CHAPTER IV

ENVIRONMENTAL POLICIES AND PROGRAMMES
UNDER PRESIDENT CARDOSO, 1995-2002
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Economic Liberalisation and Environment

The unique predicament into which Brazil had slipped urged it to develop economically and develop using the environment sustainably. For Brazil debt was mounting and this needed to be addressed using whatever natural resources they had at their disposal. The lenders and the developed countries, which helped them with aids, doled out prescriptions to restructure their economies and usher in the process of economic globalisation. Known as the structural adjustment programme, this became the pivot of all economic policy-making thereafter. The importance of environment in the neo-liberal strategy of development is reflected in the emphasis on adopting cleaner technologies and providing certification based on the adoption of environment-friendly techniques at every stage of industrial production. Erecting trade barriers were one way of enforcing compliance with respect to the use of environmental-friendly practices. All this compelled the government to adopt environmental thinking of the neo-liberal forces.

It would be befitting to give a brief background of the reason for adoption of neo-liberal policy. The curbing of inflation and revival of economic growth rates in the 1990s allowed president Fernando Henrique Cardoso (1995-2002) to make environmental protection a more viable political option. As economy made a turn around, although growth rates were still low, real wages began to increase after 1994; and had by 1996 increased as much as 25 per cent. The slight improvement in the living conditions of the very poor had a positive impact on environment. Governmental perception and policies towards environment, which had represented mainly a continuation of the policies of military period, also began to undergo major

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changes. As the government paced up the process of economic liberalisation, seeking more foreign investment and further opening the domestic market to imports, privatisation of state enterprises also went hand in hand. Major state enterprises that were privatised included telecommunications, electric power, oil, mining and petrochemicals. In consequence of Cardoso's policies, Brazil had by 1996, a foreign exchange reserve of $ 59 billion. Reform of the public sector also included rearrangement of the role of state and its various capacities. 3 Things started looking better, at least, on the economic front.

As economy revived, there was a new confidence in the government's policies, sustained to an extent by an artificially high valuation for the national currency, the Real. Imports were cheap, wages were up but the country was still depending on borrowing at high interest rates. Cardoso had tried to get the congress raise taxes and cut spending, but it was hard to create a sense of urgency when everything seemed to be going well. There was a need felt to lower the value of the Real also, but the president and his economic advisors were reluctant to do so for the fear of re-igniting the inflation, besides hurting the chances for his re-election in 1998. In the wake of the Russian currency crisis in 1998, Brazil was finally forced to devalue its currency in 1999. This helped revive the growth rate, though artificially. In the eight years between 1995 and until 2002, Cardoso introduced five major structural reforms in the economy that revitalised the fiscal position of the states and the municipalities; carried forward the privatisation programme; affected the social welfare schemes; reformed the financial system; and, revised the budgetary process.

The high rate of inflation throughout the 1980s and the devaluation of the currency, including the one in 1999, had their own impact on land proprietorship in the rural areas and environmental protection programmes in the Amazon. During the period of high inflation, Brazilians had tended to invest in land whose value was kept high through speculation. Since agriculture was tax free, businessmen would buy

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3 Cardoso was elected to the Brazilian senate for the first time from the state of Sao Paulo in 1986 and two years later helped to institute the Social Democratic party. He later served from 1992 to 1993 as Brazil's Foreign Minister. He went on to become the Finance Minister in 1993 and was credited with successfully controlling inflation and turning the troubled Brazilian economy around.
farmland in order to escape taxation. As businessmen and the speculators bought large tracts of agricultural lands, the small farmers were pushed into the Amazon to buy the cheap land available there or were forced to squat on the public lands. Landowners and land speculators owned huge tracts of lands who used them for cultivation of cash crops or who simply transformed them into pastures. On the other hand, small farmers continued to practise slash-and-burn methods to move further into the Amazon.

As a result, the best land was not cultivated because it was not bought for farming; while small farmers were pushed further into the Amazon as they had no legal rights to the tract of land they were cultivating. Such a pattern of land ownership and cultivation contributed directly to deforestation; and worst, loss of fertility of lands in the Amazon. Given the unsuitability of forestlands for any intensive farming, the expansion of agriculture in the 1990s was achieved by clearing of more forest for lands to be continually brought under cultivation. Rapid fall in land productivity was compensated by continual deforestation and itinerant agriculture. This also had an impact on the pattern of landownership in the Amazon.

With a social democrat as president, it was hoped that Cardoso, while carrying on the policies of economic liberalisation and globalisation, would pay attention to the pressing social and environmental issues. It was hoped that the president would adopt a moderate pragmatic course and work out social safety net to negotiate the rigours of economic liberalisation and globalisation. By mid-1990s, the vestiges of military’s political influence had declined, and with political party activities in full swing both within the congress and outside, it was hoped that the government would pay attention and formulate policies of social welfare and environmental protection. The revival of economic growth rates had also aroused popular expectations about policies that would generate employment, and restore basic amenities in urban and rural areas.

On issues related to environment, Cardoso had been outspoken and had taken a strong pro-environment stance during his election campaign in 1994. In office, the

president took several initiatives issuing decrees and got several laws passed in the congress, which all made Brazil one of the more progressive countries in terms of environmental laws and programmes. Departing from the past, Brazil also began taking an active position on international environmental issues and became an active participant in summits on deforestation, bio-diversity, etc.

**Economic Liberalisation and the Development of the Amazon**

In the 1990s, the influence of domestic and international economic forces gained perceptible influence over both the economic development process and conservation programmes. Environmental policies and programmes had to be set in the context of economic liberalisation and globalisation. Both the domestic and international economic actors had become more decisive in the making and success of economic development strategies; besides, Brazil, like other Latin American countries, had become even more deeply involved in the global market for natural resources. This included, in principle, the resources of the Amazon; and called for a new approach towards exploitation and conservation of resources including forests. This situation was different from the past, when the developmentalist state had decided the resource-use policy for the Amazon. This implied that conservation programmes would be continually challenged by the imperatives of new economic development strategies. As described subsequently, many of the environmental initiatives in the Amazon did produce positive results, while many others remained largely inoperable or were simply abandoned for the sake of reckless exploitation of forests and its resources.

There had to be some initiative to incorporate Amazon into the state-led development strategy of the civilian government. The tilt towards environmentalism in Cardoso's regime can be gauged from his multi-pronged efforts. The development and conservation schemes in the Amazon came to depend on a range of international and national treaties, e.g. implementation of Convention on Biological Diversity--CBD, the Pilot Programme of Group of Seven--PPG7, which aimed to bring broad international support for resource management programmes, the modernization of
Brazil's environmental protection agency, the Instituto Brasileiro do Meio Ambiente e dos Recursos Renovaveis (Brazilian Institute of the Environment and Renewable Resources--IBAMA), alternate development proposal based on World Wildlife Fund--WWF's Amazon eco-regions were all part of Cardoso's initiative.

