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BUREAUCRACY AND THE UNMANAGED FOREST

COMMONS IN COSTA RICA

by

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(Or Why Development Does Not Grow on Trees).

by

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PREFACE

Perspectives on Planning for Forestation and Relevance of Bi-Lateral Long-Range Planning by Governments and Domestic and Multinational Corporations

Due to the continuing manifested lack of viable planning for forestation by most governments, there are analysts who firmly believe that the responsibility for long-range planning and implementation and control of plans will increasingly fall upon large domestic and multinational corporations. If governments are truly concerned about the probably increasing dominance of the world economy by multinational corporations (both privately and/or publicly owned), the most apparent alternative to sheer volatile legislative control is to improve national planning modes substantially, including the control of the implementation of long-range and related short-range plans. Government sponsored control systems must always remain relatively ineffective unless tied inextricably to major viable Objectives (long-range aims) and appropriate, viable strategies for their long-range implementation. Similarly, they must be integrally related to viable short-range Goals (aims) and operational plans.

By its very nature, planning related to forestation must be long-range. Replenishment cycles even under the most favorable conditions typically require over 20 years and are more commonly thought to be over 30 years. Reduction of the replenishment cycle by artificial fertilization of the forest-bed may for some time remain dependent upon petroleum-based fertilizers with obvious economic constraints, including the petroleum-based energy needed to operate the airborne dispensing equipment.

Many domestic and multinational corporations would welcome improved government sponsored long-range planning (especially of a bi-lateral nature) regarding forestation. To the extent that viable plans are developed and individual firms must necessarily develop and implement their own long-range plans to protect and enhance their future lines of supply of forest raw materials.

Formal long-range (strategic) corporate planning is a relatively recent phenomena which has become increasingly more evident since about 1965, and is rapidly gaining momentum. Three major phases of any viable planning system are quite evident:

- (a) Planning how to plan and implement plans. The development and acceptance of appropriate methodologies and processes for planning is vital.
- (b) Development of effective, realistic plans. These must necessarily include long-range, strategic plans, as well as integrally related short-range, operational plans; and

adequate contingency (alternative plans in the event of failure of operational plans or the need to alter the strategic, long-range plans.

- (c) Implementation of long-range, strategic plans and short-range, operational plans. The implementation of long-range plans is totally dependent upon the effective implementation of short-range, operational plans integrally reflective of the long-range aims. The short-range, operational plans and their implementation become the building-blocks or modules for implementing the long-range, strategic plans. No long-range plan is any more effective than the implementation of integrally related short-range plans. The output of the entire three-phase planning process must be the accomplishment of predetermined aims (both short-range and long-range).

The planning system must necessarily be an iterative process replete with essential feedback and control. In any of the three phases, the planning system can breakdown with equally disastrous results.

In the relative absence of vigorous, viable national plans for forestation, it is not to be expected that large corporations (both domestic and foreign-based), which by their very nature generally tend to be long-range oriented in protecting their resource bases, will be aggressive and dominant? Is it not logical that a well-managed forest products corporation (either domestic or foreign-based) will rationally and pragmatically plan to assure its forest-based resource inputs reflecting a 20 to 30 year cycle? Their very survival is based upon the need for replenishable supplies of forest-based raw materials. To the extent that societies' needs can be better met in both the short-range and the long-range, government publicly-sanctioned plans and their implementation must be forthcoming. One of the most significant questions is "how will the rights of the citizenry be best assured and enhanced?" As the former Director of Corporate Planning for a corporation with multinational involvements (and two subsidiaries) in paper manufacturing and marketing, I became very much aware of the volatility of plans in many Latin American countries.

Dr. Guess has pursued a sector for potential national economic growth which is very relevant to long-range prospects for Costa Rica and similar economies elsewhere. But without more effective, viable planning, land use outcomes will probably continue to be dominated by short-term market pressures. Yet, there is a continuing need to diversify the economic base of especially the economies of the Central American countries. It is probably no longer realistic to not emphasize forestation in the formal long-range planning agenda for economic development, regardless of the explanation. Realistic, viable plans to assure sustained-yield forestry or to assist in expansion are needed. Forestry is a relatively high risk, long-range activity requiring technologies to improve productivity). For instance, orbiting satellites for monitoring forest growth and disease infestations are now operative. The most effective, economical utilization of such sophisticated tech-

nology requires well-planned cooperative efforts. Owners of forest lands must have equal access to the information and substantial incentives to control, and eradicate infestations, which otherwise spread from one ownership area to others uncontrollably. If such new-technologies are to be implemented-effectively, there seems to be little doubt that a new emphasis on bilateral planning must be forthcoming.

Unable to realize an extensive, broad-based agricultural economy, out of stark necessity, but with comparative advantages, Finland, Norway and Sweden have pursued extensive and highly productive development of their forest industries. Extensive, viable planning for the enhancement of forestation as a replenishable resource has paid off exceptionally well. Costa Rica's comparative advantage in forestation should become increasingly more favorable as the world must necessarily become increasingly less dependent upon petroleum-based products.

Thus far, Costa Rica has failed to capitalize adequately on its vast replenishable water resources to provide electricity as a potentially more viable long-range alternative to petroleum for its energy needs (e.g. electric vehicles in use for many decades in England could have been substituted long ago for most petroleum-powered vehicles). Now, it would be equally grossly unfortunate if its forests as replenishable resources were also to have the same long-range fate for lack of adequate planning, including incentives for effective implementation of those plans. Maybe the trauma of necessity will in the long-range dictate more favorable emphases in these directions. On the other hand, it would indeed be ironic if countries such as Costa Rica with a very favorable natural balance of non-saline water would not utilize more effectively this very valuable replenishable resource. In many ways, water ought to be viewed as one of Costa Rica's most valuable resources; and at least as yet is a replenishable resource in the ecological balance. But the very act of deforestation could adversely alter this balance..

In studying the role of bureaucracy and the relatively unmanaged forest commons of Costa Rica, Professor Guess has dealt with a topic of global interest. It is not just of importance to Costa Rica and other LDC's (less-developed-countries), but to every nation of the world. With eventual depletion of non-replenishable petroleum reserves (and other fossil fuels), now reflected in OPEC cartel efforts to escalate world petroleum prices and restrict supply, it is very likely that the world will become increasingly more dependent upon forest (and other agricultural) resources. For example, a downturn in reliance upon petroleum-based plastic products and petro-chemicals must inevitably occur. Also, to turn to non-replenishable (only potentially reusable) metallic ores as the long-range substitute for petroleum-based plastics would be ludicrous.

The recommendation for the establishment of OFIPLAN (Oficina de Planificación Nacional y Política Económica) in Costa Rica, recommended by Dr. Guess, is intended to alleviate many problems of uncoordinated, decentralized long-range planning efforts by a proliferation of government agencies. To become most effective, it would seem necessary to

institute collaborative bi-lateral planning with the forest products industry. In any event, coordination is a hallmark of affective planning.

The USSR's central planning system related to long-range commercial development of its forest industry has global commercial competitive implications, particularly if other nations do not accept the planning challenge. Eventually efforts at climate control or modification may greatly enhance the USSR's capabilities of sustaining increasingly higher yields from its massive forests. It is entirely conceivable that the USSR in the long-range may inundate the world with its forest products, especially if other parts of the world allow their own forest resources to be depleted in an absolute or even relative sense. The USSR's potential domination is especially a likelihood in pulp and paper products. Its expanding infrastructure, including burgeoning sophisticated maritime capabilities and land transportation systems, add support to this possibility.

When will the nations of the world awaken to the necessity of dependence upon replenishable natural resources? When will they radically reduce their suicidal dependencies upon non-replenishable resources? Is it not feasible to foresee the time when mankind will be able to permanently harness the replenishable resources and in such a manner as not to make them also non-replenishable?

Depletion of the world's forests, especially in populated areas, may in the long-range have catastrophic impacts upon the ecological balance. This is apparent in the continuing buildup of carbon dioxide and air-borne pollutants resulting from the expanding use of fossil fuels, especially in motor vehicles. Also, considering recent reports of the marked tendency for desert areas of the earth to continue to expand, rather than even being contained, it would be unfortunate if productive forest lands should also be depleted as the world population continues to expand dramatically.

As petroleum-based plastics and petro-chemicals become less feasible, a variety of paper and other forest-based products will undoubtedly be in greater demand. Wood, as a replenishable resource, is also an energy source. As a truly replenishable resource, which is enhanced by recycling of other natural resources, there is a great potential to be realized for a diversity of uses. With petroleum cartels now controlling the balance of power in petroleum resources, increasing necessity to revert to forest and other agricultural raw materials seems apparent. These problems are evident in planning for the long-range growth of both LDCs and developed countries. Eventually, hemispheric and even global plans and treaties may be necessary to protect the environment and ecological balance while solving the more immediate problems. In his own way, on a limited scale, Dr. Guess has vividly brought many of the vital issues to our attention and has offered some suggestions for a partial solution.

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LIST OF ACRONYMS

BCCR	Banco Central de Costa Rica
CNF	Consejo Nacional de Produccion
CODESA	Corporación de Desarrollo
DGF	Dirección General Forestal
ICE	Instituto Costarricense de Electricidad
ITCO	Instituto da Tierras y Colonización
JAPDEVA	Junta Portuaria de Desarrollo Atlántico
MAG	Ministerio de Agricultura y Ganaderia
MEIC	Ministerio de Economía, Industria y Comercio
MOPT	Ministerio de Obras Públicas y Transportes
OFTPLAN	Oficina de Planificación Nacional y Política Economía
PN	Parques Nacionales

BUREAUCRACY AND THE UNMANAGED FOREST COMMONS IN COSTA RICA

Introduction

Despite its reputation as an accessible test site for social science theories, Costa Rica has benefited from few studies based on tests of specific policy-oriented hypotheses. Due, in part, to the generality of social science "paradigms" and to the socio-cultural complexity of the country, researchers depart with contradictory findings and overly-broad recommendations. By focusing on the validity of competing explanations for the failure of a high-development-potential policy to reach the agenda, this study attempts to counter these research tendencies.

The government of Costa Rica (GOCR) has largely failed to enforce its sovereign rights to exclude vested interests from destructively exploiting its forests. This management failure has converted the resource to a "commons" (Hardin, 1978:pp. 7-9) or unregulated consumption arena with predictably negative consequences. Though typical recommendations call for the enforcement of restrictions on individual-organizational freedom to take from the commons, the more basic question is why the current sequence of events is perpetuated. Failure to answer this question will continue to focus policy analysis on the symptoms rather than on the causes of collective behavior that currently undermines the development potential of the forest resource.

For an accurate description and explanation of GOCR failure to formulate a national policy for development, at least partially through forest production, it is essential to examine the private and public forces which affect this sector and shape general state policies. The institutional and class structure implications of these forces relate to our theoretical concerns with the dependency, bureaucracy and democracy perspectives. Through the use of a reputational sampling method on an initial list of experts in the area of forestry and natural resources", a list of relevant public and private institutions was obtained. The following public institutions then affect the formulation of forestry policy: (1) Instituto Costarricense de Electricidad (ICE), power and communications which require forested watersheds for production of hydroelectric energy; (2) Ministerio de Agricultura y Ganaderia (MAG), agricultural services and extension; (3) Ministerio de Economia, Industria y Comercio (MEIC), commerce and industry; (4) Junta Portuaria de Desarrollo Atlantico (JAPDEVA), Atlantic zone port and "development" authority; (5) Instituto de Tierras y Colonizacion (ITCO), the land reform agency; (6) Banco Central de Costa Rica (BCCR), the central office of the National Banking System; (7) Direccion General Forestal (DGF), the forest service located in MAG; (8) Parques Nacionales, the national park service (PN) an agency also located in MAG; (9) Oficina de Planificacion Nacional y Politica Economia (OFIPLAN), the national planning office; (10) Consejo Nacional de Produccion (CNP), the national grain council; (11) Corporacion de Desarrollo (CODESA), the national development corporation; and (12) Ministerio de Obras Publicas y Transportes (MOPT), roads and public works.

The following international agencies lend or grant funds to the GOCR in the broad areas of agriculture and natural resources and may therefore be classified as public institutions: (1) Agency for Interna-

tional Development (USAID), (2) World Bank-International Monetary Fund, (3) Inter-American Development Bank, and (4) Central American Bank for Integration. In Costa Rica, the following associations and private groups directly affect the formulation of forestry and natural resource policies: (1) Asociacion Nacional de Fomento Economico (ANFE), (2) Sindicato Nacional de Empresa Privada (SINDEP) both of which lobby for free enterprise development strategies, (3) Cámara Nacional de Agricultura, an "umbrella" organization containing the key representatives of the major agro-export and beef-cattle activities; (4) Cámara Nacional de Ganaderos, the federation of cattle ranchers; and (5) Asociación de Industriales de Madera, the association of wood industries.

It would be theoretically meaningless and empirically trivial, of course, to suggest that these groups or institutions somehow do combine to affect the likelihood of forestry policy formulation. Accordingly, three theoretical perspectives will be employed in this study to organize the data which assume varying degrees of influence on the part of these groups. Based on characterizations in the literature, they will be termed: (1) the democratic thesis, (2) the organizational or bureaucratic perspective and (3) the dependency thesis. These perspectives, employed for descriptive and explanatory purposes, have not been tested or compared in the Costa Rican context for a specific policy area. For example, the democratic thesis is presented as a synthesis of the literature alleging that Costa Rica is a political and economic democracy. Using a working definition of democracy as institutionalized access to the means of production by the majority across representative institutions, this perspective would explain lack of policy commitment to forestry as the result of inordinate access to decision-makers by groups that utilize land for short-term gains in agro-exports.

