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The Emergence of Environmentalism in Latin America

By

Paula Guerra Cepeda

A thesis submitted to the Faculty of Graduate Studies and
Research in partial fulfillment of the requirements for the
degree of

Master of Arts

Department of Geography

Carleton University

Ottawa, Ontario

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acceptance of the thesis

The Emergence of Environmentalism in Latin America

submitted by Paula Guerra Cepeda, B.A.
in partial fulfillment of the requirements for the degree of Master of Arts in
Geography

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ABSTRACT

During the 1980s Latin America has experienced the emergence of an important environmental movement. The main goal of this thesis is to explain the process identifying the political, economic and social forces that have been involved. The political and economic scenarios surrounding the emergence of the movement are analyzed, as are the philosophical perspectives underlying the movement. The three most important environmental problems (urban contamination, deforestation in Central America, and Amazonia) are identified and analyzed. It is argued that there is not one Latin American environmental movement but many. The different environmental groups and their agendas are identified. Specific consideration is given to the Chilean situation. The thesis concludes with a pattern for interpreting the emergence of the environmental movement in Latin America.

Para mis padres, Ida y Rosendo.

En memoria de mi querido hermano
Marco Antonio.

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TABLE OF CONTENTS

The Emergence of Environmentalism in Latin America

1. Introduction	1
1.1 Political Scenario	9
1.2 Economic Scenario	23
2. Grand Perspectives	30
2.1 Conservationism	30
2.2 Eco-marxism	31
2.3 Catholic Perspective	33
2.4 Indigenous Perspective	34
2.5 Sustainable Development	35
2.6 Ecofeminism	47
3. Grand Themes	49
3.1 Urban Contamination	49
3.2 Deforestation in Central America	66
3.3 Amazonia	77
4. Environmental Groups	86
4.1 Developed Country Organizations	87
4.2 Urban Middle Class	100
4.3 Indigenous Groups	104
4.4 Farmers	114
4.5 Political Parties and the Movement for Social Justice	117
4.6 Women	120
5. The Chilean Case: Some Considerations	125
6. Conclusions	136
7. Bibliography	143

LIST OF TABLES

- 1.1.1 Cabinet Level Agencies in Latin America (1995)
- 1.1.2 Environmental Legislation in Latin America
- 3.1.1 Percentage of Urban Population
- 3.1.2 Population Growth Rates of the Main Metropolitan Area
- 3.1.3 Access of Safe Drinking Water 1980-1995
- 3.1.4 Access to Sanitation Services 1980-1995
- 3.1.5 Growth per Capita Manufacturing Product 1992-1996
- 3.1.6 Sources of Atmospheric Contaminants in Santiago 1987
- 3.2.1 Deforestation in Latin America and the Caribbean 1980-1989
- 3.2.2 Central America and Mexico: Forestry Resources and Deforestation 1980-1990
- 3.2.3 Cotton Exports in Central America
- 3.2.4 Social Agents of Deforestation in Tropical Latin America
- 4.1.1 Latin America's Debt for Nature Swaps
- 4.3.1 Indigenous Population in Latin America by 1990
- 4.3.2 Main Communal Managed Forestry Projects in Latin America

LATIN AMERICA

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1. INTRODUCTION

During the twentieth century, the history of the environmental movement and of environmental thought can be divided into three grand periods. In the first period (1900 - 1960), the main environmental goal was the protection of nature and wildlife. A number of agreements were signed with that objective, e.g. the "European Convention Concerning the Conservation of Birds Useful to Agriculture" (1902), and the "Convention on Nature Protection and Wildlife Preservation in the Western Hemisphere" (1940) sponsored by the Pan American Union. After World War II the United Nations was responsible for the development of various international environmental policies. Two related Institutions were created, the "United Nations Educational, Scientific, and Cultural Organization" (UNESCO) in 1945 and the "International Union for the Protection of Nature" in 1948. The first international conference on the environment was held in the United States in 1949. Organized by the UN, the "Scientific Conference on the Conservation and Utilization of Resources" (UNSCCUR) addressed the world's environment as a resource base. Even though it focused on science rather than policy, the Conference has been considered the first major event in the development of the international environmental movement (Miller 1995).

The second grand period ran from 1960 to 1972. In that period, environmental issues moved from being the concern of a few scientists, administrators, and conservation groups to being the focus of a mass movement that affected much of the industrialized world. Several environmental disasters which occurred during those years triggered that change, increasing public sensitivity to environmental matters.

Another fact that helped was the increase in scientific knowledge within educational institutions and governments. One of the international encounters held in the period was the "Intergovernmental Conference of Experts on the Scientific Basis for Rational Use and Conservation of the Resources of the Biosphere" or the "Biosphere Conference" (Paris, 1968). The Conference addressed the human impact on the biosphere and recommended more research on ecosystems, human ecology, pollution, and genetic and natural resources. It also called for new approaches to environmental education and assessments of the ecological impacts of development projects were also recommended. But the most important conference was the "United Nations Conference on the Human Environment" (Stockholm, 1972). The significance of that Conference was that it looked more at political, social, and economic issues. Subjects such as North-South differences over global economic relations and environmental politics were major elements of the encounter. Third World countries played a key role in it, bringing into the Conference issues such as shelter, food, and clean drinking water. The most important consequence of the Stockholm Conference was the creation of the "United Nations Environmental Program" (UNEP) which is headquartered in Nairobi, Kenya.

The last period (1972 to the present) has been characterized by renewed attention given to the tension between economic growth and the environment. The subject was explicitly treated by the World Commission on Environment and Development in its report "Our Common Future" (1987). The Commission concluded that growth was important, especially for the people in developing countries, but it made the point that this growth would not be feasible if traditional growth patterns were pursued. The Commission called for sustainable development defining it as

development that meets the needs of the present without compromising the ability of future generations to meet their own needs (WCED, 1987). It was under that concept that the "United Nations Conference for Environment and Development" was held in Rio de Janeiro in 1992. The Conference also addressed global environmental problems such as ozone depletion and climate change, and among other agreements it proposed a global action plan for sustainable development: "Agenda 21".

Latin America's environmental movement and environmental politics have their roots in the 1960s and 1970s, during the second grand period. Without ignoring the historical presence of autochthonous environmental initiatives in Latin America, it can be argued that concern about the environment in the region is linked to the political, economic, and intellectual influence of the United States and Europe, and had its origin in the environmental movements of those countries in the 1960s and 1970s.

The "United Nations Conference on the Human Environment" in Stockholm (1972), was a key element in that development. After the Conference, environmental movements in the North began to pressure their governments and international lending and technical cooperation organizations to support more benign environmental policies in Latin America. They also began to operate directly in the region, opening offices and providing support for many projects.

The first interest of those environmental organizations in Latin America's environment had two main concerns: wildlife protection and population control. Organizations such as World Wildlife Fund (WWF), the International Union for the

Conservation of Nature and Natural Resources (IUCN), Rodale, Conservation International, and the Nature Conservancy, became involved with the protection of animals and plants in the region. Later, in the 1980s, the amount and importance of the presence of US and European environmental organizations increased significantly. They became involved in international issues such as climate change, loss of biodiversity, depletion of the ozone layer, rainforest destruction, toxic waste dumping and pesticide impacts. And many of them began to incorporate the concept of sustainable development into their activities.

In considering environmental issues in Latin America, it is very important to have a clear concept of the continent's importance in the world. According to the World Resources Institute (1994-1995) 8% of the world's population lives in Latin America. Its population is growing at about the world average of 1.8% yearly. Twelve percent of Latin America's land is used for crop production and 13% for cattle ranching. Latin America has 23% of the world's total forest, 46% of the tropical forests, around 50% of the biodiversity, 31% of the surface water, 4% of the world's GNP, 20% of the world's hydroelectric energy potential, and 3% of the fossil fuel reserves; the continent is also responsible for 12% of the world's carbon dioxide emissions and 1% of chlorofluorocarbon emissions (Viola, 1997).

To talk about environmental problems in Latin America certainly requires making a clear difference between the North and the South. Ecological problems in Latin America have their own characteristics closely related to the social and economic reality of the continent. Roberto Guimaraes (1994) provides a very good analysis on the specificity of the ecological crisis in Latin America. He argues that global problems such

as ecological deterioration and lack of natural resources are the most evident manifestations of the current style of development. For him, the discourse of globalization about the world's environmental crisis is shaped to think that we are all in the same "ship", North and South, West and East. But if we want to be more precise, we would realize that each country or region has a different location in the "ship". One fifth of the world's population inhabitants, of the North, occupies the first class, consuming close to 80% of the ship's resources and producing 75% of the emissions most harmful for the environment. Four fifths of the passengers, mainly from the South, travel in second class. More than one third suffers from starvation or malnutrition, three quarters do not have adequate access to water and accommodation. Each passenger from the first class produces a 25 times higher impact on the resource base than each one from the second class. The second class passengers are realizing that they have almost no possibility of changing their position. They are asking why they have to travel in the second class. That situation makes them aware of the sources of their dissatisfaction, which could destabilize the system that sustains the whole ship.

In fact, nobody now doubts that not everybody has the same "position" in the planet. In the last decade not only has the North-South economic gap increased, the environmental gap has also increased significantly. People from the South are in the worst position to endure the impacts of global environmental deterioration.

One of the major ecological problems of our planet is the loss of biodiversity. It has been estimated that by the beginning of the next century an important number of the animal and plant species will be missing. Close to 90% of those species belong to the tropical forest in the South. That forest has been greatly

destroyed specially by the actions of economic groups from the North. Another problem is the ozone layer reduction. In some areas of the Antarctic Territory that reduction is close to 70% with serious consequences for countries such as Chile, Argentina, and Brazil (Guimaraes, 1994). Desertification is seriously affecting Latin America. 51% of Mexican and 35% of Uruguayan lands are damaged. 60% of lands in Entre Rios Province in Argentina are eroded. Brazil suffers from the problem in the northeast and in the south. We could refer to each country in the region affected by desertification. Urban contamination in Latin America is also a huge problem. Mexico City, Sao Paulo and Santiago de Chile are among the most polluted cities in the world. In summary, according to Winograd (1995), the most important Latin American environmental problems are: erosion and loss of soil fertility, desertification, deforestation and the fate of cleared land, rural migration and land ownership, exploitation and use of forests, degradation of river basins, loss of genetic resources and ecosystems, deterioration of marine and coastal resources, water and air pollution, and the quality of life in human settlements.

Awareness of these problems within the region, together with Northern influence have triggered the emergence of an important environmental movement in Latin America. The objective of this thesis is to understand and explain this process, identifying the political, economic, and social forces involved. My goal is to identify an overall pattern for interpreting the process in Latin America as a whole, which can then be applied to each country to explain its own particular process.

The thesis has been divided into five chapters and conclusions. The first chapter present the political and economic scenario of the emergence of the environmental movement. The second chapter identifies the main ideological

perspectives on environmental issues. The third chapter analyzes the three environmental problems that have been the most important for the movement. Chapter four identifies and analyzes the environmental groups and their agendas. And chapter five provides some considerations relevant to analyzing the emergence of the environmental movement in Chile.

To achieve my goals, I have used two main methodologies, critical reading and discourse analysis. I have critically read a significant amount of literature on the subject, both in English and Spanish. To incorporate Latin American literature makes it possible to consider another perspective, one that can be quite different from the Northern one.

Discourse can be defined as the ensemble of social practices through which the world is made meaningful and intelligible to oneself and to others: a framework that embraces particular combinations of narratives, concepts, ideologies and signifying practices, each relevant to a particular realm of social action. (Johnston 1994). Three aspects have to be considered when analyzing a specific discourse: The embeddedness of the discourse, which means that discourses are not free-floating, independent constructions, but are materially implicated in the conduct of day-to-day life where they have substantial, constitutive effects. The naturalizing function of discourse, that implies that discourses shape the contours of the taken-for-granted world, they "naturalize" and often implicitly universalize a particular view of the world and position subjects within it. This has been helpful in examining ideology as an unexamined discourse and in exploring the different ways in which human subjects are constituted in time and space. And the situated character of the discourse, meaning

that discourses always provide partial, situated knowledges: as such they are characterized by particular constellations of power and knowledge and are always open to contestation and negotiation (Johnston, 1994).

Discourse Analysis is a methodology that significantly differs from the methodologies used in Chilean academia during the 1980s. During those years, much of Latin America, and Chile in particular, experienced a period of Rightist military authoritarian rule. For the educational sector that fact meant the implementation of a hierarchical system, where to be descriptive and apolitical was the most “secure” way of behavior. I received my bachelor’s education from 1985 to 1990, and in a sense I was a product of this kind of education. Having studied for two years in Canada has meant learning new critical methodologies, ones that I have tried to apply in my thesis.

1.1 POLITICAL SCENARIO

The political history of Latin America has been characterized by cycles of military and civilian rule. From the 19th century to the present the continent has experienced times of democratic republics, and "caudillismos" or the rule of a military strongman or dictator.

During the 1970s and 1980s the region experienced a time of authoritarian military rule (dictatorships). Brazil began in 1964, then Peru in 1968, Chile and Uruguay in 1973, and Argentina in 1976.

In the civil society that fact meant the abolition of politics. Congresses were closed down, and political parties were banned or restricted in their activities. Those seen as opponents were jailed, murdered, or exiled. The same applied for Labor Unions and any kind of public participation. Economically, the military regimes implemented Neoliberal economic policies, they favored freeing the market by rolling back the state, privatization and deregulation. (see section 1.2). During the period of Military rule there were almost no clear governmental initiatives to address environmental matters. Environmental awareness was not yet strong in Latin America and when there was the case of struggling to address an environmental problem there was almost no possibility of complaining.

During the late 1980s and 1990s democracy was re-established in the majority of the Latin American countries, mainly due to national social movements and international pressure. The new governments continued applying the Neoliberal

approach to the economy, much more directly than in the 1980s, as the result of IMF and World Bank conditions, again with bad consequences for the environment. But something was different, the re-establishment of democracy meant that new ways of public participation were opened. The transition from military to civilian rule was advantageous for civic associations mobilizing around environmental and ecological themes. In those nations that had experienced repressive political controls, liberalization meant not only a restoration of electoral contestation and civilian government but also frequently the relaxation of restrictions on the press, reassertion of legislative powers, restoration of freedom of assembly, new opportunities for lobbying and pressuring public officials, and greater sensitivity of public officials to political constituencies and clienteles. In some countries such as Chile, Mexico, and Brazil, where liberalization ushered in opportunities for greater political contestation, there emerged a broad range of political parties, and partly in consequence, state sponsorship of environmental concern as a mean of enhancing regime legitimacy in the face of growing awareness of environmental problems (Mumme & Korzetz, 1997).

In fact, by the 1990s the majority of Latin American governments have created an agency to deal with environmental issues and have enacted environmental legislation.

Table 1.1.1 Cabinet Level Environmental Agencies in Latin America (1995)

Country	Agency
Argentina	none
Belize	Environment
Bolivia	Sustainable Development
Brazil	Environment
Chile	National Commission for the Environment
Colombia	Environment
Costa Rica	Natural Resources, Energy & Mines
Ecuador	Natural Resources & Energy
Guatemala	None
Guyana	None
Honduras	Natural Resources
Mexico	Environment, Natural Resources and Fisheries
Nicaragua	Environment
Panama	none
Paraguay	none
Peru	none
Surinam	Natural Resource and Energy
Uruguay	Housing and Environment
Venezuela	Environment and Natural Resources

Source: Mumme & Korzetz 1997

Table 1.1.2 Environmental Legislation in Latin America

Country	General Environmental Law	Environmental Issues in Constitution	Sectorial Laws
Argentina	---	X (1994)	X
Bolivia	X (1992)	X (1994)	X
Brazil	X (1998)	X (1988)	X
Chile	X (1994)	X (1990)	X
Colombia	X (1993)	X (1991)	X
Costa Rica	X (1995)	X (1949)	X
Honduras	X (1993)	X (1982)	X
Ecuador	---	X (1995)	X
Guatemala	X (1986)	X (1996)	X
Mexico	X (1985)	X (1917)	X
Panama	X (1998)	X (1972)	X
Paraguay	---	X (1992)	X
Peru	X (1998)	X (1993)	X
Uruguay	X (1990)	X (1967)	X
Venezuela	X (1976)	X (1961)	X

Source: Countries' Embassies in Ottawa

In general, authors agree in arguing that democratization has favored the emergence of the environmental movement in Latin America. (Dore 1995, Kaimowitz 1996, Price 1994). Specifically Mumme and Korzetz (1997) have made a

good analysis distinguishing four different levels on which democratization and liberalization have favored environmental mobilization.

At the "formal" level, political liberalization means the generation of constitutional and statutory changes including the democratic and representative political institutions, the adoption or modification of rules regulating environmental conditions and natural resources, and the establishment of government agencies charged with their administration, all of which contribute to legitimating and strengthening national regimes for environmental protection and conservation.

At the "political" level, political liberalization stimulates group formation by suspending or relaxing repressive restrictions on civilian political organization and activism. It may even involve state sponsorship of environmental NGOs, which may imply co-optation (see below). Vigorous electoral contestation and debate of a wide range of social issues that were placed on the back burner during the authoritarian regimes is reintroduced, which in turn, enhances the opportunity for insertion of environmental agendas in party platforms, and the emergence of independent partisan activities, including green parties in the region, such as the Humanista Party in Chile.

At the "policy" level, political liberalization promotes the development of government initiatives related to environmental protection, conservation of natural resources, and public education (schools and universities) on environmental issues; enhanced attention to the need for greater public participation in the process of policy formation; and greater sensitivity of elected and appointed officials to environmental concerns. As mentioned the Latin American governments have done this through the

dictation of environmental laws and the creation of public institutions to deal with environmental matters, as a way of enhancing regime legitimacy. (see the concepts of "juridism" and "institutionalism" analyzed later).

Finally, at the "societal" level it is reflected in greater public awareness of environmental problems and their relationship to other social concerns; increased media attention to these issues, and a liberalized environment for the development of transnational linkages between domestic environmental NGOs and foreign governments and NGOs interested in environmental agendas.

But democratization has not been the "miracle" that the people who struggled for it were waiting for. Democratic governments in Latin America have not been able to solve the environmental problems that are negatively affecting the region. David Kaimowitz (1996) has argued that democratic elections do not always guarantee strong environmental policies. Under democratically elected governments, interest groups associated with economically destructive activities can be quite powerful, and environmental movements may be weak. Kaimowitz (1996) has also identified three major problems that have limited the achievement of more general progress: difficulties involved in linking environmental issues with concerns for social justice; the current emphasis in Latin America on economic policies which weaken the public sector and promote exports based on the exploitation of natural resources and cheap labor; and the considerable influence over the region's governments of economic groups involved in deforestation and polluting activities and of international financial institutions. Dore (1995 and 1997) has maintained that the application of neoliberal policies by the new democratic governments has not been positive for the environment. Mumme and

Korzetz (1997) have identified a number of constraints that have complicated the action of environmental movements in Latin America. They have two forms: the political side which means the persistence of formal restrictions on political activity in some states, co-optation of environmental interests by the state, mobilization of anti-environmental interests, and policy biases arising from the practices of pre-liberal regimes. The second form of constraints is the legal-administrative side: statutory formalism, the domination of state bureaucracy by administrative holdovers from the pre-liberal regimes, and the lack of legal remedies for environmental problems.

Nowhere are the political constraints of democratization more dramatic than in the persistence of various formal limitations on political expression and mobilization. Repression to social movements in Latin America is still present. That was the case in San Alfonso, a locality near Santiago de Chile where in 1996 the movement against the construction of a gas pipeline from Argentina to Chile was violently repressed by the police. Although there is no evidence that such constraints are specifically targeted at environmental organizations, these devices handicap efforts by environmental groups to mobilize support and place their concerns on the public agenda. Such formal limitations may range from electoral laws to press censorship.

A more serious problem for environmental organizations under liberalization is co-optation by the government and state authorities. Co-optation may be defined as the process of absorbing new elements into the leadership or policy-determining structure of an organization as a means of averting threats to its stability or existence (Mumme and Korzetz, 1997). The range of co-optation extends from simple participation in discussion of environmental problems within government-mediated

forums, to providing advice in quasi-formal and formal consultative bodies, to direct participation in the government itself. Two examples can be mentioned: the cases of Fundacion Natura in Ecuador, that has been pursuing alliances with the state, and environmental NGOs in Chile that have participation in the National Commission for the Environment.

On the legal administrative side, formalism continues to be a prevalent feature of Latin American environmental laws. Formalism, or the dictation of regulations, laws, has opportunities and constraints. On the positive side, the adoption of environmental rules provides useful symbolism and legitimization for environmental interests. But as is well known, Latin America needs much more than laws to solve its environmental problems. Here we have arrived at one of the attitudes identified by Nicolo Gligo (1996) as threats to the environment, that is the negative side of formalism.

Almost every Latin American country has environmental regulations (see Table 1.1.2), which is positive in the sense that it has given symbolism and profile to environmental issues. But, as Gligo (1996) argues, "Juridism", based in creating laws as a response to pressure to solve environmental problem can be problematic to environmental protection. The danger lies in passing laws with no intention of doing anything to enforce them or in passing a framework or general law without enacting specific regulations. Many laws in Latin America are asleep: they are not being put into effect because there are no detailed regulations to implement them. That is illustrated in the case of Chile, that has been waiting for four years for the implementation of specific standards for permitted air contaminants.

David Kaimowitz (1996) has argued that despite a proliferation in recent years of new environmental legislation, ministries, agencies, and projects, there are few signs of improvement in the "esprit de corps" of public employees, of increase in government budgets for on-the-ground environmental activities, of the quantity and quality of personnel working in public sector environmental programs, or of salaries for poorly paid civil servants. A social infrastructure to solve this situation should consider the increase of the public budget to environmental issues, and adequate training to public servants.

Closely related to the "Juridism" is what Gligo called "Institutionalism" or the creation of institutions or agencies. After the Rio Summit (1992), many Latin American and Caribbean governments, in diagnosing the status of environmental protection in their countries have focused on the absence of strong institutions that can deal with environmental problems. Often, a government's response is to create a new institution (see Table 1.1.1), while allowing everything else to continue as before. According to Gligo, sometimes an environmental institution is created for the purpose of not doing anything for the environment. Certain governments, confronted by NGO and popular demands, have established agencies that have environmental functions, but which in practice are intended to trip up any environmental measure that affects the profits of large industries or restricts capital flow into the country. A variation on the creation of ineffective institutions is not providing budgets for institutional oversight or control, or saddling an organization with bureaucratic functions that divert personnel away from the environmental task at hand.