Cardoso's major initiatives towards environment protection and Amazon development are far too many. Some yielded positive results whereas some remained rhetorical and only were laid to appease the affected interests. It would be ideal to separate some of the social issues that had direct bearing on the development of Amazon. Listed below are some of the initiatives that were undertaken to address problems of the landless and the rights of the indigenous people and in the arena of law to bolster the movements for rights of the landless and the indigenous people.

(i) The Question of Land Reform and the Emergence of the Landless Workers Movement (MST)

Incidentally, land in Brazil is in abundance but even then there have been conflicts related to its occupation and title. Brazil is a society characterised by a highly inequitable distribution of land. One per cent of landowners own some 46 per cent of the agricultural land. Inequalities of wealth and ownership of land has been the principal source of violence in the rural areas. With the advent of democracy, the issue of rural violence and land distribution therefore became a key political issue for the governments. To accomplish this task, unused land has to be occupied and redistributed. The idea has for long been discussed though Brazil, in reality, never had any sustained extensive programme of land distribution. The Brazilian Constitution of 1988 provided for the take-over of unutilised lands by the government and their distribution to those without land. The real problem in any land distribution decision however is not unavailability of land but unavailability of financial resources. It is

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6 Neuri Rossetto and Giane Alvares, "As Long as There Remains One Landless There will be MST", Forest, Trees and People Newsletter, No.45, November, p.35.

7 This policy was keeping in line with the military government's policy of leading 'men without land' towards 'land without men'.

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estimated that every family that would be resettled with a piece of land would require as much as US$ 20,000 in financial support.

With economic recession and external debt obligations in the 1980s, governments never had the financial resources to carry out such social reform measures. The Instituto Nacional da Colonização e Reforma Agrária (National Institute for Colonization and Agrarian Reform--INCRA), which was charged with settling landless on the lands had proved highly bureaucratic and inefficient; and spent much of its funds on salaries for staff. In its thirty years of existence, INCRA had succeeded in settling only 331,276 out of 4 million landless families. However, with Constitutional stipulations and a modest economic growth in the 1990s, the issue of land distribution resurfaced strongly. Taking advantage of the democratic transition of the government and the rise in the number of those affected by the deteriorating social conditions in the Amazon region there emerged in the 1990s a powerful grass-roots movement of the landless.

The struggle of the landless people dated back to the eighties. The landless had begun occupying agricultural land in the final year of the military regime and by 1984 it had crystallised into a national movement. Known as the Movimento dos Trabalhadores Rurais Sem Terra (Landless Rural Workers' Movement--MST), it had become one of the best organised grass-roots movement in Latin America and confronted the first civilian government of president Jose Sarney to immediately and earnestly address the issue which had for decades been coercively excluded by the military regimes.

Though the MST had been organising peasantry and rural workers since 1984, it began gaining strength and political attention in 1995, virtually forcing Cardoso government to address the issue of landlessness. The killing of ten landless workers by military police in Corumbria, in the state of Rondônia in August 1995 and of another 19 in April 1996 in Eldorado dos Carajás in the state of Pará galvanised

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national and world attention to the struggle of the MST. These two tragic events, in effect, marked a turning point in the process of conflict and negotiation between the MST and the government of president Cardoso.

As countries develop, agriculture is modernised and mechanised, using less labour. Brazil has been quite ahead in this process, having developed a highly productive commercial agricultural sector. While commercial agriculture has been oriented primarily towards export, making Brazil the second major exporter of agricultural products after US, agricultural sector also produces for domestic consumption, especially in view of the fact that urban centres have continuously expanded since the 1940s. Beside food crops such as grain and meat, coffee, sugar and soybean, etc. have also been produced for the large domestic market.

Soy became the country's top farm export and accounted for 10 per cent of trade revenues in 2003. Brazil accounts for 25 per cent of the world's soy after the United States, but should overtake its northern counterpart as the top soy producer in the next five to seven years at current growth rates. Soy became one of the cornerstone of development under Cardoso. Soybean production in the Brazilian Amazon states grew approximately 60 per cent between 1998 and 2002, making Brazil the second largest soybean exporter, and this increase in production has transformed the sector into the most serious threat to the Amazon environment, becoming the main drivers of deforestation in the region. Initially, the planting was focused in savanna in the area that the Brazilian government defines as Legal Amazonia, but which is not truly forest. But as soy prices rose, producers started pushing northward into the heart of the Amazon, especially along the 1,100-mile highway called BR 163, which links Mato Grosso city to the Amazon port of Santarém.

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Storage and port facilities were being constructed by the major soy companies in the region including ADM, Bünge Borg, Cargill, and Grupo Maggi, to make possible soy export via ports along the main channel of the Amazon River. Use of river transportation began in 2002, lowering transportation costs, and making the sector more competitive. The process of lowering transportation costs would be accelerated as all-weather roads are paved into the core of the region, connecting the soy-producing regions in southeastern Amazonia with these ports in Santarém and Itacoatiara. The Minister of the Environment-- MMA presented a balance sheet revealing that in 2002 the agricultural area in Amazonia increased to 1.1 million hectares, 70 per cent being on account of soy area, followed by corn, rice, and coffee plantations. Cardoso was very supportive of any expansion of soy farming as the rate of return was very high.

From the above discussion, it becomes clear that agricultural modernisation had been a key component of the market-oriented economic reform process under Cardoso. Among others, modernisation of agriculture and use of extensive farming was causing massive displacement of small farmers and rural workers from the countryside—many of whom either gravitated to the already over-flowing urban favelas or moved deeper into the forests. The process of economic restructuring had adversely affected the large urban population as vast sections went into the informal economy; the real opposition and resistance, however, to economic liberalisation emerged in the countryside. The MST responded to the deteriorating economic situation in the countryside and regime policies of privatisation of the agricultural sector by launching a major campaign and rural mobilisation in the early 1995. An estimated one hundred thousand peasants and agricultural workers marched to Brasilia demanding entitlement to land. The solution offered by the government was typically

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12 Blairo Maggi, the governor in the state of Mato Grosso, elected in 2002 from the Popular Socialist Party, repeatedly dismissed any concerns about deforestation. Mr. Maggi, and his family own one of Brazil's largest soy producing company, the Grupo Maggi. The Soybean King, as the Brazilian press is fond of calling him, advocates soybeans as an engine of growth and development in the Amazon. In fact, Mr. Maggi called for nearly tripling the area planted with soybeans during the next decade in Mato Grosso, whose name means dense jungle. His own company, Grupo Maggi, announced in 2003 that it intended to double the area it has in production.

