DEBT-FOR-NATURE SWAPS
Transnational Environmental Politics in a Changing Global Political Economy
or
NGOs, LDCs and IOUs

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This sub-thesis is my own work and all sources that I have used are acknowledged.
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It is nigh on one year since I finished the first part of the MA course, and began on the second - the infamous 'sub-thesis'. Looking back, I see that this work represents the culmination of my academic life to date, and not just the 'partial fulfillment of the requirements for the M.A. degree'. So I would like to acknowledge here not only those who played a important role during my time on this sub-thesis, but also those who contributed greatly to the larger endeavor of my education. Although I cannot mention them all by name, I think they know who they are.

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## CONTENTS

Introduction ................................................................. 1
Chapter One: The Origins of Debt-for-Nature Swaps .................. 5
Chapter Two: The State of Debt-for-Nature Swaps .................... 23
Chapter Three: Problems and Critique of Debt-for-Nature Swaps .... 51
Chapter Four: Debt-for-Nature Swaps in the International Political Economy ...... 75
Conclusion ................................................................. 101
Bibliography............................................................... 105
Appendix I: Third World Country Classifications .................... 111
Appendix II: Table of Debt-For-Nature Swaps ...................... 114
Appendix III: Swap Details ........................................... 115
Appendix IV: Secondary Market Prices .............................. 131
Debt-for-nature swaps are a new phenomenon in world politics. Initiated as a response to third world debt problems and the urgent need for environmental protection, debt-for-nature swaps represent a very interesting development in the areas of international finance, international negotiation and international roles for non-state actors. To date, at least nineteen swaps have taken place, and according to some observers, they fit a niche that will exist for some time to come.

Debt-for-nature swaps are an arrangement whereby certain international environmental groups have purchased discounted portions of debt on the secondary market. These groups have negotiated with the government of the country whose debt they purchase to exchange the U.S. dollar-denominated debt with the central bank for local funds to be committed for environmentally beneficial purposes, and to have the collaboration of local environmental groups for the identification, design and implementation of the projects. The money helps the purchase of private or government-owned land, the conversion of these lands into national parks, and the payment for their maintenance. Other uses include funding environmental research, educational programs for local populations on farming techniques and problems of degradation, and other similar protection and conservation projects.

Since the debt crisis in the early 1980s, banks which had been threatened with collapse have been gradually reducing their exposure to troubled 'Third World debts'. One method for accomplishing this is to sell or exchange those loans on their books in a 'secondary loan market' created for this purpose. This financial innovation has been accompanied by others, of which debt-for-nature swaps are one.

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1 The terms 'Third World' and 'Less Developed Countries' refer to a category that is long since obsolete, in that it does not accurately portray the vast difference between many Southern countries. Although I am constrained when citing or quoting the literature to using these terms, I will use LDCs to mean those developing countries that are i) not newly industrializing (NICs); ii) not Eastern European. Appendix I gives a categorisation from the Human Development Report 1991, and when I use LDCs, I will usually be referring to countries that are not in the High Human Development Categories.
INTRODUCTION

This sub-thesis considers the origins, present status and future prospects of debt-for-nature swaps in the context of the international political economy. I will trace the trends of change in international political economy and look at the social coalitions operating within these parameters as they concern the emergence, spread, success and possible future demise of nature swaps as an arrangement dealing with Third World debt, development and environmental problems.

In the first chapter I will look at the nature of the context in which debt-for-nature swaps emerged. This context is set by a conjunction of political, economic, social and environmental factors. I am interested in discerning the interaction of these factors that created the opportunity for nature swaps to arise. What can be termed the 'greening of international relations' forms the first set of strands in the background weave of debt-for-nature swaps. The growing awareness of and the emerging evidence on global environmental problems, and the adoption of environmental considerations in many areas of world politics is reflected in the actors and agendas involved in the swaps. The debt crisis of the Less Developed Countries (LDCs) features as the second set of threads. The rest of the 1980s was characterized by prolonged financial difficulties for the LDCs, and a simultaneous crisis in development. Despite the significant progress which the LDCs made towards development over the last three decades, both in human and in economic terms, the previous decade saw the reversal of many of those gains, as well as a general set back in the rate of improvement. The pressures on the populations of many countries from continued or increased poverty exacerbated the stress on the environment, already under great strain and abuse. A third set of intersecting fibres comes from the shifts in the international political economy, which include renewed government and political support for market-liberalist practices and ideologies, the globalisation of finance, both in public and private international sectors, and the emerging trend towards market-based solutions and economic instruments to deal with environmental problems. This completes the backdrop on which the debt-for-nature swaps phenomenon is embroidered. My argument is that the opportunity for these swaps resulted from a very particular combination of factors,

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2 This term was used by Jim MacNeill as the title of his article in International Journal, Vol. XLV(1), Winter 1989-90, pp. 1 - 35, which surveyed the rise of environmental affairs on the international diplomatic agenda.
where certain social groups could form a coalition and mutually realize their interests through
the arrangement of swaps.

I will proceed to examine the present 'state' of debt-for-nature swaps in the second
chapter. After a brief overview of the current swap transaction process, I will survey the
interests of the parties involved. I will then consider the progress made and in terms of the
objectives of the participants. The issues of debt relief and environmental protection will be
considered, along with other goals towards which the swaps may contribute. In the third
chapter, the progress will be contrasted with the problems and criticisms which the swaps
encounter. The problems in transaction and implementation will be evaluated with regard to the
participants' interests and to the viability of the social coalition on which the swaps depend.
The criticisms will be reviewed to expand from the consideration of functional difficulties to the
broader political interpretations and opposition of the swaps.

Finally, in the last chapter, I will consider the future of debt-for-nature swaps. This
discussion will involve a consideration of the wider context of the international political
economy. The developments in the areas of debt and international finance, and the
development and environment debate will be analyzed for their impact on the window of
opportunity for nature swaps. Lastly the more specific outlook of nature swaps in terms of the
immediate future interests in swaps, and the tendency towards their institutionalisation into
mainstream international politics in the areas of debt and environment will be evaluated. I will
argue that on their own terms, these swaps are worthwhile and most of their problems are
surmountable - they are certainly environmentally beneficial in a context where the environment
is under severe attack. Nevertheless, the confluence of interests on which they are based
operates under particular constraints.

Yet in consideration of the trends in the international political economy and the
indications of continuing environmental problems, there will be many more future challenges in
achieving development, conservation and environmental sustainability to which the
international political economy will have to address itself. Debt-for-nature swaps are an
important phenomenon because they highlight the impact of structural changes in the international political economy on the role of the global environment in human affairs. As a private initiative to address a fundamentally public, and indeed a global public goods problem, nature swaps can be seen as a signpost on the path of increasingly transnational environmental politics in a situation of growing emphasis on market-based solutions for LDC development in general and for environmental problems in particular. Their limitations, their present progress and their future prospects reflect the immensity of the debt, development and environmental problems facing the world, and indicate some of the pitfalls and some of the opportunities to be found in the changing international political economy.
The Origins of Debt-for-Nature Swaps

This chapter will examine how and why debt-for-nature swaps arose as a way of dealing with environmental problems in the current international political economy. There are three main sets of factors that interacted to provide the opportunity for the development and implementation of the debt-for-nature swap: the greening of international relations, the 'Third World' debt crisis, and the structural changes in the international political economy.

1.1 The 'Greening of World Politics'

[The authors of Our Common Future] found that the issues of environment and development were interlocked and were reshaping national and international affairs." ¹

There has been a growing public, academic and institutional awareness of international environmental problems since the Stockholm Conference of 1972 on the Human Environment. The Club of Rome report Limits to Growth, and the Founex report Environment and Development during the first half of the 1970s recognized the environmental dimension of international political and economic affairs. However, it is only a decade later that this general awareness reached a critical threshold, and gained its present momentum. With the growth of scientific research and evidence on a number of global and regional environmental problems, the awareness and adoption of environmental considerations onto the mainstream international agenda is rapidly taking place.

In the academic realm, a quick survey of the international relations literature illustrates the growing awareness². At the most basic level, the news analysis magazines have reflected

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²Other disciplines related to international affairs have also shared this trend, with international law, international negotiation, business and development journals publishing a growing number of articles on the environment. For instance, see the special issue of the Harvard International Law Journal on the environment (Vol 30(2), spring 1989).
this trend, with *The Economist* printing since 1989 a yearly 'Environment Survey'. It covers government policies, business behavior, industry and other sectors' responses, as well as ecological problems and trends. In the main disciplinary journals, a sudden profusion of articles began in 1988. To date, three have published special issues on the environment and international affairs. As for the texts, quite a few are including the environmental dimension in their discussions, such as Gill & Law's *The International Political Economy*; Susan Strange's *Paths to International Political Economy*; the most recent of the Eagles series on American Foreign Policy, and Barry Buzan's second edition of *People, States and Fear*. Furthermore, the current debate on security in the disciplines of international studies, both strategic and political, is being conducted in light of the emerging awareness of global environmental problems and increasing pertinence of natural resource issues to international affairs.

In the international and regional institutional domain, the greening has also been gathering pace. The United Nations Environment Program, founded in 1980, has gained growing recognition for its work, and for the necessity of increasing its budget. Discussion of the need for an environmental security council is currently taking place in many fora, whenever the capacity of the international institutional structure to handle environmental problems is considered. The international financial institutions are acquiring environmental staff and criteria of environmental sustainability and impact reports for their assistance projects, as have the aid departments of many donor countries. The European Community is in the process of establishing its own equivalent to the United States' Environmental Protection Agency. Even the GATT is coming under scrutiny for its role regarding the environmental aspects of the

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3 While environmental matters have been discussed in the discipline in relation to nuclear conflict, it is only recently that the intimations of a 'new environmental paradigm' (see Lester W. Milbraith, *Environmentalists: Vanguard for a New Society*, State University of New York Press, Albany, 1984) have been expressed in the wider literature. Some early works appeared in 1983-4, i.e. Richard Ullman, "Redefining Security", *International Security*, 8(1), Summer 1983; Richard Barrett (ed.) *International Dimensions of the Environmental Crisis*, Westview Press, 1984; but the appearance of this theme picked up in 1988.


6 For a discussion of economic aid and the environment, see an article by the same title by Robert Repetto in the EPA Journal, Vol.16(4), July/Aug 1990.
international trading order. The State of the World 1990 Report went so far as to announce a new age of environmental diplomacy, signalled by the amount of attention and space given to the issues of climate change, ozone destruction and deforestation in the final communique of the 1989 Group of Seven Summit. Certainly the profusion of international conferences and meetings on the subject reflect the evolution of a certain environmental consciousness at the international institutional level. The most notable conference is the upcoming United Nations Conference on Environment and Development in Brazil in June 1992. It will produce the public presentation of many states' policy promises in environmental issues, and commits a great deal of institutional attention to the topics on the agenda. Conventional wisdom in the field currently acknowledges that environmental security issues are now sharing the stage with the more traditional economic and military concerns.

In the public arena, the environment has become a "mainstream preoccupation - of political parties and voters in Western democracies, of popular pressure in Eastern Europe, of indigenous peoples whose livelihoods are affected throughout the South". Magazines, newspapers and popular literature reflect this trend. An indication of its breadth shows in the twenty languages in which the State of the World Reports are now published, soon to become twenty-four. Furthermore, not only the public awareness but also the public involvement has increased. The number of people in groups concerned with environmental issues has mushroomed. The dramatic resurgence of public concern and involvement has many origins. Since the 1960s, non-governmental organizations (NGOs) have struggled to bring attention to many urgent issues of ecological damage and maldevelopment. More recently and more well-known, the issue of the destruction of the ozone layer attracted much attention by the surprise with which the scientific community reacted to evidence of damage greater than anticipated. As this and other environmental topics came into the mainstream, a public debate

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10 Yap appropriately notes the different uses and definition of the term NGO. In international relations usage, NGO applies to all groups outside government, which includes business, professional, religious, union and other issue-focused groups. Taking my cue from that article, in this work, the term will denote to groups with paid or volunteer staff that do not directly serve the interests of government or industry. Nonita Yap, "NGOs and Sustainable Development", *International Journal*, Vol. XLV(1), Winter 1989-90, pp.75.
on environmental sustainability commenced, and was boosted by the publication of the 1987 Brundtland Report *Our Common Future*. Other factors which contributed to mobilizing public awareness include the experience of various recent environmental catastrophes, such as Chernobyl, the Exxon Valdez spill, the Bhopal disaster, the Sahel drought and famines, and more recently the environmental consequences of the Gulf war. These disasters affected the public perception and faith in development policies, technology and industrial safety standards, and generated broader enquiries about the long-term health of the environment.

The emerging evidence and awareness of the foremost transnational environmental problems, the ozone layer hole and the enhanced greenhouse effect, contributed greatly to this revival and change. These truly global environmental issues have forcefully highlighted the cumulative and aggregate impact of separate, individual, and local human activities. The gradually emerging public, institutional and activist consciousness, spurred by the above mentioned factors and drawing on the realization of global ecological interdependence heralded by ozone loss and global warming, both resulted from and prompted in their turn the greening of international relations with regard to other issues. Thus the pressing environmental problems of the less developed countries (LDCs) of deforestation, species loss, salinization, soil erosion were more swiftly taken up in the mid-1980s. This greening of international relations and of international public opinion prepared the way for the positive reception of the debt-for-nature concept, and facilitated its inception by those groups involved in the swap arrangements. One of those groups is the international environmental NGO (IENGO), whose evolution in the international scene testifies to the greening of the world politics.

**Evolution of Environmental NGOs**

As noted above, the NGOs played an important role in the education of international public opinion, and in promoting green issues at the international institutional level. The

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11 The following paragraphs present material mainly derived from Yap's article, in particular pp. 76-81, which is the only up-to-date article in the international relations literature that discusses the evolution of environmental NGOs and their present prominence. Having surveyed the literature on NGOs, I have found it dated and unhelpful in reflecting the many and important changes of the role played by these groups at both the intra and interstate levels.
emergence of environmental NGOs has its roots in the environmental movements of the mid-1960s and early 1970s in North America and Western Europe. These movements were concerned with the increasingly noticeable deleterious impacts of industrial expansion on the environment, damaging both for people and wildlife. However, as Yap notes, while western governments responded by institutionalizing the environmental concerns and the search for solutions, environmental NGOs were still considered by government and industry to be fringe groups without consistent mainstream public support until the mid 1980s. Since then, both public concern and governmental activity have revived forcefully, and according to many observers, now mark a sea-change in the general attitude about the human enterprise and its relationship with nature.

The internationalization of the northern environmental NGOs began in the 1970s. At the 1972 Stockholm conference on the Human Environment, a coalition of participating environmental NGOs formed the Environmental Liaison Center (ELC), which subsequently played a crucial role in facilitating the links between NGOs and relevant governmental and intergovernmental institutions. With evolving scientific consensus on ozone destruction and climate change, a broader range of organizations became involved in international activities. A large number of groups now work to influence international decisions of the bilateral and multilateral institutions. More domestic groups are expanding their operations, enabled by their growing memberships and financial capacities. While there are no figures on the present number of environmental NGOs, a good indication of their phenomenal growth is the membership of the ELC. It went from a few northern NGOs to its current level of over 230 groups. The Center also maintains contact with 7000 (mostly southern-based) groups\textsuperscript{12}. Other authors speak of more than a hundred million people belonging to hundreds of thousands of organisations across the developing world, though the majority of these would be grassroots development-oriented groups\textsuperscript{13}. The increased role of NGOs in the international scene effected a broader analysis of global ecological issues, and advanced different styles of policy

\textsuperscript{12} These are likely to be a mix of environment, development and indigenous rights groups.

\textsuperscript{13} Alan Durning, ”People Power and Development”, Foreign Policy, No. 76, Fall ’89; cited in R. Broad, J.
Cavanagh, and W. Bello, ”Development: The Market is Not Enough”, Foreign Policy, Foreign Policy, No. 81, Winter 1990-91, p. 133.
advocacy amongst the groups. In widening the range of action and objectives, the internationalization facilitated the opportunity for certain groups to sponsor nature swaps.

**International Conservation Goals**

The involvement of certain IENGOs in the debt-for-nature swap phenomenon must be seen in the light of the development of the objectives of these types of groups. Before the Stockholm conference, very few northern NGOs dealt with environmental issues in the South. The foremost concerns of those groups that did were wildlife and wildlife habitat preservation. In this sense, the protection of genetic diversity has always been an objective of the environmental NGOs' work, though the urgency of this issue has only come to the fore recently. Following the North-South debate on center stage in the international arena during the mid-1970s, more environmental NGOs became involved with southern environmental issues of a broader developmental nature. The rise of deforestation, biodiversity and sustainability issues combined with concern about the role of tropical forest destruction in releasing greenhouse gases. The increasing urgency of these problems, for LDCs in particular, but also for the industrialized countries, helped spur the IENGOs to act upon the concept of nature swaps when the window of opportunity opened.

The rise of the green movements into more mainstream political activity can be interpreted in a number of ways. The well-known peace researcher Johan Galtung considers the green movement to be a general reaction to the malfunctioning of the Western social formation. Galtung views the environmental movement like other social movements to be part of the socio-historical dialectic. Another view would consider some parts of environmental movement as belonging to the wider step towards participatory grass-roots involvement in the process of development or community politics, as part of a broader emancipatory direction. Whatever the sociological explanation assigned to the greening, however, it is clear that the configuration of interests amongst groups in the international

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14 Yap, op.cit., p.79.
political economy is changing, and that the environment cause is providing some common ground.

1.2 The Debt and Development Crises

Next to the greening of world politics, the second set of factors that created the opportunity for debt-for-nature swaps lies in the 'Third World' debt crisis. The important factors that explain the emergence of the opportunity concern the effects of the crisis, its management from the perspectives of the creditors and debtors, and the linkage between the crisis and environmental degradation, of which the nature swaps took advantage.

Starting in the early 1980s, the debt crisis affected more than two-thirds of the countries of Latin America and Sub-Saharan Africa and several Asian countries. Since 1982, these debtor countries have suffered almost continuous economic decline, and while some small signs of improvements surfaced after 1986, the 1980s are generally known as the 'lost decade for development'\(^\text{16}\). An overall decline in economic and human development indicators reflected the conditions in the debtor countries. In Latin America, the average per capita GDP decline was 7% between 1980 and 1988; or 16% if resource outflow and declining terms of trade are taken into account\(^\text{17}\). In Africa, the per capita income fell 25%, or 30% when counting the deterioration of trade terms.

Many variables combined to create and prolong the debt crisis. Protectionism in the North hindered LDC access to markets, and Northern substitution for raw material imports made earning the foreign exchange necessary to meet interest payments more difficult. The shrinking demand and the export-based IMF programs resulted in a oversupply and falls in prices for commodities. The shortage of new lending compounded the drain on foreign


currency reserves, leading to a net outflow of capital. Private foreign investment also shrank during that period. Hyperinflation, high interest rates and increasing macroeconomic disorder exacerbated the situation. Along with the compulsory capitalization of arrears in debt servicing, the debt burden was further increased by the 'socialization' of private foreign liabilities into the public sector debt. During the first restructuring negotiations, the commercial banks refused to extend their loans unless the LDC governments took responsibility for the private loans along with their own public ones. By 1987, the private debts had become 80% of the total from just over 50% in 1982\(^\text{18}\).

In human terms, this translated into falling employment, cuts in real wages, lost purchasing power and general decreases in the gains made in the fields of health, education and nutrition. This partially manifested itself in increased mortality rates and child malnutrition. In the poorest LDCs, health spending per capita decreased by more than 50% in the 1980s, education by more than 25%\(^\text{19}\). It cannot be a coincidence that the massive cholera epidemic in Latin America, presently endangering 25% of the region's population, follows on the heels of real cuts in government spending in health and other social services sectors, where vaccination and other 'social investment' programs were eliminated under the structural adjustment programs\(^\text{20}\). Generally, a drop of 10% or more in living standards in LDCs is being attributed to the debt and development crises\(^\text{21}\). As the 1990 Human Development Report soberly notes, the problems with the collection and calculation of social data mean that few official statistics have started to reflect the real effects of the 1980s crisis on human development. Nevertheless, the economic statistics on the net transfer of resources is stark enough: it changed dramatically from a positive flow of $42.6 billion in 1981 to a negative flow of $32.5 billion in 1988\(^\text{22}\).

\(^{18}\) Felix, _op.cit._, p.737.
\(^{19}\) Human Development Report 1990, _op.cit._, p.79.
\(^{20}\) While social services spending were not cut disproportionately more than total spending, in two-thirds of Latin American and African countries, real government spending declined. Canberra Times, Saturday, April 27, 1991 'Cholera Epidemic', World News section.
\(^{21}\) Susan George, _A Fate Worse than Debt_, Grove Weidenfeld, New York, 1989, p.195.
\(^{22}\) This figure includes the OPEC and the Newly Industrializing Countries (NICs).
The International Monetary Fund (IMF) austerity programs, implemented as a condition for loans, produced the 'structural adjustment' of currency devaluation, the lifting of trade restrictions and barriers to foreign investment and foreign currency controls, the privatisation of government enterprises, the abolition of price controls, cuts in government spending on food and other consumption subsidies, and tight monetary policies to help decrease inflation. Although most countries accepted structural adjustment programs to ameliorate their economic conditions, improvements did not necessarily follow. In Africa, per capita incomes fell both in countries with and without strong reform programs23. One author comments that "for the development establishment...developing countries' only hope rests with exporting their way to NIC status through the purgatory of structural adjustment"24, regardless of whether the particular conditions which existed were conducive to producing the intended results. Epstein states that the IMF stabilisation policies were disastrous for the majority of the people in those countries undergoing them25. Another author, David Felix, points to the worsening inflation and macroeconomic disorder that resulted directly from the free market restructuring that occurred in Latin America26. By the mid-1980s, many IMF programs had been renegotiated or suspended, but the debt crisis, though regarded as less urgent in the North, continued.

Management of the debt crisis

Not only the existence of the debt crisis itself, but also the way in which it was handled by various parties created the opportunity for nature swaps. Although somewhat oversimplified, the main categories of groups involved in the management are the financial community, the creditor governments, and the debtor country governments. These three groups are important for their part in the social coalition that forms to conduct nature swaps.

Financial community and creditor governments

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26 Felix, op.cit., p.735.
The financial community of commercial banks closely allied themselves with the creditor governments for the management of the crisis.

The initial threat to the international financial system was perceived to be serious enough such that the two groups collaborated closely at debt negotiations in order to keep the system going. As the problem endured their collaboration also ensured advantageous outcomes to themselves\(^{27}\). The giant commercial lenders dominated the decision-making process in the early years, exerting a disproportionate influence over official attitudes on debt, and were backed by the U.S. Federal Reserve and Department of Treasury. They exploited the fragmented structure of policy assignments within national governments and the hierarchical structure of the banking community to push their needs and preferences to the fore\(^{28}\).

Interpretations of the United States administration strategy vary from 'containment', a high level of intervention at times of genuine crisis to 'laissez-faire'\(^{29}\). The close collaboration of the Reagan administration with the banks has also been named a 'quiet revolution in international finance' by another commentator\(^{30}\). Whatever the label, it does seem clear that the U.S. administration and Federal Reserve geared a great deal of their crisis management to saving the banks, allowing them to socialize the costs over the long term.

The creditors (both bankers and governments) stated early on their goals were to prevent an international banking crisis, restore LDC credit and access to capital market, restructure LDC economies for sustained economic activity, and to induce economic restructuring based on market liberalization\(^{31}\). Felix provides a useful analysis of the evolution of the creditors' strategy, which went through distinctive phases reflecting the shift in focus from the international banking system, as the threat receded, to "restoration of economic growth and and creditworthiness... with market liberalization emerging as the sine qua non for

\(^{28}\)Cohen, ibid., p.116.
\(^{29}\)Containment from Cohen, ibid., intervention from Paul Krugman, "Debt Relief is Cheap", Foreign Policy, No. 80, Fall 1990, laissez-faire from Wesson, op.cit.
\(^{31}\)Felix, op.cit., p.736.
achieving them." The first three, leading up to the first arrangements of debt for nature swaps in 1987, will concern us here.

The first phase took place between 1982 and 1985. Following the Mexican emergency the initial effort centered on postponing amortization by rolling over bank loans, and later on, obtaining new loans to help pay the interest bill of the commercial banks. While the banks, especially the less exposed regional and foreign banks, were reluctant, joint financing from the IMF and World Bank provided the incentive. The IMF restructuring programs that accompanied the new loans fared badly, accompanied by worsening conditions in the LDCs.

The second phase began with the inauguration of the Baker Plan in 1985 and lasted until 1987. The focus here was on the revival of economic growth and market liberalization to reverse the economic depression and financial turmoil. Amongst the creditor governments the United States in particular was concerned about the possibility of political instability and leftist inclinations coming to the fore. Thus the Baker Plan aimed at reducing negative resource transfers by relying on concerted [involuntary] lending for three more years. So long the prospect of new loans existed, the debtor countries were induced to continue trying to service their debts. However, the Plan did not offer much new lending, a mere $29 billion over three years in contrast with the negative resource transfers which averaged $30 billion for Latin America, and $40 billion for the 17 most indebted countries. Loans were conditional upon IMF approval and World Bank criteria.

The emphasis on the so-called 'concerted lending' did not yield the anticipated results, and by 1987, commercial banks were exiting from the coerced loan cycle. The secondary loan market was revived by banks wishing to balance out their vulnerabilities among particular regions and to reduce their debt exposure by selling or exchanging debt. The larger banks were also establishing loan loss reserves by early 1987 to bolster themselves in case of

32 Felix, ibid.
33 The next few paragraphs derive most of their information from Felix, op. cit., pp.736-757.
default. The European banks had increased their loan-loss reserves at a much faster rate than United States banks, so the focus of secondary market activity was the work of U.S. banks dealing on the huge loans outstanding in Latin America, around $400 billion. Many bankers became very active in it over a relatively short period of time, and the market grew to approximately $6 billion in 1986.

In the third phase, from 1987 to 1989, the creditor governments and the commercial banks focused on the 'market menu' of options, with debt workouts through conversions and equity swaps. It is from the equity swap model that the nature swaps arose. During 1987, the crisis seemed to intensify. The Wall Street Journal reported that the lending of the World Bank had not increased enough to cover the decrease in involuntary lending by commercial banks. The US money-centers and the heavily exposed regional banks, bracing themselves for losses, initiated an "aggressive debt reduction policy", with twelve of the eighteen most exposed US banks selling approximately $3.8 billion in the first half of 1988. The LDC economies continued to stagnate as the market strategy, by consensus in the financial community, failed to work.

Debtor country governments

During the first phase, the debtor countries found it in their interests to acquiesce in the Fund imposed austerity programs and renegotiations instead of repudiating their debt obligations. The consequences of default were widely recognized to be the stigma of untrustworthiness, the ineligibility for new loans, the seizure of many national assets, the setback of development prospects, the additional penalties that could be levered by the

34 Citicorp declared an increased loan-loss reserve policy in May 1987 of $300 billion dollars, and was subsequently followed by many other banks.
35 This is reinforced by the fact that most of the information about the secondary market deals almost exclusively with Latin American countries.
international financial community and the creditor governments, and the potential destabilization of political systems\textsuperscript{39}. But despite (or according to some authors because of) the restructuring programs, the conditions in many indebted countries worsened. Because of the particular configurations of political power in the debtor countries and in their interactions with their creditors, the LDCs continually promised to pay, participated in constant renegotiations, and endured the austerity programs\textsuperscript{40}.

