

DEBT, NATURE, AND INDIGENOUS RIGHTS: TWENTY-FIVE YEARS OF DEBT-FOR-NATURE EVOLUTION

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Debt-for-nature swaps are an innovative and potentially powerful mechanism for addressing the significant issues of indebtedness and environmental degradation in the developing world. Over the past twenty-five years, debt-for-nature swaps have evolved across many dimensions to their present-day typology of bilateral fund-generators that capitalize projects fairly describable as both “environmental” and “developmental.” Through a study of four representative debt-for-nature swaps, this Article analyzes the original conception of the debt-for-nature swap and the evolution of swap typologies as they relate to the conception and realization of indigenous rights. It further argues that while the trend in debt-for-nature swaps has been the increased participation of indigenous groups, the actual level of participation envisioned under debt-for-nature statutes is ambiguous and, thus, the level of protection of indigenous rights varies from swap to swap. The Article concludes by providing several procedural recommendations for improving the realization of indigenous rights under debt-for-nature swaps and by critically analyzing the potential evolutionary trajectory of debt-for-nature swaps with regard to impacts on indigenous rights.

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INTRODUCTION

Tropical deforestation has long been recognized as a problem, but for nearly a century economic expansionist views of forests, and nature in general, as “obstacles to progress” overshadowed the warning cries of conservationists.¹ By the 1980s, however, “tropical deforestation had climbed to the top of the world’s environmental agenda.”² Approximately 100,000 square kilometers of tropical forests were being lost each year, leading ecologists to estimate that all the tropical forests in the world would be destroyed or seriously diminished by the year 2000.³ Armed with these warnings, ecologists successfully reframed tropical forests as a nonrenewable resource, the destruction of which meant the irretrievable loss of floral and faunal biodiversity from the most species-rich, complex, and interdependent ecosystems in the world.⁴ However, addressing the loss of tropical forests — and the valuable biodiversity within⁵ — presented no simple task.⁶ While the Global North expressed concerns about the effects of tropical forest loss, the South was justifiably distracted by a debt crisis that all but forced those nations to adopt development policies promoting extractive industries, such as mining, logging, and ranching, capable of raising hard currency to fulfill their debt obligations.⁷

¹ William Boyd, *Ways of Seeing Environmental Law: How Deforestation Became an Object of Climate Governance*, 37 *ECOLOGY L.Q.* 843, 860–61 (2010); cf. Jedediah Purdy, *American Natures: The Shape of Conflict in Environmental Law*, 36 *HARV. ENVTL. L. REV.* 169 (2012) (highlighting the tensions between the providential republican and progressive management views of nature in American environmental dialogue and policy).

² Boyd, *supra* note 1, at 862.

³ See Laurie P. Greener, Comment, *Debt-for-Nature Swaps in Latin American Countries: The Enforcement Dilemma*, 7 *CONN. J. INT’L L.* 123, 132–34 (1991) (noting that 100,000 square kilometers is equal to the size of Austria).

⁴ See generally Boyd, *supra* note 1, at 860–63. These issues still resonate with Americans today. According to Gallup’s 2011 Environmental Poll, sixty-four percent of Americans reported personally worrying about the “[e]xtinction of plant and animal species” a “great deal” or “fair amount,” while sixty-three percent reported personally worrying about “[t]he loss of tropical rain forests” a “great deal” or “fair amount.” Lydia Saad, *Water Issues Worry America Most, Global Warming Least*, GALLUP, Mar. 28, 2011, <http://www.gallup.com/poll/146810/Water-Issues-Worry-Americans-Global-Warming-Least.aspx>.

⁵ The rich biodiversity in tropical forests can be measured at the genetic (within species), species, and ecosystem levels. See KATRINA BROWN ET AL., *GLOBAL ENV’T FACILITY, ECONOMICS AND THE CONSERVATION OF GLOBAL BIOLOGICAL DIVERSITY* 3–5 (1993). The touted benefits of biodiversity are wide-ranging, with many focused on future human use. See, e.g., DAVID HUNTER, JAMES SALZMAN, & DURWOOD ZAELE, *INTERNATIONAL ENVIRONMENTAL LAW AND POLICY* 986–87 (4th ed. 2011) (listing wildlife uses, ecosystem services, agricultural and food security, drugs and medicines, and intrinsic and existence values as benefits of biodiversity); F. Stuart Chapin III et al., *Consequences of Changing Biodiversity*, 405 *NATURE* 234, 239 (2000) (“Biodiversity and its links to ecosystem properties have cultural, intellectual, aesthetic and spiritual values that are important to society.”).

⁶ See Boyd, *supra* note 1, at 863 (“[C]onservationists and policymakers have jumped from one solution to the next, too often holding onto the false hope that each represented some sort of silver bullet.”).

⁷ Amanda Lewis, Comment, *The Evolving Process of Swapping Debt for Nature*, 10 *COLO. J. INT’L ENVTL. L. & POL’Y* 431, 432 (1999).

The debt crisis officially began in 1982 with Mexico's announcement that it would not be able to make payments on its international debt; however, the crisis had its roots in the oil shock and recessions of the 1970s that sent variable interest rates on international debt skyrocketing and dried up both foreign aid and export markets for developing nations.⁸ The debt crisis hit its peak in the late 1980s, when developing nations owed commercial banks and creditor governments more than one trillion U.S. dollars and "the seventeen most troubled debtors in the developing world were [U.S.] \$6.3 billion in arrears on interest payments."⁹ The developed world responded to the debt crisis, in large part, through debt restructuring conditioned upon austerity measures — economic conditionalities that effectively sent developing country economies "into reverse."¹⁰ Aside from effectively eliminating social welfare programs, the austerity measures also preempted pre-existing environmental protection efforts at the national level.¹¹ The interrelatedness of the debt and the biodiversity crises cannot be overstated. As one scholar noted at the time:

The need of [developing countries] to obtain hard currency to service debt places additional pressure on marginal lands and depreciating natural resources. . . . Furthermore, the austerity measures within domestic budgets have reduced the funding for any conservation and resource management projects that the governments had initiated, stagnating or destroying any advances they had made. Thus, the ecological crisis is fueled by a debt crisis that will continue to burden [developing countries] until thoughtful and realistic resource management strategy can provide [developing countries] with a sustainable economic base.¹²

In 1984, Dr. Thomas Lovejoy III suggested debt-for-nature ("DFN") swaps as a practical tool to address both the debt crisis and tropical deforestation.¹³ DFN swaps were envisioned and have been implemented as tools to "reroute the money developing countries spend servicing their enormous debts into conservation projects in their own countries."¹⁴ From a broad perspective, DFN swaps have two advantages over direct aid for conserva-

⁸ Michael S. Sher, *Can Lawyers Save the Rain Forest? Enforcing the Second Generation of Debt-for-Nature Swaps*, 17 HARV. ENVTL. L. REV. 151, 155 (1993).

⁹ *Id.* at 155–56.

¹⁰ See Greener, *supra* note 3, at 140–41 (quoting Bill Bradley, *Defusing the Latin Debt Bomb*, WASH. POST, Oct. 5, 1986, at C2) (describing formal responses to the debt crisis by the International Monetary Fund and the World Bank).

¹¹ Barbara J. Bramble, *The Debt Crisis: The Opportunities*, 17 ECOLOGIST 192, 192 (1987) ("The need to increase short-term economic productivity is, in many cases, reducing the potential for long-term sustainable development in agriculture, forestry, and fisheries, and increasing the future costs of correcting the environmental destruction inflicted now.").

¹² Greener, *supra* note 3, at 147 (footnotes omitted).

¹³ Thomas Lovejoy III, *Aid Debtor Nations' Ecology*, N.Y. TIMES, Oct. 4, 1984, at A31 (urging private creditors to discount debts in exchange for debtor nation protection of forested lands).

¹⁴ Lewis, *supra* note 7, at 432.

tion. First, DFN swaps allow the leveraging of funds, providing more money for conservation purposes than is actually spent by the donor.¹⁵ Second, DFN swaps can be structured to ensure continuous funding for projects, while there is no assurance that direct aid will be available, either fiscally or politically, from one year to the next.¹⁶ While DFN swaps seem to be a win-win mechanism for both the developed world, with its interest in protecting global habitat and biological diversity, and for debtor nations, with their interests in subsidized restructuring of often heavy debt loads,¹⁷ the impact of DFN swaps on indigenous groups located in the debtor nations is not clearly positive. Thus, further analysis is necessary to determine whether DFN swaps are, or even can be, win-win-win solutions that protect biodiversity, maintain national sovereignty, and respect the rights of indigenous peoples.

This Article proceeds in four Parts. Part I provides a basic introduction to DFN swap typologies and analyzes the applicable economic, environmental, and social critiques for each typology. Part II introduces the concept of indigenous rights and provides the United Nations (“U.N.”) Declaration on the Rights of Indigenous Peoples¹⁸ as a framework for considering those rights. Next, Part III uses the lens of the Declaration to track the treatment of indigenous peoples in DFN swaps through an analysis of four transactions occurring over the last quarter-century. Part III also attempts to place the transactions in their typological context and, by doing so, illuminates other critiques that may manifest in particular swaps. From these findings, Part IV evaluates the present state of DFN swaps and makes brief recommendations on how to actively reform DFN swaps in a manner that places the rights of indigenous peoples on equal footing with the enforceability of the environmental agreement and debtor state sovereignty.

I. DEBT-FOR-NATURE SWAPS: TYPOLOGIES AND BASIC CRITIQUES

This Part provides a basic introduction to DFN swaps and their critiques, and, in doing so, develops a typological matrix and argues that while most critiques of DFN swaps are differential across both axes of the matrix,

¹⁵ *Id.* at 433. For example, assume the United States owns, at face value, ten million dollars of Bolivian debt. In a debt crisis, the fair market value of that debt may fall to five million dollars. If the United States and Bolivia agree to retire the debt completely if Bolivia sets aside six million dollars worth of land, both the United States and Bolivia will be better off. The United States will have leveraged five million dollars of debt into six million dollars of conservation, while Bolivia will have seen the retirement of four million dollars of debt without consequence.

¹⁶ *Id.*

¹⁷ Catherine Kilbane Gockel & Leslie C. Gray, *Debt-for-Nature Swaps in Action: Two Case Studies in Peru*, *ECOLOGY & SOC’Y*, Sept. 2011, available at <http://www.ecologyandsociety.org/vol16/iss3/art13/ES-2011-4063.pdf> (“Debt-for-nature swaps have been touted as a win-win solution to the problem of how to finance conservation in the developing world.” (citations omitted)).

¹⁸ G.A. Res. 61/295, U.N. Doc. A/RES/61/295 (Sept. 13, 2007), available at http://www.un.org/esa/socdev/unpfii/documents/DRIPS_en.pdf.

the challenges of enforceability, state sovereignty, and — most important for this Article — indigenous rights are omnipresent across typologies.

A. *Debt-for-Nature Swap Typologies*

At their simplest, DFN swaps are debt-equity swaps¹⁹ involving the cancelling or restructuring of a developing nation's debt in return for environmental action on the part of the debtor nation. After Dr. Lovejoy's call for action, DFN swaps took off slowly, initially meeting resistance from both private creditors and Congress.²⁰ However, the resistance did not last long. Economists soon summarized at least four early proposals for DFN swaps:

- (1) conversion of debt by the Central Bank into local currency or local debt (bonds) to be held by a local environment organization for investment in environmental projects;
- (2) donation of debt to a local environment organization for investment in environmental projects;
- (3) purchase of debt by an environment organization and discounted sale to a multinational corporation (MNC) to support environmentally sound corporate investments;
- and (4) official debt relief tied to supporting environment management.²¹

However, not all of the proposals were equally attractive to potential donor parties. Instead, the past quarter-century has seen the evolution of DFN swaps into two broad categories based upon the institutional actors involved: (1) "first generation" three-party DFN swaps funded privately and (2) "second generation" bilateral DFN transactions funded publicly.²² In three-party swaps, a nongovernmental organization ("NGO") "purchases a hard currency debt owed to commercial banks on the secondary market . . . at a discounted rate . . . and then renegotiates the debt obligation with the debtor country."²³ In contrast, bilateral DFN "transactions are conducted with official (public) funds directly between the creditor and debtor governments."²⁴ In both types of swaps, existing "[d]ebt agreements are usually cancelled and then restructured to extend payback periods or . . . debt is

¹⁹ Stein Hansen, *Debt for Nature Swaps — Overview and Discussion of Key Issues*, 1 *ECOLOGICAL ECON.* 77, 78 (1989) ("[D]ebt-equity swaps involve the conversion of external debt into some form of equity with foreigners holding a claim on debtor country resources . . ."). In some cases, DFN swaps can also be considered debt-expenditure swaps in which nongovernmental organizations "are interested in obtaining domestic currency at a discount which can be used for conservation-type expenditure or which they want the government to use for that purpose." *Id.*

²⁰ Timothy B. Hamlin, Comment, *Debt-for-Nature Swaps: A New Strategy for Protecting Environmental Interests in Developing Nations*, 16 *ECOLOGY L.Q.* 1065, 1068 (1989).

²¹ Hansen, *supra* note 19, at 78.

²² Sher, *supra* note 8, at 151.

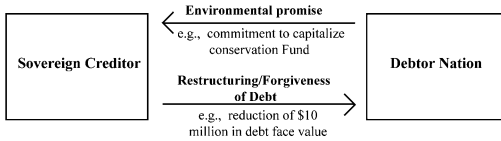
²³ PERVAZE A. SHEIKH, CONG. RESEARCH SERV., RL31286, *DEBT-FOR-NATURE INITIATIVES AND THE TROPICAL FOREST CONSERVATION ACT: STATUS AND IMPLEMENTATION* (2010), available at <http://cnie.org/NLE/CRSreports/10Apr/RL31286.pdf>.

²⁴ *Id.*

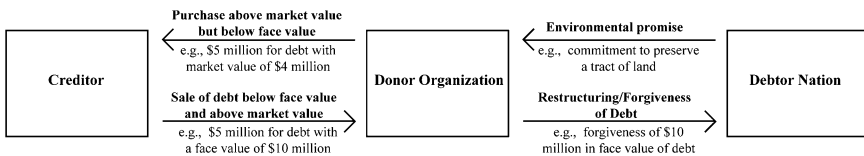
bought back by the debtor country for a discounted price.”²⁵ The figure below demonstrates the distinction between three-party (“privately funded”) and bilateral (“publicly funded”) swaps:

FIGURE 1: COMPARISON OF BILATERAL AND THREE-PARTY DFN TYPOLOGIES

Bilateral DFN Swap Typology



Three-party DFN Swap Typology



However, the financial assistance provided by the United States Agency for International Development (“USAID”) under 22 U.S.C. §§ 2282-2286²⁶ and the emergence of subsidized swaps under the Tropical Forest Conservation Act²⁷ (“TFCA”) complicate the distinction between three-party and bilateral DFN swaps.²⁸ For example, “[i]n a [TFCA] subsidized debt swap, an NGO generally matches 20% of the U.S. government contribution toward a debt-for-nature transaction.”²⁹ In effect, both statutory regimes allow for, but do not mandate, DFN swaps where both the United States and a global NGO act as co-donor parties, creating substantial opportunity for the formation of hybrid funding combinations.

DFN swaps can also be categorized broadly as either prescriptive or fund-generating. Prescriptive DFN swaps condition debt cancellation on the debtor nation’s “ongoing protection of a designated part of its land,”³⁰ while fund-generating DFN swaps bankroll national funds through interest payments, if the debt is restructured, or through a percentage of the buyback price. These national funds, often established as part of the DFN swap, then capitalize local conservation efforts, typically overseen by local NGOs or the

²⁵ *Id.*

²⁶ *Id.* Unfortunately, “specific information on funds given by USAID to support three-party debt-for-nature swaps is not available.” *Id.*

²⁷ 22 U.S.C. § 2431 (2006).

²⁸ See Sher, *supra* note 8, at 169 (citing three types of public DFN swaps: (1) government debt purchases similar to private swaps, (2) government grants to environmental groups to partake in swaps, and (3) debt forgiveness).

