Argentina in the International Political Economy of Climate Change

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Abstract

In the last five years the global consciousness about the threats of anthropogenic climate change has grown expressively. As a consequence, political leaderships from all over the world have accelerated the responses to the problem, although in different degrees and velocities. In the field of international relations the issue has moved to the center of the agenda. More and more, climate change is considered as a relevant and extremely complex phenomena.

This paper offers an exploratory study of the place of Argentina in the global dynamics of climate change, using as a frame the growing importance of the issue in the international system.

In order to achieve this goal the analytical effort focuses on two dimensions: the first one is the "climate position" of Argentina: carbon emissions profile, vulnerabilities, adaptation costs, mitigation options and potential wins and losses in the transition to a low carbon economy. The second dimension has to do with Argentina's climate change politics and policy and its role in the construction of a new global architecture to deal with global warming.

This paper is divided in four parts: the first one describes briefly the reference scenario: the climate change as a growing challenge for global governance, the second analyzes the objective climate situation of Argentina, the third one considers the social and political angle of climate change in the domestic realm - highlighting the foreign policy trajectory, and the fourth one offers some conclusions about the interaction of the elements considered.

Introduction

In the last five years a series of episodes and social processes have emphasized the dimension of climate change as a relevant – concerning the historic conditions of human survival - and complex political phenomena –involving several dimension and actors. Known before in an intuitive and disorganized way, the consequences of the destabilization of the climate system have been specified by a wide range of scientific research – both in natural and human sciences. Based on this growing evidence regarding the impact of human actions on the planet's climate, the international community has promoted climate change as one of the most important issues in the agenda while individual countries have accelerated the incorporation of mitigation and adaptation actions. In this way, it has became clearer the proportions of the climate challenge and given the characteristics of the atmosphere as a common good, the answer to the problem demands exceptional levels of international cooperation (Viola, 2009).

The goal of this paper is to offer an explanatory study regarding the place of Argentina in the international political economy of climate change – the position of the country within the framework above described. In order to do this, two series of analytical tools are considered. The first one analyzes the objective situation of Argentina in terms of trajectory and emissions profile, vulnerabilities, adaptation needs, and mitigation options. The second set is focused on the political dimension of climate change in the country, hence, social awareness, climate politics and policies are considered. Given the purpose of this paper, the climate foreign policy of Argentina gains more attention.

In order to achieve the mentioned goals, this paper is divided in four parts: the first one describes briefly the reference scenario: the climate change as a growing challenge for global governance, the second analyzes the objective climate situation of Argentina, the third one considers the social and political angle of climate change in the domestic realm - highlighting the foreign policy trajectory and the fourth one offers some conclusions about the interaction of the elements considered.

1. Climate Change and International Relations

In this segment are presented briefly some well known elements that are vital to consider the international dimension of climate change. Those elements constitute the framework to reflect about the place of Argentina in the international political economy of climate change.

The first element is the evidence regarding the existence of a process of climate change derived mainly from human activities. The primary scientific reference here is the 4th IPCC Report, which states that the average land surface temperature has risen from 13.4ºC to 14ºC between 1980 and 2005 (IPCC, 2007). Several studies point in the same direction – for instance, the recently released data from NOAA (National Oceanic and Atmospheric Administration)[1] and NASA (National Aeronautics and Space Administration)[2] both indicate that the year 2010 tied 2005 as the warmest since the temperature records began in the 19th century. Other well known evidences of climate change are: increase in oceans temperatures, rising sea levels, changes in rainfall patterns, raising frequency of extreme weather events, increase in cyclone activity in the

[1] http://www.ncdc.noaa.gov/sotc/global/
[2] http://www.nasa.gov/home/hqnews/2011/jan/HQ_11-014_Warmest_Year.html

tropics and reduction in the areas covered by ice and snow. Besides the scientific evidence, the recent succession of extreme weather events worldwide, have reinforced the perception that climate change is no longer a theoretical speculation but a concrete reality (Viola, 2009). But not only the scientific evidence points to a destabilization of the climate system, it also has proved that the process is mainly driven by human activities. The 2007 IPCC Report asserts the high probability of global warming being influenced by human behaviour (IPCC, 2007) – the Met Office has also stated similar conclusions (Jha, 2009).

The wide and deep consequences of climate change have been also specified by scientific research in many different areas of knowledge. A basic taxonomy can identify physical consequences – such as rising ocean acidity and water levels, increasing desertification, lost of ice cover and intensified frequency of extreme weather events; consequences over natural systems –vulnerable ecosystems such as the tundra, coral reefs, rain forests, marshlands and mangrove swamps; and finally consequences over human communities – such as the costs of inaction (stern, 2006), the costs of mitigation and adaptation actions (McKinsey and Company, 2009), water and food scarcity, infectious disease spread (Smith, 2009) and the increase of climate driven conflicts (Broder, 2009).

Although many uncertainties remain regarding the effort that is needed to avoid the most dangerous effects of climate change, some basic consensus exists in the climate community – the temperature increase must not exceed 2ºC in relation to the levels of the pre-industrial era. In order to avoid this scenario the world should reduce its annual GHG emissions in around 70% by the year 2050 having 2000 as the base year. This is a very difficult enterprise, if we consider that in the 2007 global emissions were 20 per cent higher than in 2000 (Viola, 2009). The stabilization of the climate system demands the transition to a low carbon economy – which not only implies a profound shift in the way the global economy is organized but several deep transformations in the way humanity relates with the planet. The task is huge.

In the relation between climate change and international relations, two premises are relevant for the porpoise of this paper. The first assumption is the need of unprecedented levels of international cooperation in order to give an appropriate response to the challenges of climate change – both in the mitigation and adaptation dimensions. This fact is related with at least two things. The first one is the characteristic of the atmosphere as a global common - "where the lack of world government means that those resources on which all countries depend but none can control get overused" (Paterson, 1996:2). Cooperation is needed in order to avoid the classic problem of free-riding (Stern, 2006). The second one is the global dimension of the problem – the externalities of GHG production in one location are consumed by the whole world - and the global dimension of the response – since the transition to a low carbon economy implies the profound transformation of global production and consumption patterns.

The other premise of this paper regarding the international dimension of climate change is the growing process of global climate awareness, which in expressed both in the international and domestic political sphere. In global politics, some evidence of this process are the 2007 UN Security Council meeting to address for the first time the impacts of climate change; the creation of the major economies forum on energy and

climate during the George W. Bush administration; the Nobel Prize awarded to Al Gore and the IPCC -International Panel on Climate Change- (Viola, 2009); and the massive presence of world leaders in the 2009 Copenhagen Conference of the UNFCCC - United Nations Framework Convention on Climate Change - parties. In the domestic realm, several countries have incorporated climate change in the public agenda and are accelerating mitigation and adaptation actions. The inclusion of low-carbon investments in the fiscal stimulus packages that followed the 2008 financial crisis in many G20 countries (Robins et al, 2009) is a strong argument supporting this conclusion. Besides, concerns and actions towards climate change are no longer monopolized by the developed world; on the contrary, countries like Brazil, China and Mexico are progressively including the issue in the political agenda.

