Del Fabro, 2007).

The main instruments of Austria’s federal climate policy are the

- National Environmental Subsidies (Umweltförderung Inland, UFI)
- Climate Strategy (Nationale Klimastrategie)
- Climate Protection Law (Klimaschutzgesetz) and the
- Energy Strategy (EnergieStrategieÖsterreich).

The National Environmental Promotion is based on the Environmental Promotion Law (Umweltförderungsgesetz, UFG)<sup>10</sup> of 1993. The promotion shall stimulate enterprises to implement voluntary environment protection measures in the fields of climate protection, air pollution prevention, noise protection and the reduction of dangerous waste. Applicants are entrepreneurs and administrative units like for instance municipalities. The Länder have no influence in this kind of promotion.

The federation’s main contribution to Austria’s climate policy has been the Climate Strategy<sup>11</sup>. The initiative to elaborate and implement a national strategy was started by the federal government, due to international requirements and growing public pressure. Before the initiative for the Climate Strategy was started, the BMWA tried to reach an agreement on art. 15a B-VG in 1997. It was intended to divide the Austrian Kyoto target between the Länder similar to the burden sharing agreement of the EU. However, the negotiations between the federation and the Länder failed (Del Fabro, 2007). In 1998 the BMLFUW instructed Kommunalkredit Austria AG to identify the GHG reduction potential of the different sectors based on available knowledge (Kyoto-Optionen-Analyse, 1999). This analysis was the basis of the Climate Strategy (BMLFUW, 2002).

For the elaboration of the strategy two additional bodies (along with the IMK) have been installed: the Kyoto Forum and the Kyoto Coordinating Board (Kyoto Koor-

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<sup>10</sup> The UFG regulates financial promotion of measures for environmental protection. The law defines all necessary requirements for a financial promotion in the different fields of environmental protection (UBA, 2011).

<sup>11</sup> Strategie Österreichs zur Erreichung des Kyoto-Ziels

dinierungsausschuss). As these three boards are instruments of vertical coordination, they are covered in chapter 5.3. During the negotiations about the Climate Strategy, Länder and Communities acknowledged the leading role of the federation concerning the overall coordination and –governance within the Kyoto process (BMLFUW, 2002).

The Climate Protection Law as well as the Energy Strategy are reactions to the unsatisfying results of the Climate Strategy. Since it has become clear, that the deficient collaboration and coordination between Länder and federation were a main reason for the poor performance, both of these instruments emphasized the need to involve the Länder better in future approaches (BMLFUW, 2007; UBA, 2008; oekonews, 2010a). Being instruments of vertical coordination both are treated in chapter 5.3.

A further important part of Austria's climate policy is the program "klima:aktiv". The program was started in 2004 by the BMLFUW, embedded in the Climate Strategy. The primary objective of klima:aktiv is to introduce and promote climate friendly technologies and services. The program is realized by the Austrian Energy Agency (AEA) and coordinates various measures in the fields mobility, energy saving, building and renovation as well as renewable energy. "klima:aktiv" is financed by the BMLFUW and offers mainly education, quality management, development and implementation of standards and information and advice (klimaaktiv, 2011).

## **5.2.2 Länder Policies**

At the Länder level the equivalent organs to the federal level are to name as central actors, namely the heads of the environmental, economic and financial departments. In the Conference of State Governors the Länder try to coordinate themselves. These meetings of the nine state governors are considered the most important board of the collaboration between the Länder (Pelinka, 2008). Within the conferences the Länder try to find a common stance in their interest and thus have a stronger position in negotiations with the federation. The conference was developed in the 1960s and meets twice a year. Some experts vote for a substitution of the federal council by the Conference of State Governors, as this non-constitutional board represents the interest of the Länder in a better way (Pesendorfer, 2007).

Before the federation tried to develop a nationwide climate policy, the Länder had already implemented different measures to reduce their GHG emissions. As a critical step

towards a climate policy each of the Länder mentions its joining of the climate alliance<sup>12</sup> (Klimabündnis), which happened during the 1990s (see the official websites of the different Länder, e.g. [www.niederoesterreich.gv.at](http://www.niederoesterreich.gv.at)). The measures supported by the alliance and introduced by the Länder have revolved around the topics enforcement of low energy- and passive house building technique, the promotion of renewable energy as well as projects within mobility and transport. These topics reflect the legislative competences held by the Länder. This includes the promotion of domestic building and building law, regional planning law with the possibility to have influence on the designation of areas and traffic development, legal rules for heating-, air condition- and ventilation equipment and energy production. Within these fields the Länder introduced various measures to reduce GHG emissions. For example, the enforcement of the change from non-renewable energy sources to renewable ones, energy saving advice and information for the population (e.g. change of the heating system, isolation), financial promotion of solar collectors as well as promotional measures in the mobility sector (e.g. Lower Austria and Salzburg<sup>13</sup>).

When the federation initiated the development of the Climate Strategy, the Länder only entered into the negotiations under the precondition of no cutbacks of appropriations and allocation of funds (BMLFUW, 2002). With the introduction of the Climate Strategy most of the Länder also started new attempts to coordinate their efforts to contribute to the reduction of GHG emissions, like for instance Lower Austria, which developed its own climate program in the style of the national one (Niederösterreichische Landesregierung, 2004).

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<sup>12</sup> "Climate Alliance of European Cities with Indigenous Rainforest Peoples" is the European network of local authorities committed to the protection of the world's climate. The member cities and municipalities aim to reduce greenhouse gas emissions at their source. Their allies in this endeavour are the Indigenous Peoples of the rainforests in the Amazon Basin. The initial target of the alliance was to reduce CO<sub>2</sub> emissions by 50 % in the period 1990 to 2010 ([www.klimabuendnis.org](http://www.klimabuendnis.org)).

<sup>13</sup> [www.niederoesterreich.gv.at](http://www.niederoesterreich.gv.at), [www.salzburg.gv.at](http://www.salzburg.gv.at)

## **5.3 Vertical Coordination of Austria's Climate Policy**

The central instrument of Austria's climate policy has been the Climate Strategy. During the elaboration of the strategy the Länder had the possibility to contribute to and influence the content, especially through the Kyoto Forum. Part of the strategy includes measures of the federation to secure the collaboration of the Länder and coordinate measures within the fields of competence of the Länder. Thus the strategy itself has to be considered an instrument of vertical coordination.

### **5.3.1 Climate Strategy 2002 -**

#### **Related Governance Approaches and Policies**

The institutional framing for the elaboration of the strategy was created at the beginning of 2000, when the IMK was supplemented by the Kyoto Forum and the Kyoto Coordinating Board.

The Interministerial Committee for the Coordination of Measures to protect the Global Climate (IMK) was installed in 1991 to coordinate the cooperation between the ministries. It has been chaired by the BMLFUW and forms the central panel for negotiations of the Climate Strategy and its development on the ministerial level (Del Fabro, 2007). However, the IMK is not a panel of high-ranking politicians but consists of medium level representatives of the ministries (BMLFUW, 2011). The IMK has coordinated all activities on the national as well as on the EU- and international level between the functional departments concerned and the special interest groups. For this purpose the BMLFUW has invited on its own discretion representatives of the ministries and of interest groups (Wirtschaftskammer, Industriellen Vereinigung, ÖGB, Arbeiterkammer) (Del Fabro, 2007). Also the common representative of the Länder attends the meetings, as he is considered an important link between the Federation and the Länder (BMLFUW, 2011). Decisions have been made on the scientific expertise of the Federal Environment Agency (UBA) and the Austrian Council on Climate Change (ACCC)<sup>14</sup> (Del Fabro, 2007).

The second institution, the Kyoto-Forum, has served as a platform for discussions re-

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<sup>14</sup> The Austrian Council on Climate Change (ACCC) was founded in 1996. It is an interdisciplinary working group consisting of 11 members from the areas of economics, science and technology, which aims to determine and evaluate measures relating to the prevention of Global Climate Change. The ACCC advised the Austrian Government on all questions regarding Climate Change (ACCC, online).

ferring to the preparation and coordination of measures between the Federation, the Länder and the communities. This forum has been the central panel of collaboration between the Länder and the Federation concerning the climate strategy (BMLFUW, 2011). On behalf of the Länder mainly representatives (higher functionaries) of the respective environment- and finance departments have been attending. Most of the Länder delegated two members to the Kyoto-Forum. The Chairman of the Kyoto-Forum is the director of the respective department of the Federal Ministry of Agriculture, Forestry, Environment and Water Management (so-called Lebensministerium) together with a common representative of the Länder (elected by the Conference of State Governors; since the beginning of the strategy process this has been the Governor of Upper Austria, DI Drack) (Del Fabro, 2007). The Kyoto-Forum has installed nine sector-specific working groups tasked to work out measures and implementation strategies (see figure 1). The groups consists of experts of the Länder, the Federation and the social partners, the exact composition depends on the topic of the group (e.g. the group space heating was dominated by experts of the Länder since they hold the main competency). These groups meet every couple of months and present implementation strategies as soon as possible for each sector together with accurate timetables to the Kyoto-Forum and the IMK, where the

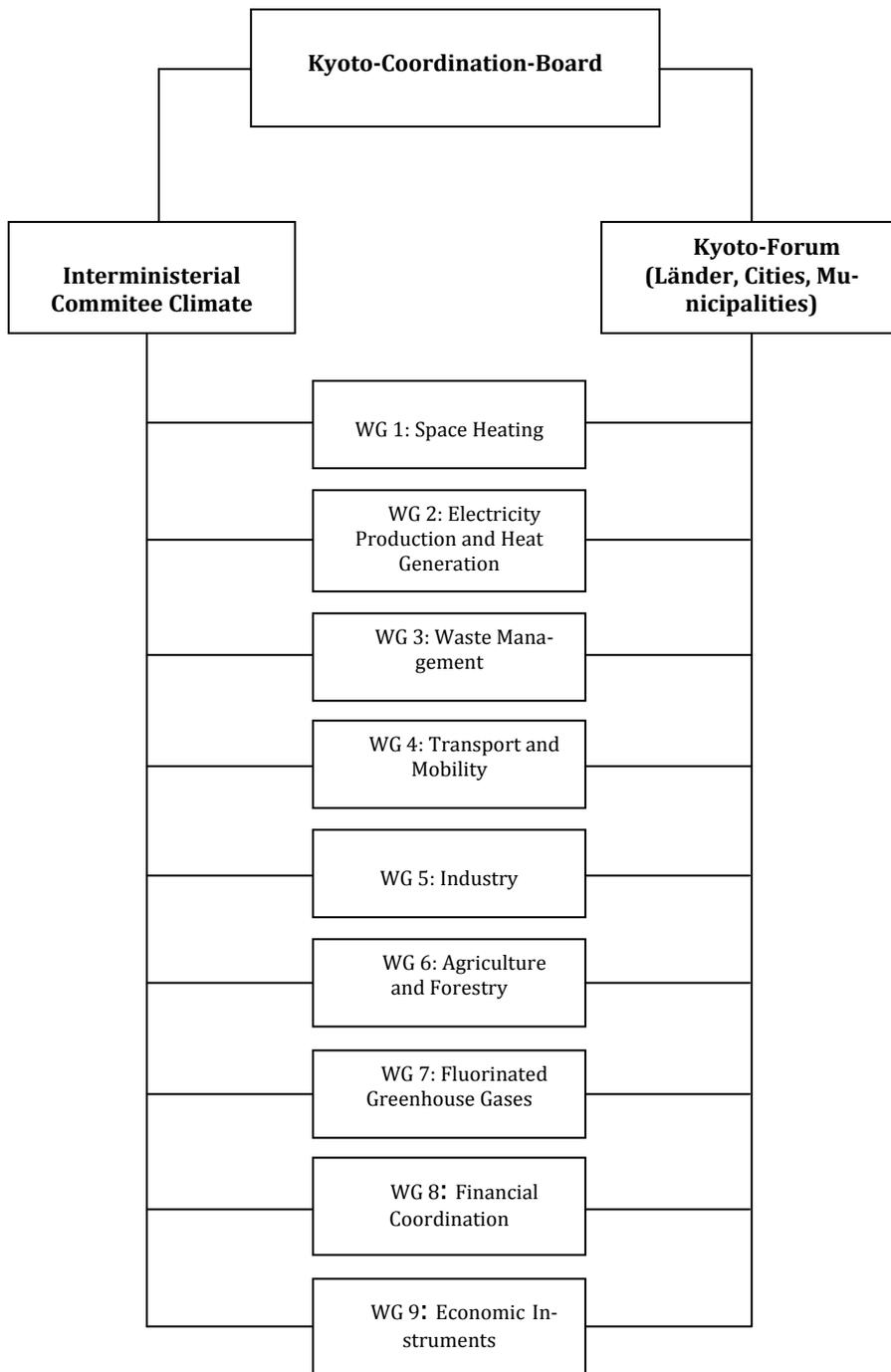


Figure 1: Governance structure of the Austrian Climate Strategy

Source: BMLFUW, 2002

proposals are discussed again. This communication process went on until a proposal for the climate strategy as a whole was finished and forwarded to the political level, which was on the federal level the Council of Ministers and on the Länder level the Conference of Länder Governors. Before the draft of the strategy was forwarded to the Governors it

was discussed by the Conference of Environmental Consultants of the Länder. In this way the development of the strategy shows a certain process of stages, beginning with the experts on a functionary level, then the environmental consultants of the Länder to political high-ranking representatives of the Länder and the Federation. The progress of implementation as well as certain obstacles to implementation have been reported every half-year (BMLFUW, 2011). The working structure of the Kyoto process is shown in chapter 5.3.

The third institution, the Kyoto-Coordination Board, was a board of high-ranking representatives of the Federation and the Länder. Its particular task was intended to be to give advice to the Federation and the Länder concerning political questions of the implementation and to coordinate the overall climate policy process. In doing so the collaboration between the Länder and the Federation are fostered. The federation together with the Länder chairs the board. Two to three representatives of both are present. In the end, the board did not meet even once and thus had no influence at all in the development and execution of the strategy (BMLFUW, 2011).

After hard negotiations between the involved actors the Council of Ministers and the Conference of State Governors finally approved the strategy in 2002 (Del Fabro, 2007). In the preface it is mentioned that “*[...] in the last years a big variety of projects of governmental units (Gebietskörperschaften), alliances and private enterprises have shown the huge potential of GHG reduction. The federal government and the Länder are now in charge of coordinating these efforts by the creation of an adequate framing and focused measures within a coordinated strategy*” (BMLFUW, 2002). In accordance with the Länder the federation is responsible for the overall coordination. It is also mentioned, that the federal strategy is not intended to be a rival for existing strategies and measures of the Länder. The importance of collaboration is emphasized, especially as the strategy has had no legal effect (BMLFUW, 2002).

According to international standards the strategy is divided into seven sectors which are space heating and small scale consumption, energy production, waste management, transport and mobility, industry and producing industry, agriculture and forestry and fluorinated gases. The core of the strategy is a comprehensive package of emission reducing measures, correlating to these sectors. This package of measures consists of regulative, stimulating and performance instruments (Del Fabro, 2007). The competences regarding these sectors lie mainly with the federation. The measures within the sector of

waste management are purported by the federal Waste Management Law (Abfallwirtschaftsgesetz 2000) and the federal Disposal Ordinance (Deponieverordnung). Within the sector of industry and producing industry reduction shall be reached by voluntary agreements within the federation and the entrepreneurs, also the so-called flexible instruments of the Kyoto Protocol (emission trading, joint implementation and clean development mechanism) have already been mentioned as means to achieve the targets. The sector agriculture and forestry has also been covered by federal measures, mainly by the Austrian Program of Environmental Sound Agriculture (Österreichisches Programm für umweltgerechte Landwirtschaft, ÖPUL), the same applies to the fluorinated gases sector, for instance with the ordinance to the Chemicals Law 2002 (Verordnung zum Chemikaliengesetz 2002). Only in the remaining sectors of energy production, transport and mobility as well as space heating and small-scale consumption have the Länder held substantial competences, which are described closer in the next paragraphs.

In the sector of energy production the main efforts have aimed at a higher level of renewable energy sources and a more efficient energy production, enforced by the EU (White Book of the Commission, 1998). Austria has complied with these requirements by the Electricity Industry and –Organization Law (Elektrizitätswirtschafts- und –organisationsgesetz, ElWOG). The Law regulates the Austrian electricity market in execution of the EU-directive 96/92/EC (Europäische Elektrizitätsbinnenmarktrichtlinie).

The ElWOG was first enacted in the year 1998 and amended in 2000. It is a law according to art. 12 B-VG, which means that the Federation makes the basic legislation, whereas the implementing legislation as well as the execution falls to the Länder. According to the European guidelines § 3 c.3 it contains a general denomination of the legislator to promote renewable energy. As a consequence of this objective § 4 para. 1 c.5 obligates the electricity network operator to abate green electricity in the amount of the legally required percentage, which was 4 % in the year 2007. Later the EU-directive 2001/77/EC on the "Promotion of Electricity produced from renewable Energy Sources in the internal Electricity Market" has demanded an additional increase of green electricity production of the Austrian total production. The achievement of this target made a higher efficiency of existing promotional instruments necessary, as the hitherto regulations in the ElWOG weren't efficient enough. As the legislative implementation of the Länder was not satisfying and thus endangered the achievement of the targets, the Climate Strategy firstly demanded better implementation of the federal law

(BMLFUW, 2002). When this did not have a positive effect, the federation had to react. The promotion funds for green electricity<sup>15</sup> of the Länder, financed by the additional charges on the electricity prices, have been united and a concept of federal standardized promotion of green electricity was developed by the Ministry of Economics together with the Länder. The result was the creation of the Green Electricity Law (Ökostromgesetz) in the year 2002. With the Law and the following Feed-In-Tariff Ordinance (Einspeiseverordnung) a new standardized promotional structure for green electricity, small-scale hydropower and cogeneration was created in Austria. The new law was developed in four months in a cooperative effort by the Federation and the Länder, involving social partners only at the end of the consultation phase. In July 2002 the National Council finally enacted the Green Electricity Law. With that the competency to promote electricity producers passed from the Länder to the Federation (WKO, 2003).

The sector of transport and mobility is very important to reaching emission targets, due to the amount of GHG emissions and the potential of reduction. Most of the measures addressed in the Climate Strategy have been on the federal level, which are included in a phased plan of the quickest possible emissions reduction (Stufenplan zur schnellstmöglichen Emissionsreduktion im Verkehr) and the General Plan of Transport and Mobility (Generalverkehrsplan), which enforces the improvement of the rail infrastructure. Potentially the Länder have competences within this sector due to their role in spatial planning. Through the use of the instrument of designation of areas the Länder have the ability to influence the concentration of the settlements, which would have a direct influence on traffic emissions. These means are rarely used in Austria, above all not in a coordinated way. The efforts of the Länder have been limited to the creation of transport associations (ARGE Intermodale Verkehrsplanung, 2011).

The sector of space heating and small-scale consumption is the most important one concerning the competences of the Länder within Austrian climate policy. Within this sector the Länder are able to influence the development of emissions by the building law, the allocation of the financial means of the promotion of domestic building as well as spatial planning.

The sector is considered to be the one with the highest emission reduction potential (together with transport and mobility). The measures in place thus far are the im-

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<sup>15</sup> Green electricity means electricity made by biomass, biogas, landfill and sewage gas, geothermal energy, wind and sun, as far as they are used for the production of electric energy.

provement of insulation, new buildings standards and higher energy efficiency of heating systems (BMLFUW, 2002).

Essentially it is the responsibility of the Länder to work out strategies and implement measures within this sector. Since the beginning of the promotion of domestic buildings each of the Länder has developed its own promotion regulations. Basically the promotion was meant to provide residential property at reasonable prices. With the rising awareness for energy efficiency the promotion was connected to certain energy standards. The Climate Strategy has demanded an intensified shifting of the financial means in favor of the energy standards. This includes the standard of the insulation as well as the use of renewable energy. The overall target should be the increasing of the energy efficiency of both new and existing buildings (BMLFUW, 2002).

The Law for Subsidies with Intended Purpose (Zweckzuschussgesetz 2001) and the Revenue Allocation Law provides the financial means for the promotion to be concluded (for both see chapter 5.1.4). According to the Zweckzuschussgesetz 2001 the federation provided the Länder 1.78 billion Euro for the Promotion of Domestic Building. These means could also be used for the maintenance and improvement of infrastructure and for measures to reduce the emission of GHG (Zweckzuschussgesetz, 2001). The Länder have also received a share of the 11.835 % of the revenues from energy taxes (electricity and natural gas) due to the Revenue Allocation between the Federation and the Länder which came to about 51 million Euro in the year 2000. These means were to be used for energy saving- and environmental protection measures. Because of the last enhancement of the electricity charge they were provided an additional 22 million Euro per year. These means are to be used for climate protection measures. With these laws the federation secures the use of the measures in a certain way, leaving the detailed use up to the Länder (Zweckzuschussgesetz 2001, § 1 Abs. (3) and Finanzausgleichsgesetz). The Länder have to report the use of the financial measures each year to the minister of finances, the federation has the possibility to reclaim the means. This is only of theoretical relevance because it has never occurred, despite the use of means for other measures than intended (Der Standard, 2011b).

The specific and more efficient use of the financial means for the promotion of domestic building has not always been satisfying (from the view of the federation). The Länder and federation tried to find a new solution which they finally did in the agreement 15a B-VG. The agreement has allotted an enforced shifting of the financial means from new

buildings to renovation and demands a tighter reporting commitment of the Länder.

In addition to the promotional approach the Climate Strategy recommends the intervention by regulative instruments, namely by building law and zoning. These regulations are a competency of the Länder and it is recommended they be adapted in regular intervals to the state-of-the-art (BMLFUW, 2002). In both of these cases the federation has no or at least only indirect possibilities (namely by the appropriation of financial means of promotion of domestic building and revenue allocation) to influence the proceeding of the Länder. For this reason the federation has tried to find different solutions in an adapted strategy.

As already mentioned above, the Climate Strategy itself has had no legal effect. However, the Emission Certificate Law (Emissionszertifikatengesetz) of 2004, whose main task is to provide the legal basis for the development of an emission trading system, demands that a new program be developed, if by June 30<sup>th</sup>, 2005 the implemented measures have not been sufficient in meeting the Kyoto targets. For the assessment of the impact of the Climate Strategy 2002 the UBA was ordered to prepare the Kyoto Progress Report (Kyoto-Fortschrittsbericht Österreich 1990-2005). The report confirmed that the Kyoto targets have been far from reach with the measures of the Climate Strategy 2002. Especially the sectors transport and mobility, energy production, industry and small-scale consumption showed high divergence to the targets. Thus, the BMLFUW initiated the adoption of the strategy, the result has been the Adaptation of the Climate Strategy of Austria for the Achievement of the Kyoto Target 2008 – 2013 (Anpassung der Klimastrategie Österreichs zur Erreichung des Kyoto-Ziels 2008 – 2013) or short, the Climate Strategy 2007 (BMLFUW, 2007).