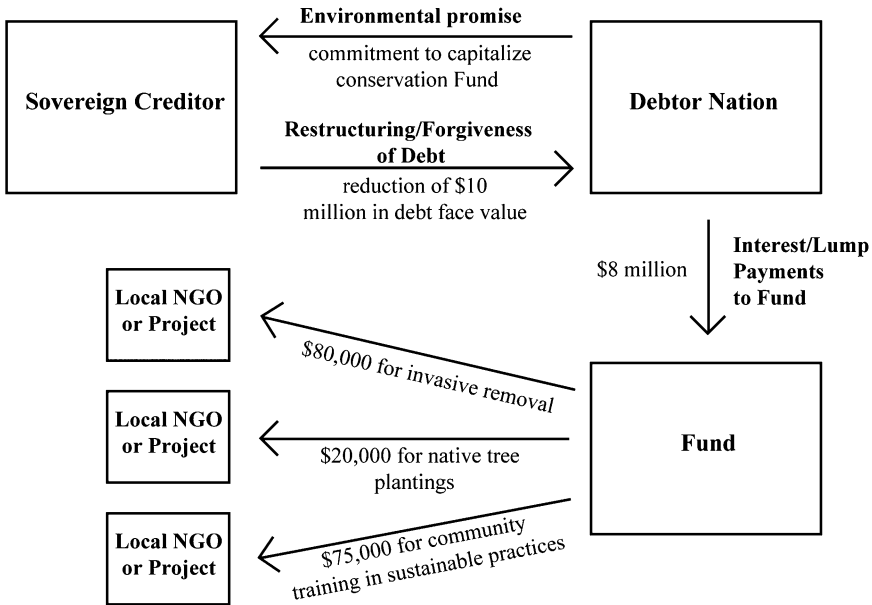
²⁹ SHEIKH, *supra* note 23.

³⁰ Ross Buckley, *Debt-for-Development Exchanges: The Origins of a Financial Technique*, 2 LAW & DEV. REV. 52, 59 (2009).

debtor government.³¹ Thus, fund-generating DFN swaps formalize the role of additional parties into the conservation implementation phase of the DFN process, as demonstrated by the figure below:

FIGURE 2: AN EXAMPLE BILATERAL, FUND-GENERATING TYPOLOGY

Bilateral, Fund-generating DFN Swap Typology



Of course, as with the distinction between privately and publicly funded DFN swaps, substantial room exists for hybridizing prescriptive and fund-generating forms.³² As a result of these hybridizations, the fundamental aspects of DFN swaps can be conceptualized in two dimensions in a three-by-three grid, as demonstrated in Table 1 below.

³¹ SHEIKH, *supra* note 23; Buckley, *supra* note 30, at 59.

³² Indeed, even the first DFN swap, between Bolivia and Conservation International, was a prescriptive and fund-generating hybrid. *See infra* Part III.A.

TABLE 1: DFN SWAP TYPOLOGIES

		Creditor Funding Source		
		Public (Bilateral)	Mixed	Private (Three-party)
Debtor Nation Consideration	Prescriptive	Publicly funded; prescriptive	Publicly and privately funded; prescriptive	Privately funded; prescriptive
	Mixed	Publicly funded; prescriptive and fund-generating	Publicly and privately funded; prescriptive and fund-generating	Privately funded; prescriptive and fund-generating
	Fund-generating	Publicly funded; fund-generating	Publicly and privately funded; fund-generating	Privately funded; fund-generating

While privately funded DFN swaps were numerous in the early 1990s, they have been utilized infrequently since 1996 and lag behind publicly funded DFN transactions in sheer number of transactions, the face value of debt restructured or forgiven, and the amount of money generated for conservation purposes.³³

B. Critiques of Debt-for-Nature Swaps

“Debt-for-nature transactions are generally viewed as a success by conservation organizations and debtor governments because of the funds generated for conservation efforts.”³⁴ The multi-year presence of conservation funds also promotes the creation and longevity of previously nonexistent institutions — both public and private — to help effectuate the conservation mission and creates an environment that incentivizes capacity-building and cooperation among institutions even outside of the DFN framework.³⁵ Fur-

³³ See SHEIKH, *supra* note 23, at tbls.1, 2, 3 & 4. Three-party DFN swaps have reduced, restructured, or forgiven approximately U.S. \$170 million, generating approximately U.S. \$140 million for local conservation funds. *Id.* at tbl.1. In comparison, although anomalous, the 1991 multilateral DFN swap between Poland and five creditor nations, including the United States, forgave and generated nearly U.S. \$475 million for Polish environmental programs. See SHEIKH, *supra* note 23.

³⁴ SHEIKH, *supra* note 23. One scholar has identified four primary benefits of DFN exchanges. DFN exchanges (1) promote debt reduction; (2) can be attractive to creditors as policy tools; (3) can camouflage politically sensitive debt relief for creditor countries; and (4) can create situations of mutual benefit. Buckley, *supra* note 30, at 66–67.

³⁵ William K. Reilly, *Using International Finance to Further Conservation: The First 15 Years of Debt-for-Nature Swaps*, in SOVEREIGN DEBT AT THE CROSSROADS: CHALLENGES AND PROPOSALS FOR RESOLVING THE THIRD WORLD DEBT CRISIS 197, 210–211 (Chris Jochnick & Fraser A. Preston eds., 2006) (“Debt swaps furthermore have proved to be an impetus for the growth and development of conservation groups In the Philippines, [the DFN program]

ther, within the field of conservation financing, DFN swaps are “among the very few mechanisms that can provide sustainable support for local economic development and at the same time mobilize domestic spending to protect purely public and common goods . . . or pure externalities . . . in low income countries.”³⁶ However, their frequency has declined since the mid-1990s³⁷ as higher debt prices on secondary markets, along with lower creditor government appropriations, have tempered their use.³⁸

Macroeconomic barriers aside, DFN swaps have also faced much criticism, both in theory and in practice. Economists questioned the inefficiency of DFN swaps, and debt-equity exchanges in general, that required the debtor country to value both a “conservation commitment and . . . the debt”³⁹ and feared that excessive use of debt-equity exchanges could lead to damaging inflation in the debtor country.⁴⁰ From an environmental perspective, DFN swaps raise concerns about the additionality, permanence, monitoring, and enforceability of the conservation commitment. Additionality refers to the extent to which conservation efforts, either organized or de facto, would have occurred without the DFN exchange,⁴¹ while permanence refers to the extent to which the benefits of the conservation commitment hold over time.⁴² The problems of monitoring and enforceability are the

has made NGOs stronger and financially conscious and fostered the greening of financial institutions. . . . It encouraged productive partnerships between government, local NGOs, and international NGOs.” (internal quotation marks omitted).

³⁶ Steve Freeland & Ross P. Buckley, *Debt-for-Development Exchanges: Using External Debt to Mitigate Environmental Damage in Developing Countries*, 16 HASTINGS W. NW. J. ENVTL. L. & POL’Y 77, 92 (2010) (paraphrasing the Organisation for Economic Co-Operation and Development (“OECD”) support for DFN swaps).

³⁷ SHEIKH, *supra* note 23, at fig.3.

³⁸ SHEIKH, *supra* note 23. This portrayal, while accurate, is somewhat misleading. DFN swaps have indeed declined in frequency over the last decade, but their progeny — “debt-for-development” exchanges — have taken off. While DFN swaps converted U.S. \$177 million of foreign debt between 1987 and 1994, between U.S. \$750 million and U.S. \$1 billion of debt was cancelled in debt-for-development exchanges. Buckley, *supra* note 30, at 68–69. Part IV briefly assesses why debt-for-development exchanges may be more attractive and successful, as well as what DFN exchanges may be able to learn from debt-for-development. *See infra* Part IV.D.

³⁹ Hansen, *supra* note 19, at 87–88.

⁴⁰ *Id.* at 86.

⁴¹ *See* MICHAEL GILLENWATER, GREENHOUSE GAS MGMT. INST., WHAT IS ADDITIONALITY? PART 2: A FRAMEWORK FOR A MORE PRECISE DEFINITION AND STANDARDIZED APPROACHES 3 (2011), available at http://ghginstitute.org/wp-content/uploads/2011/03/AdditionalityPaper_Part-2_ver2_FINAL.pdf (“Additionality occurs in cases in which a policy intervention actually causes an activity to take place. It is determined by assessing whether a proposed activity is distinct from its baseline”); *see also* MICHAEL GILLENWATER, GREENHOUSE GAS MGMT. INST., WHAT IS ADDITIONALITY? PART 1: A LONG STANDING PROBLEM 14 (2011), available at http://ghginstitute.org/wp-content/uploads/2011/03/AdditionalityPaper_Part-1_ver2_FINAL.pdf (providing that additionality can be conceived of at the policy level — asking whether the “policy intervention cause[d] the proposed activity to take place?” — and the environmental quality level — asking “[h]ow much has the activity improved [environmental] performance?”).

⁴² Along with the concern of leakage, additionality, permanence, and monitoring are four of the biggest difficulties in implementing the United Nations Programme on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries (“REDD”). *See* Randall S. Abate & Todd A. Wright, *A Green Solution to Climate Change: The Hybrid Ap-*

converse of the most-cited criticism of DFN swaps: interference with debtor country sovereignty.⁴³ Beyond sovereignty, scholars have also questioned many other facets of the DFN process, including the additionality of the debt restructuring or forgiveness;⁴⁴ the primary focus on debt, rather than institutional capacity-building;⁴⁵ the status of the original debt as illegitimate or odious;⁴⁶ and the morality of economic conditionality in general.⁴⁷

Considering the myriad criticisms of DFN swaps, it is surprising that their potentially adverse effects on the rights of indigenous peoples are often unrecognized or, when recognized, are discounted as marginal.⁴⁸ The threats of DFN swaps to the rights of indigenous peoples are particularly salient for at least three reasons. First, indigenous peoples often live in “resource-rich areas” — the areas most likely to face resource development pressures — “and are closely dependent upon the natural environment for their cultural and physical survival.”⁴⁹ Indeed, land and territory are “critical to the survival of indigenous peoples,” to the extent that some scholars argue that, “in order to survive, indigenous cultures must ultimately have a place of their own where they can live together.”⁵⁰ Thus, DFN swaps resulting in restric-

proach to Crediting Reductions in Tropical Deforestation, 20 DUKE ENVTL. L. & POL'Y F. 87, 102–05 (2010) (evaluating the challenges in crediting REDD projects).

⁴³ See Hamlin, *supra* note 20, at 1080 (“Resolving the tension between environmental groups’ interest in creating enforceable agreements and the developing nations’ interest in maintaining unfettered control over their natural resources is the key to success of debt-for-nature swaps.”); see also Buckley, *supra* note 30, at 67; Priya Alagiri, Note, *Give Us Sovereignty or Give Us Debt: Debtor Countries’ Perspectives on Debt-for-Nature Swaps*, 41 AM. U. L. REV. 485 (1992) (arguing that sovereignty interests of both debtor countries and indigenous groups plagued early implementation of DFN swaps).

⁴⁴ In this sense, additionality refers to whether the creditors would have forgiven the debt without conditionalities and, thus, DFN exchanges represent a mere repackaging of aid. See Bill Walker, *Using Debt Exchanges to Enhance Public Accountability to Citizens*, in DEBT-FOR-DEVELOPMENT EXCHANGES: HISTORY AND NEW APPLICATIONS 297, 297 (Ross P. Buckley ed., 2011).

⁴⁵ See Dal Didia, *Debt-for-Nature Swaps, Market Imperfections, and Policy Failures as Determinants of Sustainable Development and Environmental Quality*, 35 J. ECON. ISSUES 477, 481–82 (2001) (acknowledging that debt and tropical deforestation are “positively and significantly related,” but nonetheless arguing that “tropical deforestation will continue as long as the institutions that can protect [tropical forests] are nonexistent or ineffective”).

⁴⁶ See Buckley, *supra* note 30, at 67–68 (“If a donor government is choosing debt to offer up for use in an exchange, it may be likely to offer first for exchange debt which may be illegitimate or odious. This is natural — most governments will take an opportunity to bury past actions . . .”).

⁴⁷ See NICOLE HASSOUN & MATT FRANK, ARE DEBT FOR CLIMATE SWAPS MORALLY PERMISSIBLE? 14 (2010), available at <http://repository.cmu.edu/cgi/viewcontent.cgi?article=1367&context=philosophy> (“If one agrees . . . that traditional economic conditionality undermines human rights, one should agree that debt-for-climate swaps do so. For, the structure of debt-for-climate swaps is the same as the structure of traditional economic conditionality.”).

⁴⁸ Freeland & Buckley, *supra* note 36, at 100 (citing an “overblown fear that the technique cannot accommodate the needs of indigenous peoples”).

⁴⁹ HUNTER ET AL., *supra* note 5, at 1355.

⁵⁰ LAWRENCE E. SUSSKIND & ISABELLE ANGUELOVSKI, PROGRAM ON HUMAN RIGHTS AND JUSTICE, MASS. INST. OF TECH., ADDRESSING THE LAND CLAIMS OF INDIGENOUS PEOPLES 12 (2008), available at http://mit.edu/phrj/publications_phrj/indigenous_peoples.pdf (emphasizing that indigenous “livelihoods depend on maintaining control over their land’s resources”

tions of indigenous land uses, or, even worse, indigenous displacement, may effectively signal a death knell for smaller indigenous cultures.

Second, indigenous peoples are often politically marginalized and subject to the domination by majoritarian forces in control of structuring the DFN swap.⁵¹ Therefore, it is unreasonable to assume that at any stage of the DFN process, from the treaty to fund disbursement through project implementation, indigenous voices and rights are being recognized and properly considered. Finally, indigenous peoples have “specific and strong claims to self-determination and autonomy that may augment their individual human rights.”⁵² The seemingly inevitable clashes between indigenous and mainstream worldviews⁵³ presents a situation ripe for the “design dilemma” of incorporating local participation into conservation projects:

[W]hat the project defines as a problem (which may be the entire reason for the project’s existence), e.g. decline in a species, may not be a concern of local communities [C]ommunity participation may lead the community to define a set of needs which are not linked to the conservation objectives [W]hat would happen if local people decided, through participatory mechanisms, that they wanted to use the resources in an unsustainable way?⁵⁴

In the case of indigenous rights, this question hits harder: what if an indigenous community, with its “strong claims to self-determination,” traditional reliance on a geographically defined set of natural resources, and historical marginalization in the political process, opposes the conservation goal (or implementation) of a DFN swap? Or, worse yet, what if the community never receives the opportunity to oppose the swap?

While criticisms of DFN swaps abound, several of the aforementioned critiques fail to recognize the diversity of DFN swap typologies and the reality of DFN swaps in application. Because DFN swaps have “never been operated at a scale sufficient to impact a nation’s money supply,” concerns of inflation are typically moot⁵⁵ and in the future will likely be limited to bilateral, prescriptive swaps that have the potential to forgive a significant amount of debt without ensuring debtor nation expenditures. Similarly, the valuation problem is most striking in three-way, prescriptive DFN swaps and is mitigated to a great extent when the swap becomes bilateral and fund-

and that land claims provide important “physical and symbolic borders” between indigenous and dominant cultures).

⁵¹ See HUNTER ET AL., *supra* note 5, at 1355–56.

⁵² *Id.* at 1356.

⁵³ Catherine Potvin et al., *The Role of Indigenous Peoples in Conservation Actions: A Case Study of Cultural Differences and Conservation Priorities*, in GOVERNING GLOBAL BIODIVERSITY 160–61 (Philippe G. Le Prestre ed., 2002) (arguing that the “logical starting point for this question” of whether “indigenous people . . . have the same conservation priorities as the international or scientific communities” is “representation — the place of nature and biodiversity in one’s worldview” (emphasis omitted)).

⁵⁴ Katrina Eadie Brandon & Michael Wells, *Planning for People and Parks: Design Dilemmas*, 20 WORLD DEV. 557, 564 (1992).

⁵⁵ See Buckley, *supra* note 30, at 68.

generating, thus cutting out the secondary debt market and providing at least a dollar-value on the costs, even if not the benefits, of the conservation efforts. Concerns of environmental additionality are likely overblown, as the infrequency of DFN swaps and the status of the debt-holder, rather than the debtor country, as the first-mover suggests that debtor countries would be unlikely to try to game the system.⁵⁶ Fund-generating swaps that maintain creditor or NGO presence in administering the fund sufficiently address both additionality and monitoring.⁵⁷ Further, concerns about the additionality of debt-restructuring are most relevant in bilateral swaps where funds for DFN transactions would be likely to displace other foreign aid, but are less relevant in the case of three-party DFN swaps.⁵⁸ Likewise, the activities of fund-generating DFN swaps often target redressing the institutional failures to protect tropical ecosystems, be they due to politics, nascent property rights systems, or ineffective markets,⁵⁹ on a local or regional scale.