It has become clear that political liberalization was only a necessary condition, not a sufficient condition, for the rapid emergence of environmental groups in Latin America since the 1980s. Eduardo Viola (1992) has enumerated a short list of factors influencing the emergence of environmentalism. In addition to democratization they include: the development of the world environmental movement in the context of global socio-environmental degradation; the degree to which particular countries are intermeshed in the international economy; the specific character of socio-environmental degradation in any country; the policies of the authoritarian regime before liberalization; and the ideological environment affecting organized discussion and debate of environmental values and policies in any given country.

Nevertheless, as David Kaimowitz observes (1996), although democracy is not the only condition for the emergence of environmentalism in Latin America, there is some evidence that it favors the emergence of effective solutions to environmental problems. Under democratic governments there are greater opportunities for environmental movements to develop without being repressed, fewer restrictions on NGOs and local organizations engaged in environmental projects, and more openness to negotiated solutions of policy disputes. Therefore, there is scope for Latin American people to take advantage of the redemocratization of the continent to strengthen the environmental movement.

At the present time, during this period of re-democratization, the environmental movement is present in some form in all of Latin America, of course with different intensity. It is a fact that in Latin American countries environmental issues have significance for governments and for the public in general. Eduardo Viola (1997)

has presented a ranking of Latin American countries according to their degree of development and the intensity of their environmental movement.

Since 1990, the United Nations Development Programme has produced the "Human Development Index" (lower scores indicate a higher level of human development) in order to provide a broad base of measures by which to compare countries. Its goal is to integrate economic affluence with social welfare and environmental quality. In 1994, the index combined four dimensions: real gross domestic product (GDP) per capita, adult literacy, mean years of school, and life expectancy. Viola claims that the status of environmentalism in Latin American countries can be classified by measuring the level of development of the environmental movement, the public's receptivity to issues of environmental protection, and the involvement of transnational actors in environmental politics. Using these criteria and the HDI, Viola has divided the region into four groups. I have to point out that the author does not explain the methodology used for creating these groups.

The first group consists of three countries: Brazil, Mexico and Costa Rica, in which the environmental movement is well established, with a network of activists and organizations. Public opinion is receptive to the issue of environmental protection, the movement influences public policy, and transnational actors play an important role in environmental politics.

Brazil has a medium HDI rating (63rd) and rates strong on environmental movements because these are particularly strong in the more developed southern and southeastern regions because of the presence of a large urban middle class, because

the transnational players in the Amazon (and to a lesser degree in other tropical ecosystems) have also had a positive impact, and the pressure of local groups such as rubber tappers and indigenous groups. The transition to democracy, along with the influence of returning leftists who had been exiled to Northern countries, has been crucial in promoting the environmental movement in Brazil.

Mexico also has a medium HDI rating (52nd) and has a strong environmental movement because of the influence of the process of economic integration with the United States. This influence has enlarged the domestic arena of environmental politics through direct participation of the North American environmental movement. Mexico is one of the richest countries of the world in terms of biodiversity. This has attracted significant Northern support for domestic NGOs. Mexico is the only case in Latin America in which the environmental movement developed under authoritarian rule. During the 1980s the Partido Revolucionario Institucional (PRI) created an ecology movement organically linked to the party and the state. A multitude of environmental groups formed throughout Mexico; most were keyed to the PRI's structure. Rather than making demands to the state, these groups related to the government through a process of petition and supplication (Dore, 1995).

Costa Rica ranks 39th on the HDI, and the environmental movement has grown very fast since the mid 1980s in part because of the influence of the Northern environmental community. Organizations such as the World Wildlife Fund and The Nature Conservation decided to concentrate efforts on that country because of the low cost of building a movement (small country, which makes it possible to spend less money in projects, highly educated population, and weak nationalism) and high benefit

potential (extremely rich biodiversity). Costa Rica is probably the best Latin American example of the extent to which democracy can favor the development of an environmental movement.

The second group consists of countries with a profile similar to the first, except for the lack of internationalization of environmental politics. The countries are Venezuela, Chile, and Uruguay. Venezuela ranks 46th on HDI, and the environmental movement has stagnated during the 1990s, undermined by the country's economic and political crisis. Today's dynamic is opposite to that of the 1970s and the early 1980s when the strength of democratic institutions and economic prosperity stimulated environmental protection. Garcia-Guadilla (1992) has argued that since 1989 due to the political and economic crisis in the country, the Venezuelan environmental movement has weakened. Since that year, the establishment of structural adjustment has increased the ideological differences among environmental groups.

Chile ranks (38th) on the HDI, and the environmental movement has been developing rapidly under the democratic government since 1990. In the 1993 presidential election the green Party (Partido Humanista) candidate got 5.5% of the vote, a performance, according to Viola (1997), without equivalent elsewhere in Latin America and comparable only to Western Europe. Viola (1997) points out that Chile ranks third in public awareness about the environment among developing countries in the "Health of the Planet" survey and there are examples of how the transition to democracy favors the development of an environmental movement.

Uruguay has the highest HDI ranking (33rd) in Latin America, and

concern about the environment has strongly penetrated its revitalized civil society since the late 1980s when democracy was recovered.

The third group consists of countries whose general public appears to be basically indifferent to environmental degradation: Argentina, Colombia, Ecuador, and Nicaragua. In these countries networks of environmental activists have a significant capacity to protest but have no impact on public policy.

Argentina is an exception to the correlation between HDI and environmental movement (Viola, 1997). It is high on the HDI (37th) and has a moderately strong environmental movement. This situation can be accounted for by the national obsession with economic growth. According to Viola (1997), although it contains ten large ecosystems, ranging from subtropical through temperate to cold, Argentina has not attracted significant attention from the North because the temperate and cold ecosystems are similar to those in the United States and Canada. The Malvinas War may have had its influence in the sense of having discouraged the presence of British environmental groups in Argentina.

Colombia ranks 50th on the HDI and has a widespread network of environmental activists. Because Colombia is among the seven countries with the greatest biodiversity, there has been a strong Northern support from government and NGOs for its efforts to protect tropical forest. In another sense, the Northern "war on drugs" in Colombia has destroyed important areas of tropical forest.

Ecuador ranks 74th on the HDI and has an environmental movement

that concentrates on the protection of natural ecosystems because of the important support received from the North. The presence of an important number of indigenous groups and their activities for protecting their environment have also helped to develop an environmental movement (see section 4.3).

Nicaragua ranks 106th on the HDI, but it has a network of environmental activists that has been supported by Northern (especially from Western European) organizations in protecting poor urban and rural areas.

The fourth group is composed of countries with groups of environmentalists that are isolated and have low public visibility. The countries are: Panama, Bolivia, Paraguay, Peru, Guyana, Surinam, Honduras, Guatemala, El Salvador, Belize. In general, it can be argued that these countries shared characteristics such as low GNP, an important presence of indigenous population, and low percentage of urban population. A country which differs somewhat is Peru. It is very rich in biodiversity, especially in its Amazonian region, the country has received more support.

Latin America is currently living a process of re-democratization that has favored the emergence of an important environmental movement. The next section will analyze how the economic policies that the new governments have applied have affected the Latin American environment, and the ecological movement.

1.2 ECONOMIC SCENARIO

In the economic sphere, the period of authoritarian rule during the 1970s and 1980s in Latin America meant the implementation of neoliberal economic policies. These involved freeing the market by “rolling back the state”, privatization and deregulation. Some countries promoted non-traditional exports in agro-industry such as forestry, fruit growing, and fish farming. During the late 1980s and 1990s the new governments which emerged continued applying a neoliberal agenda including export promotion, trade liberalization, and fiscal austerity (Dore 1995, Kaimowitz 1996, Reed 1992).

Dore (1995 and 1997) has argued that the economic policies adopted by multilateral lending agencies in Latin America during the 1980s and first half of 1990s, were disastrous for both development and environment in the region. To make sure Latin American states serviced the debts that they had accumulated in the previous decade, the International Monetary Fund (IMF) and the World Bank imposed neoliberal adjustment (structural adjustment) policies on them. These policies were designed to ensure that Latin American countries earned as much foreign exchange as possible in order to pay the interest on their loans. Countries were required to increase their trade balances, one part of this through promoting exports. To comply with bankers' demands, governments encouraged private investment to expand export production. They gave attractive incentives to foreign and domestic capital to enhance competitiveness in the world market. This required, for example, ensuring low wages, a submissive labor force, and few environmental restrictions. The pressure to export, and generally to comply with IMF and World Bank economic conditionality, compelled most

of the Latin American governments to implement development strategies that were antithetical to environmental sustainability. Dore argues that the environmental impact of liberalization was not positive in Latin America. Weak regulations encouraged entrepreneurs to adopt production methods which ensured large profits in the short term with little regard for natural resource preservation. Dore also argues that structural adjustment has intensified poverty throughout Latin America, which is reflected in a significantly increased number of poor people. Poverty has consequences for the environment, it intensifies pressure on it in two ways. In the countryside people are forced into cultivating land that had been considered too eroded for agriculture, accelerating soil depletion. In urban areas, because of the elevated price of fuel, poor people are cutting firewood in zones surrounding cities, denuding those regions of trees. The use of firewood has increased air pollution in Latin American cities, such as Santiago de Chile and Mexico City.

One of the main problems for environmental protection related to neoliberal economic policies has been the promotion of exports based on the exploitation of natural resources: in other words, the promotion of a structure of exports which, on balance, favors highly-polluting activities and natural resource depletion. (Kaimowitz, 1996). Over the past twenty years, Latin America has become less competitive in the international markets. To maintain its world market share, the region depends disproportionately on exports of non-renewable resources, goods manufactured by polluting industries, and agricultural commodities produced using unsustainable production systems. One third of the Latin America's exports come from petroleum and other non-renewable mineral products. Another third come from agricultural exports, a major percentage of which is made up of fruits, flowers,

vegetables, and cotton, often grown using high levels of pesticides, and other products such as beef and timber, often associated with deforestation. Latin America's industrial structure is weighted more to resource processing industries, such as oil refineries, chemical plants, steel and iron foundries and cement, glass and paper factories, and less to services, high-technology industries, and other sectors that exert less pressure on natural resources.

The recent growth of high-value agricultural exports in Chile and Costa Rica has been associated with a rapid rise in pesticide use. (see section 3.2 and 4.4) Trade liberalization between Mexico and the United States has led to a concentration of heavily polluting industries on Mexico's northern border (Giglio, 1995) (see section 3.1 letter c). Promotion of shrimp farming in Ecuador and Honduras has had a devastating impact on the mangroves (Kaimowitz, 1996).

In general, Latin American businesses tend to rely more on low taxes and wages and commercial and financial speculation to gain high profits than on savings, technological development, education and good management terminology (Kaimowitz, 1996). This dependence on low taxes and low wages makes it more difficult for Latin American governments to reduce poverty and provide necessary services. This, in turn, perpetuates poverty problems such as high birth-rates, small-scale farming in marginal areas, and urban sanitation problems.

In contrast to the developed countries, most environmental problems in Latin America are more closely associated with production than with consumption. Thus, groups affected by the necessary reforms are often a small number of powerful

businesses, which tend to be less dispersed and have greater political capacity to oppose the reforms than do consumers in industrialized countries. The region's heavy dependence on activities that degrade natural resources and on maintaining low taxes and wages in order to be competitive on world markets further strengthens the power of those groups. (Kaimowitz, 1996).

Another environmental problem associated with the recent economic policies is that Latin American governments are promoting "non-traditional agro-exports" such as fruit, vegetables and flowers which require massive use of agrochemicals. They have reduced their support for basic foodstuff production by small farmers, who have more diversified production systems, which are less dependent on agrochemicals. Kaimowitz (1996) mentions the case of El Salvador where macroeconomic and trade policies have discriminated against small-scale food production and have promoted rural to urban migration and more extensive production systems. These, in turn, have led to a falling water table in the San Salvador aquifer and greater soil erosion and sedimentation of hydroelectric plants

The bad consequences for the environment due to the implementation of a neoliberal agenda are related to structural adjustment and fiscal stabilization policies. Clearly, adjustment lending in the 1980s was not intended to address the environmental dimension of development. There are several basic reasons why the World Bank failed to incorporate environmental concerns into the design of policy-based lending (Reed, 1992 and Redclift, 1995).

The World Bank and other multilateral development banks did not view

the environment as a priority investment area at the time. Borrowing countries have not requested financial support to deal with environmental problems, nor had the public concern about the global environment reached the point at which policy changes were even considered necessary. In many quarters, environmental degradation was accepted as an inevitable outcome of the growth process.

When a negative environmental impact was identified in a country or was associated with a specific development project, the prevalent assumption was that either inappropriate macroeconomic policy or a sectorial economic policy failure was the cause. Hence, the Bank viewed the remedy far too simplistically-as a matter of correcting the economic failure, for instance by changing the prevailing sectorial incentive structure or "getting the prices right" (Reed 1992).

Environmental protection seemed to indicate the need for more budgetary outlays. Increased public expenditures to protect the environment were not acceptable because they would make achieving fiscal balance, a basic purpose of adjustment lending, more difficult. In short, environmental protection would have to wait until the structural adjustment programs helped improve a country's macroeconomic performance, then additional expenditures for the environment could be justified.

Macroeconomic crisis and environmental degradation are viewed as essentially unrelated problems that had to be treated with separate and essentially unrelated remedies. In consequence, prescribing correct macroeconomic policy for a distressed economy had to follow the logic and priorities of the discipline and should not be diluted by external factors such as environmental impacts.

At least in the short run, structural adjustment and fiscal stabilization have tended to increase poverty, since they restrict aggregate demand, eliminate government subsidies, reduce public employment, and shift relative prices in favor of tradeable goods and against real wages. Although it has been proven difficult to trace the ultimate effects of these changes, increases in poverty can have numerous negative environmental impacts (Kaimowitz 1996). In fact, Latin American countries are facing not only environmental deterioration by "excess of development" - pollution and waste of resources - but also ecological problems due to lack of development -poverty and socio-economic inequality. That's why resource use and social justice are inseparable issues in Latin America (see section 4.5) (Guimaraes, 1994).

David Kaimowitz (1996) has argued that tariff reductions and the elimination of import restrictions often lead to greater air pollution as a result of increased automobile imports and greater use of pesticides. Privatization of the electrical industry has tended to favor petroleum-based energy over renewable sources, since it is much more difficult for private investors to raise the capital for a large hydroelectric or geothermic plant than for smaller petroleum-based generators. I have to point out here that large hydroelectric plants can also have bad consequences for the environment in the sense of interfering with an ecosystem, and besides they can negatively affect the communities that occupy that ecosystem. Liberalization of financial markets has been associated with rapid rises in real interest rates. These, in turn, discourage long-term productive investment in forestry, watershed management, perennial crops, and pasture improvements (Kaimowitz 1996).

Regarding the fact of “rolling back the state”, the decline in government resources and authority associated with recent economic policies has made it more difficult than ever for the public sector to monitor and regulate natural resource use, invest in research and extension focused on green technologies, subsidize activities such as reforestation, soil conservation, and conservation of genetic resources, and establish land and forestry tenure regimes which discourage deforestation and favor environmentally sound production systems based on agroecological principles. (Kaimowitz 1996)

Replacement of numerous military regimes by civilian governments during the 1980s may have attenuated demands for democratization in some countries. But positive political change has not resolved broader economic questions regarding the viability of the development strategy still being pursued in Latin America. Ecological and social problems have not been solved in the region. Many groups rooted in the poor and middle-income sectors question whether the prescribed modernization strategy pursued over the past several decades was built on flawed premises. Two frequent expressions of discontent are: Would pursuit of the development strategy, within the existing configuration of North-South relations, condemn the developing world to perpetual subservience and exploitation?. And, would continued international support for elites, who frequently were antidemocratic, forestall long overdue social and economic reforms demanded by the poor and the middle class? (Reed 1992). The discontent of these people has helped to create new social movements. One branch of these is the environmental movement which will be analyzed in the following sections.

2. GRAND PERSPECTIVES

Latin American environmental thought has expressed a variety of different perspectives on the way ecological issues are seen. I have been able to identify six grand tendencies: conservationism, eco-marxism, the catholic perspective, the indigenous perspective, sustainable development, and ecofeminism.

2.1 CONSERVATIONISM

During the period 1960s - 1970s Latin American environmental thought was mainly concentrated on the problems of nature. During those years environmental action was carried out by organizations such as scientific-conservationist societies that were formed by scientists who had an affinity for ecology and whose objective was the investigation of national ecological problems. At the end of the 1960s natural scientists and students founded organizations with the goal of denouncing the deterioration of the environment and cooperating in its protection and conservation (Garcia-Guadilla 1992). These organizations had a technical conservationist and seemingly apolitical orientation (Nef 1995). That was the case of the Venezuelan "Sociedad Conservacionista Aragua", founded in 1973 to study and safeguard not only the physical-biological, but also the socio-cultural environment. Similarly, the Chilean "National Committee for the Defense of Flora and Fauna" (CODEFF) founded in 1968, its work, supported by independent scientific groups, focuses on three main areas: applied research for the preparation of position papers, environmental education, and lobbying (Environment Canada 1996).

2.2 ECO-MARXISM

Besides the emergence of these Conservationist Societies, Latin America experienced the emergence of a new ecological tendency. According to Elizabeth Dore (1995) the Latin American environmental thought during the 1960s and 1970s was "Ecological Marxism" which has been centered on the ecological consequences of capitalism. In those years, progressive Latin American movements embraced the dependency theory to explain underdevelopment. They argued that Latin American countries were poor because industrial countries appropriated their economic surplus. In addition to causing underdevelopment in the region, this transfer accounted for the rapid economic growth of the imperialist countries.

"Eco-dependency" theory was one of the dominant forms of anticapitalist environmentalism in Latin America. The theory argues that the above mentioned surplus has taken the form of "ecological pillage". Companies from capitalist countries earn a higher rate of profit in Latin America than in the US or Western Europe because they can despoil the environment far more than they could in their own countries. This has devastated the region's resource base and reduces long-term potential for accumulation (Dore 1995 and 1997).

A variant of eco-dependency argues that Latin America's underdevelopment was a consequence of foreign technological dependence. According to this view, western technologies are incompatible with the climate and soils in Latin America (Dore 1997). With time, the use of those inappropriate technologies degraded the fragile ecosystems of the region, producing an irreversible loss of the

region's natural productive potential. Examples of those foreign technologies are cattle grazing and monocrop agriculture.

Related to this position, we can identify the "Anti-Modern Radical Environmentalism", identified by Dore (1995). Its followers stress the sustainability of indigenous production systems and the unsustainability of the western ones. Indian production systems were inherently respectful of the environment, and European practices were intrinsically exploitative. Ecologists who adopted this framework suggested that economically rational strategies of development might be found in the technical wisdom of different social groups, in particular of indigenous groups. (A critique to that position is made in section 4.3).

Latin American "Eco-marxism" has some particularities that make it different from the Northern Radical Environmentalism. I would say that the movement in the region has been more centered on man rather than nature. The Latin American left has criticized many conservationists in the North for being more concerned with animals and plants than with people (Dore, 1995). Eco-Marxism is anthropocentric. The explanation for this could be found in part, in the profound influence of the Catholic Church (see below) which argues that the center of creation is man, and nature has been created to serve him. One needs to point out here that nature was given to man not for despoiling, but was given for his survival and as a "divine gift" that has to be protected. (R.P. Precht, 1993). It would be difficult to find support to characteristics of Radical Environmentalism such as "biospheric egalitarianism" and the rejection of human-centered arguments, since the Catholic tradition makes quite clear that man is superior to the rest of nature.

2.3 CATHOLIC PERSPECTIVE

It can be argued that Latin America is a “catholic continent”. The influence of the Catholic Church is profound. As an example, the 1980 Chilean Constitution declares the State of Chile as “catholic, apostolic, and roman”. The position of the Latin American Church regarding the environment can be summarized in the following points (RP: Precht, 1993).

Man is called to participate in a responsible way in the creation. He has to recognize the superiority of God as Lord of nature.

To “dominate” has to be conjugated with to “take care of”. Nature as a creation is a divine gift for man and his development.

God named man as “dominator” of nature, but he has to use it in a responsible and reasonable way.

Nature should not be in service of man’s consumerism. It was created to be in service of all human dimensions (contemplation, beauty, etc.).

It is necessary to think of creation as a whole and man as part of this whole.

Clearly, the center of the creation is the human community, who needs a healthy environment for surviving. The catholic perspective is anthropocentric, and this has encouraged many in the Catholic tradition to adopt a “preferential option for the poor and marginalized people” (CELAM, 1979). This belief has inspired the actions of the Catholic Church in community based organizations mainly in poor urban areas of Latin America. The struggle for social justice is the key element among these communities.

2.4 INDIGENOUS PERSPECTIVE

Latin America is currently, inhabited by more than 36 million indigenous people(see section 4.3). Their presence is rather important in countries such as Mexico and Peru, and Central America. The influence of the indigenous thought has been extreme important in the region. Regarding their understanding of nature, ECLAC (1991) has argued that the great majority of these people have a very special relationship with the land , which makes them potential allies in all efforts to protect the environment. Lately, the Latin American and the Caribbean Commission on Development and Environment (LCCDE) (1997) has argued that the man-nature-world view relationship is the foundation for the cultural identity of the indigenous peoples, and creates a comprehensive vision of development. For the Commission, this relationship must be respected by recognizing their right to self determination and the essential territory - comprising lands that are vital from the ritual and religious as well as the production standpoint - in order to strengthen their cultural identity and offer an alternative to destructive development. In fact, the main Chilean indigenous group's name is "Mapuche", "mapu" means earth and "che" means man, "Mapuche" could mean "man of the earth", which represents that there is an identification of the Mapuches with their land.

ECLAC (1991) argues for taking advantage of that reality. A basic criterion that should be adopted in formulating development policies geared to the needs of the indigenous population is that of promoting the enrichment of their culture and the strengthening of their identity. The organizational structures of indigenous

communities may help to promote sustainable development programs since they can mobilize the mystique and solidarity which indigenous populations feel for their institutions and leaders. It is through these organizations that technological progress can be made both in restoring the quality of the earth and in looking for new ways of making use of biological diversity, combining traditional know-how with contemporary scientific progress.

In a similar way, Toledo (1992) argues that the so-called "traditional cultures", that represent a whole alternative civilization (premodern), are meant to play a key role in the solution of the current ecological crisis. That is because indigenous cultures have worldviews, cognitive models, techniques, and social and productive ways of organization that have been considered a better way to manage nature.

Indigenous peoples in Latin America have struggled for protecting their environment in various ways. Their actions will be analyzed in section 4.3.