### **5.3.2 Climate Strategy 2007 –**

#### **Related Governance Approaches and Policies**

On the basis of the evaluation and the results of a public consultation process of the BMLFUW, including the broad public, all affected ministries, the Länder and the social partners, the adaptation of the Climate Strategy was started. During five months expert groups have elaborated suggestions for the adapted strategy (UBA, 2007). Since the Emission Trading System was established in 2005, this new instrument has covered some sectors and working groups. Therefore the groups were reduced and summarized, showing now the three most important groups regarding GHG emitters (see figure 2).

The working process itself was retained from the Climate Strategy 2002 (BMLFUW, 2007).

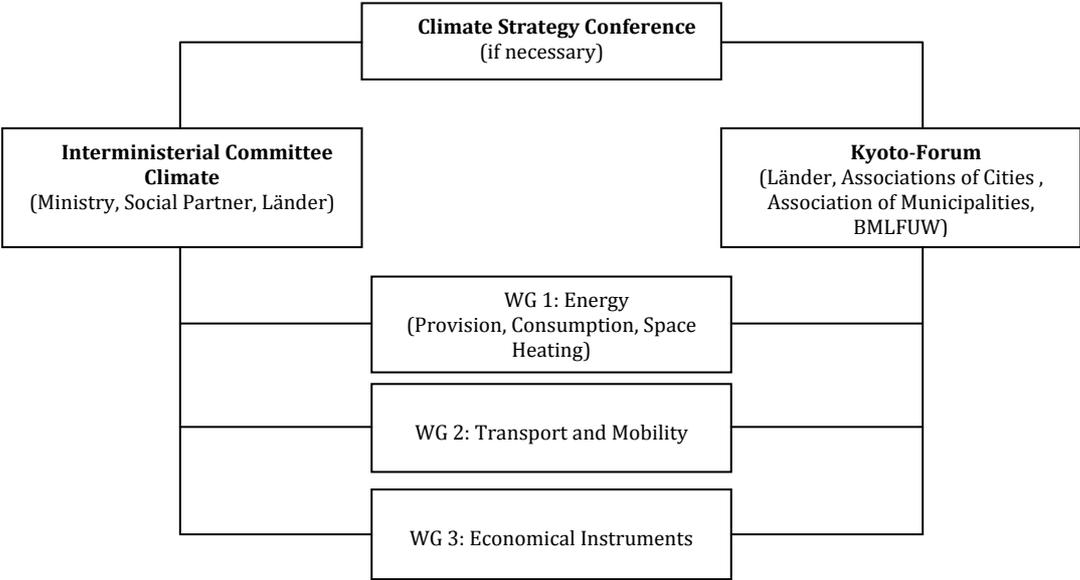


Figure 2: Working group- and decision structure for the adaptation of the climate strategy  
 Source: BMLFUW, 2007

Aside from this reorganization, the adapted strategy brought no big changes concerning the collaboration of the federation and the Länder in general. During the period of the strategy 2002 the competency in the sector energy production has shifted to the federation (with the Ökostromgesetz) and the influence of the Länder in the transport and mobility sector regarding spatial planning remained unused (UBA, 2007). In addition, in the sector of space heating and small-scale consumption the federation has tried to gain more influence. The result was the agreement 15a B-VG of the year 2004, which the adaptation of the strategy required be further developed (BMLFUW, 2007). The expert working group “Energy” also demanded a further increase of the overall energy efficiency of buildings (isolation) and a change to renewable energy and efficient long-distance heating. Additionally the energy standards of new buildings should be improved and climate protection and energy efficiency should be considered within spatial planning (BMLFUW, 2007).

As the most important instrument to foster these developments, the specified use of

the financial means of the promotion of domestic buildings has been quoted. The Länder were also required to use their means to influence spatial planning by supporting new buildings in existing structures and penalizing buildings in the “green field”. These measures would also influence the development in the sector transport and mobility (BMLFUW, 2007). A recent attempt of the federation to foster the efforts with the introduction of the “renovation check” (Sanierungsscheck) showed a counterproductive development. Nearly in the same amount, the federation supported the renovation of buildings financially, the Länder reduced their promotion. In spite of a theoretical appropriation of the federal means of the promotion of domestic building the Länder use the financial means to stuff budget holes. Some experts even demand the competence of the Länder be drawn back in this field and given back to the federation (Der Standard, 2011b).

With the Climate Protection Report 2008 (UBA, 2008) it became obvious, that achieving the Kyoto-targets as well as the post-Kyoto-targets were clearly out of reach with the measures that had been implemented thus far. The Austrian Court of Audit (Rechnungshof) has also considered the achievement of the Kyoto-targets "improbable". Among other reasons this is due to enduring differences between the Länder and a lack of integration as well as collaboration of the Länder on the implementation of the Climate Strategy (Rechnungshof,2008). The highest divergence pertained to the sectors of transport and mobility with a plus of 83.5 % compared to 1990 (a quarter of the total amount of GHG-emission in Austria), energy production (plus 12.3 %, share of 17 % of the total amount) and industry (plus 14.5 %, share of 27.8 %). A small success could be seen in the sector of space heating/small-scale consumption with a reduction of 6 % (share of 15.6 %). But even this result lay above the target (reduction of about 12 %). Only the results of the sectors waste management and agriculture/forestry were satisfying but had no big influence on the overall target (share of 2.2 and 8.7 %) (UBA, 2008).

The Minister for Environment in 2008, Josef Pröll, explained this divergence on the lack of commitment shown by the Länder to meet the agreed upon targets and measures (APA, 2008). Therefore he submitted a Federal Law for Climate Protection (Bundesklimaschutzgesetz) to the Council of Ministers in June 2008.

### 5.3.3 Federal Law for Climate Protection

A Federal Law for Climate Protection was already agreed upon the federal level in the government program of 2007 (Regierungsprogramm, 2007). Its overall target is the improvement of the collaboration and coordination between the federation and the Länder (Parlament, 2011). The British "Climate Change Act" served as a "prototype" (Lebensministerium, 2010).

The long lasting resistance of the Länder to agree on such a law was due to apprehension. The responsibility for climate protection measures and targets would be passed on from the federation to the Länder. As already mentioned above, until today climate protection was only voluntary (*"Until now climate protection was voluntary, now it will be obligatory"* (Berlakovich, 2011)). Also the obligation to have to contribute to the costs, in case targets are not reached, made the Länder hesitate (Kurier, 2011). These fears contributed to an extraordinarily long discussion- and evaluation process. The enacting of the law was foreseen for 2009, but it took until 2010 to reach a basic agreement between the Länder and the Federation after hard negotiations with the Minister of Environment and the environmental speakers of the Länder (Landesumweltreferenten). The current sitting Minister for Environment, Niki Berlakovich, could finally win over the Länder with a package solution releasing the Länder from sanctions until 2012 (APA, 2010). So it took more than three years of negotiations (mainly done in the Kyoto Forum), until finally in June 2011 the Council of Ministers approved the new Federal Law of Climate Protection (at the moment it is reviewed in the environmental committee of the parliament) (Parlament, 2011).

Regarding the high requirements of the initial draft the results can be considered meager and contain only three pages (Wiener Zeitung, 2011).

The agreements confirm the division of competences between Federation and Länder and that the Länder need not provide any financial contributions for the Kyoto period 2008 to 2012. Until then the Ministry of Finance is in charge of the payments for compensation which will amount to 200 million Euro per year (Wiener Zeitung, 2011). Also the division of the maximum amounts of emission will be fixed in the Federal Climate Protection Law, the costs in case of a non-achievement of the targets from 2013 on are to be regulated in a separate agreement (oekonews, 2010a).

This means the law includes a national objective in the Federal Constitution as well as

legal framing, which regulates the responsibilities in each sector of the Federation and the Länder. With this regulative measure the contribution of each actor should be fixed as well as the sanctions to be applied if the targets are not reached. If it is not possible to reach an agreement between the Federation and the Länder, the law demands a division of 50 : 50 of the charge (Lastenteilung). If the Länder alone are not able to find an understanding in the proportioning of the CO<sub>2</sub>-reduction, the decision will be based upon the population factor. Furthermore the Climate Protection Law shall demand the creation of a National Climate Protection Committee (Nationales Klimaschutzkomitee), staffed by high-ranking representatives of the federation and the Länder. The Committee's task will be to discuss yearly the basic questions of climate protection policy, elaborate climate protection strategies and create planning bases for climate protection measures. The committee shall be advised by a Climate Protection Advisory Board, staffed by experts of the environmental resorts, the parties of the parliament, the social partners, the Industrial Association, the Länder and communities as well as NGOs (Parlament, 2011).

The targets of the law are to conform to the ones of the Climate Strategy 2007, where the targets were updated from the Climate Strategy 2002 (see chapter 5.3.1).

The critics' comments were positive in some cases, especially referring to the fixation of climate protection in the Federal Constitution. For several others the law was considered not comprehensive enough. Global2000 for instance complained about the lack of measures for sanctions and a clear way to reach the targets. Other points of discussion, brought in by representatives of the Social Democratic Party and the Green Party, were a possible emission trading between the Länder, the lack of concrete measures and the focus on the purchase of emission certificates (OeMAG, 2008).

#### **5.3.4 Austrian Energy Strategy**

The Austrian Energy Strategy (EnergieStrategieÖsterreich) will be presented as the last instrument of vertical coordination within the field of climate policy. Energy policy has many overlaps with climate policy due to the high fraction of CO<sub>2</sub> emission of energy production and consumption, in some cases energy strategy and climate strategy are one in the same (e.g. Switzerland). The special role of the sector space heating and small scale consumption in the considerations of vertical coordination between federation and Länder within climate policy appears also in the energy strategy and finds itself in the sectors buildings (Gebäude) and households (Haushalte) (see figure 1).

A sustainable supply of energy (beside cost reduction and CO<sub>2</sub> emission reduction) is of existential importance and is a central precondition for a high quality of life. The Austrian Energy Strategy is a vision for the greatest possible self-sufficiency (EnergieStrategieÖsterreich, 2011). The strategy is built upon the Climate and Energy Package of the EU with the 20-20-20 target (staedtebund, 2010). The development of the strategy happened almost at the same time as the discussions on the Law for Climate Protection.

The central points of the strategy are high security of energy supplies, the promotion of the CO<sub>2</sub> emission reduction within the energy system, the preservation of the social capacity and the strengthening of Austria`s competitiveness. The quantitative target is to achieve almost stable energy consumption by the year 2020. Compared to the year 2005 this means a final energy consumption of at most 1,100 Petajoule (PJ), an amount that is to be reached by shifting the energy consumption between the sectors<sup>16</sup> (EnergieStrategieÖsterreich, 2011).

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<sup>16</sup> Building sector - 10 %; domestic-, trade-, service-, agriculture- and small-scale consumption sector + 10 %; energy intensive businesses + 15 % and mobility - 5 % (Energiestrategie Österreich, 2010)

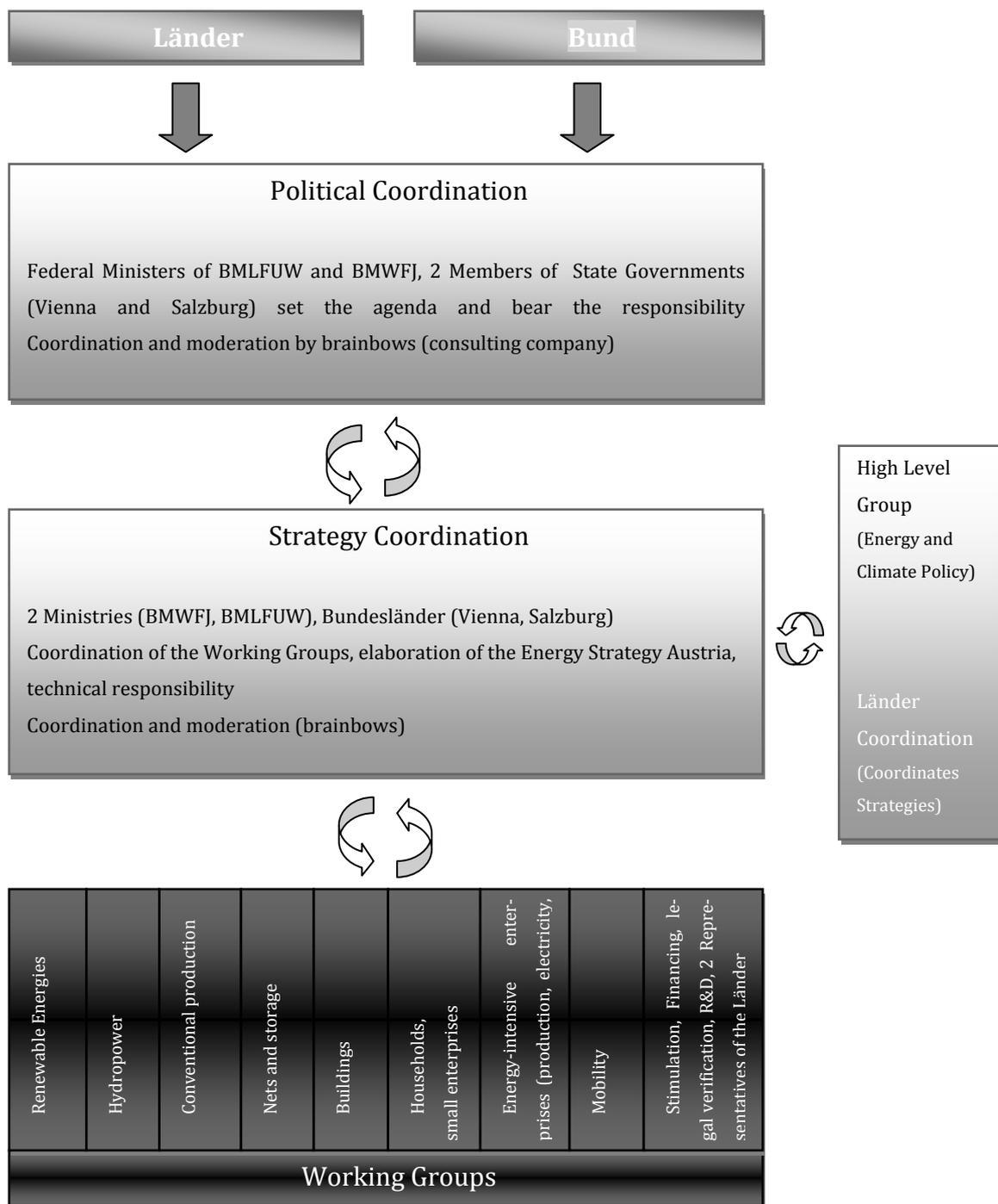


Figure 3: Strategy development in a corporate dialog – structure of process

Source: EnergieStrategieÖsterreich, 2011 (adopted)

The Ministry of Environment (Minister Nikolaus Berlakovich) and the Ministry of Economics (Minister Reinhold Mitterlehner) are responsible for the strategy. The devel-

opment of the strategy followed a participatory process and started in April 2009 involving the Federation, the Länder as well as stakeholders of science, economy (interest groups), environment (NGOs) and society (social partners). The respective two ministers presented the strategy in March 2010.

An enduring strategy requires societal acceptance and therefore the strategy should work as an energy network, involving all relevant and above-mentioned actors. Nine working groups with a total of 150 experts have been installed to work out and develop the strategy. A fundamental consensus emerged during the discussions, which presumably make the implementation of these measures very feasible (EnergieStrategieÖsterreich, 2011). Figure 3 shows the structural composition of the process.

During the process, the evaluated package of measures shall be subsequently substantiated by Federation and Länder under the existing division of competences. According to the strategy a Law for Energy shall be developed under the consideration of the constitutional allocation of competences by the federation and correspondent regulations shall be prepared by the Länder. This is to be done by the end of 2011 (EnergieStrategieÖsterreich, 2011).

The strategy also suggests a new monitoring system be established, which should also be implemented by the Federation and the Länder to help to monitor the ever-changing types of promotions. The abundance of promotions has grown historically and has become very complex; the new system should therefore help to streamline the system (Better Regulation and Good Governance).

Similar to the Climate Strategy 2002 and 2007, the Energy Strategy emphasizes the important role of the Länder referring to the improvement of energy efficiency within the building sector. According to the strategy the Agreement after art. 15a should be further developed and the measures of intended purpose (Zweckzuschüsse) of the revenue allocation shall be more strongly linked to measures of energy efficiency (EnergieStrategieÖsterreich, 2011).

The strategy also includes the transport and mobility sector. The problems in this sector are described in the energy strategy similar to the Climate Strategy. There exist only concepts of the Länder yet, a federal strategy is lacking. Therefore, the Energy Strategy suggests a federal strategic mobility concept. Here again the Federation has to respect the concepts of the Länder, especially as mobility concepts lay within their competence of spatial planning (EnergieStrategieÖsterreich, 2011).

Critics call the energy strategy “aimless” (krone, 2010). The inactivity on the homepage (www.energiestrategie.at) as well as the date of the first conference of energy consultants of Länder and federation, which was held in September 2011 serve as examples of the negative critique (oekonews, 2011). Again the difficulties in negotiations, especially with the Länder, as well as the parallel negotiations of the Climate Protection Law are quoted as reasons for the delayed results. In the beginning of the negotiations the common coordination of the federation with the Länder received priority, but to be able to present a fast result, this priority has been forgotten by the federation. “*Effective results are only possible, if federation and Länder act in concert and pull together*” (ots, 2010). The reasons behind these difficulties are similar to those behind the Energy Protection Law, specifically on the fear of the Länder to lose competences and to be obligated to contribute to costs (ots, 2011). These differences are reflected in the results of the Conference of Energy Consultants.

The energy strategy demands an increase of energy efficiency by 20 % until 2020 (EU-conform). For the implementation of corresponding measures federation and Länder concluded an agreement of art. 15a. These measures are examples set for the public sector, energy saving advice for citizens and promotion of energy efficiency measures (ots, 2011).

The energy strategy has to acquiesce much critique, like being only a notice of intent rather than a strategy or consisting only of vague conceptions. For the Umweltlandesrat of Upper Austria, Rudolf Anschober, the strategy is a lost chance and a disappointment. He talks of an exclusion of the Länder in the decision-making. GLOBAL2000 complains about the “[...] *helpless reference to the responsibility of the Länder*” regarding building standards (oekonews, 2010b).

## 5.4 Summary

The GHG-emissions of Austria have declined since 2005 (UBA, 2010). If one assumes this is due to effective measures in the past, they will be disappointed. The real reason for this development is only the economic crisis. Already for the year 2010 the UBA expects another increase in emissions. The achievement of the Kyoto-Targets is far from reach without the reinforced use of flexible instruments (UBA, 2010). The climate policy of Austria's Government has failed (Der Standard, 2011a).

Austria seems paralyzed in its climate policy. The country was once considered one of the leading nations in the environmental movement (Pesendorfer, 2007). Perhaps this is one reason why it fell behind other nations – especially Germany – in its climate policy achievements. Another reason for this setback is obvious – the bad cooperation between the federation and the Länder. Austria, as a so-called unitaristic federal state, has a strong tendency towards centralism. On the federal level there is a two-chamber system, however, the chamber of the Länder has almost no importance in federal legislation. This is the reason for debate on the reform of the system. Nevertheless, in the field of climate policy the Länder seemed to be sufficiently involved from the beginning. Within the working groups of the Kyoto-Forum the Länder had the possibility to bring their interests to the climate strategy. The composition of the groups reflects the competences of the Länder in legislation. The basic agreement of the Länder within the strategy was shown through the approval of the Conference of State Governors. For climate policy relevant competences, the Länder are restricted to the fields of building law and domestic building as well as spatial planning. These sectors are of great importance for climate protection. Where other nations have created special programs for the sector of domestic building, Austria uses the traditional instrument of Promotion of Domestic Building to increase energy efficiency and the use of renewable energy in this field. The lack of a special program may show the absence of a consciousness of the importance of the sector; certainly the inability of the federation to sanction a non-achievement of targets by the Länder is derogatory for the common targets.

Also in the sector of transport and mobility – the most problematic sector due to rising emission trends – the potential is left unused. The Länder, with the competency of spatial planning, would have the possibility to set measures concerning short-distance public transport, an important part of the emitters within the sector. However, there is

no concerted concept of the federation to foster measures within this field.

Again with the Austrian Energy Strategy the Federation provides a document with good intentions and suggestions. In spite of its long development period the strategy lacks commitment. Only in interaction with the Climate Protection Law will the strategy be effective. The more important seems to be the Law of Climate Protection. The law shall improve the implementation and enforcement of climate protection measures of the Länder and make it more difficult for them to abscond from justice. Regarding the problems and the duration of the negotiation period as well as the little that is left of the initial draft the success of the law must be questioned. At least the most important actors, foremost the Länder, have been involved from the beginning of the elaboration and the Conference of State Governors has agreed upon the draft. However, the open negotiations regarding the costs of climate protection may not be forgotten.

## **6. Germany**

Germany is a federal state consisting of 16 states (Länder). According to the German “Grundgesetz” (the federal constitution), it is a liberal-democratic and social constitutional state. With 81,8 million inhabitants it is one of the most densely populated countries in the world. Unlike Austria and Switzerland, global warming is not only important because of the Alps sensitive ecosystem, which is especially affected by climate change. In the north the country also marches upon the North and East Sea, making this region vulnerable to rising sea levels. Based upon GDP, Germany is the biggest national economy in Europe and the fourth largest in the world. The political spectrum is dominated by the political parties represented in the German Government, which are at this time the Christian Social Union/Christian Democratic Union (CDU/CSU), the Social-democratic Party (SPD), the Free Democratic Party (FDP), the Left Party (Die Linken) and the Alliance 90/The Green Party (Bündnis 90/Die Grünen) (Graf, 2007). Germany is a founding member of the EU and ratified the Kyoto-Protocol in 2002 (Graf, 2007). Germany can also be considered the leading nation in the development of the global climate policy and the Kyoto-Protocol (Jordan, 2005). Germany’s energy consumption is about 15 PJ per year and thus the second highest in the EU and sixth highest in the world. The base of Germany’s electricity production is crude oil making up about about 30 % and has revealed a slightly falling trend. The trend in the use of natural gas is stable at 22 %, the rest is made up of almost equal parts brown coal, stone coal and nuclear power with about 11 %. Renewable energy (wind, water, photovoltaic, wood) represents only about 7 % of the energy mix (BMWI, 2008).

### **6.1 The Federal Political System of Germany**

As mentioned in the preface the federation has only limited possibilities to motivate the Länder to support the federation’s targets. One possibility is to grant the Länder a say in legislation. The extent of that say is already predefined in the basic federal rules of the state. Germany has a long federal tradition beginning with the Holy Roman Empire (Heiliges Römisches Reich Deutscher Nationen). The current federation is defined by the German Basic Law (i.d. the German constitution, Grundgesetz), which designs Germany as a federal state. The federal political system consists of three main levels: the federal

level, the regional level (i.d. the Länder) and the local level (communities). Five of the 16 Länder (federal states) and half of Berlin joined the Western Bundesrepublik did not join until 1990 – without any major changes to the constitution (Marschall, 2007).