Several of the aforementioned critiques, including challenges to conditionality and fear of odious debts, are larger situational critiques of the debt problem and, thus, do not substantially inform an analysis of DFN swaps that assumes their potential desirability as a tool to approach the global problems of debt relief and biodiversity loss.⁶⁰ In contrast, the principal concerns of each of the actors in a DFN swap — enforceability for the donor and sovereignty for the debtor country — are ever-present regardless of the DFN swap typology. Similarly, because the only parties technically required to complete a DFN swap are the creditor and debtor, none of the DFN typologies necessarily better represent the rights of indigenous peoples. Thus, while the critiques of DFN swaps do not apply uniformly across the typology grid, the concerns of enforceability, sovereignty, and the rights of indigenous peoples apply across all DFN swap typologies:

⁵⁶ Cf. Reilly, *supra* note 35, at 211 (“[D]ebt swaps and conservation trust funds have limitations because they are largely dependent on donor grants.”). *But cf.* Abate & Wright, *supra* note 42, at 105 (“There is always the possibility that the decrease in tropical deforestation were attributable to some other source.”); Press Release, World Wildlife Fund, Monumental Debt-for-Nature Swap Provides \$20 Million to Protect Biodiversity In Madagascar (June 14, 2008), available at <http://www.sciencedaily.com/releases/2008/06/080612170515.htm> (providing an example where the fruits of the debt-for-nature swap were a part of “Madagascar’s ambitious national effort . . . to triple the size of the country’s protected areas”).

⁵⁷ See Paige Mason, Note, *Inadequacies of the Amazon Fund: Evaluating Brazil’s Sovereignty in the Context of Promising Market Mechanisms and the Need for International Oversight to Protect the Amazon Rainforest*, 13 *TOURO INT’L L. REV.* 116, 137 (2010) (“NGO involvement seems to be key to preserving one’s sovereignty and will simultaneously monitor, fund and otherwise assist a broad-based Amazon protection scheme.”).

⁵⁸ True, an NGO might have provided the funds in another form of aid, but, given the typically strained status of NGO budgets, this is far less likely than a creditor nation repackaging publicly unpopular foreign aid as a DFN swap.

⁵⁹ Didia details these three institutional (in)capacities as situational factors that undermine DFN goals. See generally Didia, *supra* note 45, at 482–84.

⁶⁰ If the debt is odious or conditionality is per se impermissible, DFN swaps would be unethical and thus the inquiry would end there. See HASSOUN & FRANK, *supra* note 47, at 16–18 (“The fact that debt-for-climate swaps might be impermissible for the same reason(s) that other kinds of acts are impermissible does not vitiate the claim that there is reason to worry that *something* is wrong with debt-for-climate swaps.”).

World Bank characterizes indigenous peoples as distinct, vulnerable social groups possessing, to varying degrees, elements of self-identification, “collective attachment to geographically distinct habitats or ancestral territories,” customary institutions separate from those of the dominant culture, and an indigenous language.⁶⁴

The rights of indigenous people have typically been litigated in response to private and state development encroaching upon indigenous lands.⁶⁵ Thus, the recent U.N. Declaration on the Rights of Indigenous Peoples frames the rights of indigenous peoples in a defensive position, capturing concerns of resource and land utilization, but fails to fully capture the issues of land conservation presented by DFN swaps. Nonetheless, this non-binding resolution,⁶⁶ now endorsed by 144 states,⁶⁷ provides a normative framework for analyzing the success of DFN swaps in addressing indigenous rights. The Declaration promotes the right of self-determination for indigenous peoples to “freely determine their political status and freely pursue their economic, social and cultural development”⁶⁸ and requires “free, prior and informed consent” of indigenous groups before their dispossession of and relocation from traditional lands.⁶⁹ Indigenous rights to land create a

⁶⁴ See *id.* at 4.10(4).

⁶⁵ See, e.g., *Länsman v. Finland*, Human Rights Comm., U.N. Doc. CCPR/C/49/D/511/1992 (Oct. 14, 1993) (addressing the threat of logging to the indigenous rights of the Sami — the ethnic reindeer herders of Finland); *Bernard Ominayak & The Lubicon Lake Band v. Canada*, Human Rights Comm., U.N. Doc. CCPR/C/38/D/167/1984 (Oct. 5, 1990) (dealing with the threats of oil and gas exploration to the way of life of the Lubicon Lake Band); see also Brief for Ctr. for Human Rights and Env’t & Ctr. for Int’l Envtl. Law as Amicus Curiae Supporting Respondents at 3, *Ass’n of Lhaka Honhat Aboriginal Cmty. v. Argentina* (Sept. 19, 2000) (“[T]here is a recurring pattern throughout the world, . . . including South American states, whereby . . . large-scale development projects are undertaken which result in irreparable environmental harm to lands historically used, occupied, and claimed by indigenous peoples.”).

⁶⁶ Because of the Declaration’s nonbinding status, “both the status of many other rights asserted by indigenous peoples and the nature of states’ obligations with respect to them are not particularly clear or are contested.” Gillian Moon, *The Human Rights Dimension in Exchanges*, in DEBT-FOR-DEVELOPMENT EXCHANGES: HISTORY AND NEW APPLICATIONS, *supra* note 44, at 138, 147. As a result, “[t]he legal basis for many references to the rights of indigenous peoples (as distinct from human rights generally) will be found in equality concepts and guarantees of nondiscrimination.” *Id.* at 148.

⁶⁷ *United Nations Declaration on the Rights of Indigenous Peoples*, U.N. PERMANENT FORUM ON INDIGENOUS ISSUES, <http://www.un.org/esa/socdev/unpfi/en/declaration> (last visited Jan. 7, 2012) (on file with the Harvard Law School Library).

⁶⁸ G.A. Res. 61/295, *supra* note 18, art. 3. Though laudable, the broadness and lack of specificity of this provision is most likely a result of fears of self-determination being equated with the ability to secede. However, the conception of self-determination need not necessarily be equated with a right to secede to have meaning. Deborah F. Shmeuli & Rassem Khamaisi, *Bedouin Communities in the Negev*, 77 J. AM. PLANNING ASS’N. 109, 111 (2011) (“The issue for Israel’s Bedouin, as it is for many indigenous peoples, is not political sovereignty as an independent state, but the type of territorially framed autonomy that is realistic.”). See *infra* Part IV.B.

⁶⁹ G.A. Res. 61/295, *supra* note 18, art. 10 (“Indigenous peoples shall not be forcibly removed from their lands or territories. No relocation shall take place without the free, prior and informed consent of the indigenous peoples concerned and after agreement on just and fair compensation and, where possible, with the option of return.”). Free, prior, and informed

common thread through several other articles within the Declaration: Article 8 stipulates that states must provide effective mechanisms to prevent the dispossession of indigenous lands or resources;⁷⁰ Article 25 states that indigenous peoples have the right to “maintain and strengthen their distinctive spiritual relationship with their traditionally owned or otherwise occupied and used lands;”⁷¹ Article 26 declares the right of indigenous groups to occupy and utilize their traditional lands, to own the lands they currently possess and to have such rights recognized and protected by the state;⁷² and, finally, Article 29 declares the right of indigenous peoples to the “conservation and protection of the environment and the productive capacity of their lands.”⁷³

These rights foresee and address the dispossession or destruction of traditional lands, one of the most common threats to indigenous peoples, but do not fully anticipate DFN swaps, where the result may be a limitation on indigenous use of traditionally held lands but not full dispossession or destruction of the lands themselves. Thus, two additional articles are particularly relevant to DFN swaps, in conjunction with the articles on self-determination and free, prior, and informed consent.⁷⁴ First, Article 11 protects the indigenous right to “practise and revitalize . . . cultural traditions and customs.”⁷⁵ Tradition and custom, broadly defined, surely encompass the basic relationships between indigenous peoples and their lands: the acquisition and maintenance of food, water, and shelter. Second, Article 32 declares the right of indigenous peoples to plan for the future in “the right to determine and develop priorities and strategies for the development or use of their lands.”⁷⁶ Combined, these four rights of indigenous peoples — to self-determination; to the practice of cultural traditions; to plan for the future of indigenous lands; and to free, prior, and informed consent — create the core

consent remains a contentious issue, semantically, if not substantively, in the discussion of indigenous rights. For example, instead of adopting a free, prior, and informed consent policy, the World Bank requires “broad community support” for projects after a process of “free, prior, and informed *consultation*.” The World Bank, *supra* note 63, at OP 4.10(6)(c) (emphasis added).

⁷⁰ G.A. Res. 61/295, *supra* note 18, art. 8(2)(b).

⁷¹ *Id.* art. 25.

⁷² *Id.* art. 26.

⁷³ *Id.* art. 29(1); *see also id.* art. 29(2) (providing that states shall prevent the storage or disposal of hazardous materials on indigenous lands); *id.* art. 29(3) (providing a duty on states to, as needed, monitor and restore the health of indigenous peoples affected by hazardous wastes).

⁷⁴ Article 10’s principle of free, prior, and informed consent is bolstered by, and perhaps dependent upon, the procedural rights of Articles 18 and 27. Article 18 declares a participatory right for indigenous peoples in “decision-making in matters which would affect their rights.” *Id.* art. 18. Similarly, Article 27 requires the state to develop impartial, open, and transparent processes for the recognition and adjudication of rights of indigenous peoples. *Id.* art. 27.

⁷⁵ *Id.* art. 11.

⁷⁶ *Id.* art. 32(1); *see also id.* art. 32(2) (imposing a consultation and cooperation duty upon states); *id.* art. 32(3) (providing for a duty of just and fair redress for adverse environmental impact).

of rights most relevant to DFN swaps as well as other environmental regimes that, while seeking to protect ecological integrity, may also affect the relationships, traditional or not, between indigenous peoples and their lands.

III. INDIGENOUS RIGHTS IN DEBT-FOR-NATURE SWAPS

This Part examines four DFN swaps that are emblematic of the evolution of the DFN mechanism over the last quarter-century. In doing so, this Part analyzes the treatment of indigenous peoples in the DFN swaps and, in the cases of bilateral, publicly funded swaps, the treatment of the interests of indigenous peoples in underlying statutory authorities.

A. *The Early Years: Bolivia-Conservation International (1987) and Ecuador-World Wildlife Fund (1987)*

In the first recorded DFN swap, Conservation International (“CI”) purchased U.S. \$650,000 of Bolivian debt on the secondary market at approximately an eighty-five percent discount⁷⁷ and began negotiating with Bolivia for environmental commitments. Ultimately, CI agreed to cancel the debt in exchange for two commitments from Bolivia: (1) the legislative protection of 1.2 million acres of land within the Beni Biosphere Reserve, the Yacuma Regional Park, and the Cordebeni Water Basin, as well as the creation of a 2.8 million acre forest reserve as a buffer from development, and (2) the establishment of an operational fund, with U.S. \$250,000 in Bolivian currency, for management and protection of the reserves.⁷⁸ In addition to forgiving the debt it had purchased, CI agreed to provide technical, financial, and management assistance to Bolivia and a local NGO in their operation of the preserved areas,⁷⁹ while the actual title of the preserved land remained with Bolivia.⁸⁰

The Bolivia-CI DFN swap is most aptly characterized as a privately funded, prescriptive agreement. However, it has elements of a purely mixed swap because it generated a fund, its purpose was to support the prescription, and USAID agreed to contribute sixty percent of the fund’s balance.⁸¹ Today, the Bolivia-CI swap remains famous — as the first DFN swap — and infamous — for the fallout that followed the agreement. Backlash from the developing world grew out of inaccurate news reports that Bolivia had transferred title of the reserves to CI through the swap.⁸² Bolivia also failed to contribute its share of the fund for nearly two years, leaving the project

⁷⁷ Freeland & Buckley, *supra* note 36, at 80.

⁷⁸ *See id.*; Alagiri, *supra* note 43, at 495.

⁷⁹ Alagiri, *supra* note 43, at 495.

⁸⁰ Freeland & Buckley, *supra* note 36, at 80.

⁸¹ *See id.*

⁸² J. Eugene Gibson & Randall K. Curtis, *A Debt-for-Nature Blueprint*, 28 COLUM. J. TRANSNAT’L L. 331, 356 (1990).

significantly undercapitalized.⁸³ Additionally, and most significantly for this Article, the indigenous peoples of the area, the Chimane Indians, were disregarded through the entire process. CI did not consult the Chimane, or organizations associated with them, about the ramifications of the proposed swap.⁸⁴ Prior to the DFN swap, the Chimane had been involved in the process of obtaining land tenure in the reserve areas; the swap effectively terminated the land tenure process as the land remained, by agreement, titled to Bolivia.⁸⁵ Further, the prescriptive nature of the agreement “restricted the [Chimane] way of life because the programs condemned many indigenous activities as detrimental to forest preservation.”⁸⁶ Finally, shortly after the swap, the Bolivian government granted logging concessions for industry parties to operate within the lands of the nomadic Chimane surrounding the Beni Biosphere Reserve, further fueling conflicts between the Chimane and logging and ranching interests that would continue into the 1990s.⁸⁷ Unsurprisingly, scholars widely regard the lack of timely indigenous input as a major failure in the Bolivia-CI DFN swap.⁸⁸

The Bolivia-CI DFN swap failed on all accounts to protect and respect the indigenous rights of the Chimane. The swap completely denied the Chimane their right to self-determination and free, prior, and informed consent and, because of this denial, the Chimane never had an opportunity to participate in the planning for the future of their indigenous lands or to weigh in on how the creation of bioreserves would affect their cultural traditions. Thus, the Bolivia-CI DFN swap represents the minimum amount of protection and respect a DFN swap could afford indigenous rights; ultimately, with regard to indigenous rights, the swap’s mechanisms and effects track far closer to development projects — those projects to which DFN

⁸³ Freeland & Buckley, *supra* note 36, at 81–82. The underfunding of the project was exacerbated by the fact that the USAID contribution to the fund was contingent upon Bolivia’s contribution. *Id.*

⁸⁴ Alagiri, *supra* note 43, at 499.

⁸⁵ *See id.* at 499–500.

⁸⁶ *See id.*; *see also* Freeland & Buckley, *supra* note 36, at 81 (noting that the DFN swap replaced the prior threat of “indiscriminate and illegal logging” destroying the forest where the Chimane lived with the threat of the “American-type national park model” that restricted their ability to engage in traditional subsistence activities). Interestingly, the Chimane strategically challenged the agreement not because of its disregard for indigenous rights, but rather for CI’s invasion of Bolivia’s national sovereignty. *See* Alagiri, *supra* note 42, at 500.

⁸⁷ Gretchen K. Muller, *Debt-for-Nature Swaps, Forest Conservation and the Bolivian Landscape*, in *FORESTS AND SOCIETY: SUSTAINABILITY AND LIFE CYCLES OF FORESTS IN HUMAN LANDSCAPES* 94, 96 (Kristiina A. Vogt et al. eds., 2007) (“The lack of participation on the part of indigenous groups living within the areas and the logging of 650,000 ha triggered the Chimane Indian ‘March for Dignity and Territory’ in 1990.”).

⁸⁸ *See, e.g.*, Freeland & Buckley, *supra* note 36, at 81–82 (“[This swap] confirmed that exchanging developing country debt . . . to advance conservation . . . was feasible, as long as due account was taken of relevant local conditions. Clearly, this last caveat is crucial . . .”); *cf.* Eve Burton, *Debt for Development: A New Opportunity for Nonprofits, Commercial Banks, and Developing States*, 31 *HARV. INT’L L.J.* 233, 241–43 (1990) (arguing that a fatal flaw in DFN swaps is that environmentalists inappropriately deemphasize sovereignty of state and non-state parties).

swaps are in many ways a direct response — than any of the swap's architects would have cared to admit.

