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The Politics of Conservation and Sustainable
Development: Native Forest Policy in
Chile and Venezuela

Eduardo Silva

**THE POLITICS OF CONSERVATION AND SUSTAINABLE DEVELOPMENT:
NATIVE FOREST POLICY IN CHILE AND VENEZUELA**

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THE POLITICS OF CONSERVATION AND SUSTAINABLE DEVELOPMENT: NATIVE FOREST POLICY IN CHILE AND VENEZUELA

The debate over the fate of Latin American native forests has subtly shifted in recent years. For most of the last two decades studies analyzed the causes of what seemed to be the inexorable forces of deforestation. As of the middle of the 1980s, however, Latin American governments have increasingly embraced the rhetoric of conservation and sustainable development. The emergence of more environmentally conscious native forest policies in a number of countries has accompanied that change. This raises two questions. What factors influence a government's policy choices in this issue area; and what accounts for the degree of politicization of native forest policy? The few studies that have addressed these questions usually focus on the impact of a single variable--they adopt either international, technocratic and state centric, or society centric explanations. This paper argues that a fuller understanding of the politics of native forest policy requires broadening the focus to an examination of when and how ideas, state institutions, societal forces, and external factors influence policy outcomes.

The Chilean and Venezuelan cases suggest that the ideas of cohesive teams of experts give initial impetus to the policies, and that their state institutional power bases are crucial for the translation of those ideas into policy. Yet, although teams of like-minded progressive policymakers had solid ministerial backing in both cases, policy outcomes differed. Chile's policymakers settled for a more market-oriented approach in a highly politicized debate. Their Venezuelan counterparts developed a more holistic and integrated approach with far

less political conflict. Without negating the value of other factors, the available evidence suggests that political economic factors--specifically, the economic interests of powerful social actors--must be taken into account as well. The fact that Chile had an economically important private sector forestry industry and that Venezuela did not, accounts for a significant portion of the difference. Moreover, for the most part, external factors played a permissive, background role in both cases.

EXPLAINING THE POLITICS OF CONSERVATION AND SUSTAINABLE DEVELOPMENT

This paper examines when and how four different factors influenced policy outcomes in the Chilean native forest debate: ideas, institutions, social groups, and external conditions. This methodology builds on recent work about political and economic change that has called attention to the relative futility of seeking to determine which one of these factors has more overall explanatory power.¹ In order to achieve this objective, the paper explores the utility of synthesizing an emerging literature that has tackled the question of the determinants of environmental politics from two different theoretical approaches.

Following state-centric approaches, Peter Haas focused on the role of ideas and the institutional capacity of the state to explain environmental policy outcomes.² He argued that networks of experts in government agencies who are bound together by shared values, knowledge, and policy recommendations--epistemic communities--shape the state's response to environmental problems. Differences in policy cohesiveness and extensiveness depended on the relative autonomy from social forces of the institution charged with developing the policy.

Haas made a significant contribution to the debate. But this approach has two shortcomings. First, it only looks at the relationship of specific interest groups to the state and ignores the effect of broader social coalitions that may support or oppose proposed policy. Secondly, the epistemic community approach has not taken into account the politicization of environmental issues. There is no one technocratic solution to a problem. This leaves the door open for alliance building between conflicting groups, including social groups and external actors. These groups and actors may seek allies within state institutions that do not support the objectives of the ministry in charge of forest policy.

A second explanatory approach focuses on the role that social groups and international factors play in forcing recalcitrant governments to adopt policies that promote the conservation and sustainable development of native forests.³ The main problem with this approach is that the state itself remains a black box. Because they concentrated on the sources of resistance to destructive policies and the imposition of more benevolent policy upon the state, these studies say little if anything about the role of state actors in devising environmentally conscious native forest policy.

Given the limitations of these approaches when taken individually, this paper explores two hypothesis about when and how ideas, state institutions, social groups, and international factors influenced native forest policy in Chile and Venezuela. One hypothesis is that, other things being equal, policy tends to reflect the preferences of the epistemic community that controls the government agencies responsible for designing it. This requires a cohesive technical team and firm backing by the ministry in which they are housed. A second hypothesis addresses the reasons for the relative lack of fit between an epistemic

community's policy preference and actual outcome. It contends that politicization occurs when the incumbent epistemic community has views that differ from the dominant market-friendly approach to the forest issue. But the point only holds when coupled with the presence of well-developed private interests in the sector who draw their power from the economic importance of the forest sector for the national economy. These conditions affect both the interest and power that competing groups may have in forest policy. A strong private sector forest industry may deflect the ideas proposed by the incumbent epistemic community by forming alliances with competing epistemic communities (which had different views on how to deal with environmental issues) in other ministries and with broader political and social forces.

International variables, mostly played background and conditioning roles. In general, Chilean and Venezuelan policymakers were responding to growing "green" conditionality. That is, foreign trade and aid issues were increasingly being linked to action on environmental issues. Both countries also wanted to put a good face on their intervention at the Earth Summit in Rio de Janeiro in the Summer of 1992. Moreover, many of the central concepts contending groups used were adopted from debates in developed nations. In Venezuela, however, the German Agency for Technical Cooperation (GTZ) played a direct role in shaping a biosphere reserve project in the state of Amazonas.

Competing Conceptualizations of Sustainable Development

Central to this paper's argument over the direction and politicization of native forest policy is the existence of at least two competing conceptualizations of sustainable development. They stand at the core of the political debates, conflicts, and struggles over

how to deal with environmental and ecological problems. The concept of sustainable development attempts to make compatible development and environmental integrity. It was forged in the 1980s in an effort to bridge a widening gap between preservationists and the necessity of further economic development. The well-documented effects of poverty on environmental degradation first gave birth to the concept, as conceived and popularized by the Brundtland Commission.⁴ The report stressed the search for a style of economic development capable of meeting the basic needs of a developing country's population, while maintaining its stock of natural resources so as not to rob future generations of their use.⁵ For policy and programmatic purposes, development economists have broken the concept of sustainable development down into three interrelated components: a healthy growing economy (which may necessitate structural adjustment), a commitment to social equity (or meeting basic needs), and protection of the environment.⁶

From this generally shared conceptual basis, environmental policies, programs, and projects—including those related to the forest—have tended to cluster around two distinct conceptualizations of the relationship between economic growth, equity, and environment. The dominant view within the policy establishment, shared by the top government leadership and multilateral institutions, reduces equity and environmental considerations to market-friendly economic growth.⁷ To achieve rapid growth developing countries must build market economies, integrate them into world markets, and pay careful attention to private property rights. From this perspective the environmental consequences of economic development are considered to be unfortunate side-effects that must be ameliorated. Consequently, the solution is limited to the addition of technologies capable of mitigating the

environmental impact of industrial processes, rather than finding substitutes for them or alternative methods of production.⁸ Social equity concerns and their link to environment receive even less direct attention. At its baldest, this perspective argues that aggregate economic growth brought about by structural reforms will improve national income (and therefore housing, education, and wealth), and that rising income levels will allow people to become concerned about environmental degradation.

These views inspire a number of policy prescriptions for the use of natural renewable resources. Multilateral lending institutions now require the addition of "environmental" safeguards to large scale development projects in forestry that will provide employment and national income to boost gross domestic product (GDP) growth figures and to pay back onerous international loans.⁹ A number of studies have advocated the promotion of private property rights over cooperative ventures and communal ownership, elimination of government subsidies that make deforestation profitable, reducing the role of the state to minimize the impact of bureaucratic incompetence, and then strengthening institutional capacities in sharply reduced spheres of state action.¹⁰

The market-friendly approach to sustainable development also focuses more directly on the economic value of trees rather than the multiple values of native forests. Thus, its environmental consciousness stresses preservation of selected native forest tracts for the conservation of biodiversity with clear-cutting for plantations. In this view, plantations are better than native forests because the trees have more economic value. Moreover, the plantations continue to fulfill the primary environmental functions of trees: to serve as natural "scrubbers" (fix CO₂) and prevent soil erosion.

An alternative approach to sustainable development takes each of the terms--economic growth, social equity, and environment--into account in their own right, and then seeks to find reinforcing linkages between them. Most of the studies in this vein begin by implicitly or explicitly questioning the orthodox view of economic development. They argue that even with technological fixes and a more realistic economic accounting of environmental losses,¹¹ rapid economic growth on the periphery (and in the center) will be ultimately self-defeating in terms of environmental and human sustainability. As a result, a number of more ecologically-centered values infuse this alternative approach to economic development. Its proponents conclude that development efforts should be more decentralized, look for alternative products and production methods (multiple use of the forest), favor smaller-scale over large scale enterprise, and take participation seriously by concentrating on grassroots development.¹²

Equally important, this alternative approach to sustainable development builds on the assumption that environmental problems in developing nations--especially for the impoverished of rural areas--are about livelihoods.¹³ Thus, the struggle over the environment is inextricably linked to the larger issues of social, economic, and cultural self-determination, which requires offering vulnerable populations alternatives to exclusive reliance on the market. This is particularly true for people who are not yet fully integrated into market economies, or who are at the lower end of the socio-economic scale. In the forest these include dispossessed or displaced small-scale subsistence farmers, Indian and settler communities, as well as families, and individuals that derive their living from multiple extractive activities.

From this perspective then, environmental concerns, social equity, and economic development for the rural poor are given equal weight conceptually--not reduced to one or another term--and then linked. It is also a more holistic approach, since the linkage requires explicit consideration of the fact that the ecological impact of human activities cuts across economic activities, as well as social, economic, and political boundaries.¹⁴ This has led to an emphasis on grassroots development, technologies that mimic natural processes, and projects that promote local self reliance and control over a resources in order achieve a more equitable distribution of wealth.

As will be seen, these two distinct conceptual views of sustainable development stand at the center of the native forest policy debate in Chile and Venezuela. They define proponents of market-friendly developmentalist solutions v. alternative arrangements. Epistemic communities within the government articulate these points of view, as do societal actors (both economic interest groups and the leaders of social movements). Moreover, each side uses the concepts of preservation and conservation in their discourse to legitimize their environmental credentials. In short all are "green," but there are clearly different shades with significant political consequences.

EXTERNAL FACTORS, POLICYMAKING TEAMS, AND STATE INSTITUTIONS IN CHILE AND VENEZUELA

This paper concentrates on policies developed during the administrations of Pátricio Aylwin in Chile (1990-1994) and Carlos Andrés Pérez in Venezuela (1988-1993). There are two reasons for the choice of period. One is that the concept of sustainable development and the emergence of the native forest issue on the policy agenda in both cases dates back to only

about ten years. Secondly, these two governments were the first ones to respond directly to the issue in their respective countries.

Without neglecting their different histories, this section of the paper draws attention to the commonalities across the two cases, in order to highlight differences in policy outcomes. With respect to international factors, both Chile and Venezuela were in various stages of negotiating bilateral free trade agreements with the United States. As a result, they faced general pressure to address environmental issues in all of the economic areas affected by trade, and the forest sector was one of them. At the domestic level, both cases possessed relatively cohesive policymaking teams--epistemic communities--that favored the alternative approach to sustainable development in the native forest issue area. In general, these epistemic communities had solid institutional backing by a ministry of state--Agriculture (MAG) in Chile and Environment and Natural Renewable Resources in Venezuela (MARNR). Ultimately, institutional support included the presidency itself. Yet there was a closer fit between ideas and policy outcome in Venezuela than in Chile.

Green Conditionality, Redemocratization, and the Native Forest Policymaking Team in Chile

In Chile, environmental issues--including native forests--received attention in the Aylwin administration for two reasons. One was that international actors such as the World Bank, and the United States government were placing more emphasis on the environment as a condition for loans or for preferential trade agreements. His government would have to press environmental legislation or suffer the consequences: diminished resources and opportunities for economic growth.¹⁵ The trade issue loomed large for Chile in particular.

After seventeen years of neoliberal economic restructuring it had an open economy that depended on trade in extractive resources--minerals, fish, and timber--for its economic well-being.

The second reason had to do with the fact that Chile was in a process of redemocratization after seventeen years of military rule in which environmental concerns had received short shrift. In 1988, a broad center-left coalition of political parties that opposed general Augusto Pinochet's dictatorship--the Concertación--defeated his bid for eight more years of rule and won the presidential election of December 1989. Environmental issues had a place in the new government's program because the environmental movement had formed part of the political opposition to authoritarianism.