2. Argentina's climate situation

Argentina is the second larger economy of South America, with a GDP of US$ 328 billions (558 billions PPP- purchasing power parity) and US$ 7190 (14,000 PPP) of GDP per capita in 2008[3]. It is also the third most populated country of the region (40 millions in 2010) and the second in territory (2.8 millions km2). It is a market democracy with a presidential system. After this presentation we highlight in the following pages a series of data regarding Argentina's emission profile, expected vulnerabilities and mitigation options.

2.1 Argentina as GHG emitter

2.1.1 Volume and emissions trajectory

According to the official data of the Second National Communication of the Republic of Argentina (2NC) to the UNFCCC (United Nations Framework Convention of Climate Change), the country emitted in the year 2000 238.7 millions T of CO2e considering the LULUFC sector (Land use, land-use change and forestry) (SADS, 2007). With that level of emissions Argentina represented that year almost 1 per cent of the global total. Considering the lack of official data for the period subsequent to the year 2000, is taken here as reference a 2008 report made by Fundación Bariloche (FB). Based on information included in the 2NC, the report informs that Argentina's total emissions of GHG (Green House Gases) were 298 millions tons of CO2e in 2005 (Fundación Bariloche, 2008).

Table 1: Total emissions of Argentina. Including LULUCF. 1990-2005. In millions of tons of CO2 eq.

	1990	**1994**	**1997**	**2000**	**2005**
Total emissions	216.3	223.3	242.0	238.7	298.0

Source: Fundación Bariloche 2008.

The data included in the previous table shows clearly the growing tendency in Argentina's GHG emissions between 1990 and 2005 - almost 40 per cent in the period with an annual average of almost 2.7 per cent. It is interesting to highlight that, since 2000, the rate of the emissions is accelerated in a visible way, almost doubling the annual rhythm of expansion of the previous decade (5 per cent). This increase of

[3] http:datos.bancomundial.org

velocity places the level of emissions in 2005 25 per cent above the year 2000 levels. As we will see in coming paragraphs with more detail, this jump in the rate of emissions was caused by an expansion of emissions in all major sectors - but very especially in energy and agriculture- and by a drastic decrease in the absorption capacity of the LULUCF sector. In terms of per capita emissions, following again the FB report, the indicator almost reached 8 tons of co2e in 2005, which means a 20 per cent increase since 1990 and an annual rate of expansion of 1.3 per cent. It is again worthy to note the path of the index between 2000 and 2005: per capita emissions grew very fast those years – 25 per cent in the whole period and 5 per cent annually. (Fundación Bariloche, 2008).

Table 2: Per capita emissions in Argentina. 1990-2005. Tons of Co2e/hab.

Year	1994	1997	2000	2005
	6,7	6,9	6,3	7,9

Source: Own elaboration from data in Fundación Bariloche, 2008.

In relation to the carbon intensity of the argentine economy, and according to the 2NC, it was 0.86 ton of CO2e per US$ 1000 in the year 2000. The updated data of the Fundación Bariloche report allows us to place that index in 1.08 ton in the year 2005, which represents a 25 per cent growth from the levels of 2000 and a 5 per cent annual expansion. The evolution of the indicator since the year 1990 shows a reduction of intensity in the first decade -15 per cent approximately - and a reversion of the tendency since the year 2000. In spite of that expansion, the country's carbon intensity did not reach the level of 1990 (Bouille, 2008).

2.1.2 Emissions profile

Regarding the participation of each GHG in the total emissions of Argentina, the FB report shows that in the year 2005 carbon dioxide was the principal (45 per cent) followed by methane (32.8 per cent) nitrous oxide (21.4 per cent) and F gases (0.85 per cent)

Table 3: Emissions according to GHG (1990/ 2005). Including LULUCF

GHG	**Share of total (per cent)**				
	1990	1994	1997	2000	2005
CO2	44.7	42.7	44.8	37.5	44.0
CH4	35.7	37.8	35.0	37.9	32.8
N2O	18.9	19.3	19.7	23.6	21.4
GEIs diretos	0.73	0.23	0.50	0.59	0.85

Source: Own elaboration from data in Fundación Bariloche, 2008.

The previous table shows a relatively stable performance regarding the participation of each GHG in argentine total emissions, although there is a small growing tendency in NO2 share and an also marginal reduction of CH4 participation.

In relation to emissions by sector, the singularity of Argentina's profile is based on the strong weight of energy and agriculture, which are both responsible for over 90 per cent of total emissions in every year between 1990 and 2005. In the case of the energy sector, its share of GHG emissions has been growing since 1990, picking in the year

2000 (60 per cent) but stabilizing in around 50 per cent of total emissions since that year. The evolution of the agriculture sector shows a decreasing tendency in the period, after reaching its peak also in the year 2000 (50 per cent). The waste and industry sectors have increased their participation in total emissions between 1990 and 2005, however maintaining a relatively low expression – 15 per cent combined in 2005. LULUCF is the sector that presents the most erratic tendency in the considered period, raising its co2 absorption capacity in 2005 considering the levels of 1990, but loosing notoriously its capacity if the peak year -2000- it is considered.

Table 4. Emissions by sector 1990-2005. In percentage. Includes LULUCF

	1990	**1994**	**1997**	**2000**	**2005**
Energy	48	55	54	59	50
Industry	4	4	4	5	6
Agriculture	46	47	44	50	42
LULUCF	-2	-11	-8	-20	-5
Waste	4	5	6	6	7

Source: Own elaboration from data in Fundación Bariloche, 2008.

a. Energy sector

Emissions coming from this sector grew 44 per cent between 1990 and 2005 - an annual average rate of 2.3 per cent. As a consequence, the sector was responsible of almost half of total emissions in the year 2005. It is interesting to highlight that in the 2003-2005 period energy emissions grew at a higher rate than energy consumption (respectively 8 and 6.8 per cent annually). This was caused by the growing presence of thermoelectric power plants in the energy matrix and the penetration of fuel-oil in the electric sector, due to the natural gas scarcity happened in those years. This fact led to a reversion of the observed tendency in the 1990 decade, when emissions grew at a lower rate than energy consumption (3.2 and 3.4 per cent annually respectively). In sum, the general tendency of the sector shows high annual rates of energy consumption, with energy/GDP elasticity indexes higher to 1, which implies a constant increase in energy intensity (Fundación Bariloche, 2008). That growing demand is also linked to an extended structure of federal subsidies to residential electricity consumption and fossil fuels in the area of public and private transportation.

b. Agriculture sector

Emissions coming from agriculture had the lower growth rate between the most important sectors; as a consequence, the participation of the activity in the total volume of emissions fell in the considered period. Between 1990 and 2005, the level of GHG emitted by the sector grew 28 per cent – 1.5 per cent annually-, and its participation fell from 45.5 per cent of total emissions in 1990 to 42 per cent in 2005. This declining tendency was consolidated since the year 2000 and it is explained by the stabilization of the cattle ranching sub-sector and the relatively static performance of the whole sector (Fundación Bariloche, 2008). Regarding the agriculture sub-sector, direct emissions of nitrous oxides (N2O e NOx) coming from agricultural land management are the main sources and soybean production is the key factor explaining this trajectory. In the case of cattle ranching, 90 per cent of its emissions are generated by methane coming from the bovine herd (FARN, 2010).

