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The emerging vanguard? Mexico’s climate politics: policies, actors and consequences

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* Many thanks to the student research assistants: Hanna Spanhel and Benno Keppner, University of Tübingen

Abbreviations

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tr>
<td>BAU</td>
<td>Business as Usual Scenario</td>
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<tr>
<td>CDM</td>
<td>Clean Development Mechanism</td>
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<td>COP</td>
<td>Conference of the Parties</td>
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<td>CPI</td>
<td>Climate Performance Index</td>
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<td>CRI</td>
<td>Global Climate Risk Index</td>
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<tr>
<td>CICC</td>
<td>Comisión Intersecretarial de Cambio Climático / Interministrial Commission on Climate Change</td>
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<td>GHG</td>
<td>Greenhouse Gas</td>
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<td>HDI</td>
<td>Human Development Index</td>
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<td>IPCC</td>
<td>Intergovernmental Panel on Climate Change</td>
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<td>NGO</td>
<td>Non-Governmental Organizations</td>
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<td>UNFCCC</td>
<td>United Nations Framework Convention on Climate Change</td>
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<td>UNGA</td>
<td>United Nations General Assembly</td>
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<td>UNSC</td>
<td>United Nations Security Council</td>
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1. Introduction
Since the discovery that there exists a growing anthropogenic influence on the global climate and that this in turn could lead to serious consequences for human living conditions, “global climate change” has been framed in very diverse ways in the international discussions. In the beginning, the topic was mostly treated as an environmental issue (such as acid rain, forest dieback etc.) to be left to specific advocacy groups, scientists or ministries of the environment. At that time (approximately 1985 until 1992), environmental NGOs began to link the topic with security concerns to raise awareness and set it on the agenda of political leaders (e.g. World Watch Institute, the Climate Institute, the New Economics Foundation or the Friends of the Earth) (Oels 2012: 186). Parallel to this first phase of climate security debates, the interest in political circles for the topic began to increase and the United Nations Framework Convention on Climate Change (UNFCCC) was established at the Rio Summit of the United Nations Conference on Environment and Development (UNCED) in 1992.

In the course of the 1990s the discussion shifted in a more economic direction after scientific evidence showed the serious anthropogenic effects on the global climate and predicted that future adaptation measures would be associated with immense costs. The debates were dominated by questions of the cost of climate adaptation and mitigation compared to non-action (see for example the Stern Report 2006, which can be regarded as the culminating point of this line of thinking (Stern 2006)).

Since the turn of the millennium, the discussion of the possible security effects of climate change gained renewed momentum (Brzoska and Oels 2011). In line with more accurate forecasts about the widespread physical effects of climate change (e.g. more and more extreme weather events, altered precipitation, shifting climate zones, sea level rise, desertification etc.) and their effect on human habitats and lifestyles, the discussion about climate change as a security threat became again more relevant. The primary actors raising awareness of the link between climate change and security were once again not solely political bodies but various Non-Governmental Organizations (NGOs) and Think Tanks for instance Christian Aid, CNA Corporation, Center for Strategic and International Studies (CSIS) and Center for a New American Security (CNAS)\(^1\). Based on earlier debates on environmental security (Mathews 1989) and the possibility of widespread environmentally induced migration and conflict (Homer-Dixon 1994; Homer-Dixon 1999; Myers 1995, 2002) they pointed out how the effects of global climate change could contribute to these problems. It was only after these NGO efforts that the climate security debate gained momentum in the political sphere. In 2007, the United Nations

\(^1\) Christian Aid (2007); CNA Corporation (2007); CSIS (Center for Strategic & International Studies) and CNS (Center for a New American Security) (2007); Smith and Vivekananda (2007).

In academia, this development is seen with concern. Firstly, the direct link between climate change effects and conflict which is drawn in some of the reports and resolutions is called into question (Barnett and Adger 2007; Reuveny 2007). And secondly, there is a growing concern about the political effects of this “securitisation” of climate change. Departing from the Copenhagen School’s (Buzan et al. 1998) approach to securitisation and combining it with the concept of discourse, our ClimaSec project strives to uncover these effects and the actors involved in the securitisation process. It does so from a comparative perspective, looking at four countries which differ in regard to their socio-economic development and their standing in international and domestic climate politics. These countries are the USA (industrialized country, laggard in the climate negotiations), Germany (industrialized country, vanguard in the climate negotiations), Turkey (emerging economy, laggard in the climate negotiations), and Mexico (emerging economy, vanguard in the climate negotiations).

The climate security-debate gained momentum especially through the involvement of NGOs and think tanks. Hence, the ClimaSec project looks particularly at reports and contributions of these actors. This paper concentrates on the Mexican case. Through a survey of the most relevant secondary and primary sources it sheds light on the most important climate debates and dynamics in the country and identifies key actors that are involved in these processes. As the ClimaSec project tries to uncover how securitisation processes have influenced policy making—and which actors contributed most—special attention is given to climate security debates, although without neglecting the overall picture.

The paper is structured as follows: After this introduction and a brief section about Mexico and its general standing in world politics as well as its overall performance in climate matters (section 3), section 4 gives an overview of the domestic debates. The subsequent section 5 examines at the Mexican behaviour in the international climate negotiations, whereas section 6 elaborates on the most important actors involved in Mexican climate debates.

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2. Country Background

To account for Mexico’s domestic and international climate policies, it is important to first look at the general position of the country in the region and its relation to the international community as well as to briefly elaborate on the most important transformations it has undergone in recent years. This is particularly relevant as these developments to a considerable extent shape the corridor of possibility in which the country can position itself in the international climate negotiations.

Today, Mexico is the third biggest country in Latin America concerning its territory (after Brazil and Argentina) and the second biggest (after Brazil) according to population figures. In the last decades, its population grew considerably (up to 3 per cent p.a.) even though this trend decelerated in recent years. The total population grew from 86 million in 1991 to 113 million in 2010 (World Bank 2012). In the future, the growth will slow down further to approximately 1.2 per cent/annum which leaves the country with a forecast population of 130 million by 2050 (Peters and Maihold 2007: 11). Using the Gross Domestic Product (GDP) as indicator, its economy ranges 13th worldwide and second in the region following Brazil (Akerberg 2011: 38).

From 1929 until 2000, Mexico had been under autocratic rule of the Partido Revolucionario Institucional (PRI), an era that has also been called the “perfect dictatorship”. But there has been a remarkable democratic development since the election of President Vicente Fox, who was the candidate of the right-wing-conservative Partido Acción Nacional (PAN) in 2000. The transformation process started in the 1980s, when the Presidents Miguel de la Madrid (1982–1988) and Carlos Salinas de Gortari (1988–1994) liberalized the economy, which in turn also led to an altered foreign policy (Peters and Maihold 2007: 8). Previous to these changes, Mexico had strictly subscribed to the principles of non-interference with the domestic affairs of sovereign states. Now, this paradigm shifted due to the new strategy of increased integration in the world economy, attracting foreign investment and strengthening its economic and political ties with the US (Peters and Maihold 2007: 1). In the 1990s, the economic liberalization gradually spilled over to the political sphere, and in 1997, Mexico started a democratization process that culminated in the election of President Vicente Fox (Peters and Maihold 2007: 8). Although the losing candidate of the Partido de la Revolución Democrática (PRD), Andrés Manuel López Obrador, at first questioned the results of the subsequent 2006 election of Felipe Calderón (also PAN), he eventually accepted his defeat. Hence, the country’s democracy continued its way to consolidation (Marketline 2012: 34). Today, Mexico is considered a functioning democracy with a presidential system and regular elections of the President every six years according to a simple majority voting scheme. In 2012 Enrique Peña Nieto from the Partido Revolucionario Institucional was elected President. The country has a bicameral congress with a
Senate (upper house) consisting of 128 members elected for six years and a Chamber of Deputies (lower house) with 500 members who serve three-year terms. It is not possible to directly re-elect an incumbent which in turn often leads to quite inexperienced political personnel (Marketline 2012: 36). The Mexican Republic is a federal state consisting of 31 states and one federal district, which, besides the nationwide programs, all have their respective local climate legislations (Mexican Government 2012b: 21). There are three major parties which, by now, are all considered to be committed to the democratic system (Bertelsmann Stiftung 2012: 14). The Partido Revolucionario Institucional (PRI) is the party of the old authoritarian regime which used to be centre-left but can now be regarded as more market-oriented. The Partido Acción Nacional (PAN) is a conservative party with an electorate based on the business community and the Roman Catholic Church. The third relevant party is the Partido de la Revolución Democrática (PRD) which puts forward a social welfare oriented program and rallied strongly against the neoliberal reforms of the economy within the last decade (Marketline 2012: 37).

Mexico ranks 56th in the Human Development Index (HDI), 33rd in the Bertelsmann Transformation Index, 58th in the Global Competiveness Report (Marketline 2012: 33) and is now considered an emerging economy with constant growth rates (per capita gross domestic product (GDP) on average: 6.5 per cent/annum from 1990-2003, (Feakin and Depledge 2010: 21)). These rates have slowed down in recent years (average GDP growth of 2.24 per cent from 2002-2011). The per capita gross national income (GNI) grew from 3.250 $ in 1991 to about 9.000 $ in 2010 (with a slight decrease in the year 2009 due to the global economic crisis) (World Bank 2012).

Together with Brazil, with whom it engages in an on-going competition concerning regional and global influence, it assumes a leading role in Latin America and can be deemed a regional power in Central America. However, its relationship to Latin American countries in general has not always been an easy one because of its strong ties to the USA (Peters and Maihold 2007: 4).