13 Located 177 km from Manaus on the Amazon River in the northern State of Amazonas.
a neo-liberal one. For the government the production of food and agricultural exports, both of which had increased in the wake of agricultural modernisation was not the problem. Therefore, the government first attempted to co-opt the MST on to its modernisation scheme by offering a quota on land recipients. The idea was to disarticulate and eventually demobilise the movement. For the MST, what the government offered was no solution; for it the main problem was that the modernisation process displaced a large number of small farmers and agricultural labourers.

The MST entered into negotiations but insisted that it could not agree to stop occupations of unproductive lands. In fact in 1996, it went with high speed into land occupation of a sort of records. MST’s land occupation strategy combined legal constitutional tactics. It relied on constitutional clauses calling for the state to expropriate uncultivated land; redistribute land to the landless rural labour force; and finance new rural settlements. By taking recourse to the constitutional provisions, MST was also able to garner support in the urban areas, with many political parties and leaders lending support to its demands.

The MST’s strategy was to provoke a crisis that would make the government abandon support to large-scale commercial agriculture altogether. Its activists had begun confiscating all farms over one thousand hectares including the highly productive ones, with a view to redistribute society’s wealth to the poor. As a fall-out, the Cardoso government did attempt to accelerate the process of settling poor on the occupied land. In the first seven years of Cardoso’s administration, 565,000 families were settled on 4,275 projects, more than twice as many as in the preceding thirty years.¹⁴

In 1997, a new mass Movement of Small Farmers—MPA emerged. The MPA followed the action tactics of the MST. Simultaneously, in August 1999 over 15,000 indebted farmers demonstrated in Brasilia demanding forgiveness of 40 to 60 per cent

¹⁴ Land statistics from Cardoso, Mensagem ao Congresso Nacional, p. 195.
of their debts. Cardoso was not ready to accept the proposal. Two weeks later, the farmers joined in another protest. Faced with state intransigence, the MST together with MPA, bringing it into the mainstream turned towards building politico-social coalitions with urban movements and intellectuals through a national political campaign for alternative development—the Consulta Popular.

A World Bank-prescribed scheme to create a market agrarian reform was also introduced during Cardoso’s presidency. The World Bank planned to provide $1 billion to create a Banco da Terra (land bank) in 1999.

The federal government shifted funds amounting to one million dollar from INCRA to the newly established ‘land bank’. INCRA’s budget was reduced by 53 percent—from 1.9 billion to one billion Real. The ‘land bank’ would purchase land from large landowners and sell it to farmers who had the potential to obtain sufficient credit to farm it. This meant that peasant land squatters had no more access to funds to farm the uncultivated land that they occupied. The criticism to this scheme came from apprehensions that the Brazilian farm workers were never consulted about the creation of the Cedula da Terra project. The negotiations included only World Bank representatives and the Brazilian government. The conditions offered by the World Bank—such as high interest rates—would make it impossible for landless farmers to pay back their loans and these farmers will lose their land.

Cardoso was not greatly concerned about the MST’s radical rhetoric; for the government the movement was historically out of place. The land reform, the MST had wanted, was a nineteenth century demand in a twenty-first century world. With agricultural modernisation an imperative, more so as Brazil was relying so heavily on agricultural exports, a land redistribution programme would not have solved any problem. With prospects of a liberalised global trade in agriculture, land redistribution would not have helped the poor peasants and agricultural workers. Government’s view was that to make a decent living from farming requires not only land, but also technical and managerial skills, and financial resources. This was becoming evident as

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15 Petras, n. 4, p. 4.
many of those whom MST had settled on land failed to cultivate them profitably. Cardoso’s idea was to put land reform on a more viable financial basis; and, in 1999, he succeeded in getting a new agrarian reform programme passed by the congress, which allowed transfer of financial and technical resources from INCRA to the new ‘land bank’ programme.

Cardoso initiated another policy measure to check land grabbing, called *grilagem* in Brazil. It had been a simple practice of moving into public lands and claiming title to them, with the collusion of corrupt property registration officials. To check the notorious practices of land grabbing, the government began a process of computerising and regularising the land registration procedures. In 1999, about 3,065 rural land holdings of over ten thousand hectares in size were registered. About 6.3 million hectares of land fraudulently occupied and registered was cancelled. This covered an area equivalent to approximately 7.5 per cent of the entire national territory. In the process, Brazil’s so-called largest landowner who, it is said, had registered a territory amounting to 1.5 per cent of national territory in his name was arrested in Manaus, the major city in the interior of the Brazilian Amazon.16

(ii) *Indigenous Peoples' Rights and the Democratic Process*

The 1988 Constitution not only recognises and guarantees rights to the indigenous communities, which were never before acknowledged in the previous constitutions or policies; it also provides for the creation of indigenous peoples' organisations at local and regional levels.17 Article 231 recognises both the cultural and territorial rights of indigenous people based on their traditional heritage. It establishes their right to permanently live on their traditional territories including the exclusive use of the natural resources.18 Article 232 of the Constitution states that

"Indians, their communities, and organisations are legitimate parties to demand

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juridical protection of their rights and interests."¹⁹ Before the 1988 Constitution, indigenous peoples could only demand their rights in the Brazilian juridical and administrative systems; and only when they were represented by Fundacao Nacional do Indio (the National Indian Foundation—FUNAI). By recognizing indigenous organisations as legitimate parties to speak for and represent the rights of indigenous peoples, the Constitution has created a new arena where indigenous communities can autonomously articulate their interests and act on their own behalf.

Article 67 of the Constitution also orders the demarcation of all indigenous territories in the next five years. The Brazilian government failed to uphold the constitutional obligations and demarcate all indigenous territories by October 1993. Most demarcations though had occurred during the tenure of president Collor, when boundaries of 58 territories were delineated and demarcation of another 112 was finalised, which included the territories occupied by the Yanomami Indians. President Itamar Franco legalised another 55 territories during 1993-94. During his eight year as president, Cardoso delineated the boundaries of 30 territories and finalised the demarcation of another forty-six.

Some of the legal changes and other developments, dating to the 1990s, threaten to seriously undermine the land rights of Brazilian Indians; and also threaten to undermine the protection of an area of forest amounting to more than 10 per cent of Brazil’s total territory.²⁰ The 1988 Constitution has for the first time recognises the indigenous rights, mainly through the process of ‘land demarcation’ by which Indian territories are to be staked out and defined in law. President Collor in 1991 had signed Decree 22, which started the demarcation process because the constitution had set a target date of full demarcation by 1993. Till 1996, more than half of Indian territories however had still remained to be demarcated. Ironically, Decree 22 was declared ‘unconstitutional’; and over-turned by president Cardoso who then replaced it by a new law, Decree 1775.