c. Industry sector
Between 1990 and 2005 GHG emissions coming from this sector almost doubled, growing 95 per cent in the whole period and 4 per cent annually. The reasons for this performance are mainly the expansion of chemical industry and metal production (especially iron, steel and aluminium) and the production of cements and F gases. The share of the sector in total emissions grew from 4 per cent in 1990 to 6 per cent in 2005 (Fundación Bariloche, 2008).

d. LULUFC sector
As highlighted before, this was the activity that has shown the most erratic performance in the whole period: between 1990 and 2005 the co2 absorption capacity of the sector grew 275 per cent – from 3.5 to 12.4 millions tons of co2e. However in the year 2000, that capacity was ten times higher than in 1990. This sensitive lost of absorption capacity is basically explained by the progressive decrease of abandoned lands. (Fundación Bariloche 2008).

e. Waste sector
Emissions coming from this sector grew almost 110 per cent between 1990 and 2005 – an annual rate of almost 5 per cent. As a consequence of being the fastest growing sector, it raised it participation in argentine GHG emissions from 4 to almost 7 per cent in the period. (Fundación Bariloche 2008).

2.1.3 Argentina post-2005

Regarding the emission's trajectory of Argentina in the period post 2005, this article uses the BAU (Business As Usual) scenario included in the 2008 FB report. This scenario is built upon certain assumptions regarding the performance of the world economy (2.9 per cent of annual growth between 2002 and 2030) and the local economy (GDP annual growth rates superior to 5 per cent up to the year 2010 and then a progressive convergence with global annual rates) and also the assumption that no explicit and significant climate mitigation policies are applied in the period. The report's most important findings are the following:

- Argentina's total GHG emissions in 2030 will be almost 106 per cent higher than the levels of 2005 – 615.7 million tons of CO2q and 298,9 respectively, which represents and annual growth of almost 3 per cent - and almost 185 per cent higher than the levels of 1990.
- In terms of sectors, energy GHG emissions are expected to grow 123 per cent between 2005 and 2030 -4.4 per cent annually- leading the sector to represent 54 per cent of total emissions at the end of the period. The growing presence of thermoelectric power plants, the substitution of natural gas with oil products in the electric generation, a limited participation of renewable sources of energy and a long lasting dependence on fossil fuels, explain this trajectory.
- Emissions coming from the industry sector grow 192 per cent in the 2005-2030 period – 4.4 per cent annually. Consequently, the sector comes to represent almost 7 per cent of total emissions in 2030- an expressive increase considering the levels of 1990: 3.9 per cent. The expansion of chemical industry, metal production and cement are the main reasons for this performance.
- Emissions coming from agriculture are expected to have the lower rate of growth between the most significant sectors: 21.5 per cent between 2005 and 2030. This

fact brings the participation of the sector in the total emissions of Argentina down to 25 per cent in the last year considered – 45.5 per cent in 1990- consolidating the tendency observed since the year 2000. The stagnation of the cattle ranching sector and the limitations regarding the areas that could be dedicated to agricultural activities are the main explanations of this outcome.

- The waste sector is the most dynamic one, increasing its emissions in almost 200 per cent between 2005 and 2030. As a result, the sector's share of total emissions is expected to reach around 10 per cent in 2030.
- The LULUCF sector looses all co2 absorption capacity during this period and turns into a net emitter: 24 millions tons of co2q in 2030.
- Per capita emissions are expected to grow up to 12.7 tons of co2q between 2005 and 2030, almost doubling the 1990 levels. Regarding carbon intensity, the expectative is a small reduction, around 15 per cent in 2030 – 0.86 tons – compared with the 2005 indicator – 1.1 tons (Bouille, 2008).

2.1.4 Conclusions to Argentina as GHG emitter

Even a superficial review of the data included in the previous pages invites the reader to make a negative conclusion regarding the characteristics of Argentina as a GHG emitter. If 1990 is considered as the base year, the country's GHG emissions grew intensively at the global level, in every major sector and in per capita terms. Things are even worst if the post 2000 period is considered: the rate of emissions growth is accelerated –doubling the pace of the precedent decade- and even the carbon intensity of the economy –the only positive trend before the year 2000- increases. This pessimist diagnosis is completed by the perspective of GHG emissions doubling between 2005 and 2030.

Besides this pessimistic general conclusion, another set of considerations can be done regarding Argentina's emissions profile:

- Energy and agriculture appear systematically as the main responsible sectors for argentine emissions, however with different long term tendencies: energy increases progressively its participation in total emissions while agriculture losses its relative weight.
- Waste and industry sectors increase their share in total emissions, however maintaining a thin expression. The LULUCF sector, even involved in a very erratic trajectory, shows a progressive decrease in co2 absorption capacity.
- The remarkable path of Argentina's emissions trajectory is due to the following causes:
    - Energy sector: growing demand, decrease in efficiency and a progressive carbonization of the energy matrix, explained by the growing presence of thermoelectric power plants and the substitution of natural gas with fuel and diesel oil in the electricity sector.
    - Agriculture: land change use, dissemination of soybean culture and the burning of agriculture waste.
    - LULUCF sector: decrease in co2 absorption capacity mainly because of the reduction of abandoned lands.
    - Industry sector: expansion of chemical, metal, cements and F gases production.
    - Waste sector: expansion of solid wastes and industrial sewage.
- The participation of each GHG in Argentina's total emissions remains relatively stable since 1990, with co2 as the major contributor.

- If the current emissions tendency is perpetuated and in the absence of significant mitigation policies, the scenario in 2030 presents Argentina doubling its emissions in relation to 2005, which implies a annual growth rate of 4 per cent.
- Considering that global emissions grew around 3 per cent annually in the last decade (Viola, 2010), the recent trajectory of argentine emissions implies that the country has expanded its global share. This tendency is expected to be maintained in the near future given the perspectives of argentine GHG emissions in the coming years. However, it is important to highlight that given the demographic and economic characteristics of Argentina; the country will never reach the level of the great emitters.

2.2 Impacts and vulnerabilities

Following the definition of the IPCC (2007) vulnerability has two main dimensions: exposure and adaptive capacity. Exposure refers to the expected impacts of climate change in a given dimension, the level of sensitivity of a certain region or community to a particular effect – rising sea or temperature levels, frequency of extreme weather events, etc. Adaptation capacity is the potential a given community has to anticipate and react to consequences of the destabilization of the climate system. In this way, adaptation is closely related to the community level of development. In order to analyze the climate vulnerability of Argentina, both the dimension must be considered.
In terms of sensitivity, according to the 2NC, in the last two decades were registered a series of climate tendencies that affected the territory of Argentina. Probably related to global climate change, some of these tendencies are:

- Increase on the average annual precipitations in all the country but especially in the Northeast region and the peripheral west zone of the traditional humid region.
- Increase in the frequency of extreme precipitations in most of the East and Central parts of the country.
- Temperature rises in the mountain sectors of Patagonia and Cuyo with glacier retreat.
- Rises in the volume flow of rivers and increase frequency of flooding in the whole country, excepting the states of San Juan and Mendoza and the regions of Comahue and Northern Patagonia.
- Volume flow retreats in the rivers fed by the Andean mountains in San Juan, Mendoza and Comahue.