But primary and secondary data employed here (see Appendix A) confirms the validity of the democratic thesis without explaining the role of bureaucracy or class interests and relationships in the forestry question. In an attempt to rectify this deficiency, the bureaucratic and dependency thesis are offered as competing explanations. The bureaucratic thesis attempts to refine the democratic thesis by examining the internal workings of the governmental bureaucracy in relation to its environment on a single policy issue. It will be evident that vicious bureaucratic circles exist that distort flows of management and budgetary data. Ineffective management choices and persistent spending biases toward traditional agroexports, such as beef-cattle and coffee, and away from non-traditional agricultural activities, such as forestry, may be directly traced to failures of organizational routines and repertoires. In contrast with the democratic thesis which postulates power dispersion or "deadlock" as an explanation of the forest commons problem, the bureaucratic thesis suggests that the explanation lies in the peculiar concentration of decision-making power exercised by public organizations. By this perspective, the forestry problem may be attributed to vicious bureaucratic circles that are produced by distortions in budget processes, information flows and managerial incentive structures. At the other end of the power scale, the Marxist dependency thesis (used to contrast the non-

Marxian thesis), views policy formulation as a simple product of dominant class preferences expressed through persistent distortions of the private market. Following an implied dominant class cost-benefit calculus, a given policy would be formulated, excluded or modified. If land capable of forest production is utilized for beef-cattle production with public infrastructural supports, the dominant class prefers short-term profits at the expense of longer term activities that could benefit medium and smaller-sized farmer interests. Hence, instead of a deadlock or bureaucratic incentive problem, this perspective would suggest the forest commons is a preferred alternative that guides national policy-making.

While the normative implication of the democratic thesis is that transition to improved democracy will lead to development, the inference from the dependency thesis is that development requires a socialist transition. The first perspective does not explain failure to develop; the second does not validly describe the process of underdevelopment. Given the weaknesses of both of these perspectives, it is argued that examination of organizational processes can more validly and reliably explain the failure to manage the forest commons for development purposes. That democracies and socialist countries have made the same errors regarding precious natural resources suggests that the important differences lie in organizational variables. In the context of a powerful landholding class accumulating wealth in a society with substantial democratic benefits, public organizational arrangements and processes distort spending for development programs such as forestry. The democratic and bureaucratic theses would then explain failure to formulate this policy as a product of pluralist-bargaining channels and bureaucratic expertise respectively. It would follow that diffusion of capital, expertise, democratic values from grantors or lenders would likely rectify policy deficiencies. By contrast, the Marxist dependency thesis would describe the commons phenomenon as but one symptom of general underdevelopment. That is, capitalist classes profiting through manipulation of the market draw capital from poor regimes, cities or nations and undermine development efforts by bureaucracies or progressive interest groups. Given these persistent forces, remedy lies in elimination of dominant, ruling or elite power configurations that inhibit development, which in this case means sustained yield growth and harvest of timber for the benefit of all Costa Ricans. This study details an empirical attempt to test these perspectives and draw conclusions both of their theoretical and practical applications in other settings.

With the goal of providing policy-relevant recommendations based on analysis of primary and available secondary data, this study begins with an examination of the historical relationship between the GOCR and development policies. Next, the forest resource commons is examined both as a potential development resource and as a "free good" on which interests profit with public policy support from its destruction. Despite almost ideal natural growth conditions for conifers and the presence of many exotic hardwood species, deforestation for pasture continues unabated. The research question here is: Given the potential of forestry, what ex-

plains the GOCR failure to manage the commons for development? The question is relevant for Costa Rican policy-makers, lending agencies and potential private investors in the forest sector. Finally, it is suggested that future analysis of policies, or public expenditure patterns undergirding them, employ the relevant features of both dependency and bureaucracy perspectives. Budgetary formulation in relationship to class structure should be used as critical variables to describe and explain public policies in developing areas. It is hoped that the forestry example can provide a first step in this direction.

Validation of the appropriate perspective as an aid to explanation and description will proceed as follows. Hypotheses and measures for each perspective were developed through reference to the relevant literature on each. In that tests of these perspectives in other contexts have employed a variety of hypotheses and measures, those employed here for forestry policy are tentative and should be refined by further research. At the same time, the process of research revealed theoretical and empirical weaknesses in each perspective. For example, the generality of such measures as "widespread agrarian proprietorship" in relation to a concept of democracy, and the use of "decision premise" questions to measure class attitudes and to infer consequent behavior patterns, required interpretive restraint of the results. The three perspectives employed here are not the only means of generating explanations on this question. They are used in an attempt to increase empirical knowledge of their validity in countries faced with similar policy problems. It is concluded that the most accurate explanation can be derived from the combined employment of the bureaucratic and dependency theses. Based on the relevant findings, it is recommended that the forest policy system be restructured with primary responsibility given to a Forest Resource Institute (Instituto de Recursos Forestales Costarricense or OFORCO). Efficient and effective development policy, both in non-traditional areas such as forestry and traditional agro-export areas, will require the future installation of management control systems and appropriate political controls to inhibit dominant class access to policy-making channels.

Bureaucratic History and Development

Historically, Costa Rican public servants have been faced with two partially contradictory obligations. On the one hand, prudence required service to the agricultural aristocracy. In the 1800's, the coffee aristocracy really created the state to provide itself military protection and timely agricultural credit (Facio, 1975:40). On the other hand, a political opposition has always existed in Costa Rica (Woodward, 1976:213). The opposition has consistently pressured the bureaucracy (with positive results) for high levels of welfare, education and health services in behalf of the general population. These historical tendencies translate into co-optation of both the bureaucracy and the opposition by an agro-export dominant class.

Following the liberal-nationalist reforms of President José Figueres (1943-50), expansion of public services to serve the growing middle class

resulted in organization of the political opposition on a functional basis. Proliferation of ministries and autonomous agencies for functional policy areas such as land reform (ITCO), telecommunications and energy (ICE), and agriculture (MAG), tended to fragment the respective client interests. The opposition fragmented, yet was identified in particular cases with given agencies. The converse tendency was for the bureaucracy to identify policy objectives and planning goals with the needs of its special client interests. Given the general uncertainty of revenue sources and expenditure purposes that confronts public agencies in the annual budget process, the tendency in most developing country bureaucracies is to attain independent fund status. Though this fragmentation confounds management and control functions of the budget for the larger policy process, it provides client interests with a convenient access channel. A powerful tendency in countries such as Costa Rica then, has been the deficiencies of the budget process to be translated into policy control by oligarchic interests exploiting these weaknesses (for example playing specialized and autonomous agencies with overlapping responsibilities off against each other). The bureaucracy and dependency theses are grounded clearly in historical patterns of the state policies they are employed to explain.

In Costa Rica the "mutual co-optation" of the opposition and bureaucracy frequently served the agricultural aristocracy. In that 20% of annual GDP is largely composed of agro-exports, such as beef cattle, coffee, bananas and cacao, much of the state apparatus is designed to serve these functional areas. Hence, the multiple needs of the Costa Rican bureaucracy that inhibit the formulation and implementation of forceful development policies, in many cases serves the rather specific interests of agro-export interests. Lizano (1975:33) holds that oligarchic co-optation of the bureaucracy can continue only to the point at which inflationary policies, larger staffs, and increased foreign borrowing undermines the real income of the "middle class bureaucracy". However, horizontal organizations as "functional fiefdoms" permit the bureaucracy to assert, in periods of high inflation, a variety of uncoordinated interests that work counter to long-term national development objectives. At the same time, the GOCR has served its own expansive interests. Public expenditures now constitute approximately 40% of national income - among the highest in Latin America (including Cuba). Some 15% of the workforce is employed by the public sector. These contradictory tendencies are especially evident in the case of non-traditional agricultural policies, such as forestry.

Forestry and the Development Agenda

Poor land makes poor people, And poor people make poor land...
"The River" (documentary film) P. Lorentz, 1937.

While Costa Rica is endowed with a forest resource of extraordinary value, public policies have worked against its rational exploitation for national development. Tropical hardwood forests with over 1200 species (often 200-300/hectare) once covered 60% of the country, with the exception of 500 hectares of plantations (pine, teak, acaulypcus), the excellent natural growth conditions have been ignored by entrepreneurs.

Treatment of the forest resource as a free good is most vividly illustrated by the annual deforestation of between 20,000-60,000 hectares or 15 million trees. Policies encouraging pasture expansion for beef-cattle production for the US quota (liberal credit extensions, solid infrastructural supports) have then converted this valuable resource into a commons. Unhindered access (often with forest service or DGF concessions!) to the forest resource leads to overuse and quality degradation. It has been suggested that "Common property resources are those valuable assets which can not, or can only imperfectly, be reduced to private ownership" (Kneese, 1977:28). However, a properly managed forest resource may be converted from a commons to a basic development resource.

Mis-management of the forest resource has negative consequences for national development. Though these have been stated elsewhere (Guess, 1979), they may be summarized here. The standard pattern of forest cover elimination from steeper lands produces both liquid (suspended solids) and solid (slush and logging residues) residual wastes, eroding the soil, and runoff during the rainy season, which contaminates water supplies. Loss of soil nutrients following deforestation often takes decades to replace, even with fertilizer supplements. As official banking and agricultural policies encourage pasture expansion for the US beef quota (with consequent deforestation), the growing negative balance of trade in forest products provides value added in incomes-employment opportunities to foreign importing economies. The growth in imports of selected forest products is indicated by the following table:

Table 1 about here

The paradox is that such opportunities are killed by lack of discovery in a country desperately needing new agro-industrial options for diversified development. Some of the fastest pine growth rates in the world, for example, exist in the Turrialba (Atlantic) region. Assuming a stable market price (which may occur with construction of the Scott Paper groundwork pulp mill in San José), a small farmer with 10 hectares of poor quality steep land, using 3 hectares for pine could earn at least \$240/hectare/year by the 9th year and a substantial income in 2-5 years from intercrops and fencepost thinnings. It should be noted that a pine tree requires approximately 35 years for maturity in the southern US. Despite the fact that public subsidy for small scale, sustained yield forestry would be required only for the first 5 years, forestry remains on the theoretical "development agenda", confused in the public mind with such terms as "conservation". This agenda is indicated by 154 laws and executive decrees promulgated between 1363-1975 (OFIPLAN, 1975) and by more than 50 articles on forestry in 2 leading Costa Rican dailies La Nación and Excelsior between 1975-1977 (cited in Guess, 1977:72-73).

Theoretical Perspectives: The Democratic Thesis

The historical vignette of the Costa Rican Spanish Governor farming peanuts with his own labor during the Conquest and the more recent

spectacle of "unescorted" former President Ulate being run over in the San José mercado by a bicyclist (Stone, 1975:202), provide insights into the workings of this civilized and unconventional Central American nation. In attempting to explain the absence of forestry programs on the "real" development agenda, it is tempting to preordain an order, rationality and clarity of policy objectives that may never have existed. The question is whether the exclusion of forestry is largely the result of the peculiar lack of planning that characterizes most democratic systems? Or, is this exclusion the result of political-economic competition which fixes a societal preference for an agro-export dominated development strategy?

For decades, researchers have reported a functioning democracy in Costa Rica. Though emphases vary, general consensus exists that the Costa Rican brand is characterized by: (1) widespread agrarian proprietorship, (2) institutionalized competition among client interests, and (3) widespread access to both critical information and to education, health and welfare services. By this perspective, forestry exclusion would be the preference of a societal judgment, competitively reached. For example, Woodward (1976:213) describes the historical and 20th century uniqueness of Costa Rica as a:

...product of her relative remoteness from the remainder of Central America, her slight economic importance to Spain, and her lack of non-white subservient class and corresponding lack of a class of large landholders to exploit its labors. Hispanic traditions were never as heavily fastened on Costa Rica's sparse population as on the rest of Central America.

Arias notes further (1974:56) that the majority of Costa Rican historians subscribe to the thesis that extreme poverty coupled with the inability to find a source of foreign exchange produced a tenure system of small, family-owned parcels.

While the literature supporting each tenet of the democratic thesis has been synthesized elsewhere (Guess, 1978), the central findings will be critically restated here. First, the association of democracy with egalitarian tenure recurs frequently in the literature. Data trends for the period 1955-1973, however, indicate an extreme concentration of landholding by size and by crop type, dominance of the tenure structure by agro-export activities, as will be demonstrated, tends to assure diffuse support of non-traditional agricultural activities, such as tree farming.

A second tenet that will be tasted is the association between democracy and safeguards against institutional abuse. Clearly, due process and freedom prevails to an extent unmatched in Central America. Individual mistreatment at the hands of officialdom is tampered by a strong sense of public outrage at injustice. If such attitudes/behavior exist elsewhere, they are either weaker or suppressed by authorities e.g. the recent summary incarcerations of professionals and teen-agers in Somoza's Nicaragua in a vain attempt to forestall his demise! Nevertheless, institutional responsiveness in Costa Rica is limited by legislative timidity (no impeachment, initiative or referendum) and archaic laws (Diputados

are not elected from districts) , If the majority party (PLN) and the opposition (. a loose coalition of groups known as the Unity Coalition, now represented by President Rodrigo Carazo) alternate regularly in office, real competition is limited by a lack of programmatic differences between the two sides.

The third tenet of Costa Rican democracy is a close corollary of the second. It is often held that the press-media provides access to critical information and a powerful opposition force to the state. Though this is largely true over a wide range of issues, the press has limited power on issues of basic importance i.e. on issues that question the democratic premise. For instance, the Figueres allegation in New Republic that Robert Vesco financed former President Oduber's campaign brought charges of "shame." and "explain." in the local press. Though the Oduber explanation satisfied few, nothing occurred until the new President, Rodrigo Carazo ordered Vesco to leave in 1973. Yet, access to necessities (health, education and welfare benefits) is high and remains unmatched by any country in Central America.

Briefly then, democratic competition exists in many areas of Costa Rican life. The peculiar brand of democracy here may boil down to an admixture of cultural advancement and civilized cultural traditions. However, as will be argued below, the diffuse majority of potential beneficiaries from such non-traditional programs as forestry, can not compete for the means of production against those interests presently gaining from agro-export production. Though this would imply that forestry exclusion is the result of defective democratic institutions, the democratic thesis is weakened as an explanatory paradigm by its generality and tautological nature. That is: (Question) What explains forestry exclusion? (Answer) Lack of acceptance of non-traditional development programs by political institutions. Q - What prevents acceptance? A - Lack of democracy.

The Marxist Dependency Thesis

A normal implication of the dependency thesis is that transformations of local productive structures to service dominant capitalist market largely reinforces underdevelopment tendencies. By this thesis, capitalist countries accumulate capital at the expense of less developed or underdeveloped countries. Chilcote (1973:60) distinguishes two views of dependency: The Marxist and Non-Marxist or "bourgeois" view. According to Chilcote, "the dependency model relates to radical views of Latin America, some of which are bourgeois while others are Marxist" (1973:60). For example, the Marxist view stresses class conflict and worker control of the means of production. Based on the Marxist laws of production and class struggle, the "national bourgeoisie" must be eliminated for destruction of the capitalist system and elimination of dependent ties that inhibit development. It is this perspective which is employed here to explain forestry exclusion from the development agenda. By contrast, the "bourgeois" view recognizes the importance of dependent ties but denies their pivotal role in underdevelopment. Through struggle with dependency

and reform of capitalism, the national bourgeoisie may promote national interests "within a pattern of dependent development". Given this positive role of the national bourgeoisie in the development process, the state may then "reinforce the struggle against dependency" (1973:60). The non-Marxist view is closely related to the bureaucratic thesis and will be discussed below.