Since the beginning of its economic and political transformation, Mexico has joined several international and regional organizations and signed various treaties. It joined the General Agreement on Tariffs and Trade (GATT) in 1987 and is a member of the Organisation for Economic Co-operation and Development (OECD) since 1994. In the same year, it intensified its relations to the US and

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3The interconnectedness between Mexico and the United States is reflected in the large portion of Mexico's exports that go to the US and the therefore vital importance of the free trade treaty NAFTA Peters and Maihold (2007: 28ff), as well as in the quite high number of approximately 20 million Mexicans who live in the US – of which a large fraction sends remittances back towards Mexico on a regular basis Peters and Maihold (2007: 26).
Canada by joining the *North American Free Trade Agreement* (NAFTA). Further relevant memberships include the *Group of Latin American and Caribbean Countries* (GRULAC), the *Organization of American States* (OAS), the *G20*, *World Bank*, *World Trade Organization* (WTO), *International Monetary Fund* (IMF), *Sistema de la Integración Centroamericana* (SICA), *Comisión Económica para América Latina y el Caribe* (CEPAL), and the *GS* (Mexico, Brazil, South Africa, China, and India). Finally, it signed various free trade agreements with countries all over the world, for instance with the EU, the USA, Canada, Japan, Israel and various Latin American countries.

Despite Mexico’s on-going integration in the international economy and society and its satisfactory overall economic performance, several serious problems remain, which could interact with the effects of climate change. These include widespread poverty, a very high gap between the rich and the poor as well as a strong north-south divide. In 2010, 51.3 per cent lived below the poverty line, eight per cent in extreme poverty (Bertelsmann Stiftung 2012: 16). In 2008, the Gini-coefficient – measuring inequality – was 48.3, which is one of the highest worldwide (World Bank 2012). Finally, the north hosts most of the industry, the major cities and the wealthier parts of society, whereas the south is dominated by relatively poor and rural populations with a high percentage of indigenous peoples\(^4\) (Peters and Maihold 2007: 2f). The north-south divide is even reflected in regional HDI scores with much higher figures in Mexico City, the northern territories and urban zones than in the southern and rural areas\(^5\) (Peters and Maihold 2007: 16f). Another important development is the urbanization that has been on-going since the 1950s. While in 1950, 42.6 per cent of the Mexican population lived in cities, by 2000, this figure had risen to 74.7 per cent. Again, there is a considerable difference between the north, where 85.3 per cent live in cities, and the south with an urban population of 56.7 per cent (Peters and Maihold 2007: 11).

The large gap between the rich and the poor can be partly explained by the radical economic liberalization. The application of mostly neoliberal policies led to high growth rates, but at the same time to stagnating salaries. Moreover, this strategy has shifted considerable powers from the government into the hands of big oligopolies, so that even the World Bank considers Mexico a “captured state” (Bertelsmann Stiftung 2012: 9, 14). One result is a considerable subordination of Mexico’s foreign policy to economic rationalities (Peters and Maihold 2007: 8), another the growing

\(^4\)In 1994, the Chiapas conflict – i.e. Zapatista uprising in the south state of Chiapas – brought these cleavages between the north/south, rich/poor, urban/rural and the mestizo and indigenous population to the fore Howard and Homer-Dixon (1996).

\(^5\)Further gaps between the majority population and the indigenous population: literacy: 93% overall; 67% indigenous Bertelsmann Stiftung (2012: 22).
informal sector which accounts for about 30-40 per cent of the economy (Bertelsmann Stiftung 2012: 18).

Since the turn of the millennium, and particularly under the presidency of Felipe Calderón (2006-2012), drug related violence has escalated throughout the country and particularly in the north and in border areas. Calderon’s strategy of massive police presence and military pressure on the drug cartels (the most important ones being: Los Zetas at the Atlantic coast and the Seminola Cartel on the Pacific side) has led to very brutal retaliation by the cartels which often involve innocent people. Around 30,000 people have been killed in the process (Bertelsmann Stiftung 2012: 6). Today, the government cannot be considered to be in full control of its whole state territory; some would even classify Mexico in some areas as failed state (Bertelsmann Stiftung 2012: 6).

Another related problem is widespread corruption and infiltration of the police and state institutions by the drug cartels: Mexico ranks 100 out of 183 in the Transparency International Corruption Perceptions Index 2011 (Peters and Maihold 2007: 21; Bertelsmann Stiftung 2012: 11). The newly (2012) elected president Enrique Peña Nieto of the PRI has already announced to put forward a less confrontational strategy vis-à-vis the cartels to curtail the violence, but he is also accused of maintaining too close connections to the cartels (Burghardt 2012).

Migration is another topic which always ranks high on the national (security) agenda and could possibly play an important role with regards to climate issues (Oswald Spring 2012). In particular, this refers to the emigration of Mexicans into the US as well as to migrants from South and Central America who use Mexico as a transit country. On the one hand, the issue has always been a point of contention between Mexico and the USA (Peters and Maihold 2007: 23), with Mexico demanding a better status of its people in the US and a less restrictive border regime. On the other hand, due to pressure from the US, Mexico’s own policies in regard to migrants from the south are not less restrictive than those of the US.

Although the recent economic crisis in 2008/9 hit the country particularly hard because of its strong economic ties with the USA (with a GDP minus of almost seven per cent in the year 2009, (Bertelsmann Stiftung 2012: 16; Mexican Government 2012b: III)), Mexico seems to have recovered

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6One important underlying cause for the growing drug trafficking industry is that since the liberalization of Mexico’s economy, the wages and employment opportunities have not kept up with the economic growth and large parts of the population do not profit from the economic gains. The result is a growing informal economy. Many people see their only chance in working for the drug cartels Peters and Maihold (2007: 21).

7Additionally, Mexico’s justice system is also considered to be very corrupt and especially vulnerable to political influence Peters and Maihold (2007: 21).
(GDP growth of 5.4 per cent in 2010). All in all, over the last couple of years the whole region has gathered a renewed self-confidence which is reflected in quite high economic growth rates, positive opinion polls and a self-perceived growing weight in international politics. Especially Brazil and Mexico stand out in this respect and are gradually becoming important actors in world politics. Accordingly, in the last decade Mexico has put considerable efforts into opening up to the world and integrating itself in global governance structures. It hosted some important conferences such as the Development Financing Summit in Monterey in 2002, the World Trade Organization (WTO) Summit in Cancun 2003, and last but not least the 16th Conference of the Parties of the UNFCCC (COP) in Cancun in 2010. Moreover, the country chaired the G20 meeting in 2012.

Regarding its foreign policy, Mexico puts forward a multilateral agenda and tries to increase its influence in all important global fora, although the economy is still one of its most important imperatives. In 2009/10, Mexico served four terms as a non-permanent Latin American member in the United Nations Security Council (UNSC). However, it still lags behind its regional competitor Brazil when it comes to global and regional influence. Mexico has not been a member of the G4 (Germany, Brazil, India, Japan), who tried to start a reform process of the UNSC, and is also not in the “BRICS club” of emerging economies (Brazil, Russia, China, India, South Africa) (Peters and Maihold 2007: 28). Nevertheless, the status of not being a developing country anymore, while at the same time not yet being a fully industrialized country, has its advantages. It enables Mexico to act as a legitimate mediator between these two camps, which certainly helped the country to reach a celebrated consensus in the Cancun climate negotiations (Peters and Maihold 2007: 2f). Regarding climate issues, Mexico has put forward quite ambitious national policies and pushes for strong agreements on the international level.

3. Overview on Climate Policies in Mexico and in the Region

After having elaborated on the background conditions of the country and its recent transformation to democracy, this section gives a brief assessment of the overall performance of Mexico regarding climate policies and its vulnerability to the effects of climate change. Concerning greenhouse gas emissions (GHG), Mexico’s per capita emissions have been on the rise since the 1970s with a very steep increase from 1971 to 1980 and a more gradual one since the 1980s. In 1998, every Mexican emitted 1.1 tons of GHGs per year, a figure that rose to 4.33 tons in 2008, which is much higher

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8 However, compared to Asia the region has lost influence worldwide, especially in economic terms Peters and Maihold (2007: 12).
9 Although, when it comes to paying for multilateral projects Mexico shows much less enthusiasm Peters and Maihold (2007: 28).
10 No newer data is available so far.
than the per capita emissions in most other Latin American countries, although still low compared to the industrialized countries (for example, every US citizen emits about 19 tons/annum). Total country emissions have been on the rise as well from 83.022 kilotons in the year 2000 to 475.834 kilotons in 2008, with the energy, agriculture/land use, transport and waste sectors as biggest contributors (World Bank 2012; Salazar and Masera 2010: 22). Based on these figures, Mexico can be situated in between the genuine developing countries (whose emissions are so low that only adaptation measures are discussed) and the industrialized countries. This means that its emissions are high enough to matter on a global scale, and therefore mitigation actions make sense and are already being discussed and implemented (Wolf 2007: 4).

According to the Climate Action Tracker, Mexican emissions would rise by 50 per cent until 2030 if the country followed the business-as-usual scenario (BAU). However, since there are considerable efforts to cut emissions, a reduction of 21 per cent below BAU until 2030 is possible (Höhne et al. 2012: 1). In regard to energy intensity (units of energy per unit of GDP) Mexico has shown a constantly falling historic trend until 2009, as well as a positive future projection of a 7 per cent decrease (including already implemented and planned reduction measures) until 2030 (Höhne et al. 2012: 7).

One important concern regarding greenhouse emissions is the high dependency on oil. Mexico is the 6th largest producer of oil worldwide (rank eleven concerning oil reserves) and about 30-40 per cent of the whole government budget comes from oil revenues of the state-owned Petróleos Mexicanos (PEMEX) company (Friedrich 2010: 56). As a result, the energy sector is mostly based on the burning of fossil fuels (almost 90 per cent in the year 2005 (Wolf 2007: 20)), which leads in combination with the energy intensive manufacturing industry to a quite negative environmental footprint. Nevertheless, Mexico seems to have realized these problems and has put in place several ambitious environmental and climate policies, which is reflected in its notably good standing in international climate performance rankings (Bertelsmann Stiftung 2012: 23). Mexico has in recent years always ranked in the top 15 of the Climate Performance Index (Burck et al. 2012) (see table 1) and its efforts to fight climate change are considered “Medium” according to the Climate Action Tracker (Höhne et al. 2012). This progressive stance toward climate action is also mirrored in the fact that, according to a recent global survey of the Pew Research Center, a majority of Mexicans consider climate change as the major threat for their country (Pew Research Center 2013: 6).