Along with these already perceived climate change effects, the creation and intensification of new vulnerabilities are expected in the following decades:

- Decrease in De la Plata River flow due to the growing rates of evaporation following rising temperatures.
- Increase in water scarcity in the North and parts of Western Argentina, also caused by evaporation.
- Decreasing levels of snow fall in the Andes, probably causing water crisis in Mendoza and San Juan and reducing hydroelectric generation in the Comahue region.
- Continuity of high frequency of extreme rainfall events and flooding in the already affected zones.
- Continuity of glacier retreat.

- Sea levels rise compromise some coastal points including the De la Plata River shores.

The current and expected consequences of climate change over Argentina's natural and human environment are wide in scope and profound in intensity. Climate variability - in particular inter-annual rainfall variations – is especially important in terms of potentially alter socio-economics dynamics in the country: generating negative outcomes in agriculture production and exports, damaging infrastructure and threatening the health and security of affected population (SADS, 2007). A clear example of climate risks in Argentina is the Cuyo Region, which survival depends on the rivers originated in the Andean's glaciers and snowfall. In the last 20 years, the volume flow of those rivers has decreased between 50 and 60 per cent. The Comahue region presents a similar situation; its primary water course - the Negro River - has lost around 30 per cent of its volume flow in the last decades. Given that the Comahue region produces almost 25 per cent of Argentina's hydroelectric power, the case bring valuable lessons on how climate change can disrupt the energy supply. The de la Plata River region could also suffer serious consequences if some expected changes in the basin regime become real: reductions in hydroelectricity generation, navigation problems and water stress (SADS, 2007).

Another element that enhances Argentina's vulnerability to climate change is the fact that a big proportion of the major cities is located at the shore of some river. This puts an expressive share of the country's population in risk of suffering severe flooding – which are expected to increase given the growing frequency of extreme rainfall events. In terms of public health, the 2NC highlights that climate change effects over the population are already being felt, as is the case of the expansion of the geographical distribution of tropical disease –dengue, malaria, Schistosomiasis - vectors. It is well known that other potential consequences of climate change could have expressive effects over the country's territory and population, being the impacts of the Argentine Sea changes over the marine ecosystems and fishery probably the most important. However, given the current state of scientific research, the precise limits of these consequences are difficult to identify.

Coming back to the idea expressed at the beginning of this segment, it is now time to consider the other dimension that defines the degree of climate change vulnerability of a given society: adaptative capacity. This potential is directly linked to other series of characteristics related to the country's stage of development: according to the IPCC the following are the central elements of the concept: artificial and natural capital resources, social safety nets, human capital, institutions, governance, national income, health and technology (IPCC, 2007). It is not the place here to do a detailed analysis of Argentina's situation in each one of this topics, it is enough to say that in almost none of these categories can Argentina be considered as a developed country.

In sum, it can be said as general conclusion, that Argentina is particularly vulnerable to the effects of climate change because of two main reasons: its climate sensitiveness and its level of development (DCC, 2009). As we saw before, Argentina is exposed to a vast range of climate impacts, some of them of considerable intensity. Of special importance are those affecting the country's economic profile: a good share of Argentina's GDP and exports depends on economic activities that are highly dependent on the climate conditions and highly sensitive to its variations – agriculture, cattle ranching and the associated productive chains. The second reason has to do with Argentina's condition as

a developing or emergent country. This means that the resources needed for the country's adaptation to the new circumstances generated by climate change have to compete with the needs of development. This resource scarcity not only refers to the financial dimension, it also includes institutional and human capacities. As we will see later in this article, the rhetoric of development is a central part of the official argentine discourse in the international climate change negotiations.

2.3 Adaptation needs

A precise definition of the needs and costs of adaptation faces a series of important obstacles in every country, beginning with the lack of accurate information regarding the localization and intensity of the potential impacts. In the specific case of Argentina, this situation is aggravated by the insufficiency of systematized and solid meteorological information, the limited development of regional climate models and also some institutional deficiencies. Having this in mind, we present the conclusions of the 2NC regarding the adaptation resources that Argentina will need in order to deal with the current and expected effects of climate change.

a. Water resources: costs associated with the resolution of water management conflicts; costs related to the decreasing levels of de la Plata River flow, specially in terms of navigation and hydroelectricity generation; costs associated to the construction of defence infrastructure against floods and other extreme weather events and costs related to the implementation of urban environmental planning.
b. Urban system: costs related to the re-localization of population threatened by flooding or the surface of the water table; costs derived from the construction of hydraulic infrastructure and sewer systems and costs associated to the stimuli of constructions materials and designs more adequate to warm conditions.
c. Agriculture system: costs associated with minimizing the impacts of the expansion of the agricultural frontier – such as reforestation in zones vulnerable to desertification; cost derived from the deployment of irrigation systems in the areas most affected by droughts (the states of Chaco, Santiago del Estero, Formosa and Salta) and finally costs associated with the creation of new varieties of crops adapted to the changing conditions and with the adjustment of the existent technological resources.
d. Energy: the adaptation costs in this sector are linked to the rapid expansion of energy demand, and the limitations of the supply.
e. Road and railroad integration: costs related to the creation of new infrastructure adequate to the new climate conditions and its development as a net.
f. Public health: costs derived from the implementation of programs in response to the expansion of infectious diseases driven by climate change.
g. Costs related to the upgrade of early alarm systems and climate forecasts and the diffusion of the dimensions of the climate problem (Fundacion Bariloche, 2008).

2.4 Mitigation options

Five reports quoted by the 2NC show that, in the next fifteen to twenty years, Argentina can reduce its GHG emissions in almost 160 million tons of co2e. It is worthy of note that these reports do not consider the high mitigation potential of other activities, such as the expansion of hydroelectric and nuclear power plants (SADS, 2007).

1. Energy efficiency: the measures considered to reduce consumption include: upgrading the thermal insulation of residential and educative buildings, the

substitution of illumination equipment in residential, commercial and public sectors, the substitution of refrigerators and the incorporation of energy co-generation systems in the industry sector.
2. Transportation: the mitigation scenario is based on the adoption of the following measures in both the urban and interurban corridors: fuel shift, good driving practices, speed control and modal shift from roads to railroads.
3. Renewable energy: the mitigation options in this area by the year 2015 would be leaded by biofuels (55 per cent), wind power (27per cent) and solar (10 per cent). Geothermal energy and small hydroelectric generators are less significant options.
4. Carbon capture: the protection of natural forests and the existence of lucrative reforestation options both represent cheap mitigation options in this area.
5. Cattle ranching methane: bovine herd management has mitigation potential as is convergent with increasing productivity in the sector.