Given the predicted explanatory weakness of the democratic thesis, relevance of the dependency thesis will depend largely on its capability to explain more than the bureaucratic thesis. That is, do dominant class preferences play a greater role in forestry exclusion than organizational processes? Does the bureaucracy serve the dominant class or the nation (or some combination of the two)? Inability to deal with this issue weakens explanations based on simply one of the perspectives. For, one could always challenge findings by assertion of class control of bureaucratic choices or, conversely, of the structuring of dominant class preferences by the weight of bureaucratic expertise. To validate the dependency thesis in this case then, it must be demonstrated that (1) traditional technical assistance policies have failed (2) a dominant class exists and its preferences in critical development policy areas are consistently favored by the bureaucracy (as indicated by implementation of policies directly beneficial to its interests) and (3) dominant class machinations in capitalist markets (forestry and agro-exports) perpetuates or exacerbates Costa Rican underdevelopment. It should be noted that views differ on the definitions and roles of dominant, ruling and hegemonic classes. Important theoretical distinctions also exist between class, elite and group. In this study I have attempted to use polar examples of each in relationship to the models, i.e. class (dependency), group (democracy) and elite-group (bureaucracy). To say that groups within classes compete across issues without negating the class concept, for example, is premature without examination of decision premises. My methodological approach attempts to isolate both class intentions and behavior or document in absence in the forestry policy formulation process.

Following an outline of the dependency hypothesis, they will be tested in the succeeding section.. First, one would expect the strategy implied by the bureaucratic thesis to have failed. That is, management changes and reorganization efforts prodded by foreign technical assistance contracts could reasonably be expected to have deferred emphasis from agro-export policies between 1961-1975. For, implicit in the bureaucratic thesis is the premise that a "diffusion" (Chilcote, 1973:60) of organizational technology from advanced capitalist countries will benefit less developed countries. Second if the thesis is valid, one could expect to find a dominant or ruling class exploiting the workers at the expense of national development needs. Based on the expected relationship between class and the means of production, separate class indicators may be used to distinguish the Costa Rican class hierarchy. For example, the dominant class should be distinguishable by: crop-types, level of agricultural credit allocations, size of landholding and level of "decision premise consensus" (Simon, 1976:50) Specifically, it should be clear from

worker relationships in the primary and secondary forest sectors that surplus is generated and appropriated from workers by capitalists at each stage of the timber commercialization process. Based on expected patterns of extractive foreign investment, one could expect the surplus to pass in the form of profits to the "metropolis" instead of investments in need local development projects and programs. Third, if the dependency thesis is valid, one could expect to find debilitating ties to the metropolis via such surplus appropriation mechanisms as (a) foreign investment in leading industrial sectors, (b) increasing foreign indebtedness and debt service export ratios and (c) increasingly negative balances of payments. It will be demonstrated in the next section that the bureaucratic thesis more fully explains forestry exclusion than the Marxist dependency thesis. Costa Rica is following a state capitalist or dependent development strategy that roughly approximates the Non-Marxist dependency view.

Thus, according to the tenets of the Marxist dependency model, the inability to formulate non-traditional development programs, such as forestry, is less the product of "bureaucratics" than of the pervasive structure of capitalist development. The existence of a "mutually symbiotic alliance" (Slater, 1975:11) between elites of the center and elites of the periphery perpetuate underdevelopment and serve as the functional equivalent of the military and bureaucratic control structures of the older colonialist versions of imperialism. However, support for the Marxist dependency thesis requires affirmation of premises which may not be valid in the Costa Rican context. This should be evident from a brief summary of the theoretical and practical weakness of this thesis, and the suggestion that they may partially be remedied by application of the bureaucratic thesis or bourgeois view.

Specifically, the weaknesses of the Marxist dependency thesis fall in the categories of "overdetermination" and "overprediction" (Rosen and Kurth, 1974:13). Based on its tendency to predict: events that may never have happened (imperialist domination of the Costa Rican forest sector) and the availability of other sufficient explanations (the bureaucratic thesis), the Marxist dependency thesis may be challenged as the superior theoretical tool.

It is argued that the bureaucratic thesis can serve as a sufficient counter to each dependency hypothesis. For instance, it has been proposed that 14 years of technological "diffusion" without significant development results may validate control of the development agenda by a dominant class. But an equally plausible explanation is that the amorphous structure of the Costa Rican bureaucracy has merely adapted external assistance directives to its own routines and repertoires. The informal power often reaped by the skillful "broker" of foreign loans has been described elsewhere (Guess, 1977). Diffusion of capital then may simply reinforce bureaucratic vicious circles. The reverse of this proposition may also be true. That is, the destruction of the forest resource has probably not been caused by a diffusion of forest technology, since none has been allocated. Diffusion of capital for pasture expan-

sion of the beef-cattle industry is translated into errational forest resource treatment by the local bureaucracy (not the international lending institutions). Diffusion of capital may or may not serve development objectives depending on patterns of domestic bureaucratic activity.

Second, though an agro-export dominant class or oligarchy can be identified empirically (Lizano, 1975:42), the tendency of this class to splinter across policy issues, (e.g. agro-industry, and urban development), renders the measurement of policy preferences a difficult task. Capitalist development may benefit segments of the dominant class at the expense of others. Consensus on policies detrimental to forest sector development may simply indicate both its low profit potential for dominant class needs and that the class agrees on this one policy area. The validity of the Marxist dependency thesis is also predicated on the existence of classes in conflict. However, primary survey data will demonstrate that rarely are attitudes split along class lines. Instead, as will be shown, elites, policy-makers and international agency representatives frequently disagree over both operational and non-operational objectives.

Further, it will be demonstrated that capitalists profit at the expense of differing classes of forest workers at each stage of the timber commercialization process. Yet, it is also evident that capitalists waste much of this appropriated surplus. Given the inefficiency of a forest sector which, following harvest, leaves most of the marketable timber in the forest or at the mill, public-private incentives to invest in sector modernization for development are seriously dampened. Persistent wastage then induces the fear of being caught in a "capital trap" by other capitalists. Though the agro-export dominant class may reap short run marginal profits, in the long run it may lose as the tragedy of the unmanaged forest commons affects land use for alternate agricultural activities. Perhaps the only "winners" are the petty bureaucrats who build up political capital in those agencies administering programs beneficial to the agro-export class. As the inflationary effects of the current monocultural productive pattern stretches middle class tolerance, such political capital may rapidly dissolve.

Finally, if the Marxist dependency thesis is a valid explanatory device, one could expect persistent underdevelopment to be associated with debilitating ties to the "metropolis". For example, one could expect to find restrictive agreements and unreasonable conditions imposed by international lending institutions, multinational corporations and development agencies on local policy-makers. Such restrictions would presumably deter their normal proclivities to mobilize resources for development. Nevertheless, it can also be demonstrated that without the direct controls of metropolitan centers, Costa Rican policy-makers permit the very elimination of forest resources that can severely affect long term agricultural development potential. Institutional efforts in behalf of agro-export production, on the other hand, would imply that the power of the domestic bureaucratic apparatus to affect development policy outcomes is substantial.

This can also be implied from the extraordinary proportion of GDP accounted for by growing public expenditures.

The Bureaucratic Thesis

Bureaucratic or organizational perspectives are often employed in the political science/public administration literature. While different variables are emphasized, the writers generally attempt to explain an event or policy result through organizational behavior patterns. Had such patterns varied, the inference is that the outcomes also would have been different. Two early employers of this perspective were Graham Allison and Michel Crozier. In emphasizing routines and repertoires, Allison examined the programmed "enactment of preestablished routines" by policy-making organizations (1971:81). Examples of such routines included: budgeting procedures, recruitment and socialization procedures and accounting structures. On the other hand, Crozier (1964) stressed the effects of culture and environment on such routines. Given the powerful effects of culture on the routines of Costa Rican bureaucratic performance, it is suggested that a synthesis of these two perspectives can provide the most accurate explanation of forestry exclusion from the agenda.

Following Crozier's example, a model of bureaucratic "vicious circles" may be constructed from the observed behavior of the Costa Rican forestry-natural resource policy system. Like the "Industrial Monopoly" in France, these institutions are characterized by self-reinforcing patterns. That is, without a crisis the organizations can not correct their behavior by learning from previous error (1964:137). But, in contrast with the French penchant for efficiency and goal clarity, as noted, the Costa Rican Bureaucracy has grown into a hodgepodge of autonomous functional fiefdoms that simultaneously serve the ends of chaos and agro-export interests. Highlighting the problem is the impotence of the President to change policy directions through the budgetary process. Similar to the U.S. pattern of growing multi-year authorizations (uncontrollable spending), the Costa Rican executive can effectively reallocate only 10% of the budget.

Instead, bureaucratic performance is strongly influenced by traditional dependence patterns, i.e. patrón, gamonal and cacique functioning within institutions. For example, the Costa Rican bureaucracy is top-heavy and centralized in San José despite the existence of rural offices created for electoral support. This places the pressure on career civil servants to "empire build" and "satisfice" (or take advantage of one's limited access to information and time to make incremental choices, in effect stalling for time and spreading risk of failure) or risky programs such as forestry development. A normal routine is delegation of formal authority by supervisors to subordinates to spread the risks of retribution by a superior. Since policies are administered across a network of fragmented agencies, severe criticism focused on a precise responsibility center is unlikely. To decrease chances of efficient and effective performance even further, informal authority is often retained by the superior. Thus, an office issuing say, auto inspection permits, grinds to a halt in

the absence of the político or jefe (out of fear and respect for his informal authority). But to preserve the "family" solidarity of the agency, the supervisor also backs the subordinate in case of external threats, e.g. potential cutbacks. The net result of such symbiosis is that established programs are perpetuated until a crisis atmosphere develops. Nor are such routines penetrated by normal budgetary reviews and evaluations. As will be noted, policy coordination is exacerbated by deficiencies in programming, budgeting, account structures and audit-evaluation procedures (Anthony and Herzlinger, 1975:29).

Grounded in characteristic traits of the Costa Rican bureaucracy, three institutional variables will be employed in the bureaucratic thesis: (1) information flows, (2) budgetary processes and (3) decision premises. First, information flows through formal and informal authority channels are critical to the achievement of efficient and effective services. Crozier (1964:194) described the rigidity of task-definition that resulted from a lack of inter-group communication. Such specialization of function tends toward isolation and insures lack of policy coordination. Further, Simon (1976:171) has noted that "...specialization of decision-making functions is largely dependent upon the possibility of developing adequate channels of communication to and from decision centers". But, as will be evident, excessive trivia in communication channels that lack clear criteria of relevance distorts policy results. Information flows should generally supplement and not oppose the system of organizational authority.

Second, persistent spending biases toward traditional agro-exports and away from innovative or non-traditional agricultural activities may be directly traced to failures of management control. Anthony and Herzlinger (1975:29) divide the control process into: programming, budgeting, operating and reporting (or evaluation). In the area of forest policy, it was found that the Dirección General Forestal (DGF) spends approximately 90% of its budget in San José for administrative operations. Such dysfunctional behavior in the face of a dwindling forest resource reflects this lack of management control. Realistic programs to insure sustained-yield forestry or to assist larger development objectives by organizing forest cooperatives have not been formulated (even as contingency plans). Budgeting is also unrealistic in that programmed expenditures conform closely to the previous authorization of available revenues. The budget process requires no review of line-items in relationship to needed programs (the budget is nevertheless labeled "program" to satisfy foreign consultants 'recommendations'). Hence, expenditures will relate only coincidentally to the needs of the forest program. Evaluation and auditing is also performed in piecemeal fashion. The Contraloría, responsible for both pre and post audits, provides a narrow, partial review that generally excludes the relationship of agency expenditures to development policy objectives. Spending patterns then, reflected in dependency relationships among personnel and empire building ploys by jefes, remain relatively constant by object of expenditure despite the need for alternative development programs.

Finally, as a synthesis of the above variables, if "influence

is exercised through control over the premises of decision" (Simon, 1976: 223), then control patterns should be evident from analysis of decision premises of policy makers and their probable clients. If the dependency thesis provides the most accurate explanatory tool, one could expect relative consensus on issues of capitalist development strategies by policy-makers and elites-private members. Lack of such consensus, coupled with evidence of defective routines and repertoires in budgeting and distorted information flows would suggest that bureaucratic vicious circles prevent adoption of non-traditional policies such as forestry.

That exclusion of forestry is largely a bureaucratic problem may be predicted for two apparently contradictory reasons. First, forestry is a high-risk (e.g. diseases, fires), long-term activity that requires technically sophisticated judgments as to planting, thinning and rotation cycles. While the cultural image of el ganadero and el cafetalero serve the transmission of techniques from generation to generation, no such accumulation of wisdom exists for the Costa Rican forest sector. The prevailing public image is that of the forests as an unlimited resource. Second, the agro-export class could successfully feed off of multinational timber investments by turning less productive acreage to fast-growing tree farms. However, unlike the Brazilian coffee aristocracy that imported dynamic capital goods with its foreign exchange (Stone, 1975:369), the Costa Rican landed elite fortified its political base through lethargic and conservative activities, e.g. planting more coffee and bananas. Given this heritage, the agro-export class would likely fear a new, land-intensive activity that could result in a substantial modification of existing tenure rules. For example, elimination of beef-cattle credit of reallocation to small and medium tree farmers by rural offices of the Banco Nacional could effectively eliminate "moneylenders" and the general dependence of minifundistas and sharecroppers on large farmers for capital.