By the onset of the second phase in the creditors' strategy, however, the increase in arrears became a definite pattern, ascending to unilateral cessations of debt service after 1986\textsuperscript{41}. During this time, the total amount of debt ceased to grow, because of the banks' withdrawal from the lending scene, starving the debtor countries of new money. In contrast to the close collaboration of the financial community and creditor governments, the indebted countries had difficulties in achieving unity, and seemed unwilling to move collectively. The huge diversity of conditions and prospects, the competition with each other for the best debt rescheduling deals, the different timing of financial crises, dissimilar foreign strategic links, internal political systems, personalities and values of the individual debtor countries' decision-makers created the barriers which kept (and still keep them) apart\textsuperscript{42}.

During the third phase, the number of countries showing difficulties in servicing their debt did not slow down. One-third of the Latin American countries were in arrears in 1986, and the proportion grew to three-quarters by 1989\textsuperscript{43}. One author comments that they achieved most of the benefits of repudiation without actually adopting common repudiation positions\textsuperscript{44}. Nevertheless, it is clear that the burden of adjustment has fallen on those least able to affect government policy, and the food riots, protests, strikes, looting and violent demonstrations are

\textsuperscript{39} Wiarda, \textit{op.cit.}, p.412.
\textsuperscript{40} Cohen, \textit{op.cit.}, p. 111.
\textsuperscript{41} Wesson, \textit{op.cit.}, p.422.
\textsuperscript{42} Cohen, \textit{op.cit.}, p.114.
\textsuperscript{43} Cohen, \textit{op.cit.}, p.115 Those countries in serious arrears or having unilaterally ceased debt service are Argentina, Brazil, Honduras, Peru, Venezuela, Ivory Coast, Morocco, Nigeria, Zaire; participating in nature swaps are: Bolivia, Costa Rica, Dominican Republic, Ecuador, and Zambia.
\textsuperscript{44} Wiarda, \textit{op.cit.}, p.415.
just the surface reflection of this. The poverty increased and endured partly as a result of the management style by both creditors and debtors.

Although the powerful domestic groups within the debtor countries managed to retain their privileges by obtaining special treatment and by moving their assets, their sensitivity to the costs of maintaining the full debt service had been growing\(^\text{45}\). Their receptivity to Northern calls for environmental protection and sustainability priorities increased as the internal pressure in their countries also been mounted. The May 1987 announcement of the World Bank policy change concerning environmental impact criteria for project funding, and the emerging changes in overseas development policies of other aid agencies augered the importance of the need to be seen to be concerned with environmental matters. But the budget constraints of the debt and austerity conditions meant that environmental expenditures were being cut. The arrival of debt-for-nature swaps offered a way to respond to the demands for action.

The Poverty-Environment Connection

While it may be difficult to establish the exact causal link between the debt crisis and the degradation of and a major effect of environmental degradation and economic decline\(^\text{46}\). As we have already seen above, the debt crisis throughout the 1980s exacerbated the conditions of poverty. The poverty contributed to the intensity and pace of land exploitation and degradation in LDCs. Marginalized peasants are pushed onto fragile ecosystems by skewed land distribution, and their subsistence agriculture in these areas result in degradation\(^\text{47}\). The environment is put under stress not only by people seeking to eke a living, but also by the strategies designed to promote development. Under pressure to increase exports, countries often resort to short-term heavy exploitation of natural resources: timber exports, cash crops, and mining, in a manner that cannot be sustained over the long run because of the cumulative damage to the environment. Whether the environmental destruction then causes poverty, or

\(^{45}\) Cohen, \textit{op. cit.}, p. 111.
\(^{46}\) MacNeill, \textit{op. cit.}, p.2.
\(^{47}\) Broad et al, cite a World Bank report on Costa Rica, El Salvador and Haiti describing this phenomenon, \textit{op. cit.}, p.151.
the poverty and the attempt to change it cause the environmental destruction, the result is a vicious circle that characterizes the situation of many LDCs. The debt and development crises, therefore, not only created the situation under which nature swaps were in the interests of the debtor governments, but also contributed to the environmental damage that debt-for-nature swaps intended, if only in a very small way, to alleviate.

1.3 Changes in the International Political Economy

The third aspect that bears discussion when considering the context in which debt-for-nature swaps arose are the changes in the international political economy. The emerging trends denote a larger change in the structure of the international political economy, and have played their part in influencing the debt and development crises and the problem of environmental destruction.

Trends

The first most noticeable trend is renewed government and political support for market-liberalist practices and ideologies throughout the international arena which characterized the 1980s. This resurgence of support reflects the response of governments and political groups to a broader change in the international political economy. The use of 'economic' (as opposed to regulatory or administrative) instruments in dealing with many problems under governmental purview is on the rise. For both environmental and LDC debt matters, the use and advocacy of these instruments has grown. With regard to environmental protection, an increasing interest shown in economic instruments at national and international levels is visible. The OECD recently published a book on different economic instruments and their effectiveness. Their findings point to a general rejection of additional environmental

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48 In many cases, the governments may perceive that they do not have an alternative, and that the forces of change are beyond their control.
regulation to attain environmental protection standards. The debate on carbon dioxide emissions taxes or marketable permits in emissions as a potential strategy for dealing with greenhouse gases also illustrates this trend. Equally, the use of 'free-market' strategies for dealing with Third World debt has grown, as was discussed in the previous section. The policies of debt-equity swaps and other market-based workouts urged by the government and bank creditor groups exemplifies this. Altogether, the Northern policies on North-South issues have been marked by a neo-conservative ideological ascendancy during the 1980s.

Another trend that began in the previous decade was the decline in aid given to the LDCs. Between the late 1960s and early 1970s, aid decreased and was being tacitly replaced by commercial lending. Wesson notes that the lending was "something of an adjunct of political influence when foreign aid for economic development was being phased out". The overseas development assistance from the OECD has fallen from 0.48% of GNP in 1965 to 0.34% in 1970, and has remained at that level since then. This decline meant that LDC development became increasingly predicated on commercial lending, and vulnerable to any changes in the flows of international finance. Moreover, according to Christopher Patten, the role of aid in development is being again redefined in the last few years through the growing awareness of the private sector, mirroring the shift discussed above.

The gradual long-term decline in the terms of trade for LDC exports is an additional feature of the contemporary global economy. The reduced demand for raw materials from the manufacturing industry, due in some sectors to efficiency gains in processing the materials, partially contributed to the decline. This decline coincided with world overproduction, the 'fallacy of composition' resulting from multitude of structural adjustment programs imposed on the LDCs. The combined effect of the reduced demand and overproduction was a serious dip-

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51 Wesson, op.cit., p.421.
in some cases an all-time low - for the real prices of many primary products. The dramatic depression in prices caused one academic to suggest that the Prebisch/Singer argument about the inevitable secular decline in terms of trade for commodity exporting LDCs may deserve reconsideration. Another author recently presented an argument of the decoupling of the industrial economy from the primary products economy, analysing the trend of decline over the last decade. As mentioned above, the difficulties many LDCs had in earning foreign exchange from their exports additionally protracted the debt and development crises.

Structural Change in the Global Political Economy

All of the above trends signal a larger change in the international political economy, one of structural dimensions - the globalisation of production and finance. This globalisation has had unprecedented impact in the ways in which economic matters are conducted between different groups within and between states. Following the demise of the labor-capital accord that organized the postwar structure of accumulation, the orientation of social groups is changing around the emerging configurations of production and finance. While this transition is taking place, the absence of any kind of order in the international economic arena, manifested in the chaotic financial markets and in interstate monetary (dis)coordination, is causing instability that negatively affects the LDCs. This is both directly in terms of the debt and development crises and indirectly in terms of its protraction through the continued absence of conditions promoting economic recovery on a general scale. Altogether, this structural change has resulted in an unparalleled degree of differentiation in the international political economy, characterized by regression and polarization at national and international levels. According to one academic "so far as the course of development in the periphery is concerned, this internationalisation of finance has been an unmitigated disaster".

54 John Ravenhill, "Discussant's Comments", p.58 in Flinders Workshop text.
55 Ravenhill, ibid.
57 John Browett and Richard Leaver, "Crises for Global Capitalism and Crises in Development Thinking", in Flinders Workshop text, p.10; Higgott, op.cit., p.27.
58 Browett & Leaver, op.cit., p.13.
Yet in a paradoxical sense, the rise of private economic power has both created the conditions that necessitated debt-for-nature swaps (through the debt and development crisis) and the opportunities for arranging the swaps (through the secondary market, and the ability of NGOs to exercise financial clout in buying up debt parcels). Debt-for-nature swaps rides on the swell of private economic power, and represents a private response, insofar as NGOs are considered as belonging to civil society, to a new public goods problem, new because of its global ramifications. Cox has noted that changes in production and finance will structure the future orientation of social groups, the coalitions that will form and the new social contracts that will emerge\(^59\). Debt-for-nature swaps have arisen on the basis of a new social alliance between state and non-state agents and, one could also venture, have formulated a new, though obviously small, contract on the basis of economic and environmental imperatives.

CHAPTER 2

The State of Debt-for-Nature Swaps

Against the background of these interwoven crises, and accompanied by a rising awareness of the need for environmental protection, the debt-for-nature concept made its appearance. In 1984, Thomas Lovejoy, then Vice-President for Science at the World Wide Fund for Nature - U.S. wrote an opinion piece for the New York Times advocating discounts or credits for debtor countries taking steps to solve their environmental problems:

Under the best of circumstances, debtor nations find it hard to address critical conservation problems because of multiple social needs. Stimulating conservation while ameliorating debt would encourage progress on both fronts.1

This first public suggestion that Third World debt could be transformed into support for conservation projects elaborates on debt-for-development themes developed by Osvaldo Sunkel and his group at the Chilean UN office of the Economic Commission on Latin America2. The World Wide Fund for Nature and other international environmental NGOs (IENGOs) began to work on this concept. The Frank Weeden Foundation was the first organization to commit funds to the realisation of a debt-for-nature swap, in allocating grants worth $300,000 to environmental organisations to finance such agreements3. Conservation International signed the first agreement with Bolivia in August 1987, thereby initiating the nature swap phenomenon.

This chapter will examine the state of debt-for-nature swaps. Because a case by case approach is beyond the scope of this work, the issues will be considered with reference to particular examples. Section one of this chapter will survey the present basis of the swaps, the interests of the parties involved and consider the overlap that enables this social coalition to

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2 Hultkrans, "Greenbacks for Greenery", Sierra, p.44; Susanna Hecht and Alexander Cockburn, The Fate of the Forest: Developers, Destroyers and Defenders of the Amazon, Verso, London, 1989, p.226. Hecht and Cockburn state that "Sunkel and colleagues initially devised the scheme as a means of compensating those who were repaying the debt through the hardship and poor quality of their daily lives".
3 The money was to protect undeveloped lands, help spur the independent efforts of developing country governments and environmental organizations and prompt the U.S. government and World Bank to encourage similar agreements, Timothy B. Hamlin, "Debt for Nature Swaps", Ecology Law Quarterly, Vol 16(4), 1989, p.1068.
CHAPTER 2

form. Section two will look at the progress of the swaps in attaining their goals, dealing in turn with the financial, environmental, and other aspects.

2.1 Present Basis of the Swaps

Around nineteen swaps have been arranged to date, and another four or more either have been already arranged or are indicated for the near future\(^4\). Appendix II shows the nineteen swaps listed according to the chronological order in which the exchanges took place and Appendix III offers greater detail on their specific components. To understand how the swaps arose as a private response to a 'public goods' problem, it is necessary to consider the actors involved and their interests in participating in the social coalition that performs the swaps.

Who and How

Before considering the interests of each party in turn, I will briefly review the actors and the steps that comprise a debt-for-nature transaction. The main parties in debt-for-nature swaps are the sponsoring international environmental organizations, the debtor country environmental organizations, the commercial banks, the debtor country governments, and the creditor country governments. Negotiations take place between all these groups, and possibly other parties as well\(^5\).

The process of conducting a debt-for-nature swap is a complicated one, with each step encompassing a variety of issues that need to be agreed upon. Certain parties participate only in those phases of the negotiations on matters relevant to them; for instance, the commercial bank will be present in the phase concerning the purchase and transfer of the debt. While subsequent swaps in the same country involve less work than the initial ones, von Moltke

\(^4\) These are not included on Appendix II as no details are available to confirm them from sources other than the ones in which they were initially reported. They are also not indicated in the up-to-date literature listing swaps that have take place.

\(^5\) Other parties affected or involved in negotiations are other NGOs, local civic organisations, industrial interest groups, indigenous groups, aid agencies and multilateral development banks.
The Debt-for-Nature Process

Start Here

Donors → US $1 US → Debt $1 Debt note

Purchase of debt at market discount

US $1 US → Debt $1 Debt note

Local in-country conservation organization

Central bank of indebted country

Private bank or secondary debt market

Endowment for local conservation organizations

Conservation of parks and reserves

Environmental education

Conservation Data Centers

Nature tourism
CHAPTER 2

notes that swaps will not soon become routine events, due to the large numbers of actors and the complexity of some issues\textsuperscript{6}. The pertinent factors vary with each swap, but the general pattern of the steps is as follows. (Please also refer to the illustration overleaf).

1) A debtor government and/or a local environmental NGO discusses the feasibility or appropriateness of a debt-for-nature swap with an international environmental NGO\textsuperscript{7}. When the decision is reached to pursue a swap, negotiations for the agreement are conducted on (i) financial terms of debt package and conversion\textsuperscript{8}, (ii) the general projects to be funded and (iii) the local NGO partnership with regard to the administration of the funds\textsuperscript{9}.

2) The international environmental NGO sponsoring the swap raises funds, then locates and purchases the commercial debt on the secondary market\textsuperscript{10}. The complexity of debt-conversions usually necessitates using financial intermediaries with special expertise in order to identify and prepare the requisite documents\textsuperscript{11}. The LDC debt may need to be traded amongst several banks to obtain the right amount for the right country. (Please see Appendix IV for a chart of secondary market prices for LDC debt).


\textsuperscript{7} J. Eugene Gibson & Curtis, and Randall K. Curtis, "A Debt-for-Nature Blueprint", Columbia Journal of Transnational Law, Vol. 28(2), 1990, p.344; they maintain that the swaps up to October 1990 have been initiated by debtor country or ngo within that country. This statement has been disputed by others who indicate that the international sponsoring organisation has on occasion initiated the discussions - personal interview, Nancy Pritchard, Conservation International, Sept 26, 1991.

\textsuperscript{8} Debt package issues include denominations, discount rates, size of debt note's face value or ceiling of total face value of debt that can be swapped in a given time period. Conversion deals with the exchange rate, redemption percentage, the conditions of payment - maturation schedules, recipient designation. The government's decision on conversion is made in light of many factors, including the current value of their debt on the secondary market, the restrictions of any debt restructuring agreements that have been entered into and the benefits possible from an increase in foreign exchange earnings from eco-tourism which the swap could support. Gibson & Curtis, op.cit., p.347.

\textsuperscript{9} The selection of a partner NGO involves issues of which groups, what eligibility criteria and what accountability measures are to be used. Often, the local NGOs have previously worked with the sponsoring NGO, and they have already participated in the initial discussions on the feasibility of a swap. Administration issues include the delegation of management responsibilities, the decision-making structures and parties, and implementation monitoring. Uses of the fund determine the allocation to land acquisition and management, research, education, habitat protection, sustainable development programs and other expenditures. Gibson & Curtis, op.cit., p.346; involves legal agreement with the beneficiaries as to the auditing and evaluation, future determination of fund use, projects to be implemented, and steering boards and program committees, etc. The support role of the international NGO, in terms of providing technical and administrative expertise must also be determined.

\textsuperscript{10} The debt is purchased in U.S. dollars/other hard currencies. (Donations of debt will be discussed in chapter 3). The prices for debt vary a great deal, with the lower prices reflecting the poor economic conditions of the countries, the risks involved. The lower prices are attractive to the sponsoring organizations, because when the central bank redemption is high, this creates the 'leverage' or multiplication of their funds. However, a low secondary market price indicates the estimated payback potential, and insofar as it implicitly reflects poor future economic conditions, it can also indicate the potential risk to the government's ability to honour the payment of conservation bonds (especially if stretched out over a long period of time).

\textsuperscript{11} Often the intermediaries have provided advice and acted as agents for the international NGOs without charging the fees that they normally earn for arranging commercial debt-equity swaps.
3) The sponsoring NGO transfers the title of the debt to the local NGO or to the central bank. (This step is technically very complex, and can vary as to who the actual purchaser of the debt is. The reasons for the variations are financial and tax-related.)

4) The central bank of the debtor government converts the debt into a local currency instrument, cash or bonds, or executes its side of the exchange with measures to protect designated areas, or conducts some combination of the above.

5) The agreed-upon conservation measures and programs are implemented, either by local groups and/or by the requisite government agencies. This final step achieves the ultimate goal of the swap. If the local currency instrument is in the form of bonds, the principal of the bond may serve as an endowment for the local organisation (or some other body) and the interest is used to support the programs on an ongoing basis.

The Interests of Parties

The relatively simple idea of the swap, though technically complex in its execution, relies on a particular confluence of interests of the parties involved. The social coalition that conducts a debt-for-nature swap is perhaps unprecedented, representing a new alliance between the financial community, environmentalists of both creditor and debtor countries, and government officials of both countries. The parties each have different objectives, but can use the intersection of interests to achieve the benefits of cooperation. Von Moltke and DeLong point out that the differences can also be constructive, "one of the major advantages in debt-for-nature swaps is the difference in the interests of the various actors that allows a range of solutions to problems that may arise." The interests of the groups are described in the

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12 R. M. Sadler, "Debt-for-Nature Swaps: Assessing the Future", *Journal of Contemporary Health Law and Policy*, Vol. 6, 1990, pp. 322-3. Sadler states that it can be the acquisition of the debt by the international NGO which is then donated to the local NGO, or the donation of necessary resources for the local NGO to directly acquire the debt, or the donation of the debt directly to the local NGO; however, von Moltke & DeLong report in 1990 that all of the swaps to date have involved either a conservation organization in the creditor country or the creditor country government, which donated it in turn to the local conservation organization in the debtor country, op.cit., p.3.

13 von Moltke & DeLong, op.cit., p.5.
following paragraphs, along with the benefits and the deterrents to participating in debt-for-nature transactions.

**Sponsoring international environmental organisations**

The purchasing environmental organizations (generally based in the United States or Europe) have been the large international conservation-oriented groups, the World Wide Fund for Nature, The Nature Conservancy, and Conservation International (hereafter WWF, TNC and CI)\(^{14}\). This is because the smaller groups do not have access to the financial or personnel resources necessary to arrange such a transaction. The larger organizations are well-placed in the international scene to enter into these coalitions for two reasons, the first of which is their access to sufficient financial means. Secondly, they often have long histories of collaborative relationships with the local environmental groups as well as the requisite governmental agencies in the debtor countries, which facilitate the arrangement and the implementation of the swaps. For instance, in the case of the Madagascar, WWF has been actively supporting conservation efforts in the country for over 24 years\(^{15}\). Brand remarks that the longstanding relationships have 'undoubtedly contributed to the success of swap activity to date'\(^{16}\).

The environmental groups' main objective is to promote environmental conservation. Debt-for-nature swaps provides them the opportunity to protect ecosystems and species to a greater extent than through straight cash contributions exchanged on the official currency market. They can multiply the value of their conservation funds by using the leverage from debt swaps, which is a product of the discount they receive from the secondary market combined with the higher redemption price from the central bank\(^{17}\). For instance, in the first Ecuadoran swap, WWF paid 35.4 cents per dollar for the debt, but obtained a 100 cents worth of sucres from the central bank. This swap was estimated to have produced 3 dollars and

\(^{14}\) Between them, these three groups have conducted 17 of the 19 swaps. They have also combined with smaller ones - the Natural Resources Defense Council, the Smithsonian, the World Resources Institute and the National Wildlife Federation - to form the Debt-for-Nature Ad Hoc Working Group which promotes the nature swaps. Other groups which endorse debt-for-nature swaps are: Cultural Survival, Greenpeace USA; Earth Island Institute, Calif, USA; Environmental Defense Fund, Washington, DC.

\(^{15}\) Sadler, op.cit., p.333.


\(^{17}\) The exchange rate is also an important variable in the leverage formula.
future interest income for every single dollar that the World Wildlife Fund purchased\textsuperscript{18}. Therefore, financially speaking, their interest is to maximize the discount and redemption rate to obtain the greatest leverage on the purchased debt. Their other interests include creating effective programs with their funds, in order to set off the opportunity cost of alternative uses of the finances\textsuperscript{19}, and the promotion and development of local environmental groups, who will then be able to pursue expanded and more effective conservation.

The environmental groups draw other benefits beyond the securing the "maximum conservation benefit with limited funds"\textsuperscript{20}. These include education of top policy-makers domestically and internationally as to the importance of conservation, the creation of environmental awareness in communities and generally good publicity. The nature swaps are also valuable to the groups if the funds attracted come from new donors, such as bank-donated debt. Additional bonuses are the strengthened links to banks and financial institutions, and financial know-how from the experience of conducting a swap. The financial context in which the sponsoring groups operate may also create another advantage. Many conservation organizations are not permitted to have significant levels of capital formation in their home countries. If they use their money in swaps, even when high inflation may threaten the ability of the local organizations to conserve the available capital, they gain financially. However, this holds true only to the extent that the interest payments from the swap-produced bonds are more beneficial than the opportunity cost of alternative uses of funds\textsuperscript{21}.

A number of obstacles to achieving the intended results of the swap also exist to dissuade sponsoring groups' participation. First of all, the transaction costs are high, as the complexity and length of time to arrange a swap places large demands on limited resources. The groups' other projects may suffer, and their general program priorities may become

\textsuperscript{20} von Molike & DeLong, \textit{op.cit.}, p.5.
\textsuperscript{21} von Molike & DeLong, \textit{ibid.}
skewed. Therefore, groups must decide whether the swap benefits outweigh the opportunity costs of using the funds. For some groups, deciding to participate in a swap may also depend on whether the resulting programs would be sufficient to adequately address the causes of resource misuse. Secondly, the implementation phase poses some deterrents. The sponsoring group must act as a guarantor to its domestic constituency, and in certain circumstances, to the tax authorities for the continued responsible use of funds. This responsibility remains even after it has relinquished effective control over those funds in order to avoid defensiveness about sovereignty matters hindering the swap. Thus the risk of unenforceability, should the debtor country not uphold its obligations, can dissuade a potential sponsor. In addition, the possible impacts of inflation (see chapter 3) in reducing the environmental programs' effectiveness also pose a risk for which the sponsorship of a nature swap may not be deemed worthwhile.

Local environmental groups

The local environmental groups vary in type and size from country to country. Costa Rica has an environmental movement with a long tradition, and local representatives for the swaps were easily found. Ecuador has a fairly young environmental organization with strong connections to the government. A coalition of groups was formed specially for the debt swap negotiations in Bolivia, as that country's environmental movement was less developed. According to some authors, the local environmental groups play the crucial role in debt-for-nature swaps. They often identify the conservation projects needing funding and then enlist a sponsoring IENGO. Many have been in contact with the sponsoring organizations through other conservation initiatives. The importance of these organizations arises from many factors.

22 Nina M. Dillon, "The Feasibility of Debt-for-Nature Swaps", North Carolina Journal of International Law and Commercial Regulation, University of North Carolina, School of Law, Vol. 16(1), Winter 1991, p.137; Jeffrey P. Prestemon, and Scott E. Lampman, "Third World Debt: Are there opportunities for forestry?", Journal of Forestry, February 1990, p.15. To assess this, the opportunity costs of alternative investments have to be considered, along with the risks of exchange rate fluctuations and inflation impact in both developing and industrialized countries. The costs of negotiation & transaction can be minimized if the sponsoring NGOs group together, if the swap follows preceding ones, and to a certain extent, if the banks provide their services, or better still, their debt at no charge.

23 von Moltke & DeLong, op.cit., p.5.


- their role in public education about the swaps, their knowledge of the country, and familiarity with local needs and conditions, and their ability to respond rapidly to changing circumstances. Their role in the implementation of the swaps over the long term, by drawing on the support and participation of concerned and affected communities, is also considered vital. However, they are a very diverse group, and while it is possible to sketch their interests at a general level, disaggregated analysis is not possible here.

The main interest of the many local environmental groups is to maximize their funding, as a means to the end of achieving their environmental goals. Groups will negotiate for high exchange and redemption rates to boost the amounts they will acquire. They equally have an interest in the promotion of future swaps, and in their own organizational development, which means that they have a large stake in the successful arrangement and implementation of the swaps.

On the whole, the entire debt-for-nature swap process is for them a very beneficial arrangement. They become strengthened through the acquisition of new funds, and the experience developed by the swap-funded programs. They also gain recognition from and influence upon the government by being involved in the policy-making of these programs. The nature swaps allow them to implement programs previously unfeasible through the technical and administrative support provided. Moreover, the funds provide not only new resources, but stability and longevity of the financial base through the endowments and regular income of the bonds. This stability is critical, as the growth of effective private conservation organisations is more recent that in the United States and Europe. Consequently, these organizations can improve their current and future conservation efforts by freeing up some of their resources from fundraising imperatives. The literature mentions no disincentives for the local groups to participate in nature swaps, and potential problems arising from swaps, though acknowledged, seem primarily to be considered factors pertaining to the sponsoring environmental organisations.

All types of banks are involved in selling LDC debt, but the primary sellers in the secondary market are the U.S. regional and European and Japanese banks. The former group has less exposure than the larger money-center and giant U.S. banks, and can therefore better absorb their losses and clear their portfolios. The European and Japanese banks do not face the same accounting regulations that create some uncertainties for the U.S. banks. They are more willing and able to reduce their exposure through the market. But most banks have reasons for wanting to sell their debt on the secondary market. Firstly, events in 1987 resulted in the practice of holding high loan loss reserves for LDC debt. Citicorp set a new high reserve in May, which forced other banks to follow suit. The New York Stock Exchange collapse added to pressures to establish greater loan loss reserves. The expense of this safety net "created an additional incentive for banks to donate or sell that debt for swaps"\(^{27}\). Secondly, from their perspective, the complexities of future participation in renegotiation and rescheduling process outweigh the benefits of holding much of the LDC debt. This is especially true for the regionals and non-U.S. banks mentioned above, as the process is often dominated by the larger banks and directed to their interests at the expense of the former group\(^ {28}\). Thirdly, they face the possibility of losing the entire loan from certain countries through default or later government-mandated forgiveness. Selling LDC debt on the secondary market, therefore, became an increasingly attractive option.

The banks' main interest lies in containing the costs of their non-performing portfolios. Swaps allow them to clear unwanted and unproductive foreign debt at low cost. When the banks sell portions of their debt, they receive immediate cash income, which allows them to reduce their required cash reserves \(^ {29}\), and possibly obtain tax deductions for losses incurred by the sale. Insofar as sponsoring environmental groups become customers in the secondary market, they are welcomed by banks like any other purchasers\(^ {30}\).