The slow progress in demarcating indigenous lands is mainly since and due to the signing of Decree 1775 into law. In January 1996, the then justice minister, Nelson Jobim, had enacted the Decree 1775, altering the process of demarcation of indigenous peoples' lands through the inclusion of the right of contradiction, or *contraditório*.\(^{21}\) It meant that third parties now had the right to question and oppose the demarcation process. The decision not only increased the political content and conflict in the land demarcation process, it has also totally disregarded the constitutional principle that asserted and assured indigenous people their original right to their lands. The rationale for the decree was that, by not allowing third parties to manifest their opposition, a right guaranteed by the 1988 Constitution in its chapter on individual and collective rights,\(^{22}\) the previous law regulating demarcations\(^{23}\) and all indigenous land demarcation processes regulated by it were unconstitutional. In addition, the Decree 1775/96 placed the final decision about demarcations in the hands of the ministry of justice, ultimately a political decision; whereas earlier it was FUNAI which using technical criterion demarcated Indian lands.\(^{24}\) Worst, the new legal provision means that the demarcated lands are now open to challenge from 'private interests', such as loggers, miners and ranchers who could legally and extra-legally exploit Indian lands or effectively deprive them of land rights. In a letter to president Cardoso, the NGO, Earth Action stated in 1996 that the Decree 1775 is the biggest single threat to Brazil's indigenous and their forest homes. For decades, Brazil's indigenous peoples have been appealing for international help to protect their traditional lands. The Earth Action urged the president to immediately revoke Decree 1775 and honour constitutional commitment to complete demarcation by the end of the 1998 presidential term. "By safeguarding the future of Brazil’s indigenous people and their lands, you will be making a historic contribution to protecting cultural diversity, human rights and the natural environment, things which are of value not only to Brazil but to the whole world."

\(^{21}\) Ibid. p.2.  
\(^{22}\) Ibid. p. 4.  
\(^{23}\) Ibid.  
\(^{24}\) Ibid. p. 5.
The advent of democracy—elitist and patrimonial—has nevertheless opened a new chapter in the relationship between indigenous people, the state, and the dominant society. Indigenous peoples' political gains in the period in terms of constitutional guarantees and others have no parallel in Brazilian history. Yet, the consolidation of such gains greatly depends on the existence of ordinary laws that would make the constitutional principles operational. The struggle for indigenous rights in Brazil has thus come to a crossroads. The enactment of a new statute on indigenous rights has the potential to affirm the position of indigenous peoples as full participants in and beneficiaries of Brazilian democracy. Conversely, the delay in enacting such legislation creates a permissive environment in which anti-indigenous interests are free to use all available means to revert the gains obtained by the Brazilian indigenous movement in the past fifteen years.

Indigenous people in particular have suffered and indeed are likely to suffer most from Brazil's current trade infrastructure scheme, as industrial waterways, in particular those designed to facilitate the export of soy—Brazil is now the second leading soybean exporter after the US—will run adjacent to, and in some cases actually pass through, demarcated indigenous reserves.

The overall stagnation and reduction of indigenous lands only accentuates the already harsh reality of indigenous peoples in Brazil. The invasion of lands and commercial activities cause destruction and pollution of the natural resource base; besides, spreading infectious diseases and generating violence. Even FUNAI has failed to deliver the needed assistance for indigenous communities. Some of the often-cited cases of the crisis of indigenous lands in Brazil are: Guarani-Kaiowa Territory in Mato Grosso do Sul, Yanomami in North Brazil, Nambikwara in Mato Grosso, Macuxi in North Brazil and Parakana in Southern Pará.

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25 Ibid, p. 3.
The Challenge of Enforcement of Environmental Laws in the 1990s

It was to check the rapid rate of deforestation that President Cardoso, after his re-election in 1998, introduced some major economic and environmental reforms along the lines of sustainable development. A key issue that bedevils Amazon is the lack of enforcement of existing rules. The problem in the 1990s really aggravated as Asian firms arrived in greater number to log the forests. Some of the leading laws which have suffered lack of enforcement pertain to protection of forests, conservation of fauna, fishing and sustainable exploitation of minerals, prevent nuclear damage to the Amazon, and regulation of pesticides, etc. The National Environmental Policy Act of 1981 was a major turning point in the drive to protect the environment. The Act did more than establish the principles, goals and instruments of a national policy for the environment. It brought into the Brazilian legal system the environmental impact statement. In addition, the Act provided a regime of strict liability for environmental damage and gave the office of the attorney general the power to sue the offenders. The 1988 Constitution with its explicit environmental provisions is another landmark in the evolution of legal and constitutional principles pertaining to environment, land utilisation and its distribution, and the utilisation of natural resources. Finally, in 1998, the Cardoso government had the Law 9605/98 enacted to prosecute those who commit offences against environment.

Even before the enactment of the popularly known Crimes Against the Environment Act, Brazil has had several legal provisions determining criminal sanctions for offences in areas such as pollution control, flora, fauna, fishing, and pesticides. The 1940 Criminal Code, still in force today, has a number of provisions that can be enforced to protect the environment. Most such laws, prior to the Law 9605/98, however had several meanings and implications, which allowed the

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26 "How Brazil Subsidizes the Destruction of the Amazon" The Economist 18 March 1989, p.69. Since the mid-sixties, several laws were enacted with a view to regulate several issues and activities that interface with the environment: the 1965 Forest Code; the Fauna Protection Act, the Fishing Act and the Mining Act, all adopted in 1967; the 1977 Liability for Nuclear Damages Act; the 1980 Industrial Zoning Law for Critical Pollution Areas; and the 1989 Pesticides Act.

27 This standing to sue was subsequently amplified by Law no. 7347/85, whereby other parties, including environmental associations, are entitled to institute a public civil suit demanding restoration of the damaged areas or pecuniary compensation for the damages done.
environmental offences to be diluted or simply bypassed. In the first place, these laws had an in-built double standard, treating wildlife and habitat differently. Behaviours harmful to fauna, for example, were defined as a felony and subject to heavy punishment (prohibition of bail, e.g.), while actions harmful to flora were classified only as misdemeanours; even when the offender had cleared one or 100,000 hectares of native forest. Besides, the laws in the past generally had several poorly worded provisions and a fragmented approach to the environment as such. It was easy for defendants to be acquitted. Moreover, nearly all-criminal offences required establishment of intention. In consequence of so many flaws, Roger W. Findley stated that until the 1980s, ‘criminal actions have been a negligible factor’ in Brazil.