Hence, it will be argued that despite the weaknesses of the bureaucratic thesis (data weaknesses, inability to conclusively reject class influences on key issues due, in part, to the weakness of the class concept itself), it reveals the lack of consistent exercise of dominant class preferences in their own behalf on the issue of development through forestry. This is especially true given the powerful though diverse nature of this class. The agro-export dominant class is characterized by control over land and credit relating to coffee, beef-cattle, and banana growth, marketing and export activities. While many indicators are available, crop-type and farm size are employed here for reasons provided below. Even without the bureaucratic thesis, it is logical that a group of dominant class members each attempting to maximize their interests would deplete a common resource, i.e. forests, to their collective long term disadvantage. To attribute instant side-payments and compromise capabilities to this class may be assuming total rationality where little exists. Lizano (1975:33) committed a similar fallacy by assuming a point of income inflation at which the bureaucracy would collectively withdraw its support from the oligarchy and cease to emulate its extravagant behavior. Though the likelihood of "shared assumptions" guiding decisions is increased by interlocking memberships in social clubs and

trade associations, consensus has only been assumed so far. For instance, it is often noted that efficient harvesting and marketing of agro-export products contrasts with products designed merely for the domestic market. The implication is that the bureaucracy acts as the lackey of imperialism in providing credit and infrastructure for capitalists at the expense of the domestic proletariat. Nevertheless, products such as pineapple and dairy products efficiently serve local needs. Nor are beef exports to the U.S. of spoiled meat uncommon due to bureaucratic entanglements. Despite the growing economic predicament of the beef-cattle industry (lower world prices), the Consejo Nacional de Producción (CTP) actually authorized beef imports for McDonalds in San José. Further, if a dual performance existed, reflecting mere agro-export dominant class preferences, one would not expect the bureaucracy to respond by permitting the major port of exit to remain silted for over 5 months (i.e. unusable).³ This has clearly injured agro-export interests using Puerto Limón (cacao, bananas and coffee) to a greater extent than small and medium farmers in the area growing tobacco and basic grains. Perhaps, at this point, it is even tempting to agree with Naipaul (1969:509) that this is society without rules and patterns and where classification is a "chaotic business".

Presentation of Data: Must Forestry Programs Be Democratic?

Using the indicated data it will be demonstrated that (1) wide-spread agrarian proprietorship is no longer an accurate description of the Costa Rican tenure pattern, (2) formal safeguards against institutional abuse function superficially and (3) the majority lacks power over land use policy questions, i.e. forestry through the press and media.

The relevance of forestry to national development lies in its characteristic as a multi-stage agricultural activity that can serve as the basis for heavy industry with potential supply of primary materials by small and medium sized farmers. While secondary manufacturing (pulp and paper) is generally capital-intensive, the primary stage provides income and employment opportunities in growth, harvest and milling. Access by the diffuse majority (55% of the Costa Rican labor force is composed of rural workers) to necessary capital and land for forest production would then largely depend on policies toward land use and ownership. An indirect indication of such proclivities is provided by policy-makers attitudes toward land tenure questions. Most of the sample, for instance, (89.3%) agreed that "A primary consideration in any democratic society is the protection of private property". The question is stated in Appendix A, question 24, Codebook column 53 or (Q24,C53).⁴ Conversely, only 17.9% of the sample included public control of land sale and use in their concept of development (Q6,C5). This suggests support for land use outcomes already preordained by strong market pressures and a tendency for bureaucratic interests to support powerful historical pressures for private ownership of land.

Land is still the principal indicator of wealth if the measure includes: crop type, steepness and size of holding. Figures on the exchange of land remain hidden from the public beyond myriad titling and recording statutes (data on foreign ownership of U.S. farmland is hidden by similar legal impediments). Despite the assertions of primary U.S. scholars on

Costa Rican land tenure distribution , recent data reveals an increasing concentration of land ownership in fewer hands. That is, beyond historical references to the colonia period where the minifundia was the predominant form of ownership, scholars often refer to the increase in number of farms over time as evidence of growing egalitarianism. For example: between 1963-1973, minifundia increased in number from 3,661 to 14,413. Nevertheless, the proposition that land distribution is becoming more equal (Q24, C62) was rejected by 45.2% of the sample and supported by only 40.5%. The elite (71.4%) and the public group (42.9%) held that the distribution is becoming more equal. This suggests either a misperception of reality or a tendency for land distribution to become more equal within these two groups, that is, more elite and public servants may be increasing the size of their land holdings.

For, the distinctive rural middle class (with medium sized farms of 10-200 hectares) is rapidly disappearing by absorption into the class of large agro-export farms or by transformation into minifundia/landless status. USAID asserts, for instance, (1977:18) that "... a substantial medium farmer group has emerged". However, Araya (1976:24) suggests that a combination of demographic pressures on the middle class and expansion of Latifundia for beef-cattle and sugar cane production is rapidly eliminating this rural middle class sector and contributing to the "proletarianization of the Costa Rican campesino". Such tendencies are indicated by the following table:

Table 2 about here

The qualitative importance of this pattern is that public policy subsidizes inefficient land use practices (strengthening market incentives for underutilization by both larger and smaller farmers) which reinforces national dependence on agro-export production. This implicitly excludes small farmers and rural workers from the economy (or includes them into the capitalist market system to their persistent economic detriment) by elimination of non-traditional agro-industrial opportunities such as forestry. The same caveat on validity and interpretation of land-holding data that applies to most developing countries should be applied here to Table 2. While the Costa Rican Censo Agropecuario of 1973 is a valid and sophisticated data product, its categories are often inconsistent with previous census (e.g. 1963) and hence recalculations had to be made by the author. Such variables as opening of new lands and demographic shifts may, for example, affect the validity of these comparative figures.

The second tenet holds that if Costa Rica is a democracy, one would expect to find institutional safeguards against abuse of freedom (e.g. summary executions, random incarcerations). While safeguards exist on paper in even the most totalitarian societies, the 1948 electoral upheaval (often termed the "revolution of '48") produced a fear of executive tyranny that translated into substantive sanctions. However, the net result of these sanctions has been the decentralization of policy-making institutions into the "functional fiefdoms" noted previously to counter

any tendencies toward a presidential power grab or police state tactics. The frequent institutional deadlocks provide the Costa Rican citizen with "bureaucratized tyranny" or denial of due process by obstructionist ruler/official whim. As suggested, mechanisms of retaliatory democracy such as recall, referendum and initiatives do not exist here.

Attitudes alone can not serve as predictors of political behavior. Yet, where attitudes and behavior consistently coincide, they may serve as important indicators, which, together with other conditions, may result in accurate predictions. The sample revealed no powerful opposition to institutional tyranny despite the traditions inherited from 1948. For example, the respondents were asked whether forest policy should be made by presidential decree given the sluggishness of legislative performance (Q24,C64).

Table 3 about here

Table 3 indicates survey results from the Forest Policy Survey. For example, 40 members of the sample of 84 (47.6%) agreed that forest policy should be made by presidential decree. Of those 40, some 4 were in the "international group" comprised of USAID, OAS, World Bank, Inter-American Development Bank, and Central American Integration Bank members. The 4 respondents amounted to 10% of all favorable answers to this question. They amounted to 21% of all responses to the question by international group members which totaled 19. Of the 19 international group members who responded to the question (or 22.6% of all respondents), only 4.8% or 4 responded favorably. As indicated then, the sample rejected this means of policy-making by the thin margin of 50.0% to 47.6%. Note that the major supporters of this proposition were the public group (57.1%) and the elite (78.6%). Despite the fact that a presidential decree lacks the status of a legislative act, the responses indicate a decided impatience with the democratic process. Conversely, this implies support for the elitist-caudillo methods exercised before 1948. Further, 56.0% of the sample disagreed with the statement: "To achieve progress, it is better to include only small groups in policy formation" (Q24,C56). In support of the previous findings of autocratic tendencies, 52.4% of the public group agreed with the statement.

Finally, one could expect a non-traditional agricultural policy such as forestry to appear on the development agenda, according to the democratic thesis, where the majority has effective access to the means of policy-making. Costa Ricans enjoy unparalleled access to health, education and welfare benefits. Lacking a real army (Venezuela and Panama recently loaned munitions to guard against invasion from Somoza's army), education is allotted approximately 30% of the annual budget. Approximately 80% of the total population are now covered by social security and free medical services (operations, prescription drugs). However beneficial, it is historically true that such welfare policies have been enacted by the governing elite, partially from empathy but largely for generation of system and oligarchic support. Hence, a more accurate indication of access to the means of policy making would be the degree to which the press functions independently of editorial inter-

ference (from government or advertisers),

Accordingly, the respondents were first asked whether the press should be able to attack a public official to the extent that it deems necessary, subject only to a subsequent libel action (Q24,C60). To this statement, 82% agreed, indicating support for a critical role for the press. Probing the question further, the respondents were asked whether the press should criticize less and inform more (Q29,C74). Led by the public group (61.9%) and the elite group (71.4%), 56% of the sample agreed to this proposition. Thus, the assumed liberality of these two groups (Lizano, 1975:83) is contradicted by the finding that they really prefer less criticism. Curiously, 66.7% of the foresters also agreed that the press should criticize less. Given the need for sustained public challenge of the agro-export development premise, one might expect an opposite response. But one of the predictable qualities of a professional group with a few real opportunities to exercise its skills (in timber management) is intense frustration. "Desk foresters" tend to become isolated and engage in mutual distrust and dysfunctional infighting amongst themselves. The Costa Rican forester group, composed of Latin American, European and U.S. foresters, is characterized by intense bickering which weakens both their professional credibility before the public and their potential strength as an interest group on this issue. But, it is also possible that the question on "criticism" was too general for this group of professionals.

But, as a critical institution, the Costa Rican press may be an uncertain oracle. The frequent inaccuracy of the working press inhibits the sustained pressure on policy-makers that is essential for accountability. Though the "charge and response" format of Costa Rican papers is similar to the U.S. "letters to the editor", few charges are actually documented and the responses often bear little relevance to the original accusation in the press. Hence, the substance of majority access to the means of policy-making may be questioned. For example, to the statement: "To achieve progress, it is better to include only small groups in the formation of policy" (Q24,C56), 71.4% of the elite answered negatively. While this may provide an insight into the real driving force behind Costa Rican "liberal" institutions, the consensus among those in the public group-private client matrix was quite different. That is, 52.4% of the public group and 53.3% of the private group responded affirmatively. This would tend to confirm the reslamentismo noted by Facia (1975:246), or the tendency of powerful interest groups to gain legal privileges, such as maximum on prices, profit repatriation rights, and subsidies through special access to policy-makers but at the expense of both weaker interest groups and frequently national development interests.

Thus, the emerging picture is that of an elitist-oriented democracy which encourages traditional party politics through participation on electoral rather than specific policy issues. Complex development policy issues such as production forestry are relegated to informal elite channels which largely precludes the use of formalized agenda-building mechanisms, like the initiative or referendum. But given the existence of a functioning

democracy, is forestry a policy logically consistent with greater participatory inputs? If a comand/totalitarian system also produces forestry policies for development, then clearly democracy is not a prerequisite. Presumably, both types of systems would attempt to formulate policies beneficial to their respective citizens, though for different reasons. It is also possible that a democracy could be too representative. A "tyranny of the majority" might well exclude such issues as forestry in favor of traditional agro-export activities with short-term benefits to the populace. In Costa Rica, for example, approximately 45% of the population are still dependent, directly or indirectly, on the production of coffee. But, command systems (including "corporatist" or totalitarian styles) have enacted forest programs for development. Despite its advanced forest program for rural development, Honduras could hardly be termed a participatory democracy. It may then be concluded that democracy is not an essential pre-condition for non-traditional development policy formulation.^o On the other hand, it may be that the successful modern democracy must counter those forces excluding such programs, to assure long-term survival. The traditional tendencies of the capitalist market toward low-risk, high short-run profit ventures screens out programs that could favor national development. Market failures must be controlled by planning and programming mechanisms for long-term policy adjustments. That is, beyond some point of participatory input, a command system must "fine-tune" priorities and allocate resources for the benefit of the majority. It is for this reason that analysis of the administrative machinery can provide greater insight into the exclusion of the forest programs in Costa Rica.

Capitalist Control of Agricultural Development Programs

As indicated previously, if dependency explains forestry exclusion, it must be demonstrated that despite traditional technical assistance efforts of international agencies, the host country remains dependent on the dominant central capitalist countries. Thus, it must be shown that (a) the "diffusionist" or "international developmentalist" thesis is inapplicable and that (b) an agro-export dominant class exists that both appropriates surplus from present activities in Costa Rica while remaining dependent on international capitalist markets.

According to Girvan (1975:49), the international developmentalist thesis was formulated as the developed world answer to the problems of underdevelopment.

The underlying assumption was that underdevelopment results from deficiencies in capital supply, skilled manpower, technology, and the economic infrastructure, and from the backwardness of the socio-economic institutions concerned. Development could therefore be initiated by increasing the supply of critical but scarce resources and by institutional 'modernization' (1975:149).

The importance of this thesis is emphasized by Galli (1976:67). She notes that rivalries among bureaucratic and technical elites within

agencies does not detract from the unity of their purpose to maintain the international capitalist order. Such a pattern in Costa Rica is illustrated by the case of agricultural irrigation. The traditional means of increasing agricultural production in Costa Rica has been by expanding the agricultural frontier. Despite its undeserved reputation as a "coffee monoculture", the product requires only 5% of total arable land. Large increases in "the "frontier" are mostly due to pasture expansion (approximately 80% of total arable land) for beef-cattle industrial production. Since reserve lands have been reduced in recent years by this pasture expansion (and by rural population pressures to a lesser extent), increases in agricultural production must largely be derived from intensification of product achieved by improvement in irrigation and drainage systems. Approximately 50% of the national area of irrigation potential lies in the Arenal area of Guanacaste province. In a largely typical pattern, the Moracia Project (funded by USAID and coordinated with GOCR institutions) will irrigate land which already receives over 25% of all beef-cattle credit allocations. The land tenure structure of the area provides some insight into its power to attract public investments. That is, 89% of the farms are smaller than 100 hectares and occupy 11.0% of the total area (USAID-IDB-IBRD, 1975,V:11). "Modernization" thus translates into subsidy of large scale agro-export production. Over the period 1961-1975, the GOCR has received approximately \$80 million in loans from international banks and lending agencies. While the net effect of such assistance has been an increase in productivity of agro-exports such as coffee and bananas, the productivity (ratio of inputs to outputs) of beef-cattle has actually declined. Rural employment, incomes and overall land productivity have declined, exacerbating the most deleterious effects of underdevelopment on the rural population. Diffusion of capital then, has merely reinforced the underpinnings of those mechanisms perpetuating underdevelopment.

