CENTRE FOR BRAZILIAN STUDIES

UNIVERSITY OF OXFORD

Brazil in the politics of global governance and climate change, 1989-2003

Eduardo Viola

Working Paper Number CBS-56-04

Centre for Brazilian Studies University of Oxford 92 Woodstock Rd Oxford OX2 7ND

Brazil in the Politics of Global Governance and Climate Change, 1989-2003*

Eduardo Viola*
Professor of International Relations, Universidade de Brasília

Working Paper CBS-56-04

Abstract

The climate regime is the most comprehensive and ambitious of environmental regimes that links crucial economic issues of energy and energy efficiency with one of the most serious environmental risks. The climate regime is also one of the most important examples of impasses in creating global governance in a unipolar anarchic world. This paper discusses the evolution of Brazilian foreign policies during the last decade from a more nationalist toward a more liberal and globalist position in a variety of issues related to global governance. The paper reviews the international context and domestic policies toward the Kyoto Protocol and concludes with observations about how the reluctance of Russia to ratify the Protocol during 2003 produced a combination of despair and disengagement in the new Brazilian government led by President Luiz Inácio Lula da Silva.

Resumo

O regime climático é um dos regimes político-ambientais mais ambiciosos, relacionando questões econômicas cruciais de energia e eficácia energética com os mais sérios riscos ambientais. O regime climático oferece também um dos exemplos mais importantes de impasse de governança global em um mundo anárquico e unipolar. Este trabalho discute a evolução das políticas externas durante a última década a partir de um ponto de vista mais nacionalista, na direção de uma posição mais liberal e globalista, em relação a uma série de questões ligadas à governança global. Este trabalho analisa ainda o contexto internacional e as políticas domésticas para o cumprimento do protocolo de Kioto e conclui com observações sobre como a relutância da Rússia em ratificar o protocolo em 2003 produziu uma combinação de desespero e desprendimento por parte do novo governo brasileiro liderado pelo Presidente Luiz Inácio Lula da Silva.

Fifteen years that shifted perceptions: from the hope of a cooperative and sustainable world in 1989 to the reality of a violent and technologically accelerated world in 2004

The climate regime is the most comprehensive and ambitious of all environmental regimes, linking in a very direct way one the most crucial economic issue, the use of energy and energy efficiency with the one of the greatest environmental threats (Porter and Brown 1996). The climate change convention signed at the Earth Summit in Rio de Janeiro during 1992 set as a generic goal for all countries the reduction of GHG emissions, particularly for developed countries, that would stabilize GHG emissions in 2000 to the level of 1990. By the middle of the 1990s it was clear that no developed country would reach the goal. At the Kyoto Conference of the Parties in December 1997 there was a significant progress with the agreement of a Protocol (Grubb 1999).

In spite of years of intense negotiations, the Kyoto Protocol has not been ratified and, as of early 2004, it appears unlikely to ever become legally binding. This can be attributed to the combination of six major factors. The first and most important being the weak leadership by major greenhouse gas emitting countries and lack of progress in meeting stabilization targets settled in the Kyoto Protocol in crucial developed countries. Compared with the baseline of 1990, in 2000 carbon emissions were the following: United States (commitment 7 percent lower by 2010) was 14 percent higher; Canada (commitment 6 percent lower by 2010) was 17 percent higher; United Kingdom (commitment 12 percent lower by 2010) was 15 percent lower; Germany (commitment 21 percent lower by 2010) was 17 percent lower; The Netherlands (commitment 6 percent lower by 2010) was 17 percent higher; Japan (commitment 6 percent lower by 2010) was 4 percent higher. Among developed countries only U.K, Germany, Sweden and Denmark were in a trend of compliance with the commitments by 2010. Even countries like The Netherlands and Austria, which have been for decades at the world vanguard in environmental policies, are having strong difficulties in addressing their commitments (Viola and Simões 2003).

The second factor is the US withdrawal from the Kyoto Protocol once George W. Bush became president in 2001. Bush administration policies are an expression of a deep shift in public opinion across developed countries in terms of a gradual and steady transition from favoring policies of mitigation toward a different approach based on adaptation to climate change. Whether outspoken, as US conservatives, or hidden behind a politically correct discourse as in Europe, people's behavior in most of the world are showing continuous search for almost infinite material affluence that is contradictory with diminishing carbon emissions, at least given the current energy

matrix. The US produced 24 percent of the world carbon emissions in 2000. According to the ratification clause in the Kyoto Protocol, the US accounts for 35 percent (the proportion of the American emissions among countries belonging to Annex 1 in 1990, the baseline of the Protocol) of developed countries ratifications needed for the Protocol entering in force. Because of the central role of the US in the now unipolar international system it is very difficult to have a successful international regime without the engagement of the United States.

The third factor is the reluctance on the part of large (and fast growing carbon emissions) emerging countries (China, India, Mexico, Brazil, South Africa, Indonesia, Malaysia, South Korea, Thailand) to commit to reduction in the future rate of growth of their emissions. The fourth factor is the continued opposition to the Protocol by most oil exporting countries, particularly the members of OPEC. The fifth factor is the turbulent and dramatic transformations experienced by the Russian economy since the Kyoto signing in 1997. Because the commitments settled in Kyoto had the year 1990 as the baseline, Russia perceived itself as a winner in the regime at that time. However, that situation changed dramatically after 2000 because of the new growth of the Russian economy based on oil and gas exploration. In December 2003 it became clear that Russia would not ratify the Protocol, following instead the opposition of the US and Australia. Finally, the sixth factor is the disagreement in the scientific and economic policy communities about, respectively, the pace and extent of climate change, and the costs and benefits of alternative strategies and policy responses.

The near collapse of the Kyoto Protocol in late 2003 and early 2004 shocked the research community on human dimensions of global environmental change because most of that community underestimated the importance of global change since the 1992 Earth Summit. In spite of the rosy predictions of many analysts after the collapse of the Berlin Wall, issues of security and war continued to be of crucial importance as was demonstrated by the terrorist attacks of September 11th and the American led war against terrorism thereafter. Cooperation in the global arena has been much more difficult than was supposed at the end of the Cold War, and conflict much greater than anticipated.