### **6.1.1 Federalism in Germany**

In Germany's federalism the Federation was traditionally dominant. This is partly due to the division of competences, which is based upon the types of competences and not after the specific fields of policy, as they are for instance in the USA. This division means that the Federation enacts most of the laws but that the execution lies by the Länder. As mentioned above, the Federation has gained more and more competencies since 1949, but in return the Federal Council has received a stronger voice in the Federal Assembly. Germany's federalism is classified as "executive federalism" (Exekutivföderalismus). By definition this is a political system where the executive powers of the Federation and Länder are closely interlocked with the coincidental powerlessness of the state parliaments. The big difference in the German political system compared to other federal states worldwide is the sitting-in of members of the state governments in the Federal Council, a tradition kept up since the Holy Roman Empire. Art. 30 emphasizes the statehood (Eigenstaatlichkeit) of the Länder. In art. 23 the collaboration of the Länder in the legislation of the Federation is codified and art. 50 does the same concerning affairs of the EU (Ismayr, 2008).

As every federal system needs the cooperation of the Federation and Länder the emergence of interdependencies is unavoidable. Several economic experts consider the unclear division of competences within German federalism an economic location disadvantage, especially due to the permanent election campaigns (Dauerwahlkampf). Other inefficiencies were noted in their huge bureaucracy and the interdependencies between Federation and Länder (Politikverflechtung). Germany reacted to this with a federalism reform. The law enacted in September 2006 to amend the Grundgesetz is considered the biggest constitutional reform since the federal constitution came into existence (Holtschneider and Schön, 2007). The main results were a reduction of the laws requiring approval (Zustimmungsrecht) of the federal council and a substantial augmentation of legislative competences of the states (Ismayr, 2008).

The Reform of Federalism was done in two parts. The German Federal Parliament and the German Federal Council enacted the first reform in June and July of 2006 with the

backing of the required majority, two thirds, as it concerns an amendment of the Grundgesetz. The reform adjusted the relationship between the Länder and the Federation. The Governors of the Länder had already decided in 1998 to critically assess the federal organization (i.e. the division of responsibilities, expenditures and revenues), which resulted in the elaboration of guidelines in 2003. After the formation of the great coalition in 2005 the draft of an amendment for the Grundgesetz was discussed in the Federal Parliament and the Federal Council. With the reform the framing legislation (Rahmengesetzgebung) of the Federation was abolished to reduce the rising interweavement between Federation and Länder. The reform should accelerate the legislative process and make it more transparent by reducing the consent obligatory laws (Zustimmungspflichtige Gesetze). In this way the Federal Council cannot veto laws, as often as in the past, however, laws with high influence on the costs in the Länder still need the approval of the Federal Council. In return the Länder received exclusive competence of legislation in several fields (e.g. health- and penalty legislation). Additionally the Länder received more rights in environmental and educational legislation. In these fields they were allowed to enact laws differing to federal law (Abweichungsgesetz). This means that legislation of the Länder is prior to the one of the Federation (Ismayr, 2008).

The second part of the reform was enacted in 2009 and refers to the financial relations between the Federation and the Länder. It had no general influence on climate policy.

A specialty of the German kind of federalism is strong competition between the Länder. There is a broad discussion regarding whether cooperative federalism or competitive federalism leads to better results. One example of cooperative federalism is the educational system, where the Länder try to synchronize their systems. Critics argue that synchronization hampers the development of the ideal system, which would happen in competition. In the case of climate policy competitive federalism dominates in the Länder. Beside the efforts of certain institutions (e.g. Conference of Environment Minister, Federation/Länder Working Group "Climate, Energy, Mobility – Sustainability"; see chapter 6.3.5) the Länder are in constant economic competition, especially concerning location factors, since it became clear, that climate policy creates jobs (Fischer, 2006).

The German Basic Law (Deutsches Grundgesetz) is the constitution of Germany. When it was elaborated in 1949 it was seen as a provisional draft and therefore deliberately not named a constitution. After reunification in 1990 it became the constitution of

the entire German nation with only minor amendments and that is why the name Grundgesetz remained for the constitution. The rights of man and citizenship are placed first in the Grundgesetz, furthermore it describes the composition of the political system and defines the competences and relations of the federal institutions. Art. 20, inserted with an amendment in 1994, contains a national objective with a guideline for a policy of livelihood protection (Schutz der Lebensgrundlagen) (Ismayr, 2008).

Although not explicitly mentioned as a principle the division of duties is to be carried out after the subsidiarity principle. This means the duties are only to be carried out by the Federation if the Federation can fulfill them better. In fact, most of the competences lie with the Federation, with only a few exceptions like cultural- and educational policy. Art. 84 para. 3 and 4 define the modus operandi in case of the non-execution through the Länder of a federal law (Marschall, 2007). For certain especially important national fields of climate policy the federation has exclusive legislation as is stated in art. 71 GG (e.g. air traffic). In important fields of climate protection the federation has competing legislation after art. 72 GG. This means that the Länder possess only competencies where the federation does not make use of it. After art. 74 GG these are energy industry, road traffic and air pollution control. Some of the remaining fields in which the Länder hold exclusive competency according to art. 70 GG are community law, spatial planning and building law (Biedermann, 2011).

### **6.1.2 Legislation**

Federal Parliament (Bundestag) and the Federal Council (Bundesrat) cover the Legislation on the federal level. Only the members of Parliament are voted directly by the people and possess a free mandate (freies Mandat). Only the members of the Federal Council have a so-called imperative mandate (Marschall, 2007).

The Parliament enacts federal laws, votes the Federal Chancellor and – as part of the Federal Convention (Bundesversammlung) – the Federal President, is responsible for the federal budget, monitors the government and forms commissions for the preparation of laws. The members of parliament are – according to the Grundgesetz – autonomous of their political party and other groups of interest, in reality the party whip is the dominant actor here (Marschall, 2007).

Differing from the basic rule that the legislative competency lies with the Länder, the Grundgesetz also assigns this competency to the federation. This is called Competing

Legislation (Konkurrierende Gesetzgebung). According to art. 72 GG the Länder are not able to enact laws where the federation makes use of its legislative competency. Existing law of the Länder expires in that case. Competing Legislation is utilized mainly in fields of interest where a federal regulation is necessary. These fields are amongst others civil rights, registration, right of residence of foreigners, law of taxation, penal law, national insurance and land rights. Whenever the federation was legally acting, the necessity for a federal regulation was taken for granted and so the range of federal law was substantially enlarged and the exceptional case became the norm. According to the federalism reform the Competing Legislation is limited to three cases. Basically the federation has the legislative competency without further requirements. However, in certain fields the federation obtains this right only if there is national interest (Erforderlichkeitsklausel). In the third case the federation has the legislative competency, yet the Länder have the right to divergence (Abweichungskompetenz). This competency applies for fields such as nature conservation, hunting, education and spatial planning. Here the higher-ranking law does not break the lower one, but the later one the earlier one (Ismayr, 2008).

The German Bundestag is the Parliament of Germany and consists of 620 members. Its most important tasks are the federal legislation, the federal budget and international treaties. The Federal Parliament elects the Federal Chancellor and collaborates in electing the Federal President, the Federal Judges and others. It carries out the parliamentary control over the Federal Government and the Federal Executive. Above all its task is to express the will of the population as well as to inform the general public (Ismayr, 2008).

An important function of the Federal State is the second level of the division of powers (vertical division of powers) performed by the Federal Council (Bundesrat). The German Federal Council (Bundesrat) represents the interest of the state governments on the federal level and is a federal institution (Bundesorgan) due to the fact that its authority and competency arise from federal law. It can be considered the most important instrument of federalism in Germany and has competences in legislation and administration of the Federation as well as in affairs of the EU. Each of the Länder is represented in the Federal Council where participating members of the state governments (Landesregierung) ensure the consideration of the state's interest. This responsibility of the Federal Council is defined in art. 50 of the Grundgesetz: *"Through the Federal Council the Länder collaborate in legislation and administration of the federation and in affairs of the*

*European Union*"<sup>17</sup>. A member of the Federal Council cannot be a member of the Federal Parliament. The Länder send representatives based on the size of their population whereby the minimum is three and the maximum is six representatives per Land. At the moment the Federal Council consists of 69 voices. Decisions need an absolute majority (i.e. 35 voices), for amendments of the Grundgesetz two thirds are needed. Beside the Federal Government and the Federal Parliament the Federal Council possesses the right of legislative initiative. (Ismayr, 2008).

Legislative initiatives of the Federal Government are first forwarded to the Federal Council, which can comment on the initiative before it is forwarded to the Federal Parliament (first passage, erster Durchgang). The participation in the second passage differs concerning to two kinds of law. One kind are laws which need the agreement of the Federal Council (Law requiring approval, Zustimmungsgesetz) which is the case for laws affecting the constitution, laws concerning the budget of the Länder and laws concerning the administrative- and organizational sovereignty of the Länder. For the other kind of law, laws that do not require assent (Einspruchsgesetz), the Federal Council can file a protest (Einspruch) in context with conciliation proceedings (Vermittlungsverfahren). These proceedings are done in a mediation committee (Vermittlungsausschuss). The mediation committee consists of 16 members made up of the Federal Parliament and the Federal Council (one of each country). Without a time restriction its task is to procure an agreement and to deliver a recommendation in the form of an amendment of the law to the Federal Parliament and Federal Council. This recommendation can indeed be enacted with simple majority, but will only be approved by both the Federal Parliament and Federal Council, if the Mediation Committee agrees upon the recommendation with near unanimity. Critics accuse the institution of the Mediation Committee of being intransparent, mixing interests of Federation, Länder and parties and making it therefore impossible for the citizen to make competent decisions at the elections (Deutscher Bundestag, 2011).

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<sup>17</sup> "Durch den Bundesrat wirken die Länder bei der Gesetzgebung und Verwaltung des Bundes und in Angelegenheiten der Europäischen Union mit" (Art. 50 Grundgesetz).

### 6.1.3 The Executive Branch of Government

The Federal Government is responsible for the implementation and enforcement of federal laws and promulgations. The Federal Government (also Bundeskabinett) consists of the Federal Chancellor and the Federal Ministers. The Federal Chancellor is the head of government. He is elected by the members of the Federal Government and is normally supported by an absolute majority of the members, which is mostly built by a coalition (Kanzlermehrheit). The Federal Chancellor holds the guideline competence (Richtlinienkompetenz)<sup>18</sup> according to the Grundgesetz and thus determines the main features of federal policy. The Federal Chancellor is one of the political centers of power in Germany. However, because of the important role of the Federal Council in the legislative process and the different majorities the Federal Chancellor is dependent upon extensive compromises (Ismayr, 2008). Aside from legislation the Länder's other possible mode of exercising influence in climate policy lies with the administration. Through the Länder Parliaments the Länder are responsible for the entire internal administration and for the enforcement of federal laws and regulations. Every state possesses its own constitution, a state government and a state parliament, which can differ in various ways from state to state. Each of the Länder owns a Länder Government. It consists of the head of government and a certain number of ministers, which differs from state to state. According to the form of the government all states are parliamentary republics. The Head of Government is generally called the prime minister (Ministerpräsident), he is elected by the respective Länder parliament. Their influence on the Federal Policy through the Federal Council is a commonality. The Länder have also formed several committees to coordinate their work nationwide (e.g. Ministerpräsidentenkonferenz, Kultusministerkonferenz and Innenministerkonferenz). The legislature is executed by the Länder parliament. The important remaining fields of competency are the education system, culture- and police law (Marschall, 2007).

In spite of improvements and adaptations of the legal framing (e.g. EnEV and EEWärmeG) and repeated requests of the federation for a better cooperation of the Länder, substantial omissions in implementation and enforcement as well as monitoring have stayed a constant companion in Germany's climate policy. Crucial legislative allegations

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<sup>18</sup> The German chancellor possesses the guideline competency prior to the other members of government. The guideline competency (Richtlinienkompetenz) means the competency/responsibility to predefine mandatory guidelines for the federal policy. The competency is defined in the Grundgesetz art. 65. Thus the article strengthens the position of the chancellor.

have not been implemented by the Länder or have not been controlled by the Länder or the federation. Specifically in the case of the EnEV and the EEWärmeG these omissions have had a substantial impact, as they are considered decisive for the achievement of Germany's climate policy targets. Poor implementation and enforcement in the Länder allow industry and society to skirt around the legislative allegations, causing millions of tons of additional GHG emissions, which do not emerge in any statistic. A reason for this is the reduction in staff of the lower levels of the enforcement authorities (klima-media, 2010). The omissions, however, concern not only the Länder but also the federation, as it does not use its power to exert pressure onto the Länder. According to art. 84 p. 3 GG (see chapter 6.1.1) the federation is obliged to make note of defects (Mängelrüge), a power which has not been applied so far. A further explanation for the omissions has also been traced to the tense current financial situation in the Länder (klima-media, 2010).

#### **6.1.4 Fiscal Policy**

An important possibility to motivate the Länder to support federal targets is financial policy. Taxes and charges are a competency of the Federation codified in the Financial Constitution (Finanzverfassung). According to that the Federation has sovereignty over financial laws in almost all fields and there are nearly no Länder taxes. However, amendments of financial law, which affect the Länder or the communities need the approval of the Federal Council. The Federal Budget needs no approval of the Federal Council (Marschall, 2007). The Financial Equalization Scheme (Länderfinanzausgleich) is a mechanism for the reallocation of financial means between the Federation and the Länder. The Länder shall thus be provided with the necessary means for the completion of Federal tasks on the one hand. On the other, according to art. 107 para. 2 of the Grundgesetz, it is the target of the Financial Equalization Scheme to fairly balance the different financial powers of the Länder. The Equalization Scheme is regulated with the Measuring Unit Law (Maßstäbengesetz) and the Financial Equalization Law 2005 (Finanzausgleichsgesetz 2005). The scheme is divided into two kinds of equalization, the one between the Länder (horizontal) and the one between the Federation and the Länder (vertical). The horizontal equalization consists of the pre-equalization of the value-added tax and the Länder Financial Equalization itself. Before the actual Länder Equalization starts the taxes of both the Federation and the Länder are being divided (income

tax, corporate tax (Körperschaftsteuer), value-added tax). Of the Länder value-added tax at most 25 % is used to adjust the financial power of the weaker Länder, the rest is divided between the Länder according to their population. The Länder Financial Equalization itself means compensation payment of the rich Länder to the financially weaker Länder calculated with a certain indicator number. The vertical Financial Equalization, i.e. between Federation and Länder, is called Federal Additional Payment (Bundesergänzungszuweisung, BEZ). If Länder after the horizontal equalization stay under 100 % of the Länder average, they receive additional means coming from the federal budget (Marschall, 2007). As the Financial Equalization Scheme affects the equalization between the Länder more greatly, it is not an important means to exert pressure from the federation to the Länder.

## **6.2 Germany's Climate Policy**

Like in other industrialized countries Germany had already enacted legislative regulations for air and water pollution in the 19<sup>th</sup> century (Hünemörder, 2004). A comprehensive environmental policy, however, first took shape in the 1970s. The founding of the federal ministry for environment protection, nature conservation and nuclear safety (Bundesministerium für Umwelt, Naturschutz und Reaktorsicherheit, BMU) in 1986 and the ratification of the United Nations framework convention on climate change in 1992 were important concrete steps towards Germany's climate policy. Ratifying the Kyoto Protocol Germany pledged as an annex-I and annex-B nation to its contained targets (UNFCCC, 2006b). With the "Burden Sharing Agreement" between the EU member states Germany has committed to reduce its GHG emissions by 21 % compared to 1990. During the history of climate policy Germany has restricted itself not only to international targets but also set higher targets for itself (like for instance a GHG-reduction of 25 % for the Kyoto-period). Today Germany plays a leading role in environmental policy, especially in climate policy, which continues to strive to make headway (Jänicke, 2009).

In 2008 Germany had already achieved a reduction of 22,2 % of GHG-emissions. The economic crises in 2009 even increased the reduction to 28,7 %. The biggest success story occurred in the energy sector as a result of higher energy efficiency standards in the industrial sector and marked changes in energy production as well as in emission trading (active since 2005). Additional reduction was achieved by the promotion of renewable energy. In the agricultural sector the emissions were reduced by 15 %. The in-

dustry sector reduced its emissions by 11 %, which is largely due to economic fluctuations. Stricter waste management regulations achieved a reduction of 73 %, mainly because of the prohibition of the disposal of untreated waste and its energetic utilization (BMU, 2010).

A sector illustration of CO<sub>2</sub>-reduction from 1990 to 1999 shows a decline in the sectors industry and energy production (mostly due to reorganization measures in the new Länder) whereas there was a sharp increase in the sectors domestic home and transport. Altogether a reduction of 18.5 % was achieved (BMU,2010).

Germany considers climate protections a continuous and essential task. From the start Germany mainly emphasized the domestic achievement of its emission obligations rather than its use of flexible instruments (BMU,2006).

Important steps in environmental policy were the creation of the Advisory Council on the Environment (Sachverständigenrat für Umweltfragen) in 1971, the German Conference of Environment Ministers (Umweltministerkonferenz) in 1972 and the setting up of the Federal Environmental Agency as part of the Ministry of the Interior in 1974. For a long time the protection of the environment was seen as a rival for economic development. Therefore, the environmental movement had its throwbacks, for instance with the oil-crisis. The move-in of the Green Party into the Federal Parliament (Bundestag) 1983 was of particular importance. Through the Green Party the topic remained on the political agenda and other parties were forced to develop their own environmental policy. The accident in Chernobyl supported the foundation of the Federal Ministry for Environment, Nature Conservation and Nuclear Safety (Bundesministerium für Umwelt, Naturschutz und Reaktorsicherheit, BMU). Thus several fields of environmental policy, formerly divided between the Ministries of Interior, Agriculture and Health, were united. The Länder also created Ministries of Environment.

Since the late 1980's climate change has become a top political priority for German Chancellors. There was considerable horizontal cooperation between different ministries and vertical cooperation between different levels of government (Wurzel, 2008). An interministerial working group on CO<sub>2</sub> reduction was set up to draft and implement the ambitious climate change program, which was adopted in 2000 (BMU, 2000).

The intention of the Ecological Tax Reform was to stimulate the development and the market launch of new technologies as well as to foster the efficient and economical use of energy through a gradual increase of energy prices (Nationales Klimaschutzpro-

gramm, 2000) The last step of the reform got effective 2003. In this step the tax on fossil fuels and combustibles was raised as well as the tax for electricity. The reform is considered positive as a national governance instrument.

The Renewable Energy Law fosters the electricity production out of renewable energies with purchase guarantees (purchase obligations for power network operators).

With the reform of federalism the competences of the federation within environmental legislation have been enlarged. Therefore, the federation has competing legislation in the field of environmental law. This new regulation also permits the creation of a comprehensive environmental code (Umweltgesetzbuch, UGB). However, due to political differences the creation of such a code failed in the first attempt and only parts of it were enacted as single laws. In this way the requirements of water- and nature conservation law have been united on federal level (Umweltbericht, 2010).

### **6.2.1 Federal Policies**

In Germany's environmental policy regulative instruments have always been considered essential when it comes to the prevention of environmental disturbances. However, this kind of instrument often causes defense reactions or, a typical problem within federal states, is executed insufficiently (Benz, 2001). Other instruments used by the German Federation are market-based instruments for the internalization of environmental costs (e.g. emission-trading), cooperative instruments (e.g. arrangements between Federation and economy) and informational instruments (e.g. CO<sub>2</sub>-labelling of cars). The central political actor on the federal level has been the federal ministry for the environment protection, nature conservation and nuclear safety (Bundesministerium für Umwelt, Naturschutz und Reaktorsicherheit, BMU), which was founded in the year 1986. They work closely with the ministry of finance and the ministry of economy on Germany's climate policy (BMU, 2000).

The main instruments of Germany's federal climate policy are the

- Ecological Tax Reform (Ökologische Steuerreform),
- National Climate Protection Program (Nationales Klimaschutzprogramm) and the
- Integrated Energy and Climate Program (Integriertes Energie- und Klimaprogramm) (BMU, 2000; BMU, 2007).

The aim of the Ecological Tax Reform is to foster the development and market introduction of new technologies by a stepwise rise of energy prices and by doing so reduce CO<sub>2</sub>-emissions. In 1999 the first Eco-tax was introduced with the idea to use these revenues to finance a reduction of the payroll taxes (Reimers, 2001).

The federation's main attempt to coordinate and facilitate Germany's climate policy has been the National Climate Protection Program. The National Climate Protection Program was established in order to achieve the targets for the Kyoto-period. To continue with the successful developments in climate protection and to improve the collaboration and coordination between federation and Länder the German government had already enacted the successor of the program, the Integrated Energy and Climate Program (IEKP) in the year 2007. This program includes a bundle of measures, as in the previous program and aims at achieving the new targets for the year 2020 (BMU, 2007) and is also addressed in chapter 6.3.

The German Energy Concept supports the program with the goal being the reduction of GHG emissions by 80 to 95% compared to 1990. This will be achieved by increasing the share of renewable energy to 60% (Biedermann, 2011).

### **6.2.2 Länder Policies**

The Länder had already taken up the question of climate protection before a federal climate protection policy had been established. The federation tried to support the Länder through an R&D program, which should help in developing their specific climate protection programs (BMU, 2000).

Although the Länder have very few direct legislative competencies regarding climate policy compared to the federation, they possess several options to act for climate protection (Energiestiftung, 2001). As already shown above the German Länder are

- involved in federal environmental issues through the Federal Council (Bundesrat) (see chapter 6.1.2)
- enforcing authorities for environmental laws (e.g. industrial waste, habitat protection, water quality) and
- able to issue their own environment legislation to a limited extent (Schleicher-Tappeser et al., 2004).
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The Länder hold few competencies in legislation, however, the federation allows them certain possibilities, for example enacting energy saving regulations. The most important competences lie mainly in the field of administration, e.g. in the allocation of financial promotion (Energienstiftung, 2001). In spite of that several Länder refrain from setting their own climate protection targets, arguing that their competences are too meager and depend too much on federal and EU-legislation (e.g. Saarland).

An important precondition for a successful climate policy is the definition of targets. The targets of most of the Länder differ from the ones of the federation, e.g. most of the Länder targets are confined to the reduction of CO<sub>2</sub> emissions (Biedermann, 2011).

The main actors in climate policy in the Länder are the Länder Environment Ministries (Landesumweltministerium) with their heads (ministers). Together with the respective federal minister they form the Conference of Environmental Ministers of Federation and Länder (Umweltministerkonferenz des Bundes und der Länder) which is the second most important institution concerning coordination and cooperation of federation and Länder after the Federal Council (see chapter 6.3.1). Other important institutions include the Standing Committee of Department Directors (Ständiger Abteilungsliterausschuss Bund-Länder für Umweltfragen) and the working groups between the Länder (Länderarbeitsgemeinschaften) concerning water, pollution control, nature conservation, waste, nuclear energy and chemical safety (Schleicher-Tappeser et al., 2004).

The climate protection targets differ among the Länder. This is not only due to the will of those in charge but also to geographical, economical and other circumstances (Biedermann, 2011). Most of the Länder have climate protection concepts (e.g. Baden-Württemberg, Bayern, Thüringen) and programs (e.g. Bremen, Sachsen) or energy strategies which naturally includes a reduction of CO<sub>2</sub> (e.g. Brandenburg, Sachsen-Anhalt, Nordrhein- Westfalen). Although the targets sometimes differ from those of the federation, climate policy in the Länder is orientated towards the federation's (Bayrisches Landesamt für Umwelt, 2011).