Benefits do accrue to the banks selling their debt to nature swap sponsoring groups. These benefits count all the more so if the debt has been donated instead of sold. They often have an interest in supporting non-profit organizations, both for tax deductions and for public relations purposes. They can obtain public relations value both in the debtor countries and in the United States, in the latter with "communities usually not disposed to be sympathetic to banking concerns."

There is also increasing recognition of the long-term economic value of natural resource protection. Debt-for-nature swaps can be seen as helping the debtor to invest in their future economic well-being and to repay other debts. In assisting debtor countries with their solvency problems through swaps, banks gain by promoting future good relations with the countries in question.

Finally, in light of the expected future increase in environmentally related investments, these banks garner a timely edge on their competitors, according to Dogse and Droste. Through nature swaps, they will have links to the conservation community, ministries of environment, national environmental protection agencies, and possibly also industries working with environmental technology. These could become important future business partners.

However, disincentives exist for the banks also, especially for donation of the debt, which has only occurred in three cases to date. Should the debtor country renew payments on its other debt, the banks lose future revenue by having sold the debt. The sales obligate the banks to justify their decisions to the stockholders, although they can argue that it contributes to the long-term stability of the country, and increases their own cash reserves. Another disadvantage arises from the 'free-rider' dilemma. Should debt-for-nature swaps, like other debt reduction programmes, increase the possibility that the debtor country can fulfil its other debt servicing obligations, those banks that do not sell their debt at a discount may reap

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31 Dawkins, op.cit., p. 7. A green image is increasingly a valuable asset in times of a public more concerned about the environment.
33 Dogse & Droste, ibid., p.23-27.
34 As the majority of nature swaps involve sales of debt, I will discuss the problems with donation of debt, along with more details on problems with debt sales in part 3.
35 Prestemon & Lampman, op.cit., p.14. This disincentive is of lesser importance, given current assessments of such scenarios. The future outlook of the debt situation will be discussed in chapter 3.
the benefits that the selling bank creates by taking a loss. Banks involved in debt-for-nature swaps may perceive themselves to be losing comparative advantage.

Other deterrents occur from the interpretation of the sale. Firstly, selling LDC debt may tacitly imply that the debt cannot be paid, which could be read as substantiation for the view that large-scale forgiveness is necessary. Banks generally dislike being seen to make statements on issues of general policy, and such a signal is undesirable. Secondly, banks do not want to create so-called 'moral hazard' by encouraging the debtor countries to relax their adherence to debt-servicing discipline. Banks fear raising the expectations of debtor countries of being able to service their debt along the less demanding lines of nature swaps rather than as originally agreed. Finally, the fear of debt 'contamination' remains an significant disincentive for banks to participate. This is where the sale of a portion of a particular LDC debt may prompt auditors to request the bank to write down on their books the remaining portion of that country's debt at the discounted price. Prior to 1986, the Generally Accepted Accounting Procedures (GAAP) required that all other loans to the same debtor country be readjusted to market value following the swap or sale of a portion of that country's debt. Although the accounting procedures changed, (through action by the Securities and Exchange Commission and the Financial Accounting Standards Board) and other debt could stay on the books at different levels, banks have stayed secretive about their sales. They are concerned for their bargaining position with other debtors over sales and renegotiations. The uncertainties of these valuation questions, and other related regulation and accounting standards for sold debt actively discourage banks from the secondary market. It is generally recognized that the market only deals with a very small proportion of LDC debt, a 1988 estimate naming the figure of around 1%. Nevertheless, the fact that the market has grown dramatically since 1984 testifies to banks' willingness to sell. The benefits accompanying participation in debt-for-nature swaps have attracted banks to this social coalition on at least nineteen occasions.

37 The details from this paragraph were gathered from Stephen Van R. Winthrop, "Debt-for-Nature Swaps: Debt Relief and Biosphere Preservation?", SAIS Review, Vol. 9(2), Summer-Fall 1989, p.130, 141; and Gibson & Curtis, op.cit., p.337.
38 Cody, op.cit., p.5. Most of the market deals in commercial debt-equity swaps.
Debtor countries' governments

Twelve swaps have taken place in Latin American debtor countries. Four of these countries conducting over half of the swaps, belong to the World Bank's category of the seventeen highly indebted countries. Most of the countries engaged in the swaps have been involved in numerous reschedulings and austerity programs, as well are experiencing severe difficulties in meeting their interest payments. Many also face critical environmental situations, with their natural resources and unique species rapidly disappearing. While these twin crises may not replicate itself exactly in every country, the general dilemma is common to all of them.

The central interest of the debtor countries is to reduce the debt burden as much as possible. Thus they wish to obtain as large a part of the discount from the secondary market as possible by giving less than 100% redemption rate for the local currency exchange. Whatever the rate finally agreed, the swap helps reduce the demand on foreign exchange reserves. It makes 'debt service' easier, because local currency is more readily available. Even though the amount swapped is small relative to the total debt burden, the debtor country benefits from the proper management of undeveloped resources, the protection of ecosystems and the development of 'conservation infrastructure', in which they also have an interest. As Bramble points out, "every dollar spent on debt service is a dollar withdrawn from development investment". Redirecting a portion of foreign debt payments to local projects greatly increases the financial resources available for these projects, if any. Some conflict of interest may arise within the government between the monetary representative and the natural resources representative of the government, the former wishing to pay as little as possible for the debt, whereas the latter desires the opposite in order to increase the funding for natural resources management and protection. These differences are resolved prior to the negotiations with the sponsoring NGO.

40 Bolivia, Costa Rica, Ecuador, and Mexico. The Philippines is the country outside the Latin American group that also features in the highly indebted category.
Of the two of the benefits mentioned above, easier debt service and conservation funds, the results of the latter - better managed resources and preserved ecosystems - is hard to quantify. Dogse and Droste remark that when linked to other economic incentives, like reduced demand on foreign exchange, the environmental gains will become more explicit and become at least approximately monetarized through the experience of sponsoring groups paying for them. If one considers the long-term costs of environmental destruction, it becomes clear that it is equally of interest to the developing countries to deal with their 'environmental debt'. One author emphasizes this when he states:

If the selling off of natural resources only pays the debt, yet does not boost new domestic investment in ecological enhancement or capital formation by an amount at least equal to the resource 'depletion factor' this constitutes the mere liquidation of assets characteristic of a bankruptcy.

Other financial benefits from the swap can be reaped. The usual form of redemption, bonds, tend to have a later maturity date than the original debt note. Therefore, insofar as these original debt notes were being serviced, the bonds effectively reschedule the obligation. Nature swaps are also attractive to developing countries, because unlike the equity swaps that may need hard currency inputs into the investment, most conservation activities require only local currency. Additional benefits with financial implications include recognition of effort and commitment from Northern countries. On the whole, the publicity is very positive, especially with the first swaps. This improved image can potentially improve the country's creditworthiness and investment attractiveness. One author notes that "conservation

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45 von Moltke & DeLong, op.cit., p.5.
47 Dogse & Droste, op.cit., p.23.
expenditures in LDCs represent an expression of faith in the future of these countries."\(^{48}\). The symbolic importance of the nature swap lies in countering the vicious circle of lack of faith in the debtor country's economy, which compounds the capital flight\(^{49}\). Finally, the swaps increase awareness domestically and internationally of the need both to reduce Third World debt and to promote conservation and development plans. The awareness amongst politicians and bankers may help to decrease financing for investment in non-environmentally sustainable projects\(^{50}\).

As with all the other parties, potential disadvantages can deter the debtor countries. They remain concerned about their long-term creditworthiness. Having generally accepted the role of capital in national economic development, they wish to retain access to it\(^{51}\), and it remains a matter of speculation as to how banks in the future will assess nature swaps with regard to the moral hazard problem outlined above. From another angle, debtor countries may also face negative domestic reaction to any sort of debt negotiations, and accusations that they are overpaying the redemption of the debt\(^{52}\). A debtor country could perceive the swaps as barring the use of potentially valuable resources for very small reductions in the foreign debt\(^{53}\).

Other disincentives include problems with the economic impact of nature swaps - the potential increase of inflation, and the sovereignty issue - the foreign interference with domestic priorities. These issues will be dealt with at greater length in chapter 3, but need to be mentioned here. If countries have serious concerns about them, they will be unwilling to engage in nature swaps. The most obvious case is Brazil, whose government has repeatedly rejected proposals for various arrangements, and issued strong statements about safeguarding its sovereignty. A final disadvantage may be the inadequacy of swaps in addressing the causes of resource misuse\(^{54}\). In terms of its interests, the debtor country government must be clear as

\(^{48}\) von Moltke & DeLong, _op.cit._, p.8.

\(^{49}\) von Moltke & DeLong, _ibid._.

\(^{50}\) Dogse & Droste, _op.cit._, p.24.

\(^{51}\) Bramble, _op.cit._, p.192.

\(^{52}\) This relates to the criticism of the illegitimate nature of the debt, which will be examined in Chapter 3. Dogse & Droste, _op.cit._, pp. 23, 25.

\(^{53}\) Dillon, _op.cit._, p.136.

\(^{54}\) Dogse & Droste, _op.cit._, p.23.
to what it wishes the swaps to achieve, and what value it attaches to the disincentives. The balance of favor will naturally vary between countries.

**Creditor countries' governments**

The creditor country governments do not have any vital interest in participating in the swaps. However, they do have some relative interests in the arrangement and successful implementation, and may have more so in the future. They play an important role in relation to taxation matters of donated debt, and possibly their involvement through legislation and other means will become more central. In the meantime, they garner several benefits from those swaps arranged with their assistance. Firstly, they receive political kudos for supporting sound environmental management. The current degree of popular support in the United States and Europe for conservation and other environmental protection measures assures a positive response to government actions assisting such swaps. Secondly, any program that contributes to the stabilization of the LDCs economic situation without necessitating their specific financial intervention is in their interest. Thirdly, creditor country governments have a stake in any mechanism that combats mass deforestation. The link of deforestation with global climate change and the loss of biodiversity ensures that insofar as nature swaps contribute to more ecologically-balanced management of forests, the swaps deserve creditor country support.

**The Confluence of Interests**

These then are the many interests, benefits and disincentives for the parties participating in debt-for-nature swaps. As mentioned above, it is the confluence of particular interests that allows this social coalition to form. Von Moltke illustrates the intersection of interests that

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55 The two early occasions where debt was donated for nature swaps impinged on the new ground of tax valuation of donated debt. Here the U.S. Dept of Treasury's action of issuing a Revenue Ruling in November 1987 was considered an important first step. This matter and related implications of donated debt, legislative support, and governmental participation will be explored in chapters 3 and 4.
56 Bramble, op.cit., p.192.
57 von Moltke & DeLong, op.cit., p.8; They state this without specifying financial intervention, but arguably in terms of policy and management of the debt crisis, government intervention in the LDC economic situation already takes place. The evolution of creditor government participation, both with regard to the debt scene and the nature swaps will be considered in chapter 3.
enables swaps to be arranged with the following example\textsuperscript{59}. The debtor countries want to obtain a greater net benefit than they would otherwise have. This can mean either substituting external funding for necessary expenditures, or retiring more foreign debt than would be possible by other means. Sponsoring organizations, on the other hand, don't wish to pay for that which the developing countries would do anyway. They want to have new and additional measures put in place for their money. The retirement of foreign debt can satisfy both parties, but require the active support of the banks. Furthermore, just as nature swaps are possible through an intersection of interests, and requires intricate designing to satisfy all participants, any one of those parties can prevent the swap from occurring should they not be satisfied\textsuperscript{60}. This indicates a certain fragility in the coalition, given the present context of the debt crisis, the secondary market, and the other conditions described in chapter one. Having reviewed the objectives and possible problems that the parties which to achieve or avoid, it is now necessary to consider to what extent and in what ways the swaps have realized the interests and produced or avoided the difficulties identified above.

\subsection*{2.2 Progress of Swaps}

The progress that the swaps have made and are making towards the realization of the goals for which they were designed will be the focus of this section. This evaluation exercise is strewn with difficulties, however. Part of the difficulty lies in the fact that little time has passed. Just under half of the swaps have been agreed upon within the past two years, and in some cases, the debt for these has still not been purchased. Another major difficulty, arising directly out of the first, lies in the lack of progress reports in the secondary literature. Most of the information available concerns the first three swaps, which, being the oldest, have had the most scrutiny. But most updates are usually confined to the swap transaction and implementation details according to the agreement, not according to how they have actually

\textsuperscript{59} von Moltke & DeLong, \textit{ibid.}, p.7.
\textsuperscript{60} von Moltke & DeLong, \textit{ibid.}, p.10
fared to date. A third and perhaps the most serious difficulty lies in the fact that the very parameters for assessment themselves are under dispute. Determining the appropriate expectations of what swaps can achieve will influence the evaluation significantly.

Much of the discussion on the accomplishments of nature swaps has centered on the two main categories of debt relief and environmental conservation. But if the agreements generally were designed to serve various ends, as Hamlin maintains, then the assessment of the swaps will depend on to what extent these ends are reached. He identifies multiple financial interests, the promotion of local environmentalists, future nature swaps, the management of undeveloped resources, and the resolution of conflicts of interest as goals. Another way of assessing the swaps would be within the context of the environmental needs of developing countries, as Patterson does. Criteria would then include, at the national level, the increase of environmental awareness throughout society, the development of environmental strategies, the furtherance of sustainable development, and effective biodiversity protection. At the governmental level, it includes significant policy reform and the strengthening of governmental agencies. The other three needs consist of strengthening independent NGOs, encouraging the profit sector in conservation and sustainable development, and tapping significant financial resources. While it has become obvious that debt-for-nature swaps will not accomplish some of the larger aspirations invested in them at their inception, looking at how swaps do fulfill the interests of the participants in terms of debt relief, environmental protection, and other goals mentioned above will demonstrate the progress that nature swaps have made. It will also reflect the relative importance of swaps as a private mechanism in addressing the environment-development nexus.

Debt Relief and Debt Stabilization

61 This is presumably because the evaluation phase would entail costs for which no money is available, and because those swap arrangements which mandate expenditure reports would be in the local languages, the translation and analysis of which are not yet available in the secondary literature.
62 Hamlin, op.cit., p.1070.
It is generally acknowledged that debt-for-nature swaps concern insignificant amounts compared to the total debt burden. Words such as "negligible" and "minuscule" are used to describe the amount of debt retired. The proportions involved usually tend below the 1% figure. For instance, Bolivia's swap involved $650,000 compared with a debt burden of $8.3 billion - approximately 0.13% \(^{64}\); the Philippines has a $2 million swap agreement compared to a debt burden of $28.4 billion. The exception is Costa Rica, whose first two years of swapping amounted to $68.5 million. This is approximately 5% of its private foreign debt. Another potential exception is the Dominican Republic, whose program has a conversion ceiling of $80 million. If this amount is exchanged, it could retire around 10% of its foreign debt. These examples notwithstanding, with the present scale and number of nature swap transactions, relief from a staggering debt burden is not a realistic outcome for most debtor countries.

Despite this, those who support nature swaps dispute the total debt burden being used as a point of reference. Hamlin points out that given the limited resources of the sponsoring environmental organizations, no expectation existed that swaps would make an important dent in the aggregate burden of the countries concerned\(^ {65}\). He stresses that the swaps should not be dismissed because of their size but rather judged a financial success due to the mutual benefits that result both for debtors and sponsoring organizations\(^ {66}\).

Other authors emphasize the reduced demand on foreign exchange that the debtor countries experience as a result\(^ {67}\). But Patterson points out that the savings are actually less, simply because many countries are currently unable to service their debts\(^ {68}\). Bolivia and Ecuador have had moratoria on both debt and interest repayments over the last several years, and Costa Rica has limited its repayment to a fixed percentage of the government principal. No figures are available in the secondary literature to show how much reduction is achieved. A more indicative measure, however, would be the amount of "debt stabilization" that the swaps

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\(^{64}\) Burton, op. cit., p.241; Hamlin, op. cit., p.1071.
\(^{65}\) Hamlin, ibid.
\(^{66}\) Hamlin, ibid.
\(^{67}\) Winthrop, op. cit., p.129.
\(^{68}\) Patterson, op. cit., p.10.
produce; that is to say, the percentage that the swap represents in the annual interest payments
met or missing. In most cases, the amount of interest unpaid is capitalized and adds to the total
burden. As virtually no new loans are available, the absence of an increase in total
indebtedness could be attributed to the swaps and would more accurately reflect the financial
'relief' produced. Two authors report that the swaps, in this manner, make a "noticeable
collection of interest towards a more viable [DC] debt situation"69. The limited budgets of the
sponsoring organizations, though, restrict this potential for debt stabilization, as Sadler
correctly underlines. To date, these organizations have only purchased debt heavily discounted
in the secondary market, or debt from those countries qualifying as heavily indebted by the
World Bank70.

However, a broader consideration of the financial benefit afforded by nature swaps
comes from Potvin. He criticizes the financial analyses of nature swaps limited to conventional
market considerations, such as those found in World Bank Working Paper by Occhiolini and
Hansen71. Occhiolini proposes that if the spending on the domestic environment bond is
greater than the debt service payments on the external debt exchanged for the swap, then the
swap is worse for the debtor country than an outright donation of the money used to purchase
the debt72. Hansen asserts that the benefits to debtors from nature swaps depends on the
expected evolution of the secondary market discounts for debt73. Potvin rejects these
approaches which assess nature swaps only in relation to their short-term financial merits. He
formulates an ecologically sustainable development economics framework, and suggests that
the aforementioned authors miss several benefits by not considering the debtor countries'

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70 Sadler, op.cit., p.336. This may no longer be valid, as four other countries have transacted 6 more nature swaps and may
not fall into these categories. Those heavily indebted countries who have engaged in swaps are Bolivia, Costa Rica, Ecuador,
Mexico, and Philippines. Those countries with heavily discounted debt in the secondary market are, according to Sadler's
footnote 111, (Dec '87) Costa Rica and Zambia. Appendix IV in this paper only has prices for one other country that has had a
debt for nature swap - Poland (April '88 - 42%). No secondary prices are available for Madagascar, Paraguay or the
Dominican Republic, and none of these feature in the 17 highly indebted category. However, generally, the low secondary
market price and/or the amenability of government to a nature swap will be related to the amount of indebtedness of a
developing country.
71 Hansen, Stein, "Debt for Nature Swaps - Overview and Discussion of Key Issues", Ecological
Economics, Vol 1 (1), February 1989, pp.77-93; Occhiolini, Michael, "Debt-for-Nature Swaps",
Working Paper 393, Debt and International Finance Division, International Economics Department,
72 Occhiolini, op.cit., p.17.
73 Potvin, op.cit., p.3; Hansen, op.cit., p.85.
ecological maintenance expenditure obligations, which swaps can help reduce. The point that Potvin makes is that the debt-for-nature swaps can have positive spin-offs for domestic expenditures for environmental services like clean water. These expenditures appear in financial terms, either by not being paid and showing up in other financial losses, or by being paid in order to maintain the services. Insofar as neglect of these obligations make it more difficult for countries to service their debt over the long-term, for instance, in the case of non-sustainable harvesting of natural resources to earn foreign exchange, debt-for-nature swaps provide greater relief and stabilization than the above-mentioned generic comparisons and proportions reveal. In his own words:

Ecological debt obligations are considered here to be at least as imperative as those related to foreign financial debt. For just as surely as the global financial system will founder if a large proportion of the outstanding debts among developing countries are simply defaulted, the functional integrity of the ecosystem will fail under stress if adequate financial commitments are not forthcoming for initiatives to control and reverse the cumulative degradation. The argument that debt-for-nature swaps barely make a dent in the overall debt burden applies equally to both problems - in particular because neither one is the result of a mere cash-flow squeeze. Compared with the fundamental structural improvements needed, the amount that any financing mechanism can be expected to achieve without much of an increase in new funding commitments is obviously limited.74

Potvin maintains that so long as the mechanism brings i) returns on investment to conserve resource rent values, and ii) reductions in essential ecological maintenance expenditures, it provides debt relief75. This perspective transcends the previous evaluations by considering the 'services' provided by the environment. In the same way that it is cheaper to conserve energy than to produce new sources, conservation and maintenance of ecological functions is better than expenditures for rehabilitation after damage has been wrought76. Therefore, debt-for-

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74 Potvin, op.cit., p.39. Italics from the original.
75 Potvin, op.cit., p.39.
76 Potvin discusses this in relation to the inflation question, op.cit., p.35-36. He notes that returns to conservation investment can be calculated from exhaustible resource rents conserved as well as most cost-effective protection, repair and enhancement expenditures on improvements to functional ecological integrity. He concludes that the debtor country would benefit more from maximizing its obligations through saving resources and reducing necessary expenditures rather than making environmental expenditures.
nature swaps produce a measure of both direct and indirect debt relief through stabilization and contributions to the maintenance of ecological integrity. Nevertheless, the relief afforded remains small compared with the overall need.

Environmental Protection

As with debt relief, the evaluation of environmental protection achieved depends on the delineation of the area for scrutiny. Protection can be considered specifically - how each program instituted by the swap is faring - and generally - how the changes in governmental priorities will ensure future conservation efforts, how the swaps address the causes of degradation, and even globally, what swaps contribute to combating the wider problems of deforestation, greenhouse gas release, and genetic diversity loss.

Specific Swaps

Referring to specific achievements, von Moltke comments that "the resulting conservation programs have had a major impact". In some cases, the sponsoring organization's resources available for conservation have been doubled, and frequently amount to the total resources that the sponsoring organization has transferred to the debtor country over the past two decades. To date, over $100 million in local currency has been generated for conservation, and until last year, all fund disbursements have been complete and on time with only one exception. In Bolivia, funds are now going to an important protected area where none were previously available. In Ecuador, swaps provided funds of a size twice that of the annual government park budget. According to Brand, a high proportion of this additional money pays the direct costs of preservation and sustainable management. Most swaps have designated their expenditures for existing parks and preserves, though some new areas have been placed under protection.

77 Von Moltke & DeLong, op. cit., p.10.
78 Brand, op. cit., p.38. Her report is dated August '90 - more recent indications concerning payment promptness is available; the exception is Bolivia - see section 2.3.
79 Patterson, op.cit., p.6.
80 Patterson, ibid.
81 Brand, op.cit., p.39.
Generally the priorities of the swaps have reflected those of the sponsoring organizations: the procurement, preservation and management of natural resources. Conservation International concentrates on 'sustainable development' programs, especially for the timber industry, while protecting biological diversity and regeneration of resources. It also provides scientific research scholarships, environmental education programs, and formal training in biology. The Nature Conservancy aims for the improvement of documentation of the scientific significance of the protected areas. Each swap country is requested to fund Conservation Data Centers. The World Wide Fund for Nature focuses on more traditional conservation measures. It seeks to combat the problem of parks without effective protection by having ecologically important lands set aside and by training conservation professionals. It also designates part of its funds for institutional development and individual training. Hamlin states that while the sustainable development and traditional conservation approaches differ fundamentally, "it is not clear that either is necessarily superior." The WWF approach has the swapping country decide which lands to preserve, but its agreements usually prohibit any activities other than research in those areas, whereas CI responds to the developmental needs of the swapping countries with sustainable development programs.

With regard to the success of the implementation, again, it is too early to make definitive proclamations for most swaps. Perhaps a good indication will be when the first swap agreements come up for renewal in 1992. Should either the IENGOs, local NGOs or debtor governments decline to participate further, problems in implementation will be revealed. Some indications of progress are available for Bolivia, Ecuador and Costa Rica. In Bolivia, the conservation of the Beni Region is progressing now that the administrative structure is in place. Task forces have been appointed to deal with issues of forestry, watersheds, flora and

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82 In conjunction with this, it also works to protect indigenous territories from logging and subsequent colonization, according to Maria Teresa Ortiz, "The Road to el Porvenir", Orion Nature Quarterly, The Myrin Institute and Conservation International, Vol. 8 (3), Summer 1989, cited in Dawkins, op.cit., p.11.
83 Dawkins, op.cit., p.11: The data centers are locally-controlled, employ 5 to 8 scientists and establish a local data-base for species ranked according to endangerment and degree of uniqueness.
84 Hamlin, op.cit., p.1077-8.
85 Hamlin, op.cit., p.1079
86 The following information is taken from Gibson & Curtis, op.cit., pp. 358-9; 363-4; 371-2.
fauna conservation, public awareness, environmental education, and the socio-economic ramifications of the conservation programs. In Ecuador, for both swaps a new budget and rules for project review have improved the decision-making among the parties involved by formalizing the procedures. As for Costa Rica, the amount of swaps transacted speak for the positive experiences the country has had with nature swaps. A new debt conversion program was launched in February 1989 to promote sustainable development - supporting projects involving education, small industry and natural resource conservation. Gibson and Curtis observe that this 'institutionalisation' of the swaps through the conversion program illustrates the country's commitment to the success of the swaps.

Another perspective with which to consider the environmental protection of nature swaps involves looking at the wider picture, again using Potvin's ecological economics framework. Debt-for-conservation can be valuable in a type of national resource accounting exercise. If the nature swap programs are an effective use of funds for environmental protection which must eventually be paid, and furthermore, if ecology rent conservation is more efficient than the creation of new rents, then the overall contribution of swaps goes beyond the value of the land protected. Potvin discusses this in relation to a broader application of debt-for-conservation than current nature swap practice. But the point remains valid. Insofar as swaps result in shifting resources from environmentally degrading activities to more sustainable ones (whether in park protection or in 'sustainable use' projects), they accrue further direct and indirect financial benefits. Swap projects can decrease future expenditures to maintain or restore functional ecological integrity or to extend annual resource rents\(^{87}\). Seen in this manner, the environmental protection nature swaps produce cannot be considered minimal.

**Wider Impact**

The wider impact of swaps must also be closely considered in evaluating the success of environmental protection of the swaps. Such aspects as raising environmental awareness,

\(^{87}\) Brand, *op.cit.*, p.42.
influencing governmental priorities, addressing the causes of degradation and the wider problems of global warming and species loss contributes to the realization of the swaps' objectives. In terms of awareness, swaps are considered quite good at fostering consciousness of environmental issues. Both in the participating countries, and throughout Latin America, Gibson reports an increased awareness of conservation issues as a result of the swaps88.

In terms of governmental involvement and future commitment to environmental protection activities, the swaps have been relatively constructive. The various government ministries, often including the Central Bank, have an ongoing role in the administrative bodies established to oversee the swap programs. This involves them on a long-term basis in the process of their country's environmental protection and conservation. In Ecuador, for example, several government agency representatives serve as members on the swaps' project commissions, which determine projects, budgets and plans along with the international NGOs89. An additional signal of the government's interest and support came when the Monetary Board's representative officially acknowledged the swap - a gesture of political and policy significance. The first Philippines swap likewise specifies joint approval of projects and programs by the environment department and the local and international NGOs. Similar arrangements exist for the other swaps. On the whole, the swaps have been generally well supported by the participating governments, the institutionalisation of a debt conversion program in Costa Rica being the foremost example. Yet the fact is that the swaps usually fall within the policy areas already approved by the governments. They probably effect very little change, Patterson notes, though change is more likely when the funds or rewards are greater, or when the swaps fall in line with directions desired by the government90. An upcoming test of this would be Brazil, whose president is reputedly in favor of swaps but faces opposition from other areas of the government. Brazil is also currently considering nature swap transactions (see Appendix III, under the end section of Other Potential Swaps).