A prosperous, peaceful, and sustainable world depend upon a general dissemination of free market economies and political democracies (Held 1999, Keohane and Millner 1996). However, the last fifteen years have shown that, in many countries, it is difficult to create market economies and political democracies. Some examples of success are remarkable: Poland, Hungary, Czech Republic, Slovenia, the Baltic States, Turkey, Chile, Brazil, Costa Rica, South Korea, Taiwan and

Thailand. But, the examples of failure are much more abundant. The procession of failed economic reforms, failed states, disintegrating societies and civil wars during the last years has been much more a product of historically rooted domestic obstacles than the consequences of globalization. However, the societies that are already successfully integrated in the global economy have not adopted a globally responsible attitude – especially compared to the Kantian assumptions at the end of the Cold War - in order to help the other societies to build up market economies and political democracies (Viola 1998). In brief, the failure to disseminate prosperous and democratic societies is driven by domestic obstacles in failed societies combined with the lack of responsible behavior by the successful globalized societies.

Another major change since the Rio Summit has been the impact of the acceleration of the revolution in information technology. The global expansion of the environmental movement from the early 1970s to the mid-1990s was based on a process of criticism centred on the impact of economic prosperity and scientific and technological developments that permitted improved environmental quality. Environmentalism demanded some self criticism from science and some slow down in the pace of technological and material progress, demands that captured the attention of public opinion and the mainstream of society (Inglehart 1997). This cultural shift has changed dramatically since the late 1990's. Instead of an environmentalist consensus, the acceleration of the information revolution in the second half of the 1990's has created a growing confidence in the capacity of technology to solve the problems created by technology, even as the technological gap among societies increased dramatically. The increasing capacity to create technological environments - through generalized air conditioning and fast and cheap transportation and communication – is producing a new post-environmentalist insensitivity about human transformations of nature. The dramatic acceleration of technological innovation has disseminated the impression that developed societies can protect themselves against the negative consequences of global environmental degradation. This new technological assertiveness in developed societies has undermined the idea of a common fate - in facing environmental degradation shared by humanity that had achieved considerable momentum at the time of the Rio Summit in 1992.

The environmental movement has had extreme difficulties in understanding this new path of technological assertiveness by the mainstream of societies. These difficulties were aggravated by the naïve view of democracy prevailing among environmentalists. The environmental movement has contributed to the dissemination of participative democracy with a significant illiberal component. With

its positives, increased participation also comes with negatives, such as poor organization and inflation of expectations that later on create stakeholder participation fatigue and cynicism. A long term view and comparison of political systems suggests that institutional quality is more important than the intensity of public participation for good governance.

Brazil in the second half of the 20th Century: economic growth, democratisation, and environmental protection

The Brazilian economy has grown rapidly since 1945, though there are two clearly differentiated periods. During the period 1945-1979 the Brazilian economy grew at 7 percent per year, much higher than the world average and in the 1970s the country became the ninth largest economy of the world behind the G7 and the Soviet Union. During the period 1980-2003 the Brazilian economy has had growth at 2 percent a year, below the world average. Furthermore, in spite of the strong growth of the economy, Brazil has not been capable of overcoming the extremely unequal income distribution. During the whole last century Brazil has always been one of the worst countries in the world in terms of income distribution.

The links between Brazil and the rest of the world during the 20th century were based primarily on the principles of world peace, free trade, cultural diversity and religious freedom. Political democracy has been most of the times a stated goal of the Brazilian society, though there have been several periods of political authoritarianism. Between the middle 1960's and the late 1980's there were some sectors of the military/foreign policy establishment that attempted to build up nuclear weapons capabilities as a platform for achieving a great power status in the global arena. Between 1960 and 1990 Brazilian society experienced a strong tension derived from the growing of two contradictory economic-political trends: from one side the development of transnational corporations, private initiative and Western values, from the other side the expansion of state owned corporations, bureaucracies and nationalists values.

Brazilian policies in the emerging arena of the global environment during the early 1970's were consistent with its economic profile. The Brazilian stance was based on the principle that the main cause of pollution was poverty, and that environmental protection should come only after economic development has dramatically increased per capita income to the level of developed countries. At the Environment Conference of Stockholm in 1972, Brazil and China lead the formation of a coalition of Third World countries contrary to recognizing the importance of emergent global environmental problems. Brazil's stance in Stockholm was based on

three principles: defense of unrestricted national sovereignty over the use of natural resources, that environmental protection should come only after reaching high per capita income, and that the burden of paying for the protection of the global environment should be the exclusive responsibility of developed countries (Viola 1997).

During the 1990's Brazil consolidated a democratic regime, expanded the Rule of Law (though more is still needed), opened its economy to foreign trade and investment, and pursued a foreign policy based on strong approximation with Western countries.

In 2003, Brazil continues being a very important country in the world arena, though its economic importance has declined in relation to the 1970's. In 2003, Brazil is ranked as the 14th largest economy in the world (at current exchange rates), behind the G7, China, Spain, Mexico, South Korea, Australia and India. Brazil has 6 percent of the world's surface, 178 million inhabitants (2.4 percent of the world population), growing 1.1 percent a year, with a density of 20 inhabitants per square kilometer and approximately 70 percent of the population being urban (living in cities with more than 50,000 inhabitants). Brazilian GDP is 480 billion dollars considering market exchange rates and around 1.3 trillion US dollars considering purchasing power parity; 2,700 dollars of per capita income considering exchange rates and 7,500 dollars of per capita income considering purchase capacity; around 1.4 percent of the World Economic Output considering exchange rates and around 2.5 percent of the World Economic Output considering purchasing capacity. Inflation has been 9 percent a year in 2002 and 2003. Unemployment is 12.5 percent in 2003 and the labor cost per hour is 2.6 dollar. Brazil is in the 62nd rank in the United Nations Human Development Index. The proportional value added in the economy is agriculture 9 percent, industry 28 percent and services 63 percent. The Gross domestic investment is 18 percent, the government revenues (federal, state and municipal) are 36 percent of GDP and the overall budget deficit is 4.5 percent of GDP (discounting the interest of the public debt the country has 4.3 percent of surplus). The annual foreign direct investments in the period 1996-2003 averaged 14 billion dollars, a top record in Brazilian history and among the highest in the world, with a peak of 26 billion dollars in 2000 and the smallest figure in 2003 (9 billion). In 2003, the public debt was 270 billion dollars (56 percent of GDP) and the total debt service was 48 billion dollars, Brazil being consequently a country with a structural risk of default on its public debt. By the end of 2003, a moment of great liquidity in global financial markets, Brazilian bonds pay around 450 points over the American treasury bonds, 150 points above the average of the emerging markets.

