



The Political Economy of Deforestation in Brazil and Payment-for-Performance Finance

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Abstract

Reduction of climate emissions from deforestation (now known as REDD+) was among the innovations introduced in the Brazilian policy agenda during President Lula's administration and Marina Silva's tenure as Environment Minister. Ideas and policies related to reducing deforestation evolved along two different paths that eventually converged: one ideological and the other political. The ideological path started outside governmental circles, initiated by researchers from independent NGOs who used the meetings of the United Nations Framework Convention on Climate Change (UNFCCC) as a platform to raise issues and form a coalition strong enough to persuade the government and powerful domestic interest groups to accept an idea they had been opposing since the approval of the Kyoto Protocol. The political path took shape when Environment Minister Marina Silva created a space in 2003 for the open discussion of policies to reduce deforestation, bringing together NGO researchers and government officials. In the political space where the ideological and political paths converged, the decision of the Norwegian government to support the Amazon Fund (Fundo Amazônia), announced at UNFCCC's COP13 in Bali in 2007, legitimized the idea and contributed to the paradigm shift in Brazilian deforestation reduction policy that eliminated obstacles to the introduction of a REDD+ mechanism as an official policy tool. This paradigm shift represented the abandonment of the official and dominant view of REDD+ as an undue intervention of foreign interests in domestic policy, to the view of REDD+ as a legitimate and legal mechanism of global cooperation to reduce emissions from deforestation.

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Executive Summary

This background paper shows how the politics of deforestation in Brazil have been shaped by the interplay of domestic forces prompted by extremely high levels of illegal land clearing in the Amazon. It argues that, for a long time, the Amazon was basically viewed by governments, and most of Brazilian society, as an open frontier to be conquered and incorporated into the productive sector, with little concern for protecting the tropical forest, biodiversity or indigenous lands. This was the major vision guiding the military regime's development and regional policies from 1964 to 1984.

With the emergence of the Third Republic, when democracy replaced military authoritarian rule, four distinct phases of the politics are identified:

- Phase 1, during President Fernando Henrique Cardoso's administration from 1993 to 2002, in which deforestation reached its highest rate since measurement;
- Phase 2, from 2003 to 2007, during President Lula's administration and Marina Silva's term as Environment Minister, when deforestation peaked again, leading to a series of policy innovations to reduce deforestation and establish forest Conservation Units and protected indigenous lands;
- Phase 3, from 2008 to 2009, during President Lula's second term, when a crisis within the government motivated Minister Marina Silva to resign and President Lula to appoint Carlos Minc as her replacement; and
- Phase 4, during President Dilma Rousseff's administration from 2010 onwards, in which environmental policies lost ground and priority. In Phase 4, not a single Conservation Unit was created in the Amazon, deforestation reduction policies became less active, and deforestation increased in 2013 for the first time since Phase 2.

This paper argues that the reduction of emissions from deforestation, or RED², was among the policy innovations introduced in the Brazilian policy agenda for the Amazon in Phases 2 and 3. Deforestation reduction ideas and policies in Brazil evolved along two different paths that converged within a few years: one ideological and the other political. The ideological path, that is, the creation of a system of ideas and ideals that formed the basis of substantive policy, started outside governmental circles, initiated by researchers from independent

² The acronym started out as RED, but later evolved to REDD and, finally, REDD+ when it broadened to include emissions from degradation and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks. Its usage in the paper is adopted accordingly.

NGOs who used the meetings of the United Nations Framework Convention on Climate Change (UNFCCC or Climate Convention)³ as a platform to raise issues related to RED and form a coalition strong enough to persuade the government and powerful domestic interest groups to accept an idea they had been opposing since the approval of the Kyoto Protocol. This initiative was successful and set the ground for RED politics to gain momentum in the Brazilian political system.

The internal RED politics started to take shape when Environment Minister Marina Silva created a space in 2003 for the open discussion of deforestation reduction policies, bringing together NGO researchers and government officials. RED was not among the items on the inaugural policy agenda of Phase 2, but ideas about its best policy options began to take shape while domestic, government financed, deforestation reduction policies were implemented. The winning option was to approach RED possibilities only after Brazil could show a previous substantial reduction of deforestation. International RED mechanisms were eventually accepted, mainly as the result of previous reductions of deforestation, to fund actions that could ensure the continuation of the downward trend and replace predatory productive activities with sustainable ones.

In the political space where the ideological and political paths converged, this paper points out that the decision of the Norwegian government to support the Brazilian prototype for the Amazon Fund (Fundo Amazônia), announced at UNFCCC's COP13 in Bali, legitimized the idea and contributed to the paradigm shift in Brazilian deforestation reduction policy that eliminated obstacles to the introduction of a REDD mechanism as an official policy tool. It also led Brazil to change its position at the COP-MOP summits, from one of opposition to one of cooperative support for REDD as a part of the Climate Convention finance mechanisms.

Deforestation reduction in Brazil is a success story that depended on the consistent action of several administrations from different political-ideological lines, the active action of environmentalists and independent environmental think tanks, and a paradigm shift around REDD. This paradigm shift represented the abandonment of the official and dominant view of REDD as an undue intervention of foreign interests in domestic policy, to the view of REDD as a legitimate and legal mechanism of global cooperation to reduce emissions from deforestation.

³ UNFCCC – The United Nations Framework Convention on Climate Change, sometimes referred to as the Climate Convention in this paper.

The paper is divided into six main sections hereafter. Section I introduces its main argument. Section II sets the background on which the ideological and political development that finally led to consistent deforestation reduction policies and the introduction of REDD in the official policy agenda took place. Section III reconstructs the ideological path that led to the paradigm shift that enabled the acceptance of REDD mechanisms in Brazil and the creation of the Amazon Fund. Section IV discusses the political path for the policy agenda formation, the admission of REDD and the Agreement with Norway to support the Amazon Fund. Section V looks at Phase 4, at present, and the declining priority to the creation of Conservation Units, protected indigenous lands, and proactive deforestation reduction policies. Section VI contains a brief conclusion. A timeline of major events appears at the end.

I. Introduction

The politics of deforestation in Brazil have followed a singular path, as compared to the trajectories in other countries that are forest powers. They took place within a context of strong government and political opposition to the inclusion of deforestation reduction in multilateral conventions such as the United Nations Framework Convention on Climate Change (UNFCCC) and the Convention on Biological Diversity. Brazil assumed a historic role in the multi-country coalition that opposed the initial attempts to create multilateral mechanisms to regulate the reduction of emissions from deforestation (RED).

As Fernanda Viana de Carvalho⁴ concludes in her doctoral dissertation, Brazil has been a crucial actor in international negotiations regarding the role of forests in global climate change and biodiversity regimes due to the abundance of its forest resources. The Brazilian position in Kyoto in 1997 was that of a veto player, as it excluded from the regime emissions related to the conversion of native forests to other uses, mainly pasture and cropland. Since 2006, this position has evolved to one of a proposition player. This change was related to international developments, culminating in the Bali Action Plan (Bali Roadmap) negotiations in 2007. But the determining variables for that change were the internal ideological and political dynamics, which were shaped by a mosaic of different factors that allowed Brazil to use forests as resources of power.

⁴ Fernanda Viana de Carvalho – “A Posição Brasileira nas Negociações Internacionais sobre Florestas e Clima (1997-2010): Do Veto à Proposição, Doctoral Dissertation,” University of Brasília, Department of International Relations, 2010: <http://repositorio.unb.br/handle/10482/8449> (The Brazilian Position on the International Negotiations on Forests and Climate (1997-2010): From Veto to Proposition.)

The determining domestic factors were governance over deforestation, the emergence of the Ministry of Environment as an international actor on climate change issues, the decisive participation of civil society, the involvement of Amazon states on policy debates, the role of presidential diplomacy, and the gradual engagement of the private sector.

It was only after deforestation reached a new peak, in 2003 to 2004 during Marina Silva's tenure as Environment Minister in the Lula Administration, that a process of wide consultation of experts to design structural policies to sustainably reduce deforestation first introduced RED-like ideas for domestic policy mechanisms. These ideas would eventually lead to a "paradigm shift" in the Brazilian internal politics and policies regarding reduction of deforestation and forest conservation.

It was only after these innovative policies were successfully implemented that Brazil was open to officially discussing RED-like mechanisms in multilateral meetings. It was then that the Amazon Fund (or Fundo Amazônia) was created. This singular path meant that deforestation had already been significantly reduced before Brazil started contributing to the design of REDD+ (reduction of emissions from deforestation, forest degradation, and conservation, sustainable management of forests and enhancement of forest carbon stocks) in the UNFCCC and negotiated the US\$ 1 billion agreement with the Government of Norway to finance the Amazon Fund. This explains why, although there was no evidence that even the Amazon Fund or the agreement with Norway had any direct influence on the achievement of significant reduction of deforestation in Brazil, they had an important intellectual and political influence that contributed to the paradigm shift in the politics and policies of reduction of deforestation and promotion of forest conservation.

Two main protagonists of the intellectual design and political legitimation of payment-for-performance finance of REDD+ have used the term "paradigm shift" to describe the introduction of RED-like ideas in the political and policy agenda in Brazil.⁵ Once the concept of RED was accepted in the domestic political agenda, the preliminary presentation of a results-based mechanism to finance reduction of deforestation first began to be discussed at side events at the UNFCCC meetings. In the beginning, this was not presented as an official proposal from the Brazilian mission, but the attendance of top Brazilian government officials at the side events gave them a certain political weight nonetheless.

⁵ All interviews were undertaken under the "Chatham House" rules; statements cannot be attributed to interviewees, but can be used on the narrative of the process under study. They were conducted in March and April 2014.

Domestically, the government decided to first reduce deforestation and then, after having significant results to show, introduce the idea of receiving support from developed countries as a compensation for the achievement of independently set targets. “To reduce deforestation was something we’d have to do on our own, as our political and collective obligation,” a leading government official said in an interview. This idea of a “moral obligation” was very strong among the leadership of the Environment Ministry. Only after achieving results that showed that Brazilians were meeting their obligation would they begin discussing results-based finance.

II. Background

The politics of the reduction of deforestation in the Amazon, during the Third Republic when democracy replaced military authoritarian rule, had four main distinct phases:

- Phase 1, from 1993 to 2002, entirely covered by Fernando Henrique Cardoso’s two terms as president, when deforestation reached its highest rate ever at over 29 thousand km² per year;
- Phase 2, from 2003 to 2007, during President Lula’s Administration, and Marina Silva’s term as Environment Minister, when deforestation peaked again at over 23 thousand km² per year;
- Phase 3, from 2008-2009, during President Lula’s second term, when a crisis within the government around deforestation reduction policies motivated Minister Marina Silva to resign and president Lula appointed Carlos Minc to replace her;
- Phase 4, from 2010 onwards, when President Dilma Rousseff’s administration began and Izabella Teixeira, who served as Minc’s Executive Secretary, became the Environment Minister.

We could call Phase 0 the large period during which the Amazon seemed to be an Eldorado to be conquered by the people from the southern and southeastern parts of the country, and its occupation would provide food and employment to benefit the impoverished people of northeastern Brazil. This period was characterized by the absence of any concern whatsoever with deforestation and its consequences for biodiversity or the climate. There was, on the contrary, an explicit support for the clearing and occupation of forestland. The Amazon was seen as a no man’s land, an open frontier, a threatening jungle full of savages and diseases that had to be domesticated and put to the service of progress, or else decimated. Phase 0’s apex was the military government, which set out to finally conquer the “green inferno”, and

convert the jungle into fertile cropland and vast pastures to feed Brazil and the world. This conquest of the Eldorado mystique fit perfectly the nationalistic and homeland security ideology at the core of the military's geopolitical view.

The four phases of the political economy of forests in Brazil

Democracy did not end the drive towards the predatory occupation of the Amazon, but it did bring new actors and ideas to the debate around the future of the forest. The first presidential term of the Brazilian Third Republic, under a new democratic constitution promulgated in 1988 after the demise of military authoritarian rule, coincided with the United Nations Conference on the Environment and Development, the historic Rio '92 Summit that led to the conventions on Climate Change and Biological Diversity. Rio '92 and the newborn Brazilian democracy provided fertile ground for the birth of a strong environmental movement and the creation of several NGOs and think tanks. Many of them were created in preparation for the mobilization towards Rio '92 or as a result of the summit. A majority of them acted as protagonists in the story reconstructed in this background paper.

The Amazon had already become a global issue, and was now an important component of the environmental narrative that began, at least, with the Brundtland Report. The second president of the Third Republic, Itamar Franco, the vice-president who replaced Fernando Collor de Mello after his impeachment, created the Ministry for the Environment and the Legal Amazon, as a result of the Rio '92, to which he appointed Rubens Ricupero, an able and sensible diplomat. Ricupero had played an active role in the Rio '92 negotiations as Chair of the Contact Group on Finance. Ricupero started productive discussions about the status of the Amazon in the Brazilian and global environmental context, and encouraged civil society to start thinking about its future and destination.

In 1995, annual deforestation reached 29,059 km², its highest rate since measurements began. On July 26, 1996, President Fernando Henrique Cardoso, the third President of the Third Republic, issued Provisional Measure 1,511, which raised the legal reserve in the Amazon region from 50% to 80%, requiring that all private landowners had to preserve 80% of the original forest cover in their land. They were allowed to use only the remaining 20% for productive and supporting activities.

This new legal situation initiated Phase 1 of the politics of reduction of deforestation. With some additional measures, and falling commodity prices, deforestation started to decrease, bottoming at 13,227 km² in 1997. Afterwards it increased again to an average of about

18,000 km² a year from 1998 to 2001. Higher commodity prices fueled a new wave of deforestation during the last two years of Fernando Henrique Cardoso's second term as president; it increased from 18,165 km² in 2001 to 21,651 km² in 2002, an electoral year.

The major permanent outcome of Phase 1 was the initiative by President Fernando Henrique Cardoso to raise the legal reserve in Amazon to 80%, after deforestation peaked at 29,059 km².⁶ The 80% legal reserve would become one of the critical points in the political struggle to change the Forest Code years later. Phase 1 will not be further detailed in the present account.