Second, if the Marxist dependency thesis has explanatory utility, one could expect a dominant or ruling class: (a) to exist, (b) to exploit the forest sector, or land occupied by this activity, for its own gain and (c) to control agro-export policies through the policy-making institutions and the expense of forestry. The case of irrigation policy revealed the ability of this class to draw public resources at a magnitude disproportionate to their net development contribution. That this strata constitutes a controlling class of agro-industrial exporters can be demonstrated through use of the crop type/size of holding measure. Such measures must be employed because writers in the Costa Rican context have generally confused class-elite-group concepts and have offered only marginal assistance in measuring the class concept (Guess, 1977:210-224). For example, Arias (1974:28) belabors the distinction between such notions as pressure and interest groups without really considering that a pressure group could control a party program or be controlled by a functioning elite. Cerdas (1972:132), by contrast, argues the existence of a dominant class without presentation of evidence, but complains that it is not the kind of "industrial bourgeoisie" needed for development of dynamic capitalism.

To partially remedy the weaknesses of this literature then, the notions of Dahrendorf (1959) have been employed to formulate an operational definition of class. He defined classes as "social conflict groups" the determinant of which can be found in the participation or exclusion from authority (1959:138). By defining class in terms of the relationship to means of exercising formal authority, Dahrendorf limited the application of his classification system to advanced industrial societies (which he intended) where social roles are theoretically distinct. Yet, even the most basic definition of power suggests that it is the use of authority to influence policy formulation and implementation. In Latin America, the relationship to formal means of exercising authority may be less important than the real power to govern derived from "factual" considerations such as family status and land ownership. These considerations structure the use of formal authority (or "legitimate" decisions) and are evident in allocations of infrastructure (irrigation facilities) and agricultural credit. The cohesion of the agro-export class is evident in parallel social club memberships (Club Union, Cariari, and the Costa Rican Country Club) and in inter-family relations (Stone, 1975). Many of these class members direct key "umbrella" organizations such as the National Federation of Agriculture.⁷ Beyond social linkages, class status is indicated by crop type-size of landholding. Though simple landholding size figures mask the fact that an 8 hectare coffee farm can generate more wealth than a 100 hectare cattle ranch, or a 100 hectare farm on steep eroded soil, it is generally true that agro-export activities occupy the richer valley soils while non-traditional activities and field crops occupy steeper areas. For 63.7% of agro-export farms are larger than 200 hectares, produce 71.0% of total agro-export production on 90.3% of the arable land with 88.2% of agricultural credit allocations (AID-IDB-IBRD, 1975:I, 13; VIII, 33).

Given the existence of this class, the question becomes "does a pattern of exploitation exist which injures the national development effort?" It will be demonstrated through the use of secondary data that a pattern of exploitation exists from the forest worker to the secondary manufacturing stage. Application of the Marxist dependency perspective reveals that the commons tragedy of forestry benefits capitalists for the short term at each stage of the production process. But, the perspective also reveals that capitalists will lose in the long term from undersupply of raw materials and from the deterioration in productive capabilities of the land. The net result is that this pattern of petty worker exploitation reduces national growth potential and exacerbates rural underdevelopment tendencies.

Using profits-incomes as simplified indicator of surplus value (Bose, 1976:78), the timber supply or logging-to-processing sequence is characterized by high generation of surplus followed by an attempt at capitalist appropriation. The Costa Rican forest-based "industrial" sector consists of approximately 10,000 workers at 15.1% of total industrial employment. Most of the logging occurs during the dry (January-May) season when roads are solid and the "backwoods haul"

is permitted. The ongoing tragedy lies in the employment of these workers (by sawmills or beef-timber operations) in their own absolescence. Sidelights of this larger tragedy are evident in the petty, mutual exploitation for gain among logging crews, foremen and mill operators for harvesting the timber of a larger landholder. The gains are shared by the crew in inverse proportion to the danger of the task. For example, the feller or "stump man" makes the least wage despite his constant activity as others (such as the foreman who has a different type of risk) await the fruits of his labors. The trucker profits as middleman between the crew and the mill largely by exploiting the lack of communication on prices. Sawmills do not own or manage their source of supply. The antiquated technology of this sector is applied for the removal of timber for clearance of the land as pasture. Burch (1977:343) has noted that tendency of wood workers and the environment to subsidize the price of wood products. In Costa Rica, the exploitation of forest workers does not subsidize the price of such products but rather the land-owners who profit from the sale of beef-cattle. Near exhaustion of the supply of timber due to the failure of capital incentives to modernize this sector and to comparatively high prices of other agro-exports,⁸ has resulted in a 300% increase in the price of paper over the last 5 years.

Appropriated surplus from the forest sector (that portion not wasted in processing timber) is then reallocated by public institutions reflecting capitalist preference for agro-export activities. If the driving force of this sequence of events is a dominant class, one would expect the public group to be substantially in accord with the "elite" on "nonoperational" objectives of capitalist development. Superficially, this appears to be the case. For example, 76.2% of the sample held that development depends mainly on private enterprise (Q19,C36). Asked if public subsidies or tax benefits to the beef-cattle industry would be the appropriate way to develop forestry (Q22,C51), 71.45% of the public group, 63.2% of the international group and 85.7% of the elite group were in accord. This indicates institutional support for charging the capital costs of the beef-cattle industry are increasing due to: declining world beef prices, rising feed prices and reluctance of the S3N (National Bank) to incur a liquidity crisis in behalf of the beef-cattle export class. The plight of Costa Rican beef consumers faced with higher prices (between 1952-1972 domestic meat consumption declined from 27 to 19 pounds/capita as beef availability diminished and exports increased) is similar to the U.S. consumer of electricity from public utilities. Though public utilities frequently charge present customers to construct, for instance, nuclear plants, this means that customers really pay the utilities a return on capital which they themselves have furnished. Nevertheless, 71.4% of the public group would charge the costs of a losing proposition (expansion of the beef-cattle industry to develop forestry) to the public. It is also evident that such a subsidy would strengthen the beef-cattle export class and eliminate possible opportunities of development forestry available to small and medium farmers.

In support of the above finding, 81.0% of the public group favored foreign finance of development projects in Costa Rica (Q17, C24). This enthusiasm was matched only by the international group (82.2%). Such a response would tend to indicate bureaucratic support for dominant class undertakings with the international bourgeoisie (through such mechanisms as "tied aid" and short-term high-interest loans). But this support is only logical. It can be demonstrated that the most profitable and productive industries contain the highest percent of foreign investment. These industries import the highest percentage of intermediate goods and pay the lowest wages. For example, the furniture timber industry pays the lowest average wages (\$70.49/month) but absorbs the highest percentage of foreign investment of any industry (64.3%) (Stone, 1975:349; OFIPLAN, 1973:70). Though the development importance of the forest sector has been acknowledged (OAS, 1974:14), its contribution has been restricted by policy support of agro-export dominant class activities and by foreign investor fears of being caught in a "capital trap". As a result, excluding pulp and paper (which uses costly imports instead of domestic timber harvests), the forest sector declined in importance from 11.7% of value added to 8.3% (I3RD, 1974, II:8.3).

However, focusing on bureaucratic "decision premises" produced results less consistent with the tenets of the Marxist dependency thesis. The sample was asked if a policy encouraging foreign finance of the beef-cattle industry would conflict with their organizational objectives (goal, mission) (Q17,C25). The results were as follows:

Table 4 about here

Note that 81.0% of the public group found serious objection to this proposal. This tends to indicate that dominant class policy preferences have restricted access to certain uses of public resources. On this issue, which is extremely critical for agricultural-rural development and for forestry the bureaucracy has registered a preference for the broader public interest in a capitalist market context. Hence, it would be of questionable accuracy to conclude with Marxist dependen-tistas that the state merely "preserves the ruling class in preser-vation of capitalist development" (Chilcote, 1978:61). As will be discussed in relation to the bureaucratic thesis, the dominant class itself is frequently divided in its preferences - accumulation by one sector of this class may be at the expense of another.

Finally, if the Marxist dependency thesis has explanatory utility in this case, one would expect that exploitative ties to the metropolis would constrict the range of development choice in the satellites, i.e. Costa Rica. The classic dependency model postulates monocrop agricultural export and concentrated (or monopolistic) import-trade relations with advanced capitalist nations. It postulates further a persistently weak domestic market in the satellite that encourages high consumer prices, low domestic producer profits and deterioration of income distribution as foreign producers penetrate and pre-empt selected local markets. Costa Rica has departed from this model in important respects.

It has been demonstrated (Guess, 1977) that, in fact, Costa Rica has: (1) reduced GDP dependence on foreign trade, (2) reduced the overall importance of monocrop exports, (3) reduced consumer goods imports while increasing imports of capital and intermediate goods, (4) increased GDP and the 'value added importance of the secondary manufacturing sector and (5) reduced dependence on any given trade partner. On the other hand, it has also been demonstrated (Guess, 1977) that (a) industries with high foreign investment contents lead or dominate the economy, (b) the external debt and debt service payment level, together with the debt service/export ratio, is growing and (c) low-wages persist in the largely foreign-controlled industrial sector. Though evidence has been advanced in support of the above findings (previously hypotheses), the corollary proposition that the dominant class consistently gains at the expense of domestic development can be questioned on several grounds. First, if one includes the important Costa Rican effort at allocating welfare and health benefits to the populace, the income distribution has not been deteriorating. For example, it can be shown that the middle class has gained income at the expense of both elites and poor.

Table 5 about here

While the share of 30% of the population increases, the per capita income of almost \$1000 becomes more evenly distributed through public redistributive programs. That is, with the sales tax-financed Asigtaciones Familiares program, minimum wages have increased 40% in some cases, while families can save up to \$560/year on food. Comprehensive free health care insurance now reaches approximately 85% of the population. Such programs represent transfer payments from the rich to the poor and are illustrative of the peculiar brand of elitist democracy functioning in this country.

Second, the high foreign investment content of Costa Rican industry can partially be explained by the large, diverse population of foreign nationals permanently residing in Costa Rica. This includes substantial colonies of industrialists from: Germany, Lebanon, Switzerland, France, Italy, Cuba, Argentina, Brazil, Chile and the U.S. Hence, a "Costa Rican" brewer may have been born in Berlin. Low wages are a problem for the entire country, not simply those industries with high foreign investment contents. Finally, it is true that the debt service/export ratio is growing. As the 1975 trade balance deteriorated to -\$212.2 million, amortization and interest payments reached 573 million in that same year on an outstanding debt of \$477 million (USAID, 1976:36). The debt service/export ratio rose to 14.9%, according to USAID, or to 16.2% (OFIPLAN, 1976:26). Yet such patterns of debt are not uncommon to most countries, including the U.S. which increasingly imports technology and consumer goods while exporting agricultural products. The same pattern occurs among Soviet bloc nations, despite the implication of the Marxist dependency thesis that non-Western productive patterns generate their own capital. By 1976, for example, the debt service/export ratio of Bulgaria and Roumania (to Western banks) had climbed to

30% or twice the accepted limit (Nossiter, 1976).

Other questions remain as to the accuracy of an interpretation of forestry exclusion through the conceptual lens of the Marxist dependency thesis. First, foreign increase in the Costa Rican debt service/export ratio. But even conditions on subloan size are regularly violated by the SBN. If agencies representing the international bourgeoisie pressure the GOCR into debt, the GOCR is even more eager to allocate their benefits to the local elite. It is probable that this lending pattern would exist without regard to the source of external funding. Second, evidence has revealed a dominant class controlling the critical agro-export sector. But growing medium farmer membership indicates that even this class is not closed. Upward mobility is still a viable option for most Costa Ricans.

The basic inability to include forestry on the development agenda stems largely from inadequate organizational arrangements and a failure of bureaucratic leadership/management. If the bureaucracy was simply a tool of the dominant class, it is likely that fiscal incentives for forestry would be provided to this class. To date, no such incentives apply to any strata. Third, the commons tragedy of the forest persists largely from bureaucratic failure to create positive incentives to manage timber. Use of the pricing mechanism (subsidies, minimum prices) could, for example, encourage sawmills to reduce wastage through modernization of equipment and recycling methods. Finally, the so-called foreign "domination" of the forest sector may be a myth. The high level of foreign investment in the secondary manufacturing sector (timber, furniture) may be in a "capital trap". Boise Cascade and Weyerhaeuser corporations (both U.S. multinationals or "multipulps") left Costa Rica several years ago. The companies were unable to supply themselves with logs at least cost. They were also unable to obtain GOCR permission for future harvests of managed plantations (they could plant them but no assurance of harvest permission in 20-30 years was provided). While seasoned businessmen recognize this bureaucratic ploy as the cue for an "expediter" or middleman who knows how to move requests around the bureaucracy, the company may rationally calculate that "blackmail" costs outweigh the benefits of doing business in such an environment. Local requirements of multiple agency permits, "sign offs" by singular officials and obscure licenses fly in the face of actual deforestation practices. Public policy actually subsidizes timber wastage and discourages both domestic and foreign investors in the forest sector. Presumably, such a defeatist stance could be explained by GOCR plans to nationalize the entire timber production industry. But no such plans exist. It is this paradoxical behavior that the Marxist thesis can not explain and for which reason we turn to the bureaucratic perspective.

Bureaucracy and Forestry

Normatively, the bureaucratic thesis approaches the non-Marxian

or bourgeois view of dependency. The bureaucratic thesis suggests that institutional reform of capitalism and the emergence of a dominant class that struggles with dependency can lead to national development (Chilcote, 1978:60). Analytically, this thesis searches for organizational obstacles to the attainment of development, Hirschman (1958:7) recognised that this involves the futile quest for "the missing component" to be injected in the development process. Tautologically, development would depend on the "ability and determination" of a nation to organize itself for development. Further, an obstacle in one setting and at one stage may be a benefit under quite different circumstances. Nevertheless, he suggested the search for "binding agents" to eliminate the "vicious circles" that inhibit development. It is argued here that functionally a "vicious circle" serves as an obstacle to efficient and effective administration of development policy. For example, Crozier (1964:93) noted a stable, cumulative dysfunctional influence within the French bureaucracy. He found several vicious circles that cumulatively contributed to dysfunctional outputs (or inefficiency/ineffectiveness).