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11 “A description of what would most likely have occurred in the absence of a carbon offset project, also referred to as the ‘baseline scenario’.” The Carbon Neutral Company (2012).

12 This is much better than for example the USA or even the combined EU-27.

13 However, this figure is lower as in most other Latin American countries Pew Research Center (2013: 6).
Table 1: Mexico’s CPI Rankings and Scores 2008-2013

<table>
<thead>
<tr>
<th>Year</th>
<th>Rank</th>
<th>Score</th>
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<tr>
<td>2008</td>
<td>4</td>
<td>62.5</td>
</tr>
<tr>
<td>2009</td>
<td>14*</td>
<td>59.1</td>
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<tr>
<td>2010</td>
<td>11</td>
<td>61.2</td>
</tr>
<tr>
<td>2011</td>
<td>11</td>
<td>64.0</td>
</tr>
<tr>
<td>2012</td>
<td>10</td>
<td>64.6</td>
</tr>
<tr>
<td>2013</td>
<td>14</td>
<td>64.91</td>
</tr>
</tbody>
</table>

Table 1 - Source: Germanwatch Climate Performance Index

*New Ranking since 2009, the first 3 ranks are left free to symbolically show that no country does enough to prevent climate change

Concerning its vulnerability to the effects of climate change in the past, Mexico ranks 48th (CPR Score 58.50) in the Global Climate Risk Index for the timeframe 1992-2011 (Harmeling and Eckstein 2012). According to the Gain Index, which also accounts for the prospected future vulnerability and the coping capacity of the country, it ranks 48th out of 183 countries. In the “readiness-index” of the Gain-Index, Mexico is listed on the 82nd position out of 178 countries14 (Global Adaptation Institute 2012). Mexico’s overall vulnerability stems firstly from its geographical features – with major arid or semi-arid areas in the northern and central parts that are threatened by drought, desertification and the loss of arable land – and more humid southern and eastern areas that are endangered by floods, changing precipitation patterns, sea level rise and disasters. The second major factor is socio-economic. The country still has some major socio-economic problems and a quite high percentage of the population is poor. This poor segment mostly lives in the southern and rural parts of the country and is particularly vulnerable to changes in the environment and increased disaster quantity and intensity15 (Salazar and Masera 2010: 22–25).

In conclusion, Mexico shows a fairly high vulnerability to the projected effects of climate change16 (Wolf 2007: 36); (IPCC (Intergovernmental Panel on Climate Change) 2007b). At the same time the country displays a quite good performance with regard to what it has done in respect to emissions reductions, adaptation measures and climate policies, especially when considering its status as an

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14 “Readiness seeks to measure the ability of a country’s private and public sectors to absorb additional investment resources and apply them effectively towards increasing resiliency to climate change.” Global Adaptation Institute (2012)

15 Because of combined geographical and socio-economic factors, some of the most vulnerable Mexican states are: Veracruz, Tabasco, Campeche, Tamaulipas, Yucatan, Chiapas, Oaxaca and Chihuahua Salazar and Masera (2010: 23).

16 Even with a moderate warming of two degrees, Mexico will experience 10% less rainfall, the extinction of forests, a 50% reduction in agricultural land (especially for maize), water scarcity (especially in the northern and central parts), salinization and erosion of soil, sea level rise, flooding, and a loss of biodiversity. Poor populations are especially vulnerable to these changes Friedrich (2010: 55), Salazar and Masera (2010).
emerging economy or developing country and the only recent transformation to democracy. This is somewhat puzzling, considering Mexico’s high dependency on oil and the focus on a fast overall development, as well as on the strengthening of the economy. One explanatory factor might be the strong engagement of the former president Calderon with environmental issues, as well as the regional competition with Brazil that has also put forward a rather environmentalist agenda in recent years. Mexico’s position in between the developing countries and the emerging economies/industrialized countries could be another decisive factor – a situation in which the role as mediator for the “good cause” does have its attractions. The next section looks further at the domestic dimension of Mexico’s climate politics.

4. Domestic Level
Throughout the administration of the PRI and during the gradual economic opening in the 1980s and 90s, environmental and climate concerns were not on the forefront of Mexican politics. In the early 1990s the most important actors in Mexico’s climate debate came from the scientific sector, in which the Universidad Nacional Autonoma de Mexico (UNAM) and the Instituto Nacional de Ecologia (INE) stood out in particular. After the establishment of the UNFCCC on the global level, these two organizations were mostly responsible for the creation of Mexico’s Programa Nacional Científico sobre Cambio Climatico Global, which helped to coordinate the research on the topic within the country. Later on, the participation in the US Country Studies Program – which was designed to support developing countries in their climate action – facilitated further activities with regards to climate change and helped in the creation of Mexico’s first national greenhouse gas inventory (published 1995) and the first national communication under the UNFCCC (submitted 1997) (Pulver 2006: 51). During that period, climate change ceased to be a solely scientific topic and was gradually integrated into the political sphere. Due to the still considerable influence of the scientific sector on climate topics, the overall stance towards climate change policies in the political arena was rather progressive. However there was some institutional competition particularly between the Ministry of Energy / Secretaría der Energía (SENER), which put forward a conservative stance, fearing for the countries important oil industry, and the Ministry of the Environment / Secretaría de Medio Ambiente y Recursos Naturales (SEMERNAT) which tried to strengthen Mexico’s climate policy. The ratification of the Kyoto protocol in 2000 ended this competition in favour of the SEMERNAT. Surprisingly, the state owned oil company PEMEX had played a vital role in convincing the government to ratify the

17 An exception might be the Chiapas conflict, i.e. the Zapatista uprising in 1994 – which was, according to some scholars Howard and Homer-Dixon (1996), to a considerable extent induced by a specific mixture of environmental and societal factors present in Mexico – that gave a first hint of the problems the country could face if climate change would hit the country without appropriate adaptation strategies.

18 At that time the INE was a fairly independent research institute. Later on, in 2003, the Instituto Nacional de Ecologia was officially reestablished as decentralized sub-body of the SEMERNAT.
protocol (Pulver 2006: 52–53). Throughout the 1990s and the early 2000s PEMEX had put forward a fairly progressive environmental and climate agenda and had even committed itself to GHG reduction targets. This can be ascribed to its close connections to the SEMERNAT with regards to climate issues, its self-perceived role as an environmental leader and also to business interests regarding the possibility to carry out projects in line with the Clean Development Mechanism (CDM) under the Kyoto protocol to gain foreign investments (Pulver 2006: 55–56). With the election of Vicente Fox in 2000 Mexico’s climate enthusiasm faded somewhat which was further aided by the rejection of the Kyoto protocol by the US and the opposing stance of George W. Bush towards climate issues. For Mexico had hoped to gain foreign investments through the implementation of CDM projects with US companies. However, after a visit to some European countries of the Mexican Secretary of the Environment Victor Lichtinger and the final ratification of the protocol by all EU member states, the opportunities for CDM projects improved in 2002. Accordingly, throughout the 2000s Mexico’s climate policies fluctuated between rather progressive and more conservative ideas, which was also due to the still existing competition between SEMERNAT and SENER (Pulver 2006: 54).

Looking at more recent developments, because of its continuous population and economic growth, the overall pressure on the environment has been increasing in Mexico. Climatic effects are likely to add to this pressure on the environment in the future. In the major cities and economic areas (with its strong focus on the manufacturing industry) air pollution is an immense problem (Marketline 2012: 77). Especially in the arid and semi-arid areas in the north and particularly in Mexico City (with its 20 million inhabitants) water availability and pollution is another major concern. Many rivers and water resources are contaminated; over 40 per cent of water is wasted (Bertelsmann Stiftung 2012: 24). All over the country logging activities and soil erosion are increasing challenges. According to a report of the German Institute of Development Politics / Deutsches Institut für Entwicklungspolitik (DIE) from 2007, the annual overall environmental damage accounts already for about 12.5 per cent of the country’s GDP (Peters and Maihold 2007: 19) and the projected costs of non-action in regard to climate change are estimated at 6.22 per cent of the GDP in the coming years (Galindo 2009). However, as the last paragraph has shown, there seems to be a growing awareness of the environmental problems in the country and especially of the need to do something about climate change. Since signing and ratifying the UNFCCC agreement in 1992, Mexico has gradually increased its engagement with climate topics and today can be considered one of the forerunners in the region (Akerberg 2011: 37). It was one of the first developing countries to present concrete national emissions inventories and targets and has been especially eager to raise awareness of climate change issues within the relevant communities in Mexico. Moreover, the country has established a very good
database on its emissions and climate research and has built a quite efficient institutional setup within the country (Höhne et al. 2012: 4). Even though Mexico is an emerging economy with various political and social problems, it has been pushing for strong international commitments and has at the same time advanced ambitious national targets and policies. Following a three-stage approach\textsuperscript{19} of the Global Environmental Facility (GEF) to classify climate adaptation measures, Mexico has already reached stage two (Wolf 2007: 42). In addition to these adaptation efforts, the country has also begun to develop fairly sophisticated institutional framework in order to face climate change and to plan actions for mitigation.

The most important domestic planning instrument in Mexico is the National Development Plan / Plan Nacional de Desarrollo, which is issued every five years (at the time of writing this paper the version for 2007-2013 was still valid; the most recent plan being valid for the period 2013-2018) (Mexican Government 2007, 2013), which sets forth the overall planning criteria and targets in the country. As one of its core targets, the plan for the timespan 2007-2013 strives for a sustainable environment and also explicitly addresses climate change. The plan for 2013-2018 mentions climate change at several occasions, but the environment does not feature as one of its main objectives (Mexican Government 2013). In regard to climate topics, the most relevant governmental body is the permanent Inter-ministerial Commission on Climate Change / Comisión Intersecretarial de Cambio Climático (CICC)\textsuperscript{20} established in 2005\textsuperscript{21}. One important aim of the commission is to overcome the competition between the different ministries and to coordinate their efforts concerning climate issues. Likewise, these ministries integrate climate change programs and actions into their respective planning (Mexican Government 2012b: 21). As a result of the establishment of the CICC, the government adopted the National Strategy on Climate Change / Estrategia Nacional de Cambio Climático (ENACC) in 2007 (Mexican Government and Comisión Intersecretarial de Cambio Climático 2007). The ENACC identifies opportunities for mitigation measures, assesses the vulnerability of certain economic and social sectors and regions and develops adaptation capacities. It contributed to the establishment of the Special Program on Climate Change / Programa Especial de Cambio Climático (PECC, see below) (Mexican Government and SEMERNAT 2009; Mexican Government and Comisión Intersecretarial de Cambio Climático 2009).