Proponents of the alternative view of sustainable development had begun to emerge in the 1960s and 1970s in the Universidad de Chile and the Universidad Austral.¹⁶ By the middle of the 1980s they formed the backbone of the progressive, alternative environmental social movement largely located in nongovernmental organizations (NGOs) and think tanks. With respect to forest issues, they and their students clearly linked ecological concerns and the sustainable economic use of native forests with an appreciation for social equity in rural areas.¹⁷

Their intellectual positions affected their policy prescriptions. They believed forest policy should help conserve and improve native forests, protect them from substitution for plantations with exotic species (mainly pine and some eucalyptus), give incentives to create industrial demand for native species (to reduce pressure for substitution), and improve the living conditions of peasants and small-holders in forested regions. Their writings

recognized the need to promote the multiple use of the forest, and grassroots development efforts for communities in the forest sector. They expressed concern over the biodiversity of flora and fauna and the integrity of old growth and secondary forests.¹⁸

The Concertación was a broad center-left coalition of political parties. Thus, the supporters of the progressive, alternative view of sustainable development tended to be members of leftist parties, or of the left wing of centrist ones, such as the Christian Democratic Party. They had also formed part of the technical commissions that had designed the environmental policy platform of Concertación in 1988 and 1989. As a reward for their participation in the coalition, the center-right leadership of the Christian Democratic party, of which Aylwin was a member, turned environmental affairs over to the leftist parties that had helped to forge the administration's platform. These progressive ecologists were not as moderate as the socialists who occupied more sensitive positions, such as the Ministry of Economy. But Aylwin's inner circle probably reasoned that environment would not be a very politicized issue area, as compared to poverty and economic growth. Moreover, as will be seen, senior administration officials no doubt reckoned that the institutional base within the government from which the progressive ecologists would operate were not strong enough for them to do much.

These expectations notwithstanding, the appointments secured a relatively cohesive team of policymakers that supported the alternative view of sustainable development in the key government agencies charged with formulating native forest policy. The Corporación Nacional Forestal (CONAF) was the principal locus of the alternative epistemic community. Ordinarily, CONAF is not a very powerful government agency and should not have posed

much of a threat to the market-friendly developmentalist interests. But CONAF is under the wing of the Ministry of Agriculture (MAG). Thus, the CONAF policymaking team was immeasurably strengthened by the fact that the minister, Juan Augustín Figueroa, also supported their central policy recommendations.¹⁹ Ironically, after the native forest policy issue became highly politicized, president Aylwin himself gave more support to the alternative epistemic community. This occurred largely because his son was also a supporter of those views and convinced his father to somewhat discipline the market-friendly group.

Within the Aylwin administration, native forests constituted one of the first ecological issues that the new government tackled, and MAG-CONAF adopted a two track strategy. These two institutions put most of their energies into a legislative effort--the native forest bill. Because this was by far the most important action taken, this paper will focus mainly on the implications of the legislative effort. Secondly, MAG-CONAF also began a set of modest programs to benefit small holders and peasants in forest areas.

Soon after the inauguration of the new government MAG and CONAF started to design a native forest bill well insulated from both societal pressure or other government institutions.²⁰ Key elements of the bill, however, only incorporated a limited range of the central tenets of the alternative epistemic community's view of sustainable development. At its core stood subsidies to native forest management to create economic incentives for their sustainable use. In clear opposition to the powerful forestry industry it was also adamantly against the substitution of native forest for plantations with exotics. The minister of agriculture himself repeatedly supported this posture.²¹ The proposals also emphasized the preservation and conservation of the native forest. They sought to prohibit the exploitation

of large tracts of native forest in areas where timber extraction and deforestation would cause severe erosion.

This approach clouded a number of points that gave strength to the holistic vision of the alternative approach to sustainable development which they had so clearly articulated in the past. Most significantly, the alternative epistemic community limited its approach to a narrow economic view of the problem. It was narrow in the sense that the subsidies provided only a general incentive to conserve native forests, and that success in this endeavor hinged on the establishment of an industry and a market for native forest wood products.

The issue of social equity was also less distinct than it could have been. There was no explicit linkage of incentives for the economic use of native woods and the livelihood needs of peasants and small holders. Instead, the issue was addressed in a rather oblique manner. Much of the remaining native forest is in the hands of small holders who tend to live in remote rural areas so the economic incentives should help them.²² Yet the alternative epistemic community stopped short of proposing that small holders needed much more than a general economic incentive and the creation of a market for their wood products, such as help with marketing, the establishment of cooperative ventures, and the fostering of autonomous grassroots development. All ideas which they had proposed in the past.

Finally, a number of concepts that the alternative epistemic community had espoused--which gave it its holistic cast--were entirely lacking from the proposals. With the focus exclusively on the economic use of timber, it did not address multiple uses of the forest (including aesthetic value). Moreover, in addition to the lack of attention to grassroots development, the guiding principles omitted to take into account the importance of local

ecological factors that might affect exploitation methods and biodiversity. Issues such as biodiversity and how to strengthen CONAF's oversight and programmatic capacities were also absent from the bill. Moreover, the framers of the bill did not consider proposing new national parks to cover distinctive ecosystems not represented in the National System of Protected Wildlife Areas.

As a complement to the legislative effort, MAG and CONAF also undertook small pilot projects which are more explicitly geared to addressing the equity question in the forestry sector.²³ These programs show that the alternative epistemic community took these ideas seriously, and draws attention to their absence in the proposed legislative bill. Had they been included they would have potentially had a greater impact. As they stand, they are very small and do not reach many families.

There are two such pilot programs. The first one is the peasant reforestation aid program, which has two subprograms. One is a credit and technical aid program so that small-holders (up to five hectares) may receive the subsidies for reforestation granted by Decree Law 701 of 1974.²⁴ As things stood, that decree had mainly served the interests of the large-scale forest industry which used them to establish plantations with exotics. The recent help from CONAF is crucial for small holders because DL 701 only reimburses expenses one year after they have been incurred. Peasants cannot wait that long. In order to manage the program efficiently, the administering government agencies have encouraged peasant organization. Another reforestation program addresses the domestic subsistence needs of peasants--fuel, posts, and building materials--and offers aid for the forestation of areas of up to one hectare.²⁵ By contrast, the second pilot program explicitly targets

peasants with standing native forests. Through appropriate technology transfers, the program helps them to learn how to live off of the forest without destroying it.

External Factors, Forest Policymaking Teams, and the Ministry of Environment and Renewable Natural Resources in Venezuela

Venezuela's political development differs from that of Chile. It has a history of uninterrupted democratic rule that dates to 1958.²⁶ Among other reasons, this has allowed it to express a concern for environmental issues since the mid 1970s with the creation of the Ministry of Environment and Renewable Natural Resources (MARNR) during the first administration of Carlos Andrés Pérez (1974-79). As will be seen, this clearly influenced the institutional and legal settings and career paths of the forest policy epistemic communities in the government. Their formative experiences were within the MARNR rather than outside of government institutions, and they had more legal instruments on which to base their policies.

Yet there are significant similarities with the Chilean case as well. As in Chile, the native forest issue itself did not receive attention until the last half of the 1980s, for the MARNR initially concentrated on urban sanitation and engineering issues. As a result, the forestry section did not have its own agency or mandate until the second administration of Carlos Andrés Pérez which began in 1989. Moreover, prior to the discussion over sustainable development, both countries had a history of attending to preservation through parks services that had been established in the 1970s.

By the same token, although by different paths than in Chile, Venezuela developed networks of policymaking experts in the MARNR who generally took a progressive, alternative view of sustainable development. Moreover, although the specific institutional

settings of those responsible for forest policy were different, in both cases these progressive epistemic communities had relative autonomy in the agenda setting and policy formulation stages of the policymaking process. In the 1990s, these epistemic communities operated in fully developed departments that were under the wing of a ministry of state that was sympathetic to their views, and reported directly to the minister. Finally, the presidents of both nations were generally sympathetic to their views, or at least not set against them.

Despite these similarities, however, there was a much closer correspondence between the Venezuelan alternative epistemic community's ideas and policy outcomes than in Chile. This section of the paper explores the role of international and domestic institutional factors in the formation of Venezuela's alternative epistemic community. Following that comes a discussion of how differences in the political economy of these nations shaped the differences in policy outcomes.

External Factors and the Formation of an Alternative Epistemic Community in Venezuela

External factors played a more direct role in the formation of the Venezuelan alternative epistemic community than in Chile. This was mostly due to three reasons: Venezuela had a democratic regime, the internationalist spirit of president Pérez, and the history of the genesis of the MARNR. In the 1970s, when most of South America chafed under labor-repressive military governments, Venezuela adopted a strategic posture towards emerging environmental concerns.²⁷ The first United Nations Earth Summit at Stockholm in 1972 put environmental issues on the international relations agenda. As the leader of a political party that was part of the Socialist International (Acción Democrática--AD), it was Pérez' ambition to turn Venezuela into a progressive leader of the third world. Some

important AD leaders who were concerned about the environment, especially in urban areas, and who had linkages to the United Nations and the Inter-American Development Bank, convinced president Pérez to establish a ministry of the environment.²⁸

As a new ministry in an administrative system that valued planning, the most powerful department within the MARNR was the Direction of Planning. In keeping with the initial urban focus of the MARNR many of the top administrative positions went to architects and engineers, while agronomists also received some posts. Ecosystem preservation received some attention with the creation of the National Parks Institute (Inparques). Forestry issues, however, were not considered important and relegated to a minor, very subordinate agency.²⁹

It was in the all powerful Department of Planning that international agencies first set the seeds of Venezuela's alternative environmental epistemic community. This arose from the experience of designing Venezuela's National Land Use Plan in the late 1970s. This was a powerful shared formative experience for the directors of the reorganized MARNR of the early 1990s.

In 1979, the MARNR began national land use planning with the project Environmental Systems of Venezuela. The venture was sponsored by three UN agencies, UNEP, ECLA, and UNESCO. It divided Venezuela into ecological and socio-economic zones at the national and regional levels in order to diagnose environmental stress produced by Venezuela's development model. That diagnosis provided the basis of policy prescriptions, such the promotion of urban deconcentration, the creation of multifunctional

spaces, and environmentally sensitive development programs for the region south of the Orinoco River.³⁰

The Environmental Systems of Venezuela was the foundation of the National Land Use Plan of the early 1980s, which became the basis for the National Land Use Law of 1983.³¹ The Land Use plan retained the overall objectives of the National Systems effort, and then divided Venezuelan territory into areas most suitable for various kinds of use, such as urban and transport systems, and development of agriculture, fishing, industry, energy, and tourism. With respect to forest and biodiversity issues, it gave priority to such goals as the sustainable use and protection of forests, the rational use of fauna resources, and the creation of a system of Areas Under Special Administration (ABRAE) to cover conservation and preservation issues.³²

The planning effort, and UN involvement, contributed to the formation of a progressive, alternative epistemic community in the MARNR. First of all, the holistic, interdisciplinary orientation of the MARNR had its origins during that formative period. The plans and resulting legislation took into account the relationship between styles of socio-economic development and the health of the environment, and extolled the virtues of population deconcentration. The plans called for placing environmental values and principles at the center of the development strategies for the Venezuela's economic sectors. They also highlighted the need to foster small-scale producers in the interest of social equity.

With respect to native forests, the Systems of Venezuela and the National Land Use Plan set down important principles that would be key to the formation of the alternative epistemic community related to this sector. These had to do with the development of the

ABRAE, which covered approximately 45% of the national territory. The ABRAE combined economic use of native forest resources with preservation. They reinforced the principle of multiple use of forests, as well as existing legal norms that established forest reserves as preferred areas of sustained yield timber extraction. The ABRAE also sanctioned preservation of biodiversity via national parks, watershed protection, and agricultural use. Moreover, the concept of the ABRAE recognized the livelihood needs of peasant populations.