Similarly, it is argued through the use of the bureaucratic perspective that conversion of the forest resource into a commons is largely the product of organizational dysfunctions. Emphasis here is on the hypothetical importance of three vicious circles in (1) information flow, (2) budgetary process and (3) organizational structure-ideology. Operating within the Costa Rican cultural setting, it is suggested that these vicious circles (or procedural and substantive constipation) have greater cumulative effect on policy outcomes than that of dominant class activities in the capitalist arena. Many of these bureaucratic activities have a "life of their own" and often function independently of dominant class influence.

To reiterate, the Marxist dependency thesis postulates conflict between development objectives and a state of dependency. It posits a State relatively subservient to private interests. Dominant class interests collaborate in key policy arenas and assure long-term control of distributed benefits. From this perspective, forestry would occupy land needed by the dominant class for agricultural activities to serve the capitalist world market. That is, the opportunity cost of forestry land use is high. By contrast, the bureaucratic thesis would stress the potential role of the state in redefining dependency. Domination, dependency and underdevelopment are largely products of inadequate coordination, fragmented budgetary processes that render management control difficult and breakdowns (or cultural obstacles) to communication. If forestry is excluded from the development agenda through organizational problems, one would then expect evidence of intense competition among agencies for jurisdiction and control of forestry programs. Since the dependency thesis would postulate shared or overriding dominant goals among policy institutions, rejection would require a showing of goal divergence-conflict, i.e. that the bureaucracy has its own set of autonomous interests and arbitrates among various groups across specific issues.

According to Simon (1976:171), an organizational communication system should supplement the system of authority. Formal flows of information and orders through organizational channels are "only a small portion of the total network of communications in any actual organization" (1976:155). Clearly, informal communication is an essential component of organizational authority in Costa Rica. Rich networks of informal communications functionally revise staff orders to mesh with existing agency power relationships. Over time, top management in the "program structure" is encouraged to transmit orders and information to fit traditional line practices in the "responsibility structure". A vicious circle results which discourages comprehensive policy changes of any kind, especially through formal means. Backdoor plays then tend to become standard operating procedure.

Evidence for the tendency of informal communications systems to control organizational processes is derived from responses of the Forest Policy sample. While an effective forestry program for development does not exist in Costa Rica, 12 public agencies "share" budget costs in the area of natural resources (Guess, 1977:140). Six staff agencies have authority to determine policy direction and to provide information for operational decisions. Six line agencies (autonomous agencies such as ITCO and JAPDEVA) deforests timber for sales that add to operating revenues. Yet, the overall inefficiency of the agency and failure to manage its Atlantic zone forests creates the impression among top policy-makers that forestry can not be accomplished for profit.

Asked the degree of organizational support for official policies, a sample of members in these 12 agencies responded "much" (59.5%) and "average" (32.170). However, the public group was even more confident (66.7%); the elite displayed total confidence in official policies (100%). One might expect such support for organizational mission to be the product of "jawboning" in the face of intense opposition. Accordingly, respondents were asked about their level of communication with other parts of the forest policy system. It was found that 66.7% of the sample (57.1% of the public group) stayed in "frequent" contact with the presidential office. However, it is unlikely that serious criticism of agency practices would flow from this office. Under law No. 5507 (1974), the President was given control over the major autonomous institutions. Since the relevant ministers no longer have authority to assist in coordination, the task is practically impossible for the President and his staff.

Further, policy inputs of professional foresters are nullified by lack of inter-agency communication at staff levels. Even the notion of lateral forester communication between agencies is still novel in Costa Rica. As suggested above, agency foresters, e.g. in OFIPLAN and JAPDEVA, are largely frustrated by an inability to agree on and to support specific programs. This compounds their credibility problem in government (top management is largely skeptical of non-traditional programs anyway). One might at least expect communication

between the DGF (Forest Service) and other relevant agencies in the Forest Policy system. The intensity of exchange is illustrated by the statement of a Forest Service respondent: "We didn't even know that JAPDEVA had gained control over the Talamanca Reserve until 3 months after the decision was made!" In that the Association of Wood Industries represents the major mills and factories or potential clients of a public forest program, one could reasonably expect the bureaucracy to maintain contact with them. However, only 14.3% of the sample reported frequent communications with the Association. According to a Scott Paper Company representative: "We really should get in touch with them. But their interest is only cutting. Ours is growing and cutting on a continuous basis". Further, only 14.3% of the total sample and none of the public group reported frequent contacts with the S3N and the Legislative Assembly. In view of the implied power of these institutions over the forestry area, this is an incredible finding. Even though communication among Forest Policy system actors was found to be almost nonexistent, it was found that the actors nevertheless knew their enemies. For example, when asked the major source of opposition to their development projects (Q21,C50), 81.0% of the public group chose the private sector. Yet, 71.4% of the public group has answered that they rarely communicated with their rival groups. Only 8.3% of the sample perceived communication as a serious organizational problem.

This lack of professional, inter-personal communication corresponds with the tendency of Costa Rican bureaucrats to accumulate diverse tasks and to avoid delegation of authority. Simon (1976:165) recognized the need to delegate communication tasks to staff assistants under certain conditions. Such delegation would be especially important to management control where the task or policy and employee personality are one and the same. Parsonallsmo encourages functionaries to accumulate empires of tasks for ego-gratification and in exchange for favors from top politicos/policy-makers. The departure of such an "important person" could well deprive the bureau or agency of basic political support, while the tasks performed become increasingly irrelevant to the organizational goal or mission. An agency issuing timber concessions (DGF), for example, would then deteriorate into random repetitive behavior and issue them on largely personal criteria. This is also the case for forestry programs in relation to the Minister of Agriculture. The impact of the DGF on agricultural development plans depends largely on who he is. Given the consistent weakness of the Forest Service, no independent core of policy exists that could flow from one presidential administration to the next.

Internal communication patterns also reveal a lack of serious conflict or opposition. For example, it was asked with what frequency organization members proffer suggestions contrary to present directives in the forestry-natural resource policy field (Q13.C13). It was found that 52.4% of the public group answered "little" and 42.9% of the same group answered "never". That is, 95.3% of the sampled bureaucracy function daily on this issue (and by inference on other non-traditional

program proposals) with little or no opposition to their current activities. Lacking the evaluative inputs of forestry technicians, unwilling to communicate across agencies or bureaus and fearful of opposing agency directives, a vicious circle of non-meaningful communication (noise distortion) entangles the Forest Policy system and assists in the exclusion of forestry from the agenda.

As suggested, the information problem is compounded by an overall lack of authority to exercise responsibility at the line level and failure of the staff to "program" agencies toward efficient and effective results in the forestry area. These latter problems relate to the quality of financial management and budgeting. If the bureaucratic thesis explains forestry exclusion, one could expect the budget process to encourage decision-making fragmentation. That is, lack of a process that programs and disburses funding for specific development objectives serves to inhibit bureaucratic efforts to redefine dependency. Conversely, if the dependency thesis were valid, one would expect a budget process efficiently disbursing funds in behalf of agro-export dominant class needs. At least four problems exist with the budget process that inhibits adoption of forestry programs for development. First, no distinction is made between operating and capital budgets. This merely tempts the operating manager, for instance, bent on gaining power without concomitant responsibility for its exercise, to charge operations off as capital costs. Functioning on capital funds (whether derived from a bank like IDB or a country like Germany) permits retention of traditional management practices and avoidance of the hard choices essential for efficient and effective service performed. Capital and operating expenditures involve strategic implications for management control that are ignored by current budgetary procedures.

Second, employment of the budget as a device for management control is inhibited by failure to include specific/aggregate public expenditures in the annual document. For example, many semi-autonomous agency budgets are exempt from executive controls. That is, their expenditures do not appear in the national budget or any other publication. This compounds the staff-line control problem noted earlier. Isolated expenditures by such agencies (usually unaccounted for) at cross-purposes to national programs is a common problem throughout Latin American public institutions.¹ The seriousness of the problem for Costa Rica has been recognized by Denton (1971). As an average, if 50% of all annual expenditures can be accounted for by semi-autonomous agencies, he argued that: "it is safe to assert that national problems are being tackled in piecemeal fashion" (1971:42). Such a decentralized deadlock would favor the agro-export status quo by inhibiting the development of support for non-traditional programs. Without inclusion of semi-autonomous agency budget data, for example, it is impossible to track spending by region or by agency contribution to programs. On the other hand, level of spending alone is really a meaningless figure where agency resource sizes vary. Given the expenditures of 12 public agencies that vary in size and political clout, a small expenditure by a large agency such as MOPT (transportation) could have a comprehensive

positive or negative effect on forestry programs. Conversely, a smaller agency (Forest Service) can spend its entire allotment on forestry (in downtown San Jose!) and make little difference.

Though budget categories aggregated multiple expenditures, it was possible to estimate that approximately \$29 million was invested by all sectors of the Forest Service system in 1974. Further, only \$2.8 million or 0.96% of the total could be traced directly or indirectly to forestry (Guess, 1977:140). If the DGF pattern is representative, (90% in San José for administrative activities) practically no public investment occurs in forest programs. Or, since the accounting categories change periodically, if such investments were made, they might not appear anywhere as an expense!

Third, approximately 90% of annual public expenditures are mandatory. Given that the uncontrollable portion of the U.S. budget was around 75% in 1977, this is not an unusual budgetary feature. Though the expenditures of Costa Rican agencies may vary sharply, the aggregate annual change in total expenditures is not more than 15%. But the effects of high proportions of annual mandatory public expenditures for underdeveloped countries are severe for at least 2 reasons: (1) given the system of earmarked tax revenues to fund the operations of semi-autonomous agencies, spending for low priority programs may increase while funds remain unavailable for higher priority items, and (2) frozen expenditure patterns tend to perpetuate dependence on commodity livestock markets. Note that the budget/financial management structure fragments management control, enabling the agro-export class to benefit consistently. However, the difference is that the dependency thesis would trace causation to the unification of dominant class preferences and to ultimate control over the bureaucracy. The bureaucratic thesis, by contrast, recognizes the causal role of vicious circles among bureaus and agencies.

To continue, it has been customary for problems to be solved by creating new agencies in Costa Rica. As semi-autonomous agencies proliferate, tax revenues are often earmarked to subsidize performance. But as with most politically fixed subsidies, they outlive their usefulness. For example, municipalities receive a substantial portion of their revenues from a tax on bottled liquors. Nevertheless, they are supposed to cooperate with the GOCR, campaign against alcoholism! Such taxes often produce windfalls with contradictory policy results. Further, salary levels in semi-autonomous agencies are 25% higher than those of executive branch ministries. Autonomous agencies with higher revenues may "pirate" employees from agencies or ministries with higher policy priorities (USAID-IBD-IBRD, 1975:IV:18). Agencies related to forest programs generally have lower salary and fringe benefit levels than those charged with traditional agricultural activities. The vicious circle is perpetuated by political controls (as opposed to management control considerations) over revenue that could be programmed for new agro-industrial activities to deepen the domestic market (e.g. grapes, macadamia, and timber) and serve as new export stimuli.

Finally and related to the above problems, the Costa Rican budget is termed "program". As in the U.S., this designation has come to mean all things to all people. If the common tendency has been to interchange "activities", "items" and "programs", at least the program budget should provide information to policy-makers for planning and programming. Further, a program budget should define public commitment in a given functional area, e.g. forestry-natural resources, and serve coordination efforts by translating program objectives into responsibility centers. However, the Costa Rican version is produced by a highly-politicized process based on traditional line-item accounts. The "program budget" merely reemphasizes existing agency jurisdictions and has not been derived from systematic benefit-cost analysis of alternatives. For example, 1976-1978 programmed investment is as follows:

Table 6 about here

Note that the amount to be invested directly in forestry (0.022 of the total) does not indicate how, where or by whom the funds shall be expended. Despite emphasis on functional totals, programs exclude indirect expenditures by SBN and other agencies that affect potential impact of forestry programs.

If the program budget encourages fragmentation, the planning function is even more diffuse. Planning in Costa Rica is spread among a multitude of agencies working in tandem with OFIPLAN. The function is dispersed among ministry planning offices, dozens of semi-autonomous agencies, e.g. ITCO's planning office, and Casa Presidencial. Predictable coordination problems resulting from the failure to integrate this function can be illustrated by the following example of non-planning. By March, 1977, the beef-cattle industry had filled its annual quota to the U.S. (9.8% of all beef exports) and was desperately searching for new export outlets under severe pressure from SBN (National Banking System) which has overextended itself with excessive credit allocations to this industry. At the same time, with permission from the CNP (National Production Council), which is charged with regulating exports of beef and assuring adequate supplies of meat for domestic consumption, and from the MEIC (Ministry of Industry), which is charged with fomenting national development, it was discovered that 140,000 pounds of meat per month were being imported by McDonald's Hamburger Company from Guatemala. Underscoring the lack of planning and institutional coordination which is the core of the policy problem, six Costa Rican meat companies were ready to furnish meat for McDonalds.¹¹ ↓↓

Facio (1975:83) recognized the early tendency to plan by default to the private sector. The basic planning premise, from the first exports to England of Costa Rican coffee in 1845 to the present, has been official support of agro-export groups through subsidies, tax credits and exemptions.⁴ ~ The 1974-1978 National Plan recognizes the deficiency of overall dependence on traditional exports and offers a "readjustment model" of development based on public encouragement of

import substitution and internal market development, utilizing foreign capital on favorable terms (OFIPLAN, 1973:IV). On closer examination, the Plan is simply a broad statement of policy objectives without consideration of the current institutional structure (other than to assume that it will remain constant). No attempt is made to translate plans into responsibility centers or recommend changing institutional structures to fit long range programs. For example, the Plan notes that if Costa Rican forest resources were rationally exploited, the forest and furniture industry could take advantage of the low capital required for such exploitation (1973:90). However, public policy continues to subsidize deforestation/pasture expansion while delegating the risks of capital investment in forestry to the private sector. As noted, the opportunity cost of private forestry investment is high given the availability of public support for agro-export activities.