\textsuperscript{19} Phase 1: General vulnerability assessments and consultations of the population; Phase 2: Sector specific vulnerability assessments and capacity building; Phase 3: Implementation of measures Wolf (2007: 42).

\textsuperscript{20} Consisting of the ministries for: Agriculture, Livestock, Rural Development, Fishing and Alimentation (SAGARPA); Health (SSA); Interior (SEGOB); Environment and Natural Resources (SEMARNAT); Communication and Transports (SCT); Energy (SENER); Economy (SE); Finances (SHCP); Social Development (SEDESOL); Foreign Affairs (SRE). The goal is the formulation and implementation of national strategies to reduce GHGs and adapt to climate change.

\textsuperscript{21} The precursor of this institution had already been created in 1997 as an Ad-Hoc Group for Inter-Ministerial Dialogue Pulver (2006: 53).
To reach its objectives, the ENACC concentrates on two areas – firstly on energy generation and use and secondly on vegetation and land use – and proposes concrete mitigation and adaptation measures in these areas. The proposed measures in energy generation and consumption range from the establishment of projects in line with the CDM, fiscal incentives for sustainable energy projects, the promotion of renewable energy sources and the elimination of subsidies for fossil fuels to the facilitation of research on mitigation and adaptation measures in the country (Mexican Government and Comisión Intersecretarial de Cambio Climático 2007: 5). In the area of vegetation and land use, priorities are the implementation of an Ecological Land Use Planning Programme, the reduction of deforestation, the conservation of ecosystems and the fostering of research on the carbon cycle, as well as on the development of carbon conservation and emission reductions in the agriculture sector (Mexican Government and Comisión Intersecretarial de Cambio Climático 2007: 8).

The Special Program on Climate Change / Programa Especial de Cambio Climático (PECC)\(^{22}\), which was initiated in 2008 for the time span of 2009 to 2012, concretizes these efforts and gives a first estimation of the possible GHG reduction targets of the country. It mainly consists of four components: A Long-Term Vision, Mitigation, Adaptation, and Policy Mainstreaming. The *long-term vision* entails a reduction of the Mexican emissions by 50 per cent in the year 2050 compared to 2002 if the country receives adequate financial and technical support through multilateral channels (Mexican Government and SEMERNAT 2009: 4f). However, at this stage the long term goal is not yet supported by appropriate policies (Höhne *et al.* 2012: 1). The part on *mitigation* proposes a CO2-reduction of 51 million tons by 2012 compared to the business-as-usual-scenario (BAU). Nevertheless, according to the Climate Action Tracker only half of these reduction targets were achieved in 2012 (Höhne *et al.* 2012). In the *adaptation* part, the focus lies on the assessment and reduction of Mexico’s vulnerability to the effects of climate change. The last chapter on *policy mainstreaming* concentrates on the need for inter-sectorial and inter-institutional coordination and describes various training, education and research programs to achieve these goals (Mexican Government and SEMERNAT 2009: 9–10). So far, the PECC encompasses 105 objectives and 294 targets for mitigation and adaptation measures (Mexican Government 2012b: 21).

Another concrete national policy in line with the ENACC and PECC is the Sustainable Electricity Program (put in place in 2011) through which old light bulbs can be exchanged for more efficient

\(^{22}\)Brazil was the first country that announced a concrete emissions reduction goal in 2008, so that Mexico was put on the spot and presented its own strategy in 2009 which includes the target of 50 mio/year less GHGs by 2012 Detsch (2011: 10).
ones (Marketline 2012: 79). The additional Environmental Service Payment Program and the Pro Tree Initiative provide financial incentives to forest land owners and promote agroforestry systems. Further important laws in this area are the General Law on Wildlife (2000), the General Law for Sustainable Forest Development (2003), the General Law of Ecological Equilibrium for the Protection of the Environment, and the Environmental law of the Federal District (EU Commission 2009: 70). A list of laws, regulations and policies concerning the environment and climate change can be downloaded on the webpage of the National Institute of Ecology, a governmental-scientific sub-body of the SEMERNAT (Instituto Nacional de Ecología y Cambio Climático (National Institute of Ecology) and SEMERNAT 2012). Looking at the regional level, there is also some cooperation between Mexico and the US and other Central American countries in environmental issues (Marketline 2012: 77f) (see section 5 and 6).

Several initiatives are put in place in order to adapt and especially to manage the risk of climate related negative impacts and to reduce the vulnerability of the population and build resilience. Two examples are the Programa Nacional de Estadística y Geografía (PNE, 2010-2012) and the Programa Anual de Estadística y Geografía (PAEG), which assess the general status of the national environment, identify important climate change indicators and integrate them into respective programs. These programs are carried out not only by state institutions, but also through the participation of civil society and international actors, e.g. the Instituto Nacional de Ecología, the Instituto de Tecnología del Agua, the Centro de Ciencias Atmosféricas of the University of Guanajuato, the UNDP as well as the German Organisation for International Cooperation / Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) (Mexican Government 2012b: 24–28).

Concerning mitigation, so far over 150 projects have been established or planned with a combined reduction potential of about 130 Mt Co2 per year until 2020 (Mexican Government 2012b: 43). These projects consist for instance of clean energy and energy efficiency programs as well as of projects in line with the international REDD+ programme, which aims at a reduction of deforestation and CO2 intensive land-use activities (Estrategia Nacional para la Reducción de Emisiones por Deforestación y Degradación de los Bosques, in short ENAREDD+) (Mexican Government 2012b: 33, 36). At the state level, regional authorities have their own local offices of the CICC and are supposed to establish state level climate change strategies, called PEACC (Programa Estatal de Accion ante el Cambio Climatico, timeframe 2008-2013), which closely resemble the national ENACC and PECC strategy. Likewise, at the municipal level so called PACMUN (Plan de Accion Climatica Municipal) strategies are established (Mexican Government 2012b: 22–26).
In 2012, president Calderón\textsuperscript{23} signed a much discussed national climate law (Ley General de Cambio Climático, LGCCC) which puts some of the points that were mentioned in the ENACC and PECC into national law and is supposed to harmonize the domestic efforts with Mexico’s international pledges. It commits Mexico to emission reductions of 30 per cent below the levels of 2000 by 2020 and of 50 per cent by 2050. It also sets the target to provide 35 per cent of the Mexican electricity from clean sources by 2024. It furthermore establishes the Instituto Nacional de Ecologia y Cambio Climático (INECC) (a sub-body of the Instituto Nacional de Ecologia), a national emission registry (Inventario Nacional de Emisiones), a climate change fund and various adaptation, risk and disaster prevention plans. It also guarantees that the national climate policy is reviewed by a committee consisting of representatives from science, the private sector, and civil society on a regular basis (Mexican Government 2012b: 24, 25-33). However, Mexico has not yet implemented sufficient policies to reach all of these targets (Höhne \textit{et al}. 2012: 4f). Moreover, it remains to be seen whether the new President Nieto will implement the law, as he has so far focused on stimulating the economy and the oil and gas production (Marketline 2012: 33, 41, 76, 79).

5. International Level
This section provides an assessment of the behaviour and role of Mexico in international climate negotiations. To put Mexico’s position into perspective, a short overview of the positions of other Latin American countries is given first.

In order to reach a comprehensive overview of the most important positions of Latin American countries, following Detsch it is helpful to arrange their positions under three broad groupings: The first category consists of rather small and very vulnerable\textsuperscript{24} countries in Central America and the Caribbean (e.g. Haiti, Dominican Republic etc.). These countries push for strong mitigation commitments of industrialized countries and financial and technical support for their own adaption process without being willing or able to commit to legally binding emission cuts for their own countries. They point out that, because of their low economic development and widespread poverty, overall development has to come first. However, they certainly welcome support from industrialized countries to help them adapt to climate change (Detsch 2011: 34f).

The second category consists of the so called ALBA countries (Alianza Bolivariana para los Pueblos de Nuestra América): Antigua and Barbuda, Bolivia, Cuba, Dominica, Ecuador, Nicaragua, Saint Vincent and the Grenadines and Venezuela. This is an alliance of rather ideology driven, left-wing led states

\textsuperscript{23} The positive stance of Calderón and its government towards environmental issues can be considered one important cornerstone of Mexico’s progressive record regarding climate change in recent years.

\textsuperscript{24} Due to their geographic location and socio-political and economic development.
who point to the historical responsibility of the industrialized countries and are not willing to cut
their own emissions in any respect, although for example Bolivia has suggested fairly drastic
measures to cut global emissions in the 2011 UNSC debate about climate change as security issue

The third category is composed of the economically more developed countries such as Chile,
Argentina, Brazil and Mexico. These countries also point out that it is first and foremost the
industrialized countries that have to cut their emissions, thereby referring to the principle of the
common but differentiated responsibility which is one important cornerstone of the UNFCCC. But
they are nonetheless willing to contribute some efforts by themselves, at least since the Cop 13
summit in Bali 2007. As there exists no unified Latin American position in regard to climate change,
the positions of Brazil and Mexico stand out in the international climate change debates, for
economically and politically they are the two most important countries in the region. There even
seems to be a competition between the two countries over which of them puts forward the most
ambitious climate policy (Detsch 2011: 34f).