In 2003, after the inauguration of President Lula's first administration and the appointment of Marina Silva as Environment Minister, deforestation reached its second highest rate ever: 27,772 km². This was the beginning of Phase 2 of the politics of Amazon policies, fully recounted here, which was marked by intense policy innovation that led to a sustained decrease in deforestation rates. The major permanent outcome of Phase 2, apart from averting an upsurge of deforestation, was a set of innovative, structural policies that crosscut formal ministerial lines and the paradigm shift on the ideological basis for deforestation and forest conservation policies. The RED debate, which gained momentum with the prospect of the bilateral agreement of Norway (that became a reality during Phase 3), was a game changer. It led to a paradigm shift that radically changed the intellectual and political views on RED as a mechanism to reduce deforestation and to mitigate climate change. Prior to this shift, the dominant view in Brazil was one of opposition to RED and any RED-like mechanisms. The Brazilian official position on climate diplomacy was to vote against the inclusion of RED mechanisms in the Climate Convention legal framework as well as in the Kyoto Protocol.

With this shift, which was led by civil society and environmental organizations both within Brazil and at the COP/MOP meetings, RED became intellectually legitimized and the dominant view shifted from opposition to active support. This led the Brazilian government and diplomacy to change sides. Brazil began to support the inclusion of RED mechanisms in the Climate Convention and took a relevant role in the negotiations culminating with the approval of REDD+ as a part of both the legal framework of the climate change agreement as well as of the Kyoto Protocol. This shift led to the acceptance of results-based finance for reduction of deforestation. Reducing deforestation was not originally addressed by

⁶ Legal reserve was the extension of forest cover that could not be cleared on a property.

governments in Brazil as a policy for reducing emissions or mitigating climate change. Only at this stage, when faced with the political and moral obligation to address emissions, was reduction of deforestation as a means to reduce emissions admitted as the best, fastest, least costly and most desirable solution. The fact that 60% to 70% of Brazilian carbon emissions came from deforestation at the time meant that goals for reduction of deforestation would be domestically sufficient as a goal for reduction of total emissions, therefore justifying avoiding commitments to reduce emissions from other sources, such as transport and energy. The fact that reducing deforestation would reduce total emissions would later increase government support to these policies particularly when President Lula started to realize the role Brazil could play on global climate change politics, after the New York Climate Summit, in 2009, called his attention for the expectations about the Copenhagen Climate Summit.

Phase 3 started with the replacement of Marina Silva as Environment Minister and included the consolidation of the new policies for deforestation reduction, the adoption of emissions reduction targets and the creation of the Amazon Fund. During Phases 3 and 4, the agreement with Norway, which ultimately led to the Amazon Fund was negotiated and signed. Its roots lie in the discussion of the role RED could have in the process of reduction of deforestation and climate change mitigation during Phase 2. The major outcome of Phase 3 was the political consolidation of Phase 2 policy innovations, a new cycle of strong command-and-control actions that further reduced deforestation to 5-6,000 km², the formal creation of the Amazon Fund, and the agreement with Norway.

Phase 4 has had no new federal policy initiatives towards reduction of deforestation. A more active policy-making process at the state level has marked this political phase. Under Phase 4, there have been some important setbacks, such as the relaxation of forest protection with the reform of the Forest Code (the law that regulates forest conservation and land use in Brazil) and presidential decrees reducing the extension of Conservation Units to allow infrastructure works, mining and oil/gas exploitation. What characterizes Phase 4 structurally is the change in the patterns of deforestation, from large-scale to small-scale scattered forest clearing, and in the vectors of deforestation, from commodity production (soy and beef) to public works.

The main focus of this paper is Phases 2 and 3. Phase 4 will be commented on in the concluding remarks, which will deal with the new patterns of carbon emissions and deforestation. The main thrust of these remarks will be the possible stronger role the Amazon Fund could have in supporting actions to help the forces committed to reduction

of deforestation and forest conservation cope with a new structural context in the Amazon. There are, however, political obstacles that, if not removed, will hinder further progress in this area.

III. The evolution of ideas and policies for reduction of deforestation in Brazil: The ideological path to REDD+

Deforestation reduction ideas and policies in Brazil evolved through two different paths that would converge within a few years. One path is ideological,⁷ and the other one is political. The ideological foundations of the Amazon Fund are of paramount importance, because its most important historical role was to help promote a paradigm shift in the Brazilian political standing at the UNFCCC, from a position of full denial of deforestation as a part of the Climate Convention, to one of cooperative support. That is to say, ideology preceded politics and policies.

After this momentous shift, Brazil participated more actively in the development of the RED mechanism under the convention and of the new agreements from Copenhagen onwards. The National Policy for Climate Change reinforced this shift on the political path, which set the targets for emissions reduction from deforestation. In spite of the targets being voluntary, the fact that this policy was subsequently the object of a law approved by Congress gave civil society greater power to demand that the targets were in fact met.

Ideology, i.e. the system of ideas that was developed along a few eventful and creative years, and politics were mutually reinforcing factors for policy innovation in Brazil. The idea of the Amazon Fund contributed to the acceptance and consolidation of a new logic of performance-based payments for emissions reduction from deforestation and helped to introduce to a recalcitrant government the notion of having targets and being compensated for meeting these goals for reduction of deforestation. As an official from the powerful ‘Gabinete Civil’⁸ said in an interview, it has “represented an important encouragement to further pursue deforestation reduction policies in the country”.

⁷ The term ideological is used here to refer to a system of ideas and ideals that forms the basis of economic or political theory and policy, not as ideas and manner of thinking of a political group, party or of a social class.

⁸ The ‘Gabinete Civil’, or Chief of Staff and Civil Household, is a powerful ministry headquartered at the presidential palace, in charge of policy review and coordination. It has fuller and wider powers than the Chief of Staff in the US presidency.

Initial opposition within the government and civil society

In the beginning, however, the inclusion of reduction of deforestation, or the conservation of native forests, as a source for carbon credits was not a point of consensus even within the environment and indigenous social movements. There was open conflict between different sectors of these movements in Brazil regarding payment for deforestation reduction or “prevented deforestation”, the term they used more often at the time.

A leading representative from the group that favored the idea said that they faced strong opposition led by the chapter of Friends of the Earth from the state of Rio Grande do Sul. The majority of the Amazon-based think tanks, NGOs and environmental movements favored the inclusion of deforestation reduction in the UNFCCC carbon credit mechanism. “Those who opposed this inclusion argued that it would become a means for developed countries to include their own forests to account for emissions reductions. The US could become the major beneficiary, because forest coverage had been growing over the last decades there.” This possibility would create further imbalances in the principle of common but differentiated responsibilities that had been a nonnegotiable clause of the Convention for all developing and emerging countries, including Brazil. “We also faced strong opposition at the international negotiations and were not able to include prevented deforestation among the mechanisms for clean development under the Kyoto Protocol in the Marrakech Accords,” a major actor in this process recalls.

The ideological path started around 2000 when, after a series of debates and studies, IPAM,⁹ an Amazon think tank, promoted a side event at COP6¹⁰ in The Hague, Holland to question why the Kyoto Protocol did not allow forests as a source for carbon credits. IPAM started a consultation in Belém, the capital city of the Amazon State of Pará, among several NGOs — independent think-tanks dedicated to environmental protection, forest conservation and indigenous movements— about what issues to take to The Hague. After this consultation, they signed the “Letter from Belém,” which had several points that addressed topics under discussion at the UNFCCC and stressed as a priority issue the absence of forests in the Kyoto Protocol and the Climate Convention legal framework. At the time, neither the Protocol nor the Convention admitted even forest plantations as a source for carbon credits. As a top participant in this process explained in his interview for this paper: “The Clean

⁹ IPAM – Instituto de Pesquisa Ambiental da Amazônia, Amazon Institute for Environmental Research, a scientific think-tank created in 1995, in the state of Pará, to conduct research, policy advocacy and policy action in the Amazon region.

¹⁰ The 6th Convention of the Parties to the Climate Convention.

Development Mechanism came out only after the Marrakech Accords, at COP7 in 2001, and included forestry projects as one of the mechanisms. Forestry projects are not reduction of deforestation, but commercial forest plantation.”

COP 9: A turning point for RED

The crucial turning point was COP9 in Milan, in 2003, when the Amazon coalition launched the idea of compensation for reduced deforestation at a side event about RED with the presence of representatives of the Brazilian government, which was unprecedented. The diplomats in charge of climate negotiations for Brazil were there as an act of courtesy, although they strongly opposed any RED-like mechanism. The proposal discussed at this side event would be the object of a very influential paper¹¹ published two years later by Paulo Moutinho, from IPAM, and Márcio Santilli, from ISA.¹²

As one of the organizers of the side event tells it: “The surprising fact was that Marina Silva’s Executive Secretary, Cláudio Langone, had accepted our invitation to sit on the roundtable, and said that the issue of reduction of emissions from deforestation should really be addressed within the Climate Convention. It was the first time a government party of the Brazilian official mission to the Climate Convention supported the idea of compensated reduction of deforestation, much to the dislike of the diplomats heading the Brazilian negotiating team.” This movement to propagate the concept of results-based finance for reduction of deforestation continued at the subsequent COPs. As one of the sponsors of the idea says: “It was a simple question: whether deforestation was a part of the climate change problem, and if it was, why it wasn’t discussed by the convention.”

These ideas about payment for reduction of deforestation (or of emissions from deforestation) raised controversy both at the Climate Convention meetings and in Brazil. Although Marina Silva fiercely defended the thesis that reducing deforestation was an obligation of the Brazilian government and society, and that it should be undertaken on its own, from 2002 to 2003 she convened several meetings to debate results-based payments for reduction of emissions from deforestation. She personally had serious doubts about the issue

¹¹ Paulo Moutinho and Márcio Santilli – “Reduction of GHG emissions from deforestation in developing countries,” International Submission to the UNFCCC/SBSTA, UNFCCC/CP/2005/L.2: <http://unfccc.int/resource/docs/2006/smsn/ngo/007.pdf>; see also: Paulo Moutinho, Márcio Santilli, Stephan Schwartzman and Liana Rodrigues - “Why ignore tropical deforestation? A proposal for including forest conservation in the Kyoto Protocol”, in *Unasyuva*, 222, Vol. 56, 2005: <ftp://ftp.fao.org/docrep/fao/009/a0413E/a0413E06.pdf>

¹² ISA - Instituto Socioambiental (Socio-environmental Institute) is a NGO created in 1994 dedicated to environmental and social issues, human rights and the rights of the traditional peoples.

and made them publicly known on several occasions. She feared, as did a part of the environmental movement, that a RED-like mechanism would lead to complacency on the part of the Brazilian government, and the abandonment of a wider set of policies to permanently control deforestation and ensure forest conservation. She also feared that policies would end up sticking strictly to targets that could be monetized. Prevented deforestation and targets for the reduction of emissions from deforestation were added to the policy agenda after consensus had emerged from the informal discussions. Marina Silva strongly defended the point that these ideas should be very carefully translated into concrete policy mechanisms in such a manner as to prevent this type of risk and minimize all other risks that could not be eliminated.

Once the idea was added to the policy agenda, the Brazilian position in the international arena had to change. This shift was a difficult operation that involved a prolonged negotiation within the Brazilian government. Independent of Brazil's official position, Marina Silva started bilateral and multilateral conversations on the approval of RED as a part of the Climate Convention's legal framework. She developed a good personal relationship with Norway's Minister for the Environment, Erik Solheim, with whom she began discussing the issue and how to get progress on RED talks at the Convention. She visited Norway twice during her tenure as Environment Minister. The two ministers worked together at many COPs to get RED approved. Both actively participated in the formation of the pro-RED coalition at the UNFCCC, with Costa Rica, Papua New Guinea, Indonesia, and Malaysia, among others. Marina Silva also started working on changing Argentina's position using her good personal relationships with its environmental authorities.

In 2005, at COP11 in Montréal, the Coalition of Rainforest Nations, a group led by Costa Rica and Papua New Guinea, made a formal proposal to include reduction of deforestation in the Climate Convention, rather than in the Kyoto Protocol. It was approved and official discussions on the issue under the UNFCCC began.

In the beginning of 2006, in a UNFCCC meeting for the assessment of Montréal's COP11, there was a more serious discussion of RED. At this meeting, Luiz Alberto Figueiredo, who would become Brazil's chief climate change negotiator from Poznan onwards, entered climate change diplomacy.¹³ Brazil's chief climate change negotiator at the time was Ambassador Everton Vargas.¹⁴ At the meeting, Brazil had to submit a "View on Reduction

¹³ Luiz Alberto Figueiredo, a career diplomat, is currently Brazil's Minister for Foreign Affairs.

¹⁴ Ambassador Everton Vargas, a career diplomat, is presently Brazilian Ambassador to Argentina.

of Deforestation”. The two diplomats set the limits within which the technical staff on the Brazilian official mission was to keep their proposal: “No PPG7-like¹⁵ project, no conditionalities, no binding commitment, no strings attached on the way we would use the money.” The idea finally approved was for forest countries to be paid for past reductions, i.e., a results-based finance mechanism. A leading member of the technical staff of the official mission recalls that Itamaraty (the Foreign Ministry) did not oppose it because the diplomats thought that RED would be unfeasible as proposed. The experts defined the general principles of a RED mechanism: it should be country-based, measurable, verifiable, monitored. These general principles were presented by Brazil at COP12 in Nairobi in 2006, when the Brazilian government publicly announced a proposal, which was quite close to previous ones, to address deforestation using voluntary donations rather than carbon credits.