Despite the efficiency of the agro-export class and the high level of public support, it is also plagued by the effects of default planning from the public sector. That is, the public sector includes a great number of councils and commissions with members drawn from different agencies and the private sector. Established by law, their typically assigned functions read "planning", "coordination" or "programming". But given their lack of authority to issue binding orders, planning takes the form of what Downs (1967: 218) has termed "Superman planning". For example, a recent planning catharsis was entitled the "Year 2000" project. The exercise consisted largely of proceeding from existing institutional arrangements to extrapolate past performance trends into the future without consideration of likely intervening events. "Lacking specific restraints forcing them to design realistic alternatives", according to Downs (1967:213) "Superman planning is a great temptation of all officials faced by immense complexities". Ironically, during the catharsis, the leading port (Limón) closed down from sedimentation that accumulated from lack of planning! As noted earlier (see note 3), 6 months later the port was still closed and agro-export interests continued to lose vast sums of revenue.

If the Marxist dependency thesis has explanatory utility for forestry, one would not expect planning failures to injure the agro-export class. Accordingly, to see if planning and coordination problems are merely short run occurrences in a larger pattern of efficient planning for agro-export interests, it is essential to examine the degree of attitudinal continuity among relevant policy-makers. As indicated, if the bureaucratic thesis is more appropriate, one could expect disunity over the objectives of capitalist development. This would tend to track planning failures to decision premises to top management (with the caveat that attitudes do not necessarily predict behavior). Results of the "decision premise" test indicate that forest policy exclusion from the development agenda is more a problem of planning and coordination control failures than a dominant class controls over the bureaucracy. Accordingly, if the bureaucratic thesis prevails, one could expect to find: (1) flows of orders and information (including cash flows) to be largely national in character and (2) a general lack

of consensus on operation (administrative) and non-operational (capitalist development policies) objectives.¹³

While the 1974 level of international funding for agricultural development reached \$80 million (USAID-IDB-IBRD, 1975:Vii,54), it can not be demonstrated that policy control follows allocation of funds in this case. At least two reasons can be advanced for this exception to the general rule: (1) the international agencies compete amongst themselves and often play into the hands of different combinations of dominant class/bureaucratic interest and (2) the bureaucracy often permits concession to dominant class interests not sanctioned by the international agencies. For example, in a recent (1977) "Project Review Paper", USAID was "selling" rural agro-industrial development and MAG (Ministry of Agriculture) wanted a natural resource inventory system by remote sensing satellite (this latter preference was based on news of its sale to other countries under similar conditions). After lengthy discussions, USAID and IDB are now jointly funding remote sensing for Costa Rica. Further, the local agencies themselves often lose control over international loans. For instance, despite three USAID small farmer loans amounting to \$15 million, by 1972 the number of loans and amount of small farmer credit actually declined (Gonzales Vega, 1973:11).. World Bank loan 538-CR designated a 40% maximum to beef-cattle industrial activities and \$18,000 as an average subloan. Evaluators later discovered that 90% of the principal was allocated by MAG and SBN to the beef-cattle industry and that the subloan size had grown to \$56,000 (USAID, IDB, IBRD, 1975:VIII, 20). With appropriate management controls, such loans could likely assist agricultural development and promote diversification. Powerful agro-export dominant class interests, of course, receive substantial subsidies from private foreign sources (Venezuelan and Panamanian banks) in addition to those provided by the international agencies. Hence, it would be more accurate to challenge local administrative controls over the loans than the international agencies that disburse the loans. The latter, working often at cross-purposes among themselves, serve merely as conduits for needed capital funds.

Finally, it was found that the premises on which policy-makers base their actions are not consistently operational or non-operational. They appear to act from a mixture of motives over a range of environments characterized by volatile arrangements, through bargaining to the almost total absence of bargaining. Nevertheless, Downs (1967:50, 68) suggested that while conflict springs from differences in explicit goals which officials pursue, organizational domination of human behavior tends to produce a more profound and stronger goal-consensus among top officials. This assertion is consistent with the hypothesis of Hine (1977) and O'Donnel (Cotler and Fagen, 1974) cited earlier. The sample was provided a set of operational and non-operational objectives to which they could agree/disagree or select "don't know". The question was phrased as follows:

Suppose another organization responsible for agricultural development revealed their objectives for the next year to

you in a memo. Assuming a limited budget, which objectives would you perceive to be in conflict with those of this organization? (Q17).

For example, to test the basic operational "turf" objective, respondents were asked whether they agreed or disagreed with a concession of their organizational authority to another agency, i.e. budget sharing. To this question, 81.0% of the public group believed that (Q17,C36) "large increases in investments-expenditures by another agency would conflict with their own objectives". It is likely that such opposition reflects the implied increase in budget authorizations coincident with larger expenditures in the forestry-natural resources area. This finding simply reveals the normal bureaucratic tendency to view the annual appropriations process as a zero-sum game. "Turf" problems are hardly unique to Costa Rica. The more important question is whether broad decision-making consensus exists at top policy levels.

Accordingly, the respondents were first asked if they found conflict/consensus between their organizational objectives and the finance of development projects with foreign loans by another agency (C17,C24). The question was intended to tap attitudes toward the use of international loans by agencies competing for scarce public funds. Responses are indicated by the following table:

Table 7 about here

Note that 81.0% of the public group and 84.2% of the international group supported this non-operational objective. Consensus on such a financial strategy superseded normal bureaucratic competition (to maximize individual budgets) and suggested an over-arching decision premise. This also indicates the general governmental tendency to follow the line of least resistance and to build up political support externally. This finding supports Lizano's hypothesis (1975:33) that the bureaucracy emulates oligarchic consumption patterns. At some point of inflation that undermines real income of the middle class bureaucracy, the public sector will withdraw its support for dominant class development schemes.

This refined selectivity is revealed by bureaucratic reluctance to support further foreign finance of the beef-cattle industry (see Table 4). Despite dominant class preferences for beef-cattle production and export to the U.S. (as indicated by land use patterns noted previously and by 86.7% of the private group/71.4% of the elite respondents), the bureaucracy opposed this development strategy. Public group opposition centered on (1) subsidization of an inefficient industry that destroys both land productivity and the forest resource, (2) the failure of beef-cattle as a viable development alternative and (3) the SBN liquidity crisis caused by overextension of credit to the beef-cattle industry that could negatively affect the political-economic stability of the country. Surprisingly, the Cámara de Ganadero representative was critical of both lack of government flexibility and U.S. cattlemen in Costa Rica. ("They haven't shown us anything

new. They usually come here, like most foreign business expatriates because they can't compete in their own societies").

What this suggests is that the bureaucracy opposes specific capitalist development tactics within the general framework of production for export. Serious coordination/communication problems exist that permit imperialist penetration of the economy. The inference is that re-organization for management control could counter dominant class control efforts and reduce obstacles of forestry production for development. As a minimum, such efforts would inhibit the elimination of forest resources engendered by lack of sound management practices.

Summary, Conclusions and Recommendations

The issue of forestry development illustrates the tragedy of an unmanaged commons in an underdeveloped country. Not only have forests been eliminated for pasture expansion, but land that may have been appropriate for non-traditional agricultural activities has been given over to limited and inconsistent uses. Such traditional activities as beef-cattle, banana and sugar are dominated by a large-farm exporting class of farmers. Given the pattern of allocating technical assistance and international loans to Costa Rican agriculture, it has been suggested that forestry and other non-traditional crops have been excluded from the development agenda largely through the machinations of the agro-export dominant class which controls the policy machinery. According to this thesis then, underdevelopment would then be the product of exploitative ties between international capitalism and the national agricultural bourgeoisie. However, it has been argued that the forestry commons tragedy persists less from dominant class designs than from lack of management control and organizational capability. This is evident from (1) an organizational structure that serves bureaucratic empire-builders but not the public, (2) financial management practices geared toward inefficient and ineffective results and (3) lack of broader consensus on significant development issues that could indicate coordination and planning problems to be superficial.

From this brief analysis, it may be concluded that for the formulation of an effective forestry development program, a new organization must be honed out of the present forest policy system. Existing jurisdictions must be modified to fit development needs. It should be emphasized that policy recommendation for Costa Rica take for granted the political stability, cultured literacy of the populace and vigorous press that have long served the functioning of this unique form of democracy. Such incremental recommendations in countries plagued with notoriously unresponsive governments and concomitant political instability, (e.g. Nicaragua), would, of course, be meaningless. A type of democracy exists in Costa Rica that is unique in Central America. Elections, press freedom on most questions,

widespread presidential voting participation, public rejection of an armed forces, widespread social-health coverage and a more even distribution of income are its basic manifestations. But, informally, democracy is limited by elitist institutions, which channel electoral zeal into support for the agro-export model of development (despite the yearnings of the 1974-1978 plan). A type of formalist democracy exists that permits policy formulation from the top down with consistent lateral inputs from key interests. The failure to diversify agricultural production beyond traditional agro-exports to activities such as forestry and to provide real small farmer access to productive factors, has intensified rural development problems here. Though the number of agro-export activities has increased, institutional biases in the allocation of credit, infrastructural supports and marketing services persist from the failure to exert decisive management controls. Contrary to the familiar assumption, the problem is not simply lack of funding. Additional funding, given present institutional maladies, would simply be pouring good money after bad (as the saying goes).

Hence, based on the above analysis, recommendations will be proffered on the installation of a management control system for the forestry area. It is hoped that such a system will rectify those organizational weaknesses (recognized by Facio in the early 1940's) that invite imperialist penetration. At the individual organization level, management control is the "process by which managers assure that resources are obtained and used effectively and efficiently in the accomplishment of an organization's objective" (Anthony and Herzinger, 1975:16). Deficiencies in programming, budgeting, accounting and evaluation will affect the level and quality of management control. At the forest policy system level such control would be exercised by the appropriate top management/staff over operations/ line managers to assure that programs are formulated and implemented to accomplish national development objectives.

First, it is suggested that existing forest policy system be collapsed and responsibility be assigned to a single Forest Resource Institute (IFORCO). As indicated by the following figure, IFORCO would have the authority to perform relevant duties relating to all aspects of forestry production in Costa Rica.

Figure 1 about here

This represents a high-cost proposal in that existing institutions, such as ITCO, ICE, MOPT and JAPDEVA would not simply relinquish their "turf" without compensating benefits regarding personnel, leverage and influence. This problem is illustrated by the recent attempt to fuse the Atlantic (JAPDEVA) and Pacific (INCOP) railroads into one efficient organization. The result was three organizations; the original two and a third to "coordinate" the others. Nevertheless, resistance could be overcome by priority level initiation through the Ministers of Agriculture, Planning and through Casa Presidencial. IFORCO would need

an independent, long-range authorization to invest in forestry for national development. A useful model in this regard would be COHDEFOR in Honduras which, has already integrated 15,000 campesinos into 48 forestry cooperatives for pine sawtimber and resination activities (Amilcar Cortes, 1976:15). The new institute would exercise regional authority (technical assistance to tree farmers, establishment of cooperatives) through designated forest districts. The basic mechanism to stimulate production would be pricing to create a market. Such a minimum price is currently provided by CNP for basic grain and meat production. IFORCO could also serve as a clearing house for contract and loan negotiations with lending agencies/multinational corporations seeking entry into the Costa Rican forestry market. Rural incomes could be increased by assigning revenues to towns with nearby forest reserves. Proceeds from the sale of timber, provided by sustained yield management, would be credited specifically to town residents who now lose surplus during harvests as truckers haul out timber for sale in urban centers. Swedish and Swiss governments currently use the same "town commons" mechanism to assure sustained additions to local government revenues. IFORCO would thus concentrate administrative program structures in forestry to reduce duplication and waste in planning. Simultaneously, operations and responsibility centers would be deconcentrated (removing personnel who stay in San José to avoid the stigma of rural life) to insure equal provision of credit, marketing and extension services (now controlled by SBN and MAG).

But implementing new administrative schemes is seldom the same as programming such arrangements. For this reason, installation of a management control system is essential for the success of forestry programs. For example, it was noted that programming now takes place among multiples agencies over which the agro-export class may easily provide - gaining easy access by playing organizations off against each other. Meanwhile, as noted JAPDEVA can not even program the systematic removal of sediment from Puerto Limón. Programming should be the sole responsibility of OFIPLAN, subject only to the critical eye of the press. Planning departments in MAG, JAPDEVA, ITCO and etc., should be either abolished or merged with OFIPLAN. Care must be taken to prevent previous conflicts from being encapsulated in the new OFIPLAN structure, beyond the critical judgments of the public.

The next obstacle to management control is the budgeting and financial management process. As noted, the proliferation of programming-planning agencies serves to transmit contradictory priorities to operating agencies. Yet, even if the planning function were integrated, most autonomous agencies spend and receive revenues independently of the national budget process. Cash management is thus discouraged by the decentralized and uncontrolled organizational structure. Lacking an overall coordinating agency, each institution is encouraged to maximize its budget at the expense of other institutional participants in the budget game. Hence, if a viable forestry program existed and could be executed at the ministry level, e.g. MAG, control problems

would stem from; (1) the failure to distinguish operating from capital budgets and (2) the misuse of "program" budgeting. The so-called program budget reflects current agency jurisdictions and relies on existing line-item accounts, Nor is it clear that the cost accounting system reflects real consumption of goods and services by agencies. Lacking such an accounting system, underestimation and overestimation of resources needed to perform services would be the order of the day. Either the PP3 idea should be eliminated or line-item accounts should be employed that correspond to needed development programs from which agency jurisdictions could be assigned by OFIPLAN. The Contraloría General should have sole authority to audit agency accounts and to determine if the cost of the accounting systems employed (autonomous agencies employ varied accounting practices) really reflect costs of service production.

Finally, if a forestry program for development is to be implemented, a performance evaluation system should exist. Changes in development measures such as: land productivity/hectare/capita, employment level, distribution of land, credit and infrastructure must be associated with the activities of government agencies. Evaluation is now performed by many separate agencies (as in programming). Current responsibility for both preaudit and postaudit is largely that of the Contraloría General (a dependency of the legislature). Since the Contraloría reviews operations previously approved by its own officials, the performance analysis is hardly impartial. OFIPLAN should be given sole responsibility for programming and preaudit; the Contraloría and OFIPLAN should work jointly on postaudit performance for comparative purposes. Installation of a management control system should not be interpreted as a proposal to delegate authority for public policy formulation to a managerial class. It is recognized that without timely and effective political leadership, such a system may simply increase bureaucratic inflexibility to the detriment of innovative land use policies. A management control system is necessary for recognition and analysis of development policy options. But political leadership and institutionalized access to decision-makers by potential rural beneficiaries of such programs is the sufficient condition for policy-making success. Costa Ricans are fortunate in that they are fully capable of managing their policy structures to achieve development consistent with rural democratic traditions.