Mexico signed and ratified the UNFCCC in 1992/3 and the Kyoto protocol in 1998/2000 (as Non-
Annex I Party without binding emissions reduction targets) and has been quite progressive in its
climate politics ever since (Höhne et al. 2012: 4). It is the only Latin American country that managed
to provide GHG Emissions Inventories to the UNFCCC at regular intervals (every two years since 1990)
and has, on top of that, already sent five National Communications to the UNFCCC (including detailed
reporting on the countries’ emissions, vulnerabilities and its own efforts to counter climate change;
Mexico send the first one in 1997 and the fifths one in 2012) (EU Commission 2009: 70; Mexican
Government 2012a). Moreover, Mexico has signed over 100 international agreements related to
the environment and sustainable development, it joined projects with various international institutions
such as the UNDP, the Global Environmental Facility (GEF), the North American Development Bank,
the Inter-American Development Bank (IDB) and the Japan International Cooperation Agency (JICA)
and approved 114 CDM projects until the year 2009 (EU Commission 2009: 70)25.

Mexico’s ambitious climate agenda is mirrored by its behaviour in recent international climate
negotiations within the UNFCCC process. Since the 13th COP summit in Bali in 2007, Mexico, together
with other developing countries, has begun to take more responsibility in the climate regime and has

25 Although Mexico does not receive large quantities of general foreign aid, it has been quite successful in
gaining funds for environmental measures Bertelsmann Stiftung (2012: 33). One example are the CDM
cooperations with Germany, Austria, Canada, Denmark, Spain, France, Japan, Italy, Netherlands, Portugal EU
continuously integrated climate change into its national and international agenda. Negotiations on the inclusion of forests as CO2 sinks and emissions credits for stopping deforestation or soil degradation in line with the UN program “Reducing Emissions from Deforestation and Forest Degradation” (REDD) have been of special importance for Mexico. This is due to the fact that the country still has a high percentage of tropical forest and simultaneously high deforestation rates (Salazar and Masera 2010: 19).

Concerning Mexico’s stance towards climate negotiations in general, the country takes a middle ground position between the developing and developed countries. It is not a member of the G77, which mostly includes developing countries, and does not participate in the BASIC group, which consists of the newly emerging economies Brazil, China, India, and South Africa. Its ambitious stance concerning the climate negotiations is underlined by its participation in the so called Cartagena Dialogue26 and the Environmental Integrity Group, which both stand for a progressive position concerning climate action.

Looking at the global climate-security debate, Mexico put forward a rather moderate position in the first debate of the UNSC in 2007. It acknowledged the security aspects of climate change but questioned the mandate of the Security Council in this regard and rather saw the General Assembly and the Economic and Social Council as appropriate fora. In particular the Mexican delegate pointed to the connections between security, climate change and energy issues but also elaborated on the impacts on agricultural production, disaster preparedness and migration issues (UNSC (United Nations Security Council) 2007b: 19).

Regarding general global climate negotiations and initiatives, Mexico has continually increased its weight in the various negotiation strands in the last couple of years. For instance, in 2008, Mexico participated in the EU-Latin American Climate Summit27, where potentials for knowledge and information sharing between the two continents were discussed. In 2009, it hosted a summit of the Major Economies Forum in Jiutepec and, in the same year, participated in the L’Aquila meeting of the Group of Five (G5 – Brazil, China, India, South Africa, Mexico) where the two degree goal and substantial reductions until 2050 were proposed.

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26 The dialogue is named after its first meeting in Cartagena, Colombia, in March 2010. It is a loosely connected and informal initiative that rallies for a new climate agreement and sustainable low carbon economic development Climate Change Policy and Pratice (2012); Araya (2011).

27 One result is the so called EUroCLIMA Initiative which focuses on knowledge sharing and the fostering of dialogues and coordination between the EU and Latin American countries EU Commission (2009: 10).
At the COP 15th in Copenhagen, despite the overall failure to reach a binding international consensus at this conference, Mexico was praised for its role as a mediator between the different camps and President Calderon received the Global Legislators Organization GLOBE-Award for his leading international role in environmental issues (Wang 2009). In Copenhagen, Mexico also concretized the idea of the Green Climate Fund – which was supposed to finance adaptation measures in developing countries in the future with up to 100 billion $/annum from the year 2020 – and which was finally integrated into the Copenhagen outcomes. Under the non-binding Copenhagen Accord, Mexico committed itself to a reduction of its emissions by 30 per cent compared to BAU in 2020, depending on foreign technical and financial support (Höhne et al. 2012: 2).

In the following year, Mexico hosted the Petersberg Climate Dialogue I: Building Momentum for Mexico together with Germany and invited 45 countries to discuss the international climate negotiations process before COP-16, which took place later that year in Cancun, Mexico. After the failed Copenhagen summit, the goal was to put the international negotiations back on track and to reach a consensus on the outline for a new international regime at the next summit in Cancun. In Petersberg the participants reaffirmed their commitments to decisive climate action and to the two degree goal. The summit was widely regarded as an important step to restore trust in the UNFCCC process (BMU (Bundesministerium für Umwelt 2010; Merkel 2010).

Later that year, Mexico hosted the 16th COP summit on Climate Change in Cancun and has to a considerable extent been responsible for its success. Again, the country and its diplomats – under the leadership of the foreign ministry – assumed the role of a mediator between the developing and developed world and achieved the consensus - the Cancun Agreements - through their open way of negotiation. The agreements include a formal integration of the non-binding Copenhagen Accords into the UNFCCC process, the official agreement on the two degree goal, the establishment of the Green Climate Fund28 and the Reducing Emissions from Deforestation and Forest Degradation (REDD+) Program (UNFCCC (United Nations Framework Convention on Climate Change) 2011). In its national Cancun Pledge, Mexico committed itself to the PECC goal of a 30 per cent emissions reduction below business as usual by 2020, conditional on international financial support (Höhne et al. 2012: 2). In 2011, Mexico’s President Calderon received the Champions of the Earth Award of the UNEP for his commitment to lead international efforts to combat climate change (United Nations Environment Programme (UNEP) 2011).

28 Ernesto Cordero Arroyo, former Mexican minister of finance and public credit is one of the board members of the fund.
Since Cancun, the country is increasingly seen as a very progressive actor in the climate negotiations and also takes on a leading role in regional climate politics (Friedrich 2010: 56). Moreover, throughout the various international climate negotiations Mexico has consolidated its role as a mediator between the developing and developed countries (Detsch 2011: 38); a function that is supported by its membership in the Environmental Integrity Group, which consists of Liechtenstein, Monaco, Switzerland, Luxemburg, and South Korea (founded 2000 in Switzerland) and advances “ecologically integer” climate solutions. Furthermore, it is the only grouping that consists of both Annex I and Non-Annex I parties.

In the second debate about climate changes as security issue in the UNSC in the summer 2011, Mexico made it clear that it did not believe that climate change was a threat to international peace and security in the traditional sense, warranting traditional security responses. Rather, the Mexican delegate pointed out that the effects of climate change would first of all hit developing countries and poor populations. Therefore, the climate-security debate should draw attention to increased efforts to strengthen the global agreements and to keep the pledges made at the Cancun summit in the last year. Nonetheless, if no decisive counter measures would be implemented soon, Mexico believed that climate change could become a threat to international peace and security in the future, calling the attention of the Security Council:

“My country hopes that this debate will help to strengthen actions within the competent forums and that it will maintain our attention on the relevant issue of the fight against climate change. We are aware of the fact that if our efforts do not succeed, it is probable, and it would be unfortunate, that in the future the adverse effects of climate change will have consequences for the maintenance of international peace and security and thus require action by the Security Council (UNSC (United Nations Security Council) 2011b: 10).

At the 17th Climate Conference in Durban 2011, the Mexican delegation reaffirmed its Cancun pledge (minus 30 per cent by 2020 compared to a baseline scenario, conditional on international support) and continued to point to the devastating effects of climate change especially in developing countries, to the urgent need to come to a conclusion for a new international agreement and to extent the Kyoto protocol to a second period. Additionally, Mexican delegates highlighted the need to concretize the outcomes of the Cancun summit in terms of more financial and technological measures to meet the challenges of climate change. Moreover, the country promised to deliver its 5th national communication to the UNFCCC in 2012, as well as to adopt national climate legislation in the same year (Mexican Government 2011). One interesting development in Durban was that the traditional groupings (developing countries – G77 – together with newly emerging economies – BASIC – vs. industrialized countries) began to dissolve and that BASIC was increasingly criticised by other developing countries for its refusal to commit its member countries to more ambitious
emission reductions, although China (as a member of BASIC) seemed to gradually have given up its confrontational stance (Dröge 2012: 2f). On the other hand, a new alliance consisting of the EU, the small island states as well as other severely affected developing countries and the members of the Cartagena Dialogue (with Mexico being a part of this grouping) pushed for a new international agreement (Dröge 2012: 3f). Eventually, the climate conference in Durban came to the consensus to negotiate a new regime until 2015 and to prolong Kyoto until 2020, leaving the details to the next summit in Doha.

In 2012, Mexico again participated in the Petersberg Climate Dialogue (number III) and was praised by Chancellor Angela Merkel for its climate policies, its leadership at the COP 16 in Cancun and the recent national climate law (Merkel 2012; Mexican Government 2012c). At the meeting, the Mexican delegation pressed for renewed international efforts to halt climate change and highlighted the importance of a new regime from 2020 on (Mexican Government 2012c).

During its presidency of the G20 in 2012, which started in December 2011, and at the summit in Los Cabos (June 18–19), Mexico announced that the promotion of “sustainable development, green growth and the fight against climate change” was one of its five priorities. Within this priority topic, special attention was given to the establishment of the Green Climate Fund, the Fast-Start commitments and the REDD(+) program (G20civil 2012; Carlsen 2012). Furthermore, in summer 2012 an UNFCCC workshop on water, climate change impacts and adaptation strategies was held in Mexico City (UNFCCC (United Nations Framework Convention on Climate Change) 2012).