In 1998, the trade balance of Brazil had a deficit of 8 billion dollars and in 2003 had a surplus of 24 billion dollars. There was a dramatic change in the Brazilian trade relation with the world that reduced the vulnerability of the country, though the currency reserves of Brazil have been low since 1999. In December 2003 the reserves (excepting the loans from International Monetary Fund) were equivalent to 24 billion dollars. The foreign debt/export ratio was also highly vulnerable, 300 percent. The current-account balance as percent of GDP was improving dramatically in the last 3 years: -4.55 in 2001, -1.72 in 2002 and + 0.20 in 2003. Brazil participates with only 0.9 percent of the world foreign trade (it exports mostly commodities and intermediate technology manufactured products but also high technology products like aircraft). The most important trading partners of Brazil are: USA 28 percent, European Union 21 percent, Argentina 13 percent and China 8 percent. Brazil produces around 2.5 percent of world carbon emissions (considering industry, energy, transportation, land use/land change and cattle ranching), with carbon emissions of around 1.5 metric tones per capita. Brazil has 5.5 million square kilometers of forests with a deforestation rate of 0.5 percent a year, around 20 percent of the world terrestrial biodiversity, and around 15 percent of world fresh water, from which only uses 0.5 percent.

There are some dissonances that are at the core of the Brazilian position in the global arena. Income per capita is slightly below the world average if calculated according to exchange rates and slightly above the world average if calculated according to purchasing capacity, though in both cases much more unfairly distributed since the richest 1 percent sector of the population gets 14 percent of the national income and the poorest 50 percent sector of the population gets 13 percent of the national income. The economy is still significantly more closed than the world average because the export capacity is low, though is has grown dramatically from only 8 percent of GNP in 1998 to 14 percent of GNP in 2003. Carbon emissions per capita are well below developed countries but above the average of middle income countries. Carbon emission per unit of GNP doubles the world average, well above developed countries and slightly above the average of middle income countries. Carbon emissions coming from the modern sector of the economy (industry, energy, transportation, housing and agri-business) are very low because the energy matrix is based in hydropower, and consequently carbon emissions coming from the modern sector are well below the average of middle income countries. The only modern sector that is high in carbon emissions equivalent is cattle rising because the Brazilian herd is the largest commercial in the world with significant methane emissions. Carbon emissions coming from land change and traditional land use are

extremely high. In this point modern Brazil is hostage to traditional Brazil. In terms of energy efficiency, the modern Brazilian economy is doing much better than most middle income countries and the traditional Brazilian economy is doing much worst than most middle income countries (Fearnside 1999).

The Cardoso administration (1995-2002) Paradigmatic shift: free market reforms, consolidation of democracy, and globalist foreign policy

During the 1990's Brazil progressed dramatically toward a convergence with Western democratic capitalism: deep market reforms created for the first time in its history an economy that is more based in market mechanisms than in government regulations, direct foreign investment has been among the highest in the world, independent courts have operated in all dimensions of social/economic life, transparent public accounts and fiscal responsibility became goals of the national society, corruption in politics has diminished though continues being relatively high, political democracy became more deeply rooted in the social web and the political culture, respect of human rights became a core goal of domestic and international public policies, attempts to build up a strong military machine were abandoned and the military have gradually been civilized, public awareness about environmental protection has grown continuously, and, the country's foreign policy has achieved, for the first time, some capacity of regional and global leadership, giving some foundations to the pretension of becoming a permanent member of the U.N. Security Council.

The only area in which there has not been significant transformation is related to income distribution and its consequence since the early 1980s, the growing urban and rural violence. From this point of view there has been a vicious circle between the difficulties in overcoming the heritage of slavery and the trend of the globalized economy to produce a new digital/information divide. The growing of urban/rural violence in the 1990s has been strongly related to the production, trade and consumption of illegal drugs and other illicit behavior like smuggling in electronic products and gold, and trade in endangered species. By the end of the 20th century, 1990s Brazil has successfully adapted to globalization from an economic point of view, but highly unequal income distribution and growing social violence and crime are a major threat to the stability of the society (Simoes and Viola 2003).

The Brazilian position in the global arena is ambivalent, in spite of the significant and positive shifts of the Collor (1990-92) and Cardoso (1995-2002) administrations, to tune in and converge with the liberal policies of OECD countries. A significant part (military, foreign affairs, development promotion) of the Brazilian

state bureaucracy is nationalist (although pragmatic) and traditionally afraid of any kind of cosmopolitanism (always associated with fears in relation to sovereignty over the Amazon). Civil society, in spite of the active participation of many Brazilian NGOs in global networks of social action on several issues, defends a diffuse and utopian community (almost anti-liberal). Many Brazilian native corporations are taking good advantage of globalization but few have developed as truly transnational corporations with Brazilian headquarters.

The Cardoso administration produced a paradigmatic shift in the Brazilian foreign policy. It strengthened economic ties with the US and the EU (Onis 2000). Brazil also has strongly supported the West in most global issues: Human Rights Protection, strengthening of Intellectual Property Rights and the World Trade Organization, Protection of Women and Reproductive Health, and condemnation of Nuclear Proliferation and Terrorism. However, the ministry of foreign affairs retained some Non-Western approaches, like the continuity in the affiliation with the G-77 in U.N. forums, as a way of looking for wide support for its candidacy to be a new permanent member of the U.N. Security Council.

Brazilian participation in the global arena of the 1990s was shaped by four major trends: the acceptance of limitations to the principle of national sovereignty, the clear decision to fight to become one of the new permanent members of the United Nations Security Council in the occasion of its enlargement, the strong commitment to strengthening Mercosur as a way to cope with the challenges of integration in the globalized economy, and the support of universalism and contractualism in issues like Human Rights, Political Democracy, Reproductive Rights, Women's Rights, Social Equity and the Environment. The four principles are far away from the Brazilian foreign policy during the 1970's and the 1980's based in the principle of absolute national sovereignty and the attempt to become a Great Power in the global arena including the building up of a strong military.