Upon these foundations, subsequent intense international attention to native forests, especially in tropical areas, found fertile ground in Venezuela during the second administration of Carlos Andrés Pérez, which began in 1989. Ideas developed or advanced by UNEP and international nongovernmental organizations such as the IUCN were acted upon. These included the establishment of agroforestry programs in forest reserves, a biosphere reserve and contiguous national park in the new state of Amazonas, attention to the development and recognition of organizations of indigenous peoples, the creation of wildlife reserves, and attempts to address the livelihood needs of populations affected by the establishment of national parks.

Administrative Reorganization, the Alternative Epistemic Community, and Policy Outcomes

If international factors helped shape the formation of a progressive, alternative epistemic community in Venezuela, ADs return to power in the mid-1980s and the administrative reorganization of the MARNR in 1989 molded it further, especially in the native forest issue area. Beginning with the presidency of Jaime Lusinchi (1983-1988), the MARNR took on greater ministerial profile with the appointments of the brothers

Colmenares Finol, two recognized environmentalists, to head the MARNR. This gave administrative continuity to the MARNR's initiatives and to the career paths of top officials. People who had worked together well in the 1970s were once again colleagues in positions of responsibility.³³

The MARNR, however, was not organized administratively to respond to heightened international attention to the twin issues of the conservation of biodiversity and the sustainable development of tropical forests. As a result, the second presidency of Carlos Andrés Pérez gave priority to an administrative reorganization of MARNR--under Enrique Colmenares Finol--to address these new issues which were the object of such international interest. This resulted in the formation of the Venezuelan Forestry Service (Seforven), a Wildlife Service (Pro Fauna), and the Autonomous Service for Environmental Development-Amazonas (Sada-Amazonas).³⁴

These services and agencies were functionally specific. Seforven oversaw the productive use of the forest. Sada-Amazonas integrated preservation, conservation, as well as settler, and native cultures policy for the new state of Amazonas. Pro Fauna was organized to strengthen wildlife preservation, which it has done through the creation of a system of reserves.³⁵ Meanwhile, Inparques received greater authority to decree more national parks. Another agency, the National Reforestation Corporation (Conare) redoubled its efforts to develop reforestation programs with exotics (caribbean pine) for industrial use.³⁶

On the whole, the aggregation of these functionally differentiated departments gives the Venezuelan native forest policy its alternative, progressive cast. Individual service

directors may not necessarily fully embrace the alternative view of sustainable development. Yet largely because of their general common formative experience, and because of the nature of the administrative reorganization, they nevertheless see their efforts as complimentary. Service and department heads are cognizant that each in their own function and jurisdiction contributes to the larger goal of promoting an alternative vision of sustainable development. Moreover, even though individual directors may emphasize either production, preservation, local populations or wildlife according to the function of their department, they also address some of the other concerns in their policies because they are aware of the interconnectedness of the problem of sustainable development. In short, they realize that both the factors that they stress and the holistic vision that they collectively represent are distinct from the prevailing market-friendly view of sustainable development.

With these clarifications in mind, what are the specific policies of these new and/or refurbished agencies? To what extent do they contribute to a progressive, alternative view of sustainable development? What linkages exist between the different agencies and what is the source of their cooperation?

The director department heads of Seforven (all forest engineers) undertook a dual mission. First, they began to implement plans they had developed in the mid-1980s to stimulate the expansion of the native forest timber industry.³⁷ To this end, they introduced and/or began to enforce sustainable yield management of the native forest reserves set aside for such use by the land use plan and law. Seforven's required the extraction of timber in accordance with rotation cycles of commercial species, mandated reforestation with the same species, and charged stumpage fees. Seforven also levied penalties to companies that failed

to comply (confiscation of timber and suspension of activities rather than fines). Last but not least, Seforven protected the common lands of indigenous peoples who lived within a particular concession.

The system works relatively simply in the forest reserves of Eastern Venezuela North of the Orinoco River on the Guayana shield. These are remote areas where, for the most part, extraction is just beginning. However, Seforven's approach is somewhat different in Western Venezuela North of the Orinoco where there are denser settlement patterns. There, the principal forest reserves had been depleted by the expansion of the agricultural frontier. The process had been aided by the activities of the National Agrarian Institute, the land reform agency (IAN), in conjunction with local politicians who gave land titles to all who cleared forest areas in return for votes.³⁸ This situation gave rise to Seforven's second policy approach to the forest reserves, for Seforven had to squarely address the problem of the livelihood of peoples in those areas.

To that end, and in keeping with the alternative view, it began a social afforestation and agroforestry program in the Ticoporo and Caparo reserves.³⁹ The program developed the concept of multiple use of the forest and sponsored peasant organization. Seforven turned to the social afforestation program as a means to recuperate lost forest cover. This meant that the existing population could maintain the land they had been working, were prohibited from cutting more forest, and were obligated to reforest significant portions of their lands, which also contained some of the remaining native forest stands. These new and existing forests would provide fuel, construction materials, shade for livestock and crops, and protection against erosion. The program also required organized peasant participation in the

management of the social afforestation program.⁴⁰ On the strength of that experience, Seforven began to cautiously expand agroforestry programs to the forest reserves of Eastern Venezuela and South of the Orinoco.⁴¹ Thus, Seforven hopes that it can avert massive deforestation in those regions without threatening the livelihoods of the local population.

Sada-Amazonas is in charge of native forest management in most of the region south of the Orinoco within the newly established state of Amazonas. Its director, and department level heads, are acutely aware of the need to balance productive, multiple use of the forest with preservation. They are also sympathetic to the idea that the fruits of that use should be for the local communities rather than the elite in Puerto Ayacucho, the capital of Amazonas. Moreover, they believe that local organization, especially of the indigenous population, is an important tool to achieve those goals.⁴²

In keeping with this general outlook, Sada-Amazonas' main task at the moment is the oversight of a newly decreed Biosphere reserve. This concept was developed by the United Nations Man in the Biosphere program, and incorporates many of the interests of alternative view of sustainable development. Biospheres seek to conserve biodiversity through the preservation of core areas. They also seek to respond to the livelihood needs of indigenous populations and established colonists by establishing areas of sustainable use, known as buffer zones. Other goals include protecting native populations from cultural shock and promoting the organization of local communities in the interest of developing autonomous grassroots efforts. As will be discussed in a subsequent section, Sada-Amazonas is carrying out its Biosphere reserve program with the aid of the German Agency for Technical Cooperation (GTZ).⁴³ The GTZ itself has contributed much to raising the consciousness of

the Venezuelan directors of Sada-Amazonas with respect to livelihood issues and grassroots development.

Inparques has a strong preservationist orientation, which is also a facet--or goal--of the holistic, alternative view of sustainable development. It has redoubled its efforts in the 1990s under new leadership, with a mandate to create more parks and national monuments. The emphasis here was in Amazonas with the creation of large new national parks in Amazonas and a number of national monuments.⁴⁴

In general, Inparques contributes to alternative cast of the MARNR because preservation is also a component of the alternative view of sustainable development. However, for Inparques to fit more squarely within the alternative view of sustainable development it will have to correct more for its preservationist bias. This is because there is a conflict between the strict preservationism of parks services in general and the livelihood needs of local populations, especially indigenous.⁴⁵

The problem is penetrating the consciousness of the top leadership of Inparques. They have made some attempts to address this conflict in a way more consonant with the alternative view. But this has been restricted to coastal or western mountain areas rather than in forests.⁴⁶ The issue is heating up in the new Amazonian parks. Many indigenous nations inhabit the region. Their leaders and friends among NGOs and in academic circles are pressing the issue. As a result, Inparques and the national legislature are wrestling with special regulations for the region.⁴⁷

SOCIAL FORCES, THE STATE, AND THE POLITICAL ECONOMY OF NATIVE FOREST POLICY IN CHILE AND VENEZUELA

On balance, then, both Chile and Venezuela had progressive, alternative native forest policymaking teams in the beginning of the 1990s. Moreover, these policymaking teams enjoyed the support of a major ministry of state, in administrations whose presidents gave more importance to environmental issues in general, and forest policy in particular. Despite these similarities, policy outcomes in the two cases did not equally reflect the alternative, progressive cast of the policymakers. In Chile, the intellectual concern over the multiple use of the forest, local autonomy, grassroots organization and development, protection of native rights, and preservation was less explicitly and extensively addressed than in Venezuela.

This was undeniably partially a result of institutional and legal differences. Conaf is a smaller organization within a sectoral ministry--MAG--that has other responsibilities besides safeguarding the environment. The MARNR is a specialized agency. Thus, there are staffing and budget considerations that must be taken into account. Moreover, the MARNR has developed legal instruments over the last 20 years which are also lacking in Chile. The Land Use law is perhaps the most salient example. It established forest reserves and other protected zones, and clarified property rights in those areas.

Yet there was another important difference that also influenced the policy outcomes in the two cases: the different political economies of Chile and Venezuela. This affected the nature and strength of social forces that might be opposed to the alternative view of sustainable development. Chile had a powerful private sector forest industry geared to the substitution of native forests for plantations with exotics, and that was vital for national

economic performance: it contributed almost one billion dollars in export earnings. Within the context of a free-market economy--with substantial private land ownership--they exercised considerable influence over the emphasis that the alternative epistemic community took in Chile, and in the final outcome. Meanwhile, Venezuela, an oil economy, had no such powerful private sector forest industry groups. The existing forest industry already used native forest for timber, but it was a weak domestic market-oriented industry that contributed little to GNP and virtually no exports. Moreover, most forest lands were in marginal areas and publicly owned.

The Struggle over Native Forest Policy in Chile

The characteristics of Chile's political economy constrained the progressive, alternative native forest policymaking team. Chile's emphasis on free-market economic restructuring from 1973 to 1988 had strengthened the private sector in general, and the forestry industry in particular. This had two important consequences for native forest policy. One was that the general orientation of the economy and the strength of the private sector within it exerted indirect pressure on the alternative epistemic community to limit its alternative policy initiatives in a strategic act of selfcensorship. As a result, the policymakers in CONAF concluded that by concentrating on a few measures their efforts could not be dismissed as the actions of hopelessly out of touch radicals. And, they could muster support for a key policy instrument, rather than dissipate their institutional and congressional support. Secondly, the private sector felt sufficiently confident to launch strong, direct opposition to the alternative epistemic community.

Economic Structure and the Forestry Industry

The struggle over native forest policy in Chile, and the constraints under which the alternative policymaking team labored, are best understood in relation to two historical developments. The first one of these was neoliberal economic, social, and political restructuring under military rule from 1973 to 1989. The second one stems from the bargain struck between the political opposition to the dictatorship and the supporters of the dictatorship.

With respect to the first point, during seventeen years of authoritarianism, policymakers labored to install a new liberal order, one in which export oriented, free market relations would define the economic and social systems. The state, of course, should have as little involvement in the economy and society as possible. These were spheres best left to the creative energy of private, individual initiative. The export component of Chile's neoliberal economic restructuring effort concentrated on expanding extractive activities, particularly in the mining, fishing, and forestry industries. In order to develop the forest sector, the military government designed an industrial policy to rapidly stimulate tree plantations of exotic commercial species, principally radiata pine, but also some eucalyptus.

Decree Law 701 of 1974, which the forest industry helped to formulate, was the principal legal instrument of the dictatorship's forest policy. DL 701 subsidized 75% (up to 90% in some years) of the costs of reforestation for commercial plantations. With this sizable direct subsidy the total areas forested with exotics shot up from about 200,000 ha. in 1974 to approximately 1.3 million in 1988. Reversing past law, an additional decree in 1975

authorized the export of wood products regardless of value added, and that made the export boom in timber and chips possible.⁴⁸

Moreover, in reaction to the socialist government of Salvador Allende which the military had overthrown, DL 701 promoted private sector ownership of this economic resource, and most plantations are now in private hands. Ownership is highly concentrated in a few large Chilean companies--sometimes in association with foreign firms--that are part of Chile's most powerful conglomerates.⁴⁹ Exports of raw logs, wood chips, sawn wood, and cellulose have become leading foreign exchange earners for Chile, almost US\$900 million in 1990.⁵⁰ Thus, concentrated ownership and export success have made the forestry industry a vital sector for the Chilean economy. This forms the basis of the considerable power of these industrialists.