However, the failure of the first DFN swap to create enforceable terms, respect indigenous rights, and maintain national sovereignty did not end the movement altogether. In late 1987, Ecuador and the World Wildlife Fund ("WWF") entered into a one million U.S. dollar DFN swap.⁸⁹ The Ecuador-WWF swap drew upon the mistakes of the Bolivia-CI swap, creating a more complex, three-step procedure where (1) WWF purchased the debt on the secondary market, (2) "exchanged this debt for Ecuadorean bonds, repayable in local currency, to be held by a local environmental group, the Fundación Natura," and (3) Ecuador agreed to allow Fundación Natura to use the bond payments to "fund the preservation of undeveloped lands."⁹⁰ The conversion of debt to local currency addressed concerns of inflation, while the switch from prescriptive measures to funding local NGOs to implement existing conservation efforts assuaged concerns of national sovereignty.⁹¹ However, even with a local NGO in charge of managing the preservation of the undeveloped lands, the swap respected indigenous rights no more than in the Bolivia-CI swap: "[t]he nature reserve protection measures carried out under the [Ecuador-WWF] swap continued to allow the presence of oil companies in the reserves, thereby attracting colonists, polluting rivers, and threatening the existence of a tribe known as the Waorani."⁹² Thus, while the Ecuador-WWF swap may or may not have procedurally violated indigenous rights, the substantive ramification of the swap was merely a perpetuation of a status quo that valued economic gain over indigenous rights. Nevertheless, the Ecuador-WWF DFN swap "created the model for transactions to come: it emphasized the involvement of local NGOs, it deemphasized the role played by the debtor government, and it used 'environmental' bonds to avoid the inflationary effects of swaps."⁹³

*B. Debt Forgiveness: Enterprise for the Americas Initiative and
Bolivia-U.S. (1991)*

Although primarily focused upon economic and political harmonization in the Western Hemisphere, the Enterprise for the Americas Initiative ("EAI"), enacted as part of the omnibus Food, Agriculture, Conservation, and Trade Act of 1990,⁹⁴ contained a DFN scheme authorizing the forgive-

⁸⁹ Hamlin, *supra* note 20, at 1069.

⁹⁰ *Id.*

⁹¹ Sher, *supra* note 8, at 160–61 ("[T]he Ecuadoran transaction demonstrated that non-governmental environmental groups within host countries ('local NGOs'), in cooperation with international NGOs, could best implement conservation programs, once they had access to financing from the proceeds of the swap.").

⁹² Lewis, *supra* note 7, at 438.

⁹³ Sher, *supra* note 8, at 160.

⁹⁴ Pub. L. No. 101-624, 104 Stat. 3359 (1990).

ness of U.S. “Food for Peace” loans.⁹⁵ The EAI mechanism “allowed Latin American and Caribbean countries to reduce the level of bilateral debt owed to the [United States] and then re-directed a portion of debt repayments into a fund to support local environmental programs.”⁹⁶ However, the EAI debt forgiveness program came with more strings attached than the traditional DFN swap. In order to be eligible for the swaps, debtor states had to meet specific political and economic requirements, including having a democratically elected government⁹⁷ and making “significant progress” toward structural reforms in conjunction with the International Monetary Fund, the World Bank, the International Development Association, or the Inter-American Development Bank.⁹⁸ While only three countries — Bolivia, Chile, and Jamaica — initially met the EAI eligibility requirements,⁹⁹ over the life of the EAI eight debtor nations have reduced their debt (originally a total of U.S. \$1.8 billion) by nearly U.S. \$1 billion, with almost U.S. \$180 million in conservation funds generated.¹⁰⁰

In 1991, Bolivia and the United States negotiated and agreed upon the first DFN swap under the EAI as a publicly funded, fund-generating swap.¹⁰¹ The Agreement, detailing the basic structure and processes of a national environmental fund in Bolivia, became the basis for six of the seven other DFN swaps under the EAI and reduced Bolivia’s debt by U.S. \$30.7 million from a face value of U.S. \$38.4 million in debt, while simultaneously generating U.S. \$21.8 million in conservation funds.¹⁰² The Agreement went a step beyond the Ecuador-WWF swap; instead of providing the funds generated from the swap directly to local environmental NGOs, the swap created and funded *Fundación Natura Bolivia*, which disburses funds on a competitive basis to nongovernmental conservation groups, including indigenous peoples organizations, as well as other nongovernmental groups at local, regional, and national levels.¹⁰³ An Administrative Council manages *Funda-*

⁹⁵ See Sher, *supra* note 8, at 174–75. “‘Food for Peace’ loans were low-interest loans given to developing countries to purchase U.S. agricultural products.” SHEIKH, *supra* note 23. For more information on “Food for Peace,” see MELISSA D. HO & CHARLES E. HANRAHAN, CONG. RESEARCH SERV., R41072, INTERNATIONAL FOOD AID PROGRAMS: BACKGROUND AND ISSUES 2–6 (2010).

⁹⁶ Buckley, *supra* note 30, at 61.

⁹⁷ See SHEIKH, *supra* note 23. Other political requirements include “not support[ing] terrorism, . . . not fail[ing] to cooperate with the United States on drug control, and . . . not engag[ing] in gross violations of human rights.” *Id.*

⁹⁸ See Sher, *supra* note 8, at 176–77; see also SHEIKH, *supra* note 23 (citing an additional requirement that each debtor nation participating in the EAI must “enter into an America’s Framework Agreement with the United States to establish an America’s Trust Fund and create enforcement mechanisms to insure [sic] payments into the fund and prompt disbursements out of the fund”).

⁹⁹ Sher, *supra* note 8, at 177.

¹⁰⁰ SHEIKH, *supra* note 23, at tbl.3.

¹⁰¹ See Agreement Concerning the Establishment of an Enterprise for the Americas Environmental Account at the National Fund for the Environment, U.S.-Bol., Nov. 26, 1991, T.I.A.S. No. 11849.

¹⁰² SHEIKH, *supra* note 23, at tbl.3.

¹⁰³ Agreement Concerning the Establishment of an Enterprise for the Americas Environmental Account at the National Fund for the Environment, *supra* note 101, art. VI, § 2. Aside

ción Natura and consists of seven members: two representatives of the Bolivian government, one representative of the U.S. government, and four representatives of conservation interests appointed by Bolivia.¹⁰⁴ While the Agreement does not specifically mention grant criteria relating to indigenous peoples, it gives priority to projects “managed by nongovernmental organizations and that involve local communities in their planning and execution.”¹⁰⁵

While the multi-step process that separates the creditor nation from the fruition of conservation efforts helps to assuage concerns of debtor nation sovereignty, it also makes tracking the environmental progress¹⁰⁶ and the treatment of indigenous peoples under projects funded by the DFN swap more difficult than under earlier DFN swaps.¹⁰⁷ Nevertheless, the Bolivia-U.S. Agreement does provide some process guarantees that suggest projects that receive grants from the Fund would protect indigenous rights. In particular, the preference for projects that are managed by NGOs and that provide participatory rights for local communities at least protects the indigenous right to free, prior, and informed consultation (if not consent) as well as the right to plan for the future of indigenous lands. Perhaps most significantly, the preferred use of local or regional NGOs, rather than debtor-government agencies, as the enactor of environmental programs limits the chance of prescriptive measures and indigenous displacement — measures that would presumably both require governmental approval — arising out of the DFN swap.

However, the Bolivia-U.S. DFN swap, along with the remainder of its EAI cousins, is certainly not a paradigmatic example of indigenous rights in action. The Bolivia government, with its four appointed environmental representatives,¹⁰⁸ still dominates the Fund, and therefore, the Fund remains

from the variety of organizations eligible for grants from the Fund, the Agreement makes a wide variety of projects eligible for funding. *See id.* art. VI, § 1 (citing eligible projects ranging from restoration programs to education programs to sustainable agriculture programs).

¹⁰⁴ *Id.* art. III, § 2.

¹⁰⁵ *Id.* art. VI, § 4.

¹⁰⁶ This conclusion is notwithstanding that agreements typically require funds to keep progress reports on their grants. *See, e.g., id.* art. V, § d. Indeed, one of the principal criticisms of the EAI DFN swaps is that they go too far in protecting state sovereignty by requiring no environmental conditions at all while reducing significant amounts of debt. *See Sher, supra* note 8, at 184 (commenting that the EAI’s focus on economic reform is likely the reason that environmental conditions are non-existent under the EAI).

¹⁰⁷ The difficulty in tracking the status of projects funded by the Bolivia-U.S. DFN swap is also a product of the time that has passed since the swap. Fundación Natura Bolivia has lived on beyond the fifteen-year term of the Agreement and continues funding new projects, which it highlights on its website, through new international aid. The results of projects long-ago funded and completed, however, are unavailable. *See Proyecto Implementation*, FUNDACIÓN NATURA BOLIVIA, <http://www.naturabolivia.org/proyectoI.htm> (last visited Jan. 7, 2012) (on file with the Harvard Law School Library).

¹⁰⁸ Agreement Concerning the Establishment of an Enterprise for the Americas Environmental Account at the National Fund for the Environment, *supra* note 101, art. III, § 2. However, it is important to note that there are two checks on the Council: the United States (or Bolivia) may veto any grant greater than U.S. \$100,000, *id.* art. IV, § 3, and the EAI advisory board, composed of six U.S. government representatives and five NGO representatives, audits

subject to the influence of Bolivian politics that shift from administration to administration¹⁰⁹ and, as evidenced in the Bolivia-CI DFN swap, can be insensitive to indigenous rights. Additionally, separating the EAI DFN swaps from the larger context of the EAI as a structural adjustment policy can lead to a significant underestimation of the effects of EAI DFN swaps on indigenous peoples in debtor countries. The environmental conditionalities of the first generation of DFN swaps seem to have been replaced by economic conditionalities in the second generation.¹¹⁰ The effects of economic structural adjustments on indigenous peoples are significant and manifest in familiar scenarios that are noticeably contrary to the interests of creditor country NGOs supporting DFN swaps and in direct opposition to the fundamental premises of the U.N. Declaration on the Rights of Indigenous Peoples. Through structural adjustments, the reduction of trade barriers and liberalization of economic policy lead to multinational corporations dispossessing indigenous peoples of their lands and robbing them of the valuable resources, be they forestal, agricultural, or mineral, located therein.¹¹¹ While it is true that EAI DFN swaps did not single-handedly create and promote, or even significantly contribute to, the processes of structural adjustment in Central and South America,¹¹² ignoring the fact that DFN swaps under the EAI were completed in front of the backdrop of economic and political conditionalities misses the larger picture of how indigenous rights may have been affected under this regime.

and reviews the activities of the Fund, *see* Lewis, *supra* note 7, at 449–50. These procedural checks are common to all EAI DFN swaps. *See id.*

¹⁰⁹ RICARDO BAYON & CAROLYN DEERE, INT'L UNION FOR THE CONSERVATION OF NATURE, FINANCING BIODIVERSITY CONSERVATION: THE POTENTIAL OF ENVIRONMENTAL FUNDS 9 (1998), available at <http://www.ibcperu.org/doc/isis/8343.pdf> ("Furthermore, due to its close links to the Bolivian government, [Fundación Natura] has had to deal with governmental priorities changing when new governments are elected. In fact, [Fundación Natura] has encountered major problems in the last year or two, partly because it has attempted to address too broad a mandate.").

¹¹⁰ Indeed, while Latin American and Caribbean countries initially supported the EAI, the conditionalities present in its final form led environmental groups in South America to petition U.S. NGOs not to participate in or support the EAI. *See* Sher, *supra* note 8, at 174–75 n.119.

¹¹¹ *See* Lewis, *supra* note 7, at 447 ("[T]he environmental group Friends of the Earth believes that the same investment reform provisions in the Tropical Forest Conservation Act may potentially 'open up countries to exploitative development . . . [and] could lead to the rapid exploitation of natural resources — including tropical forests.'"); *see also* *Africa's Pollution and Land Grab Threat from UN Carbon Market*, INDIGENOUS PEOPLES, ISSUES, & RES., Mar. 1, 2011, available at http://indigenouspeoplesissues.com/index.php?option=com_content&view=article&id=9185 (detailing the risk of carbon markets to indigenous land rights); *Buying Farmland Abroad: Outsourcing's Third Wave*, THE ECONOMIST, May 21, 2009, available at <http://www.economist.com/node/13692889> (describing the developed-world land grab for agricultural land in Africa).

¹¹² *But see* SHEIKH, *supra* note 23, tbl.3 (demonstrating the non-triviality of the DFN swaps between the United States and El Salvador, Jamaica, and Peru — reducing U.S. \$463.3 million, U.S. \$311 million, and U.S. \$120 million in debt, respectively).

C. *Expanding the Playing Field: Tropical Forest Conservation Act and Bangladesh-U.S. (2000)*

Recognizing that biodiversity and debt issues were not limited to the Western hemisphere, Congress passed the Tropical Forest Conservation Act (“TFCA”) of 1998¹¹³ to extend debt reduction opportunities to developing countries with tropical forests around the world.¹¹⁴ Closely modeled after the EAI, many of the differences between the two statutes are only nominal,¹¹⁵ and the primary DFN swap typology anticipated by the TFCA remains publicly funded and fund-generating.¹¹⁶ However, the TFCA, which is currently the only statutory mechanism with funding for bilateral DFN swaps in the United States,¹¹⁷ does differ from the EAI in two important ways: it both restricts and broadens the range of activities that may receive grants from the environmental fund¹¹⁸ in ways that may have substantial impacts on the treatment of indigenous peoples under DFN swaps.

The effect of the TFCA’s simultaneous expansion and restriction of approved projects on indigenous peoples is ambiguous but is likely a net positive.¹¹⁹ On the negative, restrictive side, the TFCA limits DFN swaps to activities supporting forest conservation, thereby cutting out the possibility of programs designed to protect and restore water and air resources outside of forest management.¹²⁰ More importantly, the TFCA no longer supports projects promoting “regenerative approaches in farming, forestry, fishing, and watershed management,” the type of subsistence activities that indigenous peoples would be most likely to undertake under the EAI’s list of approved projects.¹²¹

Additionally, two new project types authorized by the TFCA have a direct impact on indigenous groups in particular. First, the TFCA allows the funding of projects conserving, maintaining, and restoring tropical forests

¹¹³ Pub. L. No. 105-214, 112 Stat. 885 (codified at 22 U.S.C. § 2431 (2006)).

¹¹⁴ See SHEIKH, *supra* note 23.

¹¹⁵ Lewis, *supra* note 7, at 454 (“[T]he EAI’s Framework Agreement is the TFCA’s Tropical Forest Agreement, the Environment Fund becomes the Tropical Forest Fund, and the Enterprise for the America’s Facility is renamed the Tropical Forest Facility.”).

¹¹⁶ As a result, the criticisms of the EAI’s structural adjustment conditionalities, *supra* Part III.B, remain cogent in discussions of the broader ramifications of the TFCA.

¹¹⁷ See *Innovative Financing for Forest Conservation and the Environment*, U.S. AGENCY FOR INT’L DEV., http://www.usaid.gov/our_work/environment/forestry/tfca.html (last visited Jan. 7, 2012) (on file with the Harvard Law School Library) (“[H]owever, only the TFCA has received appropriated federal funding in recent years. Without such appropriated funding, the EAI program will not undertake new agreements.”).

¹¹⁸ Compare TFCA, 22 U.S.C. § 2431g(d), with EAI, 7 U.S.C. § 1738k (2006) (citing Global Environmental Protection Act of 1989 (“GEA”), 22 U.S.C. § 2283 (2006)).

¹¹⁹ At least one scholar argues that the TFCA, even with all of its flaws considered, does provide “increased protection against indigenous sovereignty violations.” See Lewis, *supra* note 7, at 455, 457.

¹²⁰ See *id.* at 455.

¹²¹ *Id.* (quoting Douglas Logsdon, *Debt-for-Nature Evolves: The Enterprise for the Americas Initiative*, 3 COLO. J. INT’L ENVTL. L. & POL’Y 635, 647 (1992)); see also GEA, 22 U.S.C. § 2283(a)(9).

through the “development and support of the livelihoods of individuals living in or near a tropical forest in a manner consistent with protecting such tropical forest.”¹²² Because, like under the EAI, the fund may capitalize projects undertaken by indigenous peoples groups,¹²³ and the statute gives priority to projects that “involve local communities in their planning and execution,”¹²⁴ it seems that, in allowing grants for the “development and support of the livelihoods of individuals living in or near a tropical forest,” the TFCA creates a direct authorization, if not a statutory preference, for tropical conservation projects that promote the rights and livelihoods of indigenous peoples.