Notwithstanding constitutional provisions and the making of the Law 9605/98, the problem of punishing the environmental offences continued. This is not surprising, given the political clout of ranchers and loggers. In fact, it was the president of the Secretariat of the Environment who suggested to president Cardoso to invoke presidential emergency powers of ‘provisional measures’ (medida provisoria), and withdraw enforcement of Law 9605/98, and grant the polluters more time to make the necessary adjustments. A grace period of ten years has since been granted, and the full enforcement of the environmental law has been postponed until the year 2008.28

The presidential exercise of emergency powers and the attitude of the Secretariat favouring polluters received severe criticism from environmentalists and the public, including some business circles. Since the postponement was announced during the electoral campaign of 1998 and invited a sharp reaction from various quarters, Cardoso had to retract his decision but only partially. Through another decree, he just cut the deadline from ten to six years for the enforcement of the law. Law 9605/98 is supposed to improve environmental protection in Brazil. It however suffers from the age-old malady viz., how to enforce it? There is fear that it may also as well become just another piece of paper with little or no benefit to the Brazilian

28 Medida Provisoria no. 1710 of 08.07.98
people. In an insightful observation about Brazil, Roberto P. Guimaraes has talked of lack of 'political will' that has historically marred efforts to protect and defend the environment. The lack of political will continues to be responsible for the deforestation and reckless exploitation of the Amazon Rainforest.\(^{29}\)

The above section dealt with some of Cardoso's social and legal initiatives. There were a number of programmes that were directly connected to Amazon development. Cardoso while addressing the matter of landlessness simultaneously took up the issue of deforestation. He opened up the debate whether deforestation was carried out primarily by small holding owners or by large commercial enterprises; and whether small holding owners use the deforested lands to cultivate or to install pastures. Each of the six hundred thousand smallholders present in the Amazon cleared on an average 2.3 hectares of forest and cultivated the land for two to three years only. This implied that smallholders cleared approximately 600,000 hectares annually. The relative profitability and land-use intensity for different activities, combined with soil productivity and sustainability, were all factors that affected agricultural producers and their income, and determined, in part the pressure on forests. Whether they actually led to the progression or regression of the deforestation rate is a matter to be analysed later. The programmes concerned with harnessing the resources of Amazon Rainforest were more of the continuation of some of the policies initiated at the behest of president Collor. The following sub-sections are devoted to dealing with the major programmes among the many.

(i) Hydro-electric Power Projects in Amazon—HEP

The high potential of the Amazon river in Brazil make this region very favourable to tapping hydroelectric potential but the monetisation of environmental externalities plays a fundamental role in the selection of any hydroelectric power projects. The construction of dams can affect the extremely complex ecosystem of the region, with dangerous consequences for the environment. Besides, the resettlement of populations, including indigenous groups and the mobilisation of a large number of

workers can cause great alterations to the social, economic and cultural conditions of the Amazon region. These issues show the importance and magnitude of the impacts of electricity production and highlight the challenge of incorporating these costs into power planning, since most of them are not included in the price of electricity.

The programme to tap the hydroelectric power of the Amazon River had begun in 1983. It was estimated that some 100,000 megawatts could be harnessed from the Amazon River, which is more than enough power to run the entire economy. The plans, however, had negative ramifications as well. It was estimated that the Tucurui dam, planned over the Tocantins River, would flood around 760 miles of forest—an area containing 26 million cubic yards of quality timber, most of which would be wasted. The dam was promoted despite ecological uncertainties such as possible siltation resulting from the deforestation of the surrounding uplands. The justification given by Cardoso for still pursuing the HEPs in Brazil Amazon was essentially to obtain clean energy matrix that came for the use of this source and of renewable fuels.

_Belo Monte _Hydroelectric Complex to be built by _Electronorte _Company was initiated during Cardoso’s last year of presidency in February 2002 because the production had to begin by 2008. Six activists have been killed in the wave of violence that has surrounded the Belo Monte dam during this period. Opponents to this project feared that the dam would intensify the battle for Amazonian resources. One of _Belo Monte_’s most prominent critics, Ademir Alfeu Federicci (known as Dema) was shot in August 2001. Dema was an outspoken leader of the Movement for the Development of the Transamazon and Xingu --MDTX, a broad-based grassroots forum against the _Belo Monte _dam. Dema had recently denounced corruption among Xingu politicians and government officials who stood to gain from _Electronorte_’s compensation payments to local authorities and large businesses in the dam area.

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30 "Dam the Amazon, Full Steam Ahead" _Natural History_ (New York), July 1983, no.8, p. 60.
31 Statement by President Fernando Henrique Cardoso, Federative Republic of Brazil in the _Official Documents of the Ministerio da Ciencia e Tecnologia_ on the Kyoto Conference.
Thus uncontrollable environmental degradation processes are triggered off --
the dam not only floods agricultural lands but also causes drastic changes in the
environment, and even the gradual disappearance of flora and fauna-- which in turn
causes severe effects on the population, not only on the local population that depends
on such resources, but also on the population of the whole river basin that has been
dammed. Apart from building dams the HEPS also required the building of highways
that enable 'development agents' to have access to previously remote regions. The
next sub-sections deal with the construction of road networks during Cardoso period.

(ii) Amazonian Highways

Throughout the 1980s, Brazil had pushed forward with constructions including
those of highways and railways, many of which were of uncertain economic value and
detrimental to the environment. The most costly of these in terms of environmental
impact was the BR-364, a highway whose construction started in the mid-1980s and
lasted into the 1990s. The road was designed to link Brazil with Pacific seaports in
order to facilitate Brazil’s timber exports to Asia and encourage the development of
the Amazon. BR-116 is also to become a vital link, joining all the major cities of the
MERCOSUR member countries.32 For this reason duplication of the highway is
being planned between the Brazilian cities of Sao Paulo and Florianopolis.33 In order
to meet the sponsoring agencies' schedule, design work has proceeded at breakneck
speed, ignoring in the process environmental aspects and conservation areas.

An example of this is the highway from Xinguara, in the zone of influence of
the Belem-Brasilia highway, going through the forest towards the west and ending up
in Sao Felix, on the banks of the Xingu River. The road, opened up in the eighties by
the Andrade Gutiérrez building company, created a zone for a great concentration of
loggers and illegal logging, that has now extended beyond the left bank of the river.