2.5 SUSTAINABLE DEVELOPMENT

During the 1980s a rather important preoccupation with the environment emerged in Latin America. Several events in those years converged to motivate Latin Americans into environmental action. First, there was a growing perception of the continent's ecological degradation. Problems such as the destruction of the Amazonian ecosystem; the contamination of water systems by pesticides, heavy metals, mercury, and urban waste; the deterioration of air quality in the large cities; deforestation; pollution from industry, mining and motor vehicles; soil and pasture degradation; etc.

became important issues for governments, academia, and the public in general. The Earth Summit's (1992) themes of biological diversity, global warming, and ozone depletion, were especially poignant to Latin Americans.

During the 1980s an important change also occurred related to the approach to environmental problems. "*Sustainable Development*" became the concept widely used to frame environmental issues in Latin America. The term was already present in the Stockholm Conference in 1972. Its most well known definitions were established by the "International Union for Conservation of Nature and Natural Resources" (IUCN) in "World Conservation Strategy" (1980) and by the "World Commission on Environment and Development" (WCED), established in 1983 by the UN General Assembly. Its report "Our Common Future" (1987) builds upon the concept of sustainable development, giving it definition and using it to shape its recommendations.

Sustainable Development is understood as development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It is a process of change in which exploitation of resources, the direction of investments, the reorientation of technology development, and institutional change are all in harmony and enhance both current and future potential to meet human needs and aspirations" (WCED, 1987,pages 43 and 46)).

The report argues that the satisfaction of human needs and aspirations is the major objective of development and that the essential needs (food, clothing, shelter, jobs) of vast numbers of people in the developing countries are not currently

being met. A world in which poverty and inequity are endemic will always be prone to ecological and other crisis. Hence, the Commission states that sustainable development requires meeting the basic needs of all and extending to all the opportunity to satisfy their aspirations for a better life. Regarding needs, WCED argues that they are socially and culturally determined, so, sustainable development requires the promotion of values that encourage consumption standards that are within the bounds of the ecologically possible and to which all can reasonably aspire. Meeting essential needs depends in part on achieving full growth potential, and sustainable development requires economic growth in places where such needs are not currently being met. But economic growth is not enough: high levels of productive activity and poverty can coexist, endangering the environment. Therefore, sustainable development requires that societies meet human needs both by increasing productive potential and by ensuring equal opportunities for everybody.

Regarding population growth, the report points out that the issue is not just one of population size but of the distribution of resources, and of demographic developments that are in harmony with the changing productive potential of the ecosystems. The correct use of natural resources is a key element in the definition of sustainable development: Roberto Guimaraes' (1994) definition of that concept will be analyzed later. The Commission acknowledges that economic growth and development involve changes in the physical ecosystem. Ecosystems cannot be preserved intact. In the case of renewable resources, the idea is that they need not to be depleted provided the rate of use stays within the limits of regeneration and natural growth. For non-renewable resources, WCED first states we should assume that their use reduces the stock available for future generations. But we need to use them, so the objective then

is that the rate of depletion should take into account the criticality of the resources, the availability of technologies for minimizing depletion, and the likelihood of substitutes being available. Finally, for the so-called free goods such as air and water, the Commission argues that the adverse impacts on the quality of air, water, and other natural elements are minimized so as to sustain the ecosystem overall integrity.

One of the most important contributions of WCED to the conceptualization of environmental problems is that they relate poverty and environment:

"Development that is sustainable has to address the problem of the large number of people who live in absolute poverty - that is, who are unable to satisfy even the most basic of their needs. Poverty reduces people's capacity to use resources in a sustainable manner; it intensifies pressure on the environment." (WCED, 1987, page 49).

As one way to reverse that problem, the Commission's report proposes reviving growth in developing countries. But it also argues for changing the quality of growth. Sustainable Development involves more than growth, which needs to become less material- and energy intensive and more equitable in its impact. It takes account of the improvement or deterioration of natural resources. Income distribution is specially important; it should be assumed that rapid growth combined with deteriorating income distribution may be worse than slower growth combined with redistribution in favor of the poor. Development needs to promote a view of human needs and well-being that incorporates such non-economic variables as education and health, clean air and water, and the protection of natural beauty. Sustainability should also work towards removing disabilities from disadvantaged groups, many of whom live in ecologically

vulnerable areas, such as tribal groups in forests, desert nomads, and indigenous people.

Finally, the WCED stated that the pursuit of Sustainable Development would require: a political system that secures effective participation in decision making; an economic system that is able to generate surpluses and technical knowledge on a self-reliant and sustained basis; a social system that provides for solutions for the tensions arising from disharmonious development; a production system that respects the obligation to preserve the ecological base of development; a technological system that can search continuously for new solutions; an international system that fosters sustainable patterns of trade and finance; and an administrative system that is flexible and has the capacity for self-correction.

The main critique of the concept of Sustainable Development has been that there is a vital contradiction in its objective. The world (natural environment) must be recognized and conserved, but at the same time it has to be "managed" with the same style of development that experience has shown almost destroyed the natural environment (Sachs, 1992). The ecological impoverishment of Latin America has been accelerated by the combined effects of the prevailing philosophy of development, based on economic growth at any cost, and the environmental degradation associated with the increasing number of poor people (Ortiz Monasterio, 1990). Any analysis of the ecological problems of the region must consider the situation of poor people. They are both agents and victims of environmental degradation in Latin America.

The concept of Sustainable Development was rapidly taken up by Latin

American environmental organizations such as urban middle class NGOs, and by governments, incorporating social as well as environmental issues and emphasizing the relationship between the two. In 1990 the "Comision de Desarrollo y Medio Ambiente de America Latina y El Caribe" (Latin American and The Caribbean Commission for Environment and Development) published the document "Nuestra Propia Agenda" (Our Own Agenda). It basically defines Sustainable Development in the same way as the WCED, identifying some special strategies for Latin America to achieve it. Some of these strategies are: reduction of poverty, improvement of the democratic system, sustainable use of the natural resources, territorial planning, technological improvement, and social mobilization through environmental education. The "Economic Commission for Latin America and the Caribbean" (ECLAC) published in 1991 "Sustainable Development: Changing Production Patterns, Social Equity and the Environment". The document had the intention of addressing the grand Latin American challenge; the attainment of integral development and the need to ensure the sustainable management of natural resources and the environment. The "United Nations Conference on Environment and Development" (Rio Summit) in 1992 was a key moment in advancing discussion of the concept of sustainable development. Environmental organizations began to analyze subjects from the perspective such as how structural adjustment policies, trade liberalization and the decision-making mechanisms within international financial and technical assistance institutions affect the environment.

But one of the problems of the concept is its lack of a precise definition. Many authors have tried to elaborate the concept. Indeed, Guimaraes (1994) has identified more than a hundred definitions!. A useful definition from a Latin American

point of view is given by Manuel Winograd (1995). He argues it should be a process which allows for the satisfaction of human necessities without compromising the basis of that development, which is to say, the environment. The objectives of development are to achieve an equitable process economically; a just and participative one, socially; one that reorients and is efficient with technology; and finally, one which uses, conserves, and improves the environment. He establishes some requirements:

In economic terms, it must not impoverish one group as it enriches another. It should avoid the exclusion of important sectors from the benefits generated by development.

In ecological terms, it must not degrade the diversity and biological productivity of ecosystems nor ecological processes and vital systems. It should maintain, recover, and restore the natural resource base of the areas of the highest productive potential as well as those of marginalized, deteriorated zones through adequate productive management.

In social and political terms, the roles of solidarity, coordination of action, participation by all sectors and individuals, and international cooperation are necessary.

In technological terms, sustainable development must increase the capacity to respond to change and maintain or increase available options for self-reliant adaptation. Technology will have to be rooted in the more efficient use of natural resources and the possibility of putting aside or increasing productive options, considering alternative technologies such as the indigenous ones; and not be limited to increases in productivity.

Finally, Winograd argues that the existence of diverse socioeconomic, cultural, productive, and ecological systems must be seen not as an impediment to development, but as a guarantee that the system will be able to respond to change.

Homogenization leads to the loss of options (cultural, social, and economic), and this loss goes against productive and ecological diversity. Although it is extremely difficult to foresee what will be the most socially and economically sustainable activities or what the value of resources will be in the long run, what should be sought in sustainable development is to preserve options and opportunities, having respect for cultural, social, and economic differences. I have to point out here that Winograd represents a social democrat political perspective.

Roberto Guimaraes (1994) has identified the operational criteria to achieve sustainable development: ecological sustainability, environmental sustainability, social sustainability, and political sustainability. Ecological sustainability refers to the physical base of the process of growth, and has as its objective the maintenance of the available stock of natural resources. Environmental sustainability is linked to the capacity of the ecosystem to endure and to repair the anthropic aggressions received. The objective of social sustainability is to improve people's quality of life. In the case of Latin America, the basic criteria should be a just distribution of goods and services and a global coverage of education, health, housing and social security. Political sustainability is linked to the democratization of both society and the State. In society it should improve social movements, and in the case of the State, sustainability should incorporate the concept of citizen's control of the State's activities.

Elizabeth Dore (1997) gives an interesting explanation for the success of Sustainable Development in Latin America. Referring to the conservationist perspective, she argues that in the past the Latin-American environmental movement

focused on how to protect all species except Homo Sapiens. They concentrated on conservation of rain forests, watersheds, and animals. With sustainable development the environment has become a human issue by linking the analysis of ecosystems with the conditions of human survival. Before that, environmentalists and politicians paid too much attention to issues like the tropical rain forest. Subjects such as the urban and rural ecosystems populated by the majority of Latin Americans have attracted little international interest, maybe because these subjects can be too "political". The concept of sustainable development explicitly links the concern for the environment with the needs of poor people who live in those areas.

The situation of poverty of a large number of Latin American people is an undoubted fact. ECLAC (1991) argues that towards the end of the 1980s there were close to 183 million poor people in Latin America. Of the total number of poor people at the end of the decade, about 88 millions were indigent. The increase in the number of poor people was almost entirely concentrated in urban areas, although the share of poor population made up of indigents showed a greater increase in rural areas. The main concern of these poor people is to achieve a dignified standard of living for themselves and their children. Not without reason it can be argued that they felt the environmental issues as subjects far from their priorities. The protection of plants and animals can have no meaning for a person who does not have the essential needs for his survival. Sustainable development was an important step forward, making environmental protection a subject close to poor people's reality.

I would argue for two other possible reasons for the appeal of the concept among the urban middle class and the governments in Latin America.

Sustainable development is "anthropocentric", a characteristic that makes it closer to the Catholic understanding of the relationship between man and nature; in which Man is the center of the creation. (See above). That concept fits the Catholic view, makes it appealing in a continent which is, culturally preponderantly Catholic. Second, in the political area, one of the successes of Sustainable Development, from the Latin American public's point of view, is that the concept includes the issue of social justice without being Marxist. The "fear of Marxism" is a social feeling that is still present in countries such as Chile, Argentina, and Brazil that have lived under rightist dictatorships. In fact, the "right" continues being an important political force in those countries among the upper middle classes.

As noted above, sustainable development has become the basic doctrine of Latin-American environmentalism. But despite the fact most of Latin America has recovered democracy (see Introduction) and that almost every State has incorporated the concept into its political agenda, it is clear that neither governments nor international organizations have been able to achieve sustainable development and therefore to solve Latin American environmental problems.

David Kaimowitz (1996) identifies three major problems that have limited the possibility of more general progress: difficulties involved in linking environmental issues with concerns for social justice; the current emphasis in Latin America on economic policies which weaken the public sector and promote exports based on the exploitation of natural resources and cheap labor; and the considerable influence over the region's governments of economic groups involved in deforestation and polluting activities and of international financial institutions.

Neoliberalism has been blamed for having failed in solving the environmental problems of the region. They have had a tendency to promote competitiveness based on natural resource exploitation and low wages and to weaken the capacity of the state. (see section 1.2). Authors such as Elizabeth Dore (1995) and Roberto Guimaraes (1994) blame the World Bank and institutions such as the International Monetary Fund (IMF). They argue that there is a great contradiction in the Bank's activities. (see section 4.1). Guimaraes points out that since the "Rio Summit" the World Bank has been one of the main international promoters of sustainable development, specially since it is responsible for financing "Agenda 21". But if we look at the data we can easily identify the mentioned contradiction. The Bank has allocated 2 million dollars to reduce carbon monoxide emissions in China, and at the same time allocated 310 million dollars to the construction of energy plants that use coal, and 1,000 million dollars to transportation systems that use fossil sources of energy.

For Roberto Guimaraes (1994) the problem is that there is a "vital contradiction". On one side organizations such as UN, and ECLAC agree that the current style of development is exhausted and has been damaging the environment. But at the same time the measures that are required to really achieve the alternative style of development are not being taken. The style of development continues being based on neoliberalism, which includes structural adjustment, the decrease of public expenditure, and openness to foreign investments. The same actors that have been the promoters of the current style of development are also claiming to be the promoters of sustainable development, so they have too much to lose in implementing it. Herein lies the principal answer for the failure in implementing ecological policies in Latin America. It is

illustrated by the case of Santiago de Chile, where everybody, including businessmen and decision-makers agree in being worried for the grave air pollution in the city, but they will not take a decision that could damage their economic interests. It also applies to the case of the World Bank already mentioned. Finally Guimaraes identifies the fundamental problem of sustainable development as the lack of an effective social actor whose main priorities are natural resources as the base for an ecological and environmental sustainability.

Even where measures are taken to initiate sustainable development, one of the reasons for the failure of implementing it in Latin American countries is the lack of adequate systems and organizations for applying an environmental policy in relation to the national requirements. LCCDE (1997) has argued that the Andean countries lack tools for the public or private management of their resources, and those that do exist generally function inadequately. The institutional shortcomings are particularly pronounced in relation to management of river-basin water resources, forest, fauna, and soil conservation. Little has been done to institutionalize stable management systems. The efforts made have taken the form mainly of short-term investment projects which in general have not succeeded in attaining their objectives.

Finally, the Chilean Nicolo Gligo (1996) has identified "Sustainabilism" as an attitude that is threatening the environment. Everyone subscribes to sustainable development, and many claim to practice it. But the force of the environmental movement can be neutralized by the apparent claims of everyone to follow the path of sustainable development. To declare one's support for sustainability is not the same as actually practising it. Herein lies the confusion or in many cases the manipulation. The

panacea of sustainable development is brandished as a new standard by those who do not really want to change the current pattern of development. This approach could channel needed support away from serious environmental measures. It is well known that the transition to an environmentally sustainable style of development requires more than "cosmetic" or marginal measures. There is a danger that superficial approaches may be taken in implementing "Agenda 21". For Gligo, if misused or misinterpreted, the concept of sustainable development, instead of contributing positively to the environment, will become another factor in worldwide environmental degradation.

2.6 ECOFEMINISM

The term ecofeminism was introduced in the mid 1970s by the French feminist Francoise d'Eaubonne. She blamed the two most immediate threats to our survival, that is overpopulation and the destruction of our resources on what she called the "Male System". In her view the only way out would be women's destruction of the male power. The term ecofeminism now refers to a stream within the feminist movement, containing a range of theoretical positions which rest on the assumption that there are critical connections between the domination of nature and women. Ecofeminism points to the interconnections between feminist and ecological concerns.

Two main streams can be identified within ecofeminism: cultural or natural ecofeminism and social ecofeminism. Cultural or natural ecofeminism accepts the association of women and nature. They claim that women's essential features, such as empathy, caring, and female ways of knowing which are based on connectedness, can help to develop new, better, less violent and more sustainable

ways of living and social relations. Social ecofeminism is based on the social construction of gender. This stream attempts to draw from and to transform the socialist-feminism tradition and to provide it with the tools to analyze the degradation of the environment. Stress is on developing the conceptual tools for working towards ecological and social change (Braidotti and others, 1994).

In Latin America the focus on women to improve environmental stewardship is a recent phenomenon. In general the region's ecofeminist movement has adopted the concept of social ecofeminism. Latin American ecofeminist concerns are socially oriented, centered on issues such as deforestation, structural adjustment, fertility control, toxic gas leaks and irrigation, etc. (Braidotti and others, 1994) (see section 4.6).

3. GRAND THEMES

For the Latin American environmental movement as a whole, there have been three environmental problems that have been considered the most important: urban contamination, deforestation in Central America, and in Amazonia.

3.1 URBAN CONTAMINATION IN LATIN AMERICA

At the end of this century, Latin America is mainly urban. Between 1960 and 1995, the number of city-dwellers in the region rose by over 200 million. Today, three out of four Latin Americans live in cities or places that may be classified as urban (ECLAC, 1991). The process of urbanization in Latin America has been largely due to the combined decisions of millions of individuals to move to the city in search of jobs, and better access to health care and education for their children. The capitalist transformation of agriculture set in motion a process of rural-to-urban migration. The declining viability of peasant production, combined with the concentration of land holdings, meant peasants either abandoned or were evicted from land. Because machinery, pesticides, and fertilizers have revolutionized agricultural production and processing, only a small proportion of the rural poor have found permanent work in the countryside. As a consequence, people have migrated to urban centers in search of employment. The capital cities of Latin America, with their concentration of industry, commerce, and government, became magnets for the rural poor (Dore, 1996). During this century the process of rural-urban migration has been huge. In 1960 there were already more people living in urban than in rural areas. By 1995, Latin America had changed beyond recognition: not only did the urban population exceed the rural

population by a factor of three, but there were fewer people living in the countryside than in 1960 (Wehrhahn, 1997). The following tables clearly show the situation.

Table 3.1.1 PERCENTAGE OF URBAN POPULATION (Percentage of Total Population)

COUNTRY	1970	1980	1990	2000
Uruguay	82.0	85.0	84.0	91.0
Argentina	78.0	83.0	87.0	90.0
Venezuela	72.0	79.0	84.0	87.0
Chile	73.0	79.0	83.0	86.0
Colombia	58.0	64.0	83.0	84.0
Brazil	56.0	67.0	75.0	80.0
Mexico	59.0	66.0	71.0	76.0
Peru	58.0	64.0	69.0	72.0
Bolivia	41.0	46.0	56.0	65.0
Ecuador	40.4	47.5	55.0	63.0
Nicaragua	47.0	51.0	55.0	60.0
Panama	48.0	50.0	54.0	58.0
Paraguay	37.0	42.0	49.0	56.0
El Salvador	39.0	44.0	49.0	55.0
Suriname	45.9	44.8	46.8	52.2
Costa Rica	39.0	43.0	47.0	50.0
Honduras	29.0	35.0	41.8	48.0
Guatemala	36.0	37.0	38.0	39.0
Guyana	29.4	30.5	33.2	38.2

The term "urban" is defined as it is used in each country
Source: ECLAC, 1997.

**Table 3.1.2 POPULATION GROWTH RATES OF THE MAIN METROPOLITAN AREA
(Average Annual Rates)**

COUNTRY	MAIN METROP. AREA	Around a) 1970 – 1980	Around 1980 – 1990
Argentina	Greater Buenos Aires	1.6	1.1
Belize	Belize City	0.0	---
Bolivia	La Paz	2.6	3.6
Brazil	Sao Paulo	4.4	2.0
Chile	Santiago	2.7	1.8
Colombia	Bogota	3.0	2.4
Costa Rica	San Jose	3.9	2.5
Ecuador	Guayaquil	4.6	2.9
El Salvador	San Salvador	---	---
Grenada	St. George's	-0.1	---
Guatemala	Guatemala City	2.2	2.3
Guyana	Georgetown	0.2	---
Honduras	Tegucigalpa	---	4.9 b)
Mexico	Mexico City	4.2	0.8
Nicaragua	Managua	---	3.0
Panama	Panama City	3.0	3.2
Paraguay	Asuncion	3.3	3.5
Peru	Lima	3.7	2.6
Uruguay	Montevideo	0.7	0.6
Venezuela	Caracas	2.0	0.6

Metropolitan refers to the city in question plus the high density zones in its environment

a) The data refer to the years in which population and housing census were conducted in each country; i.e. around the year at the top of the column.

b) Refers to 1974 - 1988

Source: ECLAC, 1997

According to Wehrhahn (1997), the socio-economic and ecological situation of Latin American cities today was decisively marked by the way in which urbanization proceeded. In most of the countries urbanization took place at breakneck speed over just a few decades, so that some Latin American countries now top the international list in terms of the degree of urbanization. Without any doubts, that process in Latin America has been far from sustainable. ECLAC (1991), identifies the following main characteristics of Latin America's process of urbanization which are obstacles to achieving a sustainable development.

Concentration of the population, production, services, and decision

making in a small number of urban centers. In several countries up to 50% of industrial output (and the generation of industrial wastes) is concentrated in the main city.

High growth rates of the urban population, which will convert Latin America into the most urbanized region in the world in the next century.

High deficits in the provision of basic infrastructure and services, particularly in low-income urban sectors and rural areas.

Limited control over disposal of waste from domestic and productive activities and over the use of land resources. Only a small number of cities in the region have waste water treatment systems, and many of them have solid waste disposal systems which cover less than 50% of their waste production.

The particular characteristics of urbanization in Latin America have provoked considerable environmental impacts. During the last forty years, Latin American cities have experienced a quick process of deterioration. Today they face enormous environmental challenges. These are consequences of decades of population growth, economic expansion and a skewed income distribution. (Davila, 1997).

The speed of urbanization, the socio-economic origin of immigrants, and the relatively high rate of natural population increase, determine the extend and mode of settlement expansion, and thereby the environmental situation within the cities. Illegal or semi-legal settlements spring up, mostly without infrastructure and often also on slopes threatened by erosion, on river flats endangered by flooding, or in swamps or other areas posing a threat to health, creating serious environmental problems. Indeed, the expansion of poor urban sectors has led to the settlement of hillsides in cities like

Bogota, Quito, Rio de Janeiro, Caracas, Merida, Medellin, Guatemala City, Tegucigalpa, Santiago de Chile, and many other Andean cities; and also in floodplains, as in Belen, Manaus, Guayaquil, Resistencia, Asuncion, Formosa, and Buenos Aires. The intensive settlement of areas in the form of lower class quarters not only directly damage the ecology of these areas, but at the same time it impedes the supply of infrastructure, for example when there is no access for refuse vehicles in densely settled slums. Another problem identified specially present in Santiago de Chile, is the problem that results from the great distance between private housing and the location of the inhabitants' work place. Due to the poorly developed local public transport, and the resulting congestion of the roads, the air pollution increases as a result of motor vehicle emissions.