The 2008 FB report already quoted here, built a mitigation scenario that has the potential to reduce in almost 25 per cent Argentina's total emissions in 2030 in relation to the BAU scenario: from 615.7 to 462.7 millions tons of co2e. Some of the most important measures that the report identifies as viable options are the following:

1. Energy sector (90.4 millions tons of co2e avoided)
    - Residential and public: gas and electric artefacts labelling and standard fixation; building insulation; public illumination programs.
    - Transportation: modal shift in urban transportation; railroad transportation for cargo and public passengers; and car fleet renewal.
    - Industry sector: consumption reduction; introduction of renewable sources of energy.
    - Electricity supply: introduction and upgrade of solar, wind, geothermal, hydroelectric, biomass residues power generation and co-generation.
2. Cattle ranching (3 millions tons of co2e avoided)

Having as frame a systematic decrease of the territory devoted to the activity and considering that 90 per cent of the sub-sector’s emissions come from the bovine herd, the following measures are suggested:

- Improve feeding practices: concentrated rations, better pastures and diet supplementation.
- Improve reproductive, sanitary and genetic management.

3. Agriculture (4.1 millions tons of co2e avoided)

Since the scenario for the activity includes the stabilization of the agricultural frontier near the year 2010, further increases of production will come from genetic and management improvements and will be seriously limited by climate restrictions and the loss of soil fertility. Mitigation options in the sector are the following:

- Annual regulation of soybean production – since it represents 96.5 per cent of direct NO2 emissions: substitution with pastures and other crops, nutrient recycling and complementation with cattle ranching.

4. LULUCF (34.9 millions tons of co2e avoided)
    - Reforestation and aforestarion
    - Native forest conservation
    - Substitution of fossil fuels with timber and residues from timber industry.

The reports specially highlights that if the “Forest Law” (Nº 26,331 - see below) was fully upheld, 0.9 million tons of co2e could be removed in 2010, 2 millions in 2020 and 3.5 millions in 2030.

5. Urban waste management (20 millions tons of co2e avoided)

Considering that 70 to 75 per cent of methane production can be recovered and used for heating or electricity generation, the following measures are suggested.

- Reduction of methane sources and recovery/reduction of the production: recycling, incineration, reduction in the available lands for waste disposal and the use of residues.

6. Industry sector

No mitigation options are considered in this sector given its low share of total emissions.

The general conclusion regarding mitigation options in Argentina, considering the reports quoted above and other sources of information (UBA, 2009 and Bouille, 2008) is the following: the best GHG reduction possibilities in Argentina are in the energy sector –which also is the primary source of emissions: improving efficiency and the development of clean alternative energy sources are the most affordable strategies. The LULUCF (carbon capture in soils and vegetation) and waste management sectors have also some interesting potential. The perspectives are rather pessimistic in the agricultural sector – the second source of GHG production: the high level of efficiency in agricultural practices and certain uncertainties regarding the possibilities of mitigation in the bovine herd management leave little space for emission reduction. Finally, given the relatively low weight of the industry sector in term of GHG production, no significant strategies are considered.

3. Climate politics and policy

Before analyzing the argentine climate foreign policy, which is the core of this chapter, it seems right to make some more general considerations regarding climate politics and policy in the country. With this aim, two segments are opened, one referring to the society and political leadership's climate perceptions and the other regarding the state of development of some specific climate policies.

3.1 Climate (un)awareness: perceptions and policies in Argentina

The way in which societies and political leaderships receive and process the potential outcomes of climate change play a substantial part in the definition of the public responses to the challenge. In this way, even the IPCC recognizes that the vulnerability boundaries are socially determined. In the specific case of Argentina, many factors support the conclusion that the climate issue is far away from the daily concerns of the population and from the political calculations of the argentine elite – both elements deeply intertwined.

In the year 2005, the research firm "Poliarquia Consultores" conducted a broad survey regarding environmental issues, requested by Argentina's Wildlife Foundation[4]. The results are quite expressive: only 7.5 per cent of the sample considered that climate change was a main environmental problem, far away from topics like floods or local pollution. Only in some states the phenomena is seen with some more concern: Catamarca (20 per cent), Jujuy (17 per cent), Mendoza (17 per cent), San Juan (21 per cent), Santa Cruz (28 per cent), Santiago del Estero (15 per cent), Tierra de Fuego (22.3

[4] [4] http://www.fvsa.org.ar/situacionambiental/navegador.html. Accesed in 3/09/2010.

per cent). It is interesting to note that states belonging to Patagonia and Cuyo regions – two of the most vulnerable to climate change- are between the most preoccupied with the potential consequences.

The way in which the national press deals with the climate change issue can also be an indicator of local society's climate awareness. Two works are referred here in relation to this topic. First, a research produced in 2008 by the Konrad Adenauer Stiftung regarding the presence of climate change issues in Latin American press, shows how little attention the main argentine journals give to the problem. From a sample of 4,100 notes analyzed in the Journal "El Clarín" –the most important- only 11 (0.27 per cent) did mention the matter, the performance of the second major one "La Nación" is hardly better: 18 of 3900 (0.46 per cent). The general conclusion of the KAS report for the whole region applies easily in Argentina: If regular international conferences and scientific reports addressing climate change wouldn't exit, the issue would be close to disappear from the Latin-American media agenda (FARN, 2010).

The second article here quoted - also included in the 2010 FARN´s Report - presents some similar conclusions: considering the total environmental news published in 2009 in the three largest argentine journals (El Clarín, La Nacion and Página 12), the research shows that only 0.3 per cent of them made reference to climate change. The major concentration of climate change news appeared in the days surrounding the COP 15 (7-18 December 2009): a daily average of three news in each journal (FARN, 2010).

Regarding climate politics, climate change nor appears in the political platforms of any relevant argentine political party or either is part of the discourse of the main political figures. It is not a topic in the legislative agenda and it was not a present matter in the 2007 and 2009 political campaigns. Looking towards the 2011 presidential electoral process, there the perspective of climate change becoming even a peripheral topic for any candidate or major party is not promising. In the business sector, no significant movements have existed to fix a position towards the climate stand of argentine government – as it happened in Brazil (Viola, 2010). Neither any sub-national reaction similar to that coming from the Amazon states in Brazil has emerged. Hence, high degrees of climate awareness seem to be an exclusive asset of part of the academia, specialized state bureaucracies –although with little political space in the general structure of the government- and certain NGOs.

Even though the consideration of the profound forces that explain Argentina's climate insensitiveness is beyond the reach of this article, the following can be said for further contemplation: the heritage of consecutive and intense political crisis in the country's history has fed the consolidation of an extreme short-term political culture. This fact combined with the characteristics of climate change as natural and social phenomena – gradual, complex, with long terms effects and demanding risk management – tell us about the difficulties of argentine society and political leadership to correctly evaluate the broad dimensions of the climate problem.