90 Patterson, op.cit., p.12.
Whether the swaps' programs address the causes of environmental degradation is a somewhat controversial question. The negative contention forms the basis of much criticism of the nature swaps. Winthrop, though supporting the swaps, and pointing out the many thousands of acres under protection (admittedly of varying degrees of effectiveness), highlights the difficulty of attributing lasting impact to the swaps. He likens it to attempting to move a mountain with a teaspoon91. The sustainable development programs promoted by the local NGOs and CI take initial steps, but the larger circle of poverty and debt-linked natural resources exploitation clearly need more fundamental reforms. Patterson states that relative to the needs of country-wide environmental plans and sustainable development strategies outside of protected areas, debt-for-nature swaps fall short92.

The related questions of swaps' contribution to problems of global warming and genetic diversity loss also necessarily feature in an assessment of the nature swaps' wider impact. According to Sadler, tropical rainforests are the primary beneficiaries93. To the extent that this halts deforestation over the long term, the swaps play a role in combating these two problems. They achieve this by simultaneously reducing the release of greenhouse gases and conserving the immense genetic diversity of the forests. The future consequences of global warming and genetic diversity loss mean that this dimension of environmental protection benefits all countries. Brand correctly stresses that the current problems in environmental valuation should not allow a marginalisation of the global benefits of the conservation programs94.

Another contribution of nature swaps is the accumulation of scientific knowledge about tropical ecosystems that they enable95. Research needs have been better defined, and now includes studies on the social and economic impacts of the conservation projects on the local and indigenous communities, as in the Bolivian and Paraguayan swaps. The Conservation Data Centers in particular are considered very valuable. The outcome of these research projects will

91 Winthrop, op.cit., p.147.
92 Patterson, op.cit., p.12.
93 Sadler, op.cit., p.338.
94 Brand, op.cit., p.41-42.
95 Dawkins, op.cit., p.12.
be an improved understanding of environmental and social needs and the ability to undertake environmental protection.

**Other Goals**

Other goals of those parties participating in nature swaps include the strengthening of local conservation groups, attracting significant financial support, and the developmental interests in the management of natural resources. (The promotion of further agreements will be discussed in chapter 4.) These issues pertain to the evaluation of debt-for-nature swaps in illustrating to what extent they can be realized and what this implies for the overall ‘success’ of the swaps.

The sponsoring groups desire a strengthening of local conservation groups in order to see more effective and self-determined conservation efforts which reflect local needs and priorities. In effect, this has occurred, at least to a greater extent than existed prior to the swaps. The groups gain influence by being officially included in the agreements for the implementation of the swap programs and by being designated recipients of the swap funds. The Bolivian NGO LIDEMA is the 'executing entity' for CI, representing the sponsor and contracting out for the program implementation. Furthermore, its role has been enhanced since the execution of the agreement. It is now a member of the Finance Committee which has the power to veto use of funds from the Beni Biosphere Reserve endowment\textsuperscript{96}. In the first Costa Rican, Ecuadoran and Philippino swaps, the local NGOs are signatories to the agreement, and hold substantial authority as such\textsuperscript{97}. They also hold the bonds and receive all the interest, or in the Philippino case, obtain the currency directly. The long-term stable financing is equally instrumental for their development. Hamlin notes that while they do not necessarily have management autonomy as a direct result of fiscal control, they remain important for the implementation of the agreement. The NGOs thereby gain influence in government circles and in turn promote the development of environmental interests in these countries. As Hamlin

\textsuperscript{96} Hamlin, \textit{op.cit.}, p.1072 following info on local groups taken from this page.

\textsuperscript{97} Hamlin, \textit{ibid.}
points out, "this formal linkage between local environmentalists and their respective
governments may be the most significant accomplishment of the debt-for-nature agreements."98
This solidifies at least one part of the social coalition. It also helps not only the chances of
continued adherence to the agreement, but furthers the integration of other environmental
protection objectives into the main political agenda and promotes cooperation between the
NGOs and the government in achieving these goals.

The participating countries also have developmental interests at stake in conducting
debt-for-nature swaps. These fall into what Hamlin calls the management of undeveloped
resources. Those countries participating are interested in the benefits of traditional conservation
for non-developmental reasons, but especially in those swaps that promote 'sustainable
development' projects. One example is the second Costa Rican swap, which placed 25% of
its funds in sustainable development practices through local social interest groups (see
Appendix III). Another example is the first swap with Bolivia99. The Beni Biosphere region
is divided into core and buffer areas: the core remains undeveloped (for scientific observation
only), the buffers will be used by the Chimane Indians and carefully monitored agricultural and
forestry development. However, to date, sustainable development-oriented swaps are in the
minority. By contrast, the majority of WWF-sponsored swaps (which outnumber the CI-
sponsored swaps 2 to 1) promote traditional conservation that does not allow any economic
development on its designated sites - as in the first Ecuadoran and Philippines swaps100.
Nevertheless, those governments concluding agreements with WWF are clearly interested in
the benefits that the stricter conservation approach provides.

Sustainable development strategies are now being investigated as ways to enable a
"permanent, healthy and survivable interaction between humans and the environment."101 In
light of the growing interest in such practices, especially with those natural resources presently
exported for foreign currency earnings, the debtor countries have a great deal to gain by

98 Hamlin, ibid.
99 See Hamlin, op.cit., p.1078 for more details on agreement structure.
100 Hamlin, op.cit., p.1079.
101 Dawkins, op.cit., p. 12.
assuring themselves the benefits of more viable and longer-term natural resource management\textsuperscript{102}. Insofar as the nature swaps provide a better understanding of how to promote a balanced and non-destructive co-habitation between humans and the environment, they promote the long-term development interests of the swapping countries.

The debtor countries also need substantial financial resources to deal with their environmental needs. For various reasons, nature swaps so far do not necessarily provide significant amounts of funding. While this may change, presently the swaps are not successful in attracting the private for-profit sector in conservation and sustainable development efforts. The enormous needs of the debtor countries means that the absence of this sector greatly limits the capacity of debt-for-nature swaps to address environmental protection and country-wide involvement in less destructive strategies\textsuperscript{103}.

Thus we see that nature swaps aim for a variety of goals with differing levels of success. Broad interpretations of debt relief, and environmental protection permit a favorable conclusion. Nevertheless, this somewhat positive picture of the progress that nature swaps have made must be contrasted with the problems, constraints and critique that have arisen, and which the following chapter examines.

\textsuperscript{102} The potential of non-timber forest products as an environmentally sustainable source of income is gaining a lot of attention, but at present is still at the experimental stage.

\textsuperscript{103} Patterson, op.cit., p.12.
Problems and Critique of Debt-for-Nature Swaps

Debt-for-nature swaps are subject to a number of problems and constraints, as well as criticisms. The problems can act as disincentives to participants from engaging in the swaps and offset the progress already discussed. The criticisms of the swaps take both the problems engendered by the swap process and the underlying rationale of the swaps to task. The first section will examine these problems and to what extent they pose a barrier to the progress discussed previously. The main problems fall into two categories - in transaction arrangement and in implementation. The second section will consider the criticisms, their basis and what the implications for the outlook of the nature swaps are. The main types of criticisms concern the mechanism's shortcomings, its moral difficulties, and its imperialist aspects.

3.1.1 Problems in Transaction Arrangement

The majority of the problems in the arrangement of the nature swap transaction fall into the category of identifying and acquiring the debt, although certainly difficulties in negotiations on the agreement exist. The latter are very seldom discussed in the secondary literature, except in the context of the disincentives and conflicts of interest mentioned in section 2.1. Consequently in this section, a nature swap agreement is taken as a given.

Buying Debt

Once an agreement on the debt package has been made, a sponsoring environmental organization may experience difficulties in identifying and purchasing the right kind of debt on the secondary market\(^1\). Previous to changes in U.S. tax and accounting regulations in 1986-87, debt on sale for swaps was scarce. Since then, the situation has improved\(^2\), and the secondary market has continued to grow, but locating the desired parcel can still prove difficult. Because of their limited resources, sponsoring organizations are generally looking for small amounts of debt, typically $100,000 to $500,000. Third World debt tends to be held in much larger quantities and these small amounts are thinly traded. It may be difficult to

\(^1\) This passage relies mainly on information from Winthrop, op.cit., p.141-2, and Gibson & Curtis, op.cit., p.338-9.
\(^2\) See discussion in Chapter 2.1 regarding banks' disincentives to participate.
identify which banks have the appropriate types, as they are typically the lesser known regional banks. Often, these amounts have been fully written down by the banks, which removes the tax benefits to the banks of selling at a discount and recording a loss. Also, the larger investment banks dealing in the secondary market earn substantial fees from trading debt (sometimes up to 4% of the deal), so the smaller parcels may not be considered worthwhile in terms of the transaction costs involved.

Following the location of the appropriate debt package, the acquisition may present problems. Third World debts are often held by bank consortia, and require complicated transactions to obtain the multiple approvals. The leaders of a consortium, usually large money-center banks, fear debt contamination, and sometimes block the conversion until the debtor country has renegotiated its debt terms. According to Gibson and Curtis, most nature swaps to date have been transacted with the developing country debt that has already been written down by the banks, or for which the banks have already established loan loss reserves. While it was noted above that such treatment of the debt removes the tax incentives to banks to sell, the NGOs hope that banks will become more receptive to selling or donating, presumably because the treatment resolves accounting problems.

Acquiring Bank-Donated Debt

Bank donations of debt have been very rare, with only four instances occurring to date. However, because of the limited resources the sponsoring NGOs have, donation of debt is considered one possible way to increase the scale of nature swap activity. Analysis of the tax situation facing U.S. banks considering debt donation shows that both uncertainties and the lack of incentives hinder banks from donating. Three main factors influence this situation - the

3 Gibson & Curtis, op.cit., p.339
5 In June '89 the top 15 U.S. banks had approximately $20 billion in reserves against $70 billion in loans, but the reserves were not earmarked for LDC exposure formally; General Accounting Office figures show that regulators required $4.3 billion, but estimated that a minimum of $49 billion is necessary - Gibson & Curtis, op.cit., p. 338.
6 They are 1) Fleet National Bank (Norstar Financial Group) of Rhode Island, February 1988, $254,000 to TNC for Costa Rica swap no. 1; 2) Chase Manhattan affiliate, December 1988, $400,000 Bolivian debt to CI; 3) Deutsche Bank, sometime in 1989, of an unknown to Madagascar for environmental conservation; 4) Bank of America, June 1991, $6,000,000 to WWF, CI, Smithsonian Institute, for future swaps in Mexico, Ecuador, other south American countries.
Department of Treasury Ruling 87-124, the Internal Revenue Code (IRC) section 170, and the tax regulations concerning 'source of loss'7.

In November 1987, the U.S. Treasury Department issued Revenue Ruling 87-124, which includes debt for charity swaps (including debt-for-nature swaps)8. This ruling allows banks to claim firstly the difference between the loan's face value and the loan's market value at the time of donation as a loss, and secondly the 'fair market value' of the proceeds generated as a charitable donation9. The problem with this Ruling is the valuation of the second part, which it indicates will rely on the local currencies. However, debt-for-nature swaps are not always conducted with the free market exchange rates, due to local currency restrictions.

Furthermore, the alternative of valuation at the secondary market price would also be difficult10, as similar debt may be hard to find. The Internal Revenue Service will determine the value on a case-by-case basis, according to the information it receives. But this does not provide a clear enough situation prior to donation to encourage the banks to donate.

The IRC section 170 deals with requirements for charitable deductions that the Revenue Ruling 87-124 neglects. The relevant issues concern whether the debt donated could be only that of a foreign central bank, whether the valuation could take place with bonds instead of currencies, and whether the recipient charity could be that of a foreign country. The Treasury wrote a letter on these issues11, giving the unofficial position of the Treasury and the IRS12. It indicated firstly that private sector or other government agency debt was eligible, secondly that valuation of bonds was consistent with the principle of the Ruling, and thirdly, the charity status of a foreign NGO depended on the amount of control the sponsoring NGO exercised over the donated debt. This issue is a complicated one, but a positive court precedent exists

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7 The information on bank donations and tax issues relies heavily on Gibson, op.cit., pp. 372-385 and Winthrop, op.cit., p.130, 141-2.
8 Revenue Rulings are opinions of the Treasury Department. They carry less authority than Revenue Regulations, but have been persuasive precedents for many courts when cited. They are to serve the uniform application of tax law by providing interpretative guidance to tax payers. Dillon, op.cit., p. 131.
9 Dillon, op.cit., p.132.
10 Some critics of Ruling 87-124 argue that valuation should be based on secondary market price. Gibson & Curtis, op.cit., p.375.
12 Gibson & Curtis, op.cit., p.378. The letter is considered a liberal interpretation of the RR 87-124.
where specific designation of the proceeds can substitute for actual or physical possession of the donation. The donating banks must then be able to show that the specific donation request of the NGO in order to receive the largest possible tax deduction. Overall, this seems a positive context for banks considering debt donations.

However, one other important domain impinges on the donation treatment - the source of loss rules. Banks wish to attribute their losses on LDC debt to their domestic (U.S.) income instead of to their foreign source income for tax reasons. The Treasury Department issued rules in May 1989 to the effect that the loan losses were to be considered from foreign sources. This source of loss rule deters direct bank donation, because they obtain better tax benefits by selling in the secondary market. Banks can only deduct up to 10% of their taxable income for charitable and other deductions and debt donations could rapidly use up this allowance.

Other factors also deter banks from engaging in the complications of donating debt. Gibson remarks that banks fear negative shareholder reaction, and possible law suits resulting from bank asset donations. Also the bank regulatory authorities take a conflicting position to the tax authorities on treatment of LDC debt. The indications given by the Financial Accounting Standards Board, in the Banking Circular No. 200 and the GAAP "hinder banks from taking positive steps to reduce their LDC loan portfolios." The GAAP and Circular statements imply that banks may have to write down other loans to a particular borrower after having registered a loss from a debt conversion to that borrower. Federal laws and regulations may also compel debt write-downs, depending on the 'rating' that the impaired loans receive according to the International Lending Supervision Act of 1983. The Act may require a bank to...

\[14\] This is because the huge LDC debt loss would substantially lower their tax obligations. If it is attributed to their foreign source income, they would then pay less foreign taxes, which lowers the credit limit they have under U.S. tax regulations for foreign taxes.
\[16\] Gibson & Curtis, p.382: Banks benefit because adjusted gross income subtracting 'below the line' deductions, including charitable deductions, are subject to percentage limitations whereas deductions to gross income subtractions 'above the line' are not.
\[17\] Gibson & Curtis, _op.cit._, p.384.
establish an Allocated Transfer Risk Reserve (ATRR) or allow the bank the option of writing down that part of the loan requiring an ATRR. As mentioned above, it is unclear whether writing down encourages or deters the banks to sell or donate. Nevertheless, the general uncertainties of the overall tax and accounting regulations collectively discourage donations from the banks.

Those donations that have occurred seem to have been made without regard to the charitable deduction option. Gibson terms them "nuisance" debt disposal. The first instance occurred when the Fleet National Bank of Rhode Island donated $254,000 of Costa Rica's debt to The Nature Conservancy. Although it was initially thought to have been in response to the 87-124 ruling, it was later established that the charitable deduction was not a factor in the final decision to donate. The second donation came from an affiliate of Chase Manhattan Bank in December 1988. Conservation International received $400,000 of Bolivian debt. The potential tax benefits were 'apparently not a factor' in this donation either. Other donations from European banks have been made, but as mentioned previously, not being subject to the same tax and accounting regulations, they do not face the same disincentives. More recently, the Bank of America (BA) has donated $6 million in Latin American loans towards rainforest conservation activities in Mexico, Central and South America. The recipients, WWF, CI, and the Smithsonian Institute, will receive the money over a three-year period and use towards debt-for-nature swaps. The bank's Chief Executive Officer, Richard M. Rosenberg described the bank's donation as in keeping with their commitment to specific conservation and environmental principles. However, BA is one of the more troubled U.S. banks, particularly on the domestic front. Its domestic vulnerability increases its difficulty and costs in

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20 Gibson & Curtis, op. cit., p.383.
21 Gibson and Curtis, op. cit., p.384.
22 The (West)German bank Deutsche Bank, has made a debt donation, see footnote 6 above. Other debt for development swaps have received donations from banks in the United States, United Kingdom, Switzerland, and (West)Germany. (American Express $5 mill Peruvian debt in June 1989; Deutsche Bank (FRG), Midland Bank (U.K.) and Hambros Bank (Switzerland) $5.5 mill Sudanese debt in December 1988) Gibson & Curtis, p.384. It is not clear whether the incentives to donate for development swaps, such as education and water reclamation projects vary significantly from nature swaps in that they are also considered charitable donations. The $6 million involved in the afore mentioned debt-for-development swaps can be taken to indicate the potential for greater donations to environmental projects, though subject to constraints discussed in chapter 3.
23 Feinberg and Hanson, op. cit., p.48.
establishing enough loan loss reserves to cover LDC debts, due to new capital standard requirements (discussed in Chapter 4). It would therefore have ample reason to try to reduce its exposure to troubled LDC debts, despite the vagaries of donation. Furthermore, BA presumably has incentives of a public relations nature. As Gibson and Curtis point out, the increase in public concern over tropical deforestation could attract the banks to make donations other than to their usual domestic recipients, where they previously felt they could garner the most public relations benefits.²⁴

Generally, then, the fear of debt contamination, the tax treatment of loss on the loan and of charitable contributions deters the banks from donation. These problems imply that nature swaps are for the most part dependent on the resources of the larger sponsoring organizations, and therefore limited in number and in scale. The tax and accounting regulations will continue to act as a constraint on the future number and size of nature swaps until changes encourage donation.

Converting the Debt

Another set of problems may arise with debt conversion. The terms of any debt restructuring agreement to which the debtor country is a party may also provide hindrances, as could the creditor country or debtor country's regulations.²⁵ The amount of LDC public debt eligible for conversion under the country’s debt exchange program may be limited. If the restructuring agreement has no specific provisions about conversion, the swap must be designed to abide by the loan agreement, especially in relation to local currency.²⁶ Otherwise non-restructured debt must be used. Another complication could arise if the debtor country is implementing an agreement with the International Monetary Fund, and must comply with

²⁴ Gibson and Curtis, op. cit., p.384.
²⁵ Post maintains that most non-commercial swaps (debt-for-nature, and would also presumably include debt-for-development) have been negotiated without including the formal requirements and restrictions of the commercial debt-for-equity programs, op. cit., p. 1087, but given the development of imposing ceilings on nature swaps (albeit for very large amounts), this may not remain the case for longer.
²⁶ Gibson & Curtis, op. cit., p. 349.
performance criteria like a target for domestic liquidity\textsuperscript{27}. If and when these problems are surmounted, the next hurdles lie in the implementation of the debt-for-nature swap agreement.

3.1.2 Problems in Transaction Implementation

Problems also arise in the implementation of the agreed debt-for-nature swaps. The largest difficulties concern the financial erosion of the swap proceeds, the negative financial impacts of the swap in the debtor country, the enforcement of the agreement, and the local and indigenous reception of the swap programs. They all raise serious concern about the viability of debt-for-nature swaps as a mechanism to finance conservation.

Financial Erosion

Financial erosion results from a number of factors, inflation, currency devaluation, and to a lesser extent, fees. There are inherent risks to placing money in countries with the unstable economic conditions common to debtor countries. It is the extent to which the problem of financial erosion works against the interests of the swapping country, the local recipients and the sponsoring organization that determines how much these problems endanger the benefits of the swap mechanism.

If the economy of the debtor country is highly inflationary, the interest payments of the bonds will decrease over time even if they are indexed to the inflation rate\textsuperscript{28}. For instance, Ecuador has had a 50-85\% inflation rate over several years and the purchasing power of the swaps has consequently declined. The latest swaps in Costa Rica have been designed to overcome this difficulty in giving the option of dollar-denominated swaps with lower interest rates than the colones bonds. This would mean that the value of the bonds would hold better over time, and compensate for the lower interest payments of the bonds. The advantage of a reduced demand on foreign exchange would presumably still hold true, as the dollar denominated bonds would be paid at maturity in the then equivalent amount of colones. It

\textsuperscript{27} Gibson & Curtis, \textit{ibid.}

allows a choice between the value of the bond at maturity and the interest generated until maturity. While this option may be offered more in the future, for swaps currently being implemented from currency holdings, the danger of inflation eroding the proceeds still exists.

Currency overvaluation also features as an erosionary variable in the literature\textsuperscript{29}. The overvalued currency matters firstly at the time of the conversion, making the exchange more costly to the sponsoring organization than it would be under conditions of free market exchange. It reduces the leverage which initially attracts the sponsoring organization. Secondly, the depreciation of the local currency, resulting from constantly high local inflation and adjusting exchange rates, is purported to decrease the value of the swap proceeds relative to the original dollars. But because the funds will not be reconverted as with a debt-equity swap, only the local purchasing power of the currency matters. Winthrop declares that

except for the danger of an overvalued local currency at the time of the swap, neither inflation nor rigged exchange rates are important factors when a local currency endowment fund is established\textsuperscript{30}.

Alternative swap arrangements to combat inflation have been considered by TNC, but have not appealed to swapping governments\textsuperscript{31}. For those alternative plans spreading the exchanges over a period of time, inflation and overvalued currency become important and may work either to the advantage or disadvantage of certain participants depending on the plan. So far, none seem to provide the mutual gains of the current design. Meanwhile, measures that can be taken to protect the value of the proceeds vary, depending on the risks posed and the sophistication of the country's financial markets\textsuperscript{32}.

\textsuperscript{29} This paragraph borrows heavily from the discussion in Winthrop on this matter.
\textsuperscript{30} Winthrop, \textit{op.cit.}, p.144.
\textsuperscript{31} See Winthrop, \textit{op.cit.}, p.144-5 for details.
\textsuperscript{32} CI Report, p.29.
Another source of financial erosion, one not often mentioned, are the fees and cuts levied on the financial process. First of all, the investment banker may charge a fee for services rendered in acquiring the debt, although these services have been occasionally provided free\(^3\). Secondly, the debtor government takes a share of the secondary market discount, which reduces the leverage of the sponsoring organization's funds. Thirdly, there are fees for the management of the bond or trust fund. For example, in Costa Rica the government officials did not allow competitive bidding for the management of the $5.4 million Natural Resources Conservation Fund, and insisted that the Costa Rican Cooperative Bank (Bancoop) administer the project. Bancoop receives 2\% of the fund's principal annually as a fee\(^4\). Yet an additional risk is that of extortion, corruption or misallocation of funds, or the use of funds for unanticipated expenses. There is evidence that the first Philippino swap may be being partially undermined by illegal logging activities. The local NGO has been forced to equip their staff with airguns and radio communications networks in order to protect the lands\(^5\). Although this is the only mention in the secondary literature of such a problem, it implies that the proceeds of the swaps may be siphoned off into protection of boundaries, and commensurably decreasing the effective conservation resulting from the swap. This becomes especially pertinent when the funds become very large. All these factors will affect the 'leverage' that the sponsoring organizations obtain for their funds, and their interest in swapping debt as a means of financing conservation activities.

**Impact on Local Economy**

Another problem comes from the impact of the swaps themselves on the local economy. The swaps have been criticised for their inflationary potential. When the debtor government exchanges the debt, it can provide the local currency in several ways, of which printing is one. The printing could cause inflation, depending on the ratio of the economy's size and the amount being printed\(^6\). In such cases, the governments would be unwilling to covert the debt directly into cash\(^7\). When this concern was raised, Roques Sevilla altered the

\(^3\) Unfortunately, the literature does not specify for all swaps when this did or did not occur.
\(^4\) Winthrop, op. cit., pp.139-40.
\(^5\) Dillon, op. cit., p.138.
\(^7\) Winthrop, op. cit., pp.134-5.
swap's design to incorporate the proceeds generated into local-currency bonds instead. As an additional counter-measure, ceilings can be imposed on the total amount of debt to be swapped, as is the case with numerous swaps. For instance, in the first Costa Rican and Philippino swaps, the governments respectively agreed for swaps of up to $5.4 and $2 million. With later swaps, the ceilings have increased. Nature swaps can also include non-financial components, such as the institution of a higher legal protection status for parks, as in the first Bolivian swap, or the enactment of other environmental reforms to avoid any inflationary impact.

Supporters of the swaps voice doubts about the inflationary potential. To date, the transactions have been very small, and the limited demand for local currency in the swapping countries has not made it a problem to date. A study commissioned by TNC, and carried out by Costa Rican economists estimated that a debt conversion of up to $50 million in local currency within a 12-month period would have raised the Costa Rican inflation rate by 0.17%. Given the hyperinflation experienced by many Latin American and other debtor countries, this amount is insignificant. The increase in the money supply is could easily be balanced out by counter measures. Even a staunch critic of nature swaps, Carol Burton, has admitted that inflation is receding as an issue, given its small scale and minimal impact. Nevertheless, concern about the inflation potential issue remains. According to Rudiger Dornbusch, the bonds merely postpone the inflationary impact. Should the level of nature swap activity rise dramatically, the inflationary potential will become a salient issue.

Yet one author has expanded the counter arguments to the inflation problem to make claims of deflationary potential for the nature swaps. Potvin argues that the swap mechanisms do not cause inflation themselves, but rather the previous lack of environmental protection which necessitated the expenditures is responsible. If the investment is pushed up to the level of essential environmental expenditures, that is, if it is essential to finance

38 Burand, op. cit., p.12.
42 Potvin makes his argument on pages 33-34 of the previously referenced text.
conservation, it is not additional and therefore not "inflationary". He states "the only way conservation investment can be considered additional is when the chosen activity, project or program is not the most cost-effective means of conserving ecological functions and integrity". If the swap activity enables the country to meet the upcoming additional financial commitments to structurally adjust to ecological conservation imperatives, the nature swap could actually be counter-inflationary, because the inability to finance this will have a negative financial impact when the loss of critical ecological functions decreases the sustainable yield of the biomass on which the population depends. While this argument has merit, it rests on the assumption of much wider and comprehensive environmental activity than is presently the case with nature swaps. It does, though, provide a strong point for expanding such activity, if debt forgiveness is not forthcoming.

Enforcement/monitoring

A third topic that attracts much discussion when considering the viability of nature swaps is the monitoring and enforcement of the agreement. This topic is highly sensitive because of its implications for the swapping country's sovereignty. Local and indigenous people may take offence at the prospect of a foreign organization managing their natural resources, which is often considered a matter of 'national patrimony'. Given the historical tensions between the United States (the home base of the international sponsoring organizations) and the swapping countries, controversy abounds. A common analogy used to illustrate the local feeling about nature swaps was one of the Japanese corporations buying the Grand Canyon - the United States' most prized National Park. The inaccuracy of this analogy, given that foreign ownership of the national parks or reserves is not involved, has been noted in some articles, but the point about the delicacy of the issue remains valid. Debtor countries do not wish to have outsiders imposing their environmental and monetary policy priorities, and nature swaps have been heavily criticized as eco-imperialistic ventures.