During his brief tenure as Ministry of Foreign Affairs in 1992-93, Cardoso persuaded the Franco government about the necessity of moving the aerospace program from military to civilian control in order to gain access to highly needed transfers of technology for the development of the program. Also following Cardoso's initiative, the Brazilian Senate ratified the Nuclear Free Latin American Zone Treaty (Tlatelolco) in 1994, significantly later than other Latin American countries. Upon taking office in 1995, Cardoso began a series of foreign policy initiatives that placed Brazil in complete alignment with the West. In 1995, Cardoso completed his work in the missile area signing the Brazilian accession to the Missile Technology Control Regime (MTCR). During the 1980's and the early 1990's the military had strongly

opposed the MTCR. Immediately after the signing of MTCR Brazil was invited to participate in the project for the construction of the multinational space station to be settled in orbit, and consequently Brazil became a member of the select Space Club. Finally, a last step in Brazilian credibility as a peaceful member of the world community happened in 1999, when Brazil overcome some American distrust and signed an agreement with the US, Italy, and Ukraine, for launching commercial satellites from the Alcantara base, with strong competitive advantages because it is located almost on the Equator line. However, nationalist and leftist sectors entrenched in Congress have denied ratification of the agreement with the US arguing that was damaging to Brazilian sovereignty.

Brazil also led in design of the Nuclear Test Ban Treaty signed in 1995 and also supported, with some resistance from the military, the Land Mines Ban Treaty signed in 1997. It took more than two years as president for Cardoso to persuade the military and diplomatic establishment about the need to sign the Nuclear Non Proliferation Treaty. By the time Brazil signed (1997), it was one out of four countries (North Korea, Iraq, and Libya) that had not yet signed the Treaty. Brazilian diplomacy was very rigid on this issue and continued arguing that the treaty was unfair and discriminatory, as if the world were still in the 1970s. The long opposition to signing the Nuclear Non Proliferation Treaty is one of the major errors of Brazilian diplomacy in the 20th century. In 1996 Cardoso also persuaded the military about the need for better coordination between the US and Brazil in fighting narco-traffic and consequently both countries signed a new cooperation agreement. However, most Brazilian decision makers perceive the American support of the Colombian government fighting against the narco-guerrillas as a threat to Brazilian sovereignty in the Amazon.

The US and Western European countries were very pleased with the new Cardoso policy of breaking up the state monopolies in the petroleum and telecommunication sectors and American and European telecommunication corporations invested very strongly in Brazil after 1996. During the Clinton visit to Brazil in 1997, Brazil and USA signed important agreements for cooperation in several areas: higher education, science and technology, environment and drugs. According to the environmental agreement both countries committed to exchange as deeply as possible ideas in order to reach more consensual positions in several issues: climate change, depletion of the ozone layer, conservation and sustainable use of biological diversity, deforestation, desertification, ocean pollution and management of hazardous wastes and toxic substances. In order to further their common agenda for the environment, the United States and Brazil stated their

intention to hold regular high level consultations, on at least an annual basis, to discuss priority issues of mutual concern in the area of environment and sustainable development. Such consultations have involved the participation of relevant governmental agencies from both sides concerned with environmental protection and sustainable development. In relation to the Amazon, since 1992, there has been the implementation of the Pilot Program for the Protection of the Tropical Forest funded by the G7. Since 1997 the US National Aeronautic and Space Administration has collaborated with a top group of Brazilian and international scientists in developing the Large Scale Biosphere Atmosphere Experiment in the Amazon, one of the most important programs for researching the carbon cycle in the world.

In four UN deliberations about military intervention in crisis situations during the last decade Brazil was reluctant to approve interventions: Iraq 1991, Haiti 1994, Kosovo 1999 and Iraq 2003. The Brazilian position in relation to the Persian Gulf War in 1991 was very costly in terms of credibility for the country but at least was the last time that the Brazilian military had some power to define crucial issues of foreign policy. A Brazilian contingent participated in the UN observer force that guaranteed the October 1994 elections in Mozambique and in the UN observer force in Bosnia/Croatia in 1995. Brazil sent a significant military contingent for acting as peacekeepers in the failed mission in Angola (1996). More recently Brazil has sent a contingent to East Timor (1999) where the U.N. interim authority was lead by the Brazilian diplomat Sergio Vieira de Mello (that died in a terrorist attack in Baghdad in August 2003). The Lula administration strongly supported the French-German-Russian opposition to the Anglo-American attack to Iraq but the Bush administration chose to avoid any retaliation.

In all the World Summits related to Human Rights - the Vienna Conference on Human Rights from 1993, the Cairo Conference on Population and Development from 1994, and the Beijing Conference on Women Rights from 1995 - Brazil strongly aligned with Western countries' liberal coalitions in the promotion of individual rights against the state or traditional institutions (Viola 1997). In the Cairo and Beijing Conferences the Brazilian delegation had significant participation of feminist leaders coming from civil society and consequently had a leadership role in promoting universalistic and liberal causes. Different from other Latin American countries, the Brazilian Catholic Church was not successful in shaping the international standing of the country in a conservative direction.

Brazil has supported since the beginning all the treaties related to the global environment signed during the 1990's: the Basel Treaty for controlling and discouraging the international trade in hazardous waste from 1989, the London

Amendment to the Montreal Protocol establishing technology transfer mechanism for substituting CFCs from 1990, the Madrid Amendment (1991) to the Antarctic Treaty extending for more fifty years the moratorium on economic activities in that Continent, the Convention on Biodiversity (1992), the creation (1991) and expansion (1993) of the Global Environment Facility, and the Protocol on Biosafety (2000). In the development of all these treaties Brazil has had middle to low profile participation, except for the Convention on Biodiversity (Viola & Leis 2001).

During the negotiations of the Convention on Biodiversity (1990-92) Brazil had a leading role derived from its reality of being the largest country in the world in biodiversity. One of the most important issues at stake during negotiation of the Convention on Biodiversity was related to the connections between biodiversity and biotechnology. From one side, the US (with 2/3 of global biotech industry) strongly defended the principle of Intellectual Property Rights according to the conventional definition. In the opposite side, a coalition of countries rich in biodiversity led by Brazil defended the right to royalties for countries where biodiversity is located, when biotech products are manufactured from biodiversity. The convention approved in May 1992, implied a partial victory for the coalition of countries leaded by Brazil since the convention did not recognize the full principle of Intellectual Property Rights and defined it in a broad sense giving rights to indigenous people.

Brazilian participation in economic negotiations

The Treaty of Asuncion that created Mercosur, signed in 1991, was developed under Brazilian leadership. The Treaty was crucial in two dimensions: it finished definitively with the regional rivalry between Brazil and Argentina, deepened the civilian argument in favor of diminishing the importance of the military on both sides, and promoted rapid increases in the flow of goods, capital, people and information among the four countries. Some months after Asuncion the presidents of Brazil and Argentina signed the Treaty that created the Common System for Accounting and Control of Nuclear Materials submitted to the regulations of the International Atomic Energy Agency. Both Senates rapidly ratified the Treaty and since 1991 the Brazil/Argentina relationship made a turning point, definitively overcoming the rivalry that prevailed between the 1950s and the 1970s.