33 Florianopolis, the capital of the State of Santa Catarina, is located on the west coast of the Ilha
(island) de Santa Catarina and is linked to the mainland by the longest suspension bridge in Brazil,
the Hercilio Luz Bridge. The city was first settled by Spaniards in 1542, but by 1675 the
Portuguese took control of the island.
The Brazilian government also had plans to repair and pave four other highways in northern and central Brazil, which could devastate a huge stretch of Amazon Rainforest, covering an area of several million square kilometres.\(^{34}\) The work to be done on the four highways covers some 3,500 kilometres of roads, which cut through the states Mato Grosso, Pará, Amazonas and Roraima. Environmentalists apprehend that it could lead to deforestation of up to 180,000 square kilometres of rainforest over the next 25 to 30 years.\(^{35}\) The repair and paving project is part of the government's economic development and integration programme, known as Avança Brasil, (Advance Brazil).

(iii) \textit{Avança Brasil}

Advance Brazil was a massive new initiative that would open vast areas of the Amazonian frontier to development activities. Moreover, this programme is far more amenable to policy modification than are intrinsic problems such as rapid population growth, and its implications have been very poorly discussed and debated in Brazil. The likely impacts of \textit{Avança Brasil} and other planned infrastructures on Amazonian forests are difficult to quantify. \textit{Avança Brasil} typifies the current top-down planning process in the Amazon, in which mega projects are proposed and approved long before the environmental costs and risks can be evaluated. Many projects (such as the BR-319 Highway, the Urucu-Pôrto Velho pipeline, and the Araguaia-Tocantins waterway) will create corridors between densely populated areas and the remote Amazonian frontier. Such projects commonly initiate a process of spontaneous colonisation, logging, mining, and land speculation that is almost impossible for governments to control.\(^{36}\) The results are often disastrous for forests.

The basis of another of strategic plan launched by the Cardoso government, known as \textit{Brasil em Ação}, or Brazil Action, is the building of a massive trade infrastructure to expedite the exploitation of Brazil's natural resources. Government

\(^{34}\) Folha de Sao Paulo report Sunday, 24 April 2003.
\(^{35}\) "Highway Projects Could Destroy Huge Swath Of Amazon Rain Forest" CNN, 19 March 2000.
briefing documents declare quite openly that they are "redesigning the country". Fourteen transport projects aim to increase Brazil's global competitiveness by reducing the shipping costs of timber, minerals, energy, and agricultural products from the region. Highways, waterways, railroads, and ports, etc. are planned throughout the Amazon basin to link some of the most remote areas to major ports via shipping routes for inter-modal cargo carriers. Foreign investors are being aggressively courted to finance this totally irresponsible mega-project, to which the government shall itself be contributing 50 billion Reals—indeed, a massive subsidy to the private big business.

Since the Earth Summit in 1992, Brazil has, at the same time, become increasingly aware of the need to conserve its resources and develop its economy in such a way as to maximise its long-term production possibilities. In the 1990s as economic liberalisation proceeded, there was also the realisation that deforestation and over-exploitation of the Amazon go against the idea of sustainable development, which Brazil had committed itself to. As foreign investment flowed into the economy, many international agencies and developmental loans were also coming with environmental conditions attached. However, deforestation of the Amazon is a highly complex problem, and there are no simple and effective solutions. Economic liberalisation has also allowed Brazil access to technology that is based on efficient use of resources and which avoids wasteful exploitation. Notwithstanding these initiatives, deforestation in the Amazon and practices, which are environmentally unsustainable, continue to characterise the use and exploitation of Amazon resources.

(iv) National Forest Programme

During the 1990s, some initiatives were made showing greater sensitivity to environment; and many problems that emerged including those of the landless called for an effective enforcement and implementation of existing laws and regulations. President Fernando Henrique Cardoso had launched the National Forest Programme in September 1999. The process of formulating the programme involved over 600 institutions and 1,200 representatives of government, local communities, the private sector, conservation organisations and other stakeholders. At the 29th Session of the International Tropical Timber Council, the executive secretary of the MMA, Jose
Carlos Carvalho, had invited International Tropical Timber Organisation (ITTO) to assist in implementing the Programme. The certification system for timber has to be adhered to in order to compete in the international market. The massive logging operations carried out by the Asian logging companies is a source of concern and threatens to violate some of the international treaty obligations of Brazil.

(v) New Water Agency

The federal parliament had also approved the creation of a national agency with responsibilities for the overall supervision, control and evaluation of activities regarding the use of water resources. All new projects that involved hydrological resources, such as the construction of hydroelectric dams, henceforth needed the approval of the agency. The agency will also oversee all major water use concessions.

Amazon and the Changing Dynamics of National Security

Along with developmental processes and the social dynamics that accentuated during the 1990s in the Amazon, the region has also become subject to changing security imperatives. As different from the geo-political considerations and military aspects of security during the authoritarian rule, in the 1990s, focus has shifted to what is called the non-traditional aspects of security.

In the changed circumstances of the 1990s, the concept of non-traditional security has gained ground. It is no more the security of sovereign states; each pursuing its own avowed national security goals but larger issues and threats that pose non-traditional challenges to the security of the states and the people alike. The system of security based on the Westphalia system of sovereign states has severe shortcomings and weaknesses in the post-Cold War world and a world undergoing rapid integration of economies, cultural exchanges, and communication and information technology revolutions. As post-Cold War, most conflicts threatening peace and security of the states and the people are not between states but within states and sources of threats are also coming increasingly from non-state actors, the concept of comprehensive security seeks to address these challenges. Of the many types of
conflict that characterised the states in the 1990s, it was noted that governments were engaged in fighting domestic oppositions, which not infrequently were triggered by the claims over the 'natural resources'. The decade of the 1990s also saw the conceptualisation and practice of 'humanitarian interventions' as many local conflicts threatened to spill over into regional and international conflicts.

The new types and sources of threats and the rise of non-state actors of various types also gave rise in the 1990s to the debate, as how environmental resources may become the objects of security strategies. Strategic natural resources in international conflict have been used as instruments and targets of war since time immemorial. For instance, acute degradation of environment and appropriation of resources in bordering regions could in circumstances trigger conflict, notably in the developing world.

As a result of these challenges and changes in the perception, since the 1990s, concerns about 'environmental security' have been expressed at the state level. But is this just hype, or is there a lasting significance to the concept of 'environmental security'? In particular, 'environmental security' seems to serve the same kind of unifying and self-reinforcing discursive strategy that launched the idea of 'sustainable development'. Given that the idea of 'security' implies that something requires protection, those expressing environmental security concerns can construct the implementation of protection in the name of environmental security essentially. It has also been suggested that the very currency of the expression 'environmental security' means that there are those who have vested material interest e.g., appropriation of natural resources, in advocating the idea. It could as well be a manner in which sovereign states are seeking to check the loss of many of their sovereign rights and enhance their control over natural resources lying within their jurisdiction.