## **6.3 Vertical Coordination of Germany's Climate Policy**

### **6.3.1 Conference of Environment Ministers**

The Conferences of Ministers is a central instrument of vertical coordination in Germany's policy. The Conferences are assemblies of the Ministers of Federation and Länder of nearly every political field in Germany. The Conference of Environment Ministers (Umweltministerkonferenz, UMK) is one of these. The first Conference of Environment Ministers – then only of the Länder – was established in 1972 and has held its current makeup since 1998. The Conference serves as a panel for professional and political exchange of opinion of the heads of the federal and Länder departments. This is intended to foster consistent enforcement (Vollzug) in the Länder. Thus the UMK is an important panel for discussing current political questions and for setting the course in future environmental policy. The Länder chair the UMK. The conference serves mainly as a coordination instrument of the Länder among themselves. In the UMK the Länder harmonize their course of action, take a stance (Position beziehen) to the Federation and search for mutual solutions with the Federal Government. The decisions of the UMK have no legal effect, but show the common political will of the Länder. Each conference of the ministers is prepared with regards to the content by a conference of the state secretaries and is organized by one of the 16 Länder in alphabetic order twice a year. The Standing Committee of Department Directors (Ständiger Abteilungsleiterausschuss Bund-Länder für Umweltfragen) prepares the work of the UMK and therefore pre-shapes the content (UMK, 2011). With the involvement of the UMK the federation has tried to increase the motivation of the Länder to implement and enforce the suggested measures of the climate program. Despite this goal the enforced effort of the Länder in implementing the suggested measures is emphasized several times in the program (BMU, 2000).

### **6.3.2 National Climate Protection Program 2000 – Related Governance**

#### **Approaches and Policies**

The National Climate Protection Program has been Germany's central instrument of climate policy and governance.

The task of the program has been to coordinate existing measures of the Federation,

the Länder and the communities and to introduce new measures necessary to reach the targets. Two main goals were quoted: A reduction of 25 % of CO<sub>2</sub>-emissions by 2005 compared to 1990 and a reduction of the six Kyoto-Protocol GHG emissions of 21% during the period of 2008 to 2012. With the measures in place at the time a CO<sub>2</sub>-emission reduction of 18 – 20 % (i.e. 180 to 200 million tons CO<sub>2</sub>) was anticipated by 2005, which made it necessary to take further measures. The program included 64 measures for the sectors domestic home, transport, industry, energy industry, renewable energies as well as agriculture and waste management. The major part of the program, aside from the Ecological Tax Reform, is done through regulative measures, i.d. the creation of laws or amendments (BMU, 2000).

The kick-off for the development and implementation of the federal program took place in in January 1990, when the Federal Chancellery (Bundeskanzleramt) commissioned the Ministry for Environment, Nature Protection and Nuclear Safety (BMU) to present recommendations of targets and measures for the abatement of the global, anthropogenic caused greenhouse effect. In June 1990 the BMU presented first suggestions, which predetermined later targets and structures. With the first cabinet decision for the national climate protection policy the till today valid advisory infrastructure was predefined. Under the control of the BMU the Interministerial Working Group "CO<sub>2</sub>-Reduction"(IMA) was established in 1990. (BMU, 2000).

The Interministerial Working Group for CO<sub>2</sub>-Reduction's task (Interministerielle Arbeitsgruppe "CO<sub>2</sub>-Reduktion, IMA) has been to create guidelines for climate protection policies, by identifying the need for action, pointing out reduction potentials and presenting comprehensive measures for the reduction of GHG-emissions to the Federal Government. The results of the commission of inquiry "Precaution for the Prevention of the Earth Atmosphere" were also integrated into this working group. The Working Group reported to the Federal Government in 1990, 1991, 1994, 1997, 2000 and 2005 and is continuing its work. Today it consists of seven working teams (Arbeitsgruppen): "Energy Supply", "Transport", "Building Section", "New Technologies", "Agriculture and Forestry", "Emission Inventory" (Emissionsinventare) and JI/CDM, chaired by the corresponding ministries. The IMA is a cross-departmental committee, in which all questions of climate protection policy are treated and harmonized (BMU, 2005). Additionally, the National Climate Protection Program agreed on regular monitoring. Based on existing reporting commitments the IMA reports on the realization of the climate protection tar-

gets once a year to the Federal Government (Umweltpolitik, 2006). The creation of the National Climate Protection Program was coordinated with the Conference of Environmental Ministers (Umweltministerkonferenz, UMK).

One paragraph of the program was dedicated to the insufficient implementation and enforcement of measures through the Länder, with an aim to implement measures to mitigate the problem<sup>19</sup>. A further paragraph concerning measures of CO<sub>2</sub>-reduction for domestic homes necessitates the improved coordination of activities among the different actors, federation, Länder, communities and economy, which in turn enables them to exploit existing CO<sub>2</sub>-reduction potentials<sup>20</sup> (BMU, 2000).

The collaboratively elaborated and suggested measures were the

- extension of cogeneration of heat and power
- the passage of the Energy Saving Ordinance (Energieeinsparverordnung, EnEV)
- a support program for the reduction of CO<sub>2</sub>-emissions of buildings
- a declaration for climate protection of the German Economy
- a bundle of measures for the transport and mobility sector
- a commitment of the Federal Government to reduce GHG in its own sector and
- measures concerning GHG other than CO<sub>2</sub> (BMU, 2000).

These measures were to be implemented and enforced by new laws and amendments of existing laws, most importantly by the Renewable Energy Law (Erneuerbare-Energien-Gesetz, EEG), the EnEV, the KWKG. In order to implement and enforce certain laws the federation needs the Länder. Thus they are presented in the following.

The IMA pointed in the program towards the huge potential for GHG reduction within the building sector. A bundle of measures was considered necessary to exploit this potential. Within the National Climate Protection Program 2000 the federal government promised to start a new promotion program according to the Grundgesetz's defined division of competences. Within the program the Länder were asked to create comple-

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<sup>19</sup> "Nach wie vor ist gerade der Vollzug unzureichend. Die Bundesregierung fordert die hierfür zuständigen Länder erneut auf, die notwendigen Maßnahmen für einen deutlich verbesserten Vollzug zu ergreifen. Dabei weist sie nachdrücklich darauf hin, dass durch das Energieeinsparungsgesetz Möglichkeiten eröffnet werden, die Überwachung der Vorschriften ganz oder teilweise auf geeignete Stellen, Fachvereinigungen oder Sachverständige zu übertragen. Hierbei sollen auch Wettbewerbsgesichtspunkte zum Tragen kommen" (Nationales Klimaschutzprogramm 2000, p. 43).

<sup>20</sup> "Die Bundesregierung hält eine stärkere Abstimmung der Aktivitäten der verschiedenen Akteure (Bund, Länder, Gemeinden, Wirtschaft) für sinnvoll, um die in den privaten Haushalten vorhandenen erheblichen CO<sub>2</sub>-Minderungspotentiale verstärkt auszuschöpfen" (Nationales Klimaschutzprogramm 2000).

mentary measures, especially in an economic sense. The target was to reduce the CO<sub>2</sub>-emissions in this sector by five to seven million tons, making financial measures of about two billion Euro per anno necessary. To mobilize these investments the federal government provided 400 million Euros per year until 2005. The program was started in 2001, simplified in 2006 and updated in the following years. The central and regulative part of the program was the new Energy Saving Ordinance (BMU, 2000).

The Energy Saving Ordinance (EnEV<sup>21</sup>) is an important component of the energy- and climate protection policy of the federal government. The responsibility lies within the Federal Ministry for Transport, Construction and Urban Development (Bundesministerium für Verkehr, Bau und Stadtentwicklung, BMVBS) with the assistance of the Federal Institute for Research on Building, Urban Affairs and Spatial Development (Bundesinstitut für Bau, Stadt- und Raumforschung, BBSR) (BMU, 2005).

Its basis is the Energy Saving Law of 1976 (Energieeinsparungsgesetz, EnEG)<sup>22</sup>. The EnEV was enacted on February 1<sup>st</sup>, 2002 and combined the effective Heat Insulation and Heating System Ordinance (Wärmeschutz- und Heizungsanlagenverordnung) in effect at the time. In terms of a holistic strategy, new technical regulations for new buildings as well as new standards for construction products were introduced (BMU, 2005). With the amendment in 2007, the Energy Performance of Buildings Directive (Directive 2002/91/EG) of the EU has been realized. Its most noticeable innovation was the introduction of the Energy Pass.

The EnEV defines energetic requirements for new and existing buildings, for example changing old heating systems and upgrading the roof's insulation (EnEV, 2009). Complementary to the EnEV a prescription including the content and the design of the Energy and Heating Demand Pass was enacted (Allgemeine Verwaltungsvorschrift zu § 13 EnEV). Over the years rising financial measures and fiscal relief extended the program. For the period from 2006 to 2009 financial means of 5,6 billion Euro were provided and for the period of 2010 till 2014 1,5 billion Euro per anno have been provided by the federation (BMU,2005).

The Länder are responsible for the implementation of EnEV, an implementation, which was not successful in the case of the ancestor ordinances (BMU, 2000).

The Länder have the competence to enact their own regulations in regards to the re-

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<sup>21</sup> Full title: Verordnung über energiesparenden Wärmeschutz und energiesparende Anlagentechnik bei Gebäuden

<sup>22</sup> The EnEG was enacted after the first oil crisis with the goal of reducing the import dependency for crude oil.

alization and monitoring of its requirements (BMU, 2005). However, there is no obligation to establish such regulations what does not affect the validity though. For example, according to the Länder, the rules for implementation vary in depth and content:

- the competence for exceptions and waiver (Befreiung)
- the preparation of verifications and Energy Passes
- the monitoring of up-grading and other requirements
- proceedings and competences in case of regulatory offences (Ordnungswidrigkeiten)
- the use of building products and facilities (BBSR, s.a.)

The preconditions of a successful program appear to be provided by the federation in terms of their regulative and financial instruments. However, on the one hand the Länder needed to implement and enforce the regulative instrument, i.e. the EnEV, and on the other to supplement the financial means. Not all of the Länder have effectively implemented and enforced the EnEV. *“One of the most important domestic energy sources is energy saving”* as stated by the German WWF (2011) and further *“(...) and also in the enforcement of EnEV the Länder have to do their homework”* (WWF, 2011). Meanwhile each of the Länder has already enacted ordinances (Verordnung) for the implementation and enforcement of the EnEV. However, an inquiry done by a German environmental aid association (Deutsche Umwelthilfe, 2010) showed a non-implementation or at least an incomplete implementation of diverse climate protection laws including the EnEV. A controlling by the federation is missing almost completely. The inquiry even showed a lack of interest in implementing and enforcing the EnEV. (Deutsche Umwelthilfe, 2010).

In the course of the residential building law’s reform, the measures of the buildings stock and new buildings have been re-weighted. The housing support law (Wohnraumförderungsgesetz, WoFG) enacted in 2002 supports the modernization of existing buildings. This was to improve the efficiency and accuracy of the measures of the promotion for domestic building. Supported by other measures like concepts of housing space supply and cooperation agreements aimed at enabling the Länder to introduce appropriate promotion measures (BMU, 2005).

During the period of the Climate Protection Program, in the year 2002, a new cogene-

ration law was enacted. The target is to increase the share of cogeneration in electricity generation. The success of the law is dependent upon the implementation and enforcement as well as controlling of the Länder and was amended several times in the following years.

The second field of Länder-competency has been public short distance traffic (Öffentlicher Personennahverkehr, ÖPNV)<sup>23</sup>. The transport and mobility sector is the field with the second highest potential of CO<sub>2</sub>-emission reduction, behind the domestic building sector (BMU, 2000). An important aspect of this sector that has a large influence upon the Länder is public short-distance traffic. According to the climate protection program of 2000 an *“intensified utilization of public short-distance traffic is, in spite of the financial competences of the Länder, for the federal government a target of special importance to reduce the emissions of road traffic”*<sup>24</sup>. Thus the federation has granted the Länder financial aid to improve the traffic situation of the communities according to the Community Traffic Financing Law (Gemeindeverkehrsfinanzierungsgesetz, GVFG<sup>25</sup>) and has financed respective research projects. Each Land does not receive the same level of funding since different local conditions are considered. With the federalism reform the regulations of the GVFG have been modified, however, most parts of the law remain unchanged (defined in the Disentanglement Law (Entflechtungsgesetz, 2006)). Additionally the Länder were granted financial aid by the Regionalization Law (Regionalisierungsgesetz, RegG<sup>26</sup>), which must be used for the ÖPNV. The law defines the securing of a sufficient service for the population with transport services within public short-distance traffic as a task of the public services. The financial means of the RegG have been provided by petroleum taxes. With the support of the federation the vicious circle of rising prices and falling passenger numbers should be broken.

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<sup>23</sup> In the sense of the RegG public short-distance traffic is defined as “the public transport of people with means of transport with line traffic dedicated to satisfy transport demand in urban-, suburban and regional traffic” (RegG, 1993).

<sup>24</sup> „Eine stärkere Nutzung des öffentlichen Personennahverkehrs ist trotz der Aufgaben- und Finanzverantwortung der Länder ein besonders wichtiges Ziel der Bundesregierung, um die Emissionen des Straßenverkehrs zu reduzieren“ (Nationales Klimaschutzprogramm 2000).

<sup>25</sup> Full title: Gesetz über Finanzhilfen des Bundes zur Verbesserung der Verkehrsverhältnisse der Gemeinden

<sup>26</sup> Full title: Gesetz zur Regionalisierung des öffentlichen Personennahverkehrs-Regionalisierungsgesetz

### **6.3.3 National Climate Protection Program 2005 – Related Governance Approaches and Policies**

In July 2005 the Climate Protection Program was updated based on an analysis of the programs effectiveness in 2000 and the sixth report of the IMA "CO<sub>2</sub>-Reduction". Leading research institutes as well as the International Energy Agency and the European Environmental Agency confirmed that Germany was on a good path to achieving Kyoto-targets. However, during the first program period it became clear that achieving the high 25% target was not realistic and so Germany reduced its targets to those set by the EU, a 21 % reduction of the six Kyoto-GHGs in the period 2008 – 2012. Further targets within the program were a new agreement between the Federal Government and the German economy and energy industry (reduction of 45 m tons CO<sub>2</sub> by 2010 compared to 1998), further support of cogeneration (20 m tons till 2010) and the rise of renewable energies in the share of electricity supply (12.5 % till 2010) (BMU, 2005).

In an interim result (Zwischenbilanz) Germany revealed its satisfaction with the developments that had taken place since the early 1990s. Primary energy consumption was reduced as well as the consumption per capita and energy efficiency could be raised. Nonetheless the new program emphasized the need for further efforts in order to reach Germany's goals (BMU, 2005).

The adopted program focused on the transport sector and the domestic homes sector, while the sectors of industry and energy production were mainly covered by the new emission trading system. The reduction potential of the trade, commerce and services sector was considered low (BMU, 2005).

In order to increase the energy efficiency of buildings the federal government focused on

- the optimization of the legislative framing (revision of EnEV)
- financial support for energy saving measures and
- measures of information and advice in order to influence the behavior of consumers (BMU, 2005).

In the years prior to the implementation of the Climate Protection Program 2000 the transport showed a negative trend of energy consumption due to the increase of the transport service. Predictions revealed a probable further rise in transport performance

with increasing emissions. A bundle of measures were implemented to work against this trend. These measures included the emission related car tax, a promotion of fuel-efficient cars, the Ecological Tax Reform (e.g. raise of fossil-fuel taxes), a road tax for heavy trucks, promotion of sulfuric-free fuels, integrated traffic planning and measures in air transportation. The analyses made in 2005 on the course of the program already showed a more pleasing picture (BMU, 2005).

Starting in 1999 the transport sector showed a reverse trend of emissions, which was assigned to the Ecological Tax Reform, lower specific fuel consumption and more diesel cars. The intended road tax for heavy trucks, already in place in the previous program – planned for 2003 – was finally implemented in January 2005. The importance of environmentally sound means of transportation was strengthened in the Federal Traffic Infrastructure Plan 2003 and the Building Law Code 2004 especially concerning public short-distance traffic and non-motorized traffic. Further measures that were already in place include the support of rail traffic and the agreement with the German car industry (BMU, 2005).

Interestingly, in the adapted program of 2005 the topic of public short-distance traffic that is coordinated or even supported on the federal level is not mentioned any further. Within the program other measures like bio-fuels or the introduction of an emission depending car toll have been considered more important and promising on the federal level (BMU, 2005). This may be due to the overall falling emission trends, returned on measures like voluntary commitments of the car industry and emission norms. Although the falling emissions were neutralized by rising traffic volume, the adapted program only mentioned measures like more efficient engines, innovative drive systems (Antriebstechnologie) as well as alternative and improved fuels as a means of reducing CO<sub>2</sub>-emissions. Nearly each of the Länder has concepts for ÖPNV or traffic concepts as such within their climate protection programs but without coordination at the federal level. New or improved strategies concerning ÖPNV at the federal level were not discussed in any further detail in the climate protection strategy of 2005, the same accounts for the IEKP<sup>27</sup> (BMU, 2005; IEKP, 2007).

Again, in the adopted program of 2005, the authors emphasize the relevance of the collaboration of the main actors in climate policy like economy, Länder and communi-

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<sup>27</sup> Integrated Energy and Climate Program, Integriertes Energie- und Klimaprogramm

ties, pointing out the importance of consequential implementation and enforcement of federal measures at the Länder level (BMU, 2005).

#### **6.3.4 Integrated Energy and Climate Program**

Unlike several other countries, in the last years, in Germany there has not been an ample discussion about introducing a law for climate protection. On the contrary, the success of the climate protection program has led to a new, more comprehensive program, the Integrated Energy and Climate Program (Integriertes Energie- und Klimaschutzprogramm, IEKP). The IEKP was enacted in August 2007 and includes a bundle of 14 laws and ordinances. The targets look are set for the year 2020. These targets are a reduction of the German GHG-emissions by 40 % compared to 1990, the enhancement of the share of renewable energies in electricity production to at least 30 %, a share of 14 % of renewable energies in space heating and the extension of bio-fuels without the endangering of the ecosystem and nutrition security. Furthermore and within the sustainability strategy a target is to double energy productivity. These targets shall be achieved by measures like more efficient power plants, intelligent electric meter, more green power, more heat out of renewable energies, the extension of the electricity network, more biogas and more bio fuels. Again a special focus is laid on the field of energy efficiency in domestic buildings. For the improvement of energy efficiency the energetic requirements for buildings have been raised by 30 % on average starting in 2009. This was done by amendments of the Energy Saving Law and the Energy Saving Ordinance. Additionally the unsatisfying implementation and enforcement in this field shall be improved upon by the introduction of private certification obligations (private Nachweispflicht) (e.g. Specialized Company Statement, Fachunternehmererklärung<sup>28</sup>) and the inclusion of chimneysweepers. A further part of the IEKP is the promotion of old buildings renovation (IEKP, 2007).

A new important law within the legislative bundle of the IEKP is the Renewable-Energy-Heating-Law (Erneuerbare-Energien-Wärmegezet, EEWärmeG). The law shall foster the expansion of renewable energies in the field of space heating and cooling and was enacted in 2009. According to the law new buildings are obliged to use renewable energies (Wustlich, 2008). Similar to the EnEV, the success of the law depends upon the

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<sup>28</sup> The "Fachunternehmererklärung" is a document in which a company declares its specialist competency. With the document the entrepreneur shows his qualification of building activity.

implementation and enforcement of the Länder (klima-media, 2010). According to the program, implementation and enforcement is to be improved upon by a mandatory private verification (e.g. Fachunternehmerbescheinigung) (IEKP, 2007). According to the “Experience Report of the BLAG KliNa about Implementation and Enforcement of the Measures of the IEKP” (Erfahrungsbericht der BLAG KliNA an die UMK über die Umsetzung der Maßnahmen des Integrierten Energie- und Klimaprogramms der Bundesregierung) the bundle of measures of the IEKP is considered a success by the Länder and are met with general approval. According to the Länder, the report concentrates on crucial points of the IEKP, namely the amendment of the KWKG and the EEG as well as the introduction of EEWärmeG and the promotion of electromobility. In the case of the KWKG the Länder are basically supporting the federation’s target, but are skeptic about its achievements under existing measures. However, there is no vote for certain new instruments. Most of the Länder aim at an expansion of KWK, but only a few have quoted quantitative targets, which are mainly in accordance with the targets of the federation. The amendment of the EEG is also generally viewed in a positive light. The most important problem here is conflicts with landscape conservation, nature protection and monument protection. Thus the Länder demand an adaption of legislative basics in the sense of a balance of interest. Guiding lines provided by the federation are considered very helpful. In the case of the EEWärmeG, the basic problem is the unclarity of the responsibility of implementation and enforcement, as the law affects climate protection, energy saving law and building law. Germany has decided within the IEKP to become the leading market for electromobility. Thus a national development plan has been developed and a national board for electromobility has been installed. It is necessary to coordinate several Länder projects. The federation provides financial support, especially for R&D. With this effort the original goal of creating a more effective and less CO2 emitting ÖPNV is revived from the National Climate Program 2000 (see chapter 6.3.2) (BLAG KliNa, 2010).

### **6.3.5 Working Group “Climate, Energy, Mobility – Sustainability”**

The new institution called the Federation/Länder working group “Climate, Energy, Mobility-Sustainability (Bund/Länder-Arbeitsgemeinschaft “Klima, Energie, Mobilität-Nachhaltigkeit”, BLAG KliNa) supports the achievement of the IEKP targets<sup>29</sup>. The working group was established in 2008 by a decision of the Conference of Environmental Ministers (Umweltministerkonferenz, UMK; see chapter 6.3.1). Their task is to work on mandates of the UMK and to accompany the implementation and enforcement of national and European measures for an integrated climate protection and energy policy. The chair changes every two years from Land to Land in alphabetic order. The members are department directors from the highest environment and climate protection authorities in the 16 Länder as well as the federation, represented by the BMU (BLAG KliNa, 2011).

The BLAG KliNa has implemented two committees, "Environment Information Systems" (UIS) and "Adaption to the Impacts of Climate Change" (AFK) and two working groups "Indicators of Sustainability" and "Enforcement of the Renewable-Energy-Heat-Law" (Erneuerbaren-Energie-Wärme-Gesetz, EEWärmeG). The latter's task is to coordinate the federation's implementation and enforcement of the EEWärmeG. Their work is technically agreed upon with the Conference of Housing and Urban Development Ministers. The decisions of the working group are legally non-binding commitments. Additionally the group is working on several working orders like measures to achieve the cogeneration target of the Federal Government and the development of a catalogue for sustainability indicators. At the 71<sup>st</sup> Conference the BLAG KliNa was mandated to create an experience report about how IEKP implements and enforces the measures (BLAG KliNa, 2011).