In 1994, after significant efforts for trade convergence led by Brazilian diplomats, the countries signed the Ouro Preto Protocol and deepened Mercosur, though still falling short of committing to the build up of supranational institutions. Mercosur was strongly shaken during the global financial crisis in the Emerging Markets in 1997/99, particularly after the devaluation of the Brazilian currency in

January 1999. More recently Mercosur has become a means of promoting commitments with stable public policies in all the countries (trade liberalization, fiscal equilibrium, coordination of macroeconomic policies, middle term prospective of a common currency), although the deep Argentinean crisis which peaked in 2002 has diminished the economic importance of the Treaty. During 1997-2000, the four Mercosur countries led by Brazil negotiated an additional Environmental Protocol that was ready to sign by late 2000. According to this Protocol the process of economic integration should include at its core environmental protection. The Protocol states that Mercosur is committed to clean air, clean water, the appropriate disposal of solid waste, the carefully management of hazardous waste, the preservation of biodiversity, the integrity of the ozone layer and the stability of the global climate (Leis & Viola 2000).

During the final negotiations of the GATT Uruguay round in 1993 Brazil strongly supported trade liberalization based on its recent opening of the economy and was generally allied with the US, Australia, Canada and Argentina against the agriculture protectionism of the European Union and Japan. Also, Brazil strongly supported the foundation of the World Trade Organization in January 1995. However, Brazil opposes a general initiative raised by then US vice-president Gore for starting a new negotiation round based in settling environmental protection clauses in international trade (Viola 1999). During the difficult negotiations that preceded the Seattle 3rd ministerial meeting in 1999, Brazil assumed the leadership of developing countries strongly confronting developed countries with relation to their trade barriers in relation to agriculture and industry products, and opposing labor and environmental conditions in a proposed new round of trade liberalization.

During the 4th Ministerial meeting in Doha (2001) Brazil exercised a leading role in the launching of the Development Round. Brazil has had a high profile in many issues: elimination of developed countries' trade barriers for agriculture, textile and shoes; questioning subsidies and anti-dumping regimes in developed countries, promoting the inclusion of public health considerations as a restriction to intellectual property rights in the case of medicines. During the 5th Ministerial meeting in Cancun (2003) Brazil was the leader in the formation of G20 (including China, India, Mexico and South Africa) and was considered by the leaders of the US and E.U. as a major responsible for the failure of the meeting.

During the negotiations for the creation of a Free Trade Area of the Americas (FTAA), started during the Miami Summit in 1994, Brazil persistently defended a slow pace: not before 2005 and not previous partial implementation. Brazilian position was based in the need to prepare its industry to completely open competition with the

North American one. During the period 1994-97 the Brazilian stance implied conflict with the official policy of other Latin American countries (like Argentina, Uruguay and Chile) and USA that were in favor of a faster pace. Finally, in 1997, the American Congress denied fast track legislation to Clinton, and the slow pace became a real constraint for the players that were favoring fast track. The tensions between Brazil and most of the countries of the Americas started again in 2002 when President Bush got fast track legislation from Congress and consequently there was a renewal of expectations for the creation of the FTAA. In the Miami meeting of November 2003 Brazil and US agreed on a two track approach to FTAA. However, in the Puebla meeting (early February 2004) Brazil was isolated (having only the support of Argentina and Venezuela) facing a powerful alliance among US, Canada, Mexico and Chile that lead the G14 group in support of a stronger agreement.

Contrary to the more disseminated perception in the media, the US and Brazil have much more common interests than contradiction in relation to hemispheric integration. Brazil would win in expanding markets for its agribusiness and attraction of more foreign direct investment and would lose because of the collapse of some capital intensive industries that are not competitive with the American corporations. Despite Lula's objections to signing an FTAA on mainly US imposed terms, a pragmatic assessment of Brazil's options for achieving sustained economic growth would suggest that the current adversarial stance is undermining Brazilian potentialities (Viola & Pio 2003). It is also true that the US national interest could be harmed if Brazil's economy fails to achieve robust economic growth due to the stabilizing role the country plays in South America. The stability of the Western Hemisphere depends upon sustained economic growth in Brazil since this is the only way to avoid a forced restructuring of its 300 billion dollars in foreign debt (65 percent public and 35 percent private). The default on Brazilian debt (after Argentina in 2001) would put the whole of South America (excepting Chile) in long and dangerous economic, social and political crises. This would produce economic losses among American investors and would undermine American national security because of a dramatic increase in transnational crime.

Brazil in the global politics of carbon emissions

The Brazilian government's position at the Rio-92 Conference was founded in the following: global environmental problems are very important and priority should be given to them by the international community; the causes of global environmental problems have differentiated historical responsibilities that should be reflected in the measures for coping with them. Specifically, rich countries should assume a much

higher cost. During UNCED negotiations (1990-92) the Brazilian government progressively abandoned its previous policies of nationalism (1972-88) and increasingly assuming a more globalist position: it led in writing the Biodiversity Convention; it facilitated negotiations and the agreement in the climate change convention; and it supported funding commitments in relation to Agenda 21. However, the Nationalist heritage emerged when Brazil supported Malaysia in its opposition to a forest convention (Viola 1997).

For a better understanding of Brazilian participation in the negotiations of the Kyoto Protocol it is necessary to point out that in referring to carbon emissions the country has three great advantages and one major disadvantage. The three great advantages are: to be an intermediate country (being out of the obligatory commitments for reduction of carbon emissions corresponding to the developed countries), to have an energy matrix with strong weight of hydroelectricity (more than 90 percent of the electricity generated starting from hydro sources) and consequently very clean from the point of view of greenhouse emissions, and, to possess in its territory 16 percent of the world forests (having great importance in the global carbon cycle).

The great disadvantage is to have large carbon emissions from the use of burning in traditional agriculture and from deforestation in the Amazon. The Brazilian carbon emissions are approximately 2.5 percent of the world emissions: approximately 25 percent produced by the modern economy and 75 percent produced by traditional agriculture, from land use conversion in the agricultural frontier and from inefficient timber industry. Approximately 80 percent of the Brazilian population is related to productive activities that don't depend on high carbon emissions and consequently has per capita emissions and per unit of GDP emissions that are very inferior to the developed countries. Approximately 20 percent of the Brazilian population is tied (direct or indirectly) to traditional agriculture, to land use conversion in the agricultural frontier and to inefficient timber industry, and consequently, it is responsible for higher per capita carbon emissions than the average of emerging countries and higher intensity of carbon emissions per GDP unit than the average of developed and emerging countries.