Senior experts and advisors of the Environment Ministry who came back home from Nairobi decided to think more systematically about a system of incentives for the reduction of deforestation, very much along the lines proposed by Paulo Moutinho and Márcio Santilli in their 2005 paper.¹⁶

The COP13, held in Bali, Indonesia in 2007, culminated in the adoption of the Decision 1/CP.13, known as the “Bali Roadmap,” to discuss how to include the RED issue in a mechanism to be designed and put in place by 2012, the year in which the first commitment period of the Kyoto Protocol would be completed. The negotiation of these principles led to the decision to add degradation as an element of the REDD mechanism, shifting thus from

¹⁵ There is an almost unanimous consensus among experts that the landmark for sustainability policies in the Amazon was the **Pilot Program to Conserve the Brazilian Rainforest** – PPG7, which established a new paradigm for Amazon policies. The program was launched at the Rio '92 Summit on Environment and Development, or Earth Summit, and gathered efforts and resources from the seven richest countries in the world, then the G-7 (thus PPG7) managed by the World Bank. Brazil was under international pressure to preserve the Amazon, and needed a coherent policy framework. Deforestation was on the rise. The summit contributed to increase knowledge and awareness about the tragedy then happening in the Amazon. PPG7 pointed to concrete actions to reduce deforestation. Its implementation took-off in 1995, when deforestation reached an all-time record of more than 29,000 km². PPG7 led to investments of slightly over US\$ 460 million in sustainability projects for the Amazon and the Atlantic Rainforest. It envisaged five strategic areas for policy intervention: 1. support for the sustainable production and management of natural resources; 2. strategy for the creation and extension of conservation and protected areas, as well as demarcation of indigenous lands; 3. strengthening of state government’s environmental agencies, and decentralization of environmental and territorial management; 4. support to scientific and technological research; 5. production and diffusion of knowledge to influence and enable environment-oriented public policy. It provided the framework, experience and knowledge that led to the formulation of the **Plan for a Sustainable Amazon (PAS)**; **Plan for the Prevention and Control of Deforestation in the Amazon (PPCDAM)**; the **Plan for Sustainable Regional Development for the Area of Influence of Federal Road 163 (BR163)**; the **ABC Plan (Low-carbon Agriculture)**, and the Amazon Fund. Its experience was also a reference for the formulation of the **National Policy for Environmental and Territorial Management in Indigenous Lands (PNGATI)**. Diplomats opposed PPG7-like mechanisms because they feared that they would be financed through the World Bank, and would impose undesirable conditionalities to Brazil. The dominant idea was that any finance controlled by the World Bank would ultimately lead to conditionalities imposed on Brazil and other forest countries within the Climate Convention.

¹⁶ Moutinho and Santilli, *op. cit.*

RED to REDD+, or reducing emissions from deforestation and degradation. For the African countries, degradation was even more important than deforestation. The parties were invited to develop pilot initiatives to test mechanisms for REDD+.

The ideological inception of the Amazon Fund

In 2006, the Environment Ministry, together with representatives from other government agencies, began to discuss a mechanism that would satisfy both what was negotiated in Nairobi as well as the Foreign Ministry's restrictions, while at the same time providing an effective answer to deforestation that could be measured. The people from the Environment Ministry already had a draft proposal on which they started working upon their return from Nairobi. The end result was the prototype for the Amazon Fund. One of its designers explains that it was a good idea, but would be impossible to be financed under UNFCCC/Kyoto Protocol rules, because it couldn't yield carbon credits. Brazil took this prototype design to COP13 in Bali, Indonesia in 2007, just to "make a point." At the last minute before presenting the idea at a side event, Tasso Azevedo, its major designer who was responsible for explaining the prototype mechanism, called it the Amazon Fund. Ministers Marina Silva (Environment) and Celso Amorim (Foreign Affairs) were at the Bali meeting, as well as at that particular side event.

The Brazilian presentation was on the same day as a side event organized by the World Bank to launch the Forest Carbon Partnership Facility (FCPF), at which several developed countries pledged money to the new REDD+ financing vehicle. Brazil's presentation of the Amazon Fund was based on a few direct points, explained one of the organizers: "We've already reduced 200 million tons of carbon emissions from deforestation and degradation, and the amount of financial resources we needed to keep implementing the plan would be around US\$ 1 billion/year." Minister Celso Amorim of Foreign Affairs was surprised because he wasn't previously briefed on the details of the proposal, nor was he informed that Brazil would be presenting a concrete idea called the Amazon Fund. BNDES¹⁷ was represented at the event because Marina Silva's staff was already discussing with bank officials the possibility of having the bank manage the proposed Fund. They thought the development bank would be better protected from political pressure and more objective in its analysis of applications for finance.

¹⁷ BNDES – National Bank for Economic and Social Development.

On that same day, Norway also presented its ambitious plan to invest in reducing emissions from deforestation. After Tasso Azevedo's presentation of the Amazon Fund, Erik Solheim, the Norwegian Minister for the Environment, took the floor and, to the surprise of everybody, said his country was looking for similar plans and would like to be the first to contribute to the Amazon Fund. This informal announcement had the immediate effect of turning what seemed like an unfeasible idea – to get compensated from past results on emissions reduction from deforestation and forest degradation – into a successful one.

After the event, in an interview with the Brazilian media, Tasso Azevedo provided Norway's announced interest in being the Fund's first contributor as a concrete example of the plan's feasibility. He said that if Norway, for instance, wanted to support the reduction of 20 million tons of carbon at US\$ 5.00/ton in the Brazilian Amazon, it could contribute US\$ 100 million to the Fund, and receive a certificate stating that Norway contributed to the reduction of those 20 million tons of emissions of carbon by supporting efforts to reduce deforestation in the Amazon. The headlines the next day in the Brazilian papers produced a different story, one that turned a hypothetical example into a matter of fact: 'Norway pledged to contribute US\$ 100 million to the Amazon Fund.' Public reception was very positive and the media wanted to pursue the story further.

The concept for the Amazon Fund and the Brazilian REDD+ project passed its first test of political feasibility and public credibility. The whole affair served to convince both the Brazilian government and the media that REDD+ was a large scale, viable, and interesting program. This conviction brought political support to the development of the idea into a full-fledged domestic plan and to the technical operationalization of the Amazon Fund by 2008. The Norwegian pledge was a major factor in consolidating the idea of the Amazon Fund and motivating its movement forward.

While the idea was moving swiftly on the ideological path, and even taking shape technically, there were still some obstacles in the political path. In Bali in 2007, REDD+ was included in the Road Map. The Brazilian climate change negotiators were then opposed to REDD+ because they saw it as an open door for introducing conditionalities to constrain domestic policies in developing and emerging countries. Marina Silva decided to discuss the Brazilian position with the country's Minister of Foreign Affairs, Celso Amorim. Another senior expert, who was part of the small group of 'técnicos' also participating in the political negotiations, said that President Lula told the group that he did not want anything that would create binding commitments for Brazil. He would rather finance all forest policy with

Treasury money. The president would only authorize changing the Brazilian vote provided that his condition was met and there was full agreement between the Environment and Foreign Affairs ministers. The ministers consulted with the president and, after extensively discussing the vote, the president approved that Brazil officially shift sides, in support of REDD+.

After voting favorably for REDD+, the Brazilian mission began to contribute more actively and positively to its development and negotiation.¹⁸ Brazil's major contribution was to replace the expression 'prevented emissions from deforestation' with 'reduction of emissions from deforestation'.

At this juncture, the ideological and political paths converged. Later, however, domestic political developments would put this whole endeavor in jeopardy when Marina Silva decided to step out of the Environment Ministry, facing heavy opposition from some powerful government quarters and from sectors of agribusiness and industry. Sensing that she was losing the full support of President Lula, she decided to resign. Neither the Amazon Fund nor the Brazilian climate change policy was yet finished.

As the ideological development of REDD+ proceeded, a political path also developed that led to the policy innovations that created a receptive environment for the Amazon Fund and removed the vetoes on any idea of a mechanism that looked like REDD+ in Brazil.

IV. Policies for reducing deforestation and forest conservation: The political path to REDD+

As soon as she took office as Environment Minister, her staff informed Marina Silva that deforestation was on a rising trend. It was the beginning of Phase 2 of the politics of reduction of deforestation in the Amazon. She is reported to have said that "2003 deforestation [August 2002- July 2003] we can say was inherited from the previous administration, but 2004 deforestation [August 2003- July 2004] will be our problem." The estimates based on the satellite data from the National Institute for Space Research, INPE,

¹⁸ Brazilian diplomats and technical staff on the official mission never refused to contribute to discussions, even when the country voted against the issue under negotiation. A senior diplomat, when asked how he could be the co-author of a proposal to be tabled at one of the COP's Working Groups, and then vote against it, answered that one thing is the institutional mission, the other the representation of Brazil. Institutionally, they were signatories of and parties to the Climate Convention. "Our role is to discuss all issues and contribute to their best formulation, independent of our official view. When I am representing Brazil officially, and therefore voting on my country's behalf, I have to vote according to the decision made by the president and the Minister of Foreign Affairs."

showed that in 2004, deforestation would be even higher. It peaked at 24,000 km². Marina Silva asked her staff to design innovative multi-sector and structural policies that could lead to a permanent reduction of deforestation.

Senior officials from the ministry told her that it was not possible to curb deforestation, because rising agricultural commodity prices on global markets caused land clearing in the Amazon. “It is totally out of our control,” they told her. The new technical experts she brought to the ministry had a different opinion. “It could be done,” they said. “It has been done before, with mahogany.” Marina Silva and her staff were sure, though, that this wasn’t a policy problem confined to the Environment Ministry. It had to be tackled as a problem of the government as a whole, and policies for reduction of deforestation needed to cut across ministerial and government agency jurisdictional lines.

Because of their experience with the mahogany trade (see Box 1 below), the ministry already created a public forest committee and defined targets for forestry management on public forests as early as 2004. When the technical group was in the final stages of this process, in the fourth quarter of 2004, INPE announced the figures for deforestation for the 2003 to 2004 season. It had reached a peak of 27,772 km², as Figure 1 shows.¹⁹ “It was a hard blow,” a senior advisor to Marina Silva recalls. In October, for the first time, INPE released early estimates for deforestation in the 2004 to 2005 season, still within time to act. The figure was too high to not prompt action without discrediting the Environment Ministry and the government, both internally and internationally. When Minister Marina Silva got the numbers, she told her staff that it was imperative to have a press conference to explain the data and announce actions that would be taken immediately. She argued that this wasn’t an issue that could be addressed at short-range, solely by her ministry. It was a government problem and should be addressed as a long-range governmental issue.

¹⁹ The preliminary figure announced on the fourth quarter was actually 24,000 km² (a record since 1993), but after the final review of the data, it was raised to 27,772 km², and announced on March 2005 as the second highest rate since data has been available.

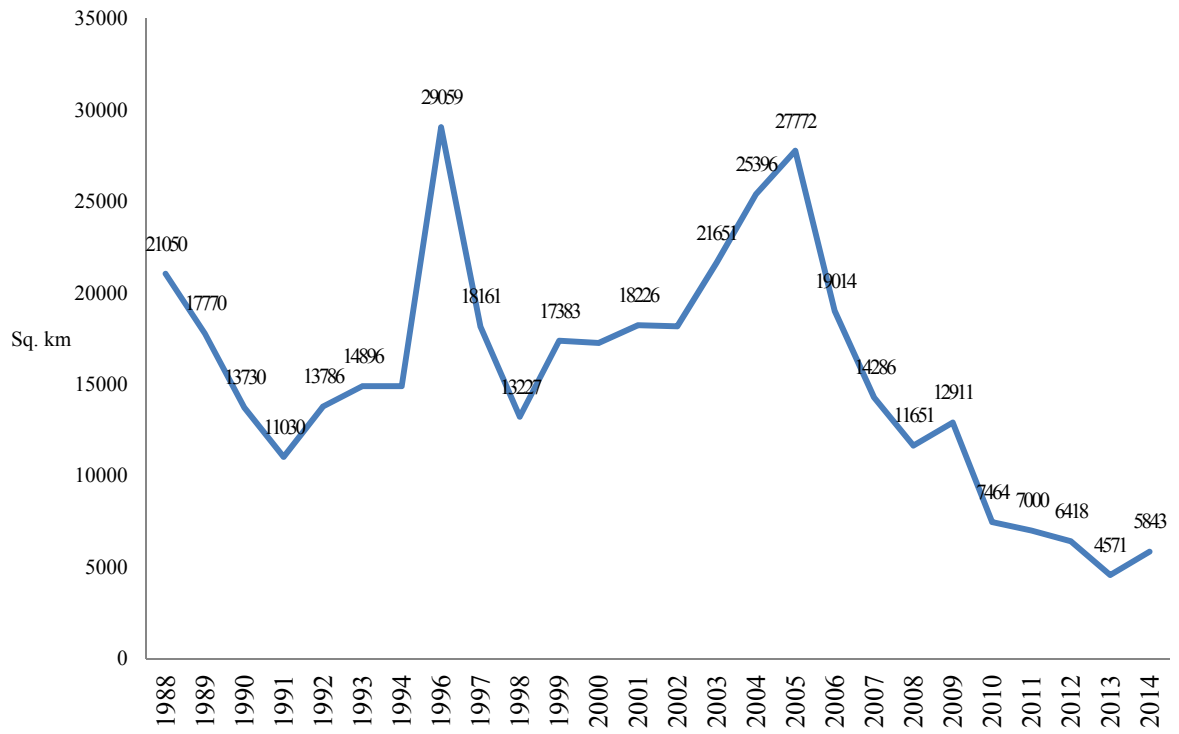


Figure 1: Amazon deforestation from 1988 to 2014. Source: INPE National Institute for Space Research

Box 1: Learning from an early success: Eliminating illegal logging of mahogany

Eliminating illegal logging of mahogany was one of the first success cases on the field of deforestation reduction policies in Brazil. It became a guiding example to develop new policies with a wider scope and the seed for the idea of the Amazon Fund. Marina Silva's technical staff's first actions date back to 2002, when they were preparing the transition of government and organizing the Environment Ministry. Their arrival coincided with the CITES meeting that ended with the inclusion of Amazon mahogany in its Annex 2. Amazon mahogany was originally in Annex 3 when Brazil first signed the convention. NGO's, environmentalists, forestry experts, and a part of the Amazon political and social leadership had been demanding it be moved to Annex 2 for a long time. Ensuring that all traded mahogany would come from sustainable forestry management and to incentivize commercial mahogany plantations was a determining factor for implementing any policy. The CITES plenary decision was a landmark victory, because Amazon mahogany was a very symbolic species.

The Brazilian government arrived at the CITES meeting with the intention of vetoing the action to move mahogany from Annex 3 to Annex 2. The move, however, was eventually approved. After this momentous decision, Brazil's main challenge was to devise policy mechanisms to ensure that all mahogany trade came from sustainable sources. It triggered an intense process of brainstorming and policy design that led to the creation of the DEMA Fund.