Within this framework, is nor surprising that Argentina has not internalized the climate change into the domestic legal structure –not even partially, as Brazil did in 2010- or develop an specific climate policy. The only current actions regarding climate change are a series of unconnected measures that, following its own logic and objectives, tend to produce more or less impact on adaptation and mitigation needs. In relation to the

specific legal framework of climate change in Argentina, it is worthy to highlight the UNFCCC and Kyoto protocol (KP) – both superior to ordinary laws according to the constitutional mandate-; some executive orders establishing the Argentine Carbon Fund or dealing with some PK flexible mechanisms related matters; and finally a series of resolutions from the Secretary of the Environment and Ministry of Sustainable Development. However, as said before, there is not such thing as a general climate law that establishes some minimal premises to deal with the issue.

To have a clearer vision regarding the state of climate policies in Argentina, we present a brief report on the situation of a set of measures that the government submitted to the UNFCCC in relation to the Copenhagen Accord[5]. According to argentine authorities, these measures are consistent with climate change mitigation.

Box 1: Argentine mitigation actions in 2009

Energy efficiency

- Executive order 140/07: Creates the electricity and natural gas rational use program, giving incentives to consumption reduction.
- Law nº 26,473: bans incandescent light bulb imports
- Other programs: PIEEP (small and medium firms); PCAE (electric artefacts quality standards) and PAEEE (energy efficiency in public buildings)

Renewable energy

- Law nº 26,190: grant benefits to renewable energy production
- Renewable energy program in rural markets
- Law nº 26,123: hydrogen promotion

Biofuels

- National program of biofuels
- Law nº 26,093: establishes a minimum of 5 per cent of bioethanol and biodiesel in fossil gasoline and diesel in 2010. Grants fiscal benefits.
- Law nº 26,344: ethanol promotion in sugar-cane productive chain.

Forest management

- Law nº 26,331: sustainable use of native forests.
- Law 26,342: grants incentives to forest enterprises.

Urban waste management

- National plan for integral urban solid waste management: bio-gas capture and waste disposal sites construction.

On the subject of the energy efficiency measures, some doubts regarding the actual outcomes of the national programs (like PUREE –Rational use of electrical energy program- or PIEPP – energy efficiency program for small and medium companies) coexist with high federal subsidies to residential electricity and fossil fuel consumption in the area of transportation. From the supply side, and according to the last national energy balances, clean energy sources are losing weight in Argentina's energy matrix – which is consequently deepening its carbon intensity. The situation is a little better in the area of bio-fuels, since the country became one of the major exporters of biodiesel and because since 2010 is mandatory for diesel and gasoline to have at least 7 per cent originated in biomass. Nevertheless, the future expansion of the activity raises some

[5] http://unfccc.int/files/meetings/application/pdf/argentinacphaccord_spanish.pdf

doubts regarding its sustainability, especially because of the pressure that the biodiesel production puts on the agricultural frontier of soybean. In relation to forest management some substantial consensus exists regarding the good quality of the recently upgraded legal framework – which introduced the concept of environmental services and created a special fund to pay for them. However, there has been little progress in terms of specific implementation of the law, especially regarding the forest fund and the environmental organization of the territory at the state level. Finally, public policies in the area of waste management are confronted with a similar situation: the lack of specific implementation of the law and the poor coordination within the COFEMA (Federal Council of the Environment).

The previous discussion invites us to conclude that, up to now, the little efforts that Argentina has done to deal with its climate vulnerability have been localized and unorganized. This is, coming from different actors such private firms, sub-national entities, NGOs and even the federal government, but absent a well-established global strategy. All these actions within a frame characterized by a progressive fall in federal resources aimed to environmental policies –the federal environmental budget has shrank from 0.5 per cent of the total in the late 1990s to 0.3 per cent in 2007[6]- and a general social apathy towards climate issues.

3.2 Warming climate, frozen policy

The international behaviour of the state is a key factor when considering the insertion of any country in the climate change dynamics. Hence, the intention in this segment is to present a brief account of Argentina's climate foreign policy, highlighting some of its main features and relevant milestones of its history. Although the period here considered begins in the late 1980s, given the premises of this article, the main analytic effort is focused in the recent past: the path imagined by Argentina in reference to the Bali Roadmap.

In the trajectory of Argentine foreign policy regarding the construction of the international climate regime, some positions have been systematically defended:

- The multilateral level, specifically the UN scenario, as the appropriate sphere to respond to the climate problem – both in terms of efficiency and justice.
- The national development as an inalienable and priority imperative.
- The close defence of the principle of common but differentiated responsibilities expressed in quantitative emission targets for developed countries and NAMAs (Nationally Appropriate Mitigation Actions) for the developing world.
- The need of technology, financing and investments coming from the developed world to deal with mitigation, adaptation and scientific information systems requirements.
- The defence of the Kyoto Protocol's flexible mechanisms – specially the CDM (Clean Development Mechanism).
- The introduction of REDD (Reducing Emissions from Deforestation and Forest Degradation) into the climate change regime.

[6] http://www.ambiente.gov.ar/?idarticulo=6277

Besides the enumeration of the most constant premises of the Argentine climate behaviour, there are some other landmarks of its trajectory that is interesting to note. First, a reference to the origins of the country's climate foreign policy seems inevitable, since it helps to understand one of its relevant features: the remarkable presence of Ambassador Raúl Estrada Oyuela. The concern with the international dimension of climate change was brought to the Ministry of Foreign Affairs by a small group of civil servants within the organism in the late 1980s. Leaded by Estrada, a working group was formed to address the matter and through several interviews with scientists and specialists, the official position that Argentina would carry to the forthcoming international climate meetings progressively emerged. In the construction of that position, the concern regarding the effects of climate change over the natural conditions of Argentina for food production was central. That initial definition of the country's national interest was traduced in an international stand that privileged the multilateral level as the more adequate sphere to address climate change.

It is interesting to note that the origin and development of the climate foreign policy was relatively autonomous both from the authorities of the Ministry of Foreign Affairs and the national leaderships but strongly influenced by the figure of Estrada Oyuela and the epistemic community that surrounded him. Estrada had an important role in the construction of the climate regime, since he was chosen as President of the Ad Hoc Group of the Berlin Mandate and was one of the main individual actors responsible for the successfully negotiation of the Kyoto Protocol. This fact gave Argentina a relatively high-profile role in the construction of the global climate architecture and meant for Estrada the consolidation of his figure as a global –and domestic- reference in the matter. It is not within the ambitions of this paper to develop a finished answer regarding the reasons for this autonomy; however, it is possible to suggest a hypothesis for further research: the freedom that that group had in terms of defining the national interest of Argentina in the international climate arena is directly linked to the lack of precedence of the issue for both the authorities in the Foreign Affairs Ministry and the national government.