During the following COP-18 climate summit in Doha, Mexico’s negotiator (Dr. Francisco Barnés Regueiro, Director General of the Instituto Nacional de Ecología y Cambio Climático) highlighted the scientific certainty about climate change and its adverse effects as well as the urgent need to counter these problems. He continued to emphasize Mexico’s own vulnerability to various climate change effects and its commitment to contribute to a new sustainable economic growth paradigm that is considerate of its effects for the global climate. Furthermore, Barnés Regueiro elaborated how climate change constituted an important environmental issue for Mexico that was tackled at all levels of the state and especially through the ENACC and the PECC, with the aim to mitigate 51 million tons of GHGs per year from 2012. Additionally, the negotiator pointed to the newly adopted national climate law, reaffirmed the Cancun pledge and presented the 5th National Communication of the country, which showed a clear tendency for Mexico’s emissions to be decoupled from economic growth: The average GDP growth amounted to 2.5 per cent since 1990, but the average emissions growth consisted of only 1.5 per cent (Mexican Government 2012a).
To conclude this section on Mexico’s behaviour in international climate negotiations, it has become clear that the country has put forward a very progressive stance and has participated quite actively in various international fora. *Figure 1* gives a graphical overview of the most important Mexican decisions, initiatives, events and actors concerning the domestic and international climate debates since the beginning of the UNFCCC process. *Table 2* (in the appendix) gives a more detailed account of these milestones.
Figure 1

Explanation: Blue = Milestone; Green = Actor founded; Red = Actors involved; Broken line = failed effort.
6. Relevant Actors in the Climate Field

This section provides an overview of the most important actors in the field of Mexico’s climate politics. Because of the overall research aim of the ClimaSec project, special attention is also given to actors that have participated in the climate-security-debate. For clarity, I differentiate between governmental, civil society, scientific and media actors.

6.1 Governmental Actors

The most important governmental actor regarding the domestic debates is the Ministry of the Environment (SEMARNAT). Within the ministry, there is a sub-secretariat of Environmental Planning and Policy and a General Directorate of Climate Change, which acts as the Secretary General of the Interministerial Commission on Climate Change / Comisión Intersecretarial de Cambio Climático (CICC) (EU Commission 2009: 67). Due to the establishment of this commis in 2005, the coordination with other relevant ministries in the field of climate, environment and energy has improved. The most important ones are: Agriculture, Livestock, Rural Development, Fishing and Alimentation (SAGARPA), Health (SSA), Interior (SEGOB), Communication and Transports (SCT), Energy (SENER), Economy (SE), Finances (SHCP), Social Development (SEDESOL), and Foreign Affairs (SRE). The CICC itself consists of an overall and permanent “Biannual Session” chaired by the SERMARNAT, a technical secretariat and various thematic committees. Additionally, it has four working groups, the first one being responsible for the PECC, the second one for mitigation measures, the third one for international issues, and the fourth one for adaptation measures. Within the CICC, there exists a Consultative Council on Climate Change which consists of specialists from the academic, social and private sector (EU Commission 2009: 67f), (Mexican Government 2012b: 22).

Besides the SEMARNAT and the CICC, there are various other governmental (or semi-governmental) bodies that coordinate Mexico’s domestic climate policies (mostly consisting of a mixture of government and civil society actors e.g. scientists). The most important one in this area is the Instituto Nacional de Ecologia which was founded in 200129 and is part of and funded by the Ministry of the Environment. It is responsible for the generation and distribution of scientific and practical knowledge in regard to environmental policies and climate change and also has a distinct climate change program (Instituto Nacional de Ecologia y Cambio Climático, established in 2012). Additionally, the institute develops and promotes scientific cooperation projects that are supposed to contribute to the resolution of the major environmental and climatic problems in Mexico, and has also published a number of reports on the topic30. A further sub-section of the Ministry of the

Environment that has played a role in climate-security-debates is the **Mexican Institute of Water Security**. This is due to the fact that water issues are already being treated as a national security concern in Mexico (Varady et al. 2009). In 2005, the Ministry of Energy created the **Energy Sector Climate Change Committee**, which coordinates the monitoring, analysis and definition of policies related to climate change. Another relevant actor in this area is the **Programa Mexicano del Carbono** (PMC), a body that consists of various private and state owned research and teaching institutions and coordinates general climate change research in the country. Moreover, the PMC functions as a counterpart for climate research projects and programs from all over the world (Programa Mexicano del Carbono 2013). Finally, there is the **Mexican GHG Programme** established in 2004, which is funded by various Mexican ministries as well as NGOs, international organisations and foreign aid institutions. It aims at helping Mexico’s business sector to prepare for a world in which climatic effects and especially GHG trading schemes etc. become more important. For instance, it aids companies with the planning of GHG inventories, risk assessment schemes and GHG reduction strategies (EU Commission 2009: 68; Programa GEI México 2013).

Concerning the international level, the **Foreign Ministry / Secretaría de Relaciones Exteriores** (SRE) played the leading role in climate negotiations, mostly due to its greater experience in international negotiations (Detsch 2011: 37). The Mexican Foreign Secretary Patricia Espinosa Cantellano stood out as an important actor whose balanced negotiation efforts contributed immensely to reaching the Cancun Agreement. The former President Calderon (2006–2012) has also been responsible for Mexico’s ambitious climate agenda to a considerable extent. In addition, there are various government agencies and institutions on the state level that are involved in Mexico’s climate politics (see section 4 for some detailed information).

Another important domestic actor is the Mexican military which has a long tradition of being deployed within the country. Especially when it comes to natural (climate induced) disasters, the military plays an important role in helping people to cope with the impacts of these disasters. Hence, the military enjoys a considerable popularity among the population (Díez and Nicholls 2006: 3). Concerning the question of how to respond to natural disasters, there is a detailed **Army Natural Disaster Plan (DN3)**, which includes preventive measures, the provision of shelter, medicine and food for affected populations, and reconstruction activities (Díez and Nicholls 2006: 22). Staying in the security sector, the **Centro de Investigación y Seguridad Nacional (CISEN)**, the Mexican intelligence agency (founded in 1989), is a further governmental actor (under the Secretaría de Gobernación /

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31There has been an inward orientation of the Mexican Army for a long time due to the lack of relevant threats from the outside and widespread internal problems, such as the war on drugs etc. Díez and Nicholls (2006: 3, 12).
Ministry of the Interior) that plays a role in climate-security-debates. Climate change was here mentioned in the latest national security strategy.\(^{32}\)

Concerning the regional level, several organisations and networks play a role regarding climate issues with the most important ones being the following: The Inter-American Network for Disaster Mitigation is part of the Organization of American States and helps its members to share information, coordinate their efforts, and share training experiences regarding disaster prevention and risk management (Organization of American States 2013). The Comision Centroamericana de Ambiente y Desarrollo (CCAD), which also has a subsection for climate change, is itself an organ of the so called Sistema de la Integración Centroamericana (SICA)\(^{33}\). The CCAD's main goals are the sustainable development of the Central American region and the enhancement of cooperation between its members. To reach these goals, it helped to establish the so called Plan Ambiental de la Región Centroamericana (PARCA) (2010-2014), which aims at developing concrete measures for the region and at a harmonization of the national efforts concerning the environment (Comision Centroamericano de Ambiente y Desarrollo). Finally, the Red Iberoamericano de Oficinas de Cambio Climatico, which was founded in 2004, is a loose forum which tries to coordinate and integrate the efforts of the Ibero-American countries regarding climate change – for instance through meetings of the ministers of the environment, knowledge and technology transfer, the integration of the private sector and through international development aid agencies.

6.2 Civil Society Actors

Looking at civil society, since the 1990s there has been a considerable increase in the number and importance of national and international NGOs, trade unions and employer organizations that work in Mexico (Bertelsmann Stiftung 2012: 12, 26; CIVICUS 2011: 24). Today, around 20.000 – 35.000 civil society organizations exist in the country (CIVICUS 2011: 9). However, their legal framework is still not entirely clear (CIVICUS 2011: 28) and the density of and participation in civil society is still low in relation to comparable countries such as Brazil (Peters and Maihold 2007: 36; Bertelsmann Stiftung 2012: 24, 26). The majority of these NGOs concentrates foremost on social and health issues and community development. Environmental issues are only ranked third in this list. Most of the organizations are based in the bigger cities or the federal district (CIVICUS 2011: 29).

\(^{32}\) Centro de Investigación y Seguridad Nacional (CISEN) (2009), (2013).

\(^{33}\) Sistema de la Integración Centroamericana (SICA) and Comisión Centroamericana de Ambiente y Desarrollo (CCAD) (2010).
In regard to climate issues and climate-security-debates, the Mexican sections of international organizations such as Greenpeace, Oxfam, The Nature Conservancy, or the WWF play an important role. Additionally, various internationally active think tanks and other organisations constantly write on the implications of climate change in Mexico, often with a focus on security matters. The British Royal United Service Institute (RUSI) is a 2006 founded think tank, funded through membership fees and donations and works primarily on military sciences, international security studies, homeland security and resilience, but has also issued an important report on the security impacts of climate change in Mexico. Adelphi is a German think tank (financed on a contract work basis; 104 staff plus global partners, e.g. scientist, universities) which specializes in security, risk and environmental topics and has published extensively on the worldwide security implications of climate change. It has held various workshops on climate security impacts in the Central American region and also published on the topic. The Initiative for Peacebuilding - Early Warning is a section of the NGO International Alert which is funded through the European Commission and specializes on the connections between climate change, security and conflict. Together with two partner NGOs it has issued some reports on the issue concerning Mexico. The first partner, Partners for Democratic Change International (PDCI), is a consortium of various organisations from all over the world that is funded through donations and focuses on security, good governance and conflict management. The second partner organisation, the Centro de Colaboración Cívica (CCC), was founded in 2005 and is a Mexican non-partisan, non-profit organisation (staff around 18). It is funded through various foundations and also by governmental actors such as the European Commission or USaid. It is also part of the PDCI network. The primary objective of the CCC is the strengthening of Mexico’s democracy through the fostering of conflict resolution and consensus building processes. The centre has also published on climate topics. A further relevant non-Mexican organisation to be mentioned is Europe Aid (EUROCLIMA), which is funded through the European Union, the UN, World Bank and other international organisations and has issued important reports on climate change and security in the Latin American region. With a budget of €5 million, the goal of its regional programme that was established in 2009 is to foster cooperation between Latin American and European countries regarding climate change. Finally, the Mexican sections of two German political foundations, Fundación Friedrich Ebert (FES) México and Fundación Konrad Adenauer México, also have had some

34 José Cárdenas (2010)
35 Deheza (2011); Fetzek (2009)
36 Adriaçola et al. (2012); Adriaçola et al. (2011); Maas and Tänzler (2009)
37 Brodziak et al. (2011)
38 Sánchez Gutiérrez et al. (2009); Brodziak et al. (2011)
39 EuropeAid (2009); Dascal and Vargas
influence on the Mexican climate debates by having issued reports or by staging events and workshops in the country\textsuperscript{40}.