Analyzing the process of urbanization in Latin America, Roberto Guimaraes (1994) points out that while in 1980, 22 Latin American cities were inhabited by more than 4 million people, in 2000 that number will grow to 60 in the region. In the developed world, the number of such cities will increase from 16 to 25. Ten out of the twelve most populated cities in the world in 2000 will be located south of the Equator, half of them in South America, Mexico and Sao Paulo ranking first and second respectively. By then, close to 40% of the region's population will be living in cities with more than 1 million inhabitants. Keeping in mind that 60% of people in Latin America don't have access to sewage systems and 90% of the dirty water flows directly into rivers without any treatment, one can tell the magnitude of the bad shape of Latin American urban ecosystems. Besides, while the air quality in London, Los Angeles or Tokyo has improved substantially in recent decades, it has become very unpleasant to breath in Mexico City, Lima, Santiago de Chile or Sao Paulo. Mexico City and Santiago

have had to impose severe restrictions on activities due to the high levels of air pollution. Some of them are "states of emergency" when industrial activities have to stop in 30% and "car-free-days", when cars according to their registration plate cannot circulate.

As Latin American cities' economies expanded in the 1950s and 1960s, so did the number, concentration and diversity of polluting activities, such as manufacturing industries, vehicles and households. The governments were often more interested in supplying an increasing urban population and their employers with basic services than in confronting pollution. Now, according to Davila (1997) and Gligo (1995) they have to deal with urban problems such as air and water quality, the growth of poor settlements around urban areas, the supply of basic services, land scarcity and use, refuse disposal, and hazardous wastes.

Basic Services

The spontaneous growth of settlements around large and medium-sized cities as a result of urban-rural and inter-urban migration has been notable in Latin America. Dore (1996) argues that the states in Latin America have been unable to provide the infrastructure to adequately integrate the waves of poor rural migrants into the fabric of their cities. Arrivals established squatter settlements without any measure of planning and that usually lacked legal tenancy. Continuing conflicts over the legality of the settlements and scarce government funds have given rise to the proliferation of vast neighborhoods that lack basic services such as streets, drinking water, sewage, and garbage disposal. That situation created serious environmental problems that were

made even more worse by population density.

In a similar way, Gligo (1995) points out some phenomena related to that situation. First, new settlements often lack even the most rudimentary basic services. They have no sewerage systems, and the population does not have ready access to drinking water, often they have to get it from community outlets or fountains, or in extreme cases, they have to buy it from tank trucks. The second common problem is that in the majority of Latin American cities' piped drinking water is not available to 100% of the population. The rate of households connected to supply in Latin American cities runs between 15-100%, with the level of supply tending to decrease from the city center to the quarters of the lower classes on the periphery. It is also possible to observe social differentiation in the water demand. In Mexico City, 75% of the total available quantity of water is consumed by 9% of the population (Wehrhahn, 1996).

In some large urban centers, such as Buenos Aires and Mexico, water is obtained by tapping into local aquifers. In the Buenos Aires metropolitan area, around 55% of the population draws water from these strata, and those closest to the surface are believed to be heavily polluted with both organic matter and chemicals.

The high growth rates in most Latin American cities cause the authorities difficulties in keeping up with the laying of new pipes, while at the same time maintaining the existing network, specially since the urban expansion runs more in horizontal than in a vertical direction. Wehrhahn (1996) points out the case of Sao Paulo where the water network had to be extended from 12,000 km to 27,000 over the period 1974 and 1990 as the population approximately doubled in size.

Sewerage systems in Latin American cities are not the best. The rate of household connections to the sewerage system fluctuates between 30 and 90%. The main related problem is the issue of treatment of used water. Rivers in rich countries have become steadily cleaner over the past couple of decades. Rivers in the poorest developing countries have shown marked falls in levels of dissolved oxygen, a key indicator of increased pollution by sewage. An estimated 90% of sewage in developing countries is discharged into rivers, lakes and seas without any treatment (The Economist, 1998). The pollution of waters by industrial firms is further aggravated by the massive discharge of untreated domestic sewage. According to the 1992 World Development Report, only 2% of all sewage effluents in Latin America receive treatment before discharging. Nicolo Gligo (1995) concludes that according to these data, the region's indexes of water pollution are very high. Water supplies have high indexes of aluminum, ammonia and coliform bacteria. The tendency for malaria and cholera to become endemic is an outcome of this state of affairs.

Analyzing the same problem, Davila (1997) argues that under pressures of rapid population growth, Latin American governments placed the expansion of the supply of basic services at the center of their action. The results were mixed. Today, the wealthier residents in most cities have relatively reliable access to drinking water, sewerage and electricity, the homes of many among the poor lack one or more of these basic services, the number of these people has been estimated in 100 million. In many poor settlements the usual way of obtaining electricity is by tapping into transmission lines via illegal hook-ups. The lack of drinking water and sanitation is the cause of a range of health problems such as cholera mentioned above. The health problem is

really serious if we consider that the lack of basic services is often coupled with overcrowding and poor housing conditions where disease vectors can spread more easily and children and adults can be injured from households accidents such as fires or burns from cooking oil. The problems of access to safe drinking water and sanitation are even worse in rural areas as it is shown in the tables.

Table 3.1.3 ACCESS TO SAFE DRINKING WATER , 1980 – 1995 (percent)

Central America	Urban	Rural
Belize	96.0	82.0
Costa Rica	88.0	99.0
Cuba	88.0	99.0
El Salvador	78.0	37.0
Guatemala	92.0	43.0
Honduras	81.0	53.0
Jamaica	96.0	46.0
Mexico	91.0	62.0
Nicaragua	81.0	27.0
Panama	100.0	100.0
South America		
Argentina	73.0	17.0
Bolivia	78.0	22.0
Brazil	85.0	31.0
Chile	94.0	37.0
Colombia	88.0	48.0
Ecuador	82.0	55.0
Guyana	90.0	51.0
Paraguay	61.0	9.0
Peru	74.4	23.6
Suriname	82.0	56.0
Uruguay	100.0	5.0
Venezuela	80.0	75.0

Source: World Resources Institute, 1996

Table 3.1.4 ACCESS TO SANITATION SERVICES , 1980 – 1995 (percent)

Central America	Urban	Rural
Belize	24.2	88.9
Costa Rica	99.4	98.2
Cuba	71.3	51.3
Dominican Rep.	93.0	71.0
El Salvador	92.0	59.0
Guatemala	72.0	52.0
Honduras	88.2	53.2
Jamaica	14.0	---
Mexico	85.5	25.0
Nicaragua	32.0	---
Panama	100.0	73.2
South America		
Argentina	100.0	29.0
Bolivia	62.9	17.5
Brazil	84.0	32.0
Chile	84.8	6.0
Colombia	73.2	36.8
Ecuador	86.0	34.2
Guyana	100.0	84.0
Paraguay	31.0	60.0
Peru	62.0	9.3
Suriname	64.0	36.0
Uruguay	60.0	65.0
Venezuela	97.0	72.0

Source: World Resources Institute, 1996

Air Pollution

In comparison with conditions in metropolitan cities worldwide, the Latin American ones suffer from extremely high levels of air pollution. According to data supplied by UNEP, Sao Paulo, Rio de Janeiro, Belo Horizonte, Bogota, Santiago de Chile, Mexico City, Guadalajara, Monterrey, Lima-Callao and Caracas belong to the cities which must be accorded the highest priority in the control of air pollution (Wehrhahn, 1996).

Glago (1995) identifies two main factors that are increasing urban air

pollution. First, the mounting number of motor vehicles in operation, and second the expansion of industrial activity. The number of motor vehicles has increased significantly in almost all the Latin American countries. The use of hydrocarbon fuels rose by 5.8% per years between 1970 and 1980, and by 3.6% per year between 1980 and 1990. (ECLAC 1992, cited by Gligo 1995). According to Wehrhahn (1996), pollution from motor vehicles reflects the following factors: the intense polarization of economic activities, due to the fact that traffic is concentrated in a relatively limited space. For example, 50% of all Mexican vehicles are registered in Mexico City. In general, transport planning has been unable to keep up with the rapid growth of local and public transport, and has problems in keeping the urban traffic flowing. This situation has a negative effect upon the quality of the air due to greater emissions from cars travelling at a very low speed. The second factor is that in the poorest countries vehicles tend to be older than the North American models, with high petrol consumption but no device for reducing emissions. In addition, the fuel quality is inferior; it often contains a high proportion of sulfur.

Industrial activity has also increased significantly, specially in large cities. The decades that witnessed the urban demographic boom were also decades of industrial expansion. Subsidies and tax incentives promoted the concentration of industry in the region's capitals. Transport facilities and the growing urban population, providing workers and consumers, made it attractive for industry to locate in the metropolitan cities. In the period 1992-1996 growth of per capita manufacturing product expanded at a rate of 0.79%, the percentages for countries such as Chile, Peru, and Ecuador, were 4.12%, 3.24%, and 2.76% respectively (ECLAC, 1997). Industrial plants, most with minimal pollution control devices, are spewing contaminants into the

atmosphere. Governments in an attempt to promote economic growth, have been unable to impose regulations that may discourage investment (Dore, 1996)

Table 3.1.5 GROWTH OF PER CAPITA MANUFACTURING PRODUCT, AT CONSTANT MARKET PRICES (1992 – 1996 average rate based on figures at constant 1990 prices)

COUNTRY	1992 – 1996
Argentina	2.60
Bolivia	1.08
Brazil	1.48
Chile	4.12
Colombia	-3.40
Costa Rica	1.54
Ecuador	2.76
El Salvador	2.66
Guatemala	0.16
Honduras	1.14
Mexico	0.88
Nicaragua	-2.70
Panama	2.26
Paraguay	-1.70
Peru	3.24
Uruguay	-0.94
Venezuela	-1.72

Source: ECLAC, 1997

The most important air pollutants are particulate matter, lead, cadmium, aerosols, acids, hydrocarbons, ozone, and sulfur oxide. Some cities, such as Mexico City have organic substances as air pollutants such as wind-borne fecal matter from open-air latrines. Several studies of Mexico City, Cubatao and Santiago de Chile have established a connection between air pollution and diseases of the respiratory tract. Sulfur dioxide is associated with lung diseases, lead emissions with high blood pressure, lead and carbon monoxide may affect the central nervous system, and ozone is responsible for mucus irritation and respiratory illnesses (Davila, 1997 and Wehrhahn, 1996).

Wehrhahn (1996) has made a scale of Latin American cities according to their grade of air pollution. In the top, Mexico City, Sao Paulo and Santiago de Chile with huge pollution indexes. Secondly, Buenos Aires, Bogota, Rio de Janeiro and Caracas are not free of the problem but because of their geographic locations and climatic conditions they are less seriously affected. Other cities poorly located are following in the scale: La Paz, Quito, Minas Gerais, Salvador de Bahia, Cordoba, Medellin, Cali, Rio Grande, Rosario, Guayaquil, Concepcion, Montevideo, Guatemala City, and Guadalajara.

In Chile, urban environmental problems had been ignored until recently, reflecting the view that one can "grow first and clean-up later" (Meyer, 1996). Severe air pollution in Santiago affects more than 5 million people. Particulate concentration levels and CO in the winter season (April to October) and ozone in the summer (November to March) substantially exceed World Health Organization guidelines. Particulate concentration levels are among the highest in any urban area of the world. Emissions from inadequately maintained diesel buses, the constant increase in the car fleet, relaxed controls on industry and highly emitting wood burning in winter for heating in many homes are the main sources of pollution (Table 3.1.6).

Table 3.1.6 SOURCES OF ATMOSPHERIC CONTAMINANTS IN GREATER SANTIAGO 1987 (ton/year)

Source	Suspended Particulate Matter	Sulfur Dioxide (SO _x)	Nitrogen Oxides (NO _x)	Suspended Organic Matter	Monoxide Carbon (CO)
Industrial Ovens and Boilers	3,444	4,440	740	472	19,651
Industrial Electric Motors & others	1	1	20	9	216
Industrial Process	4,504	13,878	63	7,891	1,645
Building Boilers	209	702	70	5	95
Residential Combustion	1,661	379	237	419	20,114
Outside Fires	438	26	161	847	2,377
Evaporation of Organic Matter from non industrial processes	---	---	---	5,348	---
Fugitive Dust Without Chimneys	33,910	---	---	---	---
Movil Sources Combustion	2,661	3,008	11,530	14,011	183,057
Total	46,828	22,434	12,821	29,002	227,155

Source: CONAMA 1994

Solid Wastes

Another important environmental problem in Latin America is refuse disposal which generates land, water, and air pollution. The problem can be found in all Latin American cities and is mainly attributable to their inability to dispose properly urban, industrial, hospital and other waste. The lack of waste management is affecting the Latin American urban population as a whole, but especially poor people who live near garbage dumps.

Refuse collection should be just a first step in the process of waste management but even at this point deficits can be identified. While in Caracas, Santiago de Chile, Buenos Aires, and Sao Paulo 90% of refuse is collected, the rate is reduced at 70%-80% in places like Lima, Quito and Santo Domingo (Wehrhahn, 1996). The problem has various causes. Gligo (1995) identifies two: the inability of municipal bodies to dispose of the garbage that is generated or to create and supervise a

privatized system to do so; and the absence of a general awareness of the need of waste management, instead the tendency is for people to just learn to live with it as part of the landscape.

The most common waste-disposal system is to pick up garbage and then dump it in an open waste-disposal site, some cities do have sanitary landfills. The main problem is that in many cities more than half of the refuse is directly dumped in forest, rivers or the sea. The illegal refuse dumps and polluted rivers are potential agents for disease not only to the health of the immediate neighbors but also to other communities for the potential spread by wind or water. Wehrhan (1996) mentions the cases of dust storms in Mexico City and floods in towns situated on a river, such as Manaus in Brazil.

The last urban environmental problem in Latin America to be analyzed is the presence of hazardous wastes. Only Brazil, Mexico and Argentina have industrial waste management policies. In the majority of the countries industrial waste is disposed together with domestic refuse despite its known hazardous waste content. Pollution from this kind of waste is increasing significantly in the last years. In rural zones, the use of pesticides does serious harm to the peasant population. The pollution by pesticide use in rural areas is compounded by the effects of mine tailings and the contaminants given off by the smokestacks of blast furnaces and similar installations. Giglio (1995) mentions the pollution in the coastal valleys of Peru, the impacts of the tailings generated in Bolivia and Chile and the pollution associated with gold mining in Brazil and Ecuador.

Hazardous waste is also a problem in urban areas. Types of this kind of

waste present in Latin American cities are: industrial waste, garbage generated by hospitals and clinics including radioactive materials, old engines motor vehicle, and domestic articles such as batteries. These types of waste are not separated out or treated in any special way. Another problem to be worried about is the transborder movement of hazardous wastes into the region. The most frequent argument for the introduction of such wastes is their potential for use as raw material. The largest proportion of hazardous wastes coming into Latin America does so under terms of agreements entered into by the United States and Mexico. The implementation of the "Basle Convention on Control of Transboundary Movements of Hazardous Wastes and their Disposal" in 1992 has made for a more promising outlook for Latin America in the field. Though it appears there continues to be considerable illegal activity

Responses

Measures adopted by Latin American Governments to reduce pollution have been mainly related to improve air quality indexes. Sao Paulo and Santiago de Chile are two good examples. By 1988 Sao Paulo was able to bring 78% of its pollution sources under control and, as compared to 1984 levels, suspended particles had decreased by 70%, nitrogen oxide by 14%. Efforts have been made to combat pollution but the situation is still catastrophic. Between March and August, stationary-source emissions (industry) fill the air, carbon monoxide normally exceeds the permissible levels. Cubatao, a municipality located within the Sao Paulo metropolitan area, is called "Death Valley" because of its pollution levels. In Santiago de Chile, the enormous increase in the number of motor vehicles in 15 years, the intensive development of industry, and problems of urban management, in combination with adverse weather

and orographic conditions, have contributed to high levels of air pollution. Particulate matter and carbon monoxide frequently exceed acceptable standards. Some measures taken by the government have been the requirement that all new motor vehicles must be fitted with three way catalytic converters, the introduction of "car-free-days", the auctioning of bus route permits and the reorganization of the mass transit system, and the expansion of the subway system. Nevertheless, the city's rapid economic growth means more motor vehicles, more power use and more industrial investment. According to the experts, the ground won by means of these measures has been canceled out by the ground lost as a result of the city's vigorous economic expansion in recent years (Glifo, 1995).

Unfortunately, few Latin American cities have organized recycling systems. Some good examples are located in Santiago de Chile where 38% of the city's gas is produced from household garbage, Santo Domingo where metals, plastic and timber are recycled and Sao Paulo.

People in some Latin American cities have organized urban environmental movements. In general it can be argued that the movement has two faces: poor people and middle urban class. Peter Grohmann (1996) has analyzed the movement among poor people. In general the movement tends to combine poverty with environmental problems. Their preoccupations include air pollution, water quality, solid wastes, and prevention of soil erosion. Some of the solutions that they propose are: the use of local materials for building houses, the use of rain water for saving money, recycling not only as a way of prevention but also as a source of money, and in slopes areas they propose forestation to prevent landslides. The urban middle class as an

environmental group will be analyzed in section 4.2. Despite the emergence of these movements and the preoccupation of the governments, environmental problems in Latin American cities are far from being solved.

3.2 DEFORESTATION IN CENTRAL AMERICA

The benefits of the forest for humanity are well known. It has important ecological functions, It is the habitat of millions of species, it protects soils from erosion, it moderates temperature and flooding, and it provides food and wood. Despite all these benefits, human activity has destroyed the World's forests in a serious way. Since the 1960s more than 200 millions hectares of forest have been destroyed around the World. According to FAO estimates, Latin America's rate of deforestation during the 1980s was 5.9 millions of hectares of dense forest per year and 1.1 million hectares of other types of woodlands and shrublands. In addition, another 3 million hectares of woodlands are being altered. This means that a total of 10 million hectares of wood lands are being destroyed or degraded each year (Glifo, 1995). During the 1990s, the World's tropical forests have had a rate of deforestation of approximately 11 million hectares per year. Deforestation is perhaps the most urgent problem related to land use, especially in under developed areas. The annual rates of deforestation of those areas during the 1980s were 0,53% for Africa, 0,58% for Asia, and 0,61% for Latin America and The Caribbean.

In Tropical Latin America deforestation has been triggered mainly by agriculture, land speculation, cattle raising and population growth. Migratory agriculture has been responsible of 35% of deforestation in Latin America and The Caribbean,

49% in Asia and 79% in Africa. The increase of deforestation has been specially serious in Amazonia, but also serious in countries such as Costa Rica, El Salvador, Colombia, Mexico, and Argentina. (CDMAC, 1990).

Table 3.2.1 DEFORESTATION IN LATIN AMERICA AND THE CARIBBEAN (Annual Rate 1980-1989)

Region	Area thousands of ha	Annual rate (%)
South America	4,646	0.54
Central America and Mexico	1,090	1.60
The Caribbean	10	0.50

Source: CDMAC, 1990

In the Latin American environmental literature one of the most analyzed problems is deforestation in Central America. This has been treated particularly by the radical environmentalist school of thought which has blamed the model of capitalist development promoted by the United States during the last four decades for having produced a significant ecological crisis in the region (Faber 1992, Dore 1995). But whoever is responsible, the truth is that deforestation in Central America is currently one of the main environmental problems in Latin America.

Table 3.2.2 CENTRAL AMERICA AND MEXICO: FORESTRY RESOURCES AND DEFORESTATION, 1980 – 1990 (Thousands of hectares)

Country	Native Forest (total area)		Deforestation, 1981-1990	
	1980	1990	Annual area	Annual rate (%)
Costa Rica	1,923	1,428	50	2.6
El Salvador	155	123	3	2.1
Guatemala	5,038	4,225	81	1.6
Honduras	5,720	4,505	112	1.9
Mexico	55,366	48,586	678	1.2
Nicaragua	7,264	8,013	124	1.7
Panama	3,761	3,117	64	1.7
Belize	2,046	1,996	5	0.2
Cuba	1,888	1,716	17	0.9

Source: Gligo, 1995.

Until the end of the nineteenth century the Pacific coast of Central America was a ribbon of mangroves and tropical forests dotted occasionally with farms. Peasants entwined in subordinate relations with larger landowners grew food and grazed cattle on small farms and common lands. They produced largely for family consumption, selling their surplus on the small national market. The expansion of agroexport production after World War II profoundly altered the social and natural fabric of the region: cotton and cattle were the cause of that transformation. At the end of the War the nations of Central America remained economically and socially underdeveloped and dependent on the markets of the First World, specially the United States. Just two crops, coffee and bananas, dominated the region's exports, mainly in countries such as Costa Rica, El Salvador and Guatemala (Faber 1994).

During the 1940s cotton was mainly consumed domestically and exported occasionally. In the 1950s, to promote development, the US government and

international agencies such as USAID, the Inter-American Bank of Development, and the World Bank, financed experimentation with modern methods of cotton cultivation. In 1939, an organochlorine pesticide, DDT, was discovered, becoming the more used pesticide in the region (ECLAC, 1991 and Dore, 1995). The agencies also financed malaria and disease eradication projects, and road and port constructions.

From 1950 to 1970, peasants were evicted from their traditional landholdings by landowners to make way for the cotton, then they hired them as wage laborers to plant, tend, and harvest the crop. But cotton provided work for few months a year. To survive, peasant families grew corn and beans. Dore (1995) argues that that interdependence of the capitalist cotton economy and the subsistence peasant economy was socially exploitative and ecologically destructive.

Virtually all the coastal humid hardwood forests were destroyed, including stands of old-growth ebony, cedar, mahogany, and granadilla. Coastal savannas, evergreen forests, and large areas of coastal mangroves were also cleared. Animals such as howler monkeys, anteaters, and white-lipped peccaries, nine-banded armadillo, the aguti, the coyote, the grey fox, the tepescuintle, the puma, and the white-tailed deer were greatly reduced. Faber (1992) blames cotton for most of the damage. Along Nicaragua's Pacific plain cotton expanded 400%, and peasants' land devoted to corn, beans, sorghum, and other grains dropped over 50% from 1952 to 1967. In Nicaragua, by 1970 cotton occupied 80% of the Pacific plain's arable land, 40% of all the cultivated land in the country. In 1972, some 221,312 acres of the Pacific lowlands were in cotton, almost completely displacing poor peasants or "campesinos". Faber goes on to argue that by the late 1970s the landed oligarchy and the newly

emerging agrarian bourgeoisie had carved over 10,000 farms and some 1,004,796 acres of cotton fields from the ancient tropical forests of the Pacific lowlands and employed half a million workers.

By then, Central America was producing over a million bales of cotton annually, which ranked the region third, behind the United States and Egypt in sales in the world market. Dore (1995) argues that Central America was particularly vulnerable to international competition because of the small volume of regional production of cotton, sugar, and beef relative to world supply. Additionally, Central American states were weak institutionally, with little power in the global arena to foster local capitalists. As a consequence, exporters had to compete on the basis of low prices, which meant that they had to reduce the costs of production. To achieve that they paid low wages and used chemicals that were banned in other countries. Copious applications of DDT and other chemicals created pesticide-resistant insects. Central American cotton growers found that it was necessary to apply greater and greater quantities of pesticides, creating a "pesticide treadmill" whereby the more insecticides were used, the more were needed to control increasingly resistant pests. Land, water, air, and people of the region's Pacific Coast were poisoned by the inundation of pesticides.