However, several choices by the U.S. Senate suggest that the preference, and perhaps authorization, may be illusory. First, the House version of the bill “would have allowed funding not only to support ‘individuals’ living in the rainforests, but also for the ‘cultures of such individuals.’”¹²⁵ The distinction between indigenous individuals and indigenous peoples is nearly dispositive in determining the status of the indigenous rights to self-determination and to practice and revitalize cultural traditions and customs. With a focus on the individual, the Senate made a decision that statutorily divided indigenous peoples into their component individual parts, without regard for the long-existing community fabric that the idea of indigenous rights is meant to protect. Further, the Senate also “deleted another House provision that would have required consultation with indigenous leaders in the formation of the administering bodies” for the fund, leaving open the question of the amount of free, prior, and informed consent that exists in projects affecting indigenous lands.¹²⁶ Nevertheless, many scholars would consider the inclusion of programs promoting the “development and support of the livelihoods of individuals living in or near a tropical forest” a positive step toward indigenous rights.¹²⁷

The second new project type authorized by the TFCA less obviously implicates the rights of indigenous peoples, but, in practice, represents a significant threat to indigenous rights to intellectual and cultural property. The TFCA allows funds to provide grants to projects promoting the “[r]esearch and identification of medicinal uses of tropical forest plant life to treat human diseases, illnesses, and health related concerns.”¹²⁸ While research into medicinal uses of biodiversity is not per se detrimental to indigenous rights, the research that has occurred has an unfortunate history:

¹²² TFCA, 22 U.S.C. § 2431g(d)(6).

¹²³ *Id.* § 2431g(e)(1)(a).

¹²⁴ *Id.* § 2431g(e)(2).

¹²⁵ Lewis, *supra* note 7, at 457 (citing 144 CONG. REC. S8155 (daily ed. July 14, 1998) (statement of Sen. Roberts)).

¹²⁶ Lewis, *supra* note 7, at 457. Compare 144 CONG. REC. H1314 (daily ed. Mar. 19, 1998) (statement of Rep. Vento), with 144 CONG. REC. S8155 (daily ed. July 14, 1998) (statement of Sen. Lugar).

¹²⁷ See, e.g., Lewis, *supra* note 7, at 455, 457.

¹²⁸ TFCA, 22 U.S.C. § 2431g(d)(5).

Given the high value added in both the pharmaceutical industry and agriculture, the abundance of unimproved genetic and biochemical resources, and the low probability that any specific sample will have commercial value, the holders of unimproved material are likely to receive a relatively low payment for access to the resource¹²⁹

The authorization to fund bioprospecting projects, without further guidance about the treatment of indigenous intellectual property rights, creates a loophole in the TFCA that allows a type of extractive industry that, while leaving indigenous lands unscathed, may rob indigenous communities of their local knowledge without access to just compensation or benefit sharing.¹³⁰

Bangladesh and the United States negotiated and completed the first DFN swap under the TFCA in 2000.¹³¹ In a bifurcated treaty process, one treaty restructured debt,¹³² while the other laid out the framework for the Tropical Forest Fund¹³³ that, once created under Bangladeshi law, would require an amendment to signify U.S. approval.¹³⁴ While the treaty regarding the creation of the Fund generally follows the language of the TFCA, it also expands in some significant ways with regards to indigenous rights. In particular, the Agreement authorizes the funding of projects that would seek to

¹²⁹ Walt Reid et al., *A New Lease on Life*, in *BIODIVERSITY PROSPECTING: USING GENETIC RESOURCES FOR SUSTAINABLE DEVELOPMENT* 1, 16 (Walt Reid et al. eds., 1993). Shiva claims that bioprospecting is an “inappropriate term” for the process described by Reid et al. Instead, Shiva argues that because “[t]he very concept of bioprospecting . . . is based on patenting traditional knowledge” and “[a] patent is granted for inventions, which must be novel,” bioprospecting’s usurpation of already-existing traditional knowledge is “merely a sophisticated form of biopiracy.” See Vandana Shiva, *Bioprospecting as Sophisticated Biopiracy*, 32 *SIGNS* 307, 307–08 (2007).

¹³⁰ Indeed, the fact that TFCA allows the funding of “research” suggests that these bioprospecting projects are not envisioned as facilitating the perfection of indigenous intellectual property rights, but rather extracting the information for use in the Global North. Bioprospecting was a hot-button issue during the negotiation of the Convention on Biological Diversity (“CBD”) in 1992, and the parties to the Convention agreed specifically to “respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities . . . and encourage the equitable sharing of benefits” arising from bioprospecting. Convention on Biological Diversity art. 8(j), June 5, 1992, 31 *I.L.M.* 818. The extent to which the CBD should govern the action of signatories is clear; however, the extent to which the CBD serves as guidance to NGOs receiving grants from TFCA DFN swap funds, without a codification of the CBD’s requirements in the architecture of swap and fund itself, is likely minimal. See *infra* Part IV.D.

¹³¹ See Agreement Regarding the Reduction of Certain Debt Related to Agricultural Trade Owed to the Government of the United States and its Agencies, U.S.-Bangl., Sept. 12, 2000, Hein’s No. KAV 5777; Agreement Concerning the Establishment of a Tropical Forest Fund and a Tropical Forest Conservation Board, U.S.-Bangl., Sept. 12, 2000, Hein’s No. KAV 5778.

¹³² See Agreement Regarding the Reduction of Certain Debt Related to Agricultural Trade Owed to the Government of the United States and its Agencies, *supra* note 131.

¹³³ See Agreement Concerning the Establishment of a Tropical Forest Fund and a Tropical Forest Conservation Board, *supra* note 131.

¹³⁴ See Agreement Regarding the Reduction of Certain Debt Related to Agricultural Trade Owed to the Government of the United States and its Agencies, *supra* note 131, art. I(22), art. III(3).

“demarcate . . . indigenous reserves,”¹³⁵ and expands upon the concept of developing and supporting the “livelihood of individuals living in . . . tropical forests” by providing example projects such as “development of community-based and women’s enterprises involving wood or non-wood products; application of low impact logging practices; or development of multiple-use tree species outside natural forests.”¹³⁶ Allowing the demarcation of indigenous reserves is certainly a positive notion; however, the fairness of the processes used to demarcate indigenous lands has far greater ramifications for indigenous rights than the, albeit laudable, inclusion of the demarcation of indigenous lands as a fundable project. On the other hand, the expansion upon “livelihood improving projects” is undoubtedly positive. The example projects reframe the entire category of projects away from the U.S. Senate’s “individual” and back toward the House’s “cultures of such individuals,” while the statutory preference for NGO-led projects with high levels of local participation makes the funding of such community “livelihood improving projects” much more likely.

In 2003, Bangladesh established the Arannayk Foundation (“AF”) as the Tropical Forest Fund under the TFCA;¹³⁷ the AF has since approved over thirty-five projects valued at nearly U.S. \$2 million.¹³⁸ Criticism of the TFCA notwithstanding, the AF has established an impressive record of funding community- and indigenous-based projects. Out of the twenty-one projects commenced to date, eleven projects directly involve the empowerment of indigenous and community groups in their planning and implementation.¹³⁹ Two particularly impressive projects currently in progress focus on the restoration of the Chittagong Hill Tracts (“CHT”),¹⁴⁰ which cover nine

¹³⁵ See Agreement Concerning the Establishment of a Tropical Forest Fund and a Tropical Forest Conservation Board, *supra* note 131, art. V, § 1(A).

¹³⁶ *Id.* art. V, § 1(F).

¹³⁷ *Bangladesh: USAID’s Response: Environment*, U.S. AGENCY FOR INT’L DEV., http://www.usaid.gov/bd/programs/environ_response.html (last visited Jan. 7, 2012) (on file with the Harvard Law School Library).

¹³⁸ *Id.*

¹³⁹ See *Current Project*, ARRANAYK FOUND., http://www.arannayk.org/curproject_1.php (last visited Jan. 7, 2012) (on file with the Harvard Law School Library). This proportion is all the more impressive considering that many of the other projects are non-invasive of indigenous rights; these pilot projects, designed to obtain, stockpile, and then propagate endangered and threatened plant species throughout their native ranges, were undertaken in a manner that required local approval. See *id.*

¹⁴⁰ See *id.* The CHT has a mixed recent history with regard to indigenous rights, particularly regarding the Chittagong Hill Tracts Peace Accord of 1997 between militarized insurgents within the CHT and the People’s Republic of Bangladesh. The Accord set up local and regional political structures for the indigenous peoples of the CHT, provided land ownership guarantees (though not necessarily respective of traditional indigenous land systems) and provided for the ex-migration of Indian refugees once it was safe for their return to their home communities. See generally M. Rashiduzzaman, *Bangladesh’s Chittagong Hill Tracts Peace Accord: Institutional Features and Strategic Concerns*, 38 *ASIAN SURVEY* 653, 656–62 (1998). However, the Accord has been criticized as a failure because “violations of human rights by law enforcement agencies and Bangali settlers against indigenous peoples [have] continue[d] even after the signing of the 1997 peace accord.” Pranab Kumar Panday & Ishtiaq Jamil, *Conflict in the Chittagong Hill Tracts of Bangladesh: An Unimplemented Accord and Continued Violence*, 49 *ASIAN SURVEY* 1052, 1052 (2009).

percent of Bangladesh.¹⁴¹ Eleven tribes of indigenous peoples had successfully managed the CHT for centuries through sustainable shifting cultivation; however, population pressures over the past half-century, primarily due to in-migration from India, led to the loss of most of the CHT's old-growth forests to short-term shifting agriculture plantations.¹⁴²

In response to this, CHT projects funded by the AF have focused on creating community-conserved forest areas whereby indigenous villages are provided land rights and technical assistance in both restoring the ecological systems lost over the past fifty years and realizing income-generating activities to replace the shifting cultivation methods made unsustainable due to the region's population growth. In the Itchari Community Reserve, 165 households in two villages manage 67 hectares of land, have planted over 4500 native saplings, and have been provided access to a revolving loan fund of approximately U.S. \$90,000 to implement income-generating activities¹⁴³ such as "homestead gardening, vegetable seeds production, bee keeping, mushroom production, fish culture, and nursery business[es]."¹⁴⁴ Similarly, the villages of Ghona Para and Bhoirofa Bridge Para, including thirty-five households, have been provided over 39,000 native fruit and timber saplings to replant their deforested hills¹⁴⁵ and have been trained through several community meetings in homestead-based income-generating activities, such as multi-tiered orcharding, boundary planting, and cow rearing.¹⁴⁶ Both of these projects within the CHT involve indigenous groups in the best manner possible: with their free, prior, and informed consent, indigenous communities receive the opportunity to plan for their future in a manner that not only allows the preservation of their important cultural traditions but also provides training in sustainable, income-generating activities that help empower their communities politically and economically in the region and the state. Overall, the AF's community- and indigenous-based projects provide positive examples of empowering, on-the-ground activities established under a statutory framework that itself lacks particularly strong support of indigenous rights.

Aside from providing excellent examples of indigenous rights in action, the Bangladesh-U.S. DFN swap also provides an excellent case study of the geology of the contemporary bilateral, fund-generating DFN swap process. Early, three-party DFN swaps were limited only by the collective imagination of the swap parties. Thus, swap architects' meta-level conceptions of

¹⁴¹ *Itchari Community Reserve Forest Conservation Project, Khagrachari*, ARRANAYK FOUND., http://www.arannayk.org/curproject_biram.php (last visited Jan. 7, 2012)(on file with the Harvard Law School Library).

¹⁴² *Id.*

¹⁴³ *Id.*

¹⁴⁴ ARRANAYK FOUND., *CONSERVING FORESTS FOR THE FUTURE: ANNUAL REPORT 2009*, at 25 (2009), available at http://www.arannayk.org/docs/af_annualreport_2009.pdf.

¹⁴⁵ *Restoration of Hilly Bio-diversity through Community Based Bio-resource Management at Dighinala, Khagrachari*, ARRANAYK FOUND., http://www.arannayk.org/curproject_anando.php (last visited Jan. 7, 2012)(on file with the Harvard Law School Library).

¹⁴⁶ ARRANAYK FOUND., *supra* note 144, at 25.

what “debt-for-nature” actually entailed shaped and aligned perfectly with their macro-level drafting of the swap agreement and, in theory, the debtor-nation’s micro-level implementation of on-the-ground conservation initiatives. However, the introduction of bilateral swaps and their enabling statutes in the 1990s preempted the formerly malleable conceptions of “debt-for-nature” and provided new, static meta-level frameworks within which swaps operated. As such, Congress, through statutes such as the EAI and TFCA, set in stone the meta-level conceptual framework of DFN swaps moving forward and pushed innovation and experimentation to the macro-level of the actual swap agreement:

TABLE 3: CONCEPTUAL LEVELS OF DFN SWAPS

		<i>Conceptual Level</i>		
		Meta	Macro	Micro
<i>Basic Typology</i>	Three-Party, Prescriptive	Meta-conceptions align with Agreement & Implementation		
	Three-Party, Fund-generating	Meta-conceptions align with Agreement		Dictated by Fund Executor
	Bilateral, Prescriptive	Defined by Congress	Agreement aligns with Implementation	
	Bilateral, Fund-generating	Defined by Congress	Defined by Parties	Dictated by Fund Executors

Now, parties use the macro-level DFN agreements to inject individualized preferences and situational peculiarities into the otherwise universal meta-level frameworks. The Bangladesh-U.S. swap did exactly that when the parties allowed funding of conservation projects that were otherwise unenumerated in the TFCA, such as the delineation of indigenous lands. Further, in fund-generating DFN swaps, discretion granted to fund executors provides the opportunity for the expansion or contraction of conceptions of nebulous terms such as “environmental” and “community.” For example, as the distributor of the conservation funds from the Bangladesh-U.S. swap, the AF has pursued an indigenous- and community-based portfolio of projects; however, the AF certainly had the discretion to select projects that systematically undermined the indigenous rights expansions provided under the Agreement, or even undercut the improvements under the TFCA. Ultimately, both the macro- and micro-levels of swaps present opportunities for different parties to exploit, either positively or negatively, ambiguities in the broad, meta-level framework defined by Congress.

Thus, while the freedom of the first generation, private, prescriptive DFN swaps provided the opportunity for internal consistency between the meta-, macro-, and micro-levels of a swap, the institutional inconsistency

among swap priorities of second generation swaps, with Congress dictating the meta-level, the DFN parties dictating the macro-level, and fund executors dictating the micro-level, has created the potential for inconsistencies in the treatment of indigenous rights among the levels. Fortunately, in the case of the Bangladesh-U.S. swap, the inconsistencies created were indigenous-rights positive. However, one would be remiss to assume that this will always be the case.

D. The Contemporary Subsidized Swap: Tropical Forest Conservation Act and Indonesia-U.S. (2009)

Beyond broadening the geographic scope of bilateral DFN swaps into the Eastern Hemisphere, the TFCA also saw a rise in the occurrence of subsidized, fund-generating swaps.¹⁴⁷ However, unlike early DFN privately funded swaps, subsidized by grants from USAID, the new wave of subsidized swaps are primarily publicly funded, with small NGO-funded subsidies to supplement the debt reduction and conservation efforts.¹⁴⁸ The rise of these subsidized DFN swaps represents a return of NGOs to the DFN world and the process of negotiating the environmental conditionalities therein.

Indonesia, the United States, the CI, and the Yayasan Keanekaragaman Hayati Indonesia (“KEHATI”) negotiated one of the more recent subsidized TFCA DFN swaps in 2009.¹⁴⁹ In the largest DFN swap to date under the TFCA, the United States pledged to “forgive nearly [U.S.] \$30 million in Indonesian debt in return for . . . agree[ment] to protect forests on Sumatra Island, which is home to endangered tigers, elephants, rhinos and orangutan.”¹⁵⁰ In addition, both the CI and KEHATI committed one million U.S. dollars to the exchange.¹⁵¹ The United States had been aiming to negotiate a DFN swap with Indonesia, a nation with one of the fastest rates of deforestation in the world,¹⁵² since the TFCA’s enactment.¹⁵³ In addition to the availability of restructured debt and its high rate of deforestation, Indonesia was a

¹⁴⁷ See SHEIKH, *supra* note 23.