To ensure CITES' provisions would be obeyed, the government needed to know for sure which mahogany timber came from forestry management plans and which did not. This could only be achieved by auditing all forestry management permits associated with mahogany trade. The audits found that most permits were for logging on public land. The majority of them were illegal. IBAMA suspended about 80% of all logging permits. The timber sector started a strong lobby and political action targeting not only the Environment Ministry, but also other segments of the government and Congress, arguing that the suspension led to a collapse of timber supply and to raising unemployment along the supply chain of the timber industry. Government officials had no idea how to regulate forestry management on public forests, and it was imperative to have such regulation. The issue was taken to the 'Gabinete Civil'. Minister Marina Silva discussed it with Minister José Dirceu, who immediately understood its importance and urgency and acted swiftly on the preparation of the bill 12/2003. He and his staff were finishing a study to reform regulatory agencies, and he very much opposed the creation of regulatory agencies before a new framework was concluded and approved as a new act on regulation procedures. So, instead of trying to create a regulatory agency in charge of commercial forestry management on public forests, the Environment Ministry staff proposed the creation of the Brazilian Forestry Service. Confiscated mahogany timber was auctioned and the proceeds were used to create the DEMA Fund.

The decision-making process on mahogany certified trade and the DEMA Fund led to the bankruptcy of the three major mahogany traders, who left Brazil and went to other parts of the world looking for opportunities to exploit high value timber. It was a very important learning experience. It showed the incoming technical staff that it was possible to face the deforestation challenge, and that there was plenty of room for policy innovation. Mahogany was a very symbolic and seemingly an impossible challenge to meet. Their experience devising means to follow CITES' provisions demonstrated that it was doable. It also gave them self-assurance, and power of persuasion over other segments of the government. The process was mainly undertaken within the Environment Ministry, but it also prompted their first contacts and cooperative action with two powerful and critical ministries: the 'Gabinete Civil', and the Justice Ministry, under which was the Federal Police. Deforestation as a political and policy problem that could only be addressed with new instruments of governmental action entered the agenda of the 'Gabinete Civil' via the successful experience with mahogany trade.

Marina Silva's first move to get government-wide mobilization to face deforestation was a political and symbolic one. She invited ministers from whom she would need full cooperation to attend the press conference to announce the figures for deforestation. She invited the ministers José Dirceu²⁰ of 'Gabinete Civil', Miguel Rosetto²¹ of Agrarian

²⁰ José Dirceu was the all-powerful Secretary General of the Workers' Party for more than a decade. He left this position to head Lula da Silva's campaign for president in 2002, and to run for the Federal House of

Development, *Ciro Gomes*²² of National Integration, and *Sérgio Rezende*²³ of Science and Technology who hosted the press conference. INPE, which provides the deforestation data from its analysis of satellite images, is hierarchically under the structure of the Ministry of Science and Technology. INPE's president, *Gilberto Câmara*, was also at the press conference.

The top authorities of the Environment Ministry were persuaded that they needed a government-wide strategy to achieve a sustained reduction of deforestation, and such a strategy would only be viable with the full participation of Minister *José Dirceu*. *Marina Silva* went once again to meet with him to say how critical it was for the government to adopt strong policies that crosscut ministerial jurisdictions. She also told him that only the Minister in Chief of 'Gabinete Civil' could coordinate this government-wide plan. *Marina Silva's* main advisors opposed the 'Gabinete Civil' coordination because they feared the Environment Ministry would be unable to ensure the substantive content and effectiveness of the policies. But *Marina Silva* was convinced that Minister *Jose Dirceu* was needed to coordinate, since only the Presidency could convene all the ministers, and the Minister in Chief of 'Gabinete Civil' had the prerogative to do so in the name of the President. She told her advisors that she wanted Minister *José Dirceu* to lead the "political coordination" of the plan to reduce deforestation, and her Ministry would be the Executive Secretary of the Inter-Ministerial Working Group, ensuring that they would lead the "technical control and coordination" of the plan.

Representatives for the state of São Paulo. Both were elected. President *Lula* appointed him Minister in Chief of the 'Gabinete Civil' where he showed his power-seeking abilities. He was in command of all strategic government policies, was the major political manager for President *Lula*, dealing directly with the government coalition in Congress. He was indicted and convicted for corruption in 2005, on the major corruption scandal of *Lula's* Administration. He was prosecuted by the House Ethical Committee and lost his mandate as a Congressman, and his political rights for eight years. He was sentenced by the Supreme Court and is serving time in jail.

²¹ *Miguel Rosetto* started his career as union member of the metallurgical workers of São Leopoldo, a city on the state of Rio Grande do Sul, and is one of the founding members of the Workers' Party. He was elected for the Federal House of Representatives by his state in 1996. In 1998, he was elected vice-governor of Rio Grande do Sul. President *Lula* appointed him as Minister for Agrarian Development in 2003, after he and the governor, *Olívio Dutra*, failed to have their candidacy to reelection approved at the Party's Convention.

²² *Ciro Gomes* is a politician from the state of Ceará, Northeastern Brazil. He was elected twice state governor, and, in 2006, was elected to the Federal House of Representatives. He ran for president, in 1998, and 2002. In 1998, he ran against both *Fernando Henrique Cardoso*, and *Luiz Inácio Lula da Silva*. *Cardoso* won on the first ballot, with 53% of the vote. *Lula* came second, with 32%, and *Ciro Gomes* came third, with 11%. In 2002, he ran against *Lula*, who won on the run-off vote against the social-democrat candidate *José Serra*. On the first round, *Lula* got 46% of the vote, *José Serra*, 23%, *Anthony Garotinho* – former governor of the state of Rio de Janeiro – 18%, and *Ciro Gomes*, 12%. Both *Garotinho* and *Ciro Gomes* supported *Lula* on the run-off. *Gomes* was appointed minister for National Integration.

²³ *Sérgio Machado Rezende* is a PhD in Physics from MIT. He was Executive Secretary of the Ministry for Science and Technology in the Administration of *Eduardo Campos*. When *Eduardo Campos* left the Ministry, to run for the government of the state of Pernambuco, he recommended *Sérgio Rezende* to replace him, and President *Lula* accepted his recommendation. Prior to his death, *Eduardo Campos* was a presidential candidate in opposition to President *Dilma Rousseff*, who is running for reelection. *Marina Silva* was his vice-presidential candidate, and is now herself a candidate for president.

Marina Silva's advisors' worries were not unfounded. José Dirceu was an able power-seeker and did exert strict political control over all areas under his command, ever since his days as the all-powerful Secretary General of the Workers' Party. An official who worked closely with him on the coordination of multi-agency programs said he was actually eager to get hold of all similar policies, to further expand the jurisdiction of the 'Gabinete Civil' within the government machine. His role model was his predecessor, Pedro Parente, who, during Fernando Henrique Cardoso's government, led an emergency inter-ministerial task force to design new energy policies after a blackout forced a strong containment of energy consumption. Minister José Dirceu wanted to take over the coordination of every policy line that involved actions across several ministries.

At the same time, all of the protagonists of this story who were interviewed acknowledged that Minister José Dirceu was the first to fully understand the strategic importance of seriously facing deforestation. He rapidly became aware of the political and international significance deforestation and forest policy had gained over the previous few years. He and Minister for Agrarian Development, Miguel Rosetto, became two important allies of Marina Silva's policies to reduce deforestation.

The Environment Ministry was asked by the Planning Ministry and the 'Gabinete Civil' to have quarterly performance targets. The Ministry's technical staff proposed to Marina Silva that there should be targets for reduction of deforestation, which she approved, despite strong internal opposition. The older civil servants and experts from IBAMA continued to argue that it was impossible to commit to reducing deforestation, particularly specific targets to meet, because it depended on factors over which the ministry did not have any control, such as the price of beef and soybean. This opposition triggered an internal political crisis that prevented the first target from being quantified. It was presented as a generic pledge to reduce deforestation, without specifying by how much.

Consolidating domestic support in the PPCDAM

At the beginning of this internal debate, in 2004, Minister Marina Silva insisted that it was imperative to have a government-wide policy, not only a sectoral policy from the Environment Ministry. She showed deforestation data to President Lula, and they decided to create a government working-group to address deforestation and to draft a plan for reduction of deforestation. The ‘Gabinete Civil’, already informed by Marina Silva of her ambitious plans, immediately supported the idea and took over the responsibility to coordinate and oversee the group. At first, the working-group (WG) included 11 ministries: ‘Gabinete Civil’, Environment, Agriculture, Science and Technology, Defense, Agrarian Development, Industry and Foreign Trade, National Integration, Justice, Energy and Mining, and Transports. Immediately after the WG started to meet, the Ministries of Regional Development, Labor and Employment and Industrial Development, joined the group, totaling 14 ministries. The WG discussed policy alternatives and the draft of a plan to take place between October 2004 and May 2005. There were many technical background papers and meetings before the final version of *The Action Plan to Prevent and Control Deforestation in the Brazilian Amazon* – PPCDAM – was officially announced in May 2005.

The WG formed to draft the PPCDAM would become the major instrument for government action in the Amazon, with a 2004 budget of R\$ 394 million (around US\$ 180 million, in 2013 US dollars). PPCDAM would play an important role in effectively containing and significantly reducing deforestation, in spite of design flaws that were detected by the plan’s assessment and corrected in version 2.0.

The plan presented a very clear and frank diagnosis of the causes of deforestation. It pointed to cattle ranching, soybean production, illegal timber production, infrastructure works, and the settlements for agrarian reform as the critical deforestation drivers. It admitted that the lack of control, and obsolescence of the services of land tenure certification, were the main incentives for illegal land grabbing. It also acknowledged inconsistencies and contradictions among federal policies. It pointed to the risk of giving priority to federal programs for road building and energy production with strong impact on the use of natural resources and land use without previous land tenure regularization, territorial planning, and actions for the prevention and mitigation of environmental damage. It stressed the conflict between the legal framework for environment protection and agrarian reform. It called attention to the lack of a clear priority for credit and fiscal incentive policies as stimuli to the use of cleared, unused land, and sustainable management of forests and non-forest products. It argued that

the government lacked policy instruments to promote environmental services. The diagnosis also emphasized the need for timely satellite data on deforestation to support more focused command-and-control activities, and for strengthening the regulatory agencies in charge of monitoring and control.

PPCDAM was officially launched in May 2004, and had three strategic axes: a) territorial and land tenure regularization; b) environmental monitoring and control; and c) incentives for sustainable productive activities. It represented an important policy innovation, and proposed actions that cut across government sectors and policy lines. It was granted high political status, under the coordination of the powerful ‘Gabinete Civil’.

Marina Silva was among the ministers who were independent from political or interest group ties. When President Lula invited her, she told him that she would only accept the job if she could appoint all her staff independently from party lines or coalition negotiations. He granted her that autonomy, and Marina Silva appointed career officials, people from the social movement, experts from academia and people linked to parties that were not a part of the government coalition. All appointments were based on merit, not politics. She also adopted a policy of full transparency for all data generated about deforestation. Everybody had access to the data and satellite images, which allowed for the study of deforestation from different perspectives.

This transparency was strongly opposed from many quarters within the government, including from among her staff. But she insisted it was important that the government be exposed to the ethical constraints of having independent analysts auditing its data and critically evaluating the outcomes of its policies. Full access to deforestation data was also opposed by organized interests and state political leaders that were vulnerable to that scrutiny, because of either their failure to control deforestation or their participation in activities that led to deforestation. Satellite data showed in which states and in which specific areas deforestation was greater. This allowed independent experts to identify properties within these areas, to show negligence on the part of state governments regarding the protection of their Conservation Units, and also to identify private rural properties involved in extensive illegal land clearing and forest conversion into pasture or cropland.

DETER – the real-time satellite-based system for deforestation estimates and alerts that was included in PCCDAM as a major instrument for implementation of command-and-control actions – began working in March 2005. It released its first estimates in April, for the May-

June period. In July, it released the estimates for June. Estimates for the June-July period showed a 90% decrease in deforestation. When final data from PRODES became available by the end of the year it showed that deforestation had been reduced from 27,772 km² to 19,014 km².²⁴ These first results were very welcomed and further strengthened the Environment team's convictions and power of persuasion.

Setbacks and opportunities: Events in Brazil shape the political path

During this intense period of policy formation, Minister Marina Silva faced a major challenge. Since 2003, the Ministry had been receiving a large number of complaints about corruption within IBAMA, its central regulatory and licensing agency. The Ministry's top authorities decided to move away from the traditional procedures adopted in similar cases: appointing an internal affairs investigation that was usually inconclusive and led to no punitive action. Instead, they decided to ask the Federal Police to investigate the cases. The Federal Police started Operation Curupira to investigate corruption charges based on a dossier prepared by a top IBAMA authority that Marina Silva recruited from the environmental movement. Curupira dismantled a multi-state network of illegal deforestation, illegal timber traffic, and land grabbing. This led to the involuntary termination of dozens of IBAMA civil servants, most of them field agents. More than 100 people, including public servants, farmers and ranchers, were arrested and prosecuted.

On February 2005, Dorothy Stang²⁵ was murdered, provoking an outcry both in Brazil and abroad. The tragedy came as a shock to Marina Silva and her group, but ultimately gave them even more clout to push for stronger measures to reduce deforestation and face forest-related agrarian conflict. As one of the minister's top aides explained: "The decrees creating the Conservation Units we considered strategic to counter land-grabbing and illegal land

²⁴ Usually the figure recalled on interviews is 18,000, but the final corrected official data was 19,014 km².

²⁵ Dorothy Stang, 73, of the order of Notre Dame de Namur, was an activist with the Catholic Church's Pastoral Land Commission, CPT, which campaigned to stop violence against peasants in the many land disputes that have followed the opening up of the Amazon region. She was shot dead by a gunman under the orders of cattle-ranchers. Her murder caused public outcry in Brazil and abroad. The confessed killer Rayfran das Neves Sales was arrested, prosecuted, and sentenced to 27 years in prison. The sentence did not calm the outrage the assassination caused. He was clearly only a hired gun. The ranchers who ordered Stang's killing remained uncharged with the crime. They would only be tried and sentenced several years after the homicide took place. The best immediate answer to the outcry the government had on hand was a series of decrees creating several Conservation Units in the region, two of them protecting land on the area the killing happened. Three trials and eight years later, a Brazilian court sentenced the rancher charged with ordering Stang's murder, Vitalmiro Bastos de Moura, to 30 years in jail for homicide, in September 2013. The court also confirmed the conviction of another rancher, Regivaldo Galvão, for ordering Stang's murder. In 2012, the Supreme Court ordered his release, saying he had the right to remain free pending the outcome of his appeal. He was sentenced to a 30-year jail term in 2010, and started serving his sentence only after the 2013 confirmation. Earlier in 2013, Stang's confessed killer was released from jail after serving less than nine years of his 27-year sentence. A Pará State judge said he was entitled to serve the rest of his sentence under house arrest, according to the very soft Brazilian criminal law.

clearing were ready, but the ‘Gabinete Civil’ was keeping them on hold because of the strong opposition they raised. The ‘Dorothy Stang effect’ led to the approval of the decrees, and the bill on Forest Management, which was also originally kept on hold, was finally sent to Congress. The House Environment Committee approved the bill on the fortnight before the Curupira Operation started. From these events up to 2008, the committee overseeing the implementation of PPCDAM worked just fine.” “We started coordinating with the Amazon states on the local stages of the plan, and the implantation of the Forestry Service,” said another official.