The swap agreements establish monitoring arrangements only in general terms, and make more specific provisions in ancillary agreements following the swap agreements. The local and sponsoring NGOs, the government officials, the central banks and various oversight committees share monitoring responsibilities. Cooperation and shared administrative authority have been the main features of the swap agreements. To date, none of the agreements include arbitration, choice of law or choice of forum clauses to deal with disputes arising from breaches of the agreements. This weakness in the enforcement area is considered a significant potential problem, especially if nature swaps are to become more numerous.

Non-implementation could arise for a number of reasons - natural or economic disasters, national or international financial problems, changes in the political power or from local opposition to the programs. The Bolivian swap provides an example: the government delayed making its $100,000 contribution to the local currency account for 21 months. This occurred as a result of austerity measures taken to combat the country's economic collapse in the 1980s. The delay also retarded the USAid component, and resulted in an effective loss of $60,000 in interest for the Reserve. Under similar circumstances, should a swapping country contravene the restrictions and exploit the natural resources of the protected land, it would be exercising its international legal right of 'eminent domain'. Dillon points out that the United Nations Charter of Economic Rights and Duties of States designates natural resources as assets over which the state can exercise full sovereignty.

The two options for ameliorating the risk of breach, insurance and legal redress, are not very attractive. Insurance for political risk can be purchased from the U.S. Overseas Private

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46 The following information on monitoring responsibilities is taken from Dawkins, op. cit., p.12-13.
47 Tamara J. Hrynik, "Debt-for-Nature-Swaps: Effective But Not Enforceable", Case Western Reserve Journal of International Law, Vol. 22(1), Winter 1990, p.156, discusses enforcement only in relation to the first swap agreement between Bolivia and CI.
48 Gibson & Curtis, p.359. Another problem with the Bolivian swap is the maximum legal protection for the Beni Biosphere Reserve, one of the conditions of the debt exchange. Gibson & Curtis report that the government drafted a major environmental law instead of enacting the legislation to promote the Beni Biosphere Reserve. As of the time of Gibson's article, this law had not passed, and according to Potier, whose article is dated 9/90, the law had still not been introduced. It is not clear from Potier's article whether he is referring to the 'maximum legal protection bill' or the major environmental law.
49 Dillon, op. cit., p.138.
Investment Corporation, and the World Bank's Multilateral Investment Guarantee Agency \(^50\). However, it is prohibitively expensive, and it has been taken out on any nature swap agreement to date. Hrynik, in an examination of the legal alternatives, finds the outlook bleak for suits in the United States, the swapping country (in this case Bolivia) and in the International Court of Justice\(^51\). The absence in the agreements of waivers of sovereign immunity, the U.S.'s government's lack of political interest in prosecuting another country, the deference to national interests in the courts of the swapping country, and the inability to obtain representation in the International Court would all prevent the sponsoring NGO from obtaining any kind of authoritative pronouncement on enforcement.

Why the dispute resolution clauses and strict enforcement measures do not feature in the agreements sheds light on how how the interests of the participants are met in an unenforceable agreement. Hrynik identifies three main reasons for the Bolivian swap which apply equally to the other swaps\(^52\). First of all, given the speculative nature of the program, it was possible that Bolivia may not have accepted an agreement with stricter enforcement clauses. The risk of not being able to uphold the agreement due to circumstances beyond the government's control would be the basis of other government's rejection of stricter enforcement clauses, as well as Bolivia's. Secondly, Conservation International was willing to forsake explicit enforcement terms in order to achieve conservation of rainforests. It's suggestions were likely to be followed as the government and local people would confer it expert status and commensurate deference, a situation of which it was certainly aware. Again, this applies to other agreements, the sponsoring organizations viewing the long-term benefits of cooperative relationships with the developing countries as producing more gains than strictly enforceable agreements\(^53\). Finally, Hrynik notes that Conservation International may have hoped to negotiate stricter terms at the time of the agreement's renewal. However, the precedence of absence of resolution/enforcement clauses has become one which affects the other nature swap agreements, and those swapping countries involved have no incentive to

\(^{50}\) Dillon, *ibid*.
\(^{51}\) Hrynik, *op. cit.*, pp.158-161.
\(^{52}\) Hrynik, *op. cit.*, pp.156-158.
\(^{53}\) Hamlin, *op. cit.*, p.1080.
commit themselves to stronger terms once they have already transacted swaps which do not itemize such enforcement requirements.

How then has do the agreements resolve 'the tension between enforceability and national autonomy', as Hamlin puts it, and serve the different interests of the participants? As mentioned above, cooperation and shared administrative authority have been the mainstays of the agreement structure. According to Hamlin, the large roles played by the governments in the administrative decision-making process as established by the agreements and the ultimate unenforceability are the very characteristics of the agreements that preserve the states' autonomy. Yet the terms of the agreements provide subtle enforcement in a preventative manner, by establishing extensive involvement of the sponsoring organizations in the design and implementation of the project, and by ensuring continual dialogue during the project's evolution. The latter permits the resolution of differences and potential problems as they arise and before they become too large. The sponsoring organizations work against a paternalistic approach by entering the deals in partnership with the local groups and the government leaders. CI prides itself on having nationals of the countries in which it works on its board, staff and membership, and TNC also emphasizes the cooperative aspect of its work with local groups.

Examples of various swaps illustrate the authority that the governments retain while the sponsoring and local environmental organizations realize their wider goals in implementing their programs. For instance, the agreement between Bolivia and CI has the government participated in program selection, which enables it to dismiss criticism of foreign domination. CI retains a dominant role in planning and managing the protected areas, and together with LIDEMA determines fund and planning matters. Hamlin states that the explicit mandate to cooperate "serves the goals of both CI and the Bolivian government". CI desires influence over environmental matters beyond the agreement, and hopes to attain it through a cooperative relationship with highly placed officials. The Bolivian government interests' lie in establishing

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54 The following information on the CI and WWF agreements is derived largely from Hamlin, Hamlin, op. cit., p.1080-5.
56 Hamlin, op. cit., p.1083.
a framework for collaboration with environmental experts to study and implement sustainable development of environmentally sensitive areas.

The WWF agreements with Ecuador, Costa Rica and the Philippines differ somewhat in their structure, but still preserve government supervisory authority while allowing independence to itself and the local organizations in daily management of the projects. The governments have a general veto power over projects which must be compatible with national priorities. WWF can oppose the government's decisions by refusing to spend money, but this measure does not confront national sovereignty. Hamlin also argues that factors such as the vague management systems, relying on undefined standards\(^{57}\), allows wide interpretation of the obligations, and thus gives the governments the freedom to pursue the management of the areas according to its best judgement. The lack of enforcement mechanisms and ambiguous termination clauses also contributes to the ultimate unenforceability which underlies the compatibility of the agreements with the interests for respect of national sovereignty and effective conservation opportunities.

The unenforceability, therefore, while representing a risk, permits part of the confluence of interests that enable a swap transaction to take place. The sponsoring organizations submit to the risk for longer-term ends, and the developing countries do not become subject to agreements that would pose them serious problems if they were unable to fulfill them. Thus the lack of enforcement creates a paradox of sorts, where its absence seems in practice to provide what its presence would be put in place to assure. The concept of enforcement belies the vested interests that the swapping country, both at local and at national level, has in the implementation of the agreement, which is, after all, mutually negotiated and caters to the developing country's interest as much as those of the sponsoring organization\(^{58}\). The viability of the nature swap agreements in their present 'unenforceable' state will depend

\(^{57}\) This is the case with the Bolivia-CI agreement, where 'sustained use' can be broadly interpreted.

on the depth of those interests - because "enforcement will ultimately depend on each country's commitment to conservation"59.

Local/Indigenous Reception/Support

The type of reception and the degree of support shown by the local people is important to the success of the debt-for-nature swap. Yet the picture on local involvement and support is not very clear, especially with regard to indigenous populations affected by the areas designated for protection. "While environmental, government and fiscal interests appear to have been well-represented in the debt-swap negotiations completed to date, affected groups that lack political power are not represented at the table"60.

Bolivia has been the most problem-ridden swap on these issues, firstly with nationalist indignation at erroneous reports of land 'purchase', secondly with indigenous objection at lack of consultation and the swap's intersection an area under dispute. In the first instance, press reports announcing the swap in Latin America apparently misrepresented the transaction as a purchase61. The negative responses were finally countered with public education about the facts and benefits of the swap by the local NGO LIDEMA62. As an interesting counter-point to the initially unfavorable reaction, the local residents later showed their support of conservation activities by voting to give seven percent of their tax revenues from forestry activities to support the Reserve63.

The more serious of the problems involves a dispute between the Indians who live in the Beni Region and logging companies. Prior to the swap, the latter obtained seven timber concessions from the government conditional on reforestation. The Indians object to the loggers' non-compliance, and the roads the loggers have built, which they fear will enable large numbers of landless peasants to come and convert the forests into farm and pasture land.

59 Dawkins, op. cit., p.12.
60 Dawkins, op. cit., p.9.
61 Gibson & Curtis, op. cit., p. 356
62 Gibson & Curtis notes that the Bolivian government did not hasten to adequately explain the agreement, op. cit., p. 356, which indicates a seemingly unaccountable lack of interest on their part.
63 This took place at a Congress of Civic Associations, in Hrynik, op. cit., p.153.
The swap involves part of the land under dispute and the controversy has been intensified by the seeming 'legitimacy' that it places on the logging operations (under the sustainable use rubric). The Indians object to the fact that they were not consulted as to the ramifications, nor their opinions considered when negotiating the swap. They have marched in protest, claiming that the swap prevents them from acquiring title to the land and is leading to the destruction of their home\textsuperscript{64}. The difficulty with indigenous claims' to land is that their historical ties often have not been granted legal recognition. According to one report, the land that came under the enlarged buffer zone of the Bolivian swap was previously a communal reserve for the Guarayo Indians. Following the swap, the government retained the mineral and timber rights not only in the park, but also in the areas granted to the Guarayo tribe\textsuperscript{65}. Barbara Bramble (National Wildlife Federation) acknowledges that the Guarayo tribe have had only bad experiences with debt-for-nature swaps, and that without the subsurface and timber rights, they do not have real rights to their land\textsuperscript{66}. Another report talks Moxos Indians, also traditional residents in the Reserve area\textsuperscript{67}. They are seeking collective ownership of 202,000 hectares which would be preserved from logging.

Conservation International has admitted that due to lack of experience and its eagerness to complete the first nature swap, it neglected to meet with the Indians before implementing the agreement\textsuperscript{68}. It has issued a position statement supporting the Indians' concerns, agreeing in principle with the establishment of areas for sustainable use by indigenous groups\textsuperscript{69}. Also, the local coordinating committee set up to oversee the nature swap program has been changed to include representatives of Moxos, Chimanes, Yacuma and Ballivian Indian groups who live in the area. Since then, CI has been involved in integrating indigenous concerns with their conservation objectives, and has participated in and funded various activities to promote indigenous interests. This includes co-producing a series of radio programs on indigenous communities in the Chimane Forest, contributing funds to the indigenous protest "March for

\begin{thebibliography}{99}
\bibitem{64}{Brand, \textit{op. cit.}, p.30 (refers to a newspaper article Financial Times, August 2, 1990) and Gibson & Curtis, \textit{op. cit.}, p.358.}
\bibitem{65}{Elizabeth Darby Junkin, "The Monte: Why the Indigenous Peoples of the Amazon Basin Want to be Part of Saving the World's Largest Rainforest", \textit{Buzzworm, the Environmental Journal}, Vol. 11(4), July/Aug. 1990, p.32.}
\bibitem{66}{Junkin, \textit{ibid.}.}
\bibitem{67}{Dawkins, \textit{op. cit.}, p.9.}
\bibitem{68}{Brand, \textit{op. cit.}, p.30-31.}
\bibitem{69}{Dawkins, \textit{op. cit.}, p.9; the following information is also derived from her work.}
\end{thebibliography}
Dignity and Territory" to the capital and becoming involved with the Indigenous Institute of Bolivia in drafting Indigenous Law70.

This lack of representation and consultation with indigenous peoples is not uncommon in nature swaps activities, though it does not always receive much mention in the literature. The question of land rights is extremely sensitive in the Amazon Basin region, and many governments have considered the region uninhabited. It would be difficult to set up any conservation activities in these areas without encountering problems with indigenous land rights issues, and the delicacy of conducting negotiations with governments who conduct policies of neglect if not downright abuse towards the indigenous groups additionally complicates matters. An anonymous banker was reported as saying that half a dozen nature swaps have significant problems, characterized by a lack of consultation with grass-roots people, especially indigenous groups71. But the only other mention in the secondary literature of a specific incidence of this kind is with the second Ecuadoran swap. An article in the environmental magazine *Buzzworm* states that the indigenous people found that land they had lived on before was placed under protection and prohibited to them72. The general complaint of the native peoples is that the local environmental groups represent the power structures of their countries, and don't recognize the requests made for consideration before park and reserve boundaries are drawn73. Political and financial favoritism is also alleged by local organizations, with a disproportionate amount of money and resources going to the larger environmental groups74. Fundacion Natura in Ecuador, the sole recipient of the endowment from the matured bonds produced in the first swap, is the object of such a complaint. Other Ecuadoran NGOs have criticised this provision, as they are only eligible to get funding for their projects only from the interest the bonds produce. This presents a problem which must be reversed if the swap programs are to endure and achieve their ends. Hryniki pointed out that

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70 Conservation International Bolivia Program, Chronology of Events; Fax obtained from Nancy Pritchard, October 20, 1991; 6pp.
72 Junkin, op. cit., p.32.
73 Junkin, ibid.
74 Brand, op. cit., p.49.
local opposition is a potential reason for the failure of a swap's implementation. Local cooperation and local benefits from the swaps are vital.

Environmentalists are now coming to agree that greater participation of indigenous groups will improve their conservation capacities, and that it is in their interests to have tribal members participating in the swap programs. (Presumably, this opens the way for mutual gains, as the tribes would be able to co-determine the projects and the areas concerned in a manner compatible with their traditional lifestyles, and conservationists would have far more rangers enforcing the conservation standards than they could otherwise afford to employ.) As Dillon remarks, "future swaps ideally should incorporate the interests of indigenous land groups into the agreement". However, a difficulty presents itself in arranging proper representation of indigenous interests, and finding the legitimate representatives. As Dawkins points out, the difference between the groups' level of organization and experience of interacting with white societies ranges from substantial, to fair to no history and contact. This complicates the identification of legitimate representatives, constituencies and balanced power for the negotiations.

One of the steps taken towards resolving this problem has been meetings between the sponsoring organizations and groups representing indigenous interests. In September 1989, COICA (The Coordinating Body for Indigenous Peoples' Organizations of the Amazon Basin) requested recognition as the rightful negotiating partner for environmental groups dealing with rainforest politics and policies in the Amazon Basin. In May 1990, it held a summit with U.S. environmental groups, which ended with a declaration of understanding and the establishment of an "Indigenous and Environmentalists Alliance for an Amazon for Humanity". COICA has also called for a Tripartite Commission, which would include the bilateral and multilateral funders of amazon development, the government and COICA. The Commission would be responsible for informing the populations affected, and for design and

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75 Dillon, op. cit., p.137.
76 Founded in Lima in 1984, claims to represent 1.2 million people and 219 different nations - from Junkin, op. cit., p.32; the following information from pp.32, 37.
implementation of appropriate development projects. Continued collaboration with COICA will go a long way to ensuring the proper representation of affected indigenous groups. Even critics of nature swaps concede that programs are emerging from the swaps that try to promote conservation through the involvement of local, indigenous and other groups. The experience of the above problems underline the necessity of acquiring support from all sectors of the country and area involved in the swap, not just that of the debtor country's NGOs and the local administrations.

In conclusion, the problems facing the nature swaps have not yet proved insurmountable. Financial erosion has necessitated the refinement of the financial mechanism, and this will likely continue as other difficulties arise. The inflationary impact remains unproven, though it could present problems in the future. The enforcement issue is latent, and the structure of program administration neatly balances the interests of the parties with collaboration and conflict resolution in a subtle manner. Lastly, the matter of indigenous representation is beginning to receive proper attention. All of the current indications show the swaps to be relatively successful, despite some mistakes needing rectification along the way. Nevertheless, some strong criticisms of the nature swap exist, and must be considered in evaluating the swaps.

3.2 Critique of Debt-for-Nature Swaps

The swaps face criticism by groups who question the intent and the results of the exercise. This section will briefly review the criticisms made, and the rejoinders made by the supporters of the swaps. Generally, the criticisms can be split into three main categories, those that consider the swaps misdirected and insufficient in terms of addressing the debt, development and environmental crises, those that underline the moral problems of such
measures, and those that identify an imperialist venture in the swaps. The critics range from religious and secular organizations who have ethical or political reservations to the international financial community who have doubts about their effectiveness.79

In the first category feature the following criticisms are voiced: that the nature swaps do not effectively address the underlying causes of resource misuse and environmental degradation80, do not contribute to debt reduction or proper conservation infrastructures81, merely create protection on paper and not in practice82, and by benefiting those countries with deteriorated economies and environments, perhaps provide a negative incentive resulting in further deterioration. The responses have been that solving the debt crises was not the objective of this mechanism. The swaps are simply to extend the effectiveness of the funds of the sponsoring organizations, and that the international NGOs are looking at broader approaches to the debt problem. The supporters point out that the swaps may be quite important at the national level, and that with the growth of the mechanism, it could become more so for more countries. The paper parks dilemma has already been discussed in section 2.2 under environmental protection. The sponsoring organizations have emphasized the protection of already established parks, though no aggregate figures are available as to the amount of land added to protected areas compared with additional protection for already established areas. As for the negative incentive argument, it has not been directly countered in the literature. But supporters of the swaps would certainly reiterate the conservation accomplishments of the swaps in contributing more to the solution of environmental and economic problems than to their aggravation.

The criticisms of the second category revolves around how the swaps legitimize 'illegitimate' debts and thereby postpone a proper solution to the debt crisis. This argument says that the NGOs by involving themselves, legitimize an inequitable economic order and debt

79 Cody, op. cit., p.19.
81 Conservation International's Spencer Beebe acknowledged that in Latin America, the $5 million yearly expenses only cover 1-2% of what is needed to establish a reasonable land conservation infrastructure. Winthrop, op. cit., p.138.
82 Winthrop, citing Javier Lopez, a Bolivian environmental activist, op. cit., p.138.
often acquired by elites whose populace never received the benefits\(^83\). This criticism emphasizes the national and international structures, in which nature swaps feature as a superficial reform. Another part of the criticism has been that with the inability to enforce these swaps, the long-term effect may be a bailing out of the banks without any conservation gains being made. If the swaps do make a substantial contribution to debt stabilization, it could be construed as helping to postpone a comprehensive solution by making those countries' debt burden seem more tenable. The response to the illegitimacy issue has been on the pragmatic basis that the developing countries have accepted the need for access to international funds, both for the sake of development and the achievement of greater political autonomy. In retaining this access, some degree of cooperation in repayment, instead of defaults is acknowledged by the debtor countries. Burton notes that if repayment occurs and swaps are considered of use in this process, clearly non-profit swaps have an important role by engaging the social and economic aspects of a solution\(^84\). Basically, the supporters have refused to engage in a debate on the legitimacy of either private or official debt, and noted the absence of debtor countries demanding total forgiveness.

The third category comprises criticisms of the imperialist underpinnings of the nature swaps - the excessive influence held by international NGOs in national policies, the distortion of local priorities, the skewing of resources away from other social projects and development decisions, and the exploitation of the debtor countries' financial weaknesses, all of which combine to a contravention of national sovereignty. Barton also includes a criticism of the treatment of indigenous peoples, the international NGOs' treatment of whom she likens to that of birds, needing preservation, but not supporting their struggle for legal land tenure\(^85\). The responses have emphasized the mutuality of the negotiations, and the participation of local and national parties in instigating, designing and implementing the swaps. The supporters emphasize that the swap funds cover the activities already approved by debtor country governments but for which insufficient or no domestic funds could be found\(^86\). This,

\(^{83}\) Carol Burton, op.cit., p.13.
\(^{84}\) Eve Burton, op.cit., p.240.
\(^{85}\) Carol Burton, op.cit., p.13.
\(^{86}\) von Moltke, op.cit., p.7-8.
however, does miss the point that the representation of local needs, and the active participation of local people does not necessarily occur when negotiations and decisions are taken at the national level. There is no direct substantiation that nature swaps skew the budget away from other social needs, but this distortion argument has notably been propounded in World Bank working papers. This organization's lack of effective integration of environmental interests in their development policies has been widely criticised in several articles as has their programs' deficiencies in dealing with poverty. Moreover, the zero-sum implication of mutual incompatibility between environmental protection and poverty alleviation imperatives in these papers is seriously flawed.

Finally, another serious concern has been raised about the potential harm of this mechanism. People involved in development and environmental circles are concerned that through lack of information and consultation, or through deliberate abuse, these debt swaps can have serious consequences. A case of deliberate abuse has already been alleged, of a debt-for-toxic waste having been conducted in Ghana. Unfortunately, there is no substantiating evidence either for or against this score in any literature reviewed. Naturally, swap supporters, although condemning such abuse, do not believe that such problems justify dismissing the mechanism that when properly conducted, provides multiple benefits.

In general, these criticisms often come from those groups who are interested in finding alternative solutions to the debt, development and environmental crises than those currently available in the established fora of the present international political economy. The assumption underpinning much of the critique is that these swaps detract from other more effective approaches to combat the crises, and moreover work directly against them. Yet precisely this fundamental defect is difficult to substantiate, in almost any terms. The criticisms are indeed serious. Distortion of priorities, postponement of a comprehensive debt solution, as well as glaring insufficiency in making any contribution to halting the processes of environmental

88 See the excellent critique of Hansen in Potvin's paper.
destruction are grave accusations. But given the present limited range of nature swap, much of the critique depends upon how many more swaps take place, and how the whole debt crisis, including protracted austerity programs, evolves. If this mechanism becomes the sole and preferred policy option for dealing with the debt and environmental crises, instead of proving to be a stepping stone, a phenomenon in the transition to substantial environmental restoration and 'structural adjustment' to an environmentally balanced international political economy, the critics' arguments will hold much greater weight. Thus the future outlook of debt-for-nature swaps in the international political economy is important in considering the value of nature swaps, and its significance as a private phenomenon for a public goods problem of global proportions.
Debt-for-Nature Swaps in the International Political Economy

Since nature swaps began, the variables underlying the transaction have been changing. The window of opportunity in which the nature swaps are conducted depends a great deal on the confluence of interests, which in turn are subject to changes through the evolution of the debt, development and environmental crises. The dynamics of the constellation of interests makes predicting the time frame for debt-for-nature swaps difficult. Some observers feel that the specific situation which enabled swaps may not continue for very much longer. A different creditor approach to the debt crisis, a surge in secondary market prices, or a write down of most LDC commercial debt to a level worthless for nature swaps could halt the arrangement of further nature swaps. In order to assess their future, it is necessary to consider the changes in the international political economy and how they might affect the social coalition which conducts swaps. This chapter will consider the changes in the LCD debt crisis and international finance, in the institutional approaches to development and environment, and the outlook of swaps with regard to official aid, access to public debt, both bi- and multilateral, and legislative promotion in the United States. Finally, the extrapolations from the 'debt-for-nature' swap will be considered with regard to the future of such mechanisms.

4.1 Debt and International Finance

Changes in the state of the LDC debt crisis and in international finance directly affect nature swaps prospects. In this section, banking regulations, the secondary market, and creditor policies of both governmental and financial circles will be considered to see if the opportunity for nature swaps is being altered.

Banking and Tax Regulations

The threat to the international financial system posed by the Third World debt crisis was in large part due to the massive overextension of the banks' capital. In order to prevent a reoccurrence of the threat, the Bank of International Settlements issued internationally-
sponsored capital guidelines in June 1988\textsuperscript{1}. These minimum standards for risk-based assets were subsequently adopted by the U.S. Federal Reserve, and made the U.S. banks' loan loss provisioning strategy more costly\textsuperscript{2}. Given that most non-U.S. banks have already reduced their exposure to LDC debt, most of the debt sales are from U.S. banks. Therefore the implications of the BIS rules and other financial regulations for the U.S. banks are the most pertinent to the future of nature swaps.

U.S. banks have most of their LDC loans on their books at face value, because write-downs necessitate registering a capital loss, which banks avoid for firstly fear of debt contamination and secondly adverse effects on their share values from the perception of decreased profitability. The loan loss reserves back up these troubled loans\textsuperscript{3}. Previous capital guidelines counted loan loss reserves as part of primary capital which allowed banks to conceal their capital deficiencies through creative accounting. However, since the new guidelines were introduced, loan loss reserves are considered supplement capital, and must stay below 1.25\% of the total risk-based assets. Anything above this figure does not qualify as supplement capital, becomes 'idle resources' and therefore costly. The new emphasis on capital adequacy motivated banks to correct their balance sheets, and "has led banks to increase sales of troubled loans"\textsuperscript{4}. This by itself is a positive development for nature swaps, in that more debt becomes for sale on the secondary market.

This pressure to reduce loan loss reserves means that banks may wish to write more of their debt down instead. This would be to avoid needing to comply with federal regulations that necessitate large amounts of impaired debt to have corresponding ATRRs (see Chapter 3). However, in May 1989 the regulators increased the hurdles for banks to take deductions for debt losses (the 'source of loss' ruling mentioned in relation to debt donation in Chapter 3), whether for sales or donations. This ruling may counteract the pressure to write down debts,

\textsuperscript{1}The information in this paragraph is derived from Feinberg & Hanson, op.cit., p.47.
\textsuperscript{2}LDC provisions for the U.S. banks reached approximately $18 billion, or 63\% of total loan loss reserves, Feinberg and Hanson, op.cit., p.45.
\textsuperscript{3}The Tax Reform Act of 1986 does not allow tax deductions for general loan loss reserves, so banks can only deduct losses when specific loans are charged off, which the fear of debt contamination prevents them from doing. So the banks have provisioned for the majority of their troubled LDC loans in general reserves and keep them in the books at face value. Feinberg and Hanson, op.cit., p.45.
\textsuperscript{4}Feinberg and Hanson, op.cit., p. 47.
as the losses from the write-downs no longer hold the same tax advantages. Altogether, then, the regulatory and accounting picture is unclear. Both pressures against write-downs and loan loss reserves could negatively affect nature swaps, though, because to date, all debt sold for these transactions has either been already written-down or provisioned against. If this continues to be the case, debt available for purchase on the secondary market for nature swaps may become scarce, if only because the amounts until now have been hard to locate as it is. In addition, even should the banks favor selling debt, the loss they register from this type of conversion (GAAP and Banking Circular 200 previously discussed) could impel other write-downs that the banks do not desire. A great deal of the debt availability, therefore, will depend on the balance between the conflicting pressures. If the imperative of the new capital adequacy requirements outweigh the reasons for which banks withhold debt from the secondary market, sufficient and appropriate debt sales will continue, as will the banks' interest in participating in nature swaps.

As for donation, although calls have been made for a review of the regulatory accounting and tax policies which would improve donation incentives, this has not occurred. So generally, unless public bilateral and multilateral debt is made available - discussed below, the sales of debt are the most likely source for future nature swaps. Therefore, a general assessment of the outlook in the secondary market may be helpful.