¹⁴⁸ See *id.* at tbl.4 n.b. Publicly funded, privately subsidized DFN swaps under the TFCA account for seven of the first twelve TFCA DFN swaps, accounting for U.S. \$9.6 million in private funds leveraged. *Id.* at tbl.4.

¹⁴⁹ Press Release, Conservation Int’l, US to Forgive \$30M Debt to Protect Sumatra’s Forests (June 30, 2009), available at http://www.conservation.org/sites/gcf/news/Pages/debt_for_nature_sumatra.aspx.

¹⁵⁰ Tom Wright, *U.S. to Forgive Indonesian Debt in Exchange for Conservation Plan*, WALL ST. J., July 1, 2009, at A10, available at <http://online.wsj.com/article/SB124633204676171767.html>.

¹⁵¹ Press Release, Conservation Int’l, *supra* note 149.

¹⁵² Wright, *supra* note 150.

¹⁵³ See Freeland & Buckley, *supra* note 36, at 97 (“In a 1998 feasibility assessment, USAID concluded that ‘[d]ebt-for-nature swaps are likely to be feasible in Indonesia and should be actively pursued as a debt relief and conservation funding mechanism.’” (footnote omitted)).

particularly clear target because of the substantial dip in conservation funding caused by the East Asian crisis of the late 1990s.¹⁵⁴

The need for a DFN swap to fund conservation efforts in Indonesia is well documented,¹⁵⁵ however, the actual contours of the Indonesia-U.S. DFN agreements are shrouded in mystery. While Indonesia and the United States memorialized the restructuring of debt on June 30, 2009,¹⁵⁶ the “Forest Conservation Agreement” was executed as an agreement only among Indonesia, the CI, and KEHATI.¹⁵⁷ Interestingly, the TFCA, while requiring a Forest Conservation Agreement in all DFN swaps, does not require the United States to be a party to any such agreement.¹⁵⁸ Further, the TFCA only requires that the agreement itself meet the substantive criteria of the TFCA in setting up the Tropical Forest Fund.¹⁵⁹ Thus, while the general framework of the Indonesia-CI-KEHATI Agreement is predictable, the idiosyncrasies of the Agreement and its treatment of indigenous peoples — like the expansive reading of the TFCA provided by the Bangladesh-U.S. DFN swap — remain hidden (in the United States at least) from public scrutiny.

Nonetheless, both the United States and Indonesia clearly believe that the initial Indonesia-U.S. swap was successful. On September 29, 2011, Indonesia and the United States signed their second DFN agreement under the TFCA (“Indonesia-U.S. II”).¹⁶⁰ The Nature Conservancy (“TNC”) and the WWF joined the agreement as well, with each organization contributing two million U.S. dollars to the swap.¹⁶¹ The agreement is structured to “reduce Indonesia’s debt payments to the U.S. Government over the next eight years by nearly \$28.5 million,” with Indonesia redirecting those debt payments to protect forests in Borneo, which “historically has contained some of the

¹⁵⁴ *Id.* Germany and Indonesia completed Indonesia’s first DFN swap in 2006, “under which € 6.25 million has been invested to increase environmental quality through targeted funding for small and micro businesses.” *Id.* at 98.

¹⁵⁵ Indonesia “has one of the fastest deforestation rates in the world, losing an area of forest the size of Switzerland annually.” Wright, *supra* note 150. *But see* Danny Cassimon, Martin Prowse & Dennis Essers, *The Pitfalls and Potential of Debt-for-Nature Swaps: A US-Indonesian Case Study*, 21 GLOBAL ENVTL. CHANGE 93 (2011) (arguing, broadly, that the Indonesia-U.S. swap fails on several levels, including failing to reduce more debt than required to cover conservation fund expenses, failing to demonstrate additionality of the funding, and failing to be large enough to produce positive economic effects). Cassimon et al., however, do recognize that the DFN swap does “increase available resources to Indonesia at the country level” and “is very much in line with current national [environmental] policy.” *Id.* at 93.

¹⁵⁶ Agreement Regarding Debt-for-nature Swap with Respect to Certain Debt Owed by the Government of the Republic of Indonesia to the Government of the United States of America, U.S.-Indon., June 30, 2009, Hein’s No. KAV 8709.

¹⁵⁷ *See id.* art. I, § 1.1(o).

¹⁵⁸ *See* 22 U.S.C. § 2431g(a)(1) (2006) (“The Secretary of State is *authorized* . . . to enter into a Tropical Forest Agreement” (emphasis added)).

¹⁵⁹ *See* 22 U.S.C. § 2431g(b); *see also* EAI, 22 U.S.C. 2430g(b) (listing requirements for both EAI and TFCA agreements).

¹⁶⁰ Press Release, U.S. Dep’t of State, Second Debt-for-Nature Deal to Save Forests in Indonesia (Sept. 29, 2011), *available at* <http://www.state.gov/r/pa/prs/ps/2011/09/174803.htm>.

¹⁶¹ Press Release, The Nature Conservancy, U.S. and Indonesia Announce \$28.5 Million Debt Swap To Protect Borneo’s Tropical Forests (Sept. 29, 2011), *available at* <http://www.nature.org/newsfeatures/media/pressreleases/nature-conservancy-borneo-debt-swap.xml>.

world's most remote and biologically-rich forests."¹⁶² A WWF official hailed the swap as a "winning situation for Indonesia — enabling it to use these funds to protect globally spectacular biodiversity in the heart of Borneo and fight climate change."¹⁶³ Indonesia has turned conservation and rehabilitation of its forests — the largest source of the country's carbon pollution — into a linchpin in its "pledge to fight climate change by reducing [its] carbon dioxide emissions by up to 41 percent by 2020."¹⁶⁴ Thus, the projects funded under the Indonesia-U.S. II swap will likely target redressing the effects of carbon-unsustainable agricultural and logging practices (particularly oil palm plantations and illegal logging) by "investing in improved land-use planning to direct development to already degraded lands, improved management of protected areas, and other critical measures to reduce forest destruction, while supporting economic growth and local communities."¹⁶⁵

While it is too early to evaluate substantively the effects of either of the Indonesia-U.S. DFN swaps on indigenous rights within the forests of Sumatra and Borneo, some tentative conclusions may be drawn. First, the reentry of global NGOs into DFN swaps in the 2000s is not coincidental. Northern NGOs pioneered the DFN mechanism in the late 1980s to make substantial environmental gains through fairly small amounts of money by Northern standards. However, the failure of the privately funded DFN swap to affect significantly the debt crisis within participating developing countries, along with accusations of NGOs violating both national and indigenous sovereignty, paved the way for the better financed, publicly funded DFN swaps of the 1990s that, for the price of structural adjustments, did have the effect of reducing almost U.S. \$1 billion in Latin American debt.¹⁶⁶ But, in the 2000s, with the rise of climate change as an issue on the global conscience,¹⁶⁷ Northern NGOs found another opportunity to reinsert themselves into the DFN swap mechanism as an expert participant in swaps meant to address climate change¹⁶⁸ and, in particular, preservation of forests as carbon sinks

¹⁶² Press Release, U.S. Dep't of State, *supra* note 160. Borneo is "home to a large number of treasured animal species such as orangutans, clouded leopards, and 'pygmy' elephants," as well as "up to 15,000 different flowering plants." *Id.*

¹⁶³ Press Release, The Nature Conservancy, *supra* note 161.

¹⁶⁴ *Id.* Additionally, the Indonesia-U.S. II swap is a small part of a "comprehensive partnership" between Indonesia and the United States on the environment and climate change. See Press Release, U.S. Dep't of State, U.S.-Indonesia Environment and Climate Cooperation (Nov. 18, 2011), available at <http://www.state.gov/r/pa/prs/ps/2011/11/177385.htm>.

¹⁶⁵ Press Release, The Nature Conservancy, *supra* note 161.

¹⁶⁶ See SHEIKH, *supra* note 23, at tbl.3.

¹⁶⁷ See Cassimon et al., *supra* note 155, at 94 (noting that the search for "novel financing mechanisms" for carbon emission reductions reinvigorated the discussions of debt-for-nature, "now framed as much in terms of carbon storage as protecting biodiversity"). For an indication of the truly global consciousness of climate change, see *Global Members, LOCAL GOV'TS FOR SUSTAINABILITY, INT'L COUNCIL FOR LOCAL ENVTL. INITIATIVES*, <http://www.iclei.org/index.php?id=11454> (last visited Jan. 7, 2012) (on file with the Harvard Law School Library).

¹⁶⁸ For an article-length discussion about how tropical deforestation, though excluded from early climate change treaties, has become a central focus in climate change mitigation efforts, see Boyd, *supra* note 1.

and stores.¹⁶⁹ As long as climate, and thus the preservation of existing tropical forests, is a focus of DFN swap targeting and negotiations, Northern NGOs are likely to continue providing financial support, however insignificant it might be, for a seat at the bargaining table.

A second tentative conclusion that can be drawn from the Indonesia-U.S. DFN swap is that while allowing the negotiation of the Forest Conservation Agreement to occur between the debtor state (Indonesia), a global NGO (the CI) and a local NGO (KEHATI) is permissible under the TFCA, it may not be the best public policy for promoting transparency,¹⁷⁰ as well as indigenous rights, in the DFN process. The rights of indigenous peoples center upon somewhat procedural guarantees of self-determination and free, prior, and informed consent; however, as noted above, the shape that this process takes has real substantive effects on the manifestation of the rights. Likewise, while the TFCA guarantees that Forest Conservation Agreements provide certain procedures, the particularities of the specific agreement can expand and contract around the ambiguities of the statutorily guaranteed processes. As much as the Bangladesh-U.S. DFN swap was able to expand upon and strongly support a preference for conservation projects that enhance the livelihood of indigenous groups, the Indonesia-CI-KEHATI agreement could restrict the interpretation of indigenous rights down to the “individual” level supported by the TFCA. While such a hypothetical is obviously a worst-case scenario, it nonetheless underscores the potential danger of DFN swap agreements that are not publicly available.

IV. MOVING FORWARD: RESPECTING INDIGENOUS RIGHTS IN FUTURE DEBT-FOR-NATURE SWAPS

This Part provides a few ideas about the directions that DFN swaps may or should be evolving. It also seeks to frame these ideas in a manner that evaluates their environmental and economic effectiveness, but with particular attention toward providing stronger protection and respect for indigenous rights. This Part divides these ideas into four sections: evolutionary typologies, progressive procedural evolution, responsive synergetic evolution, and a reconsideration of debt-for-nature.

¹⁶⁹ Additionally, and more cynically, this potential shift of DFN swaps back to the prescriptive preservation of existing ecosystems — in contrast to the more mixed, sustainability-based projects funded by AF after the Bangladesh-U.S. swap — may also present a significantly high enough “conservation return” to substantiate the significant cost to an NGO of providing over one million U.S. dollars in a given swap.

¹⁷⁰ Indeed, ever since the Bolivia-CI swap’s publicity debacle, *see supra* Part III.A, the importance of transparency should be lost on neither scholars nor swap architects. *See* CARLOS A. QUESADA MATEO, U.N. FOOD & AGRIC. ORG., DEBT-FOR-NATURE SWAPS TO PROMOTE NATURAL RESOURCE CONSERVATION 20 (1993) (“The [Bolivia-CI] agreement should have been made public immediately so that its specific terms could be understood.”).

A. Evolutionary Typologies

Much can be said for the assertion that DFN swaps may have reached the proverbial “end of history.”¹⁷¹ DFN swaps occurring around the world are structurally similar to those occurring in the United States,¹⁷² and for good reason: bilateral, fund-generating DFN swaps bring to the table the potential for significant debt relief and create substantial, potentially sustainable, funding for conservation efforts. All the while, these swaps pose little threat to national sovereignty and pass enforcement responsibilities on to local NGOs with the proper incentives to fulfill the conservation mission. In addition, the rise of subsidization of bilateral DFN swaps demonstrates that NGOs, who have been long-time facilitators in the DFN swap process, are capable and willing to contribute funds to the DFN process when they feel the object of conservation is worth the financial contribution to get a seat at the negotiating table.

Nevertheless, while DFN swaps may have evolved to the bilateral, fund-generating swap (with occasional NGO subsidization) as the ideal typology, there still exists room within that typology for further evolution. Questions remain about where subsidizing NGOs fit into the structure of the bilateral typology; in the Indonesia-U.S. swap, CI and KEHATI were minor creditors, but commanded significant amounts of power in that they, and not the United States, negotiated the Fund Agreement with Indonesia. Further, the growth of global NGO contributions to bilateral DFN swaps could have significant effects on the shape that the average swap takes. The United States has understandably favored a hands-off approach toward the on-the-ground implementation of conservation efforts. This approach reflects the fact that, to the United States, DFN swaps represent foreign aid more than they do quid pro quo arrangements, and that moving toward more binding and significant equity-side demands approaches the slippery slope of intrusion upon debtor nation sovereignty that plagued early DFN swaps.

In contrast, global NGOs have different incentives than creditor nations like the United States. To NGOs participating in DFN swaps, the capital provided is not repurposed aid, but is more likely repurposed project funding; therefore, NGOs have stronger incentives to ensure that project implementation results in gains commensurate to that of other projects that could have been funded with the DFN swap money.¹⁷³ As a result, the global NGO

¹⁷¹ Philosophers, political scientists, and economists have used the “end of history” as a description for particular social, political, or economic systems that are believed to represent the terminal point in humanity’s evolution of governance. See, e.g., FRANCIS FUKUYAMA, *THE END OF HISTORY AND THE LAST MAN* (1992); Henry Hansmann & Reiner Kraakman, *The End of History for Corporate Law*, in *CONVERGENCE AND PERSISTENCE IN CORPORATE GOVERNANCE* 33 (Jeffrey N. Gordon & Mark J. Roe eds., 2004).

¹⁷² See, e.g., Press Release, World Wildlife Fund, *supra* note 56.

¹⁷³ In this sense, there is a new additionality problem for NGOs to consider. A participating NGO must calculate not only whether there is local environmental additionality to the DFN swap itself, but also whether its monetary participation in the swap will result in global environmental additionality as compared to its status quo project financing.

incentives are likely to push toward more prescriptive, less flexible funds. While under the current typology debtor nations are the limiting actor in protecting indigenous rights, the rise of global environmental NGOs as negotiating parties in subsidized bilateral swaps may reveal that these entities are actually the biggest threat to the on-the-ground promotion and protection of indigenous rights under DFN swaps.

In addition, while the formal bilateral structure of DFN swaps may have evolved to its end form, the processes within that typology and the interactions between the typology and exogenous programs are not set in stone. The next two subsections take up some of these avenues for evolution with regard to the rights of indigenous peoples.

B. *Progressive Procedural Evolution*

Process and procedural protections are double-edged swords. While procedural reforms can provide significant protections and result in substantive changes in outcome, research has also shown that seemingly “fair” processes create institutional legitimacy that is a key factor in the subjective determination of whether an outcome is just or unjust.¹⁷⁴ Thus, the challenge in the design of procedural reforms is to ensure that the substantive gains for indigenous peoples stemming from such reform equal or preferably outweigh the ability of the process to legitimate unfair outcomes.¹⁷⁵ One of the most basic procedural reforms would be providing a guaranteed voice for indigenous peoples — something lacking in the current statutory DFN swap framework.¹⁷⁶ In their strongest form, new DFN statutes could require that indigenous groups have a veto right for projects funded by the swap and proposed to be undertaken on lands the indigenous groups traditionally or presently occupy. Perhaps most importantly, the veto right would act as a property rule of exclusion for indigenous communities by creating a prop-

¹⁷⁴ See Tom R. Tyler, *Psychological Perspectives on Legitimacy and Legitimation*, 57 ANN. REV. PSYCHOLOGY 375, 375 (2006) (“Legitimacy is a psychological property of an authority, institution, or social arrangement that leads those connected to it to believe that it is appropriate, proper, and just.”); see also *id.* at 382–84 (describing “what legitimates authorities and institutions”). Advocates for “rule of law” should be particularly aware of this psychological phenomenon, as they argue that it is worth nothing “to have laws and policies — even if these laws and policies conform to human rights standards — . . . [if they are] systematically circumvented.” PETER UVIN, HUMAN RIGHTS AND DEVELOPMENT 178 (2004).