## **6.4 Summary**

Germany is the fourth largest economy in the world. There is not enough space in this paper to describe the political ambitions of the German government over the past decades. Germany wants to be one of the leading nations in global political action. The same accounts for environmental policy and especially for climate protection policy, as a glob-

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<sup>29</sup> There are several other working groups like for instance the one for imission control, for water, for waste or soil protection.

al approach is necessary to avoid sustainable damages. The efforts on the international level demand exemplary development within the country and – considering the success in the decrease of CO<sub>2</sub>-emissions – this seems to have been achieved. In spite of high requirements Germany will be able to fulfill and even outdo the targets of the Kyoto-Protocol. This success can partially be attributed to the reorganization of the “old” countries since the 90’s, recently to some extent to the economic crisis. However, climate protection policy in Germany is considered successful. As shown above, Germany uses mainly regulative instruments to secure progress in in the reduction of CO<sub>2</sub>-emissions. Emphasizing the ecological tax reform or, in the sector of domestic building, the EnEV are examples of key regulative instruments currently in use for this purpose. Germany is a federal state – albeit a unitaristic federal state – and therefore requires that the Länder implement and enforce the laws and ordinances. The Länder are represented on the federal level by the Federal Council, which holds considerable influence in legislation but has lost its power over the years, recently with the federalism reform. In return the Länder have gained more influence on legislation within their own spheres as well as in certain fields of legislation (e.g. education). On the contrary, in the field of environmental policy – and therefore climate protection policy – the federation achieved more influence, which points to difficulties in implementation and enforcement in the past. Recurring statements in diverse reports, demanding a better coordination and collaboration between federation and Länder confirm these difficulties. . However, to point to the Länder and list their misconducts is too easy – the federation itself is obligated to control the achievements of the Länder and take further action. Since it seems that this cannot be easily done, the federation has attempted to gain more influence in fields where a nationwide approach can promise more success.

The second method of the federation to motivate the Länder in fulfilling their tasks within climate protection policy is the use of financial instruments. Not being that dependent in a financial sense like the Austrian Länder (catchword “appropriation”), the German Länder must be motivated in a positive sense.

Beside the Federal Council the most important institution is the Conference of Environmental Ministers. Within this conference the Länder are able to represent their opinion and take influence before decisions are made, as they did during the development of the climate protection program.

Just as in Switzerland and Austria, legislative competences of the Länder are restricted

to the sector of domestic building and spatial planning. Germany has started a special program for future tasks within the domestic building sector. To secure a nationwide effort Germany amended the EnEG and the EnEV numerous times, which provided a cross-national standard for energy efficiency in new buildings. Additionally the federation has supported the program – defined then by each of the Länder itself – with financial means, administrated by a federal financial institution (KfW).

The second important field of Länder competences is traditionally in the transport and mobility sector. Nationwide tasks are taken on pragmatically, for instance the efforts of bringing freight traffic onto railroads. Public short-distance traffic is an important field within the Länder sphere of power. This topic was only mentioned in the first climate program as an important part of climate policy, there were not mentioned any concrete concepts in further programs. However, the federation has again taken action with the first program through regulative and financial instruments. The GVFG and RegG was created and adapted to define appropriated financial aid of the federation for the Länder and to secure sufficient services. Since then the Länder have each developed their own strategies to foster public short-distance traffic, more or less successfully and without the control of the federation. Additionally the appropriation of the federal subsidies will be canceled starting in 2014.

The German federation works in a very target-oriented and effective way. In their strategies concerning climate and environment protection not much attention is given to voluntary measures and the autonomous work of the Länder. To the contrary, the trend – especially in environmental and thus climate protection policy – is moving towards federally controlled measures. The basis has always been regulative instruments supported by financial instruments. There is not much leeway left for Länder to use regarding legislation. If the Länder want to exert their authority they have to do it mainly through the Federal Council in the legislative process and the Conference of Environmental Ministers in the phase of preparation of laws and strategies. However, this strategy seems to work. Although it is not perfect it has proven satisfactory in that Germany has moved forward in its achievements in the field of climate protection. A further reason for this success may be seen in the political pressure the federation executes on the Länder.

## 7. Switzerland

The Swiss Confederation or Switzerland has existed as a loose confederation since the 13<sup>th</sup> century. Today Switzerland is a federal state based on the Federal Constitution of 1848. The Federation consists of 26 states, called Kantons, with the Kanton Jura joining only in 1979. According to international law (Völkerrecht) Switzerland is neutral (HLS, 2011).

Switzerland accommodates 7.8 million inhabitants on an area of 41,285 square kilometers and is thus one of the most densely populated countries of Europe. Switzerland understands itself as a "Nation of Will" (Willensnation) which means the national identity is not based upon a common language or culture, but on common myth, on its liberal, federal tradition and on being a small state on its own.

Switzerland is one of the richest countries in the world. According to the GDP it ranked 20<sup>th</sup> in 2007, with the GDP per capita at place four. The Global Competitiveness Report<sup>30</sup> even ranks the small state at number one (HLS, 2011).

Switzerland is neither a member of the EU nor of the EEA, but there exist several important bilateral treaties between EU and Switzerland. Switzerland has also ratified the Kyoto-Protocol.

### 7.1 The Federal Political System of Switzerland

The political system of Switzerland is based upon the democratic, the republican and constitutional (rechtsstaatlich) principle. Switzerland has developed its very own governmental system. Its peculiarities are a national two-chamber parliament, a special kind of federal government – the Federal Council (Bundesrat) –, an extensive form of federalism and a pronounced degree of direct democracy (HLS, 2011).

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<sup>30</sup> The report "assesses the ability of countries to provide high levels of prosperity to their citizens. This in turn depends on how productively a country uses available resources. Therefore, the Global Competitiveness Index measures the set of institutions, policies and factors that set the sustainable current and medium-term levels of economic prosperity" (Global Competitiveness Network, 2009).

### 7.1.1 Federalism in Switzerland

*"Switzerland is acquainted to and performs the oldest, the strongest developed and also the most complicated federalism in Europe. Several things it has copied from the USA, but Switzerland went beyond the United States for instance with the separation of the financial competences between the federal elements and the hence arising consequences"* (Neidhart, 2001).

Switzerland is the oldest democratic federal state in Europe and therefore has a distinctive federal tradition demonstrated in the vertical fragmentation of power and a high level of institutional pluralism (Obinger, 2002). Switzerland has existed as a loose confederation since the 13<sup>th</sup> century. The country was established in its current form with the federal constitution of 1848, with the 1874 version providing for the fundamental framework of the Swiss federal state. During its history the Swiss state resisted several attempts to develop a more unitaristic constitution and state (Kriesi and Trechsel, 2008). Although the basic federal structure has remained the same since 1874, there were numerous shifts of competences between the Federal Government and the Kantons, which were always accompanied by hard political struggles of proponents and opponents of centralization. *"Swiss federalism has always been "anti-centralism", considering the federal government if not an enemy, then at least a necessary evil which one had to live with but not give in to"* (Lüthy, 1971). The struggle for the distribution of competences brought 140 partial revisions of the constitution of 1874, allowing central aspects of the original constitution to fade, which in turn generated a demand for a new constitution in the 1960s. The new constitution of 1999 brought the old text formally up to date with only a few substantive changes (Kriesi and Trechsel, 2008). The peculiarity of the Swiss federalism is especially evident in the power of the Kantons to tax, which shows the continuing weakness of the Federal Government. The state only gets a third of the revenue without a significant change since 1950 (Federal Ministry of Finance, 2004).

The Swiss Confederation consists of 26 Kantons (also Stände), each possessing a large degree of autonomy of the federal state and each with its own political system. The exceptionally strong federal character can be seen through special elements of direct democracy (referendums and initiatives with direct influence on governmental action), the remaining residual powers with the Kantons (competences stay with the Kantons as long as they are not explicitly delegated to the government), a strong participation in the

political decision-making process (Vernehmlassung, Ständerat, Ständemehr) and the consociational democracy (Konkordanzdemokratie). The reason for this confederal understanding of the nation can be seen in the origin, development and composition of Switzerland which is often named "Nation of Will" (Willensnation) as the nation is not based upon linguistic, cultural or confessional unity. The same way Switzerland has developed its own political system, it also has created its own terminology (Kriesi and Trechsel, 2008).

The Swiss Constitution in its current form is based upon the constitution of 1848 with which Switzerland was united to a federal state (before it was a loose confederation). The constitution is the superior legislative act, all federal ordinances and promulgations (Erläss) as well as all Kantonal and municipal constitutions, laws, ordinances and promulgations are subject to it and may not disagree with it.

The Swiss Constitution is separated into the preamble and six titles. The preamble establishes the relation to god ("In the Name of God the Almighty"), title 1 comprehends general regulations and title 2 describes the basic rights. Title 3 is dedicated to the division of competences between the federation, the Kantons and the communities. This title states that *"The Kantons are sovereign, as long as their sovereignty is not restricted by the Federal Constitution; they execute every right not alienated to the Federation"*<sup>31</sup>. The exhaustive list of competences given to the federation are important to note. Each federal promulgation is based on such a competency. If the federation has no explicit competency in a field, the competency lies with the Kantons and the federation has no right to act legislative. The list of federal competences has grown steadily in recent years and is still changed frequently by federal institutions with an obligatory referendum or Initiative of Population (Volksinitiative). The remaining competences of the Kantons are the Kantonal constitutional law, the relation church – state, the organization of justice, police, education, public health, welfare aid, monument conservation, hotel and restaurant industry, shopping hours, penal system and – of certain importance for climate protection policy – regional planning (partly), building trade and regional infrastructure (public short-distance traffic). Frequently the competences are parted, meaning that the Federation provides the framing regulations and the Kantons are in charge of the exact definition (Das Schweizer Parlament, 2011).

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<sup>31</sup> "Die Kantone sind souverän, soweit ihre Souveränität nicht durch die Bundesverfassung beschränkt ist; sie üben alle Rechte aus, die nicht dem Bund übertragen sind." (Art. 3, Bundesverfassung)

Title 4 regulates the political rights of the population and Kantons, especially those under direct democracy (Initiative and Referendum). Title 5 defines the organization and competences of the federal authorities, i.e. the Federal Convention (Bundesversammlung – legislative), the Federal Council (Bundesrat) and Federal Administration (Bundesverwaltung), as well as the Federal Court (Bundesgericht - judiciary) (Das Schweizer Parlament, 2011).

### **7.1.2 Legislation**

The legislative authority on the federal level is the Federal Parliament (Bundesversammlung) and the one on Kantonal level is the parliaments of the Kantons (mostly named "Kantonsrat"). The federal legislative procedure is an impressive display of the strong federal peculiarity of Switzerland.

There are six possibilities of co-determination in federal affairs:

- Consultation (Vernehmlassung): Each affected Kanton is invited to give its statement to a legal draft. This way they can give their input before the law is formulated.
- Parliaments of the Kantons (Ständerat): Every federal promulgation needs the approval of both the Ständerat and the Nationalrat. However, the Ständerat cannot really be considered the representation of the Kantons, as the members have a free mandate (they are independent of their Kantons).
- Majority of Kantons (Ständemehr): Amendments of the constitution need the majority of the people as well as the support of one of the Kantons.
- Lobbying: The Kantonal governments try to influence the federal government and the members of parliament directly.
- Conferences: Members of the Kantonal governments join forces by forming various conferences (e.g. Conference of Kantonal Energy Directors, see chapter 7.3.1) with strong political influence.
- Concordates: Kantons conclude a treaty between themselves and/or with the federation, which obligates the Kantons to cooperate (Lindner, 2009).

The highest legislative authority of the Swiss confederation is the Federal Parliament

(Bundesversammlung). It is subjected to the rights of the people and the Kantons<sup>32</sup>. The Federal Parliament elects the Federal Council, the Federal Chancellor, the Federal Judges and the General. It consists of two equal chambers, the National Assembly (Nationalrat) and the Council of States (Ständerat). The National Assembly forms the representation of people and has 200 members. Each Kanton sends National Councillors (Nationalräte) according to the share of the population, but at least one. The Council of States represents the Kantons with 46 members, made up by two from each Kanton aside from six Kantons (HalbKantone), which delegate only one. However, the name of this chamber – Representation of Kantons – is confusing since they are not legally or actually forced to represent their Kanton (in contrast to e.g. the German Bundesrat) (Lindner, 2009).

The two chambers generally meet separately. In the so-called Differential Settlement Proceeding (Differenzbereinigungsverfahren) different decisions are discussed until a consensus or compromise can be found. The so-called Instruction Prohibition (Instruktionsverbot) demands an independency of the members of both chambers to instructions of their Kantons, their parties or other institutions. However, many National Councillors are dependent upon interest groups (Lindner, 2009).

The main part of work within the parliament is made within committees, outside the plenary chamber (Lindner, 1999; Ochsner, 1987). The majority of Swiss Members of Parliament are unpaid amateur politicians, they do not receive a salary for their parliamentary work, but only compensation for their expenses. There are 12 identical committees in each chamber (10 legislative committees and 2 control committees). Additionally there are several special committees. The parliamentary administration is a weak point of the Federal Assembly. There are only 0.6 collaborators per MP compared to a rate of 3.5 in the OECD-countries resulting in a lack of time, information and professional competence of the Federal Assembly and is therefore consistently disadvantaged compared to the government and federal administration. These circumstances make the parliament more open to the influence of interest associations and private interests as well as for business lobbying (Kriesi and Trechsel, 2008). The Federal Parliament has four main functions. It elects the seven members of the Federal Council, the Chancellor and Vice-Chancellor of the Confederation, the judges of the Federal Courts and the General of the Army. However, when it comes to the election of the government, the Federal

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<sup>32</sup> Article 148.1 Federal Constitution

Parliament is left with a very limited choice. It has to bear in mind several constraints like an informal, fixed composition of the party member composition as well as the proportionality regarding language, religion and gender (Lindner, 2009).

The Parliaments of the Kantons (Kantonsrat)<sup>33</sup> consist of 49 to 180 members, directly voted by the population for a period of four years, five years in some exceptions. As mentioned above the Parliaments of the Kantons have competency over all fields which are not explicitly a competency of the Federation. This comprehends legislation, administration, government, justice as well as the decision-making of taxes, charges and the Kantonal budget (Lindner, 2009).

On the federal level nearly every kind of actor is allowed to initiate a new promulgation, like an amendment of the constitution, laws, ordinances or decisions. By passing the whole process the backing of the law by all stakeholders shall be secured, as it was for instance in the case of the Energy Law and the CO2-Law (see chapter 7.3.3). Four phases are to be passed within the process, the first one is called the phase of initiative. The second one is the phase of elaboration. In this phase a committee of 10 to 20 people who are representatives of interested people, the government and political parties produce a draft. The draft is subsequently presented to the Kantons, the political parties and groups of interest (Verbände), which is called Consultation (Vernehmlassung). These actors can comment on the draft and suggest changes at this stage. The draft is then revised by the current federal administration and presented to the Federal Council (Bundesrat). If the Federal Council agrees with the draft, it is sent to both chambers of the Federal Parliament. If not, the draft is returned to the administration. In the third phase (Überprüfungsphase) the decision is made as to which chamber (National Assembly or Council of States) shall treat the draft first. After a discussion the respective chamber decides if the draft is needless, if it has to be revised and so returned to the initial committee or if it should be presented – possibly with further amendments – to the other chamber. The second chamber then has the same possibilities. Steps it also in on the draft there follows the Differential Settlement Proceeding. The compromise draft is then presented to the Federal Parliament and enacted by a final vote and published in the Bundesblatt (Lindner, 2009).

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<sup>33</sup> Mostly "Kantonsrat", in some Kantons also "Grosser Rat", "Landrat" or "Parlament"

### 7.1.3 The Executive Branch of Government

On the federal level the Federal Government holds the executive position, which is called the Federal Council (Bundesrat) in Switzerland. It consists of seven equal members according to the Collegiality Principle (Kollegialitätsprinzip), defined in art. 177 of the constitution. Each member is a director of one of the federal departments. The Federal Parliament elects the Federal Council. The members meet every Wednesday morning where they present their opinions and set decisions with a simple majority. At least four members have to be present for these decisions. Afterwards, the secretly agreed upon decisions are represented with one voice. The Federal President is elected every year out of the members of the Federal Council and presides as "primus inter pares" the Federal Government (Lindner, 2009).

The Kantonal Governments (Regierungsrat<sup>34</sup>) consist of five or seven members depending on the population of the Kantons with a trend to smaller governments due to saving- and efficiency reasons. Similar to the federal level, the Kantonal Governments are collegiality organs meaning there is no head of government but a "primus inter pares" presiding for one year (Lindner, 2009).

The Majority of Kantons (Ständemehr) additionally supports the position of the Kantons within the Federation. It has its traditional roots in the old Swiss Confederation. Today, according to art. 140 para. 1 of the constitution, the Ständemehr is necessary if an amendment of the Federal Constitution is affected (for instance the "Energy Article"), in case of an accession to an organization of collective safety or a supranational community or in case of an urgent federal law without constitutional background. 20 of the 26 Kantons have one vote, 6 of them, the Half Kantons (HalbKantone), have a half vote, which makes 23 votes. A draw is considered a rejection. As constitutional amendments need a majority of the Kantons as well as of the people both of them can outweigh the other. The Ständemehr is considered one of the fundamental pillars of the Swiss federalism (Lindner, 2009).

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<sup>34</sup> Mostly "Regierungsrat", in some Kantons also "Staatsrat", "Standeskommission" or "Regierung"

#### **7.1.4 Fiscal Policy**

One possibility to motivate the Kantons for the implementation and enforcement of climate policy measures is financial support. The Swiss Building Program, for instance, is strongly dependent on this financial support, which is itself dependent on the tax revenues of the federation. Federalism in Switzerland is pledged to subsidiarity. Authority and sovereignty shall develop from bottom to top. Justification of a higher national community must arise out of the lower entities. Regarding the taxes this means, that the original tax jurisdiction lies in the hands of the Kantons. The federation is only allowed to levy taxes subsidiary, namely where and in the amount the federal constitution defines that. Respective constitutional competences have to be legitimated directly by the people and a majority of the Kantons. As of today the federation holds only a temporary competency to levy a direct federal tax and a value added tax. Both taxes represent 60 % of the revenues of the federation. This competency must be renewed in certain periods by the people and the Kantons, which has last been done for the period 2004 until 2020 (Kriesi and Trechsel, 2008).

The Swiss fiscal law is strongly shaped by the federal structure and the lack of a consistent and for the whole national territory valid legislative regulation of direct taxes. Each Kanton has its own fiscal law and takes charges on income and capital. The tax system causes an enormous tax competition and hence a very different tax burden in the different Kantons. A peculiarity of the Swiss tax scheme is the high tax income of the Kantons compared to the Federation making the Kantons less dependent on financial allocations of the Federation (Kriesi and Trechsel, 2008).

An important element of Swiss federalism is financial autonomy meaning the competency of the territorial authorities to fulfill the tasks in their sphere and to charge the necessary taxes. This system results in an economical use of public financial measures. As the different Kantons do not possess the financial resources a regulation of equalization is needed to reduce the disparities. This in turn secures the necessary financial conditions for the federal structure. The current Financial Equalization Scheme was enacted in 2008 as a substitute for the older scheme, which was not effective enough for the historical developments that occurred. The most important legislative base of the Equalization Scheme are the Federal Law for the Financial- and Burden Equalization (Bundesgesetz über den Finanz- und Lastenausgleich) of 2003 and the Ordinance for the Financial-

and Burden Equalization (Verordnung über den Finanz- und Lastenausgleich) of 2007 (Kriesi and Trechsel, 2008).

In the field of environment there are several tasks, which can only be achieved by vertical collaboration between Federation and Kantons. An instrument for such collaboration is the so-called Program Agreements. As these agreements are to be considered instruments of vertical coordination, they are explained closer in chapter 7.3.

## **7.2 Swiss Climate Policy**

The Swiss Constitution contains a national objective, which determines a guideline for the federation of nature conservation and safekeeping the base of livelihood (art. 73 and 74 of the Swiss Constitution). Traditionally Swiss Climate Policy developed out of energy policy. The backbone of Swiss energy supply has always been hydropower (BFE, 2011).

At the end of the 80s the Swiss Confederation was already aiming towards a stabilization of emissions of oil and gas combustion. With the subscription of the UNO-Climate Convention 1993 and the ratification of the Kyoto-Protocol 2003 Switzerland obliged to an internationally coordinated climate protection. According to the Kyoto-Protocol Switzerland reduced its emissions in the period from 2008 to 2012 by 8 % compared to 1990 (BFE, 2011).

At the beginning of the 20<sup>th</sup> century Switzerland was facing emerging problems concerning its energy supply due to a lack of federal regulations. This led to a demand for an office for electricity industry, which was finally founded in 1930. However, its tasks were too narrowly defined and thus a coordinated energy policy was not possible. With the oil crisis in 1973 and 1979 the need for a comprehensive energy policy became obvious (Balthasar, 2000).

Climate policy remained hidden within Swiss energy policy until the ratification of the Kyoto-Protocol. In 1990 the Federal Council launched the first comprehensive program, Energie 2000 (Energy 2000) as a result of a people's referendum. From the start the main motivation has remained the reduction of the dependency of electricity- and oil imports. A sustainable security of energy supplies was the most important motivation for a reduction of energy consumption and a promotion of renewables.

A catchphrase of Swiss energy policy is the "2000-watt-society". This energy policy model, developed by the ETHZ, is a vision for both the federation and the Kantons to be reached by 2050. The average energy consumption worldwide lies at 2000 watt, how-

ever there is a big difference between industrialized countries and developing countries. The target is to reduce the energy consumption down to the current average (Novatlandis, 2011).

The main instruments of Swiss climate policy are the Energy-law, the CO<sub>2</sub>-law and the programs Energy 2000 and EnergySwitzerland. As these are instruments of vertical coordination, they will be treated in chapter 7.3.

### **7.2.1 Federal Policies**

The Federation follows two strategies. First, the reduction of GHG and second, as global warming is already in progress, the adaption to climate changes. At the center of Swiss climate policy lies the most important GHG, CO<sub>2</sub>. With the CO<sub>2</sub>-Law of 1999 Switzerland hopes to reduce its CO<sub>2</sub>-emissions by 10 % on average, compared to 1990. In doing so, Switzerland also covers the Kyoto Protocol demanded emission reduction of the other GHGs. As demanded by the affected groups, especially by the economy, the CO<sub>2</sub>-Law requires voluntary measures in the first instance and secondly a CO<sub>2</sub>-Tax (BFE, 2001).

In the 1980s the Swiss Commission for a Comprehensive Energy Conception (Eidgenössische Kommission für die Gesamtenergiekonzeption, GEK) was implemented and defined energy saving, energy research and energy supply as main means to reach the targets. The result of the commission was a new article for the constitution, which was enacted after the second attempt in a people's referendum in 1990. Since then art. 89, titled "Energy Policy", states that "*Federation and Kantons plead within their sphere (sich einsetzen) for a sufficient, wide ranging, safe, economical and ecological energy supply as well as for economical and efficient energy consumption*". Thus sustainable energy supply is determined on the constitutional level. With this article the Federation also defines guidelines concerning the utilization of domestic and renewable energies, economical and efficient energy consumption and the promotion of respective technologies. Further specifications were made at federal legislative level (CO<sub>2</sub>-law and Energy Law). According to these laws priority has to be given to voluntary measures agreed by performance mandates (Leistungsauftrag) with agencies and target agreements (Zielvereinbarung) on the base of the principle of subsidiarity and cooperation (BFE, 2011).