Secondary Market

The secondary market is very important to the future of debt-for-nature swaps in their current form. Even if bilateral or multilateral debt become available for such trades, it is still possible that the NGOs will need to purchase the debt via the secondary market (see discussion of the institutionalisation of nature swaps in 4.4). The market has grown substantially since the early 1980s. Its continued growth is likely, though subject to some limitations. As the market represents a small part of the total LDC debt, it could still grow a great deal, although

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5 NGOs advocate using the market value of the donated debt for tax credit for banks but the Treasury does not wish to set such a precedent that would have ramifications far beyond debt-for-nature swaps, Gibson and Curtis, op.cit., p.382.
the aforementioned fears and uncertainties concerning debt contamination, taxes and regulations do keep many banks away. Banks have begun to treat their loan portfolios similarly to their investment portfolios, and are now earning fees through swapping and selling activities. The trading in the market has become more sophisticated, and involves export financing, trade credits and asset swaps\textsuperscript{6}. This positively affects nature swap opportunities, in that the nature swaps can also be broadened to encompass different financial instruments. For instance, the debt used in the second Madagascar swap includes trade credits\textsuperscript{7}.

Some observers believe that the best opportunities for nature swaps have a limited time-frame, asserting that the market is beginning to find a balance between supply and demand of debt\textsuperscript{8}. This would narrow the leverage margin that makes it worthwhile for the NGOs to conduct the swaps\textsuperscript{9}. But the overall downward trend of the prices since the early 1980s, in a predominantly seller's market, seems to contradict this. The prices usually reflect the banks' sense of the progress made towards solving the debt crisis. Between 1982 and 1989 they generally declined, as the approaches were not seen to be working\textsuperscript{10}. Between 1987 and 1988 the prices of the loans decreased by 21.4\%\textsuperscript{11}. A slight rise occurred with the announcement of the Brady Plan, but given its lack of success to date, and the continuing difficulties of the LDCs with their debt, it is likely that the gains have been nullified\textsuperscript{12}. Meanwhile, the increased competition in the banking world, discussed below, will ensure movement in the financial world, and could provide additional impetus to the overexposed banks to sell debt in the secondary market for some time to come. Therefore, there are no negative indications for the near future concerning the role of the secondary market in nature swap transactions.

\section*{Changes in the Debt Crisis}

\textsuperscript{6} Evans, \textit{op.cit.}.
\textsuperscript{7} See Appendix III on Swap Details.
\textsuperscript{8} Prestemon and Lampman, \textit{op.cit.}, p.16.
\textsuperscript{9} Von Moltke states that as a rule of thumb, "when the total benefit to the purchaser generated by a debt-for-nature program is less than double the benefit that can be derived from more traditional financial strategies, the transaction is probably not worth the risks of high inflation, a poor exchange rate, loss of control, or transaction difficulties", \textit{op.cit.}, p. 6.
\textsuperscript{10} Krugman, \textit{op.cit.}, p.147.
\textsuperscript{11} CI Report, p.18. However, prices vary considerably between countries, and much depends on the individual country's economic standing. Nevertheless, prices have in general tended downwards since 1984.
\textsuperscript{12} Unfortunately, it is very difficult to obtain current data on market prices, and therefore this remains an unsubstantiated assertion.
One of the major influences on the future of nature swaps is the management of the debt crisis. Significant changes in the conditions of the crisis would alter the interests on which the nature swaps rely. However, the approaches and the problems which characterized the debt crisis when nature swap transactions started have not altered greatly, which seems to imply a continuation of nature swap opportunities. The nature swaps began during a phase of management that relied on market-based workouts, about whose failure a consensus grew towards the end of 1988. Many of the debt-equity swap programs did not fare well, and were closed down. The Bush administration then announced the Brady Plan in March 1989, which marked the fourth phase in the creditor strategy. This plan proposed to cut debts 20% for all debtors over a period of three years, in exchange for commitment to economic reform policies. Banks were to be offered new securities with either a reduced face value or reduced interest rates with compensating collateral or backing of funds from the Treasury, or possibly the IMF and the World Bank. New financing from Japan was also tendered. Again the emphasis on structural and sectoral adjustment entails liberalization along IMF monetary and fiscal stabilization policies, including privatizing state properties, reopening debt-equity swaps and repatriating flight capital.

The Brady Plan, however, did not and does not offer either a substantial change or improvement in dealing with the debt crisis, despite its focus on relief. It merely formalizes the expansion of the market menu approach. Cohen correctly points out that it is a mere refinement and not a fundamental reform, because it still relies essentially on voluntary bank measures. Debt reduction on the basis of voluntary measures illustrates one defect of the free market approach - the fear of a potential free-rider situation keeps most banks from making progress on reducing the debt burden. The failure of the voluntary aspect can be seen with the Mexican case, the only major debt reduction attempt under the Brady Plan to date. An agreement tentatively reached between Mexico and the bank committee in July 1989 gave banks the choice of reduction in principal or in interest, or the granting of new loans, backed by the IMF.

13 Only Mexico has recently reopened its conversion program, and for public debt only.
14 In money terms, the Plan expected $20 billion in new lending from the commercial banks to 15 highly indebted countries between 1985-88.
15 Cohen, op.cit., p.110.
the World Bank and Japan. The majority of the banks chose not to put in any new money, leaving Mexico with a shortfall of $6-7 billion per year despite a reduction in its debt, and Latin America overall with merely 0.5% less outstanding debt.\textsuperscript{16}

Within six months, the Plan came under open criticism from the commercial banks for being underfunded by the multilateral institutions, and for encouraging debtors to default.\textsuperscript{17} The Institute of International Finance (representing 184 banks and financial institutions globally) also criticised the IMF for acquiescing in late interest payments to the banks. Thus Cohen noted that "pressures have visibly grown to loosen the close, albeit tacit bank-government alliances that have dominated decision making on LDC debt."\textsuperscript{18} Some of the biggest U.S. and British banks declared profit losses and again made large increases in their loan loss provisions.\textsuperscript{19} While the World Bank's 1989-90 annual debt report dismissed the pessimism surrounding the new debt strategy, it admitted that the debt relief in 1989 had decreased by one-third from 1988.\textsuperscript{20} Commercial lending was much less than anticipated. A subsequent World Bank report acknowledged that the Brady Plan had not brought as many agreements as had been hoped, with only the Philippines, Morocco, Costa Rica and Venezuela agreeing on Brady-sponsored debt reductions by September 1990. At that time, the IMF announced that the debt service ratio of the LDCs had fallen to its lowest level since 1981. The UN Economic Commission for Latin America and the Caribbean has called for improvements to the Plan, including the elimination of regulatory and tax obstacles to debt write-offs, and noted the insufficient amount of funding for significant relief to Latin America, the most indebted region.\textsuperscript{21} The net outflow of funds from the debtor countries to the North demonstrates the weakness of the Brady Plan and the alternative debt relief proposals by other groups which have not brought substantial relief.\textsuperscript{22}

\textsuperscript{16} Wesson, op.cit., p.422.
\textsuperscript{17} This occurred at the annual joint IMF-WB meeting, in Sept 1989.
\textsuperscript{18} Cohen, op.cit., p.120.
\textsuperscript{19} Keesing's Record of World Events, "World Debt", Volume 36(11), November 1990, p. 37892: In September 1989, J.P. Morgan, Chase Manhattan and Manufacturers Hanover added $2,000 million, $1,150 million and $950 million to bolster their reserves to 100%, 46% and 36% of their Third World loans respectively. Lloyds and National Westminster have now provided for 85% of medium and long-term debt, and 72% of its total debt respectively.
\textsuperscript{20} Keesing's, ibid.
\textsuperscript{21} Felix, op.cit., p.745; Keesing's, op.cit.; the Commission noted that even with a doubling of the agreement made between Mexico and the banks, the current Plan funding would only allow a 13% reduction of Latin America's foreign debt, and a 14% reduction in annual debt service.
\textsuperscript{22} For instance the United Kingdom proposed a new debt relief scheme for 19 of the poorest countries. It enhanced the terms of debt relief agreed at the 1988 G-7 economic summit, and comprised a two-thirds write-down by the 'Paris Club', a total-
The immediate outlook for a resolution of the debt crisis is poor for three main reasons. Firstly, the creditor strategy is not working in terms of meeting the objectives of the banks, the creditor governments and the international financial institutions. Even if it were, it is not certain that this would reverse the decline of the debtor countries. The market liberalization focus advocated by the creditor group is to achieve restructuring without the backup of 'concerted lending', and without sufficient lending from the international financial institutions (IFIs). The debt reduction from market workouts, i.e. equity swaps, is not overtaking debt increases, and no capital is being attracted to the debtor regions. Despite the sporadic de facto defaults and continuing arrears in debt service, the overhang remains, although its damage potential for the international financial system has been reduced. Moreover, Felix makes a strong argument that the free market restructuring will only perpetuate asymmetries that impede economic development in late-industrializing societies. If he is correct, then reversing the decline of the debtor countries will depend upon a substantial change in the current creditor management strategy.

The second reason relates closely to the first. The banks' interests no longer complement the governmental approach. Consequently, they are pursuing different directions, and are much less interested in LDC loans. They now face a different situation both at the national and international levels. The banks' previous leverage in negotiations seems to be subsiding, partly from the continuation of sporadic defaults. Also, concern about the erosionary effect of partial debt forgiveness on the creditors' bargaining power exists in the US administration and the IFIs. Meanwhile, the banking group's unity is waning as the smaller banks extract themselves from Third World lending and the larger banks' interests diversify. Many of the latter, in trying to compensate for overexposure to troubled LDC debtors, conducted aggressive real-estate and leveraged buyout lending in the United States. These

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23 Felix identifies this as the fifth phase in the creditor strategy, which he calls a 'warehousing' approach, *op.cit.* p. 761.
loans are turning 'bad', and are not protected with loss reserves. The regional and smaller banks free from these problems are challenging the hierarchy of the financial industry and increasing the competition on the domestic front. Even though some of the bigger banks cannot exit as hastily as they would like, they are generally looking to continue devolving their financial links over the medium to long term. In addition, opportunities in Eastern Europe and the Soviet Union have opened up. The lack of new lending for the Southern debtor countries contrasts with a rise in commercial lending by Western banks to eastern Europe. Already early in 1989, loans to that region had increased by 6%. The Southern governments, therefore, are likely to remain desperate for new finance. John Ravenhill notes that "in the 1990s it is highly unlikely that commercial banks, even under pressure from Western governments and the international financial institutions, will provide significant injections of new capital into the heavily indebted countries."

The final reason for the protraction of the debt crisis is the bleak conditions which the debtor countries face. The debtor countries must attempt economic reforms not only without much relief through debt reduction programs, and market workouts, but also without any good prospects of improvement in the conditions that contribute to the crisis, such as lower interest rates, higher commodity prices, and increased access to Northern markets. Protectionism has not decreased, and many analyses of international trade foreshadow regional blocs which will disadvantage the LDCs, especially seeing as their own initiatives, intra-South trade and self-reliance have not moved beyond the declaratory stage of the New International Economic Order. Commodity prices do not seem poised for an upswing and while international agreements might be beneficial for both LDCs and industrialized countries, no great enthusiasm in the North for their revival is apparent. The continuing high deficits of the United States means that a policy of high interest rates for the dollar will be necessary to attract financing, however deleterious it may be for the debtor countries. As for overseas development assistance, the OECD does not anticipate any significant increase in the real terms during the

24 While this is not a very large increase, and banks are still likely to avoid lending to Eastern European countries on a scale similar to the late 1970s, it nevertheless means money that is not available for lending to the LDCs.
In general, North-South relations have not fared well, as the LDCs have been too involved with managing the debt crisis to concern themselves with wider agendas.

For the reasons outlined above, then, the outlook for a near resolution to the debt crisis is unlikely. A substantial change in the creditor strategy would be the variable most amenable to change, but Cohen notes that no fundamental reform can be expected unless new alliances strongly challenge the resistance to debt relief held by the big banks, finance ministries and central banks of the western countries. While the loosening of the groups of creditors, mentioned above, is taking place, the divisions are not yet deep enough to affect major change. Even if there were a reform of the ongoing management approach by the governmental creditors, the amenability of banking interests and the corresponding improvement in trade and financial conditions may not follow.

The Implications for Debt-for-Nature Swaps

The implications of the changes in banking regulations, the secondary market and the debt crisis for future nature swaps are varied and somewhat contradictory. The developments in the banking world overall mean pressures to reduce any remaining overexposure to debtor countries; on this count sales of debt would continue. Generally, the conditions in the secondary market are also positive for nature swaps, unless a balancing-out of the market does occurs. The present lack-lustre performance of the Brady Plan and low chances of a new strategy for debt relief in the near future, ironically, auger well for nature swaps as a private phenomenon. If the Brady Plan were going well, or were to improve the amount of reductions in the near future, debtor countries would perhaps be less willing to engage in nature swaps, because they would obtain debt relief without those particular sorts of local expenses. But Southern governments are desperately searching for new capital, and direct foreign investment is increasingly seen as a possible source of significant amounts of capital.

26 The 1989 annual OECD Development Assistance Committee Report projected a 2% growth in real terms, predicated on a continued large growth in aid from Japan - whose increase in aid merely covers the shortfall real flows from other OECD donors - cited in Ravenhill, 1990, op.cit., p.735
27 Cohen, op.cit., p.120.
are perceived to increase credit-worthiness more than is presently the case, debtor countries will have a heightened interest in conducting them. Meanwhile, the debt stabilization and local benefits even with the local expenditures they incur, will continue to appeal to the debtors. The environmental benefits will also count for those debtor countries concerned about the ecological problems and pressures for redress that they face.

Paradoxically, the structural adjustment programs of the Brady Plan, and of other IFI loans, are criticised for creating some of the environmental problems which nature swaps seek to combat. The austerity measures under the reduction programs can contribute to environmental problems, by starving the government resource and environmental agencies of funds, by the policies of exporting at any cost, and by the environmental impacts of the social problems caused by austerity. International and national groups have criticised the Brady Plan for that reason, and are lobbying to have strong environmental conservation provisions and sustainable development policy reforms integrated into it. To date, however, this has not occurred.

In the area of debt and international finance, then, no substantial changes have occurred in four years since the initiation of nature swaps that negatively affect nature swap transaction opportunities. This conclusion, however, must be considered along with the ramifications of changes in the areas of development and environment.

4.2 LDC Development & Environment

The evolution of the crises in LDC development and environment since 1987 when the nature swaps began has been very gradual. But the direction of the changes can be identified, as can the prospects for progress in these areas. By altering the context in which the social coalition that transacts nature swaps operates, the conditions of LDC development and environment problems can substantially influence the future of nature swaps.

29 Gibson & Curtis, op.cit., p. 395: According to Gibson and Curtis, nature swaps could be easily fit into Brady Plan-based debt reductions, by using financial and non-financial components; sector and macroeconomic policy reform with environmental ramifications and buybacks with environmental components.
Development Outlook

Although it is hard to generalize across debtor countries, overall LDC development prospects have not greatly improved since nature swaps began. So long as the debt overhang remains, and those conditions contributing to its protraction continue, development will be stalled. There has been a decline in Africa to the per capita levels of the 1960s, and no significant per capita growth in Latin America.

The debt problem in the near term may seem under control, but the cumulative effect of the continuing austerity on the debtor countries cannot be ignored. Felix considers another lost decade likely, given that the present approach to the debt crisis is limited to free market restructuring. Ravenhill too, although less critical of the Brady Plan than Felix, acknowledges that the prospects for Latin America and Africa in the 1990s are bleak unless more relief from the debt burden is given.

The implication of poor development prospects on debt-for-nature swaps is twofold. On the one hand, it would seem that those nature swaps that forward sustainable development programs based on community involvement and employment would appeal to debtor countries. On the other hand, with very tight budgetary conditions, the debtor countries will rapidly use up the proportions of local currency they perceive appropriate to dedicate to environmental protection and sustainable development. The immediacy of the development demands will make the long-term benefits of the nature swaps more difficult to justify in their view. This reading of the influence of development conditions on the opportunities for nature swaps is rather ambiguous. A consideration the changes in the approach to LDC development, by the governments themselves, and the institutions that assist them, may help to refine the assessment of the outlook.

In the approaches to development, the essential points concern the governmental, international institutional and bilateral assistance focus on the private sector, on community orientation and on environmental conservation and sustainable development. At the national

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level, the emphasis on the benefits of state-led development is being replaced, under the IMF and WB austerity programs, by an increasing role for the private sector. In the institutional realm, the emphasis on mega-projects for infrastructure development has given way to more appropriate maintenance and rehabilitation of already existing infrastructure. In the aid agencies, the direction now underlines local self-reliance and community-oriented programs. Both the international institutions and aid agencies are also beginning to integrate the concepts of environmental protection and sustainability into their developmental philosophies and programs. Overall, there has been an increasing recognition of the need to align the development initiatives with environmental care and maintenance. This augers well for debt-for-nature swaps, especially those already existing. It reinforces and builds upon the collaboration between governmental and non-governmental groups from nature swaps. This is beneficial for already existing nature swaps and for other environmental and developmental projects because it allows wider participation in designing and decision-making on these matters. The NGOs can represent local and environmental interests at a higher level. It also creates greater chances of complementarity between the development and the environmental protection and sustainability projects.

Environment Outlook

The crisis in the environment, especially in LDC countries, who are less able to cope with the problems, has not abated at all. Any of the standard books on the state of the world's environment will record deteriorations, mounting problems and an absence of progress in protection and maintenance of ecosystems. The implications of the declining LDC social and economic conditions on environmental health are no less bleak for the environment than for the development to which those societies aspire. Unfortunately, even if economic indicators were positive, and showed an improvement for development prospects, it could still project an acceleration of environmental problems due to the link between the energy-intensive, growth-orientation of the conventional development path and environmental deterioration. But again, as with the bleak prospects for development, some changes are evident in the understanding
and approaches to environmental problems. Some of the events which influence the awareness of environmental problems were touched on in chapter one. Here, it suffices to point to the changes in the evaluation and treatment of environmental problems of local and international consequence, and which can influence the future of nature swaps.

The international institutional approaches to environmental problems are undergoing rapid change. First of all, the context of national and international policies on issues of biodiversity and global warming may be about to change significantly. The upcoming United Nations Conference on Environment and Development (UNCED) is forcing governments to think about their policies on domestic and international environmental problems. Many types of NGOs have become extremely active in lobbying their governments about UNCED agenda issues, and have, in general, gained more recognition for their role in the national preparation process for the conference. An international convention on biodiversity, and individual country commitments on steps dealing with global warming are expected to emerge from UNCED, and movement on these two issues will have a significant impact on the context of present and future nature swaps. Secondly, the multilateral development banks (MDBs) have begun to adopt formal environmental policies, and are attempting to integrate concepts of protection and sustainability into their development projects. The main developmental lender, the World Bank, is working on placing environmental criteria into its programs, as well as making loans specifically for environmental restoration projects. Although there are doubts about the actual implementation of these policies at the project level, the international financial institutions responsible for assisting development are starting to understand the imperatives of sound environmental bases for development. At the same time, pressure is being exerted on the governing elites to incorporate environmental aspects into their development activities.32

The World Bank has, over the last few years, increasingly responded to pressure to integrate environmental aspects into their project proposal process. In 1987, under a reorganization, they set up environmental units in all four regional offices and a central

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32 See Hamlin, op.cit., p.146 for references on the 'paper policies' of the MDBs.
environment department under Policy, Planning and Research. However, the Bank is still the focus of criticism for the environmental and social problems resulting from their recent projects\textsuperscript{33}. Nevertheless, they increasingly appreciate their role in this area. Their internal Working Papers propose various types of involvement in environmental projects, including nature swaps (see discussion below on Multilateral Development Bank involvement). The importance of the World Bank's role cannot be understated, given that many of the poorest debtor countries rely overwhelmingly on it, instead of commercial banks for loans. These countries must abide by the multilateral loan conditions in order to secure future credit, so policies of the World Bank concerning the environmental measures will carry much weight.

The consequences of these changes on both the development and environment fronts must be, amongst all the negative signs, considered in a positive manner. Hopeful signs exist for some constructive social coalitions between environmental and development interests instead of the confrontational aspects usually emphasized. The upcoming United Nations Conference on Environment and Development, and the collection of funds for LDCs to fulfil their Montreal Protocol obligations, and the establishment of a Global Environment Fund all point to a potentially mutually beneficial linkage between environment and development. The South will obviously need compensation and additional assistance to avoid the environmentally destructive path of development which the North has pursued. Moreover, the North cannot fail to recognize that the progress it wants to see on global environmental problems can only be reached by providing additional financial and technological support.

Nevertheless, the outlook for coalitions between the development and environmental communities, especially at the grassroots level, is not all rosy. In discussing the NGOs, Yap remarks that the environmental groups have begun to attract notice not only for their positive, but also for their negative impact on the development process and on the human communities affected by the areas they work to protect. The expected expansion of their efforts "may bring them into apparent or real conflict with the other NGO communities, particularly the

\textsuperscript{33} See Hamlin, who discusses the Bank's role, organization and shortcomings, \textit{op.cit.}, p.146 -151; Bruce Rich, \textit{op.cit.}. 
development groups and the indigenous peoples' groups." This potential for confrontations of opposing interests also exists in a wider sense between Northern and Southern countries.

Amidst the fusion of environment and development needs stands the justified scepticism of Southern countries of the North's new found concern about environmental problems, especially as they impinge on development activities. Many LDCs consider the environmental conditions as one more barrier placed by the North in front of their attempts to develop. Environmental balance and protection in general, and debt-for-nature swaps in particular may be perceived as just another way for the North to pursue their own interests at the South's expense. Unless the environmental conditions clearly improve their development prospects over the short term, which because of the nature of environmental problems and the defects in the measurement of economic indicators they rarely do, the more immediate demands of economic progress will take precedence. It is a undeniable moral dilemma that the accusation that the Northern countries ultimately stand to benefit more from such changes than the LDCs themselves can always be made and rarely completely dismissed. However, the current understanding of ecological processes highlights the fact that environmental protection and a balanced use of ecosystems is an imperative for every country, indeed for every 'bioregion'. Waiting for changes in the structure of the international political economy that discriminate against Southern countries, and that promote environmental destruction will only create a vicious circle of inaction. Addressing the problems of environmental degradation and instigating the changes to the system must occur simultaneously, and be shared by both Northern and Southern countries. It is necessary for all countries to 'structurally adjust' to ecological maintenance and rehabilitation whatever their level of development.

The Implications for Debt-for-Nature Swaps

There are several implications for debt-for-nature swaps that arise out of the movement towards joining environmental and development needs, the trend to privatisation and out of the wider international institutional involvement in environmental matters. First of all, as

34 Nonita Yap, op.cit., p.85.
mentioned above, the integration of development and environmental imperatives can have positive ramifications for nature swaps in several ways, by providing complementarity of purpose in environmental and developmental projects, and by solidifying the cooperation between groups representing local and indigenous needs and interests, who can participate in deciding on national policies. This should mean that any future nature swaps have better local reception and more appropriately cater to the people whose lives they affect.

Secondly, the consequence of privatisation may work against debt-for-nature swaps per se, but could improve the opportunities of meeting LDC environmental and developmental needs. As Patterson points out, the current form of nature swaps does not attract the for-profit sector, because of the strong orientation to parks, wildlands, and protection programs. However, developing countries also need sustainable development projects of wider reach. With the private sector growing in importance in their development activities, it is imperative that environmental regulations, impact and sustainability criteria be designed, and the majority of debt-for-nature swaps do not promote these things. Patterson also goes on to point out that despite the benefits of the emphasis on non-governmental organizations, the swaps have a distinct bias against participation of major governmental agencies. They are being deprived of the opportunity to gain skills and experience by implementing the projects. Again, as with the private sector, the responsibility and capacities for dealing with broader countrywide environmental needs rests with governmental agencies. Basically, this highlights the inherent constraints of nature swaps in their present focus and form, and implies that the application for nature swaps is limited, not only in terms of the opportunities, but also in terms of the their ability to meet the developing countries' needs. If, however, their activities can be expanded, and they can incorporate better collaboration with governmental agencies and the private sector, the constraints can be lessened.

Lastly, the wider institutional involvement could inaugurate more systematic and organized assistance for afforestation and rainforest protection, in their work on combating biodiversity loss and global warming. The UNCED, the greening of overseas development agencies and the attention of MDBs is providing a greater role for NGOs, and for some of their
approaches to dealing with developmental and environmental issues. As a private mechanism, the debt-for-nature swap has limits, but its adoption by official bodies would expand the opportunities for further nature swap transactions. In the same way, extrapolations of its structure would also multiply the possibilities, and allow different groups, including those presently in the social coalition transacting nature swaps, to realize their interests in similar ways.

4.4 The Outlook for Debt-for-Nature Swaps

The Continuation of a Confluence of Interests

The above discussion shows that the conditions of the international political economy will most likely encourage future nature swaps. The participants who form the social coalition conducting swaps do not face any substantial changes to the context in which they find the advantages of swaps greater than the disincentives. In the immediate future, the confluence of interests seems set to continue, though subject to constraints produced by a growth in the number of swaps. The overall positive experience of nature swaps has encouraged other countries to participate, where possible. Conservation International reported an increase in the debtor countries' receptivity (based on both formal and informal evidence) as they look upon nature swaps as having equal or greater benefits than profit investments\(^{35}\). The list of new countries said to be considering nature swaps, aside from those countries interested in multiple swaps, is quite long\(^{36}\). The list features a couple of African countries. Although debt exchange programs are less developed in this region, apparently some prospects exist for indigenous organizations to acquire additional local currency through swaps or blocked fund transactions\(^{37}\). The opportunities in Eastern Europe are also opening up, and European banks are contacting WWF regarding the use of outstanding loans for conservation purposes\(^{38}\).

\(^{35}\) CI Report, op.cit., p.18.
\(^{36}\) Those countries that haven't already swapped who are listed are: Argentina, Brazil, Uruguay, Guatemala, Peru, Panama, Venezuela, Colombia, Jamaica, Haiti, Tanzania, Hungary and Czechoslovakia.
\(^{37}\) Kathy Fuller, "Debt for Nature Swaps: A New Conservation Tool", Economic Impact, Vol. 65(4),1988, p.43. However, this would still only represent a small percent of the private debt.
\(^{38}\) Fuller, ibid..
However, the more frequent swaps become, the less likely a decline in the debtor countries' interest in providing a good conversion rate for the debt (in terms of percentage of face value given by the Central Bank in exchange). This is because of their budget limitations and their increasing preoccupation with inflation, which could be a problem with large amounts being exchanged for nature and equity swaps under their conversion programs. Another reason may arise from developments in the secondary market. For instance, for the third swap, Costa Rica initially agreed to convert the debt at 75% of face value. Subsequently prices on the secondary market fell, and the purchasing NGO received a much larger discount, of which the government wanted to have a larger part\(^39\). The negotiations following the government's change of position finally resulted in the 30% figure which they wanted being used. NGOs could consider using securities, according to Brand, if the debtor governments are giving less on bonds\(^40\). With a great deal of the debt relief approach predicated on market workouts, the budgetary allowance and political viability of nature swaps in the debtor countries will decrease over time. Nevertheless, nature swap proponents are confident that the swap mechanism can evolve and be designed to meet changing interests. Fuller notes that the experience so far demonstrates that the swaps can be structured to successfully meet each party's concerns, even though many different interests need to be met\(^41\).