The Conservation Units created in 2005, after this sequence of events in the Amazon, totaled 9.2 million acres.²⁶ The momentum created by the uproar on the media about killings on land conflict areas in the Amazon, and rampant deforestation also led to the approval of another batch of Conservation Units, in 2006, totaling 27.7 million acres.²⁷ The process of land enclosure for protection of the Amazon forest in 2005 and 2006 produced a total of 36.9 million acres, or 15 million hectares, of conserved land. One of the top authorities in the command of field operations to control deforestation said that Conservation Units and enclosed indigenous lands were critical elements to contain the progress of land grabbing and land-clearing. “They eliminate the expectation of future possible legalization of land tenure, therefore turning them devoid of any commercial value.” There still is some deforestation on Conservation Units and indigenous land, but it is peripheral. Deforestation continues to happen on a larger scale only on unreclaimed land, that is, land without a valid

²⁶ They were: Floresta Nacional (National Forest) Balata-Tufari, on the state of Amazonas, with 1.9 million acres; Floresta Nacional (National Forest) de Anauá, on the state of Roraima, with 641.4 acres; Reserva Extrativista (Extrative Reserve) do Riozinho da Liberdade, on the states of Acre and Amazonas, with 804.5 thousand acres; Reserva Extrativista (Extrative Reserve) Mapuá, on the state of Pará, with 231.6 thousand acres; Reserva Extrativista (Extrative Reserve) Arióca Pruanã, on the state of Pará, with 206.2 thousand acres; Reserva Extrativista (Extrative Reserve) Ipaú- Anilzinho, on the state of Pará, with 137.9 thousand acres; Estação Ecológica (Ecological Station of Middle Earth) of Terra do Meio, on the state of Pará, with 3.3 million acres; Parque Nacional (National Park) of Serra do Pardo, on the state of Pará, with 1.1 million acres (also in the region called Middle Earth); Reserva de Desenvolvimento Sustentável (Reserve for Sustainable Development) Itatupã - Baquiá, on the state of Pará, with 15.9 thousand acres; Reserva biológica (Biological Reserve) Nascentes da Serra do Cachimbo, on the state of Pará, with 845.5 thousand acres.

²⁷ They were: Reserva Extrativista (Extrative Reserve) Arapixi, in the State of Amazonas, with 330.4 thousand acres; Reserva Extrativista (Extrative Reserve) Rio Unini, in the state of Amazonas, with 2.1 million acres; Reserva Extrativista (Extrative Reserve) de Gurupá-Melgaço, on the state of Pará, with 359.7 thousand acres; Reserva Extrativista (Extrative Reserve) Rio Iriri, in the state of Pará, with 985.9 thousand acres; Reserva Extrativista (Extrative Reserve) Terra Grande Pracuúba, in the state of Pará, with 481.5 thousand acres; Área de Proteção Ambiental (Area of Environmental Protection) do Tapajós, in the state of Pará, with 5.1 million acres; Floresta Nacional (National Forest) de Crepori, with 1.8 million acres; Floresta Nacional (National Forest) do Amanã, on the state of Pará, with 1.3 million acres; Floresta Nacional (National Forest) do Jamanxim, in the state of Pará, with 3.2 million acres; Floresta Nacional (National Forest) do Trairão, in the state of Pará, with 636.4 thousand acres; Parque Nacional (National Park) do Jamanxim, on the state of Pará, with 2.1 million acres; Parque Nacional (National Park) do Rio Novo, on the state of Pará, with 1.3 million acres; Parque Nacional (National Park) Campos Amazônicos, on the states of Amazonas, Rondônia and Mato Grosso, with 2.4 million acres; Parque Nacional (National Park) do Juruea, on the states of Mato Grosso and Amazonas, with 4.8 million acres; Reserva Biológica (Biological Reserve) do Jaru, on the state of Rondônia, with 859.6 thousand acres.

title of private property, or not legally declared to be indigenous lands, agrarian reform settlements or Conservation Units.

It was when the first concrete results from reduction of deforestation policies were emerging, as well as the Environment Ministry was succeeding in protecting an impressive amount of forest on Conservation Units and indigenous lands, that the Brazilian position on REDD+ at the Climate Convention also started to change. At the same time, however, the positive results were also raising opposition to Marina Silva's administration at the Environment Ministry. The significant amount of policy constraints and the strong repression of illegal timber, cattle and soybean production in the Amazon forest areas were hurting too many political and economic interests.

Marina Silva's strategic resignation from the Environment Ministry

The Ministry's successful actions to reduce deforestation were creating mounting dissatisfaction among government allies and traditional agribusiness leaders. They started to face direct opposition from Blairo Maggi, Governor of the State of Mato Grosso and one of the country's major soybean producers, Reinhold Stephanes, the Minister of Agriculture, and agricultural trade unions controlled by these traditional sectors, as several top officials explained in their interviews. Minister-in-Chief of the Secretary for Strategic Affairs of the Presidency Mangabeira Unger²⁸ was actively trying to undermine the Environment Ministry's Amazon policies, defending the incorporation of the Amazon into the infrastructure and economic growth plans. He frequently told President Lula that Marina Silva's measures had become excessive and were impairing the progress of the Amazon.

The success of PPCDAM and other deforestation reduction policies was indisputable: annual deforestation had dropped to 14,286 km² in 2006 and to 11,651 km² in 2007. But success was now causing a political backlash against Marina Silva and her team. Opposition was growing, as was the competition for political control over IBAMA and environment policies. The corruption scandal known as "Mensalão" directly hit José Dirceu, one of Marina Silva's most powerful allies, who resigned in June 2005. He was replaced in the powerful political machine he built in the 'Gabinete Civil' by the then Minister of Mining

²⁸ Roberto Mangabeira Unger is a professor at Harvard Law School. He was appointed by President Lula as Minister in Chief of the Secretary for Strategic Affairs of the Presidency in 2007, and opposed conservation policies in the Amazon from the beginning. He resigned in 2009. He also entered in conflict with Carlos Minc over the control and management of the Amazon Fund. He frequently told the press that Marina Silva was trying to transform the Amazon into an immense zoo. He strongly opposed the creation of units of conservation, environmental limits to infrastructure projects, and the legal enclosure of indigenous land. He defended an "alternative long-run plan" for the industrial development of the Amazon.

and Energy, Dilma Rousseff. Rousseff was one of the fiercest opponents of Marina Silva in the cabinet. In a recent press interview, former President Lula said he could understand Marina Silva's running as opposition to Dilma Rousseff, because he witnessed how tough the confrontation was between the two of them during his entire term. He said they held opposing views the entire time.²⁹

In 2007, satellite data showed that deforestation was increasing again. From July 2007 to August 2008, it rose to almost 13,000 km² from 11,600 thousand km² the previous year. New and tougher measures were needed to counter this new trend. The people at the Environment Ministry had been advocating for some time that the government adopt economic sanctions against illegal logging and production on illegally-cleared land. Seeing the possibility of a rebound in deforestation, with obvious international visibility, President Lula signed a decree determining that official credit be withheld for projects in illegally-cleared areas, and for municipalities with high deforestation rates. The decree also created a 'grey list' of high deforestation municipalities. At the time, 80% or more of the finance obtained by municipalities and rural properties in the Amazon came from official credit institutions. The great innovation, according to one important Amazon researcher and policy designer, was the 'grey list' of municipalities with greater deforestation rates. The list continues to be a powerful instrument until now, because the criteria for inclusion and exclusion of municipalities were very well conceived.³⁰

On May 7, 2008, President Lula launched the *Sustainable Amazon Plan* (Plano Amazônia Sustentável - PAS), an umbrella plan under which PPCDAM would be implemented and reviewed. He gave the coordination of the plan to Minister Mangabeira Unger and the Executive Secretary to Marina Silva. Marina Silva gathered her advisors to tell them her evaluation of what was happening. She told them that her Ministry was no longer in control of the policies for the Amazon, and that the priorities of the 'Gabinete Civil' for the region would be implemented without a strong say from them. The 'Gabinete Civil' had now a different and more restricted agenda. In this new context, they needed a realistic political evaluation of their position and the risks their policies were facing. The conclusion was that if they continued in the Ministry, they would be increasingly weakened and would lose

²⁹ Lula was commenting on Eduardo Campos and Marina Silva's announcement of their candidacies for President and Vice-President, respectively, in 2014, during a conference to bloggers who support the government. He said he understood Marina Silva's opposition to President Dilma, but couldn't understand Eduardo Campos' going to the opposition. The interview was published in all Brazilian newspapers on April 8, 2014. Campos died on a plane crash at the beginning of the campaign and Marina Silva took his place as PSB's presidential candidate.

³⁰ The criteria are: I. total area cleared illegally; II. total area cleared illegally over the last three years; III. rate of increase of deforestation over the last two years; IV. cleared land equal to or greater than 80 km² in a year.

everything. It was time to quit, lose the ministry, but save the policies. Marina Silva and her team decided to leave the Environment Ministry as soon as possible so as to not lose momentum and to create a political fact of great impact on the media, public opinion and the political elite. They wanted it to be strong enough to constrain President Lula and counter the opposition, to prevent their policies from being abandoned.

Minister Silva and her team were in a context of high, and already intractable, conflict with several other ministries: the 'Gabinete Civil', because of Dilma Rousseff's agenda focused on infrastructure investment in the Amazon; the Ministry of Mining and Energy, because of the hydropower dams in the Amazon (the Ministry's policies were under direct control of Minister Dilma Rousseff who left it to replace José Dirceu and the 'Gabinete Civil'); and the Ministry of Transport, because of the Environment Ministry's veto of the canal locks on the Madeira River's Santo Antonio and Jirau hydropower plants.

President Lula's appointment of Minister Mangabeira Unger as coordinator of the PAS undermined Marina Silva's political authority over major environmental and forest policies, because, when created, it would regulate the PPCDAM, the *Low-carbon Agriculture Plan* (ABC Plan), and the Amazon Fund. However, the reduction of deforestation had gained such momentum, and its domestic and global exposure was so great, that the opposition against environmental and climate policies would not be able to stop it if Marina Silva resigned at the right moment. After much debate, it was a consensus among Minister Marina Silva's inner circle that she should resign immediately, and make it clear to the Brazilian people that she was not quitting for personal or private reasons, but for political reasons.

After their political assessment of the situation, Marina Silva informed President Lula on May 13, 2008 that she was irrevocably resigning from the Environment Ministry. The decision came as a surprise to the President. Marina Silva negotiated with him a soft exit, giving him time to politically assess the impact of her resignation and to look for a name to replace her. When she made the official announcement of her resignation at a press conference and carefully, but frankly, explained her political reasons, it reverberated widely in the international and domestic media. She created a major political fact and constrained President's Lula choices of people who could replace her.

As a close independent observer remarked in his interview: “Marina Silva’s strategic exit from the government was architected in such a way that it forced the government to keep her deforestation reduction policies. It frustrated the opposition to the new policies, and gave a signal that changes were going to hold.”

Replacing Marina Silva: A careful choice for President Lula

President Lula clearly saw the political dilemma Marina Silva had created. There was an outcry among environmentalists who saw her resignation as a clear sign that deforestation reduction policies were about to be abandoned and that the creation of new and critical Conservation Units was in jeopardy. Deforestation already increased 11% from 2007 to 2008. President Lula had to find someone with credibility to replace Marina Silva as a strong signal that he would continue his Amazon and environmental policies. A politician very close to his decisions during the search to replace Marina Silva said in an interview that the president was not yet completely aware of the negative political consequences of backing away from the strong actions taken on the Amazon to reduce deforestation. The opposition to the anti-deforestation policies was tremendous. It came not only from businesspersons, but also from politicians of the government coalition, and from important people inside the government as well. Insiders had worked hard to neutralize Minister Marina Silva for some time because of her inflexible positions. She had lost important political and entrepreneurial support because of long delays in the environmental licensing process, not only for logging, but also for road-building, industrial investment, and power plants.

With her resignation, there was a wave of euphoria among those who opposed her. In their meetings with Minister Dilma Rousseff, rural producers told her that the agribusiness sector was in an unsustainable situation: it was isolated from the government and unemployment was increasing. Data from the federal bureau of statistics, IBGE, did not show any relevant increase in unemployment. There was, however, evidence of higher unemployment rates in Amazon cities on the ‘grey list’ that stopped getting official credit and had their illegal sawmills closed. But President Lula realized, at least, that he could not appoint someone who had no history in environmental policies and especially not someone who would seem willing to relax environmental regulations.

President Lula called Governor Sérgio Cabral, of the state of Rio de Janeiro, and asked his permission to appoint his Environment Secretary, Carlos Minc, as Environment Minister. Cabral supported enthusiastically his Secretary's promotion to the Federal level. President

Lula knew Carlos Minc personally very well. Minc was an active member of the Workers' Party since the party's creation. He had lived in exile in France during the military government, and he had the advantage of being well known as an environmental militant. Carlos Minc had a propensity for 'spectacle politics'; he liked to create political facts of high visibility that were symbolically charged.

When the President called him, he was in Paris on his first official trip overseas as state Environment Secretary, negotiating agreements on behalf of Rio de Janeiro. He had serious misgivings about replacing Marina Silva, and he only accepted the task after two calls from President Lula and a series of calls from Governor Cabral. Minc arrived from Paris as the new appointed Environment Minister. He planned his first press conference to get maximum visibility and to generate a significant political fact. There, he reaffirmed his environmental convictions, and said he had to talk to President Lula and Marina Silva before giving a full press conference. In Brasília, before meeting President Lula and Minister Dilma Rousseff, he paid a visit to Marina Silva at her home. They talked for one hour, and afterwards held another press conference. Marina Silva gave him her public support. During this press conference, Minc anticipated some of the conditions he would present to President Lula as a sine qua non for him to accept the Ministry.