When it comes to genuine Mexican environmental NGOs, climate topics clearly have not been the priority in the past. Rather, environmental NGOs in the country used to focus on local issues such as air and water pollution, logging activities or the preservation of Mexico’s biodiversity. Some tentative explanations are the lack of public interest in climate topics in the past and, ironically, the fairly progressive climate policies of the government, which made NGO lobbying less urgent (Pulver 2006: 57). Nevertheless – particularly in the period running up to and during the COP-16 in Cancun – Mexico’s NGO community has picked up the topic, and today there are a couple of organisations working on climate issues. Some of the most important Mexican environmental NGOs concerning climate change in general and climate security debates in particular are the following: The Molina Centre for Strategic Studies in Energy and the Environment / Centro Mario Molina\textsuperscript{41} is an independent non-profit organization established in 2004 (with around 55 employees) and consists of experts from various fields. It tries to influence political debates and decisions on environmental and climate topics, as well as to foster research and training activities. The Mexican Council on Foreign Relations / Consejo Mexicano de Asuntos Internacionales (COMEXI) is a multidisciplinary, non-profit and independent forum, funded through membership fees and corporate donations. It analyses Mexico’s role in international politics and the influence of international events on Mexico, with the international climate negotiations being one important issue. The Collective of Democratic Security Analysis / Colectivo de Analisis de la Seguridad con Democracia A.C. (CASEDE) is an independent though partly state funded NGO (around 58 employees plus members, funded through various foundations), which is specialized on security matters and their connection to democracy. CASEDE has also issued a report on climate change and human security\textsuperscript{42}. The Centre for Environmental Justice / Centro Mexicano de Derecho Ambiental (CEMDA), founded in 1993, is funded through domestic and foreign donors (around 27 employees), rallies for a healthy environment in Mexico, documents and comments on laws and monitors the implementation of environmental laws\textsuperscript{43}. The Climate Change Financing Group / Grupo de Financiamiento para Cambio Climático is a collaboration of 15 civil society organizations and groups (including international organizations such as Greenpeace and the German political foundation Heinrich Böll Stiftung) that has been founded in 2010 during the climate summit and rallies for a fair funding of climate actions in Mexico and the developing world.

\textsuperscript{40} Sánchez Gutiérrez et al. (2009); Konrad-Adenauer-Stiftung and Fundación Humanismo Político A. C. (2009); Konrad-Adenauer-Stiftung (2011); Konrad-Adenauer-Stiftung and Universidad Autónoma de Ciudad Juárez (2012)

\textsuperscript{41} Comisión Intersecretarial de Cambio Climático (CCIC) (2006); Galindo (2009)

\textsuperscript{42} Wisner et al. (2007)

\textsuperscript{43} Centro Mexicano de Derecho Ambiental (2013).
The Mexican Civil Society Council for Sustainable Forestry / Consejo Civil Mexicano Para la Silvicultura Sostenible is a NGO that advocates the needs of these forest communities in Mexico which are especially at risk through the effects of climate change. The Mexican Fund for Nature Conservation / Fondo Mexicano para la Conservación de la Naturaleza is a non-profit organization which was founded in 1994 and can also be counted as relevant societal actor in the climate field. It concentrates on the protection of biodiversity and ecosystems. Finally, the 1994 founded Presencia Ciudadana Mexicana A.C. is an independent, non-profit organization which is based on volunteer-work and works on topics such as Democratic culture, Access to Information, Transparency and the Environment, including climate topics44.

6.3 Scientific Actors

In the scientific sector in Mexico, the Universidad Nacional Autónoma de México (UNAM) is the most important actor. It is the largest university in Latin America and ranks in the top 200 in the Times Higher Education World University Ranking. The most relevant institutes concerning climate issues are the Centre for Atmosphere Sciences of the UNAM and the UNAM Climate Change Research Program (PINCC-UNAM). Furthermore, the university has helped writing a well-received report on the economic consequences of climate change in Mexico45. Besides the UNAM, a further important centre is the Instituto Interamericano de Investigacion sobre el Cambio Climatico. Moreover, the Universidad Autonoma Chapingo has also worked on climate issues and staged a workshop on food security in times of climate change46. Additionally, there are various private universities with an increasing share in the Mexican higher education sector, but nevertheless they still play a less important role than the UNAM (Marketline 2012: 59). Further regional scientific institutions that work in the environmental field are the following. The 1992 founded Inter-American Institute for Global Change Research which has its directorate in Brazil and is an intergovernmental organization supported by 19 countries in the region. The institute aims at understanding the impacts of global environmental changes on Latin American countries, strengthening the scientific research on those topics and encouraging the dialogue between scientific and political actors47. The Red de estudios sociales en Prevención de desastres en América Latin is a network of research institutions in the region that focuses on disaster and risk management schemes, as well as on mitigation and prevention measures in regard to extreme weather events and climate change48. Finally, various individual researchers – Mexican as well as international – have worked on climate related topics in

45 Galindo (2009)
46 Tizacatecas (2011)
48 Briones (2012)
Mexico, such as the internationally well-known Ursula Oswald-Spring, Thomas Homer Dixon and Hans Güther Brauch as well as Andrés Ávila Akerberg, Hallie Eakin, María Eugenia Ibarrarán Viniegra, Simone Pulver, and Andrew Simms.  

6.4 Media Actors  
Some influential Mexican media actors that have written on climate change and its connection to security issues are: The well-known newspapers La Jornada (centre-left) and La Prensa (centre-right), furthermore El Universal, El Iformador and a blog specialized on climate change topics called Intercambio Climatico.  

To sum up this section, table 3 (in the appendix) gives a brief overview of the most relevant actors in Mexico regarding climate issues.

7. Conclusion  
The first interesting finding is that Mexico has an impressive record in engaging with climate issues on the domestic as well as on the international level. This is somewhat puzzling, considering the countries’ high dependency on oil and the focus on a fast overall development as well as a strengthening of the economy in recent years. The strong engagement of some political actors with climate matters – especially seen in the actions of former president Calderon – seems to be one explaining factor. A further one is the on-going competition with Brazil over regional and global influence, in which environmental politics is one important arena. Another explaining factor appears to be Mexico’s position in between the developing countries and the emerging economies/industrialized countries – a situation in which the role as mediator for the “good cause” has given the country some credit on the international stage.

On the other side there remain severe problems in the country, ranging from a fragile security situation due to drug related organised crime and militarized state responses – which in some regions have led to a situation similar to failed states; widespread emigration movements towards the United States on the northern border and increasing migration pressure from Mexico’s southern neighbours; to high levels of poverty and unemployment and a very high gap between the rich and the poor. All these issues could be exacerbated by the effects of climate change and are constantly referred to in the respective debates. That is especially true when it comes to the debates about

49 Oswald Spring (2012); Howard and Homer-Dixon (1996); Brauch (1998), (2002); Akerberg (2010), (2011); Eakin (2006); Boyd and Ibarrarán (2009); Ibarrarán et al. (2008); Ibarrarán, María Eugenia Viniegra and González (2007); Pulver (2006); Simms and Reid (2006).  
50 Díaz (2012); Cruz (2012); León (2012); El Universal (2010); Arroyo (2012); Intercambio Climatico (2013).
climate change and security – in which human security conceptions i.e. the security impacts for individuals overweigh –, although this debate is not as vibrantly conducted in Mexico as in some industrialised countries (for instance the United States or Germany) so far.

Concerning the actors involved in climate debates in the country, the Ministry of the Environment and other governmental actors – particularly the Interministrial Commission on Climate Change – have a quite strong position. Regarding NGO participation, there are some Mexican organizations that have influenced the debate, although international NGOs and their Mexican sections also play an important role. The COP 16 2010 in Cancun, Mexico certainly has raised attention for the issue within the country and has triggered increased NGO activity.

Concerning further research, these first insights suggest that the climate-security-debate might have had less direct influence on climate politics in the country as in some industrialised countries. However, since there are various issues within the country that are already framed as security issues and that could be exacerbated by climate change there still might be important connections which must be accounted for in further research. Another important factor in shaping Mexico’s ambitious climate policies has been the influence of individual politicians and the role of the country as a green vanguard. Yet, since the newly elected president Nieto does not have a record of being particularly interested in the environment, it remains to be seen how Mexico’s policies will evolve in the future. Furthermore, the dominance of governmental bodies in climate matters in Mexico implies that their contributions have to be included in any empirical analysis. The high number of international NGOs that participated in the countries climate (security) debates has also to be kept in mind when conducting further research.
References


Cruz, A. (2012) 'Cambio climático, tema de seguridad nacional', La Prensa; El Sol de México, 21 July.


IPCC (Intergovernmental Panel on Climate Change) (2007b) Working Group II, Impacts, Adaptation and Vulnerability Special Report Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation”.


Mexican Government (2012b) *Mexico. México quinta comunicación nacional ante la Convención Marco de las Naciones Unidas sobre el Cambio Climático. Fifth National Communication to the UNFCCC*.