The federation takes it as its task to support the Kantons in their climate policy, especially in the fields where the Kantons are responsible. This support shall be given by ap-

appropriate legal framing (Energy Law, CO<sub>2</sub>-Law), the Program EnergieSchweiz, coordination, elaboration of basics, international linkage, research and normative systems (UVEK, 2011b).

The federation supports those Kantons with so-called Globalbeiträge, which install their own programs for the promotion of the efficient and economical use of energy (see chapter 7.1.4).

### **7.2.2 Kantonal Policies**

The Kantonal climate policies are strongly orientated towards the federal policies. Similar to the federal climate policy, Kantonal climate policies are integrated into energy policy and building policy. This is naturally reflected in Kantonal institutions like the Department of Environment and Energy in the Kantons Basel-Stadt and Luzern or environment departments subordinated to building administrations in Schaffhausen, Zug and Schwyz. Not every Kanton has its own energy program or concept. Positive examples are the Kantons Owalden and Solothurn. Some of the Kantons refer to the Swiss Building Program (see chapter 7.3.5) as their climate protection program (e.g. Kanton Uri). Nearly every Kanton mentions the long-term orientation towards the 2000-watt-society. Impetus for this target, however, is not climate protection in the first instance, but the security of energy supply and independency of energy imports (BFE, 2011).

Since 1990 each Kanton has implemented its own energy laws according to the federal energy law. The federal Energy Law provides the base to introduce various charges with which the Kantons are able to contribute to improvements in energy supply and environmental protection (BFE, 2011). However, a survey showed that the Kantons confine themselves to the implementation and enforcement of federal laws (WWF, 2004).

The central competency of the Kantons within climate policy is the regulations for domestic building. In the course of climate policy and especially considering new building standards, support programs for renovation and energy advice centers the Kantons have been working close together via working groups and regional conferences.

The Swiss Building Program is a result of the collaboration firstly between the Kantons and secondly between Kantons and Federation. The Conference of Kantonal Energy Directors (EnDK) coordinates the collaboration. As both are important examples of instruments of vertical coordination they will be treated in chapter 7.3.

## **7.3 Vertical Coordination of Swiss Climate Policy**

### **7.3.1 Conference of Kantonal Energy Directors**

In 1979 the 26 members responsible for the energy sector in their Kanton were incorporated into the Conference of Kantonal Energy Directors (EnDK). The EnDK is the collective energy competence center of the Kantons. Its task is to promote and coordinate the collaboration of the Kantons in the field of energy policy – especially concerning the limitation of the energy demand of buildings – and to represent their interests.

The responsibility for the limitation of the energy demand of buildings is laid down in the federal constitution (Art. 89 Abs. 4 BV) and refers not only to the implementation but also to the substantive legislation. The targets of EnDK are to

- reduce the energy demand in the buildings sector, especially of existing buildings,
- cover the remaining demand with waste heat renewable energy,
- be accepted in carrying out the legislation and implementation,
- establish a national building program with the control at the Kantons and the collaboration of economy and federation and to
- produce a continuous energy policy in lieu of activism (ENDK, 2011).

In this way the EnDK has had a crucial role in the development of the Swiss Building Program (see chapter 7.3.5).

The Conference of Energy Competence Centers (Energiefachstellen, EnFK) is affiliated to the EnDK and deals with the technical part of energy policy (ENDK, 2011).

### **7.3.2 Energie 2000 – Related Governance Approaches and Policies**

In Switzerland the Aktionsprogramm Energie 2000 was executed in the years 1990 to 2000. Its intention was to achieve certain quantitative targets in the fields of economical energy use and application of renewable energy. The program is based upon three columns, namely legislative measures, conflict-solving groups and voluntary measures. The program rested on a cooperative approach meaning that all relevant public and private actors work together. Additionally conflict-solving groups were built. Evaluations have shown that this approach was successful (EnergieSchweiz, 2001). Furthermore Energie 2000 used quantifiable targets. This was a very important factor, because of its activa-

tion of financial measures on all levels (Federation, Kantons, communities and economy). Also the long duration of the program as well as sustainability and continuity are important in the sector of energy policy. The aim was to install a strong program direction to avoid conflicts about competencies. This aim could not be reached, as the program direction (BFE) did not have enough competences (Balthasar, 2000).

The late 1960's saw the beginning of an energy policy dialogue focused on the role of nuclear energy in Swiss energy policy. The differences concerning the use of nuclear energy hampered progress in a nationwide energy policy. For a long time no consensus was reached on this topic. However, the dialogue created various relations between circles interested in energy. The referendum in September 1990 and the subsequent launch of Energie 2000 saw the first consensus on a national level for the priorities of energy policy (efficient energy consumption and renewable energy) and focused on quantitative goals. Supported by preparations of different expert groups, by the energy policy programs of the Kantons and by more than 100 informal discussions with the responsible departments and a broad circle of energy political actors, the then sitting Bundesrat A. Ogi proclaimed the framing of the Aktionsprogramm Energie 2000. At this occasion he emphasized the importance of finishing the destructive controversy between proponents and opponents of the nuclear energy production, which was a base for the new program. The systematic integration of the relevant actors by several committees highlights the cooperative approach of the program. 42 representatives of associations, organizations and public institutions accompanied the program. These groups were required to coordinate private activities and public relations. In fact, their contribution was reduced to their attendance at the annual meetings. More important were the bilateral contacts of the program direction with single persons of the groups. The original structure integrated the Kantons through the EnDK and the EnFK (Balthasar, 2000).

A study executed in 1998 by Frey-Eigenmann et al. notes an overall positive atmosphere; deficiencies were seen in processes within structures rather than in the structures themselves. On the basis of the study the Federal Office decided to intensify the collaboration with the Kantons. This should have been done by an improvement of communication, information and coordination between Federation and Kantons. The burden of the Kantons should have been reduced to the essential (Balthasar, 2000).

Since 1990 all Kantons have enacted or amended their energy laws and substantially

supported the program (Jahresbericht, 2000).

After a referendum the Federal Council launched the Program "Energy 2000". The main targets of the program were the reduction of the consumption of fossil fuels and of CO<sub>2</sub>-emissions. Additionally the consumption of electricity should be reduced and renewable energies promoted. The targets were quantified and should be reached by voluntary measures, dialog and financial support of the Federation (BFE, 2001).

The program was centered around voluntary measures. This voluntary approach proved unsuccessful, as even voluntary measures need time and money. Since relevant actors could not have been obligated to provide their share, the economy did not participate in the program. Also the decline of financial means restricted possible success (UVEK, 2000). The experiences with Energy 2000 showed that an achievement of the Kyoto-targets needed additional efforts. That was why the Federal Council instructed the UVEK to elaborate the successor program EnergieSchweiz. The new program should build upon the experiences and products of the former program but enforced with new initiatives and products. Voluntary measures were to be ensured by obligatory agreements with large-scale consumers according to the CO<sub>2</sub>-law as well as performance mandates (Leistungsvereinbarungen) with agencies according to the Energy-Law. The prescriptions (Vorschrift) for energy consumption in buildings and technical equipment should be tightened (UVEK, 2000).

### **7.3.3 Lessons Learned – Laws to Secure the Progress**

The first step in legislation was the creation of the Energy Law (Energiegesetz). It was enacted in 1999 after a long period of discussions amongst the relevant stakeholders such as Kantons (represented by the EndK) or the economy before and within the legislative process (EnergieSchweiz, 2001). It covers a number of relations between the Federation and the Kantons and can therefore be considered a coordinative instrument. The law should contribute to a sufficient, wide ranging, safe, economical and ecological energy supply, like it is said in art. 89 of the constitution. Its targets are the securing of an economical and ecological supply and distribution of energy, the economical and efficient use and the enforced utilization of domestic and renewable energies (art. 1 of energy law). Article 2 states the will of Federation and Kantons for cooperation within their energy policy and the competency of the Federation to implement measures in coordination with the Kantons. Before enforcing regulative measures, voluntary measure

of the economy shall be encouraged and promoted. Article 3 (Principles) demands – among others – to charge the consumer with the costs, which he causes. The building sector is especially dominated by regulations of the Kantons,. Article 9 of the Energy Law is dedicated to this competency. The allocation of financial measures is defined in article 14 and 15, whereby in article 15 the so-called "Globalbeiträge" (Global Contributions) are treated. These contributions of the Federation are bound to use for programs of the Kantons which promote the economical and efficient use of energy and the utilization of renewable energies and waste heat. The Global Contributions replace the former direct federal promotion (direkte Bundesförderung). The article also states the obligation of the Kantons to report the utilization of the financial measures annually and the duty to return not used sums. Article 16 ascribes the execution as well as the executive regulations of the law to the Federation and the possibility to delegate the execution to private organizations (e.g. EnAW). In article 19 the law defines the competences of the Kantons in executing the regulations. The Kantons are obligated to execute articles 6, 7 and 9 with the support of the Federation and report their measures. These articles refer to the construction of energy production facilities run by fossil fuels (art. 6), the connection obligations of independent energy producers (art. 7) and – as already mentioned – the basic conditions for the building sector (EnG, 2011).

The CO<sub>2</sub>-Law is considered the central instrument in Swiss climate policy. When it became clear that the measures of the Energie 2000 Programm were not sufficient to reach the climate goals, Switzerland elaborated this law (for the process see chapter 7.1.2) and enacted it in the year 2000. Like the Energy-Law it is based upon art. 89 of the constitution and therefore provides the possibility to reach the targets by voluntary measures of the economy (art. 3). The intended main purpose of the law is to reduce CO<sub>2</sub>-emissions caused by fossil fuel, additionally the law should contribute to the reduction of destructive environmental impacts, promote economical and efficient energy use and foster the utilization of renewable energies (art. 1). Article 2 defines a reduction target. As opposed to other countries, Switzerland concentrates its climate protection policy only on the reduction of CO<sub>2</sub>-emissions. The Kyoto reduction target of 8 % of GHG in the period 2008 to 2010 shall be achieved by reducing the CO<sub>2</sub>-emission by 10 % until the year 2010. Further aims are to reduce the emissions of the energetic use of fossil fuels (Treibstoffe) by 8 % and of fossil combustibles (Brennstoffe) by 15 %. If the achieve-

ment of the targets is in danger, Article 3 of the CO<sub>2</sub>-law provides the possibility to install a CO<sub>2</sub>-tax, article 10 demands the return of the CO<sub>2</sub>-tax to the population and the economy. Article 15 surrenders the execution of the law to the Federation. The actual effective law is being revised for the period from 2013 on (BAFU, 2011c).

#### **7.3.4 Building on Experiences – The Enhanced Program EnergieSchweiz**

EnergieSchweiz is the successor program of the program Energy 2000 (see chapter 7.3.2). The Federal Ministry for Environment, Transport, Energy and Communication (Eidgenössisches Department für Umwelt, Verkehr, Energie und Kommunikation, UVEK) is responsible for the program. In an energy policy dialog 1996 and 1997 (Energiepolitischer Dialog 96/97) with all of the important actors of energy policy, chaired by the UVEK, it was agreed upon to follow the principles of energy efficiency and renewable energies of the program Energy 2000. In October 1998 the Federal Council assigned the UVEK to elaborate this successor program together with the Kantons and the economy. In the spring of 1999 a consultation (Vernehmlassung) of the draft was conducted with 119 interested institutions. The consultation revealed broad support for such a program. The Federal Council passed EnergieSchweiz in January 2001 as a "platform for intelligent energy policy". The new program based on the Kyoto-targets, the CO<sub>2</sub>- and Energy-Law and on the experiences of Energie 2000 (EnergieSchweiz, 2001). EnergieSchweiz is considered to be a program of the Federation, the Kantons, the communities and economic-, consumer- and environmental organizations. A broad cooperation is emphasized, including involving the partners in the elaboration and implementation. A strategy group joined by the federation, the Kantons, trade associations and environmental organizations elaborated the details of the program. the Federal Office of Energy (Bundesamt für Energie, BFE) is tasked with the lead management of the program, including controlling, evaluation, roofing (überdachend) marketing and communication, coordination of research and development, P+D and training. The organigram (figure 4) further reveals the great importance of the Kantons in the crucial sector of buildings (see chapter), whereas the economy is directed by the EnAW and S.A.F.E. and renewable energies by the AEE. Also in the sector of mobility the Kantons have certain influence (see chapter 7.3.6). In accepting their responsibilities the Kantons approved their own EnergieSchweiz strategies in January 2001 (EnergieSchweiz, 2001).

Sector conferences have been held at least once a year, balance- and strategy confer-

ences annually, complemented by target activities like "Communication EnergieSchweiz" (Kommunikation EnergieSchweiz). These activities foster the exchange of information and opinion. Within the sectors an intensive collaboration happens between BFE, Kantons, agencies and associations (see figure 4).

The first strategy conference was held in November 2001 with all partners of EnergieSchweiz. It served as a panel for information exchange and position-fixing. In the first balance conference in June 2002 the first annual balance was accomplished, supported by eight workshops.

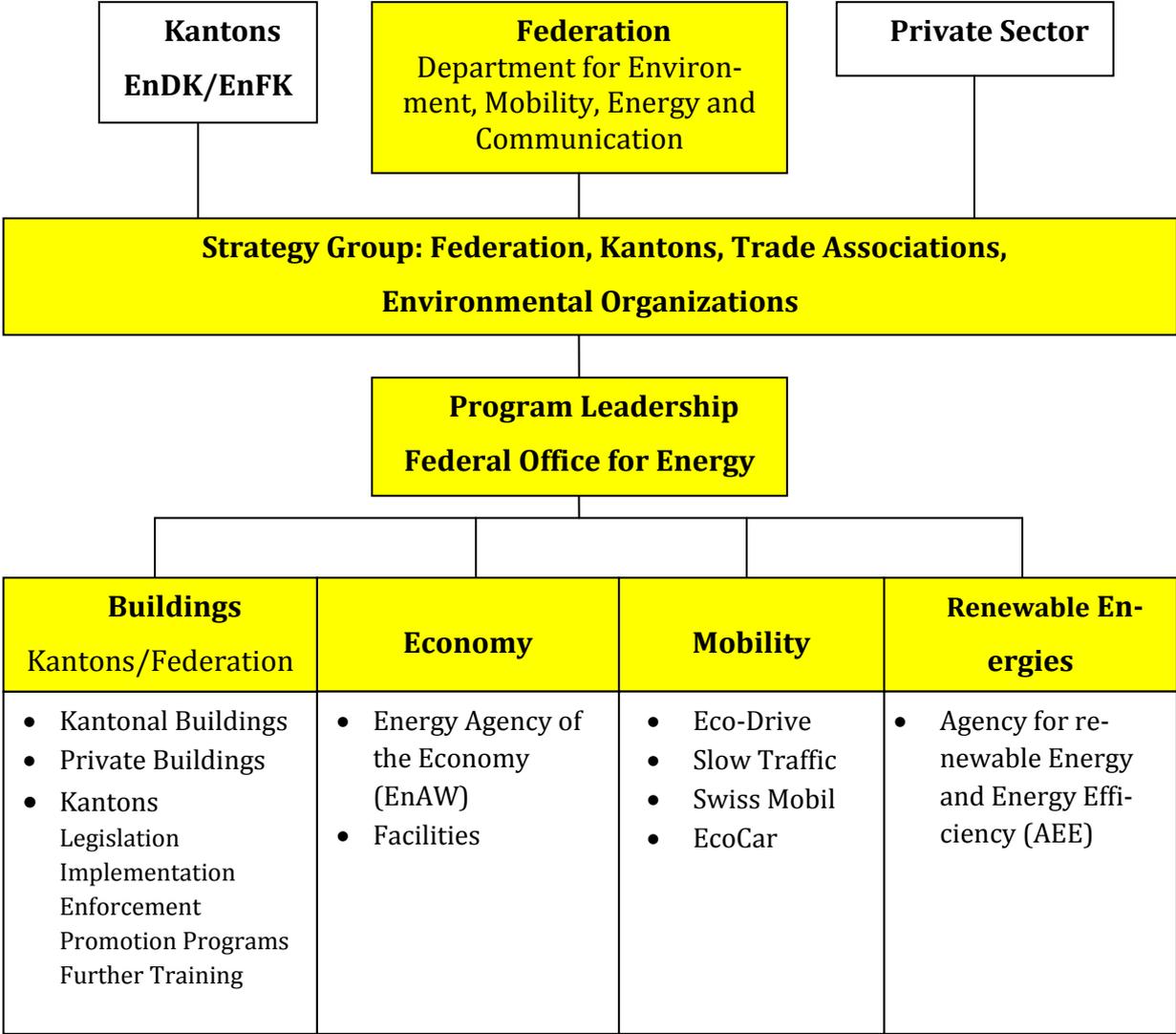


Figure 4: Organizational Chart of EnergieSchweiz  
Source: EnergieSchweiz, 2001 (adopted)

The final conclusion of Energy 2000 showed, that voluntary measures were not effective enough to reach the Kyoto targets. The new program states: *"the attempts of a Swiss energy policy with active promotional measures on federal level failed due to the political reality"*<sup>35</sup>. However, the positive and negative experiences of Energy 2000 were used and supported for the development of the new program. The means of EnergieSwitzerland should therefore concentrate on the application of new energy efficient technology and measures in the sectors transport, buildings and renewable energy. Therefore there are concrete agreements to be made with relevant actors and agencies (EnergieSchweiz, 2001).

EnergieSwitzerland should comply with the constitutional requests of article 89 (energy policy), article 73 (sustainability) and article 74 (environmental protection) and execute the Energy- and CO<sub>2</sub>-law. It was also intended to implement voluntary measures by means of agencies. Opponents of an environment- and energy charge, refused by a people's referendum in September 2000 demanded that these measures be included. This decision was important for the financial capacity of EnergySwitzerland. If the charges had been approved the direct financial promotion of efficient energy utilization and renewable energies would have been the center of the program. However, even the opponents of the charges emphasized the importance of the targets, but they should be reached by voluntary measures and a possible CO<sub>2</sub>-tax.

In the beginning of the program the focus was still laid on voluntary measures. A CO<sub>2</sub>-tax should have been spared if possible. Concrete instruments were seen in the cooperation with private agencies accompanied by agreements and performance mandates (Leistungsaufträge) (EnergieSchweiz, 2001).

The content of EnergieSchweiz is divided into four sectors:

- Public authorities and buildings with the main competences at the Kantons (see chapter 7.3.5)
- Economy with the main competences at the Energy Agency of the Economy (Energie-Agentur der Wirtschaft, EnAW)
- Mobility (auto-schweiz, energy saving transport systems, Eco-Drive) (see chapter 7.3.6)

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<sup>35</sup> "Die Versuche einer schweizerischen Energiepolitik mit aktiven Fördermassnahmen auf Bundesebene sind bisher an der politischen Realität gescheitert" (EnergieSchweiz, 2001).

- Renewable energies with the Agency for renewable energy and energy efficiency (Agentur für erneuerbare Energie und Energieeffizienz, AEE) working on the improvement of a network for the promotion of renewable energy (EnergieSchweiz, 2001)

In the sector of economy, comprehending industry, commerce and service, there is also a huge potential of efficient energy use. This potential is positively viewed in an economical sense. From the beginning of the Swiss climate policy with the start of Energie 2000 the economy has voted for voluntary measures and against new promulgations and restrictions. When in November 1999 the Energy-Agency of the Economy (Energie-Agentur der Wirtschaft, EnAW) was founded, its main target was to contribute substantially to the targets of EnergieSchweiz through voluntary measures. Since the experiences of Energie 2000 showed, that only a minority of entrepreneurs subject to mandatory contributions without legal or financial measures, a CO<sub>2</sub>-tax was announced (in Aussicht gestellt) to improve the commitment for voluntary target agreements. A directive was enacted by the BUWAL and BFE in July 2001 to support the improvement (Richtlinie für Zielvereinbarungen). With a target agreement to conform to the directive, companies can themselves obligate to a reduction of their energy consumption and so avoid charges. Also with the EnAW a performance mandate was agreed upon (EnergieSchweiz, 2001).

A further focus was laid upon renewable energies. The main problem of energy supply has been the stable rise of energy consumption. If the share of renewables of the energy consumption is raised, it would be necessary to reduce the increase of consumption. This shall be done by the promotion of heat pumps, by wood firing (Switzerland has been producing more wood than it uses), by the promotion of wind energy, biogas and solar energy. The backbone of Swiss energy supply is hydro power. About two thirds of electricity are produced by this source. As there is no big potential left, the improvement of efficiency is important. Lastly, supporting the heightening of dams at small-scale hydro power stations was discussed (EnergieSchweiz, 2001).

The controlling of the project and the program of EnergieSchweiz is done by the Management Information System MIS, an efficiency analyses, an annual evaluation as well as surveys. In this way the program is managed correctly and efficiently, the targeted and efficient use of the measures is secured and information about the status quo is available

at all times (EnergieSchweiz, 2001).

### 7.3.5 Swiss Building Program

The Swiss Energy Program divides its field of activity into four sectors: economy, renewable energies, public authorities and domestic building and mobility. As shown above, the sectors economy and renewable energies are mainly covered by agreements between the Federation and the actors of the sectors. Specifically in the sectors mobility and domestic building the cooperation with the Kantons is of great importance. The sector of domestic buildings is hereby covered by the Swiss Building Program, the measures in the sector mobility are rather fragmented.

As mentioned above the building sector in Switzerland plays an important role in Switzerland's CO<sub>2</sub>-emissions. More than 40 % of the Swiss energy demand and CO<sub>2</sub>-emissions are due to energy use in buildings. In the EnergieSchweiz program the main task was to harmonize the Kantonal energy laws and promotion program which was done by the enacted Sample Prescriptions of the Kantons for the Energy Sector (Muster-vorschriften der Kantone im Energiebereich, MuKE<sub>n</sub>) and a common elaborated promotion program of Federation and Kantons. The new Gebäudeprogramm started in 2010, its ancestor is the so-called "Gebäudeprogramm des Klimarappens"<sup>36</sup>. The program should activate 10,000 building renovations and an investment of more than one Billion Franken. The CO<sub>2</sub>-Law provides the financial base for the new program with the possibility to levy the CO<sub>2</sub>-Tax. Because of the urgent need for action the government amended the CO<sub>2</sub>-Law on June, 12<sup>th</sup> 2009, after years of discussion (Engler and Oberle, 2010). A third of the revenues of the CO<sub>2</sub>-Tax, i.e. 200 Million Franken, will be provided for Das Gebäudeprogramm from this point on.

The program funds the replacement of single building elements like windows or the insulation of walls, roofs and floors. For this kind of refurbishment the federation provides 133 Million Franken per year, financed by the CO<sub>2</sub>-Tax. Complementarily, the Kantons have installed different promotional programs for renewable energy, waste energy use and building equipment (Haustechnik) which are provided by 80 to 100 Million Franken per year. These programs are additionally supported by 67 million Franken of

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<sup>36</sup> This program started ... , was financed by the revenues of the Klimarappen ..... Es löst das Ende 2009 auslaufende Gebäudeprogramm des Klimarappens ab. Neu fördert das Gebäudeprogramm auch die Sanierung von Einzelbauteilen wie zum Beispiel den Ersatz veralteter Fenster oder die Wärmedämmung von Wänden, Dach und Böden.

the CO<sub>2</sub>-Tax (so called "Globalbeiträge<sup>37</sup>"), which means a total fund of 280 to 300 Million Franken per year until 2020. The missing financial means shall be set up by low priced loans provided by special bank institutes.