The expansion of the plantation-based export-oriented forest industry eventually put serious pressure on native forests in some regions in Chile. Initially, forest companies established their plantations in the coal mining zone of Concepción, and then expanded to eroded and sand covered lands in the VII and VIII Regions. However, the plantations eventually began to compete with native forests after the denuded areas near existing forest operations were reforested. Firms then cleared native forests to make way for plantations with exotics.⁵¹ The process accelerated after 1988 due to exploding demand for short-fiber wood chips, a profitable short-term use of the native forest. After the native forest was cut, exotics were planted or the land was turned to agricultural and ranching uses. Moreover Chile's powerful timber companies have expanded their operations to the IX, X, and XII regions.⁵² In short, by the 1990s large forest companies tied to the international pulp and

paper industry were clear cutting large tracts of native forest to use the short fiber wood chips for export and substitute them with plantations of faster growing exotic species.

The export oriented, free market thrust of the Chilean economy laid the foundation for strong supporters of a market-friendly developmentalist approach to sustainable development. Their locus was mainly in the private sector, of which *Empresarios por un Desarrollo Sostenible* and the *Corporación de la Madera (CORMA)* were the most important. The former was a working group of the industrial sector's peak association--the Society for Industrial Development (SFF). CORMA was the powerful association of the forest industry proper, which was affiliated with the SFF. Other adherents of this view included a few think tanks, of which the *Centro de Investigación y Planificación del Medio Ambiente* was the most important. This shows that the environmental social movement itself was split between these two conceptions of sustainable development. Moreover, some socialists who believed in rapid industrialization over ecology, and who affirmed that environmental problems can be solved by adding technology to existing industrial processes also support the market-friendly developmentalist view.⁵³

With respect to the forestry sector, the proponents of the market-friendly developmental approach to sustainable development preferred policies with the following characteristics. Native forest policy should establish clear cut distinctions between private and public property. To this end, state regulation and conservation efforts should confine themselves to public lands; this meant forested areas which for one reason or another were not apt for productive use--meaning commercial exploitation. But in private lands apt for forestry activities--some five to seven million--the state should not regulate exploitation.

Moreover, the state should pay the owners of such forests for the opportunity costs of restrictions on their economic use.⁵⁴

Indirect Pressures on Chile's Alternative Epistemic Community

Due to the market economy, and the nature of the transition to democracy in Chile, supporters of the market-friendly developmentalist view of sustainable development exerted substantial indirect pressure on the progressive, alternative epistemic community in the new democratic government for two reasons. First, Chilean socio-economic elites enjoyed a solid structural advantage in the Chile that emerged from the dictatorship in 1989. In Chile's free-market economy, capitalists were largely responsible for the investment that was producing sustained high economic growth rates. This was a powerful incentive for policymakers to be responsive to these groups.

Secondly, the bargain that the political opposition to the dictatorship--the Concertación--struck with the supporters of authoritarianism added to the structural strength of the private sector. Between 1983 and 1985 a coalition of business and landowning elites negotiated changes in Chile's free-market economic model that led to the sustained high economic growth rates of the late 1980s.⁵⁵ In the absence of deep divisions among the supporters of Pinochet's military government, to gain their support for democratization the Concertación promised to retain the free-market economic policies of the authoritarian period. In this manner the political opposition sought to assuage the fears of socio-economic elites who worried that the Concertación would attempt to reverse those policies.

In addition to this political agreement, market-friendly socio-economic forces also enjoyed important institutional protections. First, the authoritarian constitution of 1980 had

electoral rules that virtually guaranteed the dominance of right wing political forces in the senate, which had an absolute veto power over any legislation.⁵⁶ Second, the Concertación's commitment to economic orthodoxy and the accompanying liberal, minimalist, nightwatchman state had significant consequences for the new government's ability to deliver on its promises for increased social equity.

The Concertación had promised to address growing income inequality, to improve government services in health and education, and to review labor laws. However, the military government had stripped public administration resources to the bone, and the Aylwin administration was committed to the same principles of fiscal austerity that the military government had labored so hard to set. As a result, the new government was more successful at maintaining economic growth than in redressing equity questions. Neither funds nor disposition existed for greatly expanded provision of social services on the part of the new administration.⁵⁷

These circumstances strongly conditioned the strategic choices of the otherwise institutionally well-positioned alternative epistemic community in the native forest policy issue area. They largely determined the native forest bill's narrow economic focus, and its lack of more explicit commitment to social equity for peasants and small-holders. The alternative epistemic community realized that the policymaking process made it impossible for CONAF and MAG to push through legislation that asked for funding to implement a wide range of programs, such as multiple use of the forest, cooperative ventures, the purchase of forests to incorporate them in them the SNAPSE, changes in labor laws, etc. Given these limitations, the alternative epistemic community decided that the only way to

save native forests was to create an industry for its timber. Only this could effectively counteract the powerful plantation-based private interests in substitution. If sustainably managed native forests could contribute to both the nation's GDP and balance of trade, the lack of interest in its conservation might be reversed.⁵⁸

By the same token, this context explains why the social questions were relegated to pilot programs designed by CONAF. As programs, rather than laws, CONAF had greater discretionary authority over them. The programs, were very modest due to fiscal constraints and staffing restrictions, a result of the Concertación's commitment to a liberal state model.⁵⁹

In sum, strong as the alternative epistemic community's institutional position was, it found itself constrained at the outset by the structural position of the private sector in Chile. Business derived its power from a number of sources. One was their privileged position in a thoroughly market based socio-economic system: their investment was crucial to continued rapid economic growth. Secondly, private interests also had decisive allies in the senate, a gatekeeping institution. Thirdly, the Concertación had explicitly agreed to conserve the market policies that formed the basis of rapid economic growth in Chile, and which reinforced the structural power of market-oriented social forces. In this context, so unfavorable to challenges to economic orthodoxy, the real significance of a solid institutional position and a cohesive policymaking team for the alternative epistemic community was that despite these systemic constraints it was able to partially imbue policy proposals with its ideas.

Direct Social Pressure and Politicization: The Forest Industry and the Market-Friendly Developmental Epistemic Community

If the alternative epistemic community found itself indirectly constrained by the structural position of market-friendly socio-economic forces, it soon found itself in a direct struggle with those groups. The events that followed demonstrated that in the presence of powerful private sector actors, alternative epistemic communities can expect resistance to their proposals. This was a major source of politicization in the Chilean case, and confirms that environmental issues are more than purely technical matters. More importantly, however, the ensuing conflict revealed that the Aylwin administration itself was riven by rival epistemic communities: alternative and market-friendly. As a result, complex alliance patterns emerged between these competing epistemic communities and like-minded social forces. The combination of strong industry groups, rival epistemic communities, and alliance-building across state and societal actors made the struggle that followed particularly sharp.

Forest industry interests and the representatives of the market-friendly epistemic community were not initially involved in the design of native forest policy. But they quickly raised a challenge to the alternative epistemic community by forming an alliance of like-minded state and societal interests. Consequently, towards the end of 1990 the battle lines were quickly drawn over the question of property rights, the freedom to clear cut privately owned native forests in the interest of short term economic gain, and then to substitute them with plantations of exotics.

The issue erupted over the Terranova case. The directors of the Compañía de Aceros del Pacífico (CAP) a large Chilean conglomerate wanted to further diversify into the lucrative short fiber wood chip export industry. To this end, they formed Terranova, a joint venture with a Japanese consortium. Terranova owned substantial native forest holdings in the X region. But it required a permit to clear cut native forests. In order to get around CONAF it approached the ministry of economy for approval of the project, which was granted. The ministry was clearly more interested in meeting economic growth targets than ecological concerns.⁶⁰

If private timber interests had found an ally in the representatives of the market-friendly developmentalist epistemic community in the Ministry of Economy, notably the minister himself, the societal interests that supported the alternative view did not remain quiet. They quickly mounted a highly visible media campaign to denounce the timber interests' attempted end-run around CONAF. This was led by CODEFF, the best known of the alternative environmental nongovernmental organizations (NGOs). Preservationist NGOs also supported them.⁶¹ In a very real sense they became the societal allies of the beleaguered alternative epistemic community in CONAF and MAG. Together these like-minded social and state interests formed a countervailing alliance.

The presidency, true to its consensual policymaking style, formed an inter-ministerial commission to set guidelines in this issue area pending the promulgation of the native forest law. The commission included the Ministers of Agriculture, Economy, Finance, General Secretariat of the Presidency (Segpres), and National Property (Bienes Nacionales).⁶² The positions they took revealed the existence of broader competing epistemic communities in the

government, and laid bare their institutional power bases. The most intractable antagonists were the Ministry of Agriculture which sided with the alternative approach, and the Ministry of Economy on the market-friendly developmentalist side, largely due to its commitment to the government's economic growth targets. Generally less adamant yet still clearly identifiable were the positions of Christian Democratic led Ministry of Finance and Segpres, which supported the market-friendly view, and National Property (headed by the PS/PPD) which argued for the alternative approach.⁶³

The divisions clearly ran deep and cut across party lines within center-left political parties, with socialists being the most pro-growth oriented groups on the left (they headed economy). Had it not been for the cohesiveness and steadfastness of the alternative epistemic community, backed by a ministry of the standing of Agriculture, the combined weight of Economy, Finance, and Segpres would probably have defeated its proposals. In any case, the inter-ministerial commission failed to arrive at a consensus, although it did expose the degree of polarization over this issue.

The Search for Consensus: The National Forestry Commission

The public conflict over the Terranova case involved both government agencies and societal forces and revealed the alliances among them. The fact that the inter-ministerial commission had to be formed at all stood as a testament to the power of market-friendly social forces--the forest industry--which sought out allies in government in order to defeat the alternative epistemic community. Their strength, the public conflict, and the impasse in the inter-ministerial commission also meant that the ministry of agriculture and CONAF could no longer formulate the general native forestry bill by themselves. To stay within the bounds of

the Aylwin administration's commitment to a consensual policymaking style, the formulation stage of the policymaking process would now have to include the relevant government, societal, and academic forces. To this end, in the first quarter of 1992 MAG formed an advisory group called the National Forestry Commission (CONAFOR), which also included a native forest subcommission. MAG and CONAF were supposed to use the subcommission's recommendations as a foundation for the native forest legislative bill.

Like the inter-ministerial commission before it, CONAFOR again revealed that rival conceptualizations of sustainable development underlay the fault lines of polarization in the native forest policy debate. They ran deep in government and society alike, and CONAFOR's structure lent itself to complex alliance patterns between state and societal actors. Government actors in CONAFOR and the native forest subcommission included CONAF and INFOR (the agency in charge of silvicultural investigation), as well as the Ministries of Finance and Economy. As it turned out, none of these supported the alternative view, for under great pressure, and in accord with his party's wishes, CONAF's Christian Democratic director sided with developmentalist epistemic community.⁶⁴ By the same token, the societal forces represented in the CONAFOR were also mostly on the market friendly side. These included CORMA (the industry peak association) and the Centro de Investigación y Planificación del Medio Ambiente (CIPMA). Both of these were well-financed had very capable technical teams. The academic community was more divided. CODEFF, which took the alternative view had been invited but declined because it felt that it would legitimize a foregone conclusion, the commission would probably support the market-friendly developmentalist view.⁶⁵

As CODEFF had feared, the subcommission's "consensus document" reflected the preferences of the market-friendly developmentalist epistemic community. At its core, the document advocated the creation of three categories of forests: preservation, protection, and production. The first two categories covered an area of some 22 million ha., and the third one covered about seven million.⁶⁶ Forests in areas of preservation were not to be touched and should be included in the SNAPSE. Protected forests could not be exploited either because they were near watersheds, contained species legally prohibited from cutting, or were on slopes of over 80 degrees. Most importantly, the document argued that productive forests should be divided into two categories, restricted and unrestricted use. Restricted use forests were those in areas with slopes of over 45 degrees or that contained protected species. These could be exploited by selective logging rather than clear-cutting. In unrestricted productive forests, the document argued that owners should be allowed to use the forest any way they wanted to, which usually coincided with the short term economic gain. In practice, this gave owners the right to substitute natural forests for plantations at will.⁶⁷ The consensus document also contained provisions for subsidizing native forest management.⁶⁸

The Alternative Epistemic Community Strikes Back

Subsequent events clearly confirm the importance for policy outcomes of a cohesive team of experts and strong state institutional sources of power. The subcommission's recommendations had reflected an uncompromising posture on the part of the forest industry and their government allies with respect to the key issue substitution with exotics. By classifying forests according to areas of preservation, protection, and production the document advocated virtual unrestricted use of the "productive" areas. This condemned

forests in accessible areas to extinction, and negated the possibility of setting a precedent for the sustainable use of native forests.