So, 'securitizing' the environment can be understood as an effort to prop up a beleaguered state system, as well as acknowledging the economic interests underlying

37 B. Buzan and J. de Wilde, Security; A New Framework for Analysis (Boulder, CH: Lynne Reinner, 1995) p.27.
that effort. The so-called ‘Amsterdam School’ of thinking regarding international relations has also emphasised on the role of the state, particularly in thinking about how institutions shape actions and how issues can be apparently depoliticised and at the same time ‘securitised’.

Be that as it may, many issues are included in the theme of ‘environmental security’. Beside broadening and redefining the concept of ‘security’ so as to include environmental dimensions, it covers environmental degradation as a potential cause of conflict, the effects of war and militarism over the environment, sovereignty and the environment, sustainable development, North-South and inter-generational equity issues, environmental disputes and their resolution, and the negotiation and enforcement of effective international environmental agreements.

‘Securitisation’ of the Amazon: the SIVAM Project

The effort towards securitising the Amazon became particularly visible and predominant among the various programmes and policy designs under Cardoso. It took the form of a surveillance programme, known as Servico de Informacao e Vigilancia da Amazonia (SIVAM—Information and Surveillance Service for Amazonia).

SIVAM reflects the continued predominance of geo-political concerns as far as securing Amazon is concerned. The strength of geo-political pre-occupations and military’s concerns with Amazonia was reflected in the government’s announcement in early 1994 of a sophisticated radar and satellite surveillance system covering the entire Amazon basin. The surveillance system, i.e., SIVAM is coordinated by the Secretaria de Assuntos Estratégicos (Secretariat for Strategic Affairs—SAE), attached directly to the Presidency of the Republic. SIVAM forms part of the wider and larger System for the Protection of Amazonia (SIPAM) under the aegis of the SAE. Costing an estimated US$ 1.77 billion to implement, SIVAM’s roles will include the defence
of national sovereignty against possible military aggression, the prevention of drug-trafficking and smuggling, as well as environmental protection.38

Strongly backed by the Brazilian air force, SIVAM will involve 17 fixed and 6 mobile radars, 8 planes, 200 radio stations and 300 remote-sensing platforms for the collection of meteorological, mineral and environmental data. Information will also be obtained from a number of existing satellites—the LANDSAT, SPOT ERS-1, NOAA, GOES and CBERS. These will be fed to a network of Regional Vigilance Centres (CRVs) located in Belém, Manaus and Porto Velho, and then finally to the headquarters in Brasília. Despite intense controversy surrounding the awarding of the US$ 1.4 billion contract to the US firm, Raytheon, amidst widespread accusations of irregularities, delaying final approval and implementation, the measure was approved by Brazilian congress in May 1996.39

A notable aspect of the evolving geo-political and geo-environmental perspective is that increasingly, a ‘greening’ of military policy in Brazilian Amazonia is taking place, in which the defence of national sovereignty is tied to, and justified by, protection of the environment and its natural resource base. SIVAM is described as “supporting programmes related to the sustainable development of the region…monitoring of the environment, the sustainable use of biodiversity, ecological and economic zoning, occupation and use of the soil, the fight against illicit activities, protection of indigenous deserves”.

SIVAM was started to identify, utilise and protect the precious resources of the Amazon region.11 SIVAM was to utilise sophisticated technologies, including a wide range of sensors ranging from stationary radars to satellites and geophysical monitor, to collect extensive data. The data would be used by the government in the protection of Amazon, in improving air safety, in increasing the accuracy of weather forecasting, and shall assist in the detection, prevention and control of epidemics, and effective law enforcement and border controls. Cardoso considered the SIVAM a project of vital

39 Ibid.
national interest due to its use in anti-narco-trafficking operations, monitoring of economic development projects and limiting environmental damages in the region.40

The creation of high-tech radar and data system encompassing the country’s entire Amazon territory is a staggering feat. The $1.4 billion spent on building SIVAM has been financed by the Export Import Bank of the United States; and the construction costs alone are equivalent to about ten per cent of Brazil’s annual military budget. President Cardoso had intended SIVAM to be one of the major hallmarks of his administration. He had personally authorised infusions of funds so that the project could be launched during his presidency. It was an almost unheard of feat in Brazil. The president went ahead with the project despite criticism from the nationalist elements within the congress as to the implications of US funding and the fact the US firm, Raytheon, a Pentagon contractor, was contracted to build the bulk of SIVAM’s computer and software systems.

Cardoso had pushed on with the project, extolling it as the tool that could unlock the region’s economic potential, as the Amazon is the country’s most valuable and the most vulnerable region. In the face of Plan Colombia wherein the United States began pouring military and financial aid in Colombia in 2000, Cardoso’s national security team, seeking to calm wide-spread fears that the Colombian conflict might spill over to the Brazilian Amazon, pointed to SIVAM as the nation’s best line of defence, capable of detecting any ground, air- or river-borne intrusion into Brazil’s jungles by Colombian rebels. When the terrorist attacks took place in US on 11 September 2001, Brazilian defence experts worried that the country’s porous jungle frontiers were in proximity to the territory infested with Colombian and Peruvian “narco-terrorists.” Four of those groups were on the U.S. State Department’s terror list. Again, SIVAM was touted as Brazil’s insurance against incursions.

At an air force base near Brasilia, Cardoso officially inducted SIVAM’s new surveillance jets into the Brazilian air force on 24 July 2002, calling them “the eyes of

a complex project that will come to reveal what is occurring in our rich Amazon region.” 41 The next day, Cardoso inaugurated the SIVAM intelligence complex in Manaus. At the ceremony, the president outlined a glowing vision of the Amazon’s future. With SIVAM, said Cardoso

the Amazon would become a full participant in the great push toward development that is only just beginning and will transform the face of this country in the new century. This is a project that has suffered from criticism and misunderstandings, but is proving itself as an initiative that is timely and absolutely indispensable to give direction to the future development of the Amazon. 42

Despite the emphasis laid on environment, being short of cash, the government slashed environmental spending by 60 percent in 1999-2000 according to figures from Institute for Socio-Economic Research. The government also cut the matching funds for the protection of tropical forests granted by PPG-7. At the end of April 2000, Cardoso had also announced that he would be using discretionary power to cut an additional 29.6 per cent of environmental ministry’s budget to meet the loan agreement with the International Monetary Fund.