The "poisoning" of Central America was not simply a technological response to a biological problem. It evolved out of a particular configuration of social relations. Cotton producers' political power allowed them to virtually ignore mounting evidence of a contaminated environment and laborers' denunciations of intolerable working conditions. Cotton producers were particularly prone to use chemicals because, in many cases, they owned the factories that produced pesticides. The

governments also promoted the use of chemicals. Subsidized credit was available to finance the cotton crop in every country of the region. Taken together, the social factors favoring chemical use were so great that by the 1980s aerial spraying of the cotton crop was frequent. In the longer run, that situation contributed to the regional economic and ecological crisis.

By the end of the 1980s, there was a grave scenario of soil exhaustion and erosion, cotton lands on the Pacific Coast were in a state of ruin. In addition to human problems such as pesticide poisonings, infertility, cancer rates, and deaths, all forms of life on the plains were impregnated with chlorinated compounds (Faber 1992).

The expansion of cotton had also another social consequence: peasants evicted from the Pacific Coast plain resumed small-scale farming wherever possible. Dore (1997) mentions the case of Nicaragua, where most dispossessed peasants moved to the hilly central region and further eastward to lowland forest, clearing trees to plant food. The reasons for their migration were two: because their family relations and culture were bound up with small scale farming, and because cotton work provided only seasonal work and low wages, peasants had to increase their incomes by growing food. Some peasant families thrived on their lands and took up grazing as a means to claim land. Often the new farms were too small, or the land too poor to support sustainable agricultural practices: As a result, erosion and decline in soil fertility set in quickly as hillsides were plowed and fallow periods shortened. At the same time, tenancy was precarious. That insecure situation accentuated the stress on the environment. As peasants expected they might soon be forced to move on, there was little rationale not to overexploit the resources they had access to at that moment.

As a result of this situation and problems resulting from international price fluctuations, new pests and increasing costs of applying insecticides, cotton exports clearly declined during the 1980s. The following table shows the situation for some Central American countries.

Table 3.2.3 COTTON EXPORTS (Thousands of quintals)

Country	1983	1985	1988
Guatemala	1,1412.1	1,253.6	638.1
El Salvador	769.6	513.8	20.3
Honduras	64.8	111.0	16.1
Nicaragua	1,760.0	1,460.0	765.5

Source: ECLAC, 1991

Another nontraditional export commodity that transformed the Central American landscape was beef cattle. It was less restricted geographically than production of cotton or coffee. Beef could be raised wherever pasture grass could grow, specially in the lush lower montane, and lowland Caribbean rain forests of the interior. The construction of the 1960s opened up new agricultural zones. Peasants cleared and cultivated subsistence plots for one or two years, after which time more powerful groups appropriated the land. In Central America ranchers expanded their herds with finance from the US government and multilateral agencies. During the 1970s a beef boom took place: more than 25% of the region's land mass was in pasture, two-thirds of it arable land. Faber (1992) argues that during that boom (1970s to 1980s), 15% of Central America's forests were destroyed. Deboned frozen beef emerged as the region's most dynamic export commodity, with a 400% increase in trade exports

between 1961 and 1974. By 1980, 250 million pounds of Central American beef was exported annually to the United States. Because this was low-quality beef, with pesticides residues exceeding levels permitted for US meat, it entered the US market under special waivers for fast food. This situation established the "hamburger connection" scenario: cheap Central American beef supplied the growing US fast food industry.

Ecologically, the pasture system meant erosion, loss of soil nutrients, compacted soils, and declining numbers of plants and animal species. For people's health the problem meant enteritis, diarrheal disorders related to polluted waters, and infertility because of the use of pesticides.

One of the main problems that negatively affected Central American peasants was the lack of land tenancy. At the start of the cattle boom 45% of the Central American rural population was already landless or had insufficient land for subsistence farming (ECLAC, 1991). As mentioned above, peasants who retained access to land tended to overexploit it to survive, and their exhausted fields produced declining yields of corn and beans. Peasants depended more and more on seasonal wage-earning work. The cattle boom accentuated landlessness and soil depletion, and unlike cotton created few jobs.

One interesting critique to the "Hamburger Thesis" comes from Marc Edelman (1995). For him the "hamburger-deforestation" literature is among the last bastion of a simplistic version of dependency theory that ignores the extent to which political conflict influenced the strength of US demand for foreign beef, the important

role that Central American political actors have had in shaping the conditions in which cattle producers operate; and the complexity of the deforestation itself. In the case of Costa Rica, since the 1980s the cattle sector has had a severe crisis because of lower international prices, and also of new fiscal, pricing and credit policies that reflected outcomes of domestic Costa Rican political processes. The crisis of beef exports coincided with strengthened domestic demand. Despite that fact, deforestation in Costa Rica has continued growing. Edelman argues that at least since the 1980s cattle raising has not been the major force behind further forest destruction and he claims to look for other causes that might be producing deforestation in Central America.

In fact, the crisis of the 1980s meant the decline of cotton and cattle industries. But, as noted, Central America's deforestation continues. Land used for cotton and cattle was so degraded that it was cheaper to clear new land than to rehabilitate the old. Falling cotton, coffee and sugar production resulted in a loss of jobs in the rural sector, while urban unemployment rose because of declining manufacturing output. With wage income reduced, subsistence production became more vital to the survival of many people.

Environmental problems in Central America are greatly exacerbated by the recent history of war and militarization. In the case of El Salvador, the scorched-earth policy pursued by the military resulted in the destruction of the forest. This policy is also referred to as "draining the lake to kill the fish". In order to isolate guerrilla fighters, everything in the area was killed, people, animals, vegetation. Use of chemicals and bombs in this process destroyed ground vegetation and contaminated the soil. Great internal migration was also caused by the war. Taking the example of

Vietnam, it can be argued that the land will take fifty years to recuperate from war-inflicted damage (Lorentzen, 1992). In Nicaragua and El Salvador and maybe recently in Guatemala demobilization of the armies and the return of large numbers of people who had fled in the 1980s added to the claims on land.

Therefore, in the case of Central America it would be a simplistic analysis to say that deforestation is due only to cotton and cattle raising. There are many forces behind it: the expansion of small-scale agriculture, commercial lumbering, poverty, inequitable land distribution, low agricultural productivity, etc. Table 3.2.4 shows social agents behind deforestation in Tropical Latin America, can be useful to better understand the process.

Table 3.2.4 SOCIAL AGENTS OF DEFORESTATION IN TROPICAL LATIN AMERICA

Cause of Deforestation	Main Social Agent	Example
Speculation	Settlers Big Owners Multinationals	Brazil Colombia
Governmental Incentives	Big Owners Multinationals National Agencies	Brazil
Population resettlement	National Agencies International Agencies Settlers	Central America Mexico Brazil Colombia Peru Ecuador
Hydroelectric projects and Mining	National Agencies International Agencies Multinationals Governments	Brazil Venezuela
Crops for Exportation	Multinational Settlers	Central America Brazil
Subsistence Crops	Settlers Indigenous	Tropical Latin America
Cattle Raising	Multinationals Big Owners Settlers	Brazil Colombia Central America
Forestry	Settlers Little Entrepreneurs Big Industrials	Tropical Latin America
Population Movements	Settlers Farmers National Agencies	Tropical Latin America

Source, CMDAC, 1990

The crisis of Central American peasantry analyzed above fed into the revolutionary wars in Nicaragua, El Salvador, and Guatemala in the late 1970s and 1980s. A new peasant movement had emerged, but ecological deterioration was not an immediate element of peasants demands. Their main objective was land redistribution.

During the 1990s the evident ecological crisis and the international focus on the environment helped to consolidate the emergence of an important environmental movement among the rural poor in Central America. The movement has been centered on practical work on immediate issues of environmental protection, and politically it claims that sustainable use of land requires a fundamental transformation in the class nature of society. For further details on farmers activities see section 4.4.

3.3 AMAZONIA

Amazonia is maybe one of the most important ecological issues at the international level. The subject has received great attention specially from the environmental movement in the North. Elizabeth Dore (1995) has argued that the myth of Amazonia is encoded in popular environmentalism in the United States and Europe. It is a tale of rapid and irreversible deforestation and species extinction, a process that has contributed to global warming. Although, not without truth she argues, this account hides social processes that would determine the fate of the forest and of the 15 million people who live there.

The issue is also important for Latin American development and environmental organizations. The Latin American Commission for Development and Environment (1990) has identified Amazonia's environmental problems as one of the main ecological problems of the region and the world. The Commission has called for international cooperation to solve not only the environmental problems but also the economic crisis that is affecting the amazonic countries. ECLAC (1991) has considered

the environmental deterioration of the Amazon basin as one of the consequences of the current style of development based on the ideas of neoliberalism, and has argued for an urgent solution of the ecological and social problems that are affecting the area.

The problem of Amazonia is a combination of physical deterioration (destruction of the rainforest) and social problems. In fact, the Brazilian Amazon has represented the vortex of contradictory agendas of many competing social groups. Farmers, ranchers, miners, land speculators, indigenous groups, rubber tappers, and politicians. Each has a different, often conflicting, vision of how the natural resources of the region should best be used.

In the 1970s the debate was about how to modernize the region: how to turn the "empty" forest into a productive resource. By 1990 the discourse had been colored "green". Environmental sustainability and social justice became key words in the discourse of environmentalists on the future of Amazonia. But the problems of deforestation and social violence against subordinate groups have not been solved. (Dore, 1995).

Amazonia's deterioration "history" started in the 1970s. During those years the Military Regime of Brazil embarked on a project to open the region. The rain forest was seen as a vast, empty space that called out for development. Development meant building roads, bringing in settlers, promoting economic activities, and taking out products. To occupy this region could serve as an alternative to the land reform in Brazil. The government financed the construction of the Transamazon Highway, with support from multilateral lending agencies. The construction of the highway brought

people, spontaneous settlements, and productive activities to that fragile ecosystem. A major aspect of the Amazon project was to resettle landless families, particularly from northeastern Brazil into plots of 100 ha. The goal was to relieve problems of poverty and landlessness. Once people were settled in the Amazon, they had to demonstrate to the banks that they were utilizing the land in a productive way. The quickest and cheapest means of consolidating land claims was to clear land and to graze cattle. Cattle raising became the favored economic activity. Within years large investors and land speculators began crowding out recent settlers (Dore 1997).

The colonization took place mainly in the northwestern territory of Rondonia. Its population increased from 111,064 in 1970 to 904,289 in 1985. (Keck and Sikkink, 1998).

ECLAC (1991) has identified two kinds of environmental impacts in the region. The impact of small-scale farming and the impact of large-scale agriculture. Generally speaking, small-scale farmers use slash and burn agricultural methods to grow subsistence crops. The natural fertility of the soil decreases sharply two or three years after the land has been cleared, whereupon the farmers abandon their plots and go on to clear and settle other, more remote tracts of land. The forest grows back on the abandoned plots, but if the pressure of the population is intense, the amount of time that they lie fallow will be shorter and they will be farmed more intensively, and the soil will therefore not have a chance to recover. This is what has happened in a large part of the area along the agricultural frontier. Analyzing the impact of large-scale agriculture in the Amazon basin, ECLAC (1991) has pointed out that in the early 1980s the average area of approved projects (which ranged from 4,000 to 200,000 ha.) was

27,300 ha. Most of the projects of the Development Agency for the Amazon Region call for the clearing of extensive tracts of land which are then planted with grasses suitable for grazing. Most of the livestock-raising activities which have been introduced are not suited to the ecological conditions of the newly-cleared areas. The difficulties encountered by many livestock-raising projects have chiefly stemmed from the fact that the methods and practices developed in the central and southern zones of Brazil are inappropriate for the Amazon basin. One of the main problems lies in the fragility of the soil, which, once exposed, is subject to rapid deterioration unless special precautions have been taken clearing the land. ECLAC (1991) finishes its analysis arguing that the increasing importance of land in the investment portfolios of large-scale enterprises, the provision of credit on attractive terms for investment in the Amazon basin, the low taxes levied on capital gains, and the minimal extent of oversight and control of land acquisition have together given rise to a speculative demand unparalleled in the history of Brazil.

Cattle-grazing created an environmental and social disaster in Amazonia. When large capital entered the region, the first wave settlers either moved to the edge of the frontier and cleared new lands for themselves, worked as wage laborers on larger ranches, or returned to their former homes, often poorer than before. There has been a conflict for appropriating the land, in which poor people have usually been the losers. The burning of the forest, had global and local implications. Forest burning releases considerable quantities of carbon, which contributes to the global greenhouse effect. Locally, clearing the land of trees and plants for grazing initiated rapid decline in soil fertility. Nevertheless, the economic and political system continues promoting the expansion of pastures. Criticism of cattle grazing in the rain forest has

gained worldwide attention after alliances were formed between groups in Amazonia that opposed ranching and international environmental organizations. Together they lobbied to expose the ecological and social consequences of deforestation. (Dore, 1995 and 1997).

Mining has been the second activity in transforming Amazonia. In the 1980s Brazil's Grande Carajas Project began as the largest mining complex in the world. The project has massive deposits of iron ore and manganese which enjoy the lowest production cost in the world. It has been estimated that Carajas alone could produce ten per cent of the world's supply of iron ore. Grande Carajas became the heart of an integrated development project that includes open-cast mines of bauxite, copper, nickel, tungsten, cassiterite and gold, plus the main minerals: iron and manganese. Radiating from the mines are processing plants, steel and aluminium mills, agro-livestock enterprises, hydro-electric dams, railroads, and deep-water river ports. Together they cover an area of 900,000 square km., the size of France and Britain combined (Dore, 1997). The project converted one-quarter of Amazonia into the world's largest industrial and agrolivestock center. And it attracted a number of different people: drawing farmers, ranchers, gold prospectors, and all kind of enterprises.

The project has serious ecological implications. It involved massive deforestation. In addition to the effects of the mines, farms, and cattle ranchers, 1.6 million acres of timber was cut annually for the iron smelters and construction. Rapid deforestation has altered the climate. Less rainfall, combined with soil erosion, siltation and flooding of the region's rivers caused desertification. Extinction of plant and animals species signaled great changes in the ecosystem. (Dore, 1995).

But Carajas did not monopolize mining in the Amazonia. After a steep rise in the price of gold in 1979 “garimpeiros” or small-scale miners, flocked to the region. In 1980 discovery of a massive gold deposit in Serra Pelada in southern Para unleashed a gold rush that dwarfed the California Gold Rush of 1849 (Dore, 1995). Garimpeiros have been accused of having produced ecological damage, especially rivers contaminated with mercury. Dore (1995) argues that they produced less damage than Carajas, and despite the damage that they could be producing, they formed a liaison with small farmers, rubber tappers, and indigenous groups to resist the expansion into Amazonia of large capitalist enterprises.

From the beginning, grazing and mining occupied lands used historically by indigenous tribes and rubber tappers. By the mid-1980s the organized struggle for the forest appeared mainly among these groups. International attention had been focused on Amazonia, mainly as a result of records levels of forest loss and burnings. At the international level protests over the impact of deforestation on global warming and biodiversity loss had increased significantly, considering indigenous groups and tappers as legitimate participants in the debate on Amazonia (Hall 1997). Their persistent resistance to expropriation and to felling the forest, combined with their links to national and international organizations, converted them into legitimate actors in the conflict for the international community. The most well known event of this struggle is the case of “Chico Mendes”. Francisco Alves Mendes was the leader of the “Xapuri Rural Workers”. The union concentrated on getting tappers a better price for their rubber, Mendes called for a more militant policy of direct action to prevent landowners from clearing the forest. To that end he led tappers to occupy forest sites to prevent

burning and clearing. Ranchers persuaded tappers to give up their claims with violence. Many tappers were killed. Chico Mendes himself was murdered in December, 1988.

Elizabeth Dore (1995) has argued that cattle grazing and mining formed the centerpiece of a development model that was antithetical to the interests of people whose livelihood depended on the forest. Tappers realized that to attract international support for their struggle, they needed to elaborate an alternative economic strategy that would safeguard the forest and at the same time promote development. The solution offered was the extractive reserves. To ensure access to land and to preserve the forest, the local population would have use rights on the reserves, but the land would not be privately owned. So far as the tappers advocated a regime of common property rights, they proposed a radical alternative to private property. Mainly because of their international support, the Brazilian congress passed legislation endorsing the legality of extractive reserves and decreeing that lands could be expropriated to create them. Landowners were particularly fearful of the new law because some of their property titles were of dubious validity. In 1987 the tappers joined the the Indigenous People's Union and formed the Forest People's Alliance. Together, tappers and indigenous people demanded control over the resources of the forest. The unity of these groups intensified ranchers' fears. National and international pressure moved the governor of the state of Acre to create the first reserve in 1988. The decree heightened social tensions: landowners were enraged that poor rubber tappers and indigenes could prevent them from clearing the forest. Confronted with the erosion of their political influence, ranchers took the law in their hands by putting a price on Chico Mendes' life...

In the 1990s Amazonia is a symbol of environmental destruction for the international environmental movement. (Dore 1995,1997 and Hall 1997). The murder of Chico Mendes had enormous symbolic impact. It embodied at the same time an issue - deforestation in Amazonia - and a set of complex social relationships in which the role of rubber tappers, cattle rancher, the justice system, Brazilian government programs, multilateral development banks, and North and European taxpayers all became transparent. The rubber tapper case thus reinforced an approach to tropical deforestation that focused on social relations. This approach is different from one that sees the forest as a set of technical or scientific issues to be solved by experts, or one that looks at it primarily in terms of trees, wildlife, and biodiversity. (Keck and Sikkink, 1998). Within the Brazilian government, the murder of Chico Mendes led to the setting up of a new environmental control agency (IBAMA) and the elaboration of Brazil's first national environmental policy, *Nossa Natureza*, which was approved in 1998. In addition, the publicity surrounding Chico's death also brought about important changes in public policy for Amazonia, including the setting up of several protected extractive reserves (*Reservas Extractivistas*) for rubber tappers. Ironically, Chico's influence in death was stronger than in life (Hall, 1997). The actions of indigenous groups in Amazonia will be treated in section 4.3.

Chico Mendes' case raises the question of the extent to which the figure of a "caudillo" (strong-man) has had a key role in social movements in Latin America. The region's history is full of these figures: Simon Bolivar, "Che" Guevara, even Fidel Castro. It seems that Latin Americans need these kind of figures for developing social movements. I personally find the explanation in the profound influence of the feudal system where farmers were protected by the Lord (*senor feudal*), in Latin America the

owner of the "hacienda". To have a leading figure is positive, but it can have weaknesses, mainly related to the permanence of the movement. Does the movement die with the leader?. The movement has to be strong enough to survive the lack of the leader, which implies the need for institutional structures.

In short, among the environmentalists there has been a "greening of the Amazonian discourse". In 1970 cattle ranching was promoted as the best way to develop Amazonia: clearing the forest, pastures, and fences were symbols of progress that few public figures opposed. By 1990 these same practices had become symbols of destruction. The terms of development debate shifted because of many forces, led by rubber tappers and indigenous groups who have claimed their right to the resources of the forest. That those claims were moderately successful reflects the growing influence of environmental movements worldwide. But, according to Dore (1995) despite the greening of the discourse and the subsequent creation of extractive and indigenous reserves, Brazilian policy in the Amazon continues to promote large capitalist enterprises for which sustainable resource use is not a high priority.

4. ENVIRONMENTAL GROUPS

It can be argued that currently, the environmental movement in Latin America is structured into different groups that are promoting varied expressions of concern for the environment. Some of these social forces have a direct material motivation for their involvement, while for others cultural or ideological factors are more important.

As mentioned in section 1.1., authors such as David Kaimowitz (1996 and 1997) have identified the strength of the environmental movement as having decisive importance for pressuring the region's governments to carry out environmental reforms. In his own words: *"A key factor in determining whether or not environmental reforms are carried out is the analysis, cohesion, capacity, and strength of social forces pushing for these reforms...My basic hypothesis is that government leaders will not take strong measures to reduce natural resource deterioration unless they are pressured to do so.."* (Kaimowitz 1997, page 21).

It should be recognized that the environment is not one single issue, but rather a multitude of different specific topics, each of which has its own characteristics and decision-making dynamic. That is why it is very important to identify the different groups that are struggling for the environment and their specific agendas. Each agenda can be considered as a source of solutions to the environmental problems. It can be argued that there is not one environmental movement but rather many, each with its own concerns and priorities.

This Chapter will analyse the different environmental groups in Latin America: developed country organizations, urban middle classes, indigenous groups, farmers, political parties and the movement for social justice, and women.

4.1 DEVELOPED COUNTRY ORGANIZATIONS

International organizations, non-governmental organizations (NGOs), multilateral banks, and foreign governments have played an essential role in promoting concern for the environment in Latin America. In fact, according to David Kaimowitz (1996), without ignoring the historical presence of indigenous environmental initiatives in Latin America, it can be argued that the recent concern about the environment in the region is linked to the political, economic, and intellectual influence of the United States and Europe. These influences have their origin in the environmental movements of those countries, mainly in the 1970s and 1980s.

International Organizations

Mumme and Korzetz (1997) have argued that the emergence of popularly based groups and parties advocating environmental causes is linked to the gradual dispersion of public awareness through the media, the legitimization of environmental protection at the national level by the new post-Stockholm environmental laws and institutions, and the unflagging efforts of international environmental organizations such as the International Union for the Conservation of Nature (IUCN), the Conservation Foundation, and the World Wildlife Fund (WWF).

After the United Nations Conference on the Human Environment in Stockholm (1972), environmental movements in the North began to pressure their governments and international lending and technical cooperation organizations to support more benign environmental policies in Latin America. They also began to operate directly in the region, opening offices and providing support for many projects.

The first interest of those organizations in Latin America's environment had two main thrusts: wildlife protection and population control. The World Wildlife Fund (WWF), the International Union for the Conservation of Nature and Natural Resources (IUCN), Rodale, Conservation International, and the Nature Conservancy, have been involved with the protection of animals and plants in the region. The action of those groups increased specially after the Convention on International Trade in Endangered Species (CITES) in 1975.

In the 1980s, the number and importance of the US and European environmental organizations increased significantly. As new reports began to surface about global environmental concerns, many US environmental groups extended their coverage to include environmental issues overseas. They became involved in international issues such as climate change, loss of biodiversity, depletion of the ozone layer, rainforest, toxic wastes and pesticides. In the early 1980s WWF began to develop relationships with organizations such as Fundacion Natura in Ecuador (Livernash, 1992).