Towards the Institutionalisation of the Nature Swap

Generally two different indications as to the future prospects of nature swaps emerge in literature. Consideration of the institutionalisation possibilities, especially via bilateral and multilateral channels, make it seem that the mechanism will evolve but essentially continue to exist for the purposes of debt reduction and environmental activities. Other indications are of a closing window of opportunity for the private tool, given eventual write-downs of large

\(^39\) Cody, op.cit., p.10.
\(^40\) Brand, op.cit., p.40.
\(^41\) Fuller, op.cit., p.42.
portions of 'Third World' debt, secondary market stabilization, and gradual debt forgiveness. The discussion from the above and below sections support the former proposition.

The nature swap mechanism has evolved since its inception to meet the interests of the parties, such as when the design was changed to include bonds to ameliorate the inflationary potential. Current moves to incorporate the nature swap mechanism into the public arena also point to its flexibility. This evolution can be interpreted as a gradual process of institutionalisation into the mainstream of international relations. The opportunities for expansion in the public arena are enormous, if access to the restructured or donated debt of industrialized countries, aid agencies and multilateral development banks directly or indirectly (through grants to NGOs to purchase commercial debt) is obtained. For instance, the U.S. government agencies alone have $65.8 million in foreign debt42. In fact, nature swaps in the public sector, known as 'second generation swaps', are already underway.

Through AID

The U.S. Agency for International Development, AID, has a debt-for-development swap initiative which includes nature swaps43. AID will provide funding to NGOs to buy debt for AID-approved conversions. Its funding of development and nature swaps has been limited so far, contributing to two nature swaps. However, this signals at least an initial endorsement from the U.S. government for the nature swap transactions44. The swaps have also received endorsement from the OECD45. Two countries from the OECD have participated as sponsors instead of NGOs in nature swaps. The Netherlands and Sweden transacted the second and fourth swaps with Costa Rica respectively. Sweden used part of its first bilateral aid donation to Costa Rica to fund the swap. There is also an unconfirmed report of a swap conducted by the Federal Republic of Germany with Kenya in February 1989 of a DM 850

42 Figure from Jeff Wise, "The Role of Debt-for-Nature Swaps in Preserving Habitat", Vol. 7(12), 1990, p. 4.
44 Gibson & Curtis, op. cit., p.390; AID contributed $150,000 for the conservation program initiated by the first nature swap in Bolivia; it also gave WWF $1 million, part of which was used to purchase debt for the first Madagascar swap.
milllion loan for unspecified exchange amount to be used in improving lands in the north and western regions\textsuperscript{46}. The A.I.D. involvement is expected to grow, and NGOs hope for greater OECD involvement as well.

**Through Restructured Bilateral Debt: the EAI**

The most significant step toward institutionalisation has come from the inclusion of debt-for-nature swaps into the U.S.'s Enterprise for the Americas Initiative (EAI)\textsuperscript{47}. This Initiative comprises policies on debt, trade and investment such as technical assistance grants, investment funds, commercial trade credits made available for conversion on the secondary market, and possibly free trade agreements. The provision of bilateral trade credits from the Export-Import bank and the Commodity Credit Corporation is the closest the U.S. has come to making official bilateral debt available for purchase on the secondary market. In November 1990, the Congress passed Public Law 101-624 authorizing the debt-for-nature component of the EAI. The President can reduce the debts incurred under PL 480 (Food for Peace) in Latin American countries and their governments can make local currency interest payments corresponding to the reduced debt to an environment fund. The local NGOs are accorded a large role in in managing their countries' environmental fund. The U.S. Treasury stresses the benefit of both the environmental programs and the stabilization of debt to the debtor countries.

Criticisms have been voiced about the constraints and problems associated with the EAI, however. Only those countries meeting the IMF/WB macroeconomic requirements, investment reforms and having commercial debt reduction or financing agreements are eligible. Many countries may decide not to participate in the EAI, because of the limited amounts of relief (calculated in a complicated formula that reduces the total amount owed but not the amount paid each year by individual countries). Countries may find the negative economic and social impacts from the macroeconomic programs outweigh the benefits of relief\textsuperscript{48}. The

\textsuperscript{46} It is not clear whether the debt was actually owed to the government - CI Report, op.cit., p.24. The improvements apparently take the form of reafforestation and irrigation programs.

negative environmental impact of structural adjustment must also be added to this, as was discussed in Chapter 1. Nevertheless, quite a few Latin American countries may already be eligible for EAI relief, having already pursued macroeconomic reform in order to obtain commercial loan restructuring or multilateral finance. Those countries that participate in the EAI will therefore have a nature-swap option.

U.S. Legislative Developments

There are also several developments in the U.S. legislation that auger well for a possible expansion of debt-for-nature swaps. The first comes from a law of the 100th Congress (Public Law No. 100-461) on debt relief for the sub-saharan African countries. It permits discussions to be initiated with the African Development Bank (AFDB) on financing debt through local currencies and conversion to social program funds\textsuperscript{49}. The rest of the changes originate from the International Development and Finance Act of 1989 (H.R. 2494), which has parts addressing nature and development swap issues. It encourages MDBs to promote, coordinate and facilitate nature-swap transactions through an amendment to the International Financial Institutions Act. It also addresses accounting of donated debt for development and nature swaps through harmonization of accounting and tax treatment of these donations. Finally, it amends the Foreign Assistance Act to provide for nature swaps. A number of consequences arise from the amendment that facilitate swaps, and support the mutual interests in the transactions. The following items are the most important for future swaps. Firstly, the NGOs can now keep the interest earned on local currencies through AID-financed conversions instead of returning it to the Treasury, as previously required. This allows AID-financed conversions to use bonds, which is the preferred option for inflation reasons. Secondly, more activities become eligible for nature swap transactions, widening the scope of swaps. Thirdly, the amendment specifies that the grants for swaps should be additional to existing foreign assistance, which will sustain the debtor countries' interest in conducting swaps. Fourthly, the coordination of multilateral foreign assistance is called for, and the Secretary of State is made responsible for initiating OECD negotiations. This would give impetus to the promotion of

\textsuperscript{48} Critics of the EAI acknowledge that the President does have the right to waive the IMF/WB conditions, but express doubt as to the likelihood of George Bush using such a clause.

\textsuperscript{49} More details in Gibson & Curtis, \textit{op.cit.}, pp. 403-4, about the technical qualifications of the law.
swaps by MDBs, whose position on nature swaps is discussed below. In total, these legislative developments are quite positive. While they do not provide for the direct reduction or forgiveness of public debt held by the U.S., they take initial steps in institutionalizing the collaboration between NGOs, debtor and creditors on nature swaps.

Through Multilateral Development Banks

The debts owed to the multilateral development banks provide another potential area for expansion, due to the large number of countries needing MDB credit. The MDBs could, hypothetically, allow their debts to be serviced in local currency to both local development and conservation programs. Of all the MDBs, the regionals have been the most receptive to debt-for-nature and debt-for-development mechanisms. The Inter-American Development Bank (IDB), and UNICEF are establishing a Social Investment Trust Fund for development swaps, and the AFDB is studying the opportunities. The World Bank has denied the possibility, citing the prohibition in its charter for rescheduling or selling LDC debt. This prohibition also applies to the other MDBs. However, the World Bank does not wish to endanger its triple A credit rating, which allows it to borrow money on the capital markets on good terms.

Nevertheless, even without direct participation, the MDBs, and the World Bank in particular, can still have an important role in future nature swaps with public funds. The World Bank would be in a position to facilitate or coordinate donations of bilateral or commercial debt for nature swaps. Proposals for World Bank involvement include the functions of information-gathering, development of analytical and policy frameworks for the swaps, assistance in resource-mobilization, the association of nature swaps with other bank operations to improve the efficiency and effectiveness of both, legal and accounting assistance, and lending the Bank's weight to enforcement of nature swap obligations. Potvin

50 Most information in this section on MDBs comes from Gibson, *op. cit.* pp.385-387.
51 Potvin, p.5. Citing Katz's proposals - Katz having written one of the World Bank Working Papers. See also World Bank Papers by Hansen & Occhiolini: Stein Hansen, "Debt for Nature Swaps - Overview and Discussion of Key Issues", *Ecological Vol 1* (1), February 1989, pp.77-93; Michael Occhiolini, "Debt-for-Nature Swaps", Working Paper 393, Debt and International Finance Division, International Economics Department, Policy, Research and External Affairs, The World Bank, March 1990. Occhiolini suggests including similar components in its conventional environmental loans; Gibson, *op. cit.*, p.386, Moran, *op. cit.*. The U.S. Treasury has studied nature swap initiatives, and submitted reports to the Congress (see the bibliography). Subsequently, legislation has been passed with recommendations for World Bank action in assisting nature swaps. The World Bank has indicated that it would review the recommendations, but according to Gibson, no progress had taken place at the time of his writing of the article (mid 1990).
specifically suggests that the World Bank, together with other donors, governments and NGOs, could set up an accreditations system for international and local participative institutions who could be involved in nature swaps assisted by the World Bank\textsuperscript{52}. He also advises the World Bank to assist in arranging adequate financial and ecological performance monitoring and evaluation of program effectiveness, using its accumulated experience in this area\textsuperscript{53}. The latter could be particularly useful, as evaluation exercises are currently lacking due to financial constraints. The nature swaps could also be expanded beyond the individual, bilateral arrangements to syndicated transactions, for instance, through the Global Environment Fund\textsuperscript{54}. The Fund could transact debt-for-conservation deals that would surmount the constraint of bilateral arrangements, in the same sort of way that the group of smaller NGOs in the first Costa Rican swap collaborated to achieve together what they could not accomplish individually (see Appendix IV). The Nature Conservancy has also proposed a debt-for-nature Trust Fund for renegotiated official bilateral debt of heavily indebted countries.

The opportunities for future nature swaps, therefore, seem quite good, as the institutionalisation of the mechanism would free it from some of the constraints imposed by the private aspect.

**Extrapolations of Nature Swap Mechanisms**

Aside from the establishment of the nature swap in the public sector, another way of looking at the future of debt-for-nature swaps is to consider the extrapolations of this mechanism into other forms. While not all of these would be debt-for-nature swaps per se, they would be attempting to deal with the issues of finance for debt relief, development needs and environmental protection. The examples mentioned below often have similar coalition-building aspects as the nature swaps proper. Bramble proposes using other methods of

\textsuperscript{52} Potvin, \textit{op.cit.}, p.37.
\textsuperscript{53} Potvin, \textit{op.cit.}, p.38.
\textsuperscript{54} Potvin, \textit{op.cit.}, p.42.
financial exchange including cooperation with multinational corporations holding blocked funds in debtor countries, and tax incentives for corporate investors supporting sound environmental management in their equity swaps. One actual example is that of a recent loan by the Asian Development Bank to the Philippino forestry sector. The Philippino government was permitted to direct a small part of the loan proceeds (in hard currency) to local NGOs, in order that they could buy and swap commercial debt on the secondary market for local environmental expenditures. Another example is that of Green or Conservation Exit Bonds. Conservation exit bonds would be provided to commercial banks by a multilateral development bank. The MDB would give the commercial bank credit in the form of a guaranty or collateral that improves the value of the bank's other debt in proportion to the amount that the commercial bank agrees to swap for conservation purposes. Green bonds are similar, and involve credit enhancements to banks who agree to new loans in the form of bonds to finance conservation.

There is also potential for initiatives that set an exchange of protection to offset environmental costs. These could be either associated with nature swaps or instigate independent nature conservation programs through an exchange mechanism of sorts. A bill in the state of Massachusetts House (H. 3463) is currently being considered that would require companies to address the buildup of carbon dioxide. It is possible that company support for afforestation in LDCs may help meet that requirement. This type of idea where, for example, a U.S. power company donates debt to an LDC NGO to fund tree planting to offset their greenhouse emissions, has already been acted upon. The company building a coal-fired power plant in Hawaii, AES, has agreed to donate up to $2 million to TNC for the Paraguayan nature swap which will protect rainforests. The plant manager stated "Whatever our plant will generate will be offset by what we will be preventing from being generated in Paraguay." Another company, Virginia Power and Light, has stated that it will pay for tree-planting in

55 See Bramble, op.cit.
56 Potvin, op.cit., p.41.
57 Dawkins, op.cit., p.6.
58 Prestman & Lampman, op.cit., p.16.
59 Honolulu Advertiser, 29 May 1991, "AES funds rain forest to offset Isle facility's emissions", Thomas Kaser quoting Dan Rothaupt, plant manager of AES Barbers Point Inc.
Guatemala to absorb the same amount of carbon dioxide emitted from their new power station\textsuperscript{60}. However, the scientific soundness of such exchanges has yet to be established. Given the potential exploitation of such activities by Northern companies seeking to avoid the more costly Northern modifications for the environmental impact of their activities, it is important that such proposals be properly researched and regulated by the governments in question. Such exchange activities could actually produce more 'debt-for-nature' swaps, but here the critique mentioned in Chapter 3 may become more justified.

A different proposal has been forwarded by Karl Zeigler, an American banker during the 1970s excessive loan distribution period\textsuperscript{61}. He suggests a massive reduction of Brazil's external debt (50\%) in exchange for a verifiable program for preserving the Amazon\textsuperscript{62}. He maintains that this would save a valuable renewable resource while costing marginally more in the short-term (as opposed to the present costs to the banks in terms resources put towards constant rescheduling and 'making up' the shortfall of the incomplete payments in other ways), but argues that this would be very cost-efficient compared to the long-term expense of reversing future environmental damage. This proposal was made in 1989, and was under consideration of the Brazilian, U.S. and British governments at that time. No action has been taken on this proposal, but the institutionalisation of nature swaps into the EAI program may see the return of a similar proposal with better chances of successful and effective realization.

On the whole, then, the outlook for future nature swaps is quite positive. At the very least, the recent donation of debt by Bank of America, and the Bolivian debt held by Conservation International will still provide for a few more swaps in the near future. Although the regulatory picture is unclear, and it is hard to predict the movement of the secondary market, the availability of commercial debt does not seem likely to constrict significantly in the near future. The lack of substantial debt relief means that the confluence of interests basically remains the same, and the transaction of yet more nature swaps through the public sector seems

\textsuperscript{61} "Gringo greenmail puts nature on the balance sheet", The Sunday Times, 14 May 1989, London.
\textsuperscript{62} He proposes that a consortium of lending governments buy $50 billion Brazilian debt on the secondary market ($17 billion), leave the debt on the books to ensure Brazil implements the program, and have the consortium meet the servicing costs of $5 billion/year.
fairly likely. The institutionalisation of this mechanism into the public sector, and the solidification of the coalition which conducts the swaps indicates that the swap as a private solution to a public goods problem is now turning into one of the mechanisms that governments, and international institutions will use in dealing with the debt, development and environmental crises.
Debt-for-nature swaps have come about as a result of a particular conjunction of circumstances, namely the greening of international relations, itself a product of growing knowledge about our global environmental problems, the debt and development crises, and the changes in the international political economy which created the opportunity for a private financial mechanism of this type to be used.

In their present form, they are a very small-scale tool, and face a number of constraints. Because of the limitations of the financial capacities of the sponsoring NGOs and the interests of the debtor countries in balancing their additional environmental expenditures with their foreign debt retirement, they are not conducted in large amounts. Thus, they cannot provide much debt stabilization, nor make a large contribution to constructing a proper conservation infrastructure or natural resource sectors that are ecologically sustainable, as discussed in Chapter 2. Their constraints also derive from their impact on the debtor economy if transacted in large amounts, the need to identify long-term financial needs for conservation activities, a vulnerability to unpredictable variables, such as a change in political power or an economic crisis, and the kinds of activities IENGOs will and can fund with the financial instruments available.

At present, debt-for-nature swaps are transacted by virtue of the following circumstances: i) where the debtor government is inclined to conservation priorities ii) where their debt has a good discount on the secondary market (for whatever reasons) iii) where there is a history of cooperation between the sponsoring organizations and the local environmental groups, either grassroots or national, and where they have identified priority areas under danger and iv) where the IENGOs can obtain donated debt or have the financial capacity to fund a swap. As a private means to solve a public goods problem, it is predicated on some quite coincidental factors and thus is haphazard in character. Furthermore, some of the countries that, in terms of the rapid and widespread destruction of unique and important
bioregions taking place, such as Brazil and Malaysia, need to participate the most in conservation and ecologically sustainable projects, are not.

However, debt-for-nature swaps have various things to commend them. They are an immediate step in the face of ongoing crises. While there is much discussion of how to transform economies and societies, from whatever state of development, into ones that are ecologically viable over the long-term, there is little enough happening to enact the changes. Though the nature swaps themselves do not necessarily attempt to fundamentally reverse the current structures on which environmental destruction is predicated, nor convert LDC governments that are opposed to such programs, they do begin some action on the ground in some places where it will benefit some areas and some peoples. Even though it still is difficult to assess their effectiveness beyond a general level, given the small fraction of nature swaps for which there is sufficient up-to-date information, they are better than no action at all, and they may be laying the bases for ongoing, cumulative achievements beyond the immediate projects. The renewal of some of the first agreements in 1992 will provide an indication as to how satisfactory they have been in achieving the multiple objectives of the many participants. They also keep the topic of LDC debt and its links with environmental destruction on the international agenda as well as in the international public eye. They strengthen the position of NGOs in the debtor countries, and help promote the NGO objectives throughout civil society. Although it is true that some of these NGOs already represent the power structures of the countries in question, and not the peoples affected by the nature swaps, especially in terms of indigenous groups, this shortcoming is being recognized, and is being responded to by the sponsoring organizations. This author thinks that the promotion of NGOs in the environmental and developmental issue-areas is highly desirable, and will ensure more equitable, representative and participatory political processes to deal with the international aspects of environment and development needs. Debt-for-nature swaps are a small step in the right direction, insofar as they put some immediate protection on the ground, achieves some debt relief, and initiates some programs that will have positive ongoing consequences for local NGOs, environmental protection schemes, scientific understanding of ecosystem needs,
CONCLUSION

biodiversity protection, community participation, and slowly, indigenous participation in
decision-making in projects affecting their homelands.

The institutionalisation of the nature swap, in itself, may also be a step in the right
direction. But it will encounter technical problems, and perhaps broader political ones.
Negative economic and political problems could arise if nature swaps start taking place on a
much larger scale, with sovereignty issues and accentuated inflation topping the list.
Nevertheless, the continuation of nature swaps, even in their institutionalised form, for
instance, under the Enterprise for the Americas Initiative, with World Bank collaboration, will
still underscore the absence of a proper solution to the debt and development crises for the
debtor countries, let alone serious attempts to address the root causes of the environmental
crisis. The cumulative urgency for all three crises can only be ignored at greater cost for all
countries in the future. If it is realistic that substantial debt reduction will only occur with
strings attached, it is preferable for some of these strings to turn into plowshares and seedlings,
as with debt-for-nature and debt-for-development swaps, where the 'payment' of the obligation
is reinvested back into the country and heals the suffering of those people and areas that have
borne the brunt of the debt crisis. Should no substantial debt reduction take place in the near
future, then the absence of a non-profit opportunity in the current market-based strategy would
be of more harm than its presence. The outlook for debt reduction is not overly positive, as
observed in Chapter 4. But the possibilities for expansion of debt-for-nature, as well as debt-
for-development mechanisms, seem auspicious in the public sector, though more at the national
than international level.

Debt-for-nature swaps, as a private initiative to combat a public goods problem, reveal
the impact of the structural changes in the international political economy on the role of the
environment in human affairs. The globalisation of finance and the rise of private economic
power provided the opportunity for environmental NGOs to play a role in international
environmental politics. The current process of institutionalisation of this mechanism into the
public sector attests to the rising importance of environmental issues on the world political
agenda, and the irreversible linkage between economic and social development and sound
environmental practices. Debt-for-nature swaps can even be seen as positive developments for the pressing global environmental issues of biodiversity and global warming, and international political developments on these two topics may auger well for the same or similar mechanisms. Ironically, debt-for-nature swaps have been transacted by an international coalition with a confluence of interests that depends primarily on the existence, the extent, and the continuation of three crises. They also exist because of a growing realization that the current structures of our civilization are destroying the ecological base on which we depend. The social coalition that transacts them has taken advantage of an unusual confluence of interests. Many nature swap observers speak optimistically about future beneficial collaboration between banks, conservationists and debtor country governments for the financing of conservation and environmentally sustainable projects in the LDCs. However, the new social contracts that Robert Cox spoke of, as mentioned in Chapter 1, will obviously not be formed on the basis of such a small phenomenon. Nevertheless, the experience of collaboration, and the connections formed will most likely influence the shape of future global environmental politics, though it is difficult at this stage to predict how and to what extent. Undeniably, we need, as Winthrop points out, we need faster and larger scale solutions to the debt and environmental crises\(^1\). If debt-for-nature swaps prove to be a phenomenon of transitional character, bridging the gap between small, inventive private initiatives to public goods problems and the insufficient public strategies, and eventually enabling movement beyond the conditional quality presently forming in the institutionalisation of the nature swap, they will ultimately be successful - on their own terms, and in terms of the meeting the immense and urgent needs of the environment and basic human development in the international political economy.

\(^1\) Winthrop, *op.cit.*, p.147.


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*The Financial Times (London)*
*The Sunday Times (London)*
*The New York Times*
*The Age*
*The Honolulu Advertiser*
*The Christian Science Monitor*
*The Wall Street Journal*

Press Releases
*International Finance Corporation*
*Conservation International*
*World Wide Fund for Nature*
## APPENDIX I

### CATEGORISATION OF COUNTRIES

<table>
<thead>
<tr>
<th>High human development (HDI 0.800 and above)</th>
<th>Medium human development (HDI 0.500 to 0.799)</th>
<th>Low human development (HDI below 0.500)</th>
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CATEGORISATION OF COUNTRIES

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## APPENDIX I

### CATEGORISATION OF COUNTRIES

Countries in the major world aggregates

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## TABLE OF DEBT-FOR-NATURE SWAPS

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<td>$15 mill</td>
<td>$147 mill (plus)</td>
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Ci: Conservation Internatl
RA - Rainforest Alliance
PRCT - Puerto Rican Conservation Trust
FRG - Federal Republic of Germany
MCL - Monteverde Conservation League
FMB - Fundacion Moises Bertoni para la Conservacion de la Naturaleza

Others (no additional confirmation found)
- Argentina 12/89
- Philippines 1990
- Sudan
- Kenya 8/89

- TNC: The Nature Conservancy
- WWF: World Wildlife Fund
- MBG: Missouri Botanical Garden
- AID: US Agency Intl Devlpmt
- NPF-Nat'l Parks Foundation Costa Rica
- NL - Netherlands Gov't
- SW - Swedish Gov't
- CABEI - Central American Bank for Economic Integration

Others (no additional confirmation found)
- Argentina 12/89
- Philippines 1990
- Sudan
- Kenya 8/89

- Others: World Wildlife Fund
- USAID
- DM850 mill
Conservation International: Mexico Debt-for-Nature Swap

**Government of Mexico Approves Swap**

- Financial Proposal
  - Secretary de Hacienda y Crédito Público (Secretary of Finance)
    - Financial Approval
      - Mexican Debt Purchased at Discount in U.S. Dollars
      - Conservation Approval
        - Conservation Proposal
          - Secretaría de Desarrollo Urbano y Ecología (Secretary of Environment)

**CI Mexico Acquires Debt**

- Secondary Debt Market
  - Mexican Pesos
    - Conservation International México, A.C.
      - Investment Bank
        - National Financiera (Development Bank)
          - Conservation
            - Mexican Pesos
              - Conservation International México, A.C. (Scientific Field Station for Reserve Protection)

**Debt Converted to Pesos**

- Donation of Pesos
  - Conservation
    - UNAM
      - UNAM Center for Ecology (Ecosystem Conservation Data Center)
    - Pronatura
      - Pronatura (Mexican NGO with Programs in Communication & Education)
    - SEDUE
      - SEDUE (Mexican Environmental Agency)
    - Instituto de Historia Natural de Chiapas (Regional Conservation Data Center)
    - Fundación Miguel Alemán & FUNDAMAT (Awareness Building & Conservation Education)
    - Conservation Based Development (Ecotourism; Forest Products)

**Payment to Conservation**

- Estación Chapul Montes Azules Biosphere Reserve
- UNAM Center for Ecology (Ecosystem Conservation Data Center)
- Pronatura (Mexican NGO with Programs in Communication & Education)
- SEDUE (Mexican Environmental Agency)
- Instituto de Historia Natural de Chiapas (Regional Conservation Data Center)
- Fundación Miguel Alemán & FUNDAMAT (Awareness Building & Conservation Education)
- Conservation Based Development (Ecotourism; Forest Products)

**Swap Accord Summary**

- 4 year swap accord 1991-1994
- Multiple swap operations each year
- USD 4 million in debt (discount bonds)
- Converted to about USD 40 million in pesos over 4 year period
- Debt purchased at market rate
- "Par bonds" also eligible, at different terms

1015 18th Street, N.W., Suite 1000, Washington, D.C. 20036, (202) 429-5660, FAX (202) 887-5188
APPENDIX III

Swap Details:

BOLIVIA

Date (Agreement)       Cost       Face value       Funds Generated
July 13 '87             $100,000    $650,000        $250,000peso-

(Debt exchanged)       Secondary Market Price       Redemption (Face Value)
7/87                    15 cents/$               39%

Actors
NGOs
Conservation International; Frank Weeden Foundation

Government Agencies:
Ministry of Agriculture & Peasant Affairs (MAPA); Central Bank
National Academy of Sciences of Bolivia (NAS); Inter-Institute Technology
Commission (IITC)

Agreement/Process Details
The debt was purchased at 15% of its face value and cancelled in exchange for funds to
manage Beni Biosphere Reserve, whose area & buffer zone was increased by 3.7 mill
acres; and for maximum legal protection of the Reserve. NAS administers the
programs, oversees a commission made up of local officials, scientists from Costa
Rica's Ecology Institute and Beni Biosphere Reserve, and a representative from the
local environmental NGO Liga de Defensa del Medio Ambiente (LIDEMA) (who is
approved by MAPA). LIDEMA manages the area for conservation and sustainable
development purposes. NAS & MAPA administer the fund. For five years CI
provides scientific, technical, financial and administrative assistance for design and
execution of programs promoting 'rational and sustained use of renewable natural
resources'. MAPA and Ministry of Planning and Coordination (MPC) are to approve
of CIs programs. CI is to submit work plans, annual activity reports to MAPA, MPC
and Ministry of Foreign Affairs (MFA).

Ecosystem Particulars (Beni Biosphere Reserve)
Home of nomadic Chimane Indians, and also Yacuma, Ballivian, Guarayo and Moxos
tribes. The Beni Region in northeast of Bolivia noted for its extraordinary biological

1 This compilation of Swap details is by no means exhaustive; due to space constraints,
details are selective. Please see the Debt-for-Nature Swaps Table for the acronyms of
the purchasing international organizations.
richness. A seasonally flooded lowland Amazonian rainforest and savannah habitat that supports 13 species of Bolivia's 18 endangered animals, 500 bird species, and 6000 vascular plant species; world's largest mahogany, jacaranda and tropical cedar forests. The region experiencing rapid forestry and agricultural development. (Mahogany is Bolivia's primary forest product export, cedars used locally for boat-building & firewood.)