After this momentous meeting, which received wide press coverage, he went to see the President and the Minister-in-Chief of the 'Gabinete Civil,' Dilma Rousseff. He had the list of conditions necessary for him to take office, which he already made partially public. The first point on the list was to maintain the decision to not provide public finance to illegal loggers or activities benefiting from deforestation. The second point was to keep the decree that created the 'grey list' of municipalities, along with the larger indices of deforestation that would also be subjected to the public credit moratorium. The third point was to complete the process of creation of Conservation Units in the so-called Arc of Deforestation, a vast Amazon area where deforestation was rampant (see the pink shaded area in Figure 2 below).

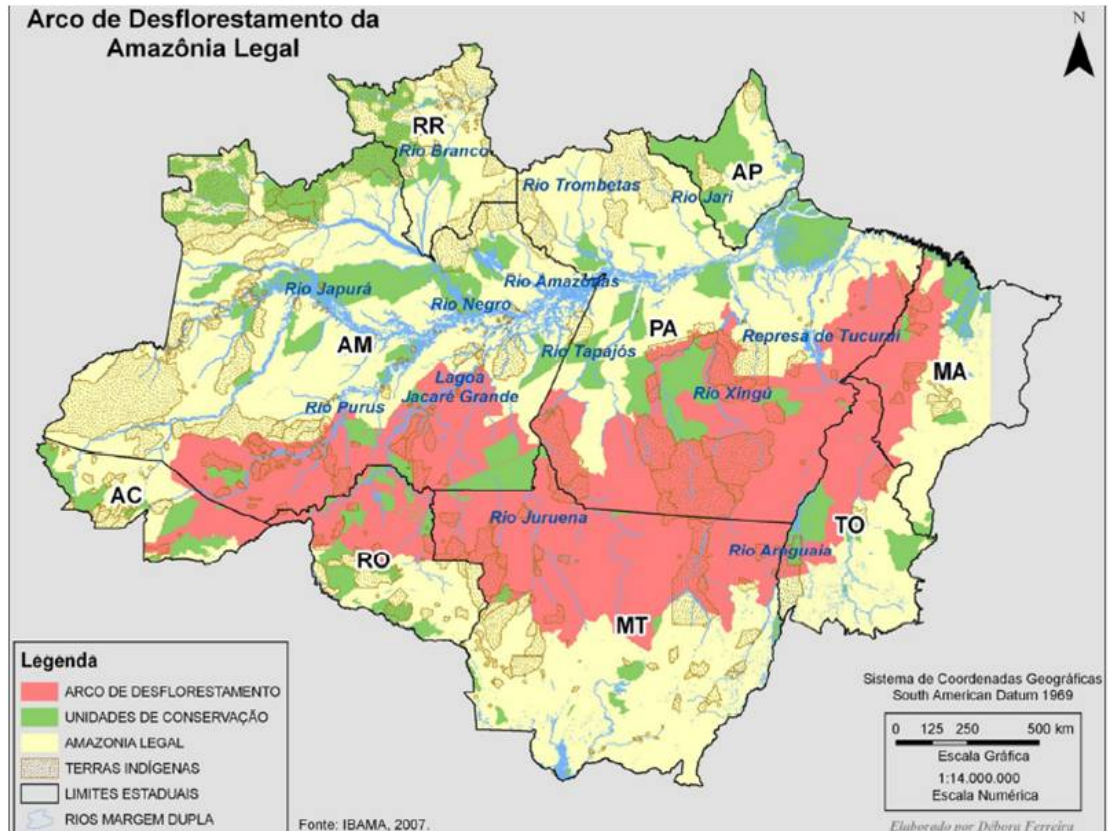


Figure 2: Enclosed areas and Conservation Units of the Arc of Deforestation

Source: IBAMA, 2007

The conversation with the President and Minister Rousseff wasn't an easy one, as some sources close to the process recalled. Minister Rousseff told Carlos Minc that he had to expedite environmental licensing. Minc said that he could reduce red tape and delays, thus expediting the process as he did in Rio de Janeiro, but would not make any concessions that would harm environmental security. He insisted that he would not accept the ministerial post if the main instruments for policy enforcement, particularly the 'grey list' and the public credit moratorium, were revoked. To accept only to rubber stamp decisions made outside the Ministry would destroy his reputation. He wouldn't contribute to the narrative that she [Marina Silva] who protected the forest stepped out to be replaced by him [Carlos Minc] who condoned everything. President Lula and Minister Dilma Rousseff finally agreed to all of his conditions, and he accepted to become the new Environment Minister.

High visibility politics: Carlos Minc's command-and-control tactics

Carlos Minc took office on May 27, 2008, one week after his one-hour conversation with President Lula and Minister Dilma Rousseff, inaugurating Phase 3 of the politics of reduction of deforestation in the Amazon. One of his first initiatives was to finish the revision of the draft of the Decree on Environmental Crimes, for President Lula to sign. The decree represented a new high caliber weapon to fight deforestation, one that gave government agents the power to sequester cattle or produce on properties that were responsible for illegal deforestation. President Lula signed the decree in June 2008, a few weeks after Minc took office. The decree gave Minc the opportunity to stage one of his effective acts of 'spectacle politics': going to the Amazon with agents from IBAMA and the Federal Police to chase and impound illegal cattle on recently-deforested areas, or, as he liked to call them, "pirate bulls". He received wide press coverage, and marked the beginning of his Administration with strong command-and-control actions against illegal logging, with a marketing twist.

These new raids led to the successful joint IBAMA/Federal Police Operation Arco de Fogo (Arc of Fire). The first raid of Operation Arco de Fogo was in Tailândia, a city on the state of Pará, and also the first municipality added to the 'grey list' of high deforestation municipalities. The raids were met with opposition from local politicians, who mobilized mob riots, and rural producers, who staged demonstrations of opposition and discontent. The operation was aimed at the illegal connections of several formally legal businesses, with the intent to disrupt supply chains that linked legal and illegal parts. Businesses were closed, lumber was sequestered, managers and owners were arrested, and charcoal furnaces were destroyed.

Although the operation wasn't something new, it was very encompassing and gave an unprecedentedly strong signal that things were changing. This attracted the attention of both public and private local leaders in the states of Pará and Mato Grosso. Simultaneously, and perhaps even more importantly, the market was becoming less favorable to agricultural products from deforested areas. This language they understood only too well, even better than the signs from repression. If the market, particularly large supermarkets and foreign customers, stopped buying their commodities, they would lose their major source of income.

When Operation Arco de Fogo arrived in Paragominas,³¹ the second city on its course, the reaction of the local elite was a more sober one. Nevertheless, the raid was sweeping and thorough: sawmills were closed, timber was confiscated, charcoal furnaces were destroyed, companies were fined, and managers arrested. A federal police officer was interviewed during the raid on a sawmill at the top of a small hill, about 35 feet high with a 70 square foot surface at the top, which was actually a pile of sawdust that had accumulated from outdated machinery and waste. The officer said that almost everything there was illegal, behind the facade of a legal establishment. For instance, the company had eight licensed charcoal furnaces, but was operating more than one hundred. Only 20% of the timber in stock was legal. From the sawdust mount, one could see a large pile of wood, broken trunks and boughs, waste that represented the other side of illegal logging: inefficiency, displayed by a loss of 40% of the timber processed. Inefficient processing caused deforestation of even larger areas.

The mayor, exporters, and rural proprietors were clearly surprised and fearful of the breadth and strength of the command-and-control operation. They said, in media interviews, that it was time to change as fast as possible to prevent the economic collapse of the city. Sawmill owners were scared and in a state of denial. Ordinary citizens favored the action by the federal police, but feared unemployment.

Paragominas was the second municipality to enter the ‘grey list’. After the operation, they immediately asked for advice on how to leave the list and develop a zero-deforestation economy. Several community meetings were convened to discuss what to do. The answer was a zero-deforestation pact. Paragominas succeeded in leaving the ‘grey list’, and its exporters could now certify that their products came from a “green municipality.” The Paragominas example led to the creation of the Green Municipalities Program.

³¹ See the audio-slide show coverage of Operation Arco de Fogo in Paragominas, following the Federal Police and IBAMA vehicles on a raid to a sawmill that had illegal lumber, and illegal charcoal furnaces here: http://www.oeco.org.br/sergio-abranches/16592-oeco_27148. It is in Portuguese, but the photos tell the story as much as the words.

Convention on Biological Diversity provides an opportunity for new protected areas

Command-and-control actions would not, however, have a sustained effect if they weren't complemented by structural legal changes in land tenure in the Amazon. It was particularly important to continue the process of enclosing public land to prevent land grabbing and deforestation. There was a considerable amount of land destined to become Conservation Units, pending the appropriate enabling decrees.

Shortly after Minc took office, he was invited to Germany for the COP9 of the Convention on Biological Diversity (CBD), to which Brazil is a very important party. A source among the leading government officials preparing the mission to COP9 reported that Parties were shocked by Marina Silva's resignation. Deforestation had increased after several years of sharp decline, from 11,641 km² to 12,911 km². If Marina Silva was not able to ensure the continued reduction of deforestation, nobody believed that Carlos Minc could do it. His advisors told him that his previous credibility and the recent Decree on Environmental Crimes would not be enough to persuade foreign Parties to the contrary. He had to go to Germany and show new, substantial results at COP9. If he didn't go, it would be a disaster for the Brazilian status at the convention. If he went but arrived with empty hands, it would also be a disaster to the Brazilian status as a Party and to his reputation as Environment Minister.

After careful consideration of all the options, Minc decided that the only action that would give a signal strong enough to reassure foreign audiences that their efforts to control deforestation would continue, and also demonstrate Brazil's commitment to defending biodiversity, was to complete the design of Conservation Units encircling the Amazon Arc of Deforestation. Minc asked for a meeting with Dilma Rousseff. He defended the need for the president to sign decrees creating three Conservation Units, particularly those in the southern portion of the state of Amazonas bordering Rondônia, for a total of 500,000 km² (12.3 million acres).

These enclosed areas had to be the center of his inaugural presentation at COP9 of the CBD, to show Brazil's firm commitment to protecting biodiversity and reducing deforestation. Marina Silva couldn't get the decrees' clearance from Dilma Rousseff, because they were already at a maximum level of confrontation. The Chief of the 'Gabinete Civil' would never take the decrees to get them signed by President Lula. And President Lula would not sign them without the clearance from the 'Gabinete Civil'.

Minister Minc argued that the decrees were absolutely necessary because the proposed conservation areas were in the so-called Arc of Deforestation, and would therefore give him the credibility he needed to do his job adequately. Dilma Rousseff resisted because she was concerned about the infrastructure plans in the Amazon that she was very fond of, particularly the large electric power dams in Amazon rivers that she approved as Minister of Mines and Energy. Minc then asked for a meeting with President Lula at which he firmly argued the case for the decrees creating the Conservation Units and their role in reaffirming Brazil's credibility at the global level.

He called President Lula's attention to the fact that deforestation would continue to grow and that the Conservation Units were at strategic points necessary to enclose the Arc of Deforestation. Illegal occupation entries would be closed by these units and would significantly inhibit land grabbing and deforestation. Not creating the Conservation Units would be an internationally unwelcome decision, one that would jeopardize Brazil's effective participation at COP9 of the CBD. President Lula was finally convinced and signed the decrees protecting a territory totaling 13.6 million acres. Minc was able to show maps in Germany at COP9 that highlighted the new Conservation Units, protecting almost 14 million acres of Amazon forest in areas with very high deforestation rates. They weren't in isolated areas; they were at the gateways to the Arc of Deforestation.³²

³² President Lula signed decrees creating several large Conservation Units on the Amazon Region between May and June of 2008 (COP9 was on May 19-30). The Conservation Units created on the state of Amazonas were: the Parque Nacional de (National Park of) Matinguari, with 4.39 million acres; the Floresta Nacional (National Forest of) do Iquiri, with 3.6 million acres; the Reserva Extrativista (Extractive Reserve of) de Ituxi, with 1.9 million acres; the Parque Nacional Nascentes do Lago Jari (National Park Sources of Jari Lake), with 2.0 million acres; Reserva Extrativista (Extractive Reserve of) do Médio Purus, with 1.5 million acres; enlargement of the area of the Floresta Nacional (National Forest of) de Balata-Tufari to 2.7 million acres. All these CU's were around the area of influence of the federal road BR-369, linking Manaus, the capital city of the state of Amazonas, to Porto Velho, the capital city of the state of Rondônia. This was a high pressure-high, conflict, high violence territory due to land tenure disputes. The assurance that asphalt surfacing of the road was to begin led to widespread land grabbing, illegal occupation and clearing of its margins, conflict over agrarian settlements, and deforestation with the typical "fishbone" format. Conservation Units created on the state of Pará were in the so-called Middle Earth (Terra do Meio): Reserva Extrativista (Extractive Reserve of) do Médio Xingu, and Reserva Extrativista (Extractive Reserve of) do Rio Xingu, with 748.7 thousand acres each, totaling 1.5 million acres. The "Middle Earth" was also a high pressure, high conflict area because of the plans to dam the Xingu River for power generation, illegal land grabbing and land clearing. The total area protected was 5.5 million hectares or around 13.6 million acres.

The creation of the Amazon Fund and the Norwegian Agreement

On June 2008, President Lula, Minister Minc, and several other ministers went to BNDES for a ceremony where two documents were signed: the Green Protocol, signed with the public banks, by which the state-owned banks committed to withholding credit to projects that led to deforestation or harm the environment; and the creation of the Amazon Fund. For them to arrive there, they had to come a long way.

The discussion with the Norwegian Government predated Minc's tenure at the Ministry. Its prime mover was Tasso Azevedo, a senior advisor to both Marina Silva and Carlos Minc. When Marina Silva left the Ministry, the idea of such a fund had stalled. When the new command-and-control operations started—with the sequestration of cattle, timber, and machinery; the foreclosures of farm areas; and the pacts for sustainable agribusiness, mining and timber trade—the opportunity to create the Amazon Fund was ripe. The Norwegian offer created the perfect opening for a final decision. An institutional fund had to be established as the destination of the money from this agreement. The impressive amount of resources offered by Norway, US\$ 1 billion, made clear to all involved in its design and development that the fund needed to be under the management of BNDES and the strategic command of the Environment Ministry. It was also clear that it required the government to have concrete results to show. The fund contained the idea of emissions reduction targets, a policy battle still to be fought and won.