The developed country environmental organizations have helped to make environmental matters more visible in Latin America. They have also helped to

finance an important number of environmentalist and natural resource projects. They have brought about specific policy reforms in areas such as livestock subsidies in the Amazon, greater restrictions on pesticides, and the creation of new environmental ministries (Price, 1994).

That strong relationship with organizations in the North has also had a negative side. LCCDE (1997) has pointed out that one of the causes of the backwardness in the regulatory field in the region, specifically in the Andean area, has been that environmentalist ideas have been gaining ground primarily as a result of outside influence, but with a time lag. This explains the tendency towards the over-hasty application of legislative and regulatory models imported from the developed countries. These models were designated to regulate duly registered formal companies similar to those in the North, and also aimed at establishing comprehensive frameworks covering the entire range of environmental issues. In such situations, incentives, fines and demands for compliance with the environmental legislation work. Those countries also have the enforcement capacity that results from the high educational level of the population and the administrative efficiency of the public sector. But those conditions are not the same in the South.

Non-governmental Organizations

The action of Non-governmental Organizations (NGOs) in Latin America has been important since the 1960s. Early in this period, the work of the Catholic Church and other NGOs focused mainly on charitable relief and welfare efforts, especially in response to the chronic needs for food and shelter. Following the Vatican

II Council of Bishops, from 1962 to 1965, and a 1968 conference of bishops in Medellin, Colombia, the Catholic Church committed itself more actively to social justice. This move led to a massive organizational effort at the grassroots level, with priest and nuns forming NGOs to work with poor people in rural and urban areas. Many secular antipoverty neighborhood associations also started. These associations have been called "first-generation groups" (Livernash 1992; Price 1994).

In the 1970s, "second generation" NGOs emerged focused on local development and community self-sufficiency. Many of these organizations were created in reaction to authoritarian military regimes and they took inspiration from the liberation theology or political economy theory, especially the neo-Marxism and dependency schools. The movement had mainly an urban base (Price 1994).

Democratization in the 1980s bolstered the creation of a new kind of social movement. That concept referred to ecclesiastical base communities and urban protest of various kinds, together with ethnic movements and primarily middle-class ecology, feminist, and gay liberation movements. They have been called "third generation" NGOs (Escobar & Alvarez, 1992).

Environmental NGOs grew significantly during the 1980s. In 1979 some four dozen nationally based organizations addressed environmental concerns. By 1993 more than five hundred regional or national groups and up to several thousand community-based organizations were active. Price (1994) has recognized these organizations as key actors in shaping environment and social policies in Latin America. Several events in Latin America in the 1980s and the beginning of the 1990s

converged to motivate Latin Americans into environmental action through NGOs.

First, an increasing environmental awareness. There was a growing perception of ecological degradation. The 1992 Earth Summit's themes of biological diversity, global warming, ozone destruction, and international cooperation were specially poignant to the region's people. Their preoccupation also includes the steady deterioration of urban areas, where air pollution, water quality, and solid wastes negatively affect them. An urban based environmental movement emerged in Latin America to address pollution problems caused by rapid urban expansion (see section 4.2).

The second factor that is considered to have triggered the emergence of environmental NGOs is the necessity to fill an institutional niche. The action of Latin American governments towards environmental protection has been widely criticized for having had limited capacity to implement environmental policies (Kaimowitz, 1996). Marie Price (1994) argues that popular frustration with official ineffectiveness in addressing serious environmental problems spurred the creation of NGOs. To generate a political voice, people concerned about local environmental quality began to turn to locally based NGOs. According to her, the international community increasingly views third generation NGOs as the most effective and efficient means to support change. Discouraged by political corruption or indifference, the consensus among individual citizens and international philanthropic organizations is that domestic private organizations are the best way to advance environmental protection.

The third factor identified is the availability of new sources of "green

funding". As has been said, due to the "lack of an institutional niche", the major development agencies have become discouraged with the public sector and are shifting to work with the NGO sector. The financial support has come mainly from international, especially North American environmental groups, international development agencies, or major universities. The US Congress has committed resources to respond to preserving biological diversity with amendments to the Foreign Assistance Act in 1979 and in 1986 earmaking. In 1981 the same institution passed legislation to expand development assistance funding through NGOs. In Latin America USAID has chosen to work with NGOs rather than with the public sector. Since 1969 the US government has directed attention to grassroots efforts in Latin America through the Inter-American Foundation (IAF), founded exclusively for this purpose.(Meyer, 1993). Other US based institutions involved in environmental matters in Latin America are the Pan-American Development Foundation, the Catholic Relief Services, the Ford Foundation, and the Mac-Arthur Foundation. Price (1994) also mentions the case of the World Wildlife Federation, the Nature Conservancy, and the Audubon Society that since the 1970s have given annual grants and technical assistance to promote environmental change in Latin America.

Lending Agencies

Two important sources of funding for environmental organizations have been the World Bank and the International Monetary Fund (IMF). During the 1980s, environmental organizations in the US began to criticize the World Bank for the ecological destruction associated to some of its projects. In 1988 the Bank responded by setting up formal environmental guidelines for projecting funding and advocating

plans for clean energy production, wildland management, and biological diversity. In the mid-1980s the environmental components of a typical bank project amounted to less than 1 percent of its total cost. By 1991 the amount of World Bank money devoted to free-standing environmental loans increased to \$1.6 million, four times the amount spent in all previous years combined (Price, 1994).

The real "intentions" of the World Bank and the International Monetary Fund (IMF) are well analyzed by Elizabeth Dore (1995). In the 1980s the multilateral lending agencies adopted the concept of Sustainable Development, adopting concept such as growth with equity, integrated rural development, basic needs, appropriate technology, and women and development. They began to criticize the orthodoxy of the development established. In its 1992 "World Development Report", the World Bank announced that "working for a better environment" was a major policy goal. It thus appeared to have assumed the mantle of environmentalism, but Dore argues it was a case of form over substance. Environmentalism made little impact on the Bank's core activities: adjustment lending and project aid. Despite its "sustainable" rhetoric, concrete measures to improve the environmental impacts of the Bank's activities were minimal. One clear example was the construction of Ralco hydroelectric dam in Chile, with World Bank's financial aid, that meant the expropriation of Pehuenche territories seriously affecting their way of life (see chapter 5). The actions of IMF were analyzed in section 1.2.

One of the financial instruments which has been used in Latin America is the "debt for nature swap". The debt accumulated by the region during the 1970s had by 1982 reached a level of US\$330 billion, three fourths of which was accounted for by

loans from private sources. During the following years, the debt continued to grow, by 1990 it had reached US\$420 billion, 55% which was owed to private banks. The way in which the debt crisis unfolded prompted the international financial community to accept that a portion of this debt is unpayable. A small secondary market emerged on which creditor banks could trade. Growth of the secondary market led to the creation of debt conversion programs (swaps) whose object was to take advantage of these discounts to redeem the debt paper circulating in the market. As time passed people realized that this mechanism could be used to finance environmental conservation programs; "debt for nature swaps" gained in importance as world concern about environmental protection grew. A "debt for nature swap" can be defined as an agreement providing for external debt reduction in exchange for a government commitment to protect the natural resources located in one or more zones of the country. NGOs played an essential role in the process, buying a promissory note representing a portion of the external debt of one of the countries of the region at a high discount in the secondary market. The financial instrument is assigned to finance a conservation project selected by agreement between the debtor government and the NGO or foreign government. By the end of 1990 a total of nine "debt for nature swaps" had been carried out in four countries of the region (ECLAC 1991).

Table 4.1.1 LATIN AMERICAS'S DEBT FOR NATURE SWAPS - 1990

Country	Year	Buyer
Bolivia	1987	Conservation International US
Ecuador	1987	World Wild Fund (WWF)
Costa Rica	1988	National Parks Foundation Costa Rica
Costa Rica	1988	Holland
Costa Rica	1989	The Nature Conservation (TNC)
Costa Rica	1989	Sweden
Ecuador	1989	WWF, TNC, Missouri Botanica Garden US
Dominican Rep.	1990	Puerto Rico Conservation Trust, TNC
Costa Rica	1990	Sweden, WWF, TNC

Source: ECLAC, 1991.

In general, the environmental protection projects which have been financed by these swaps have tended to deal with the protection of areas with great wealth of biological diversity, including endangered species; with regions inhabited by indigenous communities; or with the establishment and reinforcement of educational , training and research programs in the field of ecological conservation. The zones protected by these agreements remain under the country's jurisdiction and are areas in which there is little or no development.

The last factor that has contributed to the emergence of environmental NGOs in Latin America is the spread of the ideology of "sustainable development". As mentioned earlier, the concept has been so appealing in the region mainly because it links concern for the environment with the needs of poverty alleviation. Environmental conservation in Latin America has not been widely embraced, specially among poor

people for whom economic problems always take precedence over it. But during the 1980s a powerful environmental movement emerged in Latin America, which differs qualitatively from the North American movement. Marie Price (1994) provides a very interesting comparative analysis of Northern and Latin American NGOs. Although some Latin American groups were formed in response to the northern demands for their services, and although there exists a wide web of financial and organizational links between both groups, it would be a mistake to argue that Latin American NGOs are imitations of the northern ones. In Latin America, NGOs have incorporated the concept of "anthropocentric environmental ethics" which implies the ideas of environmental stewardship, human development, and social justice. They see the environment in terms of the possibility for an alternative strategy of development. According to Price (1994), in practical terms the concept of sustainable development shaped new alliances among environmental organizations, religious bodies, and secular charities. One of the largest NGOs in the world, Catholic Relief Services, maintains environmental programs that support community forestry and soil conservation to increase rural income in eight Latin American countries. In Brazil, CERIS, founded as part of the liberation theology movement, now supports hundreds of local development projects engaged in appropriate-technology research, energy problems, agricultural cooperatives, and forestry. Secular organizations, such as CARE, now regard reforestation, soil conservation, aquaculture and range management as fundamental to their mission of fostering economic development. Sustainable development principles strongly influenced Latin American environmental NGOs by promoting issues such as extractive reserves, tropical-forest action plans, environmental education, alternative tree crops, the revival of traditional multicrop agricultural systems and the balance of resource use with resource management.

It is difficult to summarize the profile of Latin American environmental NGOs, however, some general characteristics can be identified. They are flexible community based, and attentive to the environmental and economic needs of both rural and urban (especially urban poor) peoples. As mentioned, they clearly incorporate the idea of "anthropocentric environmental ethics" mixing ideas of environmental awareness, development and social justice. Peter Grohmann (1997) argues that Latin American urban NGOs have strongly incorporated the connection between environment and poverty into their actions. For example, recycling in slums is not only good for the environment but also is a source of income for many poor people. Clearly by linking ecological and economic concerns, Latin American environmental groups have been able to attract participants who were previously uninterested in ecological issues. Environment Canada (1996) has identified some disadvantages of these qualities analyzing the case of community organizations in Chile. These organizations tend to have limited resources and rely mainly on volunteers. Some are led by people who have considerable experience at the grass roots level while others may be unfamiliar with the appropriate process to affect change. Their leaders may have little formal education, but may have access to experts, people in the community who have professional degrees.

In general environmental NGOs in Latin America court a diversity of benefactors including religious, state and international donors. They are also more inclined to cooperate with the governments than to oppose them. They have been accused of co-optation (see section 1.1 and below). Philosophically they do not completely agree with the extremist forms of preservation advocated by radical

environmentalism in the US. They are more likely to promote extractive reserves than parklands free of human inhabitants. Most of them are youthful, urban based, middle class in orientation, and precariously financed (see section 4.2) Among their main preoccupations are environmental education, research activities such as biological inventories, tracking pollution, writing environmental impact studies, administering environmental opinion pools, and management of reserves, international fund raising that governments either cannot or will not carry out. They also work with the national system by encouraging stricter enforcement of existing laws, by creating new environmental policies, or by forming partnerships with governmental agencies.

Francine Jacome (1996) has divided NGOs in Latin America into three types according to their tenets, viz.: neo-conservatism, liberal pluralism, and post-Marxism. The neo-conservative position has been accused of defending the status-quo. Environmentally it has identified with the "environmental administrators" who have emphasized technical solutions to ecological problems. They do not mix environmental problems and economic development, but tend to emphasize the conservation of the ecosystems ignoring their relation with social problems. There is a variant of this position called "dynamic conservatism" which has a "change discourse" that has the purpose of "producing no change". The World Bank has been blamed for having that attitude. The liberal-pluralist position argues that society is made of plural groups that defend their own interests, but they do not question the system. These groups are not organized for social change. Some of these groups are the proponents of sustainable development. The last position (post-Marxist) argues that all dimensions have to be incorporated: economic, political, cultural, and social, in the actions oriented to the solution of ecological problems. Normally, post-Marxist NGOs are known as "social

promoter organizations". Environmentally that kind of NGOs are called "social ecologists". That approach (ecologia social) has been considered by Jacome (1996) the more appropriate to the Latin American reality because it has a globalized view of the environmental problems in which the social, political, economic, and cultural dimensions are closely related to ecological issues, considering as one of their priorities the improvement of the life quality of the poor.

Despite the fact that International Organizations and NGOs have played an essential role in protecting the environment in Latin America, it is necessary to sound a note of caution, as outlined by Nicolo Gligo (1996). Among the attitudes that can threaten the environment in the region, he identifies "NGOism". He argues that the proliferation of these organizations is associated with an increasing number of international meetings, some of which can present a dilemma for participating countries. That is, what direction will be imposed upon those countries through control of financial resources? For him the trend has been towards creating a kind of clientism that puts limits on their independence. Secondly, there is a trend towards transferring responsibility for environmental activities from governmental agencies to NGOs. Many of these transfers have taken place without an adequate evaluation of the effectiveness of the NGOs. This becomes an anti-environmental trap when responsibilities delegated to a poorly chosen NGO destroy the credibility of a project that could have been handled by a better qualified group.

4.2 URBAN MIDDLE CLASS

Recognizing the existence of other groups, Enrique Leff (1994) has argued that Latin America's educated middle class has been the most eloquent promoter of the environmental movement. In fact, the middle class has played a key role in the development of ecological consciousness in countries such as Brazil, Costa Rica, Chile, Mexico and Venezuela. Throughout Latin America, the middle class is present in environmental organizations such as NGOs, research institutions, educational institutions and governments.

David Kaimowitz (1996) has classified this movement as a "new social movement", the basis of which is professionals and young people with a certain degree of education, who join the movements not so much to receive direct material benefits but rather to express their frustration with government and society and their desire for an identity and greater opportunities for participation.

The middle class environmental groups are mainly located in large urban centers such as Caracas, Rio de Janeiro, Santiago de Chile, and Sao Paulo. Latin American middle classes share some common characteristics. They normally have university education, they have relatively good purchasing power, because of their education they are aware of what is happening around the world, they live in certain areas of the cities that can be called "middle class urban areas", and in general they have a similar cultural experience.

In Brazil, of approximately 700 environmental organizations operating in

1989, 90% were located in the prosperous south east, with over 100 in Sao Paulo. These groups concentrated on protecting ecosystems, and offering environmental education. Viola (1992) argues that they were involved in lobbying to include environmental considerations in the 1988 Brazilian constitution and in the preparation of the "Rio Summit". In 1986, Sao Paulo elected its first congressman on an environmental platform and around the same time the "Green Party" achieved 8% of the votes in the elections in Rio de Janeiro. In both cases the basic constituency was largely middle class professionals.

The Venezuelan middle class has identified with the neighborhood associations which proliferated during the 1970s and 1980s. Since the 1970s neighborhood associations have become the articulating axis of social mobilizations for sociopolitical and economic democratization and decentralization. The neighborhood movement succeeded in integrating cooperative, popular, environmental and feminist organizations around the question of democratization. As a result of this integration, the 1980s witnessed numerous joint actions by neighborhoods and environmentalists aimed at addressing not only participatory and social democracy but also environmental and/or urban issues at the local, regional, and national levels. According to the 1989 "Nueva Ley Organica del Regimen Municipal" (New Organic Law of Municipal Government), neighborhood associations are responsible for ecological concerns in the broad sense of the quality of life (Garcia-Guadilla, 1992).

As was mentioned in the case of Chile, environmentalist professionals have also played their role in maintaining public support for environmental issues. Most Latin American countries now have a number of public agencies, NGOs with

professional staff, and foreign financed projects focused on environmental issues, as well as university professors and journalists working on these topics. The group is not large, but it exercises significant influence because its members tend to be opinion-markers. Scientists have played an important role since their research findings have lent greater credibility to environmentalists' claims regarding environmental destruction (Kaimowitz 1996).

In addition to organized environmental movements, a much broader universe of middle class public opinion is also sensitive to the environmentalist messages transmitted by the mass media (Kaimowitz, 1996). The urban middle class tends to center its attention around issues that directly affect its quality of life such as urban pollution, traffic congestion, security, and some widely publicized symbols of the destruction of nature, such as deforestation in the Amazon, threats to well-known animal and tree species, and the indigenous people's struggle for land (Grohmann 1997, Kaimowitz 1996). In Chile, middle class professionals played a key role in the fight against the construction of the Ralco Dam (see chapter 5)

The concerns of the middle class have been strong enough to oblige practically all of Latin America's political parties to incorporate environmental plans into their platforms (see section 4.5). They have also led governments in countries such as Chile and Mexico to take concrete measures to reduce air pollution in their capital cities (Kaimowitz, 1996).

Peter Grohman (1997) makes an interesting differentiation between the concerns of the urban middle classes and the popular urban classes regarding

environmental issues. While upper and middle class concerns involve such issues as more "green areas", solving the traffic congestion, and personal security; the urban lower class claims for better housing, drinking water, sewage systems, garbage collection, social infrastructure (health and education), etc. People who are working for middle class environmental organizations have already solved these problems. They are more worried for national parks, species in danger, global change and so on. Therefore only a few of the middle class environmental organizations are fighting for issues such as social change and a better distribution of the income.

Kaimowitz (1996) also critiques the middle classes because their concern for the environment is sporadic and based more on images than on clear understandings of the problems and their underlying causes. Middle class public opinion responds emotionally to the environmental symbols of popular culture and the mass media, but has proven difficult to sustain and to translate into effective action; this is reflected in rapid shifts in survey responses about environmental issues in public opinion polls. This hinders the consolidation of stable organizations that can maintain pressure for reform over time.

The emergence of the so-called "green markets" has produced the growth of a number of companies that are dealing with activities related to ecotourism, recyclable containers, organic foods, etc. The owners of these companies in general belong to the upper-middle classes in Latin American cities. Ecotourism is a multi-million dollar business in Costa Rica, Ecuador and Mexico. There has also been a proliferation of "green labels", which supposedly justify higher consumer prices for goods produced through environmentally sound processes. All these groups have

direct interest in promoting environmental awareness, since it helps expand their markets, and in some places they have begun to organize themselves into federations or chambers of commerce. In addition, many companies which sell traditional products now use ecological messages or symbols in their advertising because market research indicates that this will increase their sales (Kaimowitz, 1996). The question that has to be answered here is whether their concern for the environment is genuine, or is it just a marketing tool for increasing their sales?.

4.3 INDIGENOUS GROUPS

The Conquest of Latin America almost destroyed its indigenous inhabitants. It has been estimated that in the 15th century the indigenous population was 57.3 million. A few decades after the encounter, the population was significantly reduced. The first group that was in contact with Europeans, the Arawacos from The Antilles, disappeared completely. Española which had a population of over a million in the 15th century, in 1548 had just five hundred indigenous inhabitants. Indigenes from Cuba, Puerto Rico, Jamaica, Panama and Tierra del Fuego had the same destiny. By 1492, the population of Nicaragua was six thousand people, in 1550 the population was five thousand. The population of Central Mexico was more than twenty million, after a century the indigenous population had been reduced to approximately one million. (Tudela, 1992). Despite that fact, the indigenous population in Latin America resumed growth after the first contact with Europeans, so much so that currently the region is inhabited by more than 36 million indigenous people divided into 406 ethnic groups. In some countries indigenous people are half of the population. Their number is specially important in the Andean region, where it would be impossible to imagine

development policies which do not center around the indigenous population.

Table 4.3.1 INDIGENOUS POPULATION IN LATIN AMERICA BY 1990

Country	Number of Ethnic Groups	Population 1990 (millions)
Mexico	54	10.53
Peru	57	8.09
Guatemala	23	5.42
Bolivia	46	4.98
Ecuador	11	3.75
Chile	3	0.76
Colombia	67	0.70
El Salvador	3	0.50
Argentina	13	0.47
Brazil	122	0.32
Venezuela	34	0.29
Panama	6	0.19
Honduras	10	0.17
Paraguay	17	0.10
Nicaragua	3	0.06
Guyana	6	0.03
Costa Rica	8	0.02
Belize	2	0.01
Surinam	5	0.01
French Guyana	5	0.01
Total	409	36.46

Source: Toledo, 1992.

Indigenous people in Latin America have been considered the "poorest among the poor", living marginalized lives in inhuman situations (Third General Conference of Latin American Episcopate (CELAM) (1979). ECLAC (1991) has argued that they live in much worse conditions of poverty than the rest of the society, and their settlements are located in very degraded areas. The environment in which they live is frequently characterized by unhealthy environmental conditions, in that potable water and adequate system of human waste disposal are not available to them. There are also high levels of infant mortality and illiteracy among them. Indigenous people live in a form of poverty which tends to recur generation after generation. It seems that to

belong to a different culture has set up social and economic barriers created by the non-indigenous society which make it more difficult for them to take part in the benefits of development and frequently gives rise to ethnic discrimination.

The World Commission on Environment and Development (1987) has also analyzed the situation of indigenous people in relation to the environment. The Commission argues that the process of development generally leads to the gradual integration of local communities into a larger social and economic framework, but some communities have remained isolated because of physical barriers to communication or marked differences in social and cultural practices. The isolation of these people has meant the preservation of a traditional way of life. Their isolation has also meant that few of them have shared in national economic and social development, and this is reflected in their poor health, nutrition and, education.

Many of these indigenous people live in areas rich in valuable natural resources which are prized by developers for exploitation. Social discrimination, cultural barriers, and the exclusion of indigenous people from national political processes makes them vulnerable and subject to that exploitation. That situation has disrupted the local environment and has endangered traditional ways of life. Many groups have become marginalized, and their traditional practices have disappeared. WCED considers that loss serious since these communities are the repositories of vast accumulations of traditional knowledge and experience, society is losing the opportunity to learn from their traditional skills in sustainably managing very complex ecological systems.

"It is a terrible irony that as formal development reaches more deeply into rain forests, deserts, and other isolated environments, it tends to destroy the only cultures that have proved to thrive in these environments." (WCED 1987, page 115).