The main responsibility for the program lies with the Kantons, which were represented by the Conference of Kantonal Energy Directors (Konferenz Kantonaler Energiedirektoren, EnDK, see chapter 7.3.1). The EnDK together with the Federal Office for Energy (Bundesamt für Energy, BFE) and the Federal Office for Environment (Bundesamt für Umwelt, BAFU) developed the program. The responsibility for implementation but also for legislation is up to the Kantonal governments. The Kantonal parliaments define the energy prescriptions (Energievorschriften) and oversee the implementation. A good example is the Sample Prescriptions of the Kantons for the Energy Sector (Mustervorschriften der Kantone im Energiebereich, MuKE).

The MuKE aims to raise the energy efficiency and reduce the CO<sub>2</sub>-emissions and were enacted in 2008 in their current form. They define

- the insulation standard of buildings for winter and summer,
- the requirements for building equipment (heating, hot water, waste heat, ventilation, cooling),
- maximum share of non-renewable energy in new buildings,
- regulations for the Energy Pass (Gebäudeenergieausweis der Kantone, GEAK),
- sponsorship and
- execution and taxes.

Additionally they regulate the implementation of a standardized, voluntary Energy Pass of the Kantons. This should ensure that all new buildings are constructed with low CO<sub>2</sub>-emissions (Engler and Oberle, 2010).

The MuKE are considered the common denominator of the different Kantons.

For a successful impact of the comprehensive investment a good collaboration of all involved parties – like federation, Kantons, house owners, engineers as well as finance and construction industry is needed<sup>38</sup>. Furthermore competent advice should be

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<sup>37</sup> "Globalbeiträge means, that the Kantons are obligated to spend at least the same amount of financial means for their own program.

<sup>38</sup> "Damit die umfangreichen Investitionen auch ihre Wirkung zeigen, braucht es eine gute Zusammenarbeit aller Beteiligten, al-

granted. This competency is taken by the Energy Competency Centers (Energiefachstellen) of the Kantons. A national service center coordinates the realization of the program. The application for house owners shall be easy and is done over a common Internet platform ([www.dasgebaeudeprogramm.ch](http://www.dasgebaeudeprogramm.ch)).

### **7.3.6 Transport and Mobility**

With a third of the total energy consumption of Switzerland, the mobility sector is ranked second in importance, additionally it shows the highest growth rate. The trend towards big and powerful cars has relativized the progress of more efficient engines. For fossil fuels a reduction of eight % was planned and in 2008 the emissions in the sector were about 14 % higher than in 1990. Public transport has been considered a crucial part of transport policy (BAV, 2011).

The Swiss Railway Act of 1957 regulates all fundamental aspects of the public railway net and additionally the regular financing of public transport (the latter till 2009). The federal law has been further developed over the years; the last revision was made in January 2010. With the enactment of the law financial investment assistance has also been provided in case of a deficit balancing. The revision of 2010 has brought a limitation of the defining of financing to railway infrastructure. Financing of public transport has been included in a new passenger transportation law.

Not surprisingly Swiss nomenclatura differs from that used in other countries in this sector as well. There is no term like "public short-distance traffic", Switzerland distinguishes between long-distance traffic (Fernverkehr), regional transport (Regionalverkehr), local traffic (Ortsverkehr) and tour traffic (Ausflugsverkehr). Regional transport is a competency of the Kantons, its financing is done by both the federation and the Kantons. The federation supports the regional public transport and thus the Kantons by operating contributions. The share of the amount is defined anew every four years. Normally the share is about 50 %, the means are provided by the regular federal budget. Rather surprisingly there is no appropriation for these means, the federation uses primarily voluntary measures (auto-schweiz, EcoCar, EcoDrive, Klimarappen, Reifenetikette), regulative measures like a differentiated mineral oil tax and a performance-linked charge for heavy loads, informative measures like the energy etiquette (energieEtikette) and finally supports research and development (UVEK, 2011) in this field.

The fundamentally voluntary approach of Energie 2000 has supported the development of intermodal transport associations (Leistungsverbände) (BFE, 2001).

Within the sector the program EnergieSchweiz has focused mainly on passenger traffic using voluntary measures (see above).

### **7.3.7 Program Agreements**

These instruments were implemented with the reform of the Financial Equalization Scheme and the division of tasks between the Federation and the Kantons in 2008. The agreements define the environmental goals and which subsidies the Federation provides. A program period usually lasts 4 years (2008-2011, 2012-2015 etc.). Instead of support measures according to their costs, the Federation provides global- or blanket subsidies. The Federation is responsible for the governance and controls the achievement of the tasks by targets; the Kantons then decide how they want to reach the goals. The central factor of the Program Agreement is the desired benefit (Leistung) of a measure. There are several environmental fields affected by the programs, the reduction of CO<sub>2</sub>-emissions according to art. 10 of the CO<sub>2</sub>-Law are relevant for climate policy. A common controlling of the Federation and the Kantons through annual reports, control samples and a final report ensure that the programs are efficiently controlled and monitored (BAFU, 2011a). This change in the subsidies policy in the environmental sector has increased the leeway for the Kantons in the implementation of environmental policy. For the first period 2008 to 2011, 223 Program Agreements have been negotiated with all Kantons. Within this period the Kantons received 610 Million Franken of federal means for the execution of the agreed upon activities (BAFU, 2010a).

The assessment of the period 2008-2011 declared the program overall a success: The Kantons agreed upon efforts have been achieved in most cases. For the new period the basic concept is being maintained only with a few amendments concerning the more liberal use of subsidies within the same program target (BAFU, 2011b).

### **7.3.8 Revision of the CO<sub>2</sub>-Law**

In the year 2012 Switzerland wants to further reduce its GHG-emissions, foster low-emission technologies and secure financing of its climate policy. Additionally the federation wants to coordinate the adaptation to climate warming. As of May 2009 a consultation process (Vernehmlassung) for the revision of the CO<sub>2</sub>-Law and the climate policy

after 2012 has been executed. Two variations have been offered, variation one supporting mandatory climate targets, variation two “climate neutrality”. The consultation showed a majority favoring variation one, which is similar to the targets of the European Union. The National Assembly (Parliament) finally decided to reduce its GHG-emissions by 20 % compared to 1990 and to do that only by inland measures. The National Assembly is able to increase that target up to 40 %, according to international agreements. The higher reduction shall be reached by a continuing of the CO<sub>2</sub>-tax for combustible fuels and the Swiss building program, the development of the emission-trading scheme according to the scheme of the European Union and the obligation for importers of fossil fuels to compensate between 5% and 40 % of the produced emissions by investing in climate protection projects. Additionally CO<sub>2</sub>-emissions of new cars shall be limited to 150 grams CO<sub>2</sub> per kilometer till 2015 (EU: 130 grams). The CO<sub>2</sub>-Tax on combustible fuels and the building program are considered to be the most important instruments of change. The National Assembly rejected the continuance of the CO<sub>2</sub>-Tax of fossil fuels due to possible competition disadvantages of the carrying-trade. The lower targets concerning CO<sub>2</sub>-emissions of new cars is officially argued by the special topography of Switzerland, however, the strong trend towards heavy cars (SUV) seems to be another important reason and a concession to car drivers (BAFU, 2010b).

The latest energy and climate protection program “EnergieSchweiz” will be continued and is in development at the moment. Regarding the relation between federation and Kantons there will be no substantial changes.

## **7.4 Summary**

Switzerland is one of the richest countries in the world with a very high living standard. Therefore people are able to afford high-energy prices, which has exemplary implications in the field of individual transport. On the other hand Switzerland, with its high share of the alps, is especially affected by global warming. This should be the ecologic reason for climate protection policy. But it would not be Switzerland if economic factors were not amongst the pivotal reasons for its climate policy, which is in fact only a part of energy policy. The independency of energy imports seems to be the most important driver for Swiss policies, bringing a reduction of GHG-emissions along the way. In the same way as Austria, the already high level of renewable energy (especially of hydro power with a low potential left), makes it hard to reach ambitious targets. The way Swit-

Switzerland wants to reach its targets is relatively simple. Switzerland concentrates on the reduction of CO<sub>2</sub> rather than on all GHGs, fosters voluntary measures as long as they seem to be sufficient, but provides the possibilities to introduce legal measures, in case the voluntary measures are not sufficient. Concerning the collaboration of federation and Kantons Switzerland's approach seems to be one of the most complicated but also the most participative in the European Union. This high level of participation could be the reason for the successful implementation of measures; if federalism and subsidiarity are regarded, Switzerland realizes this at the highest level. The best example is the building program, which is not only accepted by the Kantons but developed by them and "only" supported by the federation. The success of the program shows the high acceptance within the Kantons. Altogether the efficient approach of Switzerland is impressive. The targets are comparable to the high targets of other European countries; the way to reach them is very pragmatic, direct and uncomplicated. The "real" reasons to reduce CO<sub>2</sub>-emissions – the economic and energy issues – are justifiable or even more rational, as long as the ecologic aspect is satisfied along the way.

## **8. Synthesis**

In this chapter the results of the three country case studies are brought together. Summarizing the inquiry and pointing out the differences in how vertical coordination between federation and state relates to climate protection policies in Austria, Germany and Switzerland solves the research question posited at the start of the study.

### **8.1 The Influence of Federal Characteristics**

Today, federalism is mainly understood as an organizational principle, in which the single elements preserve certain autonomy but are affiliated to a superior entity. The smallest elements, mostly the communities, establish confederations on their own impetus but only render tasks to their federation, which they can not fulfill alone (this is known as the subsidiarity principle). Federalism is always subject to tensions between the federation and the states and reveals different characteristics among countries. This is also the case for the three examined countries Austria, Germany and Switzerland. Whenever the federation wants to reach certain aims as a whole, it requires the assistance of the states. This is especially true in reaching climate policy targets, as some crucial policy fields lie within the competences of the states.

The sample countries represent three unique types of federalism. Austria has the strongest tendency towards centralism. Despite the fact that the federal constitution created a true federal system within Austria, the country has a strong tendency towards a centralized state, which is why Austrian federalism is referred to as unitaristic federalism (to maintain unity). This characteristic is made evident in the division of competences, noting a considerable surplus of the competences at the federation, the financial constitution and – especially atypical for federal states – the jurisdiction, which is the exclusive responsibility of the federation. In Germany the dominance of the federation has historically had a strong tradition, resulting in a division of competences based on the types of competences and not on the fields of policy, like in the United States of America. Most of the laws are enacted by the Federation, the implementation and enforcement, however, is often in the hands of the Länder. The strong interconnection between the executive powers of Federation and the Länder results in the relative powerlessness of the state parliaments and thus German Federalism is called executive federalism. According to economic experts, the unclear division of competences results in

location disadvantages, additionally fostered by permanent election campaigns, inflated bureaucracy and strong interdependencies between Federation and Länder. As a result, Germany has made efforts to improve upon this situation with two reforms of its political system. The relationship between the Federation and Länder has been revised, which has resulted in a number of measures meant to accelerate the legislative process and increase its transparency by reducing the number of obligatory laws. One example is the abolishment of the framing legislation. In turn the Länder have received more competences of legislation in several fields. In the field of environment the Länder were given the power to enact laws different to federal law, meaning that Länder legislation is prior to federal legislation.

Switzerland has the longest tradition of instilling the federal idea into their government. Switzerland considers itself as a "Nation of Will". Throughout its history the Kantons of Switzerland have considered the federal government only a necessary evil and have strongly resisted tendencies and efforts towards a more unitaristic system. This explains why the Kanton is stronger within its political system in comparison to the other two case study examples. Only in recent years have the Kantons had to give in a little towards a stronger federation. The Swiss federal system reveals several peculiarities, the most important being the power of the Kantons over taxation laws, confirming the relative weakness of the federation.

The legal principles for the federal system are laid down in each countries constitution. Naturally these constitutions (in Germany "Grundgesetz") differ in various ways and reflect the different powers of the states within the nations, which can be seen, for example, in the states role in the legislative process. All three countries uphold the subsidiarity principle, meaning that the smallest entities (i.e. the communities) retain the competences to fulfill the tasks of their sphere as long as they are able to do so. If they are not, the next higher level (i.e. the Länder) takes over. Formally all governmental competencies of legislation and execution lie with the states. In Austria the federation administrates only precisely enumerated competences. However, this enumeration is very comprehensive, thus in reality just a few competences are left to the Länder. In regards to the legislative process, this again reveals a weak form of federalism, i.e. the weak position of the Länder within the system. However, the role of the Länder is more important when it comes to the implementation and enforcement of laws. Important competences are left to the Länder regarding climate policy in the case of building laws

and parts of spatial planning. The German constitution (Grundgesetz) states, that duties are only to be carried out by the Federation, if the Federation is able to do it in a better way. In fact, after the federal reforms most of the competences still lie with the federation with a few exceptions, such as cultural- and educational policy. Concerning environmental legislation the federal reformation brought a change in competences. Where fields of environmental law were created through federal framing legislation, they were replaced by deviation legislation (Abweichungsgesetzgebung). This implies that federal law is no longer breaking Länder law but that laws of the Länder have a priority in implementation and enforcement.

The situation in Switzerland is very similar. The subsidiarity principle is defined in the federal constitution, however there is also an exhaustive list of competences of the federation. This is also the case in Austria, however in Switzerland, the legislation for building and, primarily, for regional planning lies by the Kantons.

The direct influence of the states is thus predefined on a superior level with the constitution by assigning only a few legal materials to the states. However, in all three cases the critical power over building laws lies by the states. In addition, within the field of spatial planning the states have a relatively large amount influence. Since spatial planning sometimes refers to the sector of transport/mobility (the sector with one of the highest emissions and with the worst emission trend) this influence has a high potential importance.

An additional important factor in the relationship between federation and states is the financial interdependencies. Different regulations on the constitutional level in the three countries show the proportion of power between the federation and states. According to the more unitaristic character of Austria's federalism, the Länder are strongly dependent on the financial measures the federation provides. This explains the long-lasting strenuous negotiations among Federation and the States that can go on for years such as with Climate Law, in which the Länder try to maintain their position not only in the respective negotiations but also in their general standings within the federal system. In this regard every negotiation can be seen as a struggle for power within the political system. Very often the core of the negotiations takes a back seat (e.g. Climate Law) and the outcomes are often unsatisfying as little content is created. In the case of the Austrian Climate Strategy the Länder declared clearly, that they would be willing to increase their efforts in considering measures for energy efficiency, but only within the budget

agreed in the Stability Pact. The Stability Pact was created as a measure to assist in fulfilling the achievements of the EU budget targets. However, the targets of the pact have never been met and the pact itself was not taken seriously almost from the beginning. In spite of this, the Stability Pact has always provided the Länder with the possibility to legitimate their restrained actions concerning the targets of the climate strategy. The Law for Subsidies with Intended Purpose has been more successful in that it grants the Länder subsidies from the Federation, which have to be used for certain purposes. Such purposes could be the promotion of domestic buildings and renovations, measures to maintain and improve infrastructure and to reduce GHG-emissions. The law leaves the actual instruments with the Länder and has proven to be more efficient than the Stability Pact. Additionally the law gives the federation the ability to monitor the specific use of the financial measures and provides the federation with the (at least theoretical) right to reclaim them. The law holds the most importance in the field of domestic building, where the Länder hold most of the competences (building law). In 2008 the law was disabled and substituted by agreements according to art. 15a of the federal constitution.

Such an agreement is most often a treaty between the federation and the Länder and as such obligatory. Since energy efficiency within domestic building is very important to climate policy on the one hand and a competency within the sphere of all of the three Länder this topic will be more closely examined later on.

Similar to Austria, Germany uses a Financial Equalization Scheme aimed at reducing financial and therefore living standard differences between the Länder. The Länder are provided with the necessary financial means they need to fulfill federal tasks. Ultimately, this means compensation payment of the rich Länder to the poorer Länder (horizontal equalization). Vertical equalization additionally supports the poorer Länder. As the highest part of the financial equalization concerns the transfer between the Länder, this means a lower dependency of the Länder to the federation.

The exceptional position of Swiss federalism is especially evident in its fiscal system. The primary tax jurisdiction lies in the hands of the Kantons. The federation only has the power to collect subsidiary taxes namely where and in the amount set by the constitution. The people and the Kantons must legitimize the respective constitutional competences. Even today the federation only has temporary authority to levy a direct federal tax and a value added tax. Both taxes represent 60 % of the revenues of the federation. In this way the Kantons have a higher independency on the federation, compared to the

states of Germany and especially Austria. Just as in Austria and Germany, one of the most important fields of climate policy has been energy efficiency within domestic building. The programs have been developed by the Kantons and have been supported by so-called global subsidies. In 2008, with the reform of the Swiss financial equalization scheme, Switzerland created the so-called Program Agreements. Several environmental fields are affected by these programs, especially the program for the reduction of CO<sub>2</sub> based upon the CO<sub>2</sub>-Law. Within the programs the federation is responsible for governance and controlling, the Kantons are free to decide how to reach the goals. The monitoring and controlling is done commonly by the Kantons and the federation. The change in the subsidiary policy (away from subsidies according to costs, leaving the Kantons more leeway in their climate policy) was generally seen in a positive light for the first period 2008 – 2011 and therefore extended.

## **8.2 The States' Influence in Climate Protection Policies**

The power of the federation to force or motivate the states is already laid out in the different federal constitutions, which represent the lay-out of the single forms of federalism. These forms of federalism are reflected in the degree the states can exert influence on the federal legislation. The States next level of influence is the legislative process. The process's formal collaboration is laid out in the constitution. All three nations have a two-chamber system. However, the collaboration and influence of the states differs in a number of ways.

Austria's legislative branch is not considered a real two-chamber system, since the members of the Federal Council, which forms the representation of the Länder, are delegated by the State Parliaments and only the members of the Federal Parliament are elected by the people. Within the federal legislative process the Federal Council is rather powerless as a result of all federal laws being enacted by the Federal Parliament and the Federal Council has having only the power of a suspensive (i.e. temporal) veto (except laws affecting the Federal Council and the Länder administration itself). In Germany the Federal Council is more powerful. Similar to the Austrian legislative process the Federal Council has a veto concerning laws affecting itself and the Länder administration (laws requiring approval). In the case of reclamation laws, for which the Federal Council has the possibility to raise an objection, the Federation also has the power to outvote such an objection but this needs an absolute majority or even, in the event that the Federal

Council raises an objection with a two-third majority, a double qualified majority. If the Federal Parliament is not able to find these majorities the law fails.

In Switzerland states have the possibility to take part at all levels of the legislative process, making it the ideal situation among the three case studies. The Kantons can take influence in a law during the development of the draft in the Phase of Consultation; the agreement of the Federal Council is needed before the draft is sent to both chambers of the Federal Parliament. These two chambers (National Assembly and Council of States) have equal powers. The chambers' different opinions are discussed in the Differential Settlement Proceeding (Differenzbereinigungsverfahren) until a consensus or compromise can be found. In this way the Kantons are able to give their input several times before the draft is presented to the Federal Parliament.

The influence of the states within the legislative process already confirms the classification of the federal system of the three states. While Austria's chamber of the states is more or less powerless, Germany's chamber can, theoretically, avoid a law. The strongest influence within the legislative process exists in Switzerland, where the Kantons can influence the content as well as the enactment of a federal law.

As shown above, the states of the three countries are not left with many materials whereby they obtain legislative competences, even in Switzerland there are tendencies towards centralization. However, in many cases the federation needs the states for implementation and enforcement. In Austria this is called indirect federal administration (mittlere Bundesverwaltung), which means that the implementation and enforcement of federal law is carried out by institutions of the states. These regulations are defined in the federal constitution. The State Governor (Landeshauptmann) leads the indirect federal administration and uses the administrative bodies of the districts of his state for the implementation. In this regard the State Governor is bound by the instructions of the respective Federal Minister.

In Germany the danger of economic disadvantages due to political interweavement forced the Länder and the Federation to conduct a reform of the political system, known as the federalism reform I and II. The reforms were carried out over a number of years and finally brought a shift of the competences of environmental law to the federation by way of introducing competing legislation for the whole field of environmental law including nature conservation, water supply and soil. This enabled the federation to implement all EU-directives in the field of environment. Previously, the Länder were re-

sponsible for the implementation and enforcement, which brought frequent delays. Since about 80 % of the environmental regulations are based upon EU standards, this competency is important. The reform gave the general competency of environmental law to the federation so for the first time the creation of a comprehensive environmental code (Umweltgesetzbuch, UGB) was possible. However, due to political differences the creation has so far been unsuccessful.

In Switzerland the competences are also divided up between the federation and the Kantons. Swiss climate policy is a (main) part of energy policy, which is a competency of the federation. Because of the wide range of possibilities to collaborate on the creation of a new federal law, the resistance of Kantonal governments against the implementation and enforcement of federal law appears far below that in Austria and Germany. The intense participation of the Kantons in the legislative process supports the consensus and the agreement. Actually, in the case of Switzerland, a federal law is more a law of all Kantons together than a law given to the Kantons from a superior power (i.e. the federation). Thus implementation and enforcement of federal law is able to move forward without a lot of friction. Additionally, there is no pressure from the side of the EU since Switzerland is not a member, even though it orientates itself around the community. However, due to problems of economic growth and global development towards bigger political and economic structures (integration processes in Europe, globalization, tariffs and economical liberalization) the pressure for changes in the federal structure of Switzerland is growing.

### **8.3 The Basic Approach of the Countries and States**

Historically the three countries have different accesses to the field of climate policy, which influences their goals and subsequently their efforts. Austria has long been considered a model environmental country, more or less until the first Kyoto-Period started. Until then Austria could point to its many achievements, for example their policy of clean air and acid rain. In the 90s Austria's efforts in environmental protection declined and the importance of acting in this field seemed to be over. It was not until two years after Germany started its climate program that Austria was able to follow with its climate strategy 2002. The difference may lie in the basic approach. While Germany tried to exceed given targets, Austria seemed to be satisfied with the achievement of given targets and found the easiest possible means to do so, such as the inclusion of flexible

instruments from the start of the climate strategy reveals. Additionally, difficult and long lasting negotiations with the Länder frequently made it hard to set up high targets within a reasonable timeframe.

Different was the development in Germany. While, at the start environmental policy was seen as a rival for economic development, climate change has received a high political priority since the late 80s. Thus, Germany became the lead country in pushing global efforts for climate protection. The Kyoto Protocol would probably not have come into being without the strong dedication of German chancellors. Unlike in Austria, regulative instruments played a major role in Germany, until the Länder were responsible to implement EU-directives on their own. Within the Kyoto Protocol and the subsequent burden sharing agreement Germany pledged to reduce its GHG-emission by 21 %, which they reached much earlier than the protocol required.