It was after the 1992 Earth Summit and more particularly during his election campaign in 1994 that Cardoso had taken a strong conservationist position and declared the Amazon, Mata Atlantic rainforests and Pantanal wetlands as parts of the national patrimony; and once in office, he had given them the status of protected zones. However, as his economic policies granting major concessions to foreign investors unfolded, he diluted many of his policies and utterances; and considerably watered down the 1998 Crimes Against Nature Law, which had set penalties for deforestation and environmental degradation. Of the forty “great works” that Cardoso administration announced with its ‘Brazil in Action’ programme—the hydroelectric generators, gas pipelines, power plants—IBAMA had objected to almost all, mainly

on environmental grounds. Joao Paulo Capobianco, the executive director of the Instituto Socioambiental—ISA, commented:

The first mandate of Fernando Henrique Cardoso was the worst administration in terms of the environment since the end of the military regime in 1985. The government has done literally nothing to show consistency in terms of policy. Any project that is started either does not have continuity or it is abandoned. The enormous growth in the deforestation of the Amazon was a clear sign of this.

On the whole, Cardoso administration initiated some far reaching changes in terms of legal provisions, environmental management and conservation of forests and eco-systems. The significant development during his two terms as president is that market-oriented thinking or neo-liberal agenda predominated and shaped a new approach towards environment in general and Amazon Rainforest in particular. There were conflicts between economic interests and environmental imperatives; and the government had to combine the two in a delicate balancing act. Another important development in the 1990s was that international economic interests got even more deeply involved in the exploitation of Amazon resources; and Brazil came to look at Amazon in terms of its own position in the regional and global economy. This led to the launching of several roads, waterways and other projects so as to facilitate Brazil’s integration in the regional and global trading order. Yet another noteworthy development was the paradigm of comprehensive security and the newfound imperative of environmental security, which has led to new security-oriented military presence in the region.

In 1995, Cardoso government had set up a new system and allocated financial resources to demarcate indigenous reserves. However, at the same time, Decree 1775 gave states, cities, and individuals the right to challenge any and all unsettled demarcations. Besides, the congress passed the Environmental Crimes Act in 1998 but the president postponed sanctions against offenders for a very long period. Imprecise enforcement of the important new articles, viz., Art.5, which eliminated the need for providing any intention to pollute as valid and the Art.43, which made

44 Ibid., pp. 3-4.
negligent fires a criminal act, deprived the environmental laws of the tooth and claw needed for strict compliance.

No gainsaying, the priority of the government was economic liberalisation; and interestingly, government thinking and action on environmental front especially in regard to the developmental plans for the Amazon reflected the neo-liberal approach towards Amazonian resources. However, it also cannot be denied that Cardoso, more so during his second presidential term, had taken a somewhat more pro-environment approach by underlining the importance of sustainable development strategy. For a globalising economy, it was not surprising to accept and seek the cooperation of foreign investors and governments in the development and exploitation of Amazon resources. The best example of this globalising approach is the participation in the G-7 Pilot Program to conserve the Brazilian Rainforest (PPG-7). This is a comprehensive and long term environmental programme developed in conjunction by Brazil, the European Union and the G-7 (now G-8) governments. The main activities of the programme have been related to the protection of indigenous lands, to support extractive reserves, and the management of forest resources. Cardoso’s policies were focussed to demonstrate the feasibility of harmonising liberal economic policies with environmental objectives in tropical rainforest. The government and the international actors including governments of the developed countries had come to realise the need to help Brazil preserve the huge genetic resources of the Amazon Rainforest, to reduce carbon emissions, and to provide another example of co-operation between developed and developing countries on global environmental issues.

Many of the sustainable development models such as agro forestry and IMAZON’s forestry model address the multi-faceted issues required to balance conservation and development, as well as contribute to reducing poverty in Amazon communities. As scientific studies merge with information technologies as seen in the Smithsonian Amazon-GIS project and increased global communication teachers students, scientists, policymakers, and the general public about current issues facing

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the Amazon, the modern tools that have globalised trade and economic systems will be used as tools for establishing new sustainable measures for conservation and developments.

The five salient points that summarise and define the essence of the action of Cardoso government in the domain of the environment were: (i) the introduction of the environmental issue in government's programmes and economic policies; (ii) the formulation of an integrated and strategic policy for Amazon by strengthening SIVAM; aiming at reorienting economic growth in the region by bringing in modernization of agriculture, a bigger internal and external integration for the region and the upgrading the status and quality of Amazonian people; (iii) speeding up the absorption by the national system of foreign resources obtained through programmes PPG-7, PNMA and National Fund for the Environment; (iv) establishing a model of decentralised and shared management of hydraulic resources by setting up the New Water Agency; and (v) carrying on with Transamazonica and Calha Norte programmes.

Many of the sustainable development models such as agro-forestry and IMAZON's forestry model addressed the multi-faceted issues required to balance conservation and development, as well as contributed to reducing poverty among Amazon communities. As scientific studies merged with information technologies, as seen in the Smithsonian Amazon-GIS project, the increased global communication led to adoption of new measures towards conservation and sustainable development.

The policies adopted by president Cardoso can be summed up in the following statement issued by the President himself---

Environmental awareness has become an inseparable dimension of citizenship. The Rio+5 Conference, held this past March, was an eloquent example of the positive action of NGO's on environmental issues. It gave renewed thrust to the debate on sustainable development and marked a resurgence of environmental awareness. To create a focal point for international public opinion with regard to sustainable development, Brazil is prepared to host in Rio de Janeiro a "Rio Forum on

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Environmental and Development”. This is one way to keep the “spirit of Rio” alive, making the city the international capital of sustainable development. 47

Cardoso brought the environment to such a take-off level that Brazil became a force to reckon in any discussion on environment in the world. The changed stance adopted by Cardoso and his predecessors were reflected in Brazilian policy making and its foreign relations. The mood of Cardoso became clear with a declaration in an interview to a leading newspaper. Cardoso reiterated that he could not accept environmental issues being used to discriminate accesses to international markets. He said ---

“there was a time when we had a defensive position regarding the international handling of environmental issues. There was a certain fear that the concern for the environment would bring alone, a hidden attempt of usurpation of our sovereignty. Today we know that the best form to exert our sovereignty in Amazon is to dedicate all the necessary attention to the environmental matters. No one else other than ourselves has more interest in preserving them.”

This was when slowly but significantly environment began to matter in any external relations of Brazil more than ever. The following chapter is dedicated to dealing with environment’s place in its reginal or hemispheric relations. Did its fear of getting marginalized on issues of sovereignty have any bearing on its affairs? Was the fear of arm-twisting by the West totally unfounded? The role of the NSMs and the compulsions of economic situation was significant in the outward looking environmental policy and co-operation among regional and international partners.