According to WCED, the starting point for a just policy for indigenous groups is the recognition and protection of their traditional rights to land and other resources that sustain their way of life. These groups' own institutions to regulate rights and obligations are crucial for maintaining the harmony with nature and the environmental awareness characteristic of their traditional way of life. The recognition of traditional rights must also give local communities a decisive voice in the decision about resource use in their area.

These policies are absolutely necessary, especially because there is a widespread and wrong assumption among "developers" that indigenous people do not have their own economic system and that one needs to impose on them. That perspective has been termed the "war on subsistence". The alternative would be a type of sustainable development which recognizes the right of indigenous people to exercise their authority and jurisdiction over the corresponding territory (Gedicks 1997).

Gedicks (1997) also argues that it has been proved that native people are better prepared for managing their ecosystems. Following a study on land-use practices in Central America, he argues that there is no other land-use model that preserves ecological stability or biological diversity as efficiently as those of the indigenous groups present in the region. Then he points out that we cannot expect to preserve fragile ecosystems while the native peoples who live in these areas are

dispossessed and forcibly dislocated. According to Gedicks this is the foundation of the emerging unity between native peoples and the international conservation movement, which has been responsible for the fact that during recent years the indigenous peoples' struggle to protect their traditional land rights has received important support in Latin America. In fact, as Victor Toledo (1992) has argued, Latin America is living a phenomenon of indigenous insurgence which includes ecological solutions as an important part of its discourse.

The movement has argued that if ecologically-destructive megaprojects continue to penetrate the world's resource frontiers, without considering indigenous communities, the global problems of deforestation, desertification, natural resource depletion, and soil erosion will never be solved. Clearly, the goal of sustainable development is inseparable from the goal of maintaining cultural diversity. The world's dominant cultures cannot sustain the earth's ecological health without the help of the world's endangered cultures. Biological diversity is inextricably linked to cultural diversity.

Currently, most environmental NGOs in Latin America have incorporated the issue of native peoples in their activities. They have taken the idea of the harmonious relationship between indigenous people and nature, while modern society is, at best, unbalanced. That image has been advanced especially in the Amazon Basin. Indigenous groups have argued that the survival of native peoples is the best means of ensuring wilderness preservation. Another important area has been Mexico. The "Mexican Instituto Nacional Indigenista" founded in 1975, had as its first priority health issues, then it was extended to include resource management and

environmental protection. Two other Mexican groups, based on Oaxaca and Chiapas, treat the importance of preserving indigenous knowledge of ecological systems. In Venezuela CEPAL was created to promote the ecological concerns of nine indigenous communities in the south of the country (Price 1994).

As mentioned above, the Amazon Basin has been the most important scenario for indigenous struggles in Latin America. The region contains more than 1.5 millions indigenes scattered over 70% of the basin. Currently, Amazonia is having not only a dramatic process of massive deforestation but also a great process of indigenous organization whose main goals are conservation and rational use of the tropical ecosystems.

One of the most important indigenous organizations in the region is the "Coordinating Body for the Indigenous People's Organizations of the Amazon Basin" (COICA), which unites fourteen federations from nine countries (Bolivia, Brazil, Colombia, Ecuador, Guyana, French Guyana, Peru, Suriname, and Venezuela) and represents almost all the indigenous inhabitants of the basin. COICA has primarily been concerned with territorial and environmental rights; human, cultural, and linguistic rights; and rights to economic and political self-determination (Kearney and Varese, 1995). The following statement shows clearly their ideas:

"We, the Indigenous Peoples, have been an integral part of the Amazonian Biosphere for millennia. We use and care for the resources of that biosphere with respect , because it is our home, and because we know that our survival and that of our future generations depend on it. Our accumulated knowledge about the

ecology of our forest home, our models for living within the Amazonian Biosphere, our reverence and respect for the tropical forest and its other inhabitants, both plant and animal, are keys to guaranteeing the future of the Amazon Basin. A guarantee not only for our people, but also for the humanity. Our experience , specially during the past one hundred years , has taught us that when politicians and developers take charge of our Amazon, they are capable of destroying it because of their shortsightedness, their ignorance and their greed." (COICA, 1995).

COICA'S active involvement in the UN Working Group on Indigenous Peoples' Rights, in the discussions concerning the ILO's Covenant 169 on Indigenous and Tribal People approved in 1989, and in various committees on the Amazon Cooperation Treaty sponsored by the Inter-American Indigenous Institute, brought the members of the organization in contact with an increasing number of international bureaucrats, advocates, indigenous support groups, the leaders of other ethnic minorities, parties, labor organizations, the European Green movement, and funding agencies. In 1986 COICA won an ecological prize, the Right Livelihood award, which gave the organization front-page international coverage and major exposure to official circles. During 1989 COICA was recognized by the World Bank and had established official contact with the European Community. This relatively rapid success brought strains to COICA, revealing its structural limitations in representing its constituencies and its lack of means and methods for efficient communications between its community- based units, the regional and national federations, and its central administrative body. (Kearney and Varese, 1995).

But Amazonia is not the only region where indigenous struggles and successful indigenous projects are taking place. Specially related to indigenous management of biosphere reserves, Gedicks (1997) mentions the Kuna Wildlands

project in Panama which is part of the UNESCO program "Man and Biosphere". The project area covers 60,000 hectares of protected wildlands on the Kuna Yala native reserve on the northeastern coast of Panama. Gedicks argues that the success of the Kuna reserve can be attributed to the high degree of social organization and cohesion and a strong tradition of autonomy and self-reliance. Toledo (1992) mentions other examples specially related to communal management of forest areas. In general these are recent experiences in a number of countries: Brazil, Costa Rica, Honduras, Bolivia, Peru, and Mexico

Table 4.3.2 MAIN COMMUNALLY MANAGED FORESTRY PROJECTS IN LATIN AMERICA

Project	Region	Start Year	Area (ha)
Chimanes	Beni (Bolivia)	1988	578,000
CICOL	Santa Cruz (Bolivia)	1984	130,000
Chico Mendes	Amazonia (Brazil)	1985	?
Boscosa	Osa Pen. (Costa Rica)	1988	700
Yanesha Coop.	Palcazu Valley (Peru)	1985	35,000
Forestry Pilot Plan	Chetumal and Roo Cleft (Mexico)	1983	100,000
Common Forestry Lands Maya Area	Carrillo Port and Roo Cleft (Mexico)	1985	155,000
UZACHI	Juarez Sierra, Oaxaca (Mexico)	1989	?
Usila (Chimantecas Communities)	La Chinantia, Oaxaca (Mexico)	1988	?
San Juan Nuevo	Michoacan (Mexico)	1981	18,000
FECHCAFOR	El Paraiso (Honduras)	1980	?

Source: Toledo 1992

Essentially, the projects represent an economic-ecological mode of

production, with an environmentally adequate use of the resources, a communal distribution of profits, and a process of democratic organization based on communal consensus. According to Toledo (1992), the most successful projects are the indigenous community in San Juan Nuevo, Michoacan and the Forestry Cooperative Yanesha in Peru.

Analyzing indigenous management in biosphere reserves Gedicks (1997) argues that as native experience and knowledge are taken into account, there is an implicit challenge to the prevailing Western model of technology transfer from the "advanced" societies to the "less advanced" societies. For him, the more we learn about native economies, the more appreciation we have for "small-scale economic development" models based on technologies that are low-cost, labor-intensive, and ecologically sound.

Regarding that argument, it is necessary to point out its risks. It has been proved that indigenous people have a very close relationship with their land and for that reason they would be well prepared to manage it. But it is also true that at the arrival of the Spaniards in Latin America most of the indigenous communities already had problems of soil erosion, and food security. Dore (1997) has argued that in spite of the prevalence of scholarship and myth about a pristine pre-conquest America, there is increasing evidence that Pre-Columbian people were systematically incapable of sustaining the ecosystems upon which their societies depended. An intense environmental degradation may have been a leading cause of the decline of important pre-Columbian civilizations. In fact, the position of defending the purity of the indigenous traditions has been criticized as "ecologicism" (Glifo 1996), a position

which opposes development activities of any kind because, in its view, development can be nothing but destructive to the environment. That position has been also called "Anti-Modern Radical Environmentalism" already defined in section 2.1. Nicolo Gligo (1996) also argues that it is a mistake to reject modern technologies that can improve the environment. He maintains that ecologist extremism harms the environmental cause because people or groups that adopt this attitude lose credibility.

In short, according to ECLAC (1991), what is needed is to combine the intimate and long-standing relationship of these peoples to their environment, and their ties to the earth which are an essential part of their culture, with modern technologies which do not violate their life styles. These experiences have proved that it is possible to capitalize indigenous communities based on modern technologies and modes of production, communal control, and ecologically friendly use of the resources.

Currently, indigenous people in Latin America have two crucial concerns. The first is the right of self-government and autonomy. And the second, related to environmental issues, is their right to territorial and resource sovereignty. Their demands for ethnic autonomy include full control over lands, water, and resources that fall within their ethnic and ancestral boundaries.

Regarding the ownership of the land, it is necessary to point out that pronounced differences exist between how the indigenous population and the republican State view the concepts of individually owned land and land for collective use. Traditional collective use does not distinguish between public or private, or between the surface and the subsoil. These differences reflect the dichotomy between

a sectoral State logic and a comprehensive concept that recognizes interdependence and seeks unity (LCCDE, 1997).

The recovery of ethnic territories and political autonomy is based on three principles, the first of which is the historical depth of the claim. The current territorial fragmentation in Latin America is the result of centuries of colonial and post-colonial expropriation; therefore, restitution of land and/or reparations are major issues. The second principle is based on the ethnobiological integrity of territories traditionally occupied by specific indigenous groups. In other words, bioregions and ethnoregions were largely coincident before the territorial disturbances of the Europeans. The third principle is the repudiation of any solution to territorial and environmental claims that would involve the commoditization of nature. For Latin-American indigenous people land has no price...(Kearney and Varese, 1995).

4.4 FARMERS

Analyzing the new ecological movement among farmers and indigenous groups in Latin America, Victor Toledo (1992) has identified a new paradigm in development within the academia, and research institutions. Indigenous groups and farmers are considered different groups mainly based on an ethnic-class differentiation. Farmers are normally "mestizos" (mixed between indigenous and white) who live in rural areas, working the land.

The new paradigm of development is the need to consider the farmers' traditional knowledge as a way of solving the ecological crisis of the planet. This new political and philosophical paradigm has been induced by five phenomena: The failure

of the modern productive systems in agriculture, the problems generated by extensive cattle raising, and the lumbering systems in the tropics. The introduction of new ecological technologies by a new generation of environmental professionals, such as biologists, geographers, ecologists, etc. The emergence of thousands of NGOs, many of them environmental, working together with rural communities. The emergence of the new ecological economy, from rural ecological producers to "green consumers", who are demanding ecological (organic) products. And, the development of a new ecological consciousness and the emergence of the environmental movement.

Latin America is experiencing the peasantry's and indigenous peoples' insurgence where the ecological solutions are a central part in their actions and discourses. There are farmer communities with major pollution and resource degradation problems which directly affect their livelihoods. These include fishermen affected by water pollution, rubber tappers, Brazil nut gatherers, and small-scale lumber producers threatened by forest destruction, communities affected by nuclear power plants, toxic waste dumps, and other types of waste, agricultural workers poisoned by toxic pesticides, and farmers harmed by pollution from the mining or petroleum industry. These groups have started to protest and to put their grievances under the national spotlight. The most famous case was Chico Mendes' struggle to protect the rubber tappers of Acre, Brazil. There have been many other cases such as the Penwalt Battery workers' struggle in Nicaragua to gain compensation for long-term exposure to mercury, law suits brought by Standard Fruit workers in Costa Rica sterilized by a toxic fungicide, protests by Mexican communities against nuclear power plants in Veracruz and Michoacan, and civic movements in Colombia demanding safe water supplies. (Kaimowitz, 1996).

In Central America, during the 1990s, international focus on the environment, as well as critical deterioration of land, gave rise in each country of the region to movements of rural poor that concentrated on environmental issues. The Centro Salvadoreño de Tecnología Apropriada (CESTA) is the best known of these. Uniting rural and urban ecology groups throughout El Salvador, CESTA, along with other organizations, turned ecology into a major issue in the national political debate. CESTA differed from other groups in that it has highlighted the class character of the appropriation of nature. Its practical work has centered on immediate issues of environmental protection, complementing a political analysis that sustainable resource use required a fundamental transformation in the class nature of society (Dore 1995).

Some small farmers' organizations, such as the "Plan de Ayala Nacional Coordinating Council" in Mexico, the Ecuadorian farmers unions, and the "Council of Small and Medium Farmers-Justice and Development" in Costa Rica, have seen public concern for the environment as an opportunity to construct new alliances, arguing that small-scale production can play a role in preserving diversified production systems and in conserving natural resources. Conscious of the fact that there is no longer much urban support for land reform, subsidized farm credit or protectionist policies favoring agriculture, these groups hope to gain middle class and foreign support by stressing the small farmers' role as stewards of their land, forest, water and genetic resources (Dore 1995).

Finally, the emergence of the "green markets" among the growing urban middle classes has made possible that a growing number of small farmers are looking to take advantage of new opportunities offered by the markets for organic food, and

products for sustainably managed forest. Small farmer's organizations in Mexico, Central America and Bolivia are heavily involved in the production and export of organic cacao, coffee and sesame. The issue that should be analyzed in relation to this new market is whether the Latin American farmers really have the tools to compete at the national and international levels with their products (Kaimowitz 1996).

4.5 POLITICAL PARTIES AND THE MOVEMENT FOR SOCIAL JUSTICE

As noted in section 1.2, Latin American countries are facing not only environmental deterioration by an "excess of development" - pollution and waste of resources -, but also ecological problems due to lack of development - poverty and socio-economic inequality. In Latin America there is a close relation between ecological problems and economic crisis, social marginalisation, and poverty (Leff, 1994); that is why resource use and social justice are inseparable issues in the region. The main concern of poor people in Latin America is to achieve a dignified standard of living. Historically, this concern was reflected politically in the development of communist, populist and social democratic political parties, trade unions, farmers' organizations and community movements.

The strengthening of neoliberal currents in Latin America, the loss of confidence in the traditional parties, and the disappearance of the socialist bloc led by the former Soviet Union have weakened the Latin American Left. Nevertheless, there are still important parties, organizations and movements whose central focus is the issue of social justice. The Workers Party (PT) in Brazil, the Revolutionary Democratic Party (PRD) in Mexico, the Broad Fronts in Argentina and Uruguay, Socialist Party in

Chile, Free Bolivia Movement (MBL), Radical Cause and Movement Towards Socialism (MAS) in Venezuela, the Sandinistas in Nicaragua (FSLN), and the Farabundo Marti National Liberation Front (FMLN) in El Salvador are part of governing coalitions or have some influence on government policies. Small and medium sized farmers' organizations are very important in Central America, several Andean countries, Mexico and Paraguay, as noted above. There has also been a proliferation of women groups, community organizations and service-oriented NGOs concerned with social justice issues.

Given Latin America's massive poverty, linking environmental problems with the struggle for social justice is the only way to make environmental issues relevant to most people. Without this convergence, some environmental reforms may still take place, but they will essentially be elite reforms, serving sectional interests, and lacking the benefits of wide and democratic popular participation. As long as environmental concerns are associated in the public's mind with wildlife protection, biodiversity, the ozone layer and global climate change, they are unlikely to win the attention of the majority of the Latin Americans who live on the edge of survival. But there are other issues, such as access to safe water supplies and firewood, soil conservation on marginal lands, safety from pesticide poisoning, protection from other toxic chemicals in the workplace, and reproductive rights, that could potentially appeal to such groups.

In recent years, left-wing and center-left organizations in Latin America have paid more attention to the environment. The Brazilian PT has a strong environmentalist current and weaker environmental groups exist in most of the other

parties mentioned above. Many grassroots organizations and NGOs associated with the left have also taken interest in the environment. These groups perceived that concern for the environment has the potential to win almost universal support, as did peace in the past, and that by addressing environmental issues they might be able to broaden their appeal, beyond the sectors directly involved in specific struggles for social justice, to public opinion as a whole (Kaimowitz 1996). Yet the same sort of analysis that was made earlier (section 1.1) for the Latin American governments, would lead us to question whether the political parties are incorporating environmental issues in their agendas primarily to attract more adherents, or whether there is a genuine intention of solving the environmental problems that are affecting the region.

David Kaimowitz (1996) has argued that the prospects for movements for social justice exercising strong pressure for environmental reform is also directly related to their own ability to grow and become stronger. At present, the prospects of that occurring do not seem promising. However, given the continued growth of poverty in the region, the threat to the urban middle class posed by the decline in public employment and social services, and the failure of current policies to effectively address these problems, the emergence of powerful movements for social justice supporting alternative policies of development cannot be ignored.

During the last period of dictatorships in Latin America (1970s - 1980s), the Catholic Church had two main positions. One branch, linked to the Right, supported the military regimes. That was the case in Argentina. The other branch tended to protect the people who were being persecuted. In Chile the "Vicaria de la Solidaridad" was created in 1976 for supporting these people. At the communal level, this branch

experienced the emergence of liberation theology base communities among the poor urban classes, which dealt with issues of social justice and alleviation of poverty. This movement was particularly strong in countries such as Brazil, Chile, and Peru.

4.6 WOMEN

As analyzed in section 2.6, the Latin American ecofeminist movement has adopted the concept of social ecofeminism. Organizations such as the Grupo de Estudios de la Mujer y el Medio Ambiente in Venezuela view women and the environment as victims of a predominantly patriarchal, exploitative system. Their aim is to improve the status of women and the environment through education and grassroots action (Price 1994). Lorentzen (1992) has analyzed the movement in El Salvador, arguing that exploitative development policies which abuse land and women are further linked to illiteracy, poor health, and suffering children. Salvadorian ecofeminists contend that the impact of environmental degradation affects women differently because by being linked conceptually with nature, women are part of the same dominated and exploited ecosystem. Central American ecofeminists do not think that women are by nature like the land. For them ecological problems affect all, but women are hit specially hard given their unrecognized and often uncompensated domestic work. As food providers and producers, women are especially dependent on a healthy environment. Eroded land produces less food, and more malnourished children. Forest and trees are necessary for fuel, food, and fodder. Increasing deforestation requires hours spent in basic fuel gathering and food production. The traditional diet of beans and corn, rice, and tortillas is undermined as intensive marketing of processed foods like bread and soft drinks increasingly occurs. Women bear the brunt of child care and

care for the sick and elderly and are especially affected by contaminated water. Birth defects and contaminants in mothers' milk have increased throughout Central America due to pesticides. In short, women's labor of caretaking and providing sustenance depends on a healthy environment. Given this understanding, the involvement of women in popular ecological resistance is not surprising. Their activities range from mainstream political organizing and promotion of sustainable development projects, to more militant actions.

Lorentzen (1992) has analyzed three institutions that have dealt with the issue of women and the environment in El Salvador: the National Committee for Salvadorian Women (CONAMUS) has included women in the development process; the Union of Salvadorean Workers (UNTS) has sponsored women in alternative health, nutrition, and the use of natural medicinal plants; and the Salvadorian Center for Appropriate Technology (CESTA) which has mounted the most sustained campaigns related to women and the environment. CESTA projects include solar kitchens, nutrition and soy programs for women, traditional medicine projects, fruit dehydrators, water purifiers, mills for grinding flour which use bicycles for energy generation, and alternative technologies designed for women. Central American women's environmental activism has also struggled for the control of land. The Salvadorean group of Women for Life and Dignity (DIGNAS) has mounted an aggressive campaign since the end of the war to obtain land for women.

Lorentzen (1992) finishes her analysis arguing that popular ecological resistance by women's groups in Central America stems from the need to provide basic family and community sustenance. The focus often revolves around land. The

movement are part of larger popular movements which resist mainstream models of economic development for the region, believing that the industrial growth pursued by more affluent countries results in decreased access to the land for peasant and other marginalized groups.

Janet G. Townsend (1997) has analyzed the situation of pioneer women in the rainforest frontier in Latin America. Again, when the author tries to find a connection between the conservation of the rainforest and women, she realizes that when pioneer women point out their problems, the destruction of the rainforest is not ranked as high as poverty or the lack of education and health care.

Worldwide, women who have become pioneers commonly lose rights and income, work harder, have poorer access to services and lose their social networks. Their complaints range from increasing poverty to the lack of public services and domestic conflict and violence. All of this is caused in part by pioneering, as it combines migration and environmental change. Because these are new farms and new settlements, new public services have to be squeezed out of the government or paid for privately, whether they be electricity, piped water, clean water, schools, health care or a road to market. On top of this, rainforest pioneers have to cope with new diseases, and the change of diet can also cause severe malnutrition in their children.

Pilar Garcia-Guadilla (1993) has made an interesting critique of "cultural or natural ecofeminism" from a Latin American point of view. She argues that international agencies such as the United Nations, the Inter-American Development Bank, and the World Bank allocate women's role in sustainable development adopting

the cultural or natural ecofeminist view. Women's reproductive role and identification with Mother Nature lead inter-governmental agencies to assign women a greater responsibility for environmental conservation and Nature's protection. Women are also responsible for survival, providing water and other domestic tasks to the whole family.

According to Garcia-Guadilla (1993), "natural ecofeminism" has two problems. First an identification of women's role with their domestic tasks. Some of the so-called environmental problems of the poor, such as chronic water shortage and disposal of solid wastes, have been traditionally associated with women's daily routines: the lower income of women, the stronger this association holds. These tasks are considered part of the "domestic domain". From a feminist point of view, allocation of these tasks could be seen to perpetuate women's traditional role instead of contributing to greater economic equality with men. Further, they tend to promote the perpetuation of women's traditional domestic roles working against the advancement of women's equality (I would argue that this view of women is influenced by the "machista" culture that tries to confine women's role within the house, doing domestic tasks). The second problem is the assignation of symbolic meaning and political power to a combination of environmental and gender demands. In the case of Venezuela, she argues that very few women understand "ecofeminism", much less its political implications. This lack of information and a political perspective reduce the potential of ecofeminism to create a new political fact from the environment. The problem of the identification of environmental problems with the domestic domain is that those problems have little symbolic value and it will be more difficult for such problems to become political and to gain attention from the governments.

For Garcia-Guadilla the main contribution of women to the issue of environmental problems has to be with their participation in environmental organization, specifically with the gender composition of the leadership. Organizations with women in leadership roles tend to be more flexible, horizontal, and less "personalist" than those where men are the leaders. Gender composition at the leadership level seems to be correlated with the adoption of strategies of negotiation. Organizations such as the Venezuelan AMIGRANSA where women leaders predominate, tend to adopt negotiating strategies, propose alternatives, and use institutional channels more frequently than those organizations where men predominate. These characteristics may help them to be more successful when struggling for an environmental cause.