Such incremental (though high political cost) reforms may limit agro-export dominant class controls over the policy process and increase the chances for non-traditional programs, such as forestry, to serve national development objectives. It is hoped that this analysis will encourage constructive criticism and review among Costa Rican policy-makers and their international clients that contemplate further technical assistance to that country. Though the Marxist dependency thesis is limited in its applicability to the Costa Rican case, exploitative ties with the capitalist world are largely prevented by the culture and foresight of the elite or dominant class. Injection of an ongoing management control system in the policy process will insure that develop-

ment policy will depend less on the composition of a special interest than on the ingenuity of public representatives (both legislative and executive) serving an increasingly critical Costa Rican public.

NOTES

1. Evidence for the research hypothesis consists of primary and secondary data gathered (1975-1977) while living in Costa Rica as an OAS Fellow. While secondary data consists largely of figures culled from OFIPLAN, MAG-EGF and USAID reports, primary data is derived from administration of the Forest Policy Survey (Encuesta Politica Forestal). This is a coded questionnaire of open and closed-end questions, provided to a stratified sample of 84 people directly related to the outcome of forestry/natural resources in Costa Rica.

The sample was obtained through the use of a sequenced-reputational method. Names consistently repeated (individual or institutional) in conversations with policy-makers, foresters or in the local newspapers La Marion and Excelsior were listed and approached for initial five-minute interviews. This had been called "snowball sampling" by Coleman Lazarsfeld, Pasanella & Rosenberg, 1972:261. A key newspaper article, for example, listing all executives in the Camara Nacional de Agricultura by agro-export activity is "Comisiones de Trabajo en la Camara Nacional de Agricultura", La Nacion, November 23, 1976.

The initial list of 25 names was asked to provide 5 more names each whose decisions directly or indirectly affected forestry/natural resources. The short interview also served an ameliorative purpose. To counter the natural bureaucratic tendency to "bump" or avoid non-prestigious people, "barging in" for 5 minutes, and taking often less time, made it easier to schedule the longer interview that frequently took more than an hour /respondent. The reputational method then provided 125 names broken into the following categories: GQCR bureaucrats, International agency personnel, private entrepreneurs or representatives of member-oriented organizations (lobbies, unions), professional foresters and, those classified as elites (based on respondent choices). Of the 125, 96 feasible names were selected and approached. Only 12 refused to be interviewed or stopped the interview at some point before completion. The sample thus contains 84 names.

Efforts were made in the ordering of questions and response options (a copy of the questionnaire will be provided on request) to trip up potential "response sets" and to counter the natural tendency of respondents to proffer system PR or to agree with the interviewer. Deliberate confusion was frequently introduced in the form of severing political themes (e.g. democracy, Vesco) with technical forestry questions to reduce possible hold-over effects of responses to succeeding questions.

2. Hine has noted the power of a "few basic assumptions to unify organizationally disparate groups" (1977:22). She holds that:

Decisions made by people who share assumptions, even though there has been no discussion between them, will produce actions so similar that there appears to be collusion even though the actors themselves feel they occupy conflicting opinions (1977:22).

The existence of so-called "operational" and non-operational objectives by policy-making elites that guide decision-making has been discussed by O'Donnell and Graciana (Cotler & Fagan, 1974). Previous research on dependency has generally followed the economists' approach of assuming dominant class attitudes and behavior when examining the relationship between structure (firm) and performance (firm). According to Salamon & Sigfried (1977:1035): "This approach is used by economists because of the near impossibility of quantifying the conduct variable."

Without arguing that attitudes determine political behavior (or that from a knowledge of them, one might predict political behavior), it is suggested here that attitudes shape behavior. If consensus or conflict exists on broader organizational objectives, one can gain further insight into the question of dominant class existence. Without such tests, the relationship between structure and performance may always be held to be coincidental, the product of the usual spate of intervening variables confounding predictability in human affairs.

3. See: "EL Problema de Muelle 70," La Nación, February 18, 1977, and "La Larga Historia del Muelle 70", La Nación, August 16, 1977.

4. Note that a democratic climate is not essential for pronilgation of a forest program providing development benefits to the population. The Honduran policy of command forest cooperatives was initiated for campesinos in Stalinist fashion to (1) serve economic development needs and (2) to insure continuing political support for the military, i.e. to avoid providing fuel for a Sandinista-style onslaught in Honduras. Also, Chilean forest production is largely controlled by the Alessandri family and benefits rural development only marginally. The democratic thesis could not explain forestry appearance in these countries because such policies can serve either democratic or non-democratic regimes. The assumption in Costa Rica is that given the cooperation of the GOCR with agro-export interests, the people would prefer an alternative democratic style of agricultural development. Forestry then, might well be preferred in a pluralist-bargaining climate. That is, without such a climate, forest policy might well be

excluded These points merely underscore the generality of this thesis.'

5. In a presentation at the University of New Mexico (October 11, 1978) Charles Denton of IDESPO (Heredia, Costa Rica) argued that effective programs to control population growth are more consistent with participatory democratic systems. He suggested that the failure of such programs in EL Salvador could largely be attributed to the "regime type" variable, Yet, education level, which is often high in both kinds of systems, would seem to control behavior that will reduce chances of better life. That is, if education generates expectations and reveals various options toward achievement of higher quality life, it would be rational to reduce obstacles such as larger families and more dependents. Similarly, personal freedom may be increased (even in a command system) by advocacy of a forest program that will produce income and employment opportunities. The likelihood of adoption should be about equal in both types of systems.

6. Compare the names in Stone, (1975) with those executives of the Cárrara Nacional de Agricultura listed in "Comisicnes de Trabajo en La Camra Nacional de Agricultura", La Nacion, November 23, 1976.

7. Various suggestions have been made to create a fixed market for timber which could stimulate capital investment in this sector. However, the most ingenious short term suggestion is to expand the public bureaucracy, thereby creating a shortage of paper, i.e. a memorandum crisis! I thank Roy Green of the University of Alabama for this productive remedy.

8. In 1974, the New Mexico Department of Natural Resources (Forestry Division) initiated the Sawmill Improvement Program. Following implementation of Division recommendations, state lumber production increased 3.9 million board feet without increasing log inputs and without major changes in existing mill equipment. The Division estimates that every dollar spent for implementation of the Program generates \$140 within the New Mexico economy (State of New Mexico: 1978-79 FY Executive Budget, Volume II). In Costa Rica, because of clear-cutting and high-grading, approximately 89% of the annual timber cut is wasted. Of the 11% utilized, between 20% and 70% of each log is wasted by the milling process (Green, 1976:40). To round out the picture, of an expected \$14 million in timber concession fees (1969-74), the GOCR received only \$292,740 (Gregersen, 1975:8).

9. See "Policymaking in Columbian Decentralised Agencies: Presidential Control Versus Agency Autonomy" by John J. Bailey. Unpublished paper presented at the 1975 Annual Meeting of the American Political Science Association, San Francisco.

10. See "Declaratoria de Emergencia Para Exportación de Ganado", La Nación, March 23, 1977.

11. Argued one way, it is an elitist action which excludes small and medium producers. But, in view of large balance of payments deficits, the strategy is rational for national growth. Note the U.S. government also provides no official support for small and medium producer exports. OPIC guarantees mostly apply to companies with large amounts of capital. This strategy is neither democratic nor rational.

12. This is simply Luther Gulick's policy-administration distinction applied to management control problems in underdevelopment country setting. David O. Porter argues for the continued relevance of this distinction in deriving "responsibility centers" in: "Adapting the 'Responsibility Center' Concept to Government Administration", Berlin: International Institute of Management, 1977.

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TABLE 1

Forest Products Imports: 1973, 1974

Product	1973		1974	
	(1,000 kg.)	(1,000 ¢)	(1,000 kg.)	(1,000 ¢)
Logs, posts, poles, etc.	426	308	1,393	1,502
Sawnwood	81	32	39	134
Pulp & waste paper	1,599	3,190	4,398	16,086
Plywood veneer	2,511	5,245	2,342	7,406
Fiberboard	2,511	21	76	541
Other wood mfg.	156	1,136	308	1,177
Paper/ Paperboard	131,663	193,104	129,263	377,686
TOTAL	-	203,036	-	404,532

SOURCE: Hans M. Gregersen, "Development Possibilities in Forestry: Costa Rica" (Washington, D.C.: Inter-American Development Bank, 1975) Table 7.

TABLE 2

Land Distribution in Costa Rica: 1963-1973

<u>Size</u>	<u>1963</u>		<u>1973</u>	
	<u>% Number</u>	<u>% Area</u>	<u>% Number</u>	<u>% Area</u>
0.2-10 ha.	52.7%	4.8%	57.6%	3.9%
10-200 ha.	44.3	44.4	38.9	41.6
200 ha.+	<u>3.0</u>	<u>50.8</u>	<u>3.5</u>	<u>54.4</u>
	100.0	100.0	100.0	100.0

SOURCE: USAID-IDB-IBRD, "Desarrollo Agropecuario y Rural de Costa Rica" Washington, D.C.: IDB, 1975, X, p. 4.

TABLE 3

Forestry Policy by Presidential Decree

	<u>Intl.</u>	<u>Public</u>	<u>Private</u>	<u>Forester</u>	<u>Elite</u>	
Agree	4	12	5	8	11	40
	10.0	30.0	12.5	20.0	27.5	40.6
	21.1	57.1	33.3	53.3	78.6	
	4.8	14.3	6.0	9.5	13.1	
Disagree	13	9	10	7	3	42
	31.0	21.4	23.8	16.7	7.1	50.0
	68.4	42.9	66.7	46.7	21.4	
	15.5	10.7	11.9	8.3	3.6	
N.A.	2	0	0	0	0	2
	100.0	0.0	0.0	0.0	0.0	2.4
	10.5	0.0	0.0	0.0	0.0	
	2.4	0.0	0.0	0.0	0.0	
	19	21	15	15	14	84
	22.6	25.0	17.9	17.9	16.7	100.0

SOURCE: George M. Guess, "The Politics of Agricultural Land Use and Development Contradictions: The Case of Forestry in Costa Rica," Ph.D. dissertation (River-side: University of California, 1977), Table 4.8, page 129.

TABLE 4

Foreign Financing of the Beef-Cattle IndustryIntl. Public Private Forester Elite

Consensus	9	3	13	7	10	42
	21.4	7.1	31.0	16.7	23.8	50.0
	47.4	14.3	86.7	46.7	71.4	
	10.7	3.6	15.5	8.3	11.9	
Conflict	7	17	2	8	4	38
	18.4	44.7	5.3	21.1	10.5	45.2
	36.8	81.0	13.3	53.3	28.6	
	8.3	20.2	2.4	9.5	4.8	
N.A.	3	1	0	0	0	4
	75.0	25.0	0.0	0.0	0.0	4.8
	15.8	4.8	0.0	0.0	0.0	
	3.6	1.2	0.0	0.0	0.0	
	19	21	15	15	14	84
	22.6	25.0	17.9	17.9	16.7	100.0

SOURCE: George M. Guess, "The Politics of Agricultural Land Use and Development Contradictions: The Case of Forestry in Costa Rica," Ph.D. dissertation (Riverside: University of California, 1977), Table 5.7, page 158.

TABLE 5

Relative Changes in Costa Rican Income Distribution:
1963-1973

<u>Percent of Population</u>	<u>Percent of Family Income</u>	
	<u>1963</u>	<u>1973</u>
Lowest 20%	6.0%	5.4%
Next 60%	34.0	44.0
Next 10%	14.0	16.2
Highest 10%	46.0	34.4
	<u>100.0</u>	<u>100.0</u>

SOURCE: Victor Hugo Céspedes, "Costa Rica, La Distribución Del Ingreso Y El Consumo De Algunos Alimentos", San José: IECES, University of Costa Rica, 1972, p. 41.

TABLE 6

Public Productive Sector Investment in 1975

<u>Activity</u>	<u>Amount Invested</u>
Agriculture	\$ 32,217,980
Livestock	7,950,820
Forestry	573,770
Fishing	---
Manufacturing	174,046,830
Small industries	---
Mining	934,426
Tourism	9,929,742
Agroindustry	9,878,220
Total productive investment: (9 sectors)	235,526,930
Total public investment: (All sectors)	\$1,717,333,700

SOURCE: "Programa de Inversiones Públicas Para 1976, Anexo",
San José: OFIPLAN, 1976, p. 2.

TABLE 7

Foreign Finance of Development Projects

	<u>Intl.</u>	<u>Public</u>	<u>Private</u>	<u>Forester</u>	<u>Elite</u>	
Consensus	16	17	13	13	10	69
	23.2	24.6	18.8	18.8	14.5	82.1
	84.2	81.0	86.7	86.7	71.4	
	19.0	20.2	15.5	15.5	11.9	
Conflict	2	3	2	2	4	13
	15.4	23.1	15.4	15.4	30.8	15.5
	10.5	14.3	13.3	13.3	28.6	
	2.4	3.6	2.4	2.4	4.8	
N.A.	1	1	0	0	0	2
	50.0	50.0	0.0	0.0	0.0	2.4
	5.3	4.8	0.0	0.0	0.0	
	1.2	1.2	0.0	0.0	0.0	
	19	21	15	15	14	84
	22.6	25.0	17.9	17.9	16.7	100.00

SOURCE: George M. Guess, "The Politics of Agricultural Land Use and Development Contradictions: The Case of Forestry in Costa Rica", Ph.D. dissertation. (Riverside: University of California, 1977), Table 5.6, p. 157.

FIGURE 1

Proposed Structure for Forest Resource Institute

Central Office

- 1. Planning and Investments
- 2. Contract negotiations and export control/stimulation

Regional Office

<u>Growth</u>	<u>Marketing</u>	<u>Evaluation</u>
1. Forest management plans	1. Credit	1. Monitoring of short-term objectives
2. Technical assistance	2. Pricing	2. Investigation of administrative problems
3. Land use/parks	3. Short-term planning	3. Cost control
	4. Colonization, grower associations, cooperatives	

APPENDIX A
ENCUESTA POLITICA FORESTAL

The author obtained a portion of the information for this study from a questionnaire given in Spanish to Costa Rican authorities. Anyone interested in receiving a copy of the questionnaire should write to:

Latin American Institute
Ortega Hall 229
University of New Mexico
Albuquerque, New Mexico 87131

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