In Switzerland climate policy developed out of energy policy, rather than out of environmental policy as was the case in Austria and Germany. Switzerland, as one of the countries most strongly affected by climate change, always emphasized not only the importance of reducing GHG emissions but also the importance of independency from energy imports and fossil fuels. For decades Switzerland had no coordinated federal regulations and faced energy supply problems. Finally, in 1990 after a people's referendum the new energy policy article (art. 89 of the federal constitution) was included. The article demands, for example, an ecological energy supply as well as an economical and efficient energy supply. In this way Switzerland was able to connect energy supply targets with those included in climate policy from the start. When Switzerland ratified the Kyoto-Protocol in 2003 it pledged a reduction of 8 % of GHG-emissions but initially focused on CO<sub>2</sub>. To achieve the 8 % target, Switzerland decided to reduce CO<sub>2</sub>-emissions by 10 % and disregard the other GHG. The central measure of Swiss climate policy is the CO<sub>2</sub>-Law.

## **8.4 Coordinated Climate Protection Policies**

After years of uncoordinated utilization of climate protection measures the need for coordination became obvious. Therefore, all three countries have developed climate programs albeit in different years.

In Austria it is called "climate strategy", in Germany "Climate Program" and in Switzerland "Energie 2000". Austria was the last of the three countries to begin its coordination

attempts with the Climate Strategy 2002. The development process was initiated by the BMLFUW 1991 when nine working groups were established for its elaboration, each one filled with experts sent by the federation, the Länder, interest groups and social partners. The exact composition depended on the topic of the group, so for instance the working group “space heating” (Raumwärme) was dominated by experts of the Länder, whereas the group “industry” was filled by experts of the federation and the industrialists federation (Industriellenvereinigung). The nine working groups were supported and coordinated by three administrative groups, the “Interministerial Committee for the Coordination of Measures to protect the Global Climate” (IMK), the Kyoto-Forum and the “Kyoto-Coordination Board”. The latter existed only formally, filled by high ranking representatives of the federation and Länder. The IMK was responsible for the horizontal coordination of the strategy, i.e. between the different ministries. As the central institution of the strategy the Kyoto-Forum must be named. Formally it was described as a discussion platform for the preparation and coordination between the federation, the Länder and the communities. In fact important decisions were already prepared in this forum. The forum was chaired by both the BMLFUW and a common representative of the Länder and filled by representatives of the environment- and financial departments of the federation and Länder. Thus the Kyoto-Forum can be considered a place where the Länder had the power to influence the strategies content, which is also valid for the revision starting in 2005, when the working groups were reduced to three but the Kyoto-Forum was retained. At this level, the Länder had already made clear, which measures they would support and which ones they would not. Additionally, the Länder emphasized their collaboration only in the framing of the budget agreed upon in the Stability Pact.

In Germany the kick-off for the development of the federal climate protection program took place in 1990. In the same year the BMU presented its recommendations, which predetermined later targets and structures. With the first cabinet decision for the national climate protection policy the valid advisory structure, still in existence today, were predefined. Under the control of the BMU the Interministerial Working Group “CO<sub>2</sub>-Reduction” (IMA) was established in 1990. The group was tasked with establishing the guidelines for climate protection policies. The IMA can be seen as an instrument for horizontal coordination. The critical piece of vertical coordination was done by the Conference of Environmental Ministers (UMK). This conference is an assembly of both the

federal and the Länder ministers. The conference, first established in 1972, serves as a panel for professional and political exchange of opinion of the heads of the federal and Länder departments and should foster consistent enforcement throughout the Länder.

In Switzerland a discussion about the future energy policy hampered the development of a national energy policy for decades. Only in 1990 with the people's referendum for the inclusion of the energy article into the federal constitution (art. 89) and the launch of Energie 2000 was a first consensus for a national energy policy reached. The development of Energie 2000 was quasi prepared by the yearlong energy discussion of expert groups, the experiences of Kantonal energy policy programs, as well as by over 100 discussions between the responsible departments and all relevant energy actors. The Bundesrat at the time, A. Ogi, finally proclaimed the framing of the program. Several groups filled by representatives of associations, organizations and public institutions accompanied the development of the program and the systematic integration of all relevant actors was given priority. The core of the program's development, however, was the bilateral contacts of the direction of the program with single persons of the groups. The Kantons were integrated through the Conference of Kantonal Energy Directors (EnDK) and the Conference of Energy Competence Centers (EnFK). The main focus of the Kantons lay, just as in Austria and Germany, on the energy efficiency of domestic buildings. A study, executed in 1998, showed generally a good atmosphere between the different actors in energy policy. The developed structures were only considered satisfying within the structures and possibilities for improvement were described. As a result of the study, those responsible for the program decided to intensify communication, information and coordination. In the year 2000 the core of the current Swiss climate policy was created, the so-called CO<sub>2</sub>-law. Evaluations of the energy program Energie 2000, which had at the time been running for 10 years, showed that voluntary measures, demanded by the economy, were not effective enough. In addition it revealed that, aside from Germany and specifically in Austria, the Swiss heads of state had decided to give a clear sign of the importance of reaching the climate protection goals. Based upon the Energy Law the core of the CO<sub>2</sub>-Law is the definition of the reduction target (10 % of CO<sub>2</sub>), it also emphasizes the privilege of voluntary measures and concedes the right of the federation to enact a CO<sub>2</sub>-Tax in the event that voluntary measures are not sufficient. Furthermore, it defines, once again, the competences of the federation and Kantons, leaving the field of energy efficiency of domestic buildings to the Kantons and defines the divi-

sion of subsidies (Global Contributions). The motivation behind a successor program was based upon best practices learned from the experiences of Energie 2000. Again an intensive and long lasting energy policy dialog (started 1996) chaired by the Federal Ministry for Environment, Transport, Energy and Communication (UVEK) was carried out. In 1998 the Federal Council assigned the UVEK to establish a successor program together with the Kantons and the economy. The program was elaborated upon by a strategy group made up of the Federation, the Kantons, trade associations and environmental organizations. Again the Kantons could claim their influence in the crucial sectors of energy efficiency of domestic buildings and mobility. In 1999 a consultation of the draft was conducted with 119 interested institutions revealing broad support for the program. Finally the program EnergieSchweiz was enacted in 2001. During its runtime the program was accompanied by several sectors and strategy conferences, which took place at least once a year. The conferences were meant to foster the exchange of information and opinions of BFE, Kantons, agencies and associations.

## **8.5 Competences of the States – the Building Sector**

Energy efficiency in domestic buildings is mentioned throughout each of the three case studies as a result of its high potential in helping to meet climate change targets. While other sectors, like industry and energy production, are being controlled by the federation (mainly by the emission trading scheme), most legislative regulations concerning domestic building are in the hands of the states.

In Germany and Switzerland the high importance of the sector has been accounted for through the creation of special programs. In Austria the traditional promotion of domestic building and building regulation standards are used to influence the behavior of house owners. The task was met with special funds, initially organized and administered by the federation. Over the decades the competencies were transferred to the Länder, a development which peaked in 1988, when the responsibility of the promotion of domestic building, both in legislation and execution, was alienated to the Länder by constitutional law.

In both of the climate strategies of Austria, the one of 2002 and the adapted version of 2007, the importance of building sector is emphasized. The measures implemented in this sector include the improvement of insulation, new buildings standards and higher energy efficiency of heating systems. Since the late 80s it has been the Länder's respon-

sibility to work out strategies and implement measures within this sector. With the rising awareness of energy efficiency and according to the climate strategy the promotion of this sector has been increasingly connected to certain energy standards with the overall target being to increase energy efficiency of both existing and new buildings. The federation tries to foster the efforts of the Länder by providing financial means. These means were initially earmarked by the Law for Subsidies with Intended Purpose. According to § 4 of the law the federation is allowed to control the appropriate use of the subsidies and to demand an annual report of its utilization. From 2009 on the law was substituted by an Agreement according to art. 15a B-VG.

Germany took another approach in addressing the huge potential of reduction in the building sector. Unlike Austria, it created a special program, called “CO<sub>2</sub>-Gebäudesanierungsprogramm” (CO<sub>2</sub>-Building-Restoration). This bundle of measures considered necessary by the IMA was to secure success within the sector. The program had an antecessor, a living space modernization program which was successful before but needs to be shaped more towards the reduction of CO<sub>2</sub> emissions. The initial program started in 2000, with its base being the Energy Saving Ordinance (EnEV). With the ordinance new technical regulations for new buildings and new standards for construction products have been introduced. With an amendment in 2007 the Energy Performance of Buildings Directive with the Energy Pass has been realized. The EnEV, unlike in Austria, defines energy requirements for new and existing buildings on the federal level, such as the changing of old heating systems and the upgrading of roof insulations,. The Länder are responsible for the implementation of the EnEV and have the competence to enact their own regulations concerning the realization and monitoring of its requirements. The fact that there is no obligation to establish such regulations has not affected their validity.

In Switzerland domestic building sector is also a responsibility of the Kantons. The current program, the so-called “Gebäudeprogramm” (Building Program), started in 2010. Unlike Germany it was developed by the Kantons themselves, namely by the EnDK and supported and monitored by the Federal Office of Energy (BFE) and the Federal Office for Environment (BAFU). The program also had an antecessor, a building program financed by the so-called “Klimarappen”. The Kantonal parliaments define the energy prescriptions and take care of implementation. A result of the Kantonal work is the Sample Prescriptions for the Energy Sector (MuKE<sub>n</sub>). These sample prescriptions act as

a common denominator for the Kantons. The financial base for the new program is provided by the CO<sub>2</sub>-Law resulting from the ability to levy a CO<sub>2</sub>-Tax. A third of the revenues from the CO<sub>2</sub>-Tax, i.e. 133 Million Franken, are provided for the program to renew windows and improve the insulation of walls, roofs and floors. Additionally, the Kantons have installed different promotional programs for renewable energy, waste energy use and efficient building equipment which are cost 80 to 100 Million Franken per year. These programs are additionally supported by 67 Million Franken of the so-called "Globalbeiträge". This means a total fund of 280 to 300 Million Franken per year are needed until 2020.

## **8.6 A Reduction Potential not used – Transport and Mobility Sector**

There is no coordinated program for the sector transport and mobility in Austria, although the sector could be considered the most important in terms of the amount of GHG emissions, the reduction potential and an adverse trend (in Austria and Switzerland the emissions are rising). However, in Austria a comprehensive program is missing, in spite of that the federation beliefs in measures which do not include the support of the Länder. Germany, in contrast, emphasizes the importance of the ÖPNV in the Climate Program 2000 and granted the Länder financial aid secured by the Community Traffic Financing Law and the Regionalization Law and supported respective research projects. Unlike in Austria and Switzerland the emission trend has been falling, which was, however, assigned to federal measures like the Ecological Tax Reform. This topic was not elaborated upon in the 2005 program, it was only in the IEKP that it has again been given more importance, driven by the ambition to become the flagship country of electromobility. A national development plan has been elaborated and a national board installed for the coordination of several Länder projects. Additionally the federations provide financial support, especially for R&D. In Switzerland the importance of the mobility sector was already noted in the first program. According to the general attitude voluntary measures have been preferred. This brought the creation of intermodal transport associations. In the following years the topic did not remain at top of the list of priorities, on the contrary, the emission trend showed an increase (partly due to the preference for SUVs). This trend has been faced by federal measures in recent years (EcoCar, EcoDrive, Klimarappen).

## 8.7 Lessons Learned – Recent Developments

According to the success of the different approaches of the three countries, the measures for the (near) future are diverging.

The Austrian federation appears to be very unsatisfied with the collaboration and the commitment of the Länder. A law for climate protection aimed at improving collaboration and coordination should provide a remedy for this deficiency. The British “Climate Change Act” has served as an example. The bad understanding of Länder and federation was confirmed in the long and exhaustive negotiations, lasting from 2007 to 2011. In spite of or perhaps as a result of this the outcome was meager. The law is currently made up of only three pages. At the very least, however, it will make climate protection for the Länder obligatory. The law includes a national objective in the federal constitution (similar to Germany and Switzerland) as well as legal framing for the division of competences. However, there is much doubt concerning the actual pressure that will be exerted on the Länder in the event that they do not fulfill the targets since the division of penalty payments are still under negotiation. Nearly simultaneously the Austrian Energy Strategy was elaborated. With this strategy Austria has implemented a similar program to the one Switzerland has been following for years and pursues the same Germany is going with the IEKP. From the beginning the federation secured a participatory process of elaboration and development and created a new process structure. The Länder are represented in political coordination, strategy coordination and in working groups of their interest (buildings, households, mobility) and meet in a special Länder coordination group, where they communicate with their strategy coordination representatives. Within the process structure a law for energy shall be developed as well as a monitoring system for financial promotions of Länder and federation.

Unlike Austria, Germany can consider its recent climate policies a success. This is perhaps the reason behind the lack of discussion about a climate protection law. In its place Germany has further developed its relatively successful Climate Protection Program and integrated it into the energy policy of the country. The result is the IEKP. Again the program involves a bundle of laws and ordinances, which again focus on energy efficiency in domestic buildings. The new energy requirements are defined in the amendments of the EnEV and the EEG. The observed deficiencies in implementation and enforcement in this field should be improved upon by private certification obligations and the inclusion of chimney sweepers. In this way the responsibility for checking the compliance of en-

ergy requirements is not dependent upon the Länder carrying it out. However, the success of the new EEWärmeG is again dependant on the implementation and enforcement by the Länder, but supported by a mandatory private verification.

The Länder are taking the problems in collaboration with the federation seriously. This is evident in the establishment of the Federation/Länder working group "Climate, Energy, Mobility – Sustainability" (BLAG KliNa), which was initiated by the UMK in 2008. It consists of high ranking Länder representatives and a representative of the BMU. Its task is to accompany the implementation and enforcement of national and European measures with an integrated climate and energy policy. Additionally the working group developed an experience report about implementation and enforcement. In this report the Länder are given the opportunity to state the reasons for the problems in implementation and enforcement from their point of view. The report revealed a general improvement of the measures of the IEKP. The Länder quoted problems with conflicting fields, like for instance nature conservation and the lack of clarity in the responsibility for implementation and enforcement as main obstacles. For certain instruments, like the KWKG, the suggested measures to achieve the targets are seen skeptically. Guidelines for the federation are generally viewed as very helpful.

Switzerland is also working on improving its climate policy targets. However, since the country practically reaches its emission reduction targets, they are not planning to make any large changes to their measures and implementations for the period after 2012. The higher reduction targets for the new period shall be reached with the existing measures, i.e. the program EnergieSchweiz and the CO<sub>2</sub>-Law. Thus a revision of the CO<sub>2</sub>-Law has been initiated and a consultation process (Vernehmlassung) was started in 2009. The participatory process again secures the broad agreement of all interest groups, as for instance the Kantons. According to the Vernehmlassung, Switzerland will be guided by the targets of the EU. The higher targets shall be reached by a continuation of the CO<sub>2</sub>-tax for combustible fuels and the Swiss building program, the development of the emission trading scheme according to the scheme of the European Union and the obligation for importer of fossil fuels to compensate between 5% and 40 % of the produced emissions by investing in climate protection projects. Since the program EnergieSchweiz is considered successful, there will be no major changes in the process structure concerning the relation federation – Kantons.

## 9. Conclusion

The method of coordination and the instruments used within Austria, Germany and Switzerland differ in various ways. The difference is a result of the federal political system of the countries, which is responsible for the development of policies and institutions in climate protection policy. In each of the countries the states must struggle for influence in federal policies and against the attempts of the federation, to gain more and more competences. In each of the three countries the competences of the states have been reduced, which is understandable, since climate policy targets have become increasingly important for nations as a whole. Therefore, a nation wide approach seems necessary in order to reach the targets. In the struggle for competences the states have the strongest position in Switzerland, followed by Germany and then Austria. This is also evident in the amount of influence the Länder and Kantons hold in federal legislation. The states, represented by the federal council, can exert strong influence only in Switzerland. In Germany the position of the federal council is weaker, however not as weak as it is in Austria, where even its abolition is discussed. It seems obvious that the implementation and enforcement of federal laws in the states could be more successful, if the position of the states is considered. Therefore, vertical coordination already begins at this political level, since it makes no sense to enact a federal law, knowing the states do not agree with it. This view is confirmed by various examinations in Austria and Germany, where implementation and enforcement have been the central problem in climate protection policy. The federation's ability to exert pressure onto the Länder is weak and what exists has hardly been used. The inquiry at hand has shown an improved involvement of the states within last years in Austria and Germany concerning the elaboration of climate protection laws, which were mostly embedded in comprehensive climate protection and energy programs. In spite of this improvement the future success of the Austrian Law for Climate Protection remains uncertain. The long negotiations between states and federation left resulted in little more than a definition of the climate protection target, the division of a probable contractual penalty is yet to be negotiated.

Switzerland's approach to climate protection has been different to that of both Germany and Austria. Climate protection measures have been embedded in energy policy, quoting a sustainable energy supply as target number one. The main target of climate

protection policy, the reduction of CO<sub>2</sub> emissions, went hand in hand with the efforts of Switzerland to reduce its dependency on energy imports. In this way climate protection measures have not been considered an economic impediment, as is the case in Austria and Germany. Therefore, the acceptance of climate protection measures was broad and a comprehensive, coordinated program began earlier. In Austria and Germany climate protection policy came out of environment policy. The apprehension that climate protection measures would endanger economic growth has only come about in recent years. In Germany the Länder have even made climate protection a competitive factor in their economy, since climate protection measures serve as a positive contribution to the attractiveness of a business location.

All three countries began comprehensive climate protection programs at the start of the millennium. Switzerland also looked upon an ancestor program already started in the 1990s. This program mainly builds upon voluntary measures. When the evaluation of the program showed that the targets could not be met merely through voluntary measures, they decided to back the new program by a law. Since then, the CO<sub>2</sub>-Law of Switzerland has been considered the center of Swiss climate policy. It defines the reduction target and allows the introduction of a CO<sub>2</sub>-tax, if further voluntary measures do not succeed. Austria and Germany have so far refrained from introducing such a law, making this a central difference in the approaches of the three countries.

The elaboration of the programs is based on participative processes in all of the three countries. The broadest involvement happened occurred in Switzerland with an energy policy dialog spanning over two years. After that a draft was elaborated by the federation, the Kantons and the economy. This draft underwent a consultative process with 119 interested institutions, a strategy group joined by the federation, the Kantons, trade associations and environmental organizations elaborated the details, before the program was enacted in 2000.

The development of the German program had already begun in 1990. The federation established the interministerial working group "CO<sub>2</sub>-Reduction". This cross-departmental-committee worked out guidelines for climate protection, which led to the draft of the climate protection program. Before the program was enacted in the year 2000, it was coordinated with the Länder.

In Austria an interministerial working group was installed in 1991. At the ministerial level it provided a base for the elaboration of the national climate protection program.

The actual program, however, was determined by a different institution, the Kyoto Forum. The forum served as a platform for discussions between the Länder and the federation and installed nine working groups, in which the Länder were represented according to their competences. After hard negotiations the program was finally enacted in the year 2002.

The elaboration and development of the three countries' various programs show differences in the participation process. Switzerland uses the most participatory approach because from the beginning the actual elaboration happened in common with all important stakeholders. In Germany, however, a draft of the respective program was prepared on the federal level and then negotiated and adapted. In Austria the Länder could at least exert their influence in a discussion platform.

In their respective role in the development of the programs the states have been represented by different institutions. These institutions consist of the respective persons in charge, namely the energy directors in Switzerland (EnDK), the state ministers for environment in Germany (UMK) and the state governors in Austria. These institutions serve as coordinative board between the states, aimed at strengthening their position against the state. They have existed for decades and have gained a high level of political power. In Austria it is even considered the "real" representation of the Länder, in contrast to the federal council.

Differences considering vertical coordination can also be found in the content of the climate protection programs itself.

Germany's program includes a large bundle of regulative measures, such as laws and ordinances as well as financial measures (ecological tax reform). The formulation of the measures is much more specific than the in Austria's program, which is also evident in the length of the programs. While the German program was made up of several hundred pages, Austria's was barely over one hundred. In general the Austrian program consists of only a few specific measures and instruments. Based on the CO<sub>2</sub>-Law the Swiss program also sets specific measures, but left it to the persons in charge to elaborate and develop the means necessary to comply with the law. In the case of Austria and Germany the programs were adopted after an examination of its results. Since the German program is considered a success no major changes were made in the general approach. The examination of the Austrian program revealed unsatisfying results. This resulted in a demand for increased and improved collaboration of the Länder, but there been no spe-

cific changes to support this.

Unlike Austria and Germany's structure, which is pegged to international standards, Switzerland divided the program into four sectors, namely buildings, economy, mobility and renewable energies. Apart from the sector mobility, each sector nominated an "institution in charge" (EnAW, AEE, Kantons) responsible for the achievement of the targets. The achievement of the targets was forced through the possibility to levy a CO<sub>2</sub>-tax.

The buildings sector is especially important in all three of the countries in regards to vertical coordination. The sector of buildings (small-scale consumption and space heating) is the only legislative competence of the Länder and Kantons. The sector is responsible for about one third of CO<sub>2</sub> emissions in each country and offers a high reduction potential. The difference is the approach used by each of the three countries. While Switzerland and Germany set up their own program to cope with the problem, Austria only adjusted its traditional domestic building program. The Swiss program has been developed by the responsible parties, namely the Kantons. Within the process structure and during the elaboration of the program they have been represented by the above mentioned EnDK. The program was finally approved by the federation. Together the Kantons worked out common energy standards for buildings. The program has shown satisfying results. The opposite has happened in Germany and Austria. In Germany, the central and regulative part of the program was provided by the EnEV, an ordinance requiring certain energy standards in buildings. Additionally the program was financially supported. The Länder are responsible for implementation and enforcement, a responsibility carried out extremely insufficiently. The Länder did not comply with their duty to ensure that the requirements were adhered to and the federation did not use its constitutional right to reclaim the financial support, which would have put additional pressure on the Länder. In Austria the traditional promotion of domestic building was intended to be the measure, which would reduce emissions in the building sector. It was adopted, meaning that financial aid for building is connected with the adherence to certain energy standards. The financial means, provided mainly by the federation, have been earmarked by law. However, there has been a lack of checkouts and a possible reclaim of the financial means by the federation never occurred. The per se earmarked means have even been used to fill budget holes.

In recent years all three of the countries have reacted to the results of the approaches to reduce their emissions. Since Switzerland will be able to more or less reach its target,

no major changes are foreseen for the period until 2020. The country is orientated around the targets of the EU and is working on an amendment of the CO<sub>2</sub>-Law. The successful energy program will be extended with respective adaptations. The same accounts for the building program of the Kantons. There are no changes intended in the vertical coordinative structures. Germany, however, has slightly changed its strategy in spite of being one of the most successful countries in terms of the Kyoto Protocol. First, it has developed a new climate protection program for the new period, merged with the energy program. Within the program the main changes refer to amendments of important energy laws. The general strategy of providing the legal framing for climate protection measures and to trust in implementation and enforcement of the Länder remains the same. However, the Länder showed their interest in improved coordination with the federation by recently founding a new institution, the BLAG KliNa. With this working group, consisting of a representative from each of the Länder and one from the federation, the Länder want to improve and support implementation and enforcement through better collaboration with the federation. Austria's extremely unsatisfying results over the last decade led to the strongest change in climate policy.. As of 2007 the country has been working on a law for climate protection. The draft has already been set up; it includes a reduction target and an obligation to measures promoting climate protection. In this way the Länder will be forced to adhere to the given targets and measures. However, the question of the division of a probable contractual penalty is still to be negotiated.

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