5. THE CHILEAN CASE: SOME CONSIDERATIONS

During the last decade, Chile has experienced an increasing process of economic development, which has meant a change from a mainly copper exporting nation to a country that exports a variety of resources and products. This process has determined the fact that Chile is currently facing a grave scenario of environmental deterioration. The increase in exports based on natural resources, the strong industrialization process and maintenance of high levels of poverty have all contributed to that environmental stress.

The pattern of Chilean economic development has produced an over-exploitation of the natural resources mainly to export. In the last two decades, the export sector has increased its volume seven times, from US\$1.1 billion in 1970 to US\$8.6 billion in 1990. In 1996 exports accounted for over 30% of GDP, while twenty years ago, this proportion was only 12% (Meyer 1996). As a result, Chile's current development strategy relies heavily on the performance of the export sector.

Natural resource-based products, both renewable (agriculture, fishing and forestry) and nonrenewable (mining) are a very important component of the exports. Almost 90% of the exports are directly related to natural resources. Of the rest, 70% have natural resources as their base. It is important to point out that there has been a structural change in the composition of exports. In 1970, over 85% of exports were mining products; agricultural, forestry and fish and sea products were insignificant. In 1990, in spite of a substantial increase in copper exports, mining corresponded to only 55% of total exports, while other resource-based products

increased their relative share significantly: agricultural, and marine products to 11% each, and forestry. (Meyer 1996).

Unfortunately, the growth in exports has resulted in native forest depletion and overfishing, as well as environmental quality deterioration close to mining activities. Chile's economic growth has also lowered urban environmental quality. Similarly, higher energy requirements to meet growing demands from the industrial and household sectors have impacted the environment negatively. More on urban environmental problems, poverty in Chile is still an important problem according to ECLAC in 1991 almost 40% of the Chilean population was poor (Meyer 1996). The poor are both victims and agents of environmental damage. The main environmental problem associated with urban poverty is indoor and outdoor air pollution from both cooking and heating. The poor suffer from other environmental problems, among them: inadequate access to drinking water, unpaved streets, flooding and landslides. In Chile rural poverty affects approximately one million people (Meyer 1996). They suffer many of the same environmental quality problems that the urban people do. But it is necessary to add the lack of resources to avoid degrading the environment. The rural poor can be agents of soil erosion and desertification. To solve the situation of poor people should be one of the most important priorities in Chile. Targeted actions are required to mitigate the impacts of poverty, including focusing on improving housing for the poor, promoting the development and adoption of appropriate technologies, and promoting organizations capable of undertaking collective actions.

Being an extremely long country (more than 4,200 km) Chile can be divided into three main regions, the North, the Central area, and the South. In northern

Chile the main environmental problems are related to natural resources: uncontrolled fishing, inadequate management of water resources, soil erosion and desertification. Also important are air and water pollution problems related to mining activities. In central Chile, particularly in Santiago, environmental quality issues are more important. Air pollution (see section 3.1), contamination of rivers and the sea due to industrial pollution and urban wastes are some of the main problems. Finally, further to the south, problems related to natural resources become relevant again. Erosion and loss of soil for agriculture and forest, extinction of native species of flora and fauna due to overexploitation, excessive pressure on native forest for fuelwood, and uncontrolled fishing are examples of the types of problems to be found (Nef 1995 and Meyer 1996).

One of the main problems that the country has faced with respect to these issues has been the lack of environmental legislation. Despite the fact that the idea of environmental protection is included in the 1980 Chilean Constitution, for decades the government has addressed environmental issues in a decentralized fashion. Several ministries and their agencies are responsible for various facets of environmental protection in accordance to hundreds of environmental laws and regulations (Environment Canada 1996). The first step followed by the new democratic government, as a result of the consciousness of the need of a clear framework regarding environmental issues, was the creation, in 1990, of the National Environmental Commission (Comision Nacional del Medio Ambiente - CONAMA). One of the first tasks of CONAMA was to compile the existing legislation with environmental implications. The result was a compilation of 718(!) laws and regulations. Facing these facts, in March 1994, the Chilean Congress approved the Environmental Framework Law (Ley de Bases del Medio Ambiente) which became the first coherent and integral

directive for the environment.

In this law, the Chilean government adopts the idea of sustainable development. The legislation claims that one of the challenges facing the Chilean Government is to establish a healthy relationship between the economy, nature, and the human community. To accomplish that goal, the concept of sustainable development is useful because it states that no progress can be solid and stable without social equity and environmental conservation. Environmental protection must be considered as an element of development. When the Chilean government talks about sustainable development, it is talking about economic growth, with social equity, and the preservation of natural resources. For many years Chile had an economic model that disregarded the environmental variable as an essential factor of progress and did not consider the rational utilization of resources the basis of a stable and continuous development strategy. This situation generated an unequal distribution of the socio-economic surplus. Many of the environmental problems that Chile faces, in the urban and rural areas, have their causes in the situation of poverty and misery of a significant group of Chileans. This determines that the degradation of socio-economic conditions and the environment cause a circle of marginalization-poverty-environmental degradation-illness-and misery (Ley de Bases del Medio Ambiente 1994).

Yet there is a contradiction here which needs to be recognized. The law establishes that for many years Chile has followed an economic model that has negatively affected the environment. On the one hand the Chilean government is recognizing this fact, but on the other it has continued applying the same economic model, which is neoliberal, based on the promotion of a structure of exports that favors

polluting activities and natural resource depletion. In general, the law addressed only summary aspects of the country's environmental policy and was intended to serve as a point of departure for a process of organizing environmental regulations in Chile. I would affirm that it is a "declaration of good intentions", and that there is a risk here of "juridism" (see Gligo's definition in section 1.1). The development of a clear environmental policy in Chile is still in its early stages, there is yet much to be done regarding specific aspects, such as development of environmental standards and regulations, and the supervision of the environmental impact assessment process. Undoubtedly this is part of an explanation of the failure of the Chilean government in solving the environmental problems that are affecting the country. That fact can be clearly seen in the case of air contamination in Santiago mentioned previously (section 3.1).

The environmental awareness in the public mind that has been growing in Latin America during the last fifteen years has been also a reality in Chile. It is true that public concern about the environment is widespread and rapidly growing. The representatives of this new social movement came mainly from two groups: urban middle class, and indigenous people.

In general the Chilean urban middle class shares the same characteristics as the urban middle class elsewhere in Latin America (see section 4.2). Chilean middle class environmentalists have brought national attention to the plight of that country's native forests and were influential in the debates surrounding the 1994 "Ley de Bases del Medio Ambiente" (Environmental Framework Law). The very phenomenon of exile had meant that numerous Chilean intellectuals had been exposed

to global issues. When the prohibition against dissidents coming back was gradually lifted, many foreign-educated Chilean academics and professionals returned home. Among them were the "ambientalistas" (environmentalists): physicians, engineers, economists, geographers, anthropologists, and physical scientists, with a new professional agenda and a more holistic view. They have been influenced by environmental studies in Europe and North America, and they have ended up working for environmental NGOs, universities, research institutions, and the new democratic government.

A recent example of the struggle of a group of middle class of Chileans in defence of their environment is the case of San Alfonso. In 1995 the Chilean Government proposed the project "Gasoducto Trasandino". The idea was to bring natural gas from Argentina through the Andes, not least to provide cleaner fuel for energy consumption in metropolitan Santiago. The pipeline which would be built would pass near Andean towns. One of them was San Alfonso, an outer suburban community 45 minutes from Santiago. The middle class community residing there considered that that would be dangerous, and that it would negatively affect the mountain environment. The conflict began. The government reacted with violence against the group's sit-ins. After months of struggling against the government and private companies, the people of San Alfonso won. The government agreed that a new route had to be chosen for the pipeline.

The most important channels of participation for the Chilean urban middle class have been NGOs and research institutions. Nef (1995) and Environment Canada (1996) have identified a variety of NGOs and research institutions that have

played important roles in raising the profile of environmental issues in Chile. The largest and oldest is the "National Committee for the Defense of Flora and Fauna" (CODEFF) which was created in 1968. According to Nef (1995), because of its "technical" conservationist (seemingly "apolitical") orientation, the organization has been able to function under different development projects (political regimes and models). It constitutes a sort of nodal organization, able to work with more functionally or geographically specific environmental groups. Among its successes, CODEFF has coordinated an effective research and advocacy campaign to win legal protection for the araucaria and alerce trees found in the South of the country. They have also taken an interest in the legal challenges to mining companies using desert waters.

The "Center for Environmental Research and Planning" (CIPMA), founded in 1979, has been at the forefront of the environmental debate in Chile, studying the relationship between economic development and the environment. It is a policy oriented group, working within a sustainable development paradigm, seeking economically efficient and socially equitable solutions to environmental problems. RENACE (Chile's National Network for Ecological Action) was established in 1988. It has a membership of about 145 organizations with representation from all regions of Chile. Its main function is to assist members in promoting ecologically sustainable community development. The group is dedicated to promoting public awareness of environmental issues. Other environmental organizations include the Center for Ecological Extension (GAIA), geared to public education, the Ecological Center Canelo de Nos, an experimental program implementing alternative pilot projects for popular sector organization both urban and rural, and the House of Peace, focusing on promoting public participation in the development of environmental policies and in the

prevention of environmental abuses.

These organizations interact with external groups, such as the Natural Resources Defense Council in the USA, Probe International in Canada, and Greenpeace. And they also have given their support to the Chilean Government participating in the Advisory Councils of CONAMA (Comision Nacional del Medio Ambiente). This participation, though, can have the risk of co-optation (see section 1.1). Nef (1995) argues that the environmental coalition in Chile involves much more than environmental interest groups, however it comprises a myriad of other organizations that either have environmental components in their agendas or share some of the environmentalist's interest and concerns. These concerns range from specific technical or social issues to broader considerations such as sustainable development. The largest of these institutions is the Corporation for Economic Research in Latin America (CIEPLAN), associated with the Christian Democratic Party and founded in 1976, as a public research institute, with significant external support, including contribution from the Canadian International Development Research Center (IDRC). Its goals are to identify and promote equitable, democratic, and sustainable economic development policies. Another of these institutions is the Center for Alternative Research (CEPAUR), which is a policy research group whose efforts are also concentrated upon the formulation of sustainable development strategies.

Several independent technology research centers are also part of the environmental coalition. Among them the Center for the Study of Alternative Technologies in Latin America (CETAL), the Energy Research Program, and the International Institute for Energy Conservation (IIEC).

Indigenous groups' claims are mainly related to interference with their ecosystems. One of the main Chilean environmental problems is that of meeting the increasing demand for electricity for both industrial and domestic use. This has brought the development of hydroelectric megaprojects such as the Rapel, Laja and Ralco dams. The damming of rivers has affected flora, fauna, and the lives of peasants, many of whom are indigenous people. To protect their interests, the Chilean Human Rights Commission, created in 1976, has a Program for Indian People which has acted as a catalyst for environmental rights, especially with regard to natives' claims (Nef, 1995). In the fight against the construction of hydroelectric dams there is one especially important group, the "Bio-Bio Action Group" (GABB). The group is protecting the rights of Pehuenche groups who inhabitant the Bio-Bio basin which is in the South of Chile. Nef (1995) notes the linkages that this group has established between the Pehuenche representatives and Cree Indian leaders in Canada struggling against the James Bay II hydroelectric development. The fight of GABB has had a degree of success. Even though the Ralco hydroelectric dam was finally built with the World Bank's financial help, during the II Summit of the Americas held in Santiago de Chile in April 1998, the President of the World Bank recognized that "the construction of Ralco hydroelectric dam was not one of the highest points in the experience of the Bank" and promised help for the Pehuenche people who were affected. (El Mercurio, April 20th, 1998). Other groups that are dealing with sustainable local development are "Vida Magallanica" in the southernmost region and the "Institute for Andean Development" in the north Andean region. There are also native people's associations which represent aboriginal ethnic minorities within Chile: "Aymara" in the north Andes, "Rapa-Nui" in Eastern Island, "Mapuche" (Pehuenche and Huilliche) in the south, and "Kawashkar" in

the far south. They are mainly fighting against discrimination and racism. Some of these groups are: The "Aymara Studies Workshop" (TEA), "Pacha Aru", the "Regional Institute for Aymara Development and Promotion" (IRPA), the "Coordinating Body Of Mapuche Institutions" (CIM), the "Pehuen Mapu Guild Association", the "Mapuche Council for All Lands", the "National Native Commission", and the government appointed "National Commission for Native People" (CEPI), established in 1990. These organizations are mainly research institutions.

In Chile the main ecological problem associated with farmers is related to the use of pesticides. In recent years, with the export-led policy concentrating upon non-traditional agricultural exports, mostly fruits, an increase in the application of toxic fertilizers and other toxic substances has taken place. Many of these substances, such as Alar and DDT or its local equivalent TANAX, are widely employed in the industry. The consequences for the human health of the use of these chemicals range from infertility to birth defects. Unfortunately, among Chileans farmers there has not been an organized struggle to fight against the use of pesticides as has developed in countries such as Costa Rica, Nicaragua, and Colombia (see section 4.4). I would argue that the explanation for that situation is that the "hacienda" system (feudalism) is still strongly present in Chile. Socially that system has meant the submission of the peasants to the landowner (hacendado o patron). The majority of the Chilean political parties, including leftist parties (see section 4.5) have incorporated environmental issues into their agendas. But, considering that the Chilean environmental problems are far from being solved, one has to ask whether this incorporation responded to a search for electoral advantage rather than to a genuine intention of addressing the problem.

Four main perspectives can be identified within the incipient environmental movement in Chile. Conservationism in organizations such as CODEFF; sustainable development among the middle urban class, the government and NGOs; the indigenous perspective; and, involving all society, the Catholic "anthropocentrism". (see chapter 2).

Despite the emergence of this movement, and the increasing awareness of the country's ecological problems, I would agree with Jorge Nef (1995) when he argues that Chilean culture is still dominated by a "predatory" attitude towards the natural environment. Conservation and environmentally friendly behavior are not highly developed. Modernism and the "engineering" mode of human action in the environment have been hegemonic in the Chilean culture. Even though the environment has recently been incorporated into the political menu and has become part of the normal, everyday discourse, there is still a long way to go.

As a result, to study and understand the environmental movement in Chile could be a key element in devising solutions to the ecological problems that are affecting the country. There is need not only to identify the basic Chilean environmental problems, but also to analyze how these problems have been articulated by diverse social actors, and how effective coalitions might be created. The study of the environmental movement in Chile should have two main priorities. First, to identify these actors and their agendas. Their various agendas may represent possible starting points for solutions for the different environmental problems. Secondly, considering that environmental awareness is still not strong in the country, study of the Chilean environmental movement should consider how to develop strategies for strengthening it.

6. CONCLUSIONS

During the period 1960 - 1970 the Latin American environmental movement was mainly characterized for the presence of conservationism and eco-marxism as perspectives of understanding the ecological issues. Conservationism was mainly concentrated in the problems of nature. Environmental action was carried out by organizations called "conservationist societies" that were formed by scientists who had an affinity for ecology and whose objective was the investigation of national ecological problems. At the end of the 1960s natural scientists and students founded organizations with the goal of denouncing the deterioration of the environment and cooperating in its protection and conservation.

The second perspective present during this first period was the one identified by Elizabeth Dore (1995) as "Ecological Marxism" which has been centered on the ecological consequences of capitalism. During the 1960s and 1970s progressive Latin American movements embraced the dependency theory to explain underdevelopment. They argued that Latin American countries were poor because industrial countries appropriated their economic surplus. In addition to causing underdevelopment in the region, this transfer accounted for the rapid economic growth of the imperialist countries.

Despite the presence of those two perspectives, along with the indigenous one, the ecological movement in Latin America during the 1960s and 1970s was not strong. I am able to identify two reasons for this situation. First the "conservationist societies" had participation of a very specific group: scientists and

students, and as it was analyzed in the previous chapters, the concentration on nature did not appeal to the broad majority of the population. In Latin America "Man" has to be present as the central figure. The Catholic understanding (see chapter 2).of the relationship between Man and nature is strongly present in the "popular feeling", in academia, and in government circles. Regarding "eco-marxism", I would argue that its success is related to the incorporation of the human dimension into environmental analysis, and particularly a concern for social justice for the poor. Unfortunately, however, during the 1960s and 1970s Latin America was experiencing a period of "Rightist" dictatorships. It is well known that those governments persecuted people from the Left and helped to create, among the people, the feeling that I call "fear to Marxism" that is still present in the region. In contrast, I have been able to identify four forces that helped to develop an important environmental movement in Latin America from the 1980s to the present: the awareness of the serious ecological problems that are affecting the region, re-democratization in the majority of the Latin American countries, the international attention on Latin American environmental issues, and the sustainable development debate.

As analyzed in chapter 3, Latin America is experiencing serious environmental problems: desertification, deforestation, loss of biodiversity, air and water pollution, deterioration of marine and coastal system, quality of life in the human settlements, and the Amazonia issue. These problems are now not just part of a "scientific research", they are affecting the every-day life of the common people. A good example of this is the situation in Santiago de Chile, where the air contamination has reached very high levels. In a recent article, the journalist

Anthony Faiola (1998) describes the situation in Children's Hospital in Santiago which is flooded with infants and toddlers with respiratory problems. Latin Americans from different levels are analyzing the problems, trying to find the causes and possible solutions. At the popular level there is a feeling that blames the economic policies adopted by both the dictatorships and the new democratic governments for causing the region's ecological damage. This issue was analyzed section 1.2. I would agree with David Kaimowitz (1996) when he identifies the promotion of a structure of exports which favors highly polluting activities and natural resource depletion as one of the main ecological failures of the neoliberalism that has been applied in Latin America during the past twenty years.

The recovery of democracy during the 1980s has been a key element in the emergence on Latin American social movements. The transition meant that new ways of public participation were opened and it was advantageous for civic associations mobilizing around environmental themes. In countries such as Chile, Brazil, and Mexico there emerged a broad range of political parties, and partly in consequence, state sponsorship of environmental concern as a means of attracting regime legitimacy in the face of growing awareness of environmental problems. Commonly, this concern was expressed in the dictation of environmental laws and in the creation of environmental agencies (see section 1.1). But as was shown also in section 1.1, the governmental action has not been able to give real solutions to the environmental problems that are affecting the region. The popular frustration with official ineffectiveness in addressing ecological issues has spurred the creation of various environmental non-governmental organizations (ENGOS) that have been analyzed in section 4.1. In conclusion, re-democratization has

influenced the environmental movement in Latin America in two contradictory ways. Positively, the recovery of "information freedom" has helped to increase the awareness of environmental problems, and political liberalization has contributed to the emergence of environmental organizations. Negatively, the disappointment produced by the inefficiency of the new democratic governments in solving the ecological problems has helped to strengthen the environmental organizations in the sense that they are seen as a real alternative to the governments in implementing efficient ecological solutions.

International attention to Latin American environmental problems has its roots mainly in the 1972 Stockholm Conference. After that event environmental movements in the North have pressured governments, international lending and technical cooperation organizations to support environmental policies in the region. In the 1980s many environmental agencies in the North have included global environmental concerns into their agendas. International issues such as climate change, loss of biodiversity, depletion of the ozone layer, deforestation, toxic wastes and pesticides became principal, leading them to extend their actions overseas. Latin America was the area that attracted the attention of those organizations, especially the problem of deforestation in Amazonia (section 4.1 and section 3.3). As I said in chapter 4, developed country organizations have helped to make environmental matters more visible in Latin America, they have also helped to finance a number of environmental projects, and they have brought about specific environmental policies in the region.

Since 1987 when the World Commission on Environment and

Development published the book "Our Common Future", there has been an important debate on sustainable development in Latin America. (see chapter 2). From a Latin American point of view the main reason for the success of the concept in the region is that it incorporates the human dimension when analyzing environmental problems, being "anthropocentric", a characteristic that is strongly present in the Latin American environmental movement. That fact, and the solution of poverty as a goal to solve ecological deterioration, fits perfectly well the Catholic view of Man and Nature mentioned previously. Another reason that I identify for the success of the concept in Latin America, specially in my country Chile, is that sustainable development addresses the need for social justice without being a Marxist concept. Sustainable development has been an important contribution to the analysis of the environmental problems in Latin America, but it has its weaknesses mainly related to the definition of the concept and the clarification of real ways for its concrete achievement. Maybe the most important weakness of sustainable development is its contradiction, in the sense that on the one hand it blames the current style of development for having produced grave environmental problems, and in the other hand the concept tends to "manage" the natural resources with the same economic system that it is blaming: neoliberalism,

As mentioned, these four forces have helped the emergence of the environmental movement in Latin America. The movement has been expressed in different groups that have been joined according to their specific realities, problems, and agendas. I was able to identify six groups: developed country organizations, urban middle classes, indigenous groups, farmers, political parties, and women. Developed country organizations have put their attention mainly in

global issues such as Amazonia and deforestation; middle urban classes are worried for the grave pollution that is affecting Latin American cities, they have been also involved in the emergence of the new green markets; and indigenous groups, farmers, political parties, especially Leftist, and women have put their efforts around the issue of social justice. After identifying these groups, I am able to argue, agreeing with David Kaimowitz (1996) that there are various environmental movements in Latin America not just one. To recognize the existence of these different groups is essential for implementing environmental policies that respect the "difference". As Winograd (1995) has argued, homogenization leads to the loss of options, cultural, social and economic. But one has to be aware of the fact that differentiation can produce political ineffectiveness. The current challenge is to strengthen the positive actions of these groups for the environment, as a key element for improving the environmental situation of Latin America.

"The continued growth of Latin America's environmental movements depends on their ability to link-conceptually, programmatically and organizationally- the concern for the environment with the issue of social justice. To go beyond partial, piecemeal environmental reforms whose overall impact is minor or short-lived, requires broad alliances between the urban middle class, poor urban neighborhoods, farmers, and indigenous communities in support of economic policies and political reforms which favor clean water and air, small farmer and community control over land, forest and genetic resources, compensation for environmental services, lower unnecessary consumption of non-renewable resources, patterns of land use adapted to the local ecology, and technologies which improve, rather than destroy, the natural resource

base..."(David Kaimowitz, 1996, page 450).

Recognizing the differences among the Latin American countries, I can argue that in this thesis I have identified a pattern for understanding the emergence of the environmental movement in the continent as a whole. This pattern can be well used to study the nature of the movement in each Latin American country in further investigations. In chapter 5 I have given some considerations to how it could be applied to study the situation in my own country, Chile.

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