¹⁷⁵ Of course, it must be noted that not all procedures are created equally, and that even procedures designed to be participatory may not have legitimating effects. See, e.g., Biljana Macura et al., *Local Community Attitudes Toward Forests Outside Protected Areas in India. Impact of Legal Awareness, Trust, and Participation*, ECOLOGY & SOCIETY, Sept. 2011, available at <http://www.ecologyandsociety.org/vol16/iss3/art10/ES-2011-4242.pdf> (finding a “negative association between attitudes toward reserved forest and participation in forest management groups” and attributing such attitudes to “deep power structures incorporated into those [participatory] groups [that prevented] all voices [from] being heard properly”).

¹⁷⁶ True, both the EAI and TFCA give priority to projects that involve the participation of local communities; however, the participation envisioned is underdefined. For the seminal work defining the “ladder of participation” typologies in local and community planning, see Sherry R. Arnstein, *A Ladder of Citizen Participation*, 35 J. AM. PLANNING ASS’N 216 (1969).

erty right exercisable as a defense against undesired projects even where land tenure had not been formalized under the debtor nation's laws. The veto right would ultimately require the meaningful participation of indigenous groups under projects funded by the swap without directly prescribing specific participation processes. Meaningful participation, aside from directly embodying the rights of an indigenous community to have a voice regarding the future of its lands, also indirectly bolsters indigenous rights through knowledge-sharing that promotes understanding among parties.¹⁷⁷ Of course, there are many issues with proposing such a right.

First, there would likely be pushback from debtor nations fearing the power that it gives indigenous communities to resist environmental programs. However, the right is limited in that it only applies to programs and projects funded through the swap and is a significantly more modest proposal than one requiring complete land tenure reform as a prerequisite for participation in DFN swaps.¹⁷⁸ Perhaps more importantly, in implementation the veto right requires some guarantee of participatory organization within and among indigenous communities. Indeed, the organizational capacity of communities to utilize and defend their veto right may be the limiting factor in the success of such a proposal.¹⁷⁹

However, the procedural rights of indigenous peoples can also be bolstered in ways that avoid the organizational difficulties of often small and distinct communities. One particular procedural reform could be the requirement of an outside party serving as an ombudsman for indigenous issues. Such an ombudsman would strengthen the veto right for indigenous peoples by both ensuring community awareness of its rights and also by judging if and when rights violations occur. The ombudsman, perhaps chosen from international or regional NGOs specializing in indigenous issues,¹⁸⁰ would have the power to send disputed projects to an appeals board for final decisions on the adequacy of the project's process of local participation and

¹⁷⁷ See Tim O'Riordan & Susanne Stoll-Kleeman, *Deliberative Democracy and Participatory Biodiversity*, in *BIODIVERSITY, SUSTAINABILITY AND HUMAN COMMUNITIES: PROTECTING BEYOND THE PROTECTED* 87, 106–07 (Tim O'Riordan & Susanne Stoll-Kleeman eds., 2002) (arguing that “[s]haring knowledge and understanding is vital for the success of protected areas [because a]ll stakeholders have uniquely different perspectives as to what is a problem and what constitutes improvements”).

¹⁷⁸ Such a conditionality could form the basis for a new generation of prerequisites for DFN swaps, replacing the structural adjustments policies of the EAI and TFCA. However, I recognize that the palatability of such conditionalities to debtor nations might be so low as to effectively end the implementation of DFN swaps in many of the most deserving developing nations. I take up the potential of what I call “debt-for-stewardship” swaps *infra* Part IV.D.

¹⁷⁹ See Shmeuli & Khamaisi, *supra* note 68, at 110 (“United internal leadership and cohesive voice are necessary to preserve and regain cultural and territorial rights and win the support of national and transnational civil society networks. This requires the building of strong internal organizational capacities through the creation of representative bodies and improved leadership.”) (citing *SUSSKIND & ANGUELOVSKI*, *supra* note 50, at 47); see also O'Riordan & Stoll-Kleeman, *supra* note 177, at 107–08 (noting similar capacity-based impediments to implementing “people-inclusive” participatory approaches in biodiversity projects).

¹⁸⁰ Examples of NGOs that could potentially provide ombudsman support include Native Planet, Survival International, and the Indigenous Environmental Network.

perhaps the approval of the project itself. Of course, selection of parties to serve on the appeals board would be critical to upholding the values of the veto right and ombudsman oversight. One suggested arrangement would be a board composed of one representative from the United States, one representative from the debtor country, and one ad hoc representative appointed by the aggrieved indigenous communities. By only requiring two votes to overturn approval of a project, the appeals board would significantly deter the violation of veto rights or any other indigenous rights that may be built into the next generation of DFN swaps; further, such a reform would nearly ensure that indigenous peoples enjoy their rights to self-determination and participation in the planning for the future of their lands.¹⁸¹

In addition, either the DFN enabling statute or the swaps themselves could turn the preference for indigenous- and community-based projects into a mandated priority whereby projects with significant community involvement and approval gain automatic acceptance over projects that do not engage local communities. However, while such a statutory reform initially seems significant, further reflection demonstrates that its effects would be difficult to predict *ex ante*. For instance, the implementation of veto rights and ombudsman overview may render the effects of a community-based project preference insignificant. Additionally, without veto rights or ombudsman overview, the effect of an indigenous- or community-based project preference is ambiguous: the preference would create a greater market for community-based projects, but these projects would be formulated and implemented under the status quo processes that do not necessarily provide or protect indigenous rights. Thus, while a priority status for indigenous-based projects may initially seem favorable, it has all of the trappings of a reform that may have little to no substantive impact on actual outcomes but may nonetheless act to legitimate the process and its outcomes as fair and just toward indigenous peoples.

C. Responsive Synergetic Evolution

In looking to the future of DFN swaps, swap architects must also turn to the trends in the burgeoning field of international environmental law over the past twenty-five years to determine where changes exogenous to DFN swaps present opportunities for synergy and responsive evolution. One particular potential for programmatic synergy worth highlighting exists between

¹⁸¹ Indeed, creating an indigenous veto right and appeals body guarantees that decision-making processes will be open and informative, effectively encapsulating three out of the four conditions that some scholars identify as necessary for meaningful participation: "(1) access to information and education about the issue involved; (2) inclusion in an open decision-making process; (3) the ability to appeal decisions to an independent body; and (4) review of the project's success." Sean T. McAllister, Note, *Community-Based Conservation: Restructuring Institutions to Involve Local Communities in a Meaningful Way*, 10 *COLO. J. INT'L ENVTL. L. & POL'Y* 195, 202 (1999) (citing Neil A.F. Popovic, *The Right to Participate in Decisions that Affect the Environment*, 10 *PACE ENVTL. L. REV.* 683, 691 (1993)).

DFN swaps and the Clean Development Mechanism (“CDM”) of the Kyoto Protocol.¹⁸² The CDM aims to assist developing countries in attaining sustainable development by allowing developing countries to host conservation projects, such as forest or peat bog reserves, that qualify for “certified emission reduction” carbon credits that can be sold on the market to developed nations aiming to meet their obligations under the Kyoto Protocol.¹⁸³ Because landscape preservation results in the continuous accumulation of stored carbon in flora and soils, the CDM provides an opportunity for ongoing funding for conservation projects.

In 1997, the Borneo Orangutan Survival Foundation (“BOS”) recognized the vast synergetic potential in combining the market mechanisms of DFN swaps and the CDM.¹⁸⁴ Having saved a 364,000-hectare area from becoming an oil palm plantation in 1997, Indonesia asked BOS to negotiate DFN exchanges to provide funding for the continued protection of the area. However, BOS had grander plans for the bilateral swap, envisioning that instead of being fund-generating, the swap would be prescriptive and transfer title of the preserve to BOS for perpetual management.¹⁸⁵ BOS would then gain continued financing through the CDM “whereby preservation of peat swamps could create a sustainable income through a voluntary carbon offset program.”¹⁸⁶ BOS’s synergetic plan was innovative in its simplicity and represents an opportunity to swing the pendulum of DFN swaps, now bolstered by CDM funding, back to prescriptive mandates. Though initially promising, negotiations continue and no formal agreements have been signed;¹⁸⁷ further, the likelihood of the BOS swap — at least involving the United States — seems to be dwindling considering the recent Indonesia-U.S. swap to protect Borneo forests in September 2011.¹⁸⁸

While promising as a mechanism to fund conservation measures, the effects of such synergetic reforms on indigenous communities are not clear. A return to more prescriptive DFN swaps brings back visions of the failure of the Bolivia-CI swap; however, the swap this time, envisioned under the goals of both biodiversity and climate change mitigation, may lead commentators to ignore the violations of indigenous rights. In implementation, the

¹⁸² Kyoto Protocol to the United Nations Framework Convention on Climate Change, Dec. 10, 1997, 37 I.L.M. 22.

¹⁸³ See generally *id.* art. XII.

¹⁸⁴ See Freeland & Buckley, *supra* note 36, at 97–101.

¹⁸⁵ *Id.* at 98–99.

¹⁸⁶ *Id.* at 99.

¹⁸⁷ *Id.*

¹⁸⁸ See *supra* Part III.D. However, the Indonesia-U.S. II DFN swap will be used, in part, to fund TNC’s “Berau Forest Carbon Programme . . . [.] the most comprehensive district-based REDD+ demonstration activity in Indonesia.” Jenny Marusiak, *Borneo Rainforest Conservation Banking on Indonesian Debt*, ECO-BUSINESS.COM (Oct. 4, 2011), <http://www.eco-business.com/features/borneo-rainforest-conservation-banking-on-indonesian-debt>. Thus, while the BOS swap may never see fruition, its theory is being applied in the most recent Indonesia-U.S. swap.

CDM, with its objective of “cost-efficient [carbon] emission reductions,”¹⁸⁹ has faced criticism for its negative impacts on indigenous communities and its limited support in the short-term to local sustainable development.¹⁹⁰ In identifying and implementing the synergetic possibilities between DFN swaps and other sustainability-financing opportunities like the CDM, it will be important to heed the World Resource Institute’s warning: “Without careful assessment of the noncarbon attributes, there is a danger that the CDM will become little more than a cost-reduction tool for developed countries legitimized by incidental secondary benefits that may or may not be consistent with developing country priorities.”¹⁹¹

A more promising DFN-climate synergy may exist in what one scholar calls “climate change adaptation exchanges.”¹⁹² Instead of capitalizing climate change mitigation measures, such as carbon sequestration through forest conservation, debt-for-adaptation swaps would finance projects either targeted at preparing for particular climate change impacts, such as adaptation for a future rise in sea levels, or particular “climate vulnerable sectors,” such as water or food security.¹⁹³ Unlike a potential DFN-CDM synergetic reform, debt-for-adaptation does not foreshadow a return to the prescriptive practices that plagued indigenous rights in early DFN swaps.

¹⁸⁹ Christoph Sutter & Juan Carlos Parreño, *Does the Current Clean Development Mechanism (CDM) Deliver on its Sustainable Development Claim? An Analysis of Officially Registered CDM Projects*, 84 CLIMACTIC CHANGE 75, 76 (2007).

¹⁹⁰ See Mary Finley-Brook & Curtis Thomas, *Treatment of Displaced Indigenous Populations in Two Large Hydro Projects in Panama*, 3 WATER ALTERNATIVES 269, 273–80 (2010) (describing how two large-scale Panamanian hydroelectric projects seeking CDM verification exhibited “persistent disrespect” for fundamental indigenous rights); Sutter & Parreño, *supra* note 189, at 75 (finding that less than one percent of CDM projects are likely to “contribute significantly to sustainable development in the host country”); cf. DUNCAN AUSTIN ET AL., WORLD RES. INST., HOW MUCH SUSTAINABLE DEVELOPMENT CAN WE EXPECT FROM THE CLEAN DEVELOPMENT MECHANISM? 2 (1999) (urging that in evaluating the success of the CDM, one must consider whether specific projects promote sustainability goals and whether those sustainability goals are consistent with developing nation priorities).

¹⁹¹ AUSTIN ET AL., *supra* note 190, at 2–4. This skepticism of the CDM may be overblown. After all, to qualify for CDM credit, projects must engage with a broader definition of sustainability than simply carbon capture. *Id.* However, with regard to projects occurring on indigenous lands, it is not necessarily the case that “projects that fail to address both participants’ needs are unlikely to get off the ground” without more robust protection of indigenous rights. *Id.* at 4. For a variety of reasons, the rise of global climate change mitigation and carbon sequestration as goals of DFN swaps seems dangerous to the fundamental conception of DFN swaps. See Mark Cherrington, *Indigenous Peoples and Climate Change*, CULTURAL SURVIVAL Q., Summer 2008, available at www.culturalsurvival.org/publications/cultural-survival-quarterly/none/indigenous-peoples-and-climate-change (“One of the cruelest ironies is that some of the biggest current threats to indigenous lands are efforts to alleviate global warming.”). Prescriptive programs, which are necessary in sequestration schemes that attempt to maintain current floral and soil carbon stocks, are less likely to protect indigenous rights and this shift to carbon primacy threatens biodiversity, as the most successful carbon sequestration programs are monoculture plantings that provide little environmental or social benefit beyond carbon capture. See *id.*

¹⁹² See Philip Ireland, *Climate Change Adaptation Exchanges: An Exploration of the Possibilities and Risks*, in DEBT-FOR-DEVELOPMENT EXCHANGES: HISTORY AND NEW APPLICATIONS, *supra* note 44, at 223–24.

¹⁹³ See *id.* at 229–32.

Indeed, debt-for-adaptation swaps have the potential to be extremely beneficial for indigenous communities. Climate change is a significant threat to many indigenous communities that, because of their “closeness to the land[,] . . . suffer the consequences of [climate change] to a far greater degree than others.”¹⁹⁴ Further, the projects envisioned under debt-for-adaptation swaps would function similarly to those capacity-building projects under the Bangladesh-U.S. swap, and as a result conceptually fit well within the current DFN framework and could easily be folded into the current portfolio of allowable projects under the TFCA. Thus, while the synergetic marriage of DFN and climate change adaptation may not be available on as large of a scale as a DFN-CDM synergy, the synergy is certainly implementable, with the potential to affect positively the livelihoods of indigenous peoples on micro-scales as fundable DFN swap projects.

Of course, additional opportunities for synergies between DFN swaps and multilateral environmental agreements exist.¹⁹⁵ However, it is worth considering changes outside of the field of international environmental law over the past quarter-century as well. In this respect, the global economic climate has changed significantly and, more specifically, many scholars now consider the structural adjustment policies of the 1980s and 1990s to be a counterproductive failure.¹⁹⁶ Yet, they remain embedded as conditionalities in the U.S. DFN swap framework. As mentioned above, many scholars link structural adjustment policies and austerity measures to higher rates of environmental degradation and exploitation,¹⁹⁷ exploitation that is likely to have a disproportionate impact on the rights and livelihoods of indigenous groups.¹⁹⁸ It is a theoretically simple statutory reform to remove the macroeconomic structural adjustment conditionalities that have existed since the EAI. However, at this point removing the economic conditionalities may be merely symbolic. Most developing countries environmentally eligible for DFN swaps have already swallowed the bitter pill of austerity measures and other institutions and states still require similar conditionalities for other debt relief programs.¹⁹⁹ Thus, the extent to which a change in debtor country

¹⁹⁴ Cherrington, *supra* note 191. While indigenous peoples have “dealt with climate change and environmental upheaval for thousands of years . . . the possibility of relocating, which was the most common adaptation . . . in the past, is no longer an option in today’s vastly overcrowded world.” *Id.*

¹⁹⁵ See *infra* Part IV.D for a discussion of the “debt-for-treaty” concept that briefly explores further synergies.

¹⁹⁶ See, e.g., UVIN, *supra* note 174, at 67–69 (summarizing the arguments of many critics that “not only does [structural adjustment] conditionality not achieve its purpose, but it actually undoes what it seeks to promote”).

¹⁹⁷ See, e.g., Greener, *supra* note 3, at 147–48 (noting that “austerity measures within domestic budgets have reduced the funding for any conservation and resource management projects that the governments had initiated, stagnating or destroying any advances they had made”).

¹⁹⁸ Cf. HUNTER ET AL., *supra* note 5, at 1355–56 (noting the location of indigenous lands in resource-rich areas and the political and economic marginalization of indigenous peoples).

¹⁹⁹ For example, the Swiss DFN program, the Debt Reduction Facility, imposes economic conditionalities, rule of law requirements, and general debt reduction programs on debtor

requirements under TFCA, for example, may influence broader macroeconomic trends in the developing world seems marginal at best.