Box 2: Background to the Amazon Fund and policy initiatives to reduce deforestation

On the domestic front, four factors help to explain how the Amazon Fund was created, evolving from a 'non-starter', 'not-an-option' official position, to an actual policy instrument.

1. The first factor was a compelling scientific case for action on deforestation and forest conservation as a relevant element in the effort to mitigate global warming. As several sources pointed out, there was strong and already extensive scientific evidence of the effects of deforestation on both the regional and the global climate. Studies from academia and from science-based think tanks, such as IPAM and *Imazon*, published in high visibility journals, such as *Science* and *Nature*, had significant repercussions on the media, and a considerable political influence on the debate of ideas regarding deforestation reduction and forest conservation.
2. The second factor was a stronger and better-organized alliance of institutions from the Brazilian Amazon, particularly social movements, demanding that reduction of deforestation be addressed at least under the Climate Convention. To have any influence in the multilateral arena, this alliance had to mobilize informed opinion domestically.
3. The third factor was a domestic political driver or "political will," as one of the leading agents of this ideological shift has called it. Marina Silva, as Environment Minister, started to promote inter-ministerial meetings to discuss new ideas on reduction of deforestation and forest conservation. The first effect of these open, democratic discussions joining together government officials with policy-making power, independent think tanks, and NGOs, was to correct the interpretation shared by both the Environment and Science and Technology ministries that reduction of deforestation was a way for developed countries to evade their primary responsibilities to reduce emissions. These meetings represented the first real opportunity for forest experts and researchers to show the real nature and scope of the problem, as well as the solutions they had been advocating.
4. Finally, the fourth factor was President Lula's growing sensitivity to the risks and opportunities posed by deforestation to Brazilian international reputation. Since his trip to the US and Europe as president-elect in 2002, Lula sensed that Amazon deforestation, in particular, and environment and climate change, in general, had become a global issue. This awareness led him to announce Marina Silva as his first appointee to the cabinet, as Environment Minister, while still in the US. The announcement was widely reported by the media both internationally and domestically, because of Marina Silva's history as an activist since the times of Chico Mendes* in favor of the Amazon forest and its peoples, both indigenous and traditional, mainly the extractive communities such as the rubber gatherers.

These factors were the pillars on which the whole edifice of policy initiatives that led to the creation of the Amazon Fund was built. The Fund basically incorporated all the ideas that had been developed since Moutinho and Santilli's 2003 paper, and on a book launched by IPAM with the presence of Minister Marina Silva and Foreign Ministry's representatives at COP11 in Canada in 2005. From then on, the process moved very swiftly towards the completion of the Amazon Fund, and the bilateral negotiations for the agreement with the Norwegian government.

* Chico Mendes was a rubber-gatherer and union leader of rubber-gatherers, shot dead on December 1988.

But there was internal opposition to giving the Environment Ministry strategic control of the Fund. Mangabeira Unger, Minister-in-Chief of the Secretary for Strategic Affairs, supported by Minister Dilma Rousseff, competed with Minister Carlos Minc for the design and control of the Amazon Fund. Minister Unger had a concept that entirely spoiled the main idea behind the Fund. His plan was to use the Fund to invest in development projects for the Amazon, none of which were truly sustainable. President Lula called Luciano Coutinho, CEO of BNDES, to discuss the competing ideas for the Fund. Coutinho concluded that the Environment Ministry's concept was the most appropriate design for the purposes of the

Amazon Fund. Besides, it was this design that had been negotiated with the government of Norway.

The Amazon Fund was technically, ideologically, and politically a project nurtured during Marina Silva's term. Carlos Minc always acknowledged that his role was essentially to persuade President Lula to move forward with the idea and to emphasize that the concept advocated by Minister Mangabeira Unger would be counter to the set of ideas that originally led to the Fund and the agreement with Norway. President Lula was finally persuaded, allowing the ceremony at BNDES on June 2008 to be possible. There, he signed the Bank's Green Protocol and the Amazon Fund. After President Lula signed the decree creating the Amazon Fund under the chairmanship of the Environment Ministry, Minister Minc began discussing with Tasso Azevedo the next step: how to demonstrate that Brazil was the first emerging country to have a national climate policy.

What Brazil had to show, and what had attracted the attention of the Norwegian government was prior concrete and significant results, that is, evidence of successful reduction of deforestation and a program with quantified goals to further reduce deforestation. The Environment Ministry was also trying to change Brazil's position at the negotiations towards a new climate change agreement, with the support of other areas of the government. All of these developments helped to close the deal for the agreement. The creation of the Amazon Fund, catalyzed by the Norwegian offer, and the subsequent decisions that made clear Brazil's resolve to reduce emissions from deforestation, paved the way for the final steps towards the official bilateral agreement.

On September 2008, Brazil and Norway signed the Memorandum of Understanding that gave the bilateral legal basis for the donation to support emissions reduction through reduced deforestation. Once signed, the agreement with Norway showed Minister Dilma Rousseff that not only did Brazil not have to make any sacrifices to economic growth to reduce emissions because its power grid did not depend on fossil fuels, but it could also accrue substantial gains from a consistent policy of reduced deforestation. In the end, it wasn't the strongest argument that helped to win the policy battle to approve the climate change bill and persuade President Lula to make a pledge to reduce emissions (basically from deforestation) in Copenhagen, "but it was an argument that, within the political context of those tense and frantic days, had its weight," said a top policy-maker. This would still take several months to happen, and would require a hard fought battle with the opponents of emissions targets at the top echelons of the government.

The Copenhagen factor: Brazil adopts emissions targets

Another important issue related to both the policies on reduction of deforestation and the Amazon Fund was the preparation for COP15 of the UNFCCC in Copenhagen. Ministry Minc started an ongoing conversation with President Lula and Minister Dilma trying to persuade them to pledge targets for reduction of emissions in Copenhagen. It was a very tense dialogue at the beginning. Neither wanted to talk about targets. Both resisted even discussing the idea. The opposition at Itamaraty, the Foreign Affairs Ministry, was also absolute. All opposed the idea ideologically, dominated by nationalistic principles.

Itamaraty was convinced, and in turn persuaded President Lula, that having targets was unacceptable because that would imply subordinating the national interest to an international agreement that served the interests of developed countries. It would be a violation of the principle of common but differentiated responsibilities. Emerging and developing countries considered this principle to be their safeguard against encroachment by developed countries to shift the burden of limiting carbon emissions from the rich countries to the poor. The main thesis was that rich countries had created the problem with their emissions, and now wanted to limit the growth of emerging and developing countries to mitigate climate change.

Minister Dilma's problem also had an economic root. She was convinced that any targets would hinder economic growth, no matter their political origin. The argument of the Environment Ministry in these preparatory meetings was that China and India did have a limit to growth problem regarding targets, because they relied heavily on coal to generate power. But that was not the case for Brazil, because almost 80% of Brazilian emissions came from deforestation. Brazil was already reducing deforestation of its own free will. Why not design targets for emissions reduction based on reduction of deforestation?

President Lula kept objecting ideologically, but the global momentum the issue was getting as world leaders braced for Copenhagen already impressed him. Minister Dilma Rousseff kept her economic objections unmoved. Minister Carlos Minc and his team argued that Brazil could reduce emissions through reduction of deforestation, instead of closing coal-fired power plants, like China or India. Brazil already had important achievements to show, and yet a lot more to do, on reducing deforestation.

At the beginning of 2009, President Lula started his participation in meetings of world leaders to discuss the Copenhagen Climate Summit. He became aware that he needed some policy that he could present at COP15, one that was feasible, with no strings attached, no

conditionality, no external auditing. Minister Dilma was already the government's presidential candidate-to-be. She would only approve ideas that did not impose any restrictions on economic growth. Deforestation provided an opportunity to have emissions reduction targets, without either committing to targets that would require unbearable sacrifice or impair economic growth. By the end of the year, when President Lula was preparing his travel to France to meet with President Sarkozy and work on a joint statement to make in Copenhagen, the main issue of whether or not Brazil would adopt emissions targets was still unresolved.

The president convened successive meetings with several ministers and top government officials during which two blocs were formed: a bloc defending emissions targets to make a pledge in Copenhagen, led by the Environment Minister and his team, with the surprising support of the Agriculture Minister and his team, who were mostly experts and scientists from Embrapa³³; and another bloc led by the Itamaraty and the 'Gabinete Civil', who strongly opposed the idea. The team from the Ministry of Science and Technology was divided. Representatives of INPE, the space research agency, aligned themselves with the bloc led by the Environment. The ministers' advisors that were active on climate change negotiations at the COPs, and in charge of the Clean Development Mechanism (CDM)³⁴ projects aligned with the bloc opposing targets. The decision to have targets and make a pledge in Copenhagen was only made after four dramatic meetings, marked by tough talking among the ministers and officials of the two opposing blocs. President Lula showed impatience at several points during these hot, deadlocked discussions.

On Wednesday, November 12, 2009, they held their final meeting. President Lula would leave for France within a few hours and needed a decision. Ministers Carlos Minc and Dilma Rousseff had a direct and heated confrontation in the presence of President Lula, Ministers Sérgio Rezende of Science and Technology, Franklin Martins of Social Communication (a very close political advisor to the President), Reinhold Stephanes of Agriculture, and Ambassador Luiz Alberto Figueiredo, Brazil's chief climate change negotiator. Minister Sérgio Rezende, however, had already solved his team's division simply by excluding his advisors and taking only INPE's scientists along with him to the meeting. Gilberto Câmara,

³³ Embrapa, the Brazilian Federal Company for Agricultural Research, has a highly qualified team of agroclimatologists, agricultural scientists, biologists, highly skilled geneticists. Some of them were working on a high-quality plan for a low-carbon agriculture, and persuaded the Agriculture Minister that the Brazilian agribusiness had great opportunities on a low-carbon economy and an enormous capacity to make sustainable gains of competitiveness and productivity, thus strongly contributing to reduce deforestation.

³⁴ Kyoto Protocol's Clean Development Mechanism.

INPE's president, had played an active part in the targets' simulations and helped to explain them to President Lula.

The President finally called for a consensus. And, with the shift of position from Science and Technology, combined with some mediation from Minister Martins and Ambassador Figueiredo, a decision was finally made, in favor of Brazil making a quantified pledge to reduce emissions in Copenhagen. Thus the National Policy for Climate Change was born. It would become a law a few months later. The acceptance of emissions targets was an ideological and political paradigm shift. It also completed the ideological paradigm shift that led to the acceptance of results-based payments for reduction of emissions from deforestation and, ultimately, to the creation of the Amazon Fund.³⁵ The two paths finally fully converged.

V. Phase 4, and Looking Ahead

Ever since deforestation dropped from around 27,000 km² to about 5,000 km² in less than a decade, the Amazon has been experiencing a new reality. It was a period of heated confrontation around conflicting ideas about reduction of deforestation and reduction of carbon emissions, a decade marked by intense land conflict, murder of popular environmental and indigenous leaders, of political struggle over Brazil's path to the 21st century. The Amazon region has now entered Phase 4 regarding the pattern of economic and social forcing around deforestation.

³⁵ The complete account of these dramatic negotiations, marked by tough confrontations within the government, almost a preview of the environment charged of emotions and distrust of the Copenhagen Summit can be found in Sérgio Abranches – **Copenhagen Antes e Depois**, Civilização Brasileira, Rio de Janeiro, 2010.

Phase 4, marked by the beginning of President Dilma Rousseff's administration, is a period characterized by a relative relaxation of environment policies and forest protection. Its structural features are a clear result of the achievements obtained in Phases 2 and 3. An important but troublesome feature of Phase 4 is that it is dominated by a narrative of growth-seeking as the overriding purpose of economic policy, which has recently justified reducing the territory of Conservation Units, and licensing activities, with a high negative environmental impact on indigenous lands. The national interest, narrowly defined by the government, has prevailed over regional and local interests.

The present political alignment of forces is adversarial to a model designed for the autonomous development of the Amazon for and by itself, obviously with capital and investment from everywhere. Such a model would also serve the nation's quest for development, wellbeing and sustainability, while locally developing the potential value of the region's bioresources, adopting science and technology to fully unleash this potential. Such a narrative would be at odds with the dominant one, championed by the president herself.

In this present phase, the Amazon region is entering uncharted waters. Although the situation has shifted to a low deforestation rate, under 6,000 km² per year, it isn't clear that it can be sustained in the long run. New axes have become the structuring forces of the social and economic dynamics: construction of large hydropower plants, road-building, oil and gas exploitation, and mining. These are all large-scale projects, but demand far less land than logging and timber, cattle raising, or soybean plantations. Nevertheless, their footprint over the forest can be very large and their reach is still unknown and unverified.

Such projects are strongly influenced by the federal government's policies and choices, particularly the first three. All are regulated activities, and are either performed by state-owned companies or through government concessions. Most of them benefit from government subsidies. The expansion of these activities and their correlates – such as steel production, pipelines, transmission lines, railway ore transport – do follow the federal government's development narrative that sees the use of Amazon resources as a necessary condition for growth in other regions. Although low deforestation is a desirable outcome, the conservation of the forest is not given priority, and the interests of indigenous and traditional communities are subordinated to the interests of national development. This narrative is less authoritarian than the previous one conceived by the military, but it falls short of being democratic and participatory and has several points in common with the former.

The trouble with this narrative – and the plans and programs it inspires – is that it points to the replication of the productive model that guided the development of the southern, southeastern, and presently the midwestern regions of Brazil. This model has well-known characteristics: it is based on traditional manufacturing industry, and metallic and agricultural commodities; it is a high-carbon model; it has destroyed 93% of the Atlantic rainforest, and is destroying the Savannah (Cerrado) at a fast pace, with about 45% having already been cleared; and it has no incentive for recovery of forest cover. It is based on highly centralized, one-size-fits-all solutions; it creates a larger proportion of low-quality, low-qualification jobs over high-quality, high-qualification ones; it demands a low educational level for the workforce. In short, it is a model that has no place in the 21st Century low-carbon, service-centered, high productivity, high tech, knowledge-based networked society.