Activities/Purpose
The swap supports conservation management of Beni Biosphere Reserve; promotes environmentally sustainable development uses in buffer areas, including managed logging and farming; commissions a socio-economic study of the region by the IITC to help resolve territorial disputes between timber companies and indigenous tribes.

ECUADOR
The Ecuadoran Central Bank, at the request of Fundacion Natura, approved a $10 mill nature swap program, the agreement to which FN is a signatory. FN has 5 years from 8th October 1987 to present notes for conversion. The following swaps have taken place under this program:

Swap No: 1

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</table>

(Debt exchanged) Secondary Market Price Redemption (Face Value)
12/87 35.4 cents/$ 100%

Actors
NGOs Fundacion Natura; World Wildlife Fund
Gov't Agencies Central Bank

Banks
Citicorp; Bankers Trust

Selected Agreement/Process Details
WWF agreed with FN to provide financial support and purchase debt. One million dollars was redeemed at 100% face value and exchanged at the official rate (249 sucres/$). The Bank issued 9-year sucres-denominated bonds with a floating interest rate and an average yield of 30-35% (31% the first year, thereafter tied to the interest rate paid by Ecuador's five largest banks), and transferred to FN. The principal will
be retained as a permanent endowment for FN. The projects funded in the first year are specified in the agreement, and thereafter jointly decided by WWF and FN. They must complement existing government projects and be compatible with national policies of Ecuador and the principles of FN and WWF.

**Ecosystem Particulars**
The land is biologically very diverse and includes Amazon rainforests, Andean highlands, coastal savannah lands and mangrove forests. Ecuador is also the home of the Galapagos Islands, a world-renowned wildlife park. The country has many other national parks, but also a very high population density and growth rate which places huge stress on the environment. Problems include deforestation, soil erosion and poaching of protected wildlife.

**Activities/Purpose**
To protect and manage Ecuador's many threatened natural resources: maintenance and conservation of 8 national parks (2 mill hectares) including Yasuni Nat'l Park (hereafter NP), and Pasochoa Nature Reserve, designated an area of special importance. One 800 hectare park site is for a pilot program in environmental education and nature interpretation. Activities include infrastructure development, boundary delineation, equipment purchase, natural resource inventory, staff training, additional staff hiring, management plans, and research on biosphere reserve management techniques.

**ECUADOR**
**Swap No: 2**

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<td>4/89</td>
<td>11.9 cents/$</td>
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**Actors**

**NGOs**
Fundacion Natura; World Wildlife Fund-U.S.

**Gov't Agencies**
Central Bank

**Banks**
American Express, Morgan Guaranty Trust,
Bankers Trust

**Contributors**
WWF $5.4 million;
TNC/MBG $3.6 mill
Selected Agreement/Process Details
Bonds were issued at 100% face value and exchanged at the official rate (422.88 sucres/dollar; free market rate is 520), have 8-year maturity with floating interest rate - average yield of 30-35%, paid biannually. Most of funds go to support programs started with previous swap, this time with training and staffing of park professionals. Different provisions regarding the oversight of programs were made through 1) the establishment of project commissions which jointly determine projects, budgets and plans with WWF; and 2) the requirement of bond expenditure reports. The projects are implemented by various local NGOs.

Activities/Purpose
Acquisition and management of Maquipucuna Reserve; addition of Machiallilla NP to the list of threatened areas. Establishment of Conservation Data Center to provide at the national level a comprehensive source of information about threatened species, habitats and help with provision of their protection and sustainable management. Efforts are being made for the organization and implementation of workshops and field activities to improve local capacity to manage the natural resources.

Future Swaps
The debt for nature program has been expanded into a debt-for-development program. In October 1989, the Government of Ecuador approved a $50 million debt exchange program. The debt can be exchanged at 50% face value for monetary stabilization bonds paying interest in local currency to support social, cultural, educational and environmental programs. Current information does not indicate any debt-for-nature transactions under this program to date.

COSTA RICA
The Costa Rican government set up a trust fund, the Natural Resources Conservation Fund (NRCF), for the conversion of foreign debt into local currency bonds, after a request by Alvaro Umana, the head of the Ministry of Natural Resources, Energy and Mines. The fund is to finance projects for national parks, conservation, environmental education, reforestation, and research on sustainable development. An agreement, signed October 24, 1987 by the Ministry, the Central Bank and the Fundacion de Parques Nationales assigns the responsibilities for the administration of nature swaps. The Costa Rican Cooperative Bank (Bancoop) administers the fund, and finances
projects agreed to by donors and NRCF board (private citizens and public officials).
The following swaps have taken place through this conversion program:

**Swap No: 1**

<table>
<thead>
<tr>
<th>Date (Agreement)</th>
<th>Cost</th>
<th>Face value</th>
<th>Funds Generated</th>
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</thead>
<tbody>
<tr>
<td>Mar 4 '88</td>
<td>$918,000</td>
<td>$5,400,000</td>
<td>$4,050,000</td>
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</table>

(Debt exchanged) | Secondary Market Price | Redemption (Face Value) |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>12/87-2/88</td>
<td>17.0 cents/$</td>
<td>75%</td>
</tr>
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</table>

**Actors**

*NGOs*

Fundacion de Parques Nacionales (in consultation with WWF); The Nature Conservancy

*Gov't Agencies*

Central Bank; Ministry of Natural Resources, Energy & Mines (MNREM)

*Banks*


*Contributors*

Fleet $254,000 to TNC for endowment of Braulio & Carillo Nat'l Parks
Group of NGOs $2.4 mill2; World Wildlife Fund $3 mill

**Agreement/Process Details**

The government agreed to exchange up to $5.4 mill debt for 6-yr colones bonds (average interest of 25%) at 75% of face value. Contributors donated directly to FPN which purchased the debt and receives interest from the bonds. The bonds are not for sale, but can be used as collateral for loans. WWF has an agreement with FPN and the MNREM; the group of smaller NGOs syndicated their exchange to enable them to finance a variety of different projects in which they individually had an interest. *In May 1988, the Central Bank increased the conversion ceiling by $5.6 million.*

**Ecosystem Particulars**

This country is one of the most ecologically diverse of its size in world, it has 10,000 different plant species; more bird species than in all of U.S.A. and Canada in its rare dry tropical forest ecosystem and rainforests with endangered bird species and mammals. The very high population density results in much timber poaching and

---

APPENDIX III

Costa Rica has the highest rate of deforestation outside its parks in all of Latin America.

**Activities/Purpose**

Expansion, protection and management of high priority parks and reserves. Corcovado NP is under special focus due to pressure of miners and developers on ecosystems there. Guanacaste Nat'l Park was expanded through land purchase, and enhanced through a new park management program (environmental training and education.) Other parks and private reservations receiving resources: Tortuguero, Braulio, Carillo and La Amistad; Monteverde and Centro Ecologica del Pacifico. Also funded by the swap is the Gandoca Land Management Project, which supports sustainable development practices (land titling, tree & crop nursery organization, agricultural extension work) and ecodevelopment projects (aquaculture & nature tourism).

**COSTA RICA**

**Swap No: 2**

<table>
<thead>
<tr>
<th>Date (Agreement)</th>
<th>Cost</th>
<th>Face value</th>
<th>Funds Generated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jun 88</td>
<td>$5,000,000</td>
<td>$33,000,000</td>
<td>$9,900,000</td>
</tr>
</tbody>
</table>

(Debt exchanged)  Secondary Market Price Redemption (Face Value)
7/88                  15.1cents/$               33%

**Actors**

Gov't Agencies
Netherlands Government
Central Bank; Ministry of Natural Resources, Energy & Mines;
Ministry of Planning

NGOs
none

**Agreement/Process Details**

The bonds were provided at 30% of debt's face value; 4-yr maturation period, average 15% interest in biannual payments. This swap was a direct government to government exchange, which set up a Costa Rican-Netherlands nature trust fund. The funds are administered by joint commission of Costa Rican ministries and Dutch Ambassador; and allocated to local NGOs for specific projects.

**Activities/Purpose**

Reforestation of 24,000 acres of land with 75% of swap-generated revenue. Sustainable development via social interest groups is also supported; monies go to cooperative and peasant organizations benefiting thousands of small farmers (planting of nearly 4,000 hectares in 1989.)
COSTA RICA
Swap No: 3

<table>
<thead>
<tr>
<th>Date (Agreement)</th>
<th>Cost</th>
<th>Face value</th>
<th>Funds Generated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jul 89</td>
<td>$784,000</td>
<td>$5,600,000</td>
<td>$1,680,000</td>
</tr>
</tbody>
</table>

(Debt exchanged) Secondary Market Price Redemption (Face Value)
1/89 14 cents/$ 30%

Actors
NGOs
Fundacion de Parques Nacionales;
The Nature Conservancy

Government Agencies
R.L.
Central Bank;
Ministry of Natural Resources, Energy & Mines (free)

Contributors
n.a.

Agreement/Process Details
TNC and others purchased the debt, which was redeemed for 30% of face value, with a 5-yr maturity, earning an average interest of 25%.

Activities/Purpose
This swap mostly finances a continuation of projects begun by the previous swap, including restoration & preservation of dry tropical forest in Guanacaste NP, rainforest in Braulio & Carillo NP, and cloud forest in Monteverde Reserve. New areas supported include Lomas Barbudal Biological Reserve (dry tropical rainforest); Barra Honda NP (rare limestone caves with unique bat species). Also supported - a marine turtle protection project (guard services for nesting beaches). Research funded includes 5-yr operating budget of Conservation Data Center & the biological and natural resource computer data-base. Organisations benefiting from the swap are the National Biodiversity Institute, FPN and the Neotropica foundation.

COSTA RICA
Swap No: 4

<table>
<thead>
<tr>
<th>Date (Agreement)</th>
<th>Cost</th>
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<tbody>
<tr>
<td>Apr 89</td>
<td>$3,500,000</td>
<td>$24,500,000</td>
<td>$17,100,000</td>
</tr>
</tbody>
</table>

(Debt exchanged) Secondary Market Price Redemption (Face Value)
4/89 14.3 cents/$ 70%

Actors
NGOs
NPF

Banks
Salomon Brothers


APPENDIX III

Contributors
Swedish Government, Swedish students & private conservation groups.

Selected Agreement/Process Details
Bonds provided at 70% of face value, 4-yr maturity, 15% average rate of interest. Sweden used part of its first bilateral aid contribution to Costa Rica to purchase the debt.

Activities/Purpose
Finance for the completion and endowment of Guanacaste NP project. Efforts focus on regeneration of 200,000 acres of dry tropical forest. Also the endowment finances research and environmental education, staff training, and park management, including cataloguing park's biodiversity and forest fire control during dry season.

COSTA RICA
Swap No: 5

Date (Agreement)     Cost       Face value       Funds Generated
Mar 90              $1,953,470  $10,753,631      $9,602,904
(Debt exchanged)    Secondary Market Price  Redemption (Face Value)
4/90               18.2 cents/$         80%

Actors
NGOs
World Wildlife Fund - Internat'l,
The Nature Conservancy (loan)

Banks
Salomon Brothers, Lafisse

Selected Agreement/Process Details
This three year program allows US$15 mill face value of debt to be exchanged each year for conservation, education and micro-enterprise projects. In April 1989 FPN exchanged US $10.75 mill for conservation bonds. The redemption was split between A) $5 mill in bonds at 100% face value, 20-yr maturity, 8% interest; for La Amistad Regional Conservation Unit (URC Amistad) and B) $5.754 mill at 80% face value; 20-yr maturity, 3% interest for Instituto Nacional de Biodiversidad (INbio). With A), 44% of the bonds endow the URC A's management costs; the use of funds determined together by URC A administration and FPN. The remainder goes to protection and research of properties within URC A.
Ecosystem Particulars
Amistad Reserve home of two Indian groups; has a number of the region's watersheds.

Activities/Purpose
Endowment of URC Amistad; and research support. INbio will use part of income earned from interest to fund a parataxonomists course. The students, when trained, will staff Biodiversity Sections of eight Regional Conservation Units and establish additional biodiversity survey offices. Course includes topics on zoning, species and habitat management, specimen extraction for economic & scientific purposes.

COSTA RICA
Swap No: 6

<table>
<thead>
<tr>
<th>Date (Agreement)</th>
<th>Cost</th>
<th>Face value</th>
<th>Funds Generated</th>
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</thead>
<tbody>
<tr>
<td>Jan 91</td>
<td>$360,000</td>
<td>$600,000</td>
<td>$540,000</td>
</tr>
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</table>

Actors
NGOs
Rainforest Alliance; TNC Integration
Monteverde Conservation League;

Gov't Agencies
Central Bank

Banks
Central American Bank for Economic Agreement & Purpose Details unavailable in literature surveyed.

PHILIPPINES
Swap No: 1

<table>
<thead>
<tr>
<th>Date (Agreement)</th>
<th>Cost</th>
<th>Face value</th>
<th>Funds Generated</th>
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</thead>
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<tr>
<td>Jun 24 '88</td>
<td>$200,000</td>
<td>$390,000</td>
<td>$390,000</td>
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<tr>
<td>(Debt exchanged)</td>
<td>Secondary Market Price</td>
<td>Redemption (Face Value)</td>
<td></td>
</tr>
<tr>
<td>1/89</td>
<td>51.3 cents/$</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

Actors
NGOs
Haribon Foundation; World Wildlife Fund-U.S. Co.

Gov't Agencies
Department of Finance; Dept of Environment & Natural Resources

Agreement/Process Details
The government approved a nature swap program allowing WWF to purchase up to $2 mill of debt, to be converted into local currency cash account, managed by Haribon.
WWF agreed in 1988 to buy face value of $390K, and more at a later date. All programs to be mutually agreed upon by Dept ENR, WWF and Haribon. Participation of other NGOS is encouraged. Funds cannot be used to pay non-Philippine consultants and must be devoted to national projects.

**Ecosystem Particulars**

Two National Reserves threatened by illegal logging AND soil erosion. St. Paul Subterranean River Nat. Park has 5 different types of habitat, and a number of endangered species. El Nido Nat'l Marine Park has very diverse habitat, from rugged mountains to coastal mangrove swamps.

**Activities/Purpose**

To protect natural resource areas using a traditional conservation approach, following the national conservation strategy. The protection and preservation of undeveloped national park lands obtains 60% of the funds, benefiting 2 parks on Palawan Island: St Paul Subterranean River NP and El Nido NP. Projects funded will include environmental education and research activities, training for local community resource managers, fellowships for graduate students in conservation-related areas. The remainder supports government efforts to stop illegal trading and exploitation of wildlife resources, surveyance of critical areas, and planning for an integrated system of protected areas.

**PHILIPPINES**

Swap No: 2

<table>
<thead>
<tr>
<th>Date (Agreement)</th>
<th>Cost</th>
<th>Face value</th>
<th>Funds Generated</th>
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<tbody>
<tr>
<td>8/90</td>
<td>$438,750</td>
<td>$900,000</td>
<td>$900,000</td>
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</table>

Agreement & Purpose Details

*unavailable in literature surveyed.*

**MADAGASCAR**

Swap No: 1

<table>
<thead>
<tr>
<th>Date (Agreement)</th>
<th>Cost</th>
<th>Face value</th>
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<tr>
<td>Jul 89</td>
<td>$950,000</td>
<td>$2,111,112</td>
<td>$2,111,112</td>
</tr>
</tbody>
</table>

(Debt exchanged) Secondary Market Price Redemption (Face Value)

8/89 45.2 cents/$ 100%

**Actors**

NGOs

World Wildlife Fund-U.S. Gov't Agencies

Central Bank
Banks
Bankers Trust; European syndicate of 7 commercial banks (National Westminster PLC, Dresdner Bank, Amro Bank, Banque de l'Union Europeenne, Credit Commercial de France, Societe General)

Contributors
USAID gave $1 million to WWF

Agreement/Process Details
Details on agreement particulars hard to come by.
Bankers Trust arranged the European syndicate. The debt was exchanged for local cash using the official exchange rate. USAid provides $300,000 for hard currency expenditures in relation to the swap agreement. Up to $3 mill in foreign debt can be swapped; WWF will seek to convert the remaining $900,000 over the next few years.

Ecosystem Particulars
Madagascar has many unique ecosystems, including tropical forests and rare animal species, with an unparalleled numbers of species. Protected areas are threatened by rapid deforestation (80% has already been destroyed by one estimate), illegal logging, poaching, drainage of wetlands, cattle & goat overgrazing.

Activities/Purpose
Proceeds go to conservation projects in high priority areas over a 3 year period, including training, equipping and supporting 400 park rangers. The focus will be on education, sustainable development methods and traditional conservation.

MADAGASCAR
Swap No: 2

<table>
<thead>
<tr>
<th>Date (Agreement)</th>
<th>Cost</th>
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<tbody>
<tr>
<td>May 7 '90</td>
<td>-</td>
<td>$5,000,000</td>
<td>-</td>
</tr>
</tbody>
</table>

(Debt exchanged)
Secondary Market Price  Redemption (Face Value)
n.a. 100%

Agreement Details
The government agreed that Conservation International can exchange up to $5 million commercial bank debt and trade credits at 100% face value over the next five years. The swap proceeds can be deposited in private Malagasy banks as an endowment fund paying interest in local currency. The fund is to support activities such as establishing inventories of endangered species, provide technical and financial support to protected parks and reserves, scientific study, and education programs teaching agricultural techniques less harmful to the environment and more supportive of development.
(Trade paper is more heavily discounted than commercial bank debt in the secondary market). According to news reports, Conservation International is negotiating the purchase of trade debt from IBM, Honeywell and Coddam, the French electric company.

MADAGASCAR

Swap No: 3

<table>
<thead>
<tr>
<th>Date (Agreement)</th>
<th>Cost</th>
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<tbody>
<tr>
<td>8/90</td>
<td>$445,891</td>
<td>$919,363</td>
<td>$919,363</td>
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(Debt exchanged)

<table>
<thead>
<tr>
<th>Secondary Market Price</th>
<th>Redemption (Face Value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>n.a.</td>
<td>100%</td>
</tr>
</tbody>
</table>

Debt exchanged: n.a.
Secondary market price cents/$: n.a. ?48
Redemption price as % of face value: 100

Agreement & Purpose Details

unavailable in literature surveyed. This swap was with WWF.

ZAMBIA

<table>
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<th>Date (Agreement)</th>
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<th>Funds Generated</th>
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</thead>
<tbody>
<tr>
<td>Aug 15 '89</td>
<td>$454,000</td>
<td>$2,270,000</td>
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</table>

(Debt exchanged)

<table>
<thead>
<tr>
<th>Secondary Market Price</th>
<th>Redemption (Face Value)</th>
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<tbody>
<tr>
<td>20.7 cents/$</td>
<td>100%</td>
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</tbody>
</table>

Actors

NGOs
World Wildlife Fund

Banks
NMB Bank of Netherlands (services)

Gov't Agencies
Central Bank

Contributors
Anonymous Swiss donor

$200,000 +

Agreement & Purpose Details

Debts purchased at an 80% discount were exchanged for local currency (kwacha), to be used for conservation and management of wetlands (Kafue river flats), education programmes, support for local conservation institutions, alleviation of soil erosion and protection of rhino and elephant populations.

3 Nancy Dunne, "Madagascar to swap trade debt for nature", Financial Times (U.S.) Friday, August 31, 1990.
POLAND

Date (Agreement) Generated
11/89

Cost $10,000 Face value $50,000 Funds $50,000

(Debt exchanged) Secondary Market Price Redemption (Face Value)
1/90 23.0 cents/$ 100%

Actors
NGOs n.a.

Banks
NMB Bank

Selected Agreement & Purpose Details
Set up to be an experimental exercise, this exchange is to initiate a large-scale Swedish-Polish projects to clear up the river Vistula. This exchange will support the development of Biebrza National Park.

DOMINICAN REPUBLIC

Date (Agreement) Cost Face value Funds Generated
Mar 90 $116,400 $582,000 $582,000

(Debt exchanged) Secondary Market Price Redemption (Face Value)
3/90 20.0 cents/$ 100%

Actors
NGOs Fondo Pro Naturaleza (Pronatura)

Banks
MG -First Boston
Conservation

Gov't Agencies
Central Bank

Contributors
PuertoRican Trust

Selected Agreement/Process Details
The Central Bank and Pronatura (a coalition of 11 leading conservation & development groups) agreed to convert $80 million (9.4%) of commercial foreign debt, at 100% face value, into local currency for conservation efforts over the next four years. The first swap was put into a pesos account in the Central Bank, held by Pronatura and which functions as a national conservation trust fund.

Ecosystem Particulars
Isla Cabritos National Park has the world’s largest population of American crocodiles.
Activities/Purpose
The four conservation projects were developed by Pronatura and The Nature Conservancy. Isla Cabritos NP receives 16% of funds ($94,000) for salaries of 8 new park guards, a boat, training and community outreach. Reforestation and management of Arroyo Parra Watershed is supported by $99,000. La Montana Diego de Ocampo receives $99,000 to train the community in renewable resource practices, to construct tree planting nurseries, and to create and manage a protected zone. Eban Verde Scientific Reserve established with remainder ($290,000), covering management and infrastructure building costs.

PARAGUAY

<table>
<thead>
<tr>
<th>Date (Agreement) Generated</th>
<th>Cost</th>
<th>Face value</th>
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</thead>
<tbody>
<tr>
<td>5/91</td>
<td>$2,000,000</td>
<td>$5-7,000,000</td>
<td></td>
</tr>
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</table>

Actors

NGOs
The Nature Conservancy; Fundacion Moises Bertoni para la conservacion de la naturaleza

Banks
International Finance Corporation

Gov't Agencies
The Ministry of Agriculture (The Conservation Data Center of Paraguay), The Institute of Rural Welfare

Contributors
U.S. Aid ($500,000)
AES Corporation, Arlington Virginia - funds as part of an effort to offset carbon dioxide emissions from a new coal-fired power plant being built in Hawaii.

Agreement/Process Details
The International Finance Corporation, a private subsidiary of the World Bank, acquired the land in a foreclosure in 1979. The land is being sold for $2 million, and is estimated to be worth about $5 to $7 million if it were to be sold for agricultural use or commercial logging development. The Fundacion MB will operate the reserve. The Government of Paraguay will approve the designation of the land as a permanent nature reserve and provide adequate legal protection. The Ache will have a permanent seat on the reserve's Management Committee. The bonds will be divided as follows: $4 mill in 10yr bonds at LIBOR interest rates; $1 mill in 25yr bonds at LIBOR interest rates.
Ecosystem Particulars

The land is near the Mbaracayu Mountains on the border with Brazil, covering around 225 square miles. It is in virgin state, almost totally covered by forest and therefore of great ecological significance. It is one of the last remaining large stands of dense humid sub-tropical forest in Latin America. It holds one of the richest ecosystems in Paraguay and has rare plant and animal species. The land area lies within a larger domain previously the traditional home of the nomadic Ache Indians. The area is known as a "genetic lifeboat", holding plants and animals previously living in the now largely destroyed Brazilian Coastal Atlantic rainforest.

Activities/Purpose

A nature reserve will be created; and the local Ache Indians will continue to use the land for their traditional hunting and gathering activities. Low impact agriculture, beekeeping and ecotourism will be encouraged in the buffer zone of the reserve to enlarge the economic options of the Ache Indians.

MEXICO

<table>
<thead>
<tr>
<th>Date (Agreement) Generated</th>
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<th>Face value</th>
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<tbody>
<tr>
<td>2/91</td>
<td>$1,800,000</td>
<td>$4,000,000</td>
<td>$2,600,000</td>
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(Debt exchanged) Secondary Market Price Redeemption (Face Value)

<table>
<thead>
<tr>
<th>not yet</th>
<th>45 cents/$</th>
<th>?%</th>
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</table>

Actors

*NGOs*  
Conservation International  
(using $250,000 from BankAmerica for this swap)

*Gov't Agencies*  
Central Bank

Contributors

BankAmerica (is donating a total of $3 million of its loans to CI over a 3 year period to aid rainforest conservation in Mexico, Central and South America.)

Agreement/Activities Details

The Mexican Government has committed itself to spend $2.6 million worth of pesos on a broad set of environmental projects.

Ecosystem Particulars
Mexico has some of the rarest plant and animal life, and has more species than all but three other countries. The Selva Lacadona rain forest is the largest remaining tropical rain forest in North America.

**Activities/Purpose**
n.a.

**OTHER POTENTIAL SWAPS**

**Panama**
Aid funds are pending President Bush's signature, for the purchase of up to $100 mill of commercial debt; (to be matched by The Nature Conservancy); to endow a Conservation Trust Fund to protect the Panama Canal watershed and several million acres of tropical forests.

**Jamaica**
A National Parks Trust Fund is being established by the Central Bank to finance recurrent costs of protected areas management. Negotiations are taking place on a TNC-USAID/Jamaica funded nature swap to capitalize the trust.

**Argentina**
Central Bank has agreed to exchange $60 mill foreign debt for local currency to support conservation. Two equal quotas established on behalf of local NGOs Fundacion Neuquen and Fundacion Parodi. Negotiations as yet uncommenced.

**Uruguay**
There are hopes of establishing a $50 mill debt conversion to fund an Oceanographic Institute focused on research and tracking changes in the oceanographic and atmospheric environments. Uruguay has a relatively high secondary market price for its debt (50 cents/$) due to its diligence in debt service. This makes swaps less likely.

**Brazil**
The current president is supportive of a current nature swap proposal, but faces resistance from other ministers. All previous swap proposals brought to Central Bank have fallen through. Hyperinflation and sensitivity to sovereignty issue has hindered previous transaction proposals.

**Peru**
This country has an institutionalized swap program, which is helpful for nature swaps. Previous swap plans with TNC halted because of current economic crisis and political instability which has barred serious negotiations.
### APPENDIX IV

SECONDARY MARKET PRICES

<table>
<thead>
<tr>
<th>Country</th>
<th>July 85</th>
<th>Jan 86</th>
<th>July 86</th>
<th>Jan 87</th>
<th>Mar 87</th>
<th>Jun 87</th>
<th>Aug 87</th>
<th>Oct 87</th>
<th>Dec 87</th>
<th>Jan 88</th>
<th>Apr 88</th>
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<tbody>
<tr>
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<td>64</td>
<td>65</td>
<td>63.3</td>
<td>63</td>
<td>56</td>
<td>46</td>
<td>35</td>
<td>37</td>
<td>36</td>
<td>28.5</td>
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<tr>
<td>Brazil</td>
<td>78</td>
<td>78</td>
<td>74.5</td>
<td>73</td>
<td>69</td>
<td>62</td>
<td>46</td>
<td>40</td>
<td>46.5</td>
<td>47.5</td>
<td>5’</td>
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<tr>
<td>Chile</td>
<td>67</td>
<td>67</td>
<td>65.5</td>
<td>66.5</td>
<td>67.5</td>
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<td>81.5</td>
<td>74</td>
<td>65.5</td>
<td>67</td>
<td>65</td>
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<tr>
<td>Costa Rica</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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Sources: Continental Illinois, Salomon Brothers, Shearson Lehman Hutton, and Merrill Lynch

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**PRICE AS PERCENTAGE**

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*Source:* J. Sachs, "New approaches to the Latin American debt crisis", (September 1988), and *Euromoney* (January 1988).

*Note:* Two dots (..) indicate that data are not available or are not separately reported.