The subcommission, however, was only an advisory board and the Minister of Agriculture, a key member of the alternative epistemic community, rejected that position. He then strengthened the alternative epistemic community by replacing the director of CONAF with a more flexible person, one that was not 100 per cent in favor of the market-friendly developmentalist position.⁶⁹ Despite these strengths, market-friendly societal actors--industry groups and their allies in the environmental movement--were still a force that had to be reckoned with. The general context of the policymaking process still favored them. This meant that the market-friendly developmentalist's desire for substitution would also have to be addressed, although from a weaker position as far as industry interests were concerned.

The subordination of the forest industry's position to the alternative epistemic community was largely due to the fact that president Aylwin basically ordered the state interests that sided with them to compromise. The alternative epistemic community's position was further strengthened by the fact that president Aylwin himself had some sympathy for the minister of agriculture's position.⁷⁰ In a sense, then, the president of the republic himself became a "soft" supporter of the alternative epistemic community.

The choice for the directorship of CONAF reflected this presidential disposition. The Christian Democrats under Patricio Aylwin dominated the administration. Accordingly, the new director still had to be of that party, but someone more flexible than the outgoing director, more open to the position of the Ministry of Agriculture without completely

ignoring the view of the market-friendly developmentalist view. They found this in the person of Juan Moya, who had been a member of the original native forest subcommission in the Concertación's presidential campaign.

In early 1992, the native forestry subcommission met behind closed doors to work out a compromise between the alternative and market-friendly developmentalist positions. Neither social forces nor academics participated in these meetings. Nevertheless, social groups still played a role in the outcome, albeit a more indirect one. They relied on the alliances they had already established with the rival epistemic communities. Thus, CONAF, National Property, and the Ministry of Agriculture defended the position of the alternative environmental movement. The Ministry of Finance, Segpres, the Ministry of Energy and others supported the position of CORMA.⁷¹

The reformulated bill kept the idea of subsidies for native forest management. It discarded the notion of three types of land classification, which was the basis for the idea that productive lands should not be subject to restrictions. Instead, it addressed preservationist concerns by stating that forests in the SNAPSE, state reserves, and near watersheds could not be exploited. Most telling, however, were the across the board restrictions on clear cutting, the basis for substitution. It was prohibited on slopes of over 30 degrees (as opposed to 45% in the consensus document). In addition to this measure, CONAF introduced the category of manageable native forest, meaning native forests apt for harvesting, or selective cutting. These often coincided with areas in which the private sector had wanted unrestricted rights. Moreover, forests that were habitat to endangered native fauna or flora could not be intervened in order to preserve biodiversity. Substitution,

nevertheless, was still allowed but would be confined to lands that had substantially degraded forests that would be very hard to regenerate, moreover, only 25% to 50% of a land owner's forest could be substituted depending on conditions.⁷²

President Aylwin approved the bill and formally sent it to congress--the house of deputies--in April 1992. As of August 1993, it had emerged from the lower chamber with few significant modifications, went to the Ministry of Finance for a fiscal feasibility study in the middle of 1993, and was scheduled to go to the Senate. Its supporters expected to meet stiff opposition there by right-wing political forces that dominate that branch of the legislature.⁷³

Although the congress has not yet passed a native forestry law, the examination of the policymaking stages over which MAG and CONAF had the most direct influence and control--the period before the bill went to the congress--confirmed two expectations. First, that ideas and state institutions in the form of cohesive epistemic communities clearly influenced policy content. They framed the bill in terms of the alternative approach to sustainable development. Second, the outcome also depended on the direct and indirect action of social forces. They limited the extent to which the alternative epistemic community could imbue the bill with its view of sustainable development. In so doing, market-oriented social groups forced the alternative epistemic to relegate such ideas to small projects where they could not have larger implications for the forest industry.

Social Forces, International Actors, and the Political Economy of Native Forest Policy in Venezuela

The opponents of the alternative view of sustainable development in Venezuela did not enjoy either the structural advantages or direct strength of their Chilean counterparts. This held true despite the fact that Venezuela was engaged in market economic restructuring since 1988. Their weakness stemmed from the history of Venezuela's economic development path which emphasized oil income and heavy basic industry. This meant that the relative insignificance of the timber industry in Venezuela's economy was a contributing factor to the ability of the native forest policymakers to match policy to their overall alternative conception of sustainable development. Two additional factors influenced the politics of native forest policy. One was a social factor. NGOs and the organizations of autochthonous peoples contributed to the design of a more well-rounded alternative approach to native forest policy in Venezuela. Secondly, international actors played a more direct role in supporting the alternative epistemic community than in Chile.

The Forestry Industry and Seforven

Venezuela's underdeveloped forest industry exerts little indirect or direct pressure on Seforven's policies. Their debility, and the structural weakness of the Venezuelan private sector in general, stems from the fact that Venezuela has an oil based economy that has emphasized the expansion of heavy basic industry. The government obtains most of its revenue and the bulk of its export earnings from the oil industry. Steel and aluminum production in the East--Guayana--provide additional resources. All of the oil industry, and a portion of the steel and aluminum concerns, have been publicly owned since the early

1970s.⁷⁴ With the expansion of public enterprise in the 1970s, business peak associations lost much of their ability to influence public policy, although the heads of very large firms and conglomerates still managed to negotiate private arrangements with government officials in policy formulation and, especially, in policy implementation.⁷⁵

As a result of this development path, the Venezuelan forest industry is economically weak for three reasons, and, thus, lacks the resources to significantly influence public policy. First, by comparison to Chile it contributes little to the nation's GNP and virtually nothing to export earnings. Secondly, firms tend to be small and not very highly capitalized. Third, since the timber companies do not own the land, the Venezuelan government offers them on a concession basis. These concessions are areas within forest reserves, which were established for this purpose by the Forestry Law of 1966 and by the Land use plan, and subsequent decrees. It is also significant that unlike the Chilean case, these firms exploit native forests for their use in the furniture and construction industry. Moreover, they are not involved in the pulp and paper industries and are not interested in substituting native forests for plantations with exotics.

The contrast to the pulp and paper industry which commands more direct influence over policies that concern their sector is instructive for two reasons. First, it shows that economic weight and connections to economic groups are crucial political assets. The sector is dominated by a few large, capital intensive firms that are controlled by powerful national and international conglomerates.⁷⁶ The fact that they bring hundreds of millions of dollars in investments to the negotiating table secures their directors access and influence over the

policymaking process--they lobby congressmen, senators, and ministers to back their legislative initiatives.⁷⁷

Secondly, the pulp and paper industry suggests that economic power is more important for political influence than ownership of land. In Venezuela, the pulp and paper companies currently import most of their raw materials. Moreover, they do not own land on which to grow plantations of exotics for pulp. However, this has not kept them from starting a campaign to privatize 400,000 ha. of government-owned Caribbean pine. They are also lobbying hard to obtain ownership of public lands on which to grow plantations of Caribbean pine and melina with government subsidies. Lastly, they can extract much better conditions under which to exploit publicly owned plantations.⁷⁸

The economic weakness of the timber industry allowed Seforven's policymaking team to design and implement native forest policy that is closely connected to their alternative views on the definition of sustainable development. Meanwhile, the forest companies welcomed the opportunity to exploit new forest reserves in Eastern Venezuela, but resented Seforven's introduction and/or stricter enforcement of sustained yield harvesting and reforestation practices. In their view, these requirements substantially reduced the profitability of their enterprises.⁷⁹ Left to their own devices many--but not all--of the companies would probably engage in highgrading practices, thus depleting the economic value of native forest stands, and encouraging their clearing for subsistence agriculture.⁸⁰

The timber industry also opposed Seforven's relatively extensive agroforestry projects in western Venezuela. Concessionaires wanted the colonists that had invaded forest reserves over the last 20 years thrown out.⁸¹ They viewed the agroforestry projects as an

encroachment on their concessions. They would have to give up productive timber stands to colonists. They also felt that the agroforestry project would draw more settlers, thus forcing industrialists to give up even more of the dwindling natural resources.⁸²

However, the timber industry was relatively powerless to redress their grievances. Both the structural weakness of business in general, and of the timber industry in particular, rendered the latter's attempts to weaken Seforven's conditions ineffective. They lacked significant allies in other government institutions that might have pressured MARNR and Seforven to reduce the stringency of their conditions. Forestry firms are simply too small economically to have private access to powerful bureaucrats in other ministries or to merit their attention. For the same reasons, their peak association (Asoinbosques) tends to be relatively ineffectual as well.

This meant that, as a rule, the spokespersons of both firms and Asoinbosques limited their oppositional activities to direct confrontation or negotiation with Seforven, rather than seeking help in other quarters. According to available data, they do not seek to participate in either the agenda setting or formulation stages of the policymaking process. Instead, they focus on defensive, rearguard tactics. For example, Asoinbosques attempts to influence policy implementation, particularly in the search for exceptions, but are rarely successful. A second recourse has been to initiate legal proceedings action against Seforven on specific actions. These occasionally lead to compromises over the penalties for noncompliance, but cannot change the thrust of Seforven's policy.⁸³

Conservationist NGOs and Forest Policy

Social forces are not only relevant to define the opposition to the alternative approach to sustainable development. They can also be important sources of support. Although Venezuelan NGOs tend to be more uniformly preservationist in character than in Chile, they have played an increasingly important role in one respect. At their initiative, they have begun to aid government agencies like Seforven, Profauna, and Inparques, in the development and management of discrete, innovative projects to conserve biodiversity. However, not all NGOs take this posture. Some, like Audobon de Venezuela, prefer to focus more on research, adopt a more critical, watchdog posture, and fear becoming dependent on government.⁸⁴

Although the practice is not widespread, NGO involvement with government agencies has had two significant consequences. First, Seforven's association with one NGO--Econatura--has helped to raise that agency's sensitivity to biodiversity issues. In a very real sense, the association rounds out Seforven's characterization as an agency which, under current leadership, generally supports the alternative approach to sustainable development.

Seforven had valued creating a forest industry based on sustainable yield resource management, and attempted to promote multiple use of the forest. Now, Econatura is fostering concern for biodiversity with the creation of undisturbed forest corridors in economically exploited forests in order to preserve fauna. The idea--popular in international circuits--was taken up by Econatura staffers who worked hard to convince both Seforven and a timber company of the utility of the concept. The idea was to link areas that could not be exploited for reasons of topography. Because little productive forest was lost, the plan

appealed to both Seforven and the firm. Seforven is considering extending the model to other concessions as well. By the same token, Econatura runs an institutional strengthening program for Inparques (mainly park ranger training and investigation).⁸⁵

Meanwhile, other NGOs have begun to facilitate project-based cooperation between the functionally differentiated MARNR agencies. This is the source of the second important consequence of the budding relationship between NGOs and the MARNR. Essentially two projects are involved. One, promoted by Fudena, aims to create a fauna preservation corridor in Western Venezuela that links dispersed national parks and fauna reserves.⁸⁶ Thus, the project involves Inparques, Profauna, and Seforven. The second one, inspired by Bioma, requires cooperation between Bioma and Profauna and Inparques on wildlife reserve management on the central-east coast.⁸⁷

These examples of project induced cooperation have begun to help the MARNR to overcome some of the shortcomings of the ministry's functional differentiation. These include a lack of coordination, and too much bureaucratic turf protection between the different services. NGO driven cooperation also contributes to the pooling of scarce resources of those government agencies, along with those of the NGOs themselves, which encourages greater programmatic efficacy.