A lesser, but by no means negligible, deforestation vector is INCRA's³⁶ agrarian reform settlements and small cattle ranches selling beef for small local slaughterhouses.³⁷ They have both escaped the command-and-control actions, but satellite images show they are areas of significant deforestation and forest degradation. Only very recently has INCRA, the federal agency in charge of agrarian reform that oversees the settlements, started a policy of “green settlements”. But it has very few concrete results to show so far. Small ranchers and local slaughterhouses are outside the main beef supply chains controlled by the large wholesalers and supermarkets that are adopting new procurement criteria to avoid buying cattle raised in illegally cleared land. They have to be locally controlled and repressed.

A new narrative for the future of the Amazon

The pattern of deforestation has changed. Now deforestation is either small scale and concentrated on settlements and small properties, or it is the result of uncontrolled land occupation driven by public works. In general, mining and oil and gas ventures have little inducement force and thus very low, if any, indirect deforestation effects.

³⁶ INCRA - National Institute for Colonization and Agrarian Reform, responsible for agrarian reform settlements in the Amazon.

³⁷ These small cattle raisers can also sell cattle to larger meatpackers.

This low-deforestation pattern has significantly changed the Brazilian pattern of carbon emissions, as Figure 3 shows. Deforestation represented about 60% of emissions at the beginning of Phase 2. In 2010, the date of the last estimates, it was 22%.³⁸ Yet the estimates that were used to justify the targets were based on the 1995 estimates, and they showed deforestation to represent 75% of total emissions.

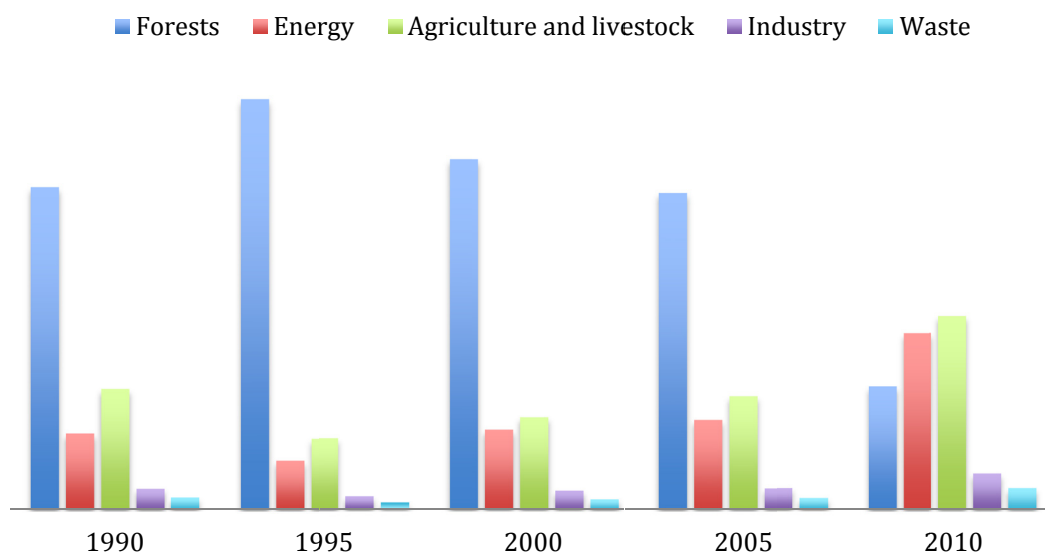


Figure 3: Brazilian Emissions by Sectors in Thousands of Tons of CO2 Equivalent 2010 - Gg CO2eq. Source: MCT - Ministry of Science and Technology

The policies devised for Phases 1, 2, and 3 are basically useless to contain this new pattern of deforestation, and the policies to achieve emissions reduction from deforestation alone are also unsuitable. Emissions reduction now will have to focus on energy and agriculture, which together accounted for 67% of total Brazilian 2010 carbon emissions. There are tools in place that could allow the government to have a positive impact, similar to the one obtained with the policy innovations of Phase 2. These tools, however—development of sustainable productive activities, land use regularization, zoning, and planning—have not yet yielded relevant results in spite of being listed as priority actions in every program implemented on the Amazon region to date, from PPG7 to PPCDAM.

Current and short-term political difficulties should not, however, prevent experts, companies, communities, philanthropic organizations, think tanks, NGOs and other actors of civil

³⁸ New estimates. Cf. Ministério da Ciência e Tecnologia, Estimativas Anuais das Emissões de Gases de Efeito Estufa no Brasil, Brasília, 2013: http://www.mct.gov.br/upd_blob/0228/228468.pdf

society from looking for a new narrative for a sustainable, and preferably self-sustained Amazon. There already are some general outlines, partial narratives, and tentative models that would fit a broader, more persuasive and mobilizing narrative for the development of the Amazon by itself and for itself. The lack of a narrative as complete, encompassing, and compelling as the growth-seeking, centralizing one makes the Amazon vulnerable to further “occupation”, and hinders the design of plans and programs necessary for the take-off of a new model of sustainable development. The Amazon has the potential to become a wealthy bio-industrial, bio-scientific, and bio-technological global hub in the 21st Century. It could be a growth pole built around high tech and scientific activities, productively interacting with autonomous, mostly self-sustained traditional communities, all in harmony with the forest in a zero-deforestation model.

At the macro level, the Amazon needs a new development narrative. This new model would bring together small scale agricultural production, traditional extractive activities, large scale sustainable beef and soybean supply chains, and new high-tech activities that explore the immense local biodiversity, while helping to protect the forest. This narrative is still lacking some of its main components: its ‘plot’ is still incomplete and requires a new wave of policy innovations and biotech and bioindustrial projects; the finance for the new investment required has not been sufficiently discussed; and several ‘actors’ are still lacking, such as entrepreneurial leaders, venture capital investors, scientists, and lab technicians. The ‘stage’ for playing this narrative is also absent: high quality schools, at all levels, up to graduate schools; research centers; and the whole infrastructure for a high-tech, low-carbon, zero-deforestation regional economy that is nationally and globally integrated.

At the micro level, the Amazon needs to review the role and organization of INCRA’s settlements and help small proprietors use the tools that could enable them to enter legal, formal and large scale sustainable supply chains. At this level, perhaps the Amazon Fund can have a more active and aggressive role. To accomplish that, says one of the experts interviewed who is very much involved with this type of activity, there are still some problems with BNDES that must be resolved. BNDES didn’t know — its people are still in the process of learning — how to interpret the projects’ aim. They don’t have the experience of managing funds with no rates of return and no collateral. They don’t understand the logic of not being reimbursed for what is financed.

The Fund’s operational guidelines and policy directives will require some adjustment to take into account the first stage of operation, the results of the projects so far financed, and the

need for a broader view of its role in the Amazon. It will also be necessary to review approval procedures in order to lower barriers to entry presented by the opportunity cost and the intricate path around bureaucratic procedures, more akin to credit operations than to grants-in-aid or results-based payments. This review would ensure access to the Fund for those who do not have the accumulated organizational resources and knowledge to move through the bureaucratic meanders now in place. This review should also take into account the imperative requirement to keep the Fund shielded from political clientelism, the main reason why BNDES was considered its ideal host.

In spite of all these difficulties, there has been some progress. The Fund could be a financial source to support small-scale sustainable activities, green municipalities, and green settlements. One expert argues that the Amazon Fund could also be the destination of compensation paid for the environmental impact of the large hydropower plants. Results-based finance projects to promote sustainable smaller scale, upstream activities of large and admissible supply chains could be an answer to this micro-level part of the new narrative for the Amazon development. All of the local projects— the Green Municipalities program, the Green Settlements program, and other small-scale sustainable productive projects— lack an adequate level of finance and incentives.

Phase 4 might well be a transitional phase to be replaced by a Phase 5 that is based on a narrative of sustainable development, zero net deforestation, and improved wellbeing. The alignment of political forces can possibly change with the October 2014 presidential election, irrespective of its results. But the shift from a growth-based model to a sustainable development model for the Amazon will still require that, at the very least, the framework of a sustainable Amazon narrative is available.

VI. Concluding remarks

The Brazilian government, and most of the civil society movement, opposed the notion of reducing emissions through deforestation for a long time. The acceptance of the concept depended on developments along two different paths: the ideological, i.e., the dissemination and legitimation of ideas, and the political, i.e., the change in the alignment of forces among political actors and the adoption of policies that led to the reduction of the political costs of using REDD+ as a means to reduce emissions and control deforestation.

This essay shows that deforestation reduction policies emerged in response to an outcry against unprecedented and very dangerous deforestation levels, first at the beginning of

President Cardoso's administration and, as a recurrence, at the beginning of President Lula's administration. A long and rich process of ideological debate, initially during the Climate Convention side events and later in the Working Group's discussions, led to the gradual development of innovative ideas that eventually led to the Amazon Fund. At the same time, an intense political process was triggered by strong anti-deforestation actions, namely the creation of an unprecedented number of Conservation Units in the Amazon, protecting more than 50 million acres of pristine forest. The constitutional clause mandating the enclosure and protection of indigenous land was first implemented with Cardoso's government and later gained momentum during the Lula Administration with Marina Silva and Carlos Minc. The creation of the Amazon Fund, and the simultaneous agreement with the government of Norway confirmed and legitimized the paradigm shift that led to the adoption of REDD+ domestically.

The development of deforestation reduction policies was not devoid of conflict and opposition. Both on its ideological path and its political path, there were fierce battles. Those supporting the novel ideas and policies had to face strong opponents in the federal bureaucracy, in the Amazon region's economic system, and in nationally organized interests representing the more conservative forces in the agricultural and cattle-breeding markets. There was intense political competition inside the government, and the sectors defending a policy of extensive economic use of the Amazon resources over science-based conservation, economic zoning and sustainable activities have never totally receded. They are still active and becoming more powerful again at present. Global allies, and stronger global coalitions, may be needed to put deforestation reduction policies in place again and to resume the enclosure and protection of indigenous lands and the creation of identified Conservation Units that are clearly strategic to completing the task of shielding the Amazon forest and moving towards net zero deforestation.

VII. Timeline of Events

- 1993 PPG7 Pilot Program to Conserve the Brazilian Rainforest
- 1996 Fernando Henrique Cardoso signs bill raising binding legal reserve in the Amazon from 50% to 80% on all forest land
- 1997 Brazil opposes inclusion of deforestation in Kyoto protocol

- 2000 The “Letter from Belém” asking that forests be included under the Climate Convention legal framework
- 2000 IPAM sponsored side event at COP6 in The Hague, Holland, questioning why the Kyoto Protocol did not admit forests as a source for carbon credits
- 2001 COP7 in Marrakech, the Marrakech Accords are drafted creating the Clean Development Mechanism, and including forestry projects (commercial forest plantation) as one of the mechanisms, but not reduction of deforestation
- 2002 CITES meeting, Santiago, Chile COP plenary decides to include Amazon mahogany on Annex 2 of CITES
- 2003 Lula elected; civil society opposes international carbon markets
- 2003 Marina Silva appointed as President Lula’s Environment Minister
- 2003 Deforestation in the Amazon starts to rise signaling a strong upward trend
- 2003 COP9 in Milan, the Amazon coalition launches the idea of compensation for reduced deforestation on a side event about RED with the presence of representatives of the Brazilian government (draft of Paulo Moutinho and Márcio Santilli paper)
- 2003 Congress creates the Brazilian Forestry Service (Serviço Florestal Brasileiro)
- 2003 Fundo DEMA (DEMA Fund) created through a donation of 6,000 illegally logged Amazon mahogany trunks to Amazon NGOs
- 2004 PPCDAM (Action Plan to Prevent and Control Deforestation in the Brazilian Amazon) launched
- 2004 DETER system starts operations
- 2005 Dorothy Stang was murdered
- 2005 Curupira Operation against corruption in IBAMA starts

- 2005 9.2 million acres of federal Conservation Units created in the Amazon
- 2005 Paulo Moutinho and Márcio Santilli seminal paper is published
- 2005 COP11, in Montréal, Marrakech Accords and other outstanding operational details of the Kyoto Protocol are approved at MOP1 (Meeting of the Parties to the Kyoto Protocol), and the Protocol is finally launched; plenary of COP11 (Conference of the Parties to the Climate Convention) approves inclusion of reduction of deforestation in the Climate Convention (Costa Rica and Papua New Guinea's proposal)
- 2006 27.7 million acres of federal Conservation Units created in the Amazon
- 2006 COP12, Nairobi, Brazil presents "View on Reduction of Deforestation" with the general principles for the RED mechanism; Parties propose RED to include forest degradation, becoming REDD+
- 2006 Deforestation upward trend is reverted and a significant downward trend begins
- 2007 COP13, Bali, Indonesia, REDD+, with the additional "D" approved with a yeah vote from Brazil; Norway presents her plan to invest in reduction of emissions from deforestation; Brazil presents the Prototype of the Amazon Fund; Norway states her intention to support the Amazon Fund once formalized
- 2007 Deforestation rates increase again
- 2008 President Lula signs decree determining that official credit be withheld for projects in deforestation areas, and for municipalities with large deforestation rates; the decree also creates the 'grey list' of high deforestation municipalities
- 2008 President Lula signs the Sustainable Amazon Plan (PAS) under the coordination of the Secretary for Strategic Affairs of the Presidency (Roberto Mangabeira Unger is the Secretary)
- 2008 Marina Silva resigns; Carlos Minc becomes new Environment Minister
- 2008 the Amazon Fund created; agreement with Norway announced

- 2008 Operation Arc of Fire begins a series of strong command-and-control actions against illegal logging in the Amazon
- 2008 13.6 million acres of new federal Conservation Units are created in the Amazon; Minc presents the new units at COP9 of the Convention on Biological Diversity, on Bonn, Germany to offset the international impact of Marina Silva's resignation
- 2009 President Lula participates of several meetings of world leaders in preparation for COP15 in Copenhagen
- 2009 National policy on climate change
- 2009 COP15, Copenhagen, Denmark, Brazil (and several other major countries) makes her first pledge ever for reduction of GHG emissions, centered on reduction of emissions from deforestation
- 2010 Various government commitments to REDD+
- 2011 Dilma Rousseff inaugurated as 36th President of Brazil
- Revision of Forest Code with new and weaker rules on riparian vegetation, and protection of water sources. It also gives amnesty from fines and other sanctions to those who deforested before 2008. Its enforcement depended on an enabling decree President Rousseff signed early in 2014. With the enabling decree on CAR, the Environment and Rural Registry will become mandatory from 2015 onwards to all rural proprietors except small landowners.