Because of the importance of the Amazon in Brazilian carbon emissions a closer look at Cardoso administration policies is in order. The most important features of policies from 1995 through 2002 were: incentives for large investments in mining, energy, timber, soybean cropping and transportation; low capacity to punish illegal deforestation of the timber industry, of the landowners, of the settlers, of the MST, (Landless Rural Workers Movement) and of the traditional populations; low

capacity to articulate policies and incentives for the development of the biodiversity/biotechnology complex that values forest resources promoting the development of high value added productive chains; low capacity to promote national and international ecological tourism; incapacity to control the expansion of organized crime flowing mainly from the traffic of drugs, weapons, gold and wild animals (this constitutes the main problem for the consistence and efficiency of the public policies for the Amazon); and, priority for the establishment of the SIVAM radar system that became operational in 2002 and is having a positive impact in terms of some control of illegal activities. The growth of the demand for timber from the rest of the country, the existence of vast contingents of populations in poverty conditions with the consequent tendency to settle and deforest in public lands, the weakness in the field branches of IBAMA (the federal environmental protection agency), and a short term approach to development on the part of the local elites have been the fundamental causes of Amazonian deforestation. The deforestation rate has been above 15.000 Km2 a year between 1985 and 1989 and since 1995, when a rational use of the forest would dispute less than 5.000 Km2 a year. The limited disposition and capacity to restrain deforestation in the Amazon demonstrated by the Cardoso administration (and for most of the state governments) has been a limitation on the potential of Brazilian leadership on the Kyoto Protocol. The deforestation establishment, predominant in the Amazon and with great power in Congress, has been conditioning the performance of Center-South modern Brazil.

Brazilian policies in the Kyoto negotiation/ratification process (1996-2003) were guided by a definition of the national interest based on five main dimensions (that were much more committed to global governance than the definition of national interest at the time of the Stockholm Conference):

- 1 to affirm the right to development as a fundamental component of the world order, in continuity with a classic pillar of Brazilian foreign policy;
- 2 to promote a world vision of development associated with environmental sustainability, in correspondence with the strong growth of public awareness on the environment in Brazil and its translation into national and state public policies:
- 3 to promote some funding from developed countries for climate mitigation related projects in developing countries;
- 4 to promote a leadership role for Brazil in the world in correspondence with the growth in international prestige for the country during the Cardoso administration

5 - to block international regulation in the use of forests in order to avoid the risks of international questioning of Amazonian deforestation.

It is important to point out that the entrance of forests in the climate world regime was not noticed as a threat to national sovereignty by other forest countries such as the US, Canada, Russia, Australia and Costa Rica. To the contrary, they strongly promoted international forest regulation.

Global leadership versus Amazonian fears: Brazilian contributions during the Kyoto negotiations

In June 1997, Brazil presented an original proposal, the Clean Development Fund (CDF), that would be constituted by the fines paid by developed countries that did not meet their emission reduction commitments. This proposal had strong support from emerging and poor countries, but it met frontal opposition from all developed countries. However, in October of 1997 an unexpected development happened: The US and Brazil articulated a new version of CDF entitled the Clean Development Mechanism (CDM). The Clean Development Fund had been based on the goal of developed countries supplying financial help to Non Annex 1 countries, with strong commitment to use cleaner technologies. Without the punitive character of the Brazilian original proposal of the Fund (that had established penalties for Annex 1 countries that fail in reducing emissions), almost all the countries supported the new CDM. This opened the possibility for developed countries to meet part of their emission reduction targets through the funding of sustainable development projects in emerging and poor countries. CDM ended up being one of the great innovations of the Kyoto Protocol and through it Brazil accepted the concept of flexible market mechanisms in order to complement the reduction commitments of developed countries. This acceptance on the part of Brazil was a rupture as much with its previous opposition to Joint Implementation (already present in the Rio Convention), as well as with its opposition to marketable emission quotas among Annex 1 countries (that ended up being established in the Protocol).

The launching of the CDM proposal implied a moment of remarkable collaboration between the American and Brazilian diplomatic corps and a victory for both because through it the emerging and poor countries begun to accept flexible market mechanisms to complement the reduction targets set for developed countries. The most flexible and creative component of the Brazilian position during negotiations of the protocol was the capacity to cooperate with US diplomacy, during October 1997, to transform the unviable Clean Development Fund into a new promising Clean Development Mechanism. Between 1999 and 2001 Brazil led a

successful campaign for the CDM to be the first of the three flexibility mechanisms to be implemented. Brazilian diplomats also secured more representation on the CDM Board of Directors from emerging and poor countries compared to the Global Environment Facility. The Brazilian Clean Development Fund was the greenest position ever assumed by the Brazilian diplomacy in the formation of the Climate Regime (not considering as a country position the strongly green approach adopted by Minister of the Environment Lutzenberger in confrontation with the Ministry of Foreign Affairs during the 1990-92 Prepcoms).

Regarding carbon sinks, the Brazilian national interest was always defined in a defensive way: the Amazonian forest was noticed as a burden because of deforestation and it was not considered as a trump card because of the global service of carbon sequestration. The Brazilian negotiators' implicit assumption was that the country would not get to put a significant brake on Amazonian deforestation. This led Brazil to stand against the inclusion of the whole carbon cycle in the Protocol, fearing that in the future, when setting commitments for emerging countries, Brazil could encounter a liability given the high levels of deforestation in the Amazon. The final decision can be analyzed as an intermediate result for this Brazilian positioning. On the one hand, Brazil and the European Union were defeated because carbon sinks began to be a general part of the Protocol. However, on the other hand, regarding the CDM, only reforestation and forestation were set as credits for carbon sink activities, being left out of the CDM activities for avoiding deforestation of primary forests (in this, Brazil and the European Union were victorious). In terms of favoring the exclusion of decreasing deforestation levels in the CDM, Brazil was in minority among the non-Annex 1 countries, particularly in Latin America (Viola & Leis 2001).