The second landmark in Argentina's international climate trajectory that is worthy of highlight is the 1998 voluntary emission's reduction proposal. In the 4th UNFCCC Conference of the Parties (COP IV) that took place in Buenos Aires that year, Argentina submitted a controversial and innovative proposal in relation to climate change mitigation. President Carlos Menem -1989/1999- announced that his administration was ready to adopt voluntary emission's trajectory reduction targets for the period 2008-2012. It was the first time a developing country (Non-Annex 1) agreed to establish a quantitative target of emission reduction (Bouille & Girardin, 2002). In fact, argentine delegates had lobbied for voluntary commitments in developing countries since the Kyoto negotiations, arguing that this would facilitate the discussions with the developed world towards the Protocol. That stand, however, was heavily opposed by the G-77 + China – the main negotiation block of developing countries. It was, nonetheless, aligned with the interest of the US administration – which also managed to convince South Korea of the benefits of the project (Viola, 2009).

Regarding this proposal –at the end frustrated both by the opposition of the developing countries and some legal restraints introduced by the Kyoto Protocol- a series of considerations can be done, four of them are highlighted here. In the first place, the argentine proposal can be considered as an advanced one, since involved a more

profound commitment of the developing world in terms of GHG emission reduction. In second place, it implied for Argentina a serious braking off in its relationship with traditional allies such as the G-77+China and Mercosur. The contradiction was especially strong with the regional strategic partner Brazil – which had in those years a very conservative position based on serious concerns regarding the sovereignty of the Amazon Region. Brazil strongly rejected the argentine proposal in the COP IV (Bouille & Girardin, 2002). In third place, it was probably the most important moment for the climate change agenda in the history of Argentina, and in two ways. In the domestic public sphere, the issue focused the attention and the efforts of local political authorities as never before and in the international arena, it fuelled the debate of a proposal that could have changed deeply the Kyoto equation of the principle of common but differentiated responsibilities. In fourth place, the decision was taken at the highest federal governmental level, without the participation of other political or societal actors and absent any open debate towards the local implications of the proposal (Girardin, 2002).

At the end, the voluntary commitment proposal was nothing but an anomaly in the climate foreign policy of Argentina. As Bouille & Girardin (2002) point out, the explanation for that behaviour can be traced to the conception of Argentina's international insertion of the Menem's administration – the automatic alignment with the US interests as key vector of the argentine foreign policy. Hence, the announcement of voluntary targets had nothing to do with a growing climate awareness within the society or the political leaderships, on the contrary, was guided by an opportunistic political calculus. The trajectory of Argentina's GHG emissions since the years of the proposal to the present reinforces that argument.

Before entering the analysis of the most recent period of the country's climate foreign policy, a third landmark in its trajectory is worthy of noting. In 2007- and after a confrontation with the federal authorities regarding local environmental policy - the Chairman of Environmental Issues of the Ministry of Foreign Affairs, Estrada Oyuela, was dismissed. This episode had a relatively relevant impact in Argentina's climate foreign policy, since Estrada had been very influential in climate matters since the late 1980s. As a consequence, the representation responsibility of the country's position in the international arena was progressively taken by the Secretary of the Environment and Sustainable Development (SESD). This fact implied not only a modification of the negotiation staff but it could also explain some changes in the argentine climate position, such as the vision of the Kyoto Mechanisms, as we will see below.

Regarding the most recent history of the climate regime, the reference to the Bali Roadmap is inevitable. In the following pages is summarized the vision that Argentina expressed regarding the process opened in 2007 with the purpose to build a new global climate deal[7].

[7] The documentary base that supports this segment is avalible in:
http://unfccc.int/resource/docs/2008/sbi/eng/misc01.pdf;
http://unfccc.int/resource/docs/2008/awglca4/eng/misc05.pdf;
http://unfccc.int/resource/docs/2009/awglca5/eng/misc01.pdf;
http://unfccc.int/resource/docs/2009/awglca6/eng/misc04p01.pdf,
http://unfccc.int/resource/docs/2009/awglca7/eng/misc06.pdf;
http://unfccc.int/resource/docs/2010/awglca10/eng/misc02.pdf

1. Shared Vision

- The early set of mid-term emission targets for developed countries and a clear agreement over financing, technology transfer and capacity building for developing countries can help to advance with the long-term goals and create build trust among the parties.
- The efforts to achieve the long-term goals must consider the principle of common but differentiated responsibilities, the historical contribution to the process of global warming, the national circumstances and the development imperative.
- The emission reduction in developing countries necessarily involves the support from developed countries, in terms of technology development and transfer, capacity building and financing.
- Mitigation actions taken by developed countries must avoid negative consequences over the society and economy of developing countries, especially in the area of international trade.
- The transition to a low carbon economy must be just for the productive workforces.

2. Mitigation Options

- The developed countries must show – through concrete actions - that they are leading the mitigation effort: Annex 1 parties must reduce their emissions at least by 45 per cent of their 1990 levels by 2020, and 95 per cent by 2050.
- Mitigation actions coming from the developing countries are inevitable in order to stabilize the climate system; however, those measures must not impose a limit to development – NAMAs is the way in which the developing world contributes to the mitigation effort.
- Market mechanisms must be correctly assessed, especially regarding their potential to displace mitigation options in Annex 1 Parties and to capture only the cheaper mitigation options in developing countries. Even when their relevance is recognized, market mechanisms must be guided by governments and international organizations.
- Regarding the CDM, Argentina made a set of proposals:
  - The introduction of mechanisms to improve the regional distribution of mitigation actions. A system of regional emission reduction quotas is proposed.
  - The introduction of sector by sector emission reduction credits, given the current limitation of the project by project approach.
  - The presence of Carbon Capture and Storage (CCS) technology in MDL projects must be limited, because it perpetuates the fossil fuel paradigm.
  - The substitution of the CDM Executive Committee with a high level body, capable of dealing with strategic matters, such as project distribution and controversy solution.
- Regarding REDD:
  - Argentina considers REDD as a key matter in the global agreement, given its mitigation potential and its close relation with sustainable development.
  - Financial support from developed countries is needed. The funds must precede the implementation of the actions in the sector.
  - The commitment to halve deforestation in 2020 and end it in 2030 must be explicit.
  - The reference and account systems must be national.
  - REDD actions must not be part of NAMAs.
- Regarding Mitigation in the agriculture sector:

- Argentina highlights the difficulty in adopting mitigation actions in this sector, given the pressure exerted by the global food demand and the diversity of environments where agriculture is developed.
- Improvements in the sector will only come through efficiency and not through absolute emission reduction.

3. Enhanced actions on adaptation

- Improve monitoring networks in order to upgrade the quality of climate information and models. New mechanisms are needed to spread these technologies.
- Development of adaptation strategies in developing countries, including institutional capacity building, the construction of legal frameworks consistent with development needs and the inclusion of risk management.
- It is a priority the definition of financial the obligations for the developed countries: the funds must be public, appropriate, new and additional to development aid.
- Argentina recognizes that the most vulnerable countries must have priority, but declares that every one must be represented in a future adaptation agreement.
- Argentina proposes the unification of all adaptation funds under the UNFCCC – they must cover all financial needs of the developing world.
- New institutional arrangements must be considered to guide, supervise, support, manage and monitoring the operations.
- Capacity building must be a basic component of technology transfer strategies.
- Institutional capacity must be a basic component of capacity building strategies.