International Actors, Social Forces, and the Politics of Biosphere Reserve Creation in Amazonas

The creation of the Alto Orinoco-Casiquiare biosphere reserve and new national parks in the new state of Amazonas showed how cooperation between state actors, social forces, and international actors can advance policies that favor the alternative approach to sustainable

development. Sada-Amazonas and Inparques wanted to create a Biosphere Reserve/National park complex because they protected an area of 8,400,000 ha., over one third of the state of Amazonas. The minister of the MARNR supported the idea, but before formally presenting it as a MARNR initiative he and his collaborators in Inparques and Sada-Amazona had to overcome opposition by state authorities who wanted rapid economic development. To that end, MARNR lobbied commissions in congress, such as education, environment, finance, and international relations, as well as the ministries in those areas.⁸⁸ NGOs, the scientific community, and international actors played an important role in this process.

Each actor contributed in its own way and lobbied different agencies and committees. For example, Ecodesarrollo, an NGO which promoted grassroots organization and development had worked extensively with Indigenous organizations for a number of years. It advised the MARNR on how to incorporate the interests of the indigenous community in the biosphere/park proposal so as to avoid opposition on their part and gain their support. Ecodesarrollo also helped the MARNR to lobby both the Ministry of Education and the education committee of congress because they were responsible for Indian affairs.⁸⁹ By showing how the biosphere reserve could help indigenous peoples the MARNR overcame potential opposition from those quarters. By the same token, biologists helped with the technical aspects of biodiversity conservation in order to gain the support of the environmental committee. Together, Ecodesarrollo consultants and biologists helped to write the decree.⁹⁰

Meanwhile, the involvement of the German Agency for Technical Cooperation (GTZ) helped to convince the finance committee not to oppose the project. In general the

committee discouraged the acquisition of new debt to finance environmental problems, especially in matters related to forest issues. But the particular program that the MARNR found for the biosphere reserve was a regional grant project with matching funds from the host government. In other words no loans were involved.

The Chancellory, however, was the most difficult obstacle. In its view, the proposal forced Venezuela to give up sovereign right over much of Amazonas. They were never convinced of the merit of the project, but since the presidency did not oppose it, and other sources of opposition had vanished, the Chancellory conceded defeat and did not oppose the decree in the interministerial council that has to approve executive decrees.

Once the decree for the biosphere reserve/park project was approved, both Ecodesarrollo and the GTZ played key roles in developing it within the framework of the alternative perspective to sustainable development. Ecodesarrollo has worked incessantly on behalf of indigenous peoples in the legal and legislative arenas. By the same token, given Sada-Amazonas' scant resources, the GTZ has developed the programmatic and operational aspects of the Biosphere. It has become deeply involved in the livelihoods issue. To that end it is helping local populations to organize at the grassroots level in order to develop alternative styles of agriculture and local autonomy.⁹¹

In sum, both NGOs and international actors have helped to round out the alternative approach to sustainable development in government agencies. Their actions, and government receptivity to working with them, show that policymaking teams in government learn as they interact with other organizations. The experience has prompted policymakers to adopt a more multifaceted conception of the mission of their agencies. Moreover, the NGOs and

external forces also supply invaluable operational and training capabilities in the field. Last, but not least, they were vital political allies for state actors in the MARNR in the struggle to decree the Biosphere reserve.

By the same token, the weakness of the socio-economic and political elites of the state of Amazonas also contributed to the creation of the Biosphere/park decree. The state is virtually undeveloped, with the exception of a small area around the Puerto Ayacucho, the capital. This meant that the regional elites had few staunch allies in most of the relevant committees and ministries. Moreover, indigenous peoples make up a significant proportion of the population. While they did not wholeheartedly embrace the idea of the biosphere reserve, they understood that it offered them a better opportunity in principle than the elites in Puerto Ayacucho.⁹² As a result, their leaders tended to support it, further weakening the position of the state elites.

COMPARATIVE CONCLUSIONS

This paper has examined the role of ideas, institutions, social forces, and external factors in the recent politics of native forest policy of Chile and Venezuela. The general argument was that the ideas and cohesiveness of policymaking teams--epistemic communities--with cabinet-level backing gives initial impetus to policy design. It was shown that both Chile and Venezuela had teams of policymakers in the native forest issue area that favored the alternative approach to sustainable development over the market-friendly approach. Moreover, those epistemic communities had the support of a ministry of state, and even, to a certain extent, of the president of the republic himself. True to expectation, native forest policy took on a decidedly progressive, alternative cast.

Despite these common elements, however, the epistemic alternative community in Venezuela was more successful in translating its vision into policy than Chile's. Moreover, there was a far greater degree of politicization over native forest policy in Chile than in Venezuela. Differences in the history of state formation of Chile and Venezuela partially explained that contrast. They influenced both the development of the alternative epistemic community and its institutional, legal, and international basis of support.

Venezuela had a democratic history of state formation. The social democratic Acción Democrática (AD) party took environmental issues to heart. It created a ministry of the environment to give coherence to its policy initiatives. The MARNR, in turn, formed a body of environmental and land use law, and cooperated closely with the United Nations, which, in general, favors the alternative approach to sustainable development.

These factors had a profound influence on the formation of the alternative epistemic community in Venezuela. To begin with, it developed within the system of public administration. Thus, once forest issues became important the MARNR could draw on an experienced cadre of public administrators who possessed a general, if diffuse, orientation to an alternative approach to the relationship of environment and development. The history of the MARNR had a second consequence for the development of the alternative epistemic community in the native forest issue area. Once the issue got on the policy agenda, the coherent articulation of the alternative views was initially more the result of functional administrative design than the beliefs of individual administrators. However, the service and department heads were capable of learning, and later began to flesh out underdeveloped aspects of the alternative view in the areas under their jurisdiction.

Chile, by contrast, had a history of liberal state formation since 1973 under a military dictatorship that paid no attention to environmental issues. This meant the supporters of the alternative approach developed their ideas and linkages outside of government. As a result, they had a more coherent intellectual view of the alternative approach. Yet, once in the state, the alternative epistemic community started far behind Venezuela in terms of the institutional and legal framework to deal with those issues; and they were also inexperienced at public administration. The fact that they tended to belong to political parties that were minority partners in the governing political coalition--the Concertación--was another limiting factor. All of these elements clearly colored what policymakers attempted to do.

Without denying the significance of these factors, there is nevertheless another contrast that must be taken into account to explain both the differences in the congruence between the ideas of policymakers and policy outcomes in Chile and Venezuela, and the level of politicization of the debate over native forest policy. The social forces that opposed the alternative approach to native forest policy were much stronger in Chile than in Venezuela. This was the result of differences in the economic development paths of the two countries since the early 1970s.

Private sector forces were much more well-developed and powerful in Chile than in Venezuela. They also articulated the market-friendly view of sustainable development more coherently than in Venezuela. Successful free-market economic restructuring based on agro-mineral exports turned the timber industry into a vital component of the Chilean economy. As a result, timber interests could count on allies in other parts of the government.

This meant that the private sector in general, and the timber industry in particular, enjoyed structural economic and political strength with which to exert indirect and direct pressure. First to limit the scope of the agenda of the native forest policymakers, and secondly to participate decisively in policy formulation. In this context, the coherence and ministerial--and even presidential--support for the CONAF-MAG policymakers partially curbed the private sector. Without it, the timber industry would have probably won unconditionally.

By contrast, Venezuela's private sector, and the timber industry in particular, was structurally weaker than in Chile. Although in the 1990s Venezuela was undertaking free-market economic restructuring, until then it had followed a state-led import substitution industrialization program that did not favor the development of a strong private timber industry.⁹³ As a result, the MARNR did not face economic structural factors that it had to take into account in policy design. Nor did it face overwhelming direct opposition. Because forests were not vital to the economy, private forest interests lacked allies in other ministries willing to start a major inter-ministerial jurisdictional dispute on their behalf (although they did have sympathizers in the Ministry of Development). Given these circumstances, the MARNR could develop its programs in sustainable yield management, and in biodiversity conservation without significant resistance.

The two cases, however, revealed that social forces can also be wellsprings of support for alternative epistemic community, and sources for their development. Venezuela had social forces that, overall, supported the policymakers more than in Chile. Unbroken democratic rule in Venezuela had allowed policymakers in the forest issue area to engage in collaborative efforts with NGOs. Thus, NGOs contributed to fleshing out underdeveloped

aspects of the alternative approach to sustainable development in individual MARNR services. NGOs, were also very instrumental in turning native populations into supporters instead of opponents of the MARNR's plans.

The situation was different in Chile. The recent transition from authoritarianism meant that many of the policymakers in CONAF and MAG had just been recruited from NGOs like CODEFF. Because they were coming from outside of public administration and, thus, had had a long learning period, they were just beginning to think of approaching NGOs to help in policy implementation. Equally significant, many NGOs including CODEFF had opposed the forestry law because it was too limited. Yet NGOs aided the alternative epistemic community as well. They denounced the aims of the private sector at a crucial moment--the Terranova case; that is, they turned it into a burning public issue. Eventually, CODEFF supported the native forest bill once the private sector was put in its place believing at that point that something was better than nothing.

Overall, international factors played a background role in Chile and Venezuela. In general, rising international attention to environmental issues, including tropical forests, shaped the demand for action. It also legitimized the claims of groups clamoring for policy initiatives. The upcoming Earth Summit in Río de Janeiro in 1992 added to the pressure to do something.

But there were differences in the degree of impact of international factors in Chile and Venezuela too. In Chile, by and large, they conformed to the above description.⁹⁴ In Venezuela, however, they played a slightly greater, more direct role. First, the United Nations helped to form the MARNR and its professionals. Secondly, the GTZ performed

vital services in the project development of the Amazonas biosphere reserve, and in securing native population support for it.

In the final analysis, the comparison between Chile and Venezuela suggests that international factors play at least an important background role in the politics of the conservation and sustainable development of native forests. By the same token, the ideological orientation of policymakers, and their cohesiveness and institutional backing are crucial to policy outcomes. They give initial impetus to policy initiatives and can support the policymakers through rough political weather. Social forces, however, are also vital for outcomes. The specific groups and their relative strength depends on a country's socio-economic development path. In countries where the forest industry is a vital component of a nation's economy one can expect stiff opposition to policies that favor the alternative approach to sustainable development. Where they are not, one can expect much less resistance to the alternative view from that quarter. The comparison between Chile and Venezuela also suggests that social forces are not just sources of opposition. NGOs and the local population in program areas are also potential wellsprings of support for alternative native forest policymaking teams.

NOTES

1. For this methodological approach in political economy see, Stephan Haggard and Robert Kaufman, The Political Economy of Democratic Transitions (forthcoming); Peter H. Smith, "Crisis and Democracy in Latin America," World Politics, 43, 4, 1991; Hector E. Schamis, "Reconsidering Latin American Authoritarianism in the 1970s: From Bureaucratic Authoritarianism to Neoconservatism," Comparative Politics, 23, 2, 1991.
2. Peter Haas, "Epistemic Communities and International Policy Coordination," International Organization, 46, 1, 1991.
3. Marianne Schmink and Charles Wood, eds., Frontier Expansion in Amazonia (Gainesville: University of Florida Press, 1985); Alexander Cockburn and Susanna Hecht, The Fate of the Forest: Developers, Destroyers, and Defenders of the Amazon (London: Verso, 1988); Stephan Schwartzman, "Deforestation and Popular Resistance in Acre: From Local Social Movement to Global Network," The Centennial Review, 35, 2, 1991.
4. Brundtland Commission, Our Common Future (New York: Oxford University Press, 1987).
5. Global Tomorrow Coalition, Sustainable Development: A Guide to Our Common Future (New York: Oxford University Press, 1989).
6. For this breakdown of the concept see, James Weaver and Kevin O'Keefe, "The Evolution of Development Economics," unpublished mimeo, The American University, 1991. There is, of course, quite a debate over whether it is possible to have economic growth and be able to protect the environment. For this see, Herman Daly "Sustainable Growth: A Bad Oxymoron," Grassroots Development, 15, 3, 1991. There are also a number of more eco-centered definitions centered on concepts such as through-puts, steady states, and carrying capacity.
7. For the dominant view see, World Bank, World Development Report 1992: Development and the Environment (New York: Oxford University Press).
8. For similar arguments see, Michael Redclift and David Goodman, eds., Environment and Development in Latin America: The Politics of Sustainability (Manchester: Manchester University Press, 1991); Jaime Hurtubia, "Seminario nacional sobre instrumentos y estrategias de financiamiento para la política ambiental chilena," Santiago de Chile, mimeo, 1991; Barry Commoner, Making Peace with the Planet (New York: Pantheon, 1990).
9. For critical assessments of these projects and what they represent in the context of North-South relations see, Bruce Rich, "Multilateral Development Banks and Tropical

Deforestation," in S. Head and R. Heinzman, eds., Lessons of the Rainforest (San Francisco: Sierra Club Books, 1990), "Multilateral Development Banks: Their Role in Destroying the Global Environment, The Ecologist, 15, 1-2, 1985; and David Goodman and Anthony Hall, eds., The Future of Amazonia: Destruction or Sustainable Development (Basingstoke: The Macmillan Press, 1990).