Despite being an emerging country with a clean energy matrix, in general Brazil has adopted alliances with emerging countries that rely on energy matrixes that are heavily dependent upon fossil fuels (such as China, India, Indonesia, and South Africa). The advantage of energy matrix was always subordinate to the disadvantage of Amazonian deforestation in the formation of the Brazilian position. Therefore, Brazil allied in general with the European Union against the forest countries with capacity to control deforestation (USA, Canada, Australia, Russia, Japan, Chile, Argentina and Costa Rica) on the subject of the inclusion of carbon sinks in the accounting of emissions. Consequently, Brazil did not value the global service rendered by forests as carbon sinks. A positive alternative view on the Amazon would have taken Brazil to an inverse alliance which may have had significant influence on the final profile of the Protocol.

The Ministry of Foreign Affairs in coordination with the Ministry of the Science and Technology has been in charge of the negotiations in the climate regime. Until 1999, the presidency did not consider the negotiation of the Protocol of Kyoto as a priority. In addition, before 1999 non-governmental organization were absent from both decision making and policy implementation. Some large corporations begin to be interested in climate change because of the influence of the Brazilian branch of the World Business Council for Sustainable Development. Scientists also became responsible for offering technical backup to Brazilian diplomacy in multilateral debates. Indeed, there has long been a diplomatic effort to guarantee that Brazilian scientists participate in the Inter-governmental Panel on Climate Change. Congress has had minimal participation in the decision making of the Brazilian policy in Environmental Regimes. Its function is restricted to the ratification of the agreements signed by the Executive which happens without significant involvement of civil society. Brazil foreign policies in relation to climate change have been internally consistent between 1996 and 1999 (after the open clashes between Environmental and Foreign Policy officials at the time of UNCED). These policies have involved a limited number of actors, with decision making concentrated in upper levels of the bureaucracy and effective articulation across the bureaucratic structure (Viola 2003).

In 2000 the arena for defining the Brazilian position was enlarged with the inclusion of the Ministry of the Environment, the Brazilian Business Council for Sustainable Development, some Amazonian state governments and several NGOs. In June 2000, due to the initiative of the president, the Brazilian Forum for Climate Change was created. This has a multi-stakeholder profile gathering several actors from government, business, NGOs and academia. This forum was an innovation at the international scale outside developed countries, as much in terms of the arena for the formation of the national position as for internalizing the climate regime inside the country. Starting from October 2000, the Ministry of the Environment and the governments of some Amazonian states questioned the historical positioning of Brazil that had always contradicted the inclusion of the whole carbon cycle in the Protocol (carbon sinks derived from forest and soil management). Several NGOs, particularly the ones that have strong performance in the Amazon, have actively demanded that Brazil supported the inclusion of projects related to the protection of primary forests (avoiding deforestation) in the Clean Development Mechanism. However, the Ministry of Science and Technology and Itamaraty continued prevailing.

Brazil has long retained a leadership position in G77, although also pursuing bridges between this group and developed countries to oppose India, China,

Indonesia and Malaysia that tend to adopt positions in confrontation with developed countries. Brazil has maintained its position of placing responsibility for emission reductions squarely on developed countries and confronting their proposal for setting commitments for the reduction of the future growth rate of emissions for emerging countries. This led Brazil to confront developed countries (and particularly the US) on several occasions and with Argentina during 1998/99. Brazil has adopted, since 1997, a principle and position that carbon emission should be calculated by historical accumulations since the end 18th century and not on the existing baseline of 1990. Although this position has gathered strong support from most Non Annex 1 countries (and it has been one of the pillars of the Brazilian leadership), it has not been considered seriously by the Annex 1 countries and, consequently, has not had an impact in the negotiating process. The Brazilian proposal is technically robust, it is legitimate from a historical and equality point of view, it is shaped by a theoretical approach based in universal rights of the world population to the use of the atmosphere as a global public good, and may be considered utopian for its distance from the realities of world power at the beginning of the 21st century. However, it is likely that this Brazilian proposal will contribute to improving the negotiating leverage of emerging countries in future negotiations of the climate regime, particularly when decisions about their emissions reduction commitments are being set.

Brazil has always had strong leadership in the subject of new funding coming from developed countries to finance the transfer of clean technologies and capacity building in developing countries. Brazilian negotiated a partial victory in this respect at the Bonn Conference (2001). The Brazilian emphasis on promoting the transfer of clean productive technologies was consistent with the Brazilian foreign policy goal (during the Cardoso administration) of promoting the competitive integration of the country in the globalized economy.

The relationships between Brazil and US in relation to the Protocol became difficult after mid 1999 due to confrontation in several relevant issues: the US was favorable to commitments for reducing the rate of future emissions growth for emerging countries in the first period (2010) while Brazil was completely opposed; Brazil was contrary to the inclusion of primary forests in CDM and the USA was in favor; the US was in favor of a weak compliance regime and Brazil supported the European Union proposal of a strong regime; Brazil (supporting the European Union) wanted to include limits in carbon sinks for developed countries while the US opposed. After the American withdrawal from the Protocol (March 2001) through conclusion of the negotiations (November 2001) Brazil appears to have had an outstanding performance, as much in the criticism of the American position as in the

promotion of negotiations among the several blocks of countries. Brazil was a prominent country in articulating the alliance between the European Union, Japan and emerging countries that made possible the success in the final negotiation of the Protocol. In several international speeches - before and after September 11 - president Cardoso criticized incisively the unilateral policy of the Bush administration in relation to climate change. If we compare the relative positions of Brazil and USA regarding global environmental problems between 1989 and 2001, it is fair to say that there was an inversion of roles, that shows the positive evolution of Brazil (despite limitations. In 1989, the Bush (father) administration allied with other developed countries to criticize the Sarney government for the Brazilian contribution to climate change coming from the high rates of deforestation in the Amazon. In 2001, the Cardoso administration allied with the developed countries and criticized the Bush administration for the lack of a responsible attitude in relation to the global climate.

The decline of Kyoto and Brazilian disengagement

During the preparation of the Johannesburg Conference on Sustainable Development, Brazil was the leader in two major initiatives for the reduction of carbon emissions. The first initiative, in cooperation with the European Union, was to promote a sufficient number of national ratifications of the Protocol (the Brazilian Senate ratified Kyoto very quickly, especially given the traditional slow pace of treaty ratifications) in order for it to become legally binding for the signing countries in August 2002. The second initiative was to galvanize support across Latin America for a proposal to establish a goal for all nations to generate at least 10 percent of their electricity through new renewable sources by 2010. In both initiatives Brazil was defeated.