4. Technology, resources and financing

- Technology transfer and development
  - Argentina supports the G-77+China proposal regarding the creation of a new body under the UNFCCC with the mission to improve the development, spread and transfer of technology as well as other related activities – capacity building, training, bilateral and multilateral research, and development cooperation.
  - Measures must cover all stages of technology development.
  - Deepening North-South and South-South cooperation in vital in this area.
- Enhancing actions on the provision of financial resources
  - Argentina supports the proposal made by the G77 and China on the creation of a new body under the Convention to unify financial commitments.
  - Appropriate annual levels of financing on mitigation and adaptation must be defined and periodically checked in order to see if they are responding to the needs of the developing countries.
  - Funding must be public and provided by developed countries.
  - Private financing has a complementary role. Argentina accepts the market mechanisms with some reservations and only if some measures to avoid distortions are taken.

It seems appropriate in this moment to make a brief reference to Argentina's position regarding the flexible mechanisms created under Kyoto. During almost the whole existence of these instruments, the official standing of the government was a systematic defence, not only highlighting their contribution to the Convention's final purpose but also their favourable effects on national development. However, since the beginning of 2008, a progressive position shift is perceived: at first Argentina emphasized implementation problems, then pointed out internal limitations and the subsequent need

of guidance by governments and international organizations and finally stated that market mechanisms could have only an auxiliary role and for that reason they are only accepted in a limited way. This important change in Argentina's standing is contemporary to the changes in the governmental staff above referred and it is probably a casual link between the two episodes – however improperly checked in the stage of this research.

The precedents paragraphs show the contents of Argentina's position on the path to Copenhagen (COP XV) – imagined as the summit where a new global architecture on climate change would emerged. On this regard, it is important to say that Argentina did not agree with the most significant outcome of the 15th COP - the "Copenhagen Accord" (CA). However, in February 2010, the country answered the Convention invitation to submit NAMAs proposals. As we saw before, in that submission, Argentina listed a set of public policies that are supposedly consistent with climate change mitigation – although with no quantitative references. In further manifestations, the government highlighted some advances made in Copenhagen such as the 2ºC limit of temperature increase – and recognized the need for the international community to reduce 85 per cent of its emissions by the year 2050. It also asked for some parts of the CA to be incorporated to the work of the AWG-KP (Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol) and AWG-LCA (Ad Hoc Working Group on Long-Term Cooperative Action under the Convention), given their potential to facilitate negotiations. Finally, and in direct reference to what happened in Copenhagen, Argentina insisted in the need of more transparency and universality in the UNFCCC process.

In sum, the current features of Argentina's climate standing in the international arena could be synthesised as follows: Argentina recognizes the seriousness of the climate problem in line with the scientific evidence compiled in the 4th IPCC report and declares a total commitment with the purposes of the Convention. It also states that the dimension of the climate system destabilization demands a cooperative effort that involves every actor in the international community. However, the argentine official position rejects the possibility of establishing quantitative emission reduction targets for developing countries and defends the idea that only the developed world is plausible of such mandatory commitments. The only case in which Argentina would accept deepening mitigation actions is through financial and technological support coming from developed countries. To avoid potential negative effects on the country's economy derived from climate policies in the developed world is one of the main concerns of the argentine negotiators within the Convention – especially regarding climate-based trade barriers in the agriculture sector. The so called "just transition" –minimizing the negative effects of the low carbon economy on the labour world - has also entered the country's agenda in the last few years. Finally, it is worthy to note the inclusion of sovereignty claims over the Malvinas Islands in the submissions to the UNFCCC – stimulated by the inclusion of Malvinas's emissions in the UK national GHG inventory.

Considering the previous information, it is argued here that Argentina presents a rigid conception of the principle of common but differentiated responsibilities- mainly because it does not recognized the possibility of adopting emission's reduction targets and subordinates any mitigation commitment to the financial and technological support of developed countries. This vision of the international climate politics is frozen since the negotiations of the Climate Convention and it has as reference the rigid division of

the world in poor and rich countries as established in Kyoto. As I will be shown in the next pages, this stand is inconsistent not only with the evolution of the climate problem at the international level, but also with the domestic conditions of Argentina.

4. Final considerations

Through the pages of this article a set of elements were considered in order to answer the question about the place of Argentina in the international political economy of climate change – emissions profile, vulnerabilities, mitigation options, climate awareness, domestic policies and foreign policy. Some conclusions are presented here. Argentina is far from being a relevant actor in the global climate dynamics, and for several reasons. In the first place is the low share of global emissions, as we saw, the country represents hardly 1 per cent of the planet's GHG production. An even when local emissions are growing above the world's average, the possibility of altering significantly its participation is null. In second place, because Argentina has not the technology resources to change the path of the world's economy decarbonisation. And finally is the country's relative position in the international structure: Argentina's material resources and influence over other actors in the international system – even in its own region – are scarce. In this way, the country can be considered as a middle –low power in the climate arena – considering the recent emission trajectory, the relatively high per capita emissions, the per capita national income and the history of participation in the construction of the climate regime. Hence, Argentina has a low potential alter the path of the global governance architecture of climate change.

Despite this low relevance, there are some elements that could arguable stimulate the country to work in favour of a more carbon-restrictive global agreement. To begin are the vulnerabilities, as we showed, Argentina is highly sensitive – especially in some sectors - to the negative effects of climate change. This will bring high adaptation costs and will impact particularly the agriculture sector, an important national source of income. The negative consequences of climate chance will also impose limits to the development trajectory, since they will compete for scarce human, financial and institutional resources. The existence of some available mitigation options could also work as a positive incentive, since Argentina could complied in a relatively easy way with an international agreement that establishes emission targets. Besides that, in a decarbonising global economy, the country could be a winner in the area of biofuels and REDD related activities. In terms of negative incentives, Argentina could avoid - with a more committed participation - potential losses regarding high carbon intensive products trade.

There are, however, strong factors preventing Argentina from changing its approach to the climate change issue. While the world –and even Argentina – is talking about the urgent need for stabilizing the concentration of GHG in the atmosphere, local emissions in the 2000 decade had a major increase and are facing the perspective of doubling the 2005 levels by the year 2030. The core problem is exactly the apparent inexorableness of the tendency: there are no elements in the current state of domestic politics that could support the expectation of effective climate policies in the short and middle term. In the foreign policy sphere, the change would imply the desertion from the rigid conception of common but differentiated responsibilities – conception that is frozen since de early 1990s. It is stated here that such a vision regarding the role of Argentina in the climate dynamics, has not incorporate or assimilate the profound changes that modified the

international arena of climate change in the last five years – growing scientific evidence, climate awareness and political responses – and the transformations of the country profile in the last decade – growing per capita emissions and per capita income. Hence, both the global and internal affairs no longer exempt Argentina from raking a more strong action towards climate change.

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