10. For these approaches see, Robert Repetto, The Forest for the Trees: Government Policies and the Misuse of Forest Resources (Washington, D.C.: World Resources Institute, 1988); D. Mahar, Government Policies and Deforestation in Brazil's Amazon Region (Washington, D.C.: The World Bank, 1989); Garrett Hardin, "The Tragedy of the Commons," Science, 162, 1968.

11. For environmental cost accounting see World Resources Institute, Accounts Overdue: Natural Resource Depreciation in Costa Rica (Washington, D.C.: World Resources Institute, 1991).

12. For similar views on the alternative approach see, Redclift and Goodman, Environment and Development in Latin America; Hurtubia, "Seminario nacional sobre instrumentos y estrategias para la política ambiental chilena; and Commoner Making Peace with the Planet; Manfred Max-Neef, A human Scale of Development: Conception, Application, and Further Reflections (New York: Apex press, 1991); and John Browder, Fragile lands of Latin America: Strategies for Sustainable Development (Boulder: Westview Press, 1989).

13. For a clear articulation of this idea see, Michael Redclift, "Sustainability and the Market: Survival Strategies on the Bolivian Frontier," Journal of Development Studies, 23, 1, 1986.

14. Hurtubia, "Seminario nacional sobre instrumentos y estrategias de financiamiento para la política ambiental chilena."

15. For trade and the environment see, Heraldo Muñoz, "Free Trade and the Environment: The Cases of Chile, Mexico, and Venezuela," paper presented at the conference on "The Politics of Latin American Environmental Policy in International Perspective," University of California, San Diego, January 21-23, 1994; Heraldo Muñoz, and Robin Rosenberg, eds., Difficult Liaison: Trade and the Environment in the Americas (Miami: University of Miami North-South Center Books, 1993); and Andrew Hurrell Green Conditionality (Washington D.C.: Overseas Development Council, forthcoming).

16. This included a group of people working with Francisco de Castri and their students who linked ecology to social and economic problems; author interview with Jaime Hurtubia; UNEP consultant, Santiago, July 1992. In the forestry sector the debate was picked up by forestry schools at the University of Chile and the Universidad Austral de Chile. Notable among them were Harald Schmidt and Claudio Donoso; author interviews

with Aarón Cavieres, Jefe Departamento de Control Forestal, CONAF, Leonardo Araya, CONAF, and Nicolo Gligo, CEPAL environmental department, June 1992.

17. For the articulation of the alternative conceptualization of sustainable development in the forest sector in Chile see, Aarón Cavieres et al., "Especialización productiva, medio ambiente y migraciones: El caso del sector forestal en Chile," Agricultura y Sociedad, 4, 1986; Luis Otero, "La depredación forestal," Agricultura y Sociedad, 2, 1985; Harald Schmidt and Antonio Lara, "Descripción y potencialidad de los bosques nativos de Chile," Ambiente y Desarrollo, 1, 2, 1985; Antonio Lara, "Los ecosistemas forestales en el desarrollo de Chile," Ambiente y Desarrollo, 1,3, 1985. Antonio Lara, Aarón Cavieres, Marcos Cortés, Pablo Donoso, "Consideraciones para una política forestal en l gobierno de transición, 1990-1994," CODEFF, Documentos Serie Forestal 89/11, November 1989.

18. Ibid.

19. From the beginning Minister Figueroa took a consistent stance against substitution of native forests with plantations. See, "Presidente de CORMA: Sólo un tercio de los bosques se aprovecha económicamente," Estrategia, January 11, 1991; "Ministro de Agricultura: El bosque nativo chileno debe ser preservado," El Mercurio, April 4, 1991;" "DL 701 y Ley sobre bosque nativo analizó Comisión Nacional Forestal," El Mercurio, April 11, 1991.

20. CORMA complained regularly about this. See, "Presidente de Corma: Sólo un tercio de los bosques de aprovecha económicamente," Estrategia, January 11, 1991.

21. See note 19.

22. Author Interview with Aarón Cavieres, CONAF, Santiago, June 1992; and CODEFF, "Uso actual y alternativas de desarrollo de los recursos forestales de campesinos en Linares y Curacautín," working paper, 1991.

23. Data from author interview with Leonardo Araya, Jefe Departamento de Manejo Forestal, CONAF, Santiago de Chile, August 1993.

24. The program is managed by CONAF and financed by the Instituto de Desarrollo Agropecuario of the Ministry of Agriculture.

25. This program is administered by CONAF and financed by FOSIS, a special agency created by the new government to administer social programs. The mainly come from a tax on corporate profits.

26. For general texts on Venezuelan political development see, Daniel Hellinger, Venezuela: Tarnished Democracy (Boulder: Westview Press, 1991); John D. Martz and David J. Myers, eds., Venezuela: The Democratic Experience (New York: Praeger Publishers, 1977); David Eugene Blank, Politics in Venezuela (Boston: Little, Brown and Company, 1973); Margarita López Maya, Luis Gómez, and Thaís Maingón, eds., De Punto

Fijo al Pacto Social: Desarrollo y Hegemonía en Venezuela (1958-1985) (Caracas: Fondo Editorial Acta Científica, 1989); Antonio Gil Yepes, The Challenge of Venezuelan Democracy (New Brunswick: Transaction Books, 1981).

27. For these concepts see, Heraldo Muñoz, "Free Trade and the Environment," and Heraldo Muñoz, and Robin Rosenberg, eds., Difficult Liaison: Trade and the Environment in the Americas (note 15).

28. Arnoldo José Gabaldón was the key figure in the creation of the MARNR. He had been head of the Ministry of Public Works (MOP). The MARNR took over key functions of MOP in urban areas and of the Ministry of Agriculture (MAC) in the administration of natural renewable resources, including forestry. Author interviews with Diomira Barrios, director of planning, Seforven, June 9, 1993; Arnoldo José Gabaldón, former minister of MARNR, July 22, 1993; Sixto Pericchi, president of Conare, June 29, 1993. For an account of how MAC handled forests see, MAC, Dirección de Recursos Naturales Renovables, El Ministerio de Agricultura y Cría y los recursos forestales de Venezuela (Caracas: República de Venezuela, 1972).

29. Duties regarding forest management were delegated to minor departments within two of the MARNR four major administrative divisions: Planning and Investigation. Author interview with Diomira Barrios, June 9, 1993. Also see, MARNR, Política ambiental: Misión y gestión, (Caracas: República de Venezuela, 1978).

30. MARNR, Sistemas Ambientales Venezolanos (Caracas: Republica de Venezuela, series 1-7, n.d.).

31. The Land use Plan was interministerial effort that involved MARNR, the Planning Ministry, Ministry of Defense, Ministry of Development, the Ministry of Agriculture, Ministry of Energy and Mines, Ministry Transportation, and the Ministry of Urban Affairs. For the Land Use Law, see "Ley Orgánica para la Ordenación del Territorio," Gaceta Oficial de la República de Venezuela, August 11, 1983.

32. Comisión Nacional de Ordenación del Territorio, Plan Nacional de Ordenación del Territorio (Caracas: República de Venezuela, two volumes, n.d.).

33. Author interviews with Deud Dumith, president of Inparques, June 7, 1993; and Arnoldo José Gabaldón, former minister of MARNR, July 22, 1993.

34. For an overview of departments and functions see, MARNR, Memoria y Cuenta Año 1991 (Caracas: República de Venezuela, 1992).

35. This paper does not discuss Pro Fauna in further detail because it has not really set up programs in forest areas, which tend to be remote.

36. Author interview with Sixto Pericchi, president of Conare, June 29, 1993.

37. See, MARNR, Plan Nacional de Desarrollo de los Recursos Forestales (Caracas: DGSPOA, Oficina del Plan Forestal, 1988).
38. For an overview of this process, see Lawrence Hamilton, Julián Steyermark, Jean Pierre Veillon, and Edgardo Mondolfi, Conservación de los bosques húmedos de Venezuela (Caracas: Editora Venográfica, third ed., 1977).
39. Author interviews with Omar Carrero, General Director of Seforven, June 30, 1993; Diomira Barrios, Director of Planning, Seforven, June 9, 1993; Adela Sánchez, Seforven, June 29, 1990. For literature on the agroforestry plans see, Eduardo Escalante, "La agroforestería: Una alternativa de uso de la tierra," Seforven, 4, 8, 1993; Seforven, "Los sistemas agroforestales," booklet, n.d.; Seforven also organized a "Segundo Taller Nacional de Agroforestería," in Barinas, June 16-19, 1993.
40. For an overview see, Gastón Guinand, "Programa de Recuperación de las reservas forestales Ticoporo y Caparo," Seforven, 3, 6, 1992; Bérnice Alfaro and Olga Pérez, "Fundamentos de la ley programa para la recuperación de las reservas forestales Ticoporo y Caparo y su entorno," Seforven, 3, 7, 1992.
41. Gerardo Arellano Pérez, "Proyecto de investigación experimental agroforestal," paper presented at the "Segundo Taller Nacional de Agroforestería," Barinas, June 16-19, 1993.
42. Author interview with Pedro García, Director of Sada-Amazonas June 8, 1993; also see Pedro García Montero, "Sada-Amazonas: La política ambiental y desarrollo sustentable en el Estado Amazonas," and "La reserva de la biósfera Alto Orinico-Casiquiare: Una opción para el desarrollo sustentable," both in Ambiente, 15, 47, 1993.
43. Antonio Carrillo, "Anotaciones sobre la política ambiental de la R.F. de Alemania," Encuentros, 6, 1992.
44. For a full account of ABRAE and decrees, see MARNR, Áreas naturales protegidas de Venezuela (Caracas: DGSPOA, 1992).
45. For the problem of parks and livelihoods see, Krishna B. Ghimire, "Parks and People: Livelihood Issues in National Parks Management in Thailand and Madagascar," Development and Change, 25, 1, 1994.
46. Author interview with Deud Dumith, President of Inparques, Caracas, Venezuela, June 7, 1993.
47. Author interview with Jesús González, National Secretary of CONIVE, June 18, 1993; and Alexander Luzardo, president of Ecodesarrollo, August, 17, 1992. Also see, Edixa Montiel and Jesús González, "Informe sobre la problemática indígena requerido para la elaboración de la Ley Orgánica a las Etnias, Comunidades y Ciudadanos Indígenas,"

mimeo, Conive, April, 1991; CONIVE, "Draft Number 1 of the Ley Orgánica a las Etnias, Comunidades y Ciudadanos Indígenas," mimeo, n.d.

48. For the development of the forest industry see, Robert N. Gwynne, "Non-Traditional Export Growth and Economic Development: The Chilean Forestry Sector since 1974," Bulletin of Latin American Research, 12, 2, 1993; and Fernando Hartwig, Chile, desarrollo forestal sustentable (Santiago: Editorial Andes, 1991).

49. In addition to Gwynne, "Non-Traditional Export Growth and Economic Development," see, Patricio Rozas, "Concentración de mercados y grupos de control en la industria forestal," and Vicente Paeile, "La Recomposición de los grupos económicos en el sector forestal," both in Agricultura y Sociedad, vol. 4, 1986.

50. Instituto Nacional Forestal, "Boletín Estadístico, INFOR, no. 21, August 1991; and Corporación Nacional Forestal, Memoria Anual, 1992 (Santiago: República de Chile, 1993); and Corporación de la Madera, Chile, País Forestal (Santiago: Editorial Interamericana, 1991).