During the 7th Conference of the Parties of the UNFCCC in New Delhi (October 2002), Brazil as leader of the G77 confronted the European Union in its attempt to set commitments for developing countries for the period 2010-2020. In this confrontation the G77 received the support of the United States which revealed another reality of the climate regime: emerging countries were favorable to Kyoto as long as it excluded obligations that applied to them. In questions about commitments for emergent countries a new trend in cleavages appears. On the one side, one can see the formation of an alliance between the Annex 1 countries against Kyoto (US, Australia and Russia) and emergent countries. On the other side, stands the pro-Kyoto alliance between the European Union and Japan. During the 8th Conference of the Parties in Milan in December 2003 it became clear that Russia would not ratify Kyoto. Russia has rejected Kyoto for four major reasons which combine business

and geopolitics. First, it did so because the US refused to ratify, a development that eroded the market value of emission trading quotas. Russia stands to make much less from hot air trading than initially expected. Second, Moscow fumed at the treaty exemptions India and China received. The two demographic giants are among the largest emitters and, increasingly, Russia's industrial competitors. Third, Russian smokestack industries are stood to lose if the Kremlin signed Kyoto. Fourth, a strong sector of elites that influence public opinion in Russia suspected that Kyoto has become a tool for the European bureaucracy to limit American and Russian economic growth, reducing Russia to a raw material supplier to Europe, especially as a source of natural gas.

Once Russia showed reluctance to ratify the Protocol the Brazilian domestic arena became disoriented and the government started to disengage from the Protocol. The Lula administration, in office since January 2003, established a deep division inside the government, something common in Brazilian governance due to the complexity of the federal arrangements (Viola 2003). The core of the Lula administration showed increased disengagement from the Kyoto Protocol, but the Ministry of the Environment tried to keep alive the Brazilian involvement with the Treaty. When in December 2003 it became clear that Russia would not ratify the Protocol and the Treaty would not be legally binding, the Brazilian environmental community looked for alternatives that would create opportunities for the implementation of the Clean Development Mechanism beyond the legal Kyoto architecture.

The long term viability of the climate regime depends strongly on the engagement, in some kind of meaningful commitment to improve the profile of their carbon emissions, by the most important carbon emitters (at present and in the next decades): US, European Union, Japan, Canada, Australia, Russia, China, India, Brazil, Mexico, Indonesia and South Africa. The Brazilian stance will likely be very relevant in this respect since it is the best positioned among the key emerging countries for moving forward in the direction of assuming commitments. For that to occur, Brazil would have to reduce deforestation in the Amazon, a goal that would probably count with the support of the vast majority of the population. To be significant in the balance of national carbon accounts, deforestation in the Amazon would have to be reduced by around 70 percent of the present annual rate (from around 0.50 percent of the Amazonian forest to around 0.15 percent). Though there is strong support in public opinion for curbing deforestation, it is difficult to assess how deep that support could go if there is a need of strong confrontation with the coalition of interests supporting deforestation in the Amazon. Because of the

peculiarity of the Brazilian federal arrangements, these interests are strongly represented in the Brazilian Congress. Consequently, a coalition for a more rational use of the Amazonian forest would have favorable impacts not just internally in Brazil, but also for the country gaining prestige - soft power- in the world, and, more generally, for international multilateral cooperation.

Bibliography

- Fearnside, P. (1999), "Forest and global warming mitigation in Brazil: opportunities in the Brazilian forest sector for responses to global warming under the Clean Development Mechanism" *Biomass and Energy* # 16
- Grubb, M., (1999), *The Kyoto Protocol: A Guide and Assessment*. London: Royal Institute of International Affairs.
- Held, D., et al (1999), Global transformations, Stanford University Press.
- Inglehart, R. (1997) Modernization and Post modernization. Cultural, Economic, and Political Change in 43 Societies. Princeton University Press.
- Keohane, R. & H. Milner. (1996) *Internationalization and Domestic Politics*.

 Cambridge University Press.
- Leis, H. & E. Viola (2000) "El Principio de Subsidariedad y el Mercosur" in Konrad von Moltke & Daniel Ryan (ed.), *Medio Ambiente y Comercio: El caso de Mercosur y los Principios de Winnipeg*. Washington, Inter-American Development Bank
- Onis, J. (2000) "Brazil's New Capitalism," Foreign Affairs 79/3

 Porter, G and J. Brown, (1996: Global Environmental Politics. Boulder,

 Westview Press.
- Simões, S. & E. Viola. (2003) "The Brazilian Sustainability Challenge: Combining the Environment, Modernization and Inequality Reduction" in Ester, P. et al (eds.), Culture and Sustainability. A Cross National Study of Cultural Diversity and Environmental Priorities among Mass Publics and Decision Makers.

 Amsterdam, Dutch University Press
- Viola, E. (1997) "The Environmental Movement in Brazil: Institutionalization, Sustainable Development and Crisis of Governance since 1987" in MacDonald, G et al (eds.) Latin American Environmental Policy in International Perspective. Boulder, Westview Press.
- Viola, E. (1998) "Globalization, Environmentalism and New Transnational Social Forces" in Chung, C. & B. Gillespie (eds.), *Globalization and the Environment*. Paris, OECD.
- Viola, E. (1999) "A Globalização da Política Ambiental no Brasil, 1990-98" in Aguiar, D. & J.B. Pinho (eds.), O Agronegocio do Mercosul e sua Inserção na Economia Mundial, Brasilia, Sociedade Brasileira de Economia e Sociologia Rural.

- Viola, E. & H, Leis. (2001) "Brazil in Global Governance: the case of climate change" in Hogan, D. & M. Tolmasquim (eds.), Human Dimensions of Global Environmental Change. Brazilian Perspectives. Rio, Brazilian Academy of Sciences.
- Viola, E. (2002) "O Regime Internacional de Mudança Climática e o Brasil" in *Revista Brasileira de Ciências Sociais*, No 50, Oct. 2002.
- Viola, E. (2003) "As Dificeis e complexas negociações do Regime Internacional de Mudança Climática" in Trigueiro, A. (ed.), Meio Ambiente no Brasil Século 21, Rio de Janeiro, Editora Sextante.
- Viola, E. & C. Pio, (2003) "Doctrinarismo e Realismo na Percepção do Interesse Nacional: Política Macroeconômica, Segurança e ALCA na relação Brasil-EUA"; Cena Internacional, Brasília, Vol 5, No (1
- Viola, E & S. Simões (2003) "Decision Maker's Perceptions of International Policy-Making on Global Change" in Esther, P. et al (eds.) *Culture and Sustainability.* A Cross National Study of Cultural Diversity and Environmental Priorities among Mass Publics and Decision Makers. Amsterdam, Dutch University Press