## Appendix

### Table 2: Milestones of Mexican Domestic and International Climate Politics

<table>
<thead>
<tr>
<th>Year/Date</th>
<th>Domestic</th>
<th>International</th>
</tr>
</thead>
<tbody>
<tr>
<td>1992</td>
<td>Establishment of the precursor organisation of the Instituto Nacional de Ecologia (INE)</td>
<td>Signature of the UNFCCC</td>
</tr>
<tr>
<td>1992</td>
<td>Programa Nacional Cientifico sobre Cambio Climatico Global (INE, UNAM)</td>
<td></td>
</tr>
<tr>
<td>1994</td>
<td>Establishment of the SEMARNAT</td>
<td>Membership in the OECD</td>
</tr>
<tr>
<td>1995</td>
<td>Creation of an Ad-Hoc Group for Inter-Ministerial Coordination (Precursor to the CICC; in 1997 further institutionalization and finally creation of the CICC in 2005)</td>
<td>Participation in the US Country Studies Program</td>
</tr>
<tr>
<td>1995</td>
<td>National Emissions Inventory</td>
<td></td>
</tr>
<tr>
<td>1997</td>
<td></td>
<td>1st National communication to the UNFCCC</td>
</tr>
<tr>
<td>1998</td>
<td></td>
<td>Signature of the Kyoto Protocol</td>
</tr>
<tr>
<td>2000</td>
<td>Election of President Vicente Fox</td>
<td>Ratification of the Kyoto Protocol</td>
</tr>
<tr>
<td>2000</td>
<td></td>
<td>2nd National communication to the UNFCCC</td>
</tr>
<tr>
<td>2001</td>
<td>Establishment of the Instituto Nacional de Ecologia (INE)</td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td>Establishment of National Climate Change Office</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>Founding of the Comisión Intersecretarial de Cambio Climático (Interministerial Commission on Climate Change) (CICC)</td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>Election of President Felipe Calderón</td>
<td>3rd National Communication to the UNFCCC</td>
</tr>
<tr>
<td>2007</td>
<td>National Development Plan 2007-2012 issued</td>
<td>1st Debate in UN Security Council on climate change as threat to international peace and security</td>
</tr>
<tr>
<td>2007</td>
<td>Estrategia Nacional de Cambio Climático (ENACC) - National Strategy on Climate Change</td>
<td>COP-13 Bali: Developing countries commit themselves to do more about climate change</td>
</tr>
<tr>
<td>2007</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2008</td>
<td>Programa Especial de Cambio Climático (PECC) - Special Program on Climate Change</td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td>Presidential Announcement: Reduction of Mexicos GHGs by 30% until 2020 and 50% until 2050 compared to a business as usual scenario</td>
<td>COP-15 in Copenhagen: Mexico is praised for its role as mediator</td>
</tr>
<tr>
<td>2009</td>
<td></td>
<td>4th National Communication to the UNFCCC</td>
</tr>
<tr>
<td>2010</td>
<td>Petersberg Climate Dialogue I: Building Momentum for Mexico</td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td>COP 16 Summit in Cancun, Mexico – internationally praised Cancun Agreements</td>
<td></td>
</tr>
</tbody>
</table>
2011  
Mexican Presidency of the G20 starts (one year)

2011  
2st Debate in UN Security Council on climate change as threat to international peace and security

2012  
Signature of Mexico’s first binding climate law: targets - 30% by 2020 and 50% by 2050

2012  
Instituto Nacional de Ecologia y Cambio Climatico (INECC) is established

2012  
5th National Communication to the UNFCCC

2012  
New President Enrique Nieto elected

<table>
<thead>
<tr>
<th>2011</th>
<th>Mexican Presidency of the G20 starts (one year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>2st Debate in UN Security Council on climate change as threat to international peace and security</td>
</tr>
<tr>
<td>2012</td>
<td>Signature of Mexico’s first binding climate law: targets - 30% by 2020 and 50% by 2050</td>
</tr>
<tr>
<td>2012</td>
<td>Instituto Nacional de Ecologia y Cambio Climatico (INECC) is established</td>
</tr>
<tr>
<td>2012</td>
<td>5th National Communication to the UNFCCC</td>
</tr>
<tr>
<td>2012</td>
<td>New President Enrique Nieto elected</td>
</tr>
</tbody>
</table>

### Table 3: Overview of the Most Important Actors

<table>
<thead>
<tr>
<th>Name</th>
<th>Organization Info</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Secretaría de Medio Ambiente y Recursos Naturales (SEMARNAT)</strong></td>
<td>Environmental Ministry, relevant for domestic and international climate policies. Institutional competition with the SENER, advocated for the ratification of Kyoto and strong Mexican commitments.</td>
<td>Government Executive branch Federal Level</td>
</tr>
<tr>
<td><strong>Sub-Secretariats:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1) Environmental Planning and Policy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) General Directorate of Climate Change (acts as a Secretary General of the CICC)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Foreign Ministry (SRE)</strong></td>
<td>Leading role in the climate negotiations, mostly due to its greater experience in international negotiations</td>
<td>Government Executive branch Federal Level</td>
</tr>
<tr>
<td><strong>Interministrial Commission on Climate Change (CICC)</strong></td>
<td>Interministerial Commission on Climate Change, coordinates the domestic and partly the international climate policies between all relevant ministries</td>
<td>Government Executive branch Federal Level</td>
</tr>
<tr>
<td><strong>Four Working Groups:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1) PECC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) Mitigation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) International Issues</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) Adaptation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consultative Council on Climate Change (specialists from the academic, social and private sector)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Instituto Nacional de Ecologia</strong></td>
<td>Founded 2001. National institute responsible for the generation and distribution of knowledge in regard to environmental policies, with special sub-section for climate change</td>
<td>Government and Science Federal Level</td>
</tr>
<tr>
<td><strong>Ministry of Energy (SENER)</strong></td>
<td>Relevant for domestic and international climate policies. Institutional competition with the SEMARNAT, opposed Kyoto and strong Mexican commitments</td>
<td>Government Executive branch Federal Level</td>
</tr>
<tr>
<td><strong>Energy Sector Climate Change Committee</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Programa Mexicano del Carbono</strong></td>
<td>Consisting of various private and state owned research and teaching institutions, coordinates general climate change research</td>
<td>Government and Science</td>
</tr>
<tr>
<td><strong>Mexican GHG Programme</strong></td>
<td>Funded by various Mexican ministries as well as by NGOs and foreign aid institutions</td>
<td>Government and NGO</td>
</tr>
<tr>
<td><strong>Mexican Military</strong></td>
<td>Important role in case of (climate induced) disasters</td>
<td>Government</td>
</tr>
<tr>
<td>Army Natural Disaster Plan (DN3)</td>
<td>Executive Branch Federal Level</td>
<td></td>
</tr>
<tr>
<td>-------------------------------</td>
<td>--------------------------------</td>
<td></td>
</tr>
<tr>
<td><strong>Centro de Investigación y Seguridad Nacional (CISEN)</strong></td>
<td>Mexican intelligence agency</td>
<td>Government Executive branch Federal Level</td>
</tr>
</tbody>
</table>

### Non-Governmental Actors

<table>
<thead>
<tr>
<th><strong>WWF Mexico</strong></th>
<th>International NGO, section in Mexico</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Greenpeace Mexico</strong></td>
<td>Mexican section of Greenpeace, subsection for climate change, has issued several reports on the topic</td>
</tr>
<tr>
<td><strong>Fundación Friedrich Ebert (FES) México</strong></td>
<td></td>
</tr>
<tr>
<td><strong>The Nature Conservancy</strong></td>
<td>NGO</td>
</tr>
<tr>
<td><strong>Royal United Service Institute (RUSI)</strong></td>
<td>British Think Tank, several reports on climate change and security in Mexico</td>
</tr>
<tr>
<td><strong>Initiative for Peacebuilding - Early Warning (Section of International Alert)</strong></td>
<td>Together with the two following bodies, research and reports on climate change and security</td>
</tr>
<tr>
<td><strong>Partners for Democratic Change International</strong></td>
<td>Global network of NGOs, founded 2006</td>
</tr>
<tr>
<td><strong>Centro de Colaboracion Civica (CCC)</strong></td>
<td>Mexican, non-partisan, non-profit organisation. Aims and strengthening non-violent and democratic conflict resolution in the country. Founded 2005.</td>
</tr>
<tr>
<td><strong>Adelphi</strong></td>
<td>German Consulting Organization, several reports on climate change and security, worldwide, in Latin America and Mexico</td>
</tr>
<tr>
<td><strong>Molina Centre for Strategic Studies in Energy and the Environment</strong></td>
<td>Independent non-profit organization established in 2005 and consists of experts from various fields and tries to influence political debates and decisions, as well as to foster research and training activities</td>
</tr>
<tr>
<td><strong>Mexican Council on Foreign Relations (COMEXI)</strong></td>
<td>Multidisciplinary, non-profit and independent forum that analyses Mexico’s role international politics and the influence of international events on Mexico</td>
</tr>
<tr>
<td><strong>Colectivo de Analisis de la Seguridad con Democracia A.C. (CASEDE)</strong></td>
<td>Independent though partly state funded NGO specialized on security matters</td>
</tr>
<tr>
<td><strong>Centro Mexicano de Derecho Ambiental (CEMDA)</strong></td>
<td>Founded in 1993, rallies for a healthy environment in Mexico, documents and comments laws, monitors the implementation of laws</td>
</tr>
<tr>
<td><strong>Grupo de Financiamiento para Cambio Climático</strong></td>
<td>Collaboration of 15 civil society organizations and groups (including international organizations such as Greenpeace and the Heinrich Böll Stiftung) that has been founded in 2010 during the climate summit, and rallies for a fair funding of climate actions in Mexico and the developing world</td>
</tr>
<tr>
<td><strong>Consejo Civil Mexicano Para la Silvicultura Sostenible</strong></td>
<td>A NGO that advocates the needs of forest communities in Mexico</td>
</tr>
<tr>
<td><strong>Fondo Mexicano para la Conservación de la Naturaleza</strong></td>
<td>1994 founded non-profit organization that concentrates on the protection of biodiversity and ecosystems</td>
</tr>
<tr>
<td><strong>Union de Grupos Ambientalistas (UGA)</strong></td>
<td>1991 founded grouping of the Mexican environmental organisations. Aim: support these organisations in their work, coordination. Today 54 members</td>
</tr>
<tr>
<td>-----------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Presencia Ciudadana Mexicana A.C.</strong></td>
<td>1994 founded non profit organization formed by citizens, independent from political parties and the government. Topics: Democratic culture, Environment, Access to Information, Transparency</td>
</tr>
</tbody>
</table>