51. The data on the extent of the deforestation of native forest for plantations is not robust. However, one study estimates that approximately 200,000 ha. of native forest suffered this fate to 1987. After 1988, the annual rate of deforestation for substitution is about 10,000 ha. per year (about the same as the loss by forest fires and extraction for fuel by small-holders and peasants).

52. Comité pro defensa de la Fauna y Flora, "El Futuro del Bosque Nativo Chileno: Un desafío de hoy," CODEFF, working paper, 1992.

53. The proponents of these views have written extensively in the press, especially Guillermo Guell and Hernán Cortés of CORMA, and Fernando Hartwig. Some representative studies include, CORMA, Chile, País Forestal; Paulina Infante, "Roberto de Andraca: Los Empresarios Podemos Compatibilizar Desarrollo y Medio Ambiente," Revista Industria, 1051, April/May, 1991; SFF, "Carta Internacional: Empresas para un desarrollo sostenible," Revista Industria, 1049, January 1992; Jaime Undurraga, "La industria minera frente a la demanda ambiental del país," Ambiente y Desarrollo, 7, 3, 1991 and "Comentario," Ambiente y Desarrollo, 5, 3, 1989; Centro de Investigación y Planificación del Medio Ambiente, Propuestas de acción ambiental en cinco sectores productivos (Santiago: n.p., 1992); Guillermo Geisse, "El desafío ambiental y la coparticipación pública y privada," Ambiente y Desarrollo, 3, 1-2, 1987 and "Cooperación pública-privada para la gestión ambiental en Chile," Ambiente y Desarrollo, 7, 3, 1991; Rafael Asenjo, "La legislación ambiental y honestidad política," Ambiente y Desarrollo, 6, 1, 1990; Eladio Susaeta and Susana Benadetti, "El sector forestal y la conservación ambiental," Ambiente y Desarrollo, 6, 1-2, 1990.

54. Andrés Asenjo, "El debate público en torno al bosque nativo," Ambiente y Desarrollo, 8, 1, 1992.

55. For more details see, Eduardo Silva, "Capitalist Coalitions, the State, and Neoliberal Economic Restructuring: Chile, 1973-1988," World Politics, 45, 4, 1993; and "Capitalist Regime Loyalties and Redemocratization in Chile," Journal of Interamerican Studies and World Affairs, 34, 4, 1992-93.

56. See, Brian Loveman, "¿Misión Cumplida? Civil-Military Relations and the Chilean Political Transition," Journal of Interamerican Studies and World Affairs, 33, 3, 1991; also see, Silva, "Capitalist Regime Loyalties."

57. See, Silva, "Capitalist Regime Loyalties." The Aylwin government did have some successes too. It imposed a 15% tax on corporate profits, and the funds were mainly used to finance increased social spending. However, the government's main approach to the equity question was from a neoclassical economic point of view: Economic growth and low inflation did more for equity than direct government services.

58. Author interview with Aarón Cavieres, CONAF, Santiago, August 1993.

59. Author interviews with Leonardo Araya, Angel Cabezas, and Carlos Weber, all of CONAF, August 1993.

60. For the Terranova case see, A. Asenjo, "El debate público"; "Industria japonesa reducirá a astillas bosques nativos de Valdivia y Corral," La Epoca, April 25, 1988; Comité Forestal PPD, "Antecedentes técnicos y políticos sobre el proyecto Corral," La Epoca, August 26, 1990; CODEFF, "Posición de CODEFF sobre el proyecto forestal Corral de la empresa Terranova," Ecotribuna, 4, October, 1990; "Ominami aseguró que IPC de enero no superará señal de 0.7 por ciento," La Epoca, February 2, 1991.

61. The points that they brought up in the press were summarized in CODEFF, "Posición de CODEFF sobre el proyecto forestal Corral."

62. For the composition of the interministerial commission see, Andrés Asenjo, "El debate público." Segpres is a powerful agency. It is the strategic and tactical planning nerve center of the presidency. Bienes Nacionales is a relatively minor ministry not unlike the department of the interior in the United States.

63. Data for the positions of Segpres and the Ministry of Finance from Author interview with Francisco Zúñiga, head of the legal office of the Ministry of Agriculture, Santiago, August 1993. For the position of Bienes Nacionales I relied on author interviews with Patricio Rodrigo, head of the department of budget and planning of the Ministry of National Property, Santiago, June 1992 and August 1993.

64. As a result of this development, the alternative position on sustainable development was not represented among because it was supported by subdirectors and professional staff within these institutions who were not on CONAFOR or the subcommission.

65. Data for CODEFF's position from author interview with Hernán Verscheure, CODEFF, July 1992. The forestry workers' union--the Confederación de Trabajadores Forestales--also participated. However, the alternative epistemic community considered it to be an unrepresentative organization. Its leaders were mainly intent on securing personal advantages (confidential interview with a leading alternative epistemic community member).

66. These data from Cavieres, "Conservación y utilización del bosque nativo chileno."

67. The main areas of restricted use clearly fall in remote areas of Magallanes and Aysén (XI and XII regions). The unrestricted use forests are in areas close to the existing operations of the forest companies or in the more infrastructurally developed VII, VIII, IX, and X regions. The X region has far more forests left than the other three.

68. For more details on the consensus document see, "Consideraciones en relación a una legislación destinada a la recuperación del bosque nativo," mimeo, August 1991; also see, "Política especial para el bosque nativo," El Mercurio, August 31, 1991.

69. Juan Moya, "El proyecto de recuperación y fomento del bosque nativo," paper presented at the Primer Seminario sobre Bosque Nativo," Universidad Austral de Chile, 1992.

70. A number of interviewees pointed this fact out to me during field trips in June-July 1992 and August, 1993. According to an interview with Carlos Weber of CONAF, Santiago, August 1993, Aarón Cavieres, CONAF, basically wrote the presidential speech.

71. Author interview with Francisco Zúñiga, head of the legal department of the Ministry of Agriculture, August 1993.

72. CONAF, "Proyecto de ley de recuperación del bosque nativo."

73. The House of deputies essentially turned a deaf ear and approved the gist of the bill as introduced by MAG/CONAF, see, Cámara de Diputados, "Informe de las Comisiones Unidas de Agricultura, Desarrollo Rural y Marítimo y de Recursos Naturales, Bienes Nacionales y Medio Ambiente, sobre el proyecto de ley de recuperación del bosque nativo," Boletín, no. 669-01, 1993. Key to this partial victory was the fact that the bill gained some support from the ministry of finance. Otherwise, lobbying by Segpres and Energía, who supported the market-friendly developmental epistemic community, might have killed the bill.

The ministry of finance studied the financial feasibility of the bill. At first they opposed both the subsidy and the restrictions on substitution. But later, after long conferences with CONAF officials, they realized that the economic rationality by which they made their calculations did not apply to peasants and small holders. CONAF and the ministry of finance reached a compromise. Rather than blanket subsidies, there would be eligibility rules. But the strictness of those rules would vary according to objective socio-

economic and regional geographic considerations. CONAF would also be empowered to aid small holders in generating the necessary requirements. These data from interviews with Aaron Cavieres, CONAF, and Joaquín Vial, Coordinador de Políticas Económicas, Ministry of Finance. Both were conducted in Santiago de Chile in August 1993.

74. In addition to the texts cited in note 26, see José Toro Hardy, Venezuela, 55 años de política económica, 1936-1991: Una utopía keynesiana (Caracas: Editorial Panapo, 1992, second edition).

75. In addition to Antonio Gil Yepes (note 26) see, René Salgado, "Economic Pressure Groups and Policy-Making in Venezuela: The case of Fedecámaras Reconsidered," Latin American Research Review, 22, 3, 1987; also see the commentary on Salgado's article in the same edition, as well as John Sweeney, "Crisis de dirigencia," Veneconomía, 6, 7, 1989. I also relied on author interviews with Antonio Francés of the Instituto de Estudios Superiores de Administración, and Roberto Bottome, editor of Veneconomía in June and July of 1993.

76. Asociación Venezolana de Productores de Pulpa, Papel y Cartón, Informe Anual, 1992 (Caracas: Aprocapa, 1993); For relationship to conglomerates see, D.A. Rangel, La oligarquía del dinero (Caracas: Editorial Fuentes, 1972).

77. Author interviews with Juan Gutiérrez, a director of Smurfit-Cartón de Venezuela, June 30, 1993; and Gustavo Larrazábal, a director of Venepal, July 1, 1993.

78. Ibid.

79. Author interview with María Auxiliadora Alvarado, Executive Director of Asoinbosques (the timber industry association), June 30, 1993; Antonio Gaspard and Yuraima Mago de Pérez, president and director of land use planning respectively of Aserradero El Manteco, July 12, 1993.

80. There are clearly exceptions, see Jorge Ruiz del Viso (h), "Manejo de la Unidad II de Ticoporo: Objetivos Alcanzados," Recursos, 39, 1991; Antonio Gaspard, in spite of his frustration with Seforven, insisted that he and his company (El Manteco) were sincere practitioners of sustained yield management.

81. See Asoinbosques statement in the minutes of the meetings of the Consejo Nacional Forestal (an advisory body to the MARNR), July 2, 1991, in MARNR, Consejo Nacional Forestal: Gestión Año 1991 (Caracas: Seforven, 1992).

82. Author interview with María Auxiliadora Alvarado, Executive Director of Asoinbosques, June 30, 1993.

83. Author interview with Antonio Gaspard, Asoinbosques representative to the Consejo Nacional Forestal, July 12, 1993; and María Auxiliadora Alvarado, Executive Director of Asoinbosques, June 30, 1993.

84. Author interview with Alejandro Luy, Audobon de Venezuela, June 22, 1993.

85. For details see, José Ochoa, Ramiro Silva, and Clemencia Rodner, "Propuesta de un sistema de áreas naturales protegidas en bosques productores de maderas de la Guayana venezolana," paper presented at the IV International Congress on Parks and Protected Areas, Caracas, February 1992. For further activities of Econatura see, Econatura, Informe Anual 1992 (Caracas: n.p., 1993).

86. For the conceptual basis of the Fudena project see, Edgard Yerena Ocando, "Diseño de un sistema de áreas silvestres protegidas para la Cordillera de los Andes en Venezuela," M.S. Thesis, Biology, Universidad Simón Bolívar.

87. Author interview with Deud Dumith, president Inparques, June 7, 1993; Bioma, "Acciones de Bioma desde su fundación en octubre de 1986 hasta octubre 1991," Bioma en Acción, 5, 1, 1992. For examples of research, see Bioma, Evaluación de los parques nacionales y los refugios de fauna silvestre de Venezuela (Caracas: Bioma, n.d.).

88. Author interviews with Deud Dumith, president of Inparques, June 7, 1993; and Alexander Luzardo, president of Ecodesarrollo, August 17, 1992.

89. Author interviews with Alexander Luzardo, president of Ecodesarrollo, August 17, 1992; and Jesús González, National Secretary for the Confederación Nacional de Indígenas Venezolanos (CONIVE), June 18, 1993.

90. Author interview with Alexander Luzardo, President of Ecodesarrollo, August 17, 1992.

91. Author interviews with Antonio Carrillo, director of the GTZ cooperation in the biosphere project, June 7, 1993; Paul Oldham, Anthropologist, London School of Economics Ph.D. candidate working with the project, June 7, 1993. For more details see, "La reserva de la biósfera Alto Orinoco-Casiquiare: Una opción para el desarrollo sustentable," Ambiente, 15, 47, 1993; and Antonio Carrillo, "Anotaciones sobre la política ambiental de la R.F. de Alemania," Encuentros, 6, 14, 1992.

92. Author interview with Jesús González, National Secretary, Conive, June 18, 1993; and Paul Oldham, Anthropologist working with the GTZ, June 7, 1993.

93. For neoliberal economic restructuring in Venezuela see, Joseph Tulchin and Gary Bland, eds., Venezuela in the Wake of Radical Reform (Boulder: Lynne Rienner Publishers, 1993).

94. This paper is already too long, but it is worth noting that international factors will play a more direct role in the selection of projects from Chile's Forest Action Plan. The World Bank and FAO rejected Venezuela's proposal for a Tropical Forest Action Plan.