D. *Reconsideration of “Debt-for-Nature”*

At this point, it may be worthwhile to reconsider the concept of DFN swaps altogether. In many ways, one could rightly conclude that the DFN swap experiment is a complete failure. Nature as a concept is generally related — consciously or not — to the ideals of “wilderness”²⁰⁰ and the “romantic epiphany” of the early twentieth-century preservationists and the American Park System.²⁰¹ However, as the Bolivia-CI swap demonstrated, such romantic conceptions of nature as purity come into direct conflict with both national and indigenous sovereignty. Thus, DFN swaps have evolved to avoid the inevitable conflict of the Northern concept of nature with sovereignty; rather than “debt-for-nature” swaps, a better description of the current status quo may be: “debt for the creation of institutions that, among other things, benefit the natural world” swaps.²⁰² With this in mind, a few new conceptions of DFN swaps are worth considering.

First, it is necessary to place DFN swaps in their context as “debt-for-development” (“DFD”) swaps. While DFN swaps were developed first, DFD swaps arose quickly to address the ills of abject poverty in the developing world.²⁰³ Following the atypical Ecuador-Harvard University debt-for-education swap in 1990,²⁰⁴ European nations adopted the bilateral, fund-generating typology for debt-for-education swaps to fund local schools in South America and Africa.²⁰⁵ After the adoption of the Millennium Development Goals, debt-for-health swaps arose as a new manifestation of debt-for-devel-

countries participating in swaps. ORG. FOR ECON. CO-OPERATION AND DEV., HANDBOOK OF MARKET CREATION FOR BIODIVERSITY: ISSUES IN IMPLEMENTATION 146 (2004).

²⁰⁰ See William Cronon, *The Trouble with Wilderness; or, Getting Back to the Wrong Nature*, in UNCOMMON GROUND: RETHINKING THE HUMAN PLACE IN NATURE 69, 80 (William Cronon ed., 1996) (“[W]ilderness serves as the unexamined foundation on which so many of the quasi-religious values of modern environmentalism rest. . . . Wilderness is the natural, unfallen antithesis of an unnatural civilization that has lost its soul. . . . Most of all, it is the ultimate landscape of authenticity.”).

²⁰¹ See Purdy, *supra* note 1, at 173–74 (“Romantic epiphany has seemed a way to salvage individuality and meaning from a disenchanted and pervasively managed world. . . . The leading way of talking about the value of national parks, as a kind of secular cathedral, is also a direct legacy of romantic epiphany.”).

²⁰² Cf. Gockel & Gray, *supra* note 17 (“Although [TFCA] projects probably have effects on nature conservation, debt-for-nature swap projects largely do not measure [those effects] in ways that can demonstrate impact or be communicated to the public. The current methods of measuring success — monies awarded and hectares protected — do not reflect the types of conservation impacts of projects.”).

²⁰³ See generally Buckley, *supra* note 30 (discussing debt-for-education and debt-for-health swaps).

²⁰⁴ See *id.* at 62–63 (describing a swap whereby Harvard University used Ecuador’s debt payments to create an endowment fund to pay for Ecuadorean students to attend Harvard).

²⁰⁵ *Id.* at 62.

opment. The U.N. Declaration of Commitment on HIV/AIDS²⁰⁶ called for “new, additional and sustained” resources to address HIV/AIDS in the developing world and highlighted DFD swaps as one available fund-generating mechanism.²⁰⁷ The world responded through Debt2Health, a new DFD typology organized trilaterally between debtor nations, creditor nations, and the Global Fund to Fight AIDS, Tuberculosis and Malaria.²⁰⁸ The Global Fund “proposed itself as a third party in debt exchange negotiations which seek to persuade creditor nations to forgo payment of sovereign debts if the debtor nation pays a portion of the amount owed in local currency to the Global Fund.”²⁰⁹ Recently, scholars have also proposed debt-for-microfinance,²¹⁰ debt-for-security,²¹¹ and debt-for-governance²¹² swaps as more novel manifestations of the DFD paradigm.

While still nascent, these DFD exchanges present an opportunity for DFN to be rebranded as what it has actually evolved to become.²¹³ The projects of the Bangladesh-U.S. swap seem far more developmental and capacity-building than they are preservation-minded. Of course, the projects have environmental benefits; but the benefits are so often necessarily inseparable from the progress of indigenous peoples and local communities that calling the projects purely “environmental” is dishonest and perhaps

²⁰⁶ G.A. Res. S-26/2, U.N. Doc. A/RES/S-26/2 (Aug. 2, 2001), available at <http://www.un.org/ga/aids/docs/aress262.pdf>.

²⁰⁷ See *id.* (calling “for speedy and concerted action to address effectively the debt problems of least developed countries . . . including . . . existing orderly mechanisms for debt reduction, such as debt swaps for projects aimed at the prevention, care and treatment of HIV/AIDS”).

²⁰⁸ Buckley, *supra* note 30, at 64.

²⁰⁹ *Id.* Unfortunately, as suggested above, the trilateral, fund-generating typology has limited application for the original conception of DFN swaps. While the Global Fund has aligned interests in negotiation with both the debtor and creditor nations, global environmental NGOs are likely to have interests that are different in kind, or at least different in scale, from both creditor and debtor nations. Thus, the Global Fund trilateral typology is unlikely to be directly imported to DFN swaps unless the goal and rhetoric of DFN swaps is fundamentally altered to better align the interests of all parties.

²¹⁰ See Joffre Balce, *The Philippines’ Experience with Exchanges*, in DEBT-FOR-DEVELOPMENT EXCHANGES: HISTORY AND NEW APPLICATIONS, *supra* note 44, at 167, 178–79.

²¹¹ See Ross P. Buckley, *Debt-for-Security Exchanges*, in DEBT-FOR-DEVELOPMENT EXCHANGES: HISTORY AND NEW APPLICATIONS, *supra* note 44, at 247, 247 (arguing that the DFD “mechanism has a largely untapped potential — to fund security-enhancing projects”).

²¹² Emmanuel T. Laryea, *Promoting Good Governance through ICT Systems: Improving Transparency and Reducing Corruption*, in DEBT-FOR-DEVELOPMENT EXCHANGES: HISTORY AND NEW APPLICATIONS, *supra* note 44, at 260, 260 (proposing the use of DFD swaps that invest in “information and communication technology” to promote good governance in developing countries); Walker, *supra* note 44, at 305–10 (identifying lack of accountability as an “endemic cause of the debt crisis” and proposing “debt for local governance” swaps to promote accountable service provision).

²¹³ Of course, there are reasons why creditor nations may not want to rebrand DFN swaps. The political cover that romantic ideals of nature provide repackaged aid may be stronger than that which is provided by a swap that is acknowledged as “debt-for-development.” Nonetheless, scholars have posited that even DFD swaps successfully “camouflage debt relief for donor countries . . . [and] make debt relief more politically palatable for donor country governments.” Buckley, *supra* note 30, at 66–67.

counterproductive.²¹⁴ With the rise of DFD swaps addressing health and education, it is worth considering whether all of these endeavors should be grouped together under one larger DFD program. Such a program would recognize that debt-for-nature, debt-for-education, and debt-for-health swaps all attempt to address symptoms of the common disease of global poverty and in implementation could bring out linkages that would go unrecognized and unaddressed in more narrowly conceived swaps and funds. Even without consolidation of DFD swap programs into a single structure, it may be worth reframing DFN swaps as something more like “debt-for-sustainability” swaps.²¹⁵ At the least, the recognition of desired human progress in the name of future swaps may provide substantial protections and potential opportunities to indigenous groups.²¹⁶

Scaling out, it is also worth reconsidering the level of governance at which DFN swaps operate. Rather than moving toward a reconceptualization of debt-for-nature as debt-for-development or debt-for-sustainability, DFN swaps could be reconceived and reframed at more macro-scales to address treaty obligations. After all, treaties represent the global environmental conscience,²¹⁷ and under international environmental law it is common for developed nations to fund developing nations’ efforts to comply.²¹⁸ In addition, debt-for-treaty swaps could be effectively limited to those original concerns of DFN swaps — endangered species and biodiversity — through

²¹⁴ Cf. Cronon, *supra* note 200, at 82 (“And yet protecting the rain forest in the eyes of First World environmentalists all too often means protecting it from the people who live there. Those who seek to preserve such ‘wilderness’ from the activities of native peoples run the risk of reproducing the same tragedy — being forceably [sic] removed from an ancient home — that befell American Indians.”).

²¹⁵ Of course, “sustainability,” like nature, is extremely value-laden and difficult to define. However, the essential premises of sustainability — that economic, environmental, and social progress are simultaneously attainable in a way that protects the options of future generations — is significantly different and better specified than the amorphous concept of “nature.” See, e.g., TIMOTHY BEATLEY & KRISTY MANNING, *THE ECOLOGY OF PLACE* 4, 5 (1997) (“These definitions [of sustainability] share an emphasis on certain important concepts and themes. They stress the importance of living within the ecological carrying capacities of the planet, living off ecological interest, and protecting future generations.”).

²¹⁶ Cf. Cronon, *supra* note 200, at 81 (“To the extent that we celebrate wilderness as the measure with which we judge civilization, we reproduce the dualism that sets humanity and nature at opposite poles. We thereby leave ourselves little hope of discovering what an ethical, sustainable, *honorable* human place in nature might actually look like.”).

²¹⁷ This is true to the extent that in the highly contentious negotiations between the North and the South (and often amongst the North as well) in multilateral environmental agreements, the actionable portions of the final product represent a sort of “least common denominator” agreeable to all nations.

²¹⁸ Interestingly, this common mechanism of multilateral environmental agreements is in direct tension with the “polluter-pays” principle proposed by the OECD in the 1970s to internalize environmental externalities. However, the polluter-pays principle remains “highly controversial, because in developing countries internalizing environmental costs is considered as being too high a burden.” SUMUDU A. ATAPATTU, *EMERGING PRINCIPLES OF INTERNATIONAL LAW* 442 (2006) (footnote and internal quotation marks omitted). Further, with regards to treaty obligations, principles of state sovereignty and common-but-differentiated responsibility prevail over the polluter-pays principles, leading the Global North to fund the treaty compliance efforts of the Global South. See generally HUNTER ET AL., *supra* note 5, at 442–77 (describing the principles that shape international environmental law).

targeted funding mechanisms for the implementation of the United Nations Convention on Biological Diversity (“CBD”)²¹⁹ and the Convention on International Trade in Endangered Species of Flora and Fauna (“CITES”).²²⁰ Without getting into the details of either the CBD or CITES, it is immediately obvious that, with regard to indigenous rights, debt-for-treaty swaps are likely to perpetuate the status quo. By operating at such a high level, debt-for-treaty swaps would create a significant number of degrees of separation between the funding of treaty compliance and the on-the-ground implementation of compliance measures. By providing debtor nations with all of the responsibilities of realizing the singular maximands of a specific treaty, the chance of funded projects sharing common interests with indigenous communities, or even providing participatory opportunities for those affected, falls greatly.

Thus, from an indigenous rights perspective, neither debt-for-development nor debt-for-treaty swaps necessarily represent positive reconceptualizations of DFN swaps. Debt-for-development swaps may possess definitional difficulties and ambiguities that invite exploitation, and debt-for-treaty swaps, by scaling out to the national level, may effectively hide violations of indigenous rights from plain sight and be justified as “indigenous-rights neutral” even when the actual effects are negative. Instead, a better new conceptualization, though a potentially untenable one for debtor nations, is that of debt-for-stewardship swaps. Under debt-for-stewardship swaps, the equity offered by debtor nations would be rural land tenure reform programs that recognize and formalize indigenous rights to their land through the state property system.²²¹ Aside from conditioning land reform, the swaps would also create small funds for the implementation of landscape reclamation by indigenous communities to realize their visions of environmental and economic progress on their newly formalized lands.²²²

²¹⁹ June 5, 1992, 31 I.L.M. 818.

²²⁰ Mar. 3, 1973, 27 U.S.T. 1087, 993 U.N.T.S. 243.

²²¹ While I independently developed this concept, after a thorough review of the literature, it is fitting that the debt-for-stewardship idea was originally proposed by members of the Coica indigenous people in the early years of the DFN movement:

We propose that you swap debt for indigenous stewardship, which would allow your organizations to help return areas of the Amazonian rain forest to our care and control. . . . We propose joining hands with those members of the worldwide environmentalist community who recognize our historical role as caretakers of the Amazon Basin; support our efforts to reclaim and defend our traditional territories; accept our organizations as legitimate and equal partners.

Members of the Coica, *It's Our Rain Forest*, MOTHER JONES, Apr.-May 1990, at 47.

²²² Indigenous peoples can also be given additional, non-alienable property rights, under the principles of *sic utere tuo ut alienum non laedas* and in gross easements. These non-alienable property rights would provide indigenous communities under debt-for-stewardship programs the ability to use their land in any way that did not adversely affect neighboring indigenous communities or property owners (*sic utere* principle); these rights would then extinguish upon alienation of indigenous lands outside of the indigenous community (in gross easement), preventing concerns of industrial capture of the lax land use regulations. *Cf.* HUNTER ET AL., *supra* note 5, at 472–77 (describing the *sic utere* principle); 25 AM. JUR. 2D *Easements and Licenses* § 90 (2011) (describing easements in gross).

It is worth questioning why more scholars do not emphasize the expertise of indigenous communities in utilizing sustainable systems.²²³ Many indigenous groups have lived off of their lands sustainably for millennia and it is often exogenous forces, such as the external population pressure from India in the CHT of Bangladesh, that cause indigenous systems to fail. Beyond emphasizing and relying upon the expertise of indigenous peoples, debt-for-stewardship swaps would also provide the right incentives for community-based conservation to be successful. Debt-for-stewardship swaps would “clearly demarcate the rights and responsibilities” with regard to indigenous lands, “closely connect[] the costs and benefits” of conservation and provide “steady funding” for the implementation of conservation and development measures.²²⁴ While ambitious, debt-for-stewardship programs are possible. Some of the projects under the Bangladesh-U.S. DFN swap resemble the envisioned debt-for-stewardship programs, except that the land tenure reforms occurred prior to the DFN swap itself. Therefore, it is not too difficult to imagine a program that either conditions *ex ante* indigenous land tenure²²⁵ or, perhaps preferably, considers land tenure as part of the equity in the swap. Debt-for-stewardship programs, by recognizing the significant overlap in incentives and goals of indigenous peoples and the sustainability movement, provide the most promising reconceptualization of DFN swaps — one that would both protect and provide real rights of indigenous peoples to self-determination of the future of their communities socially, ecologically, and geographically.

CONCLUSION

The history of DFN swaps is exciting in its constant evolution, searching for the perfect arrangement that maximizes debt relief and conservation efforts while avoiding contentious issues like national sovereignty and the enforceability of environmental commitments. Since the first DFN swap between Bolivia and CI, indigenous rights have emerged as and remain a significant concern in any swap. Though the evolution of the DFN model in

²²³ Of course, outside of the narrow topic area of DFN swaps, many scholars do often make this observation or argument. For example, Gupta argues:

Perhaps the economic class most critical in conserving biodiversity is the one made up of extremely poor people residing in areas of rich biodiversity. As traditional caretakers of abundant biological wealth, these people have developed a vast reservoir of knowledge concerning the sustainable uses of nature. Thus, in order to preserve the biological resources surrounding such local communities, we also need to preserve the knowledge about those resources.

Anil K. Gupta, *Rewarding Local Communities for Conserving Biodiversity: The Case of the Honey Bee*, in PROTECTION OF GLOBAL BIODIVERSITY: CONVERGING STRATEGIES 180, 180 (Lakshman D. Guruswamy & Jeffrey A. McNeely eds., 1998).

²²⁴ See McAllister, *supra* note 181, at 203 (outlining the indispensable considerations in predicting the likelihood of success in community-based conservation projects).

²²⁵ Of course, there would need to be some oversight or guarantees regarding the equity of such reforms.

the United States has not seriously engaged the problem of defining and protecting indigenous communities during DFN swaps, the Bangladesh-U.S. swap demonstrates that the realization of the empowerment of indigenous peoples under projects funded by the current DFN model is possible. And while there exist significant opportunities to build strong indigenous rights into the DFN swap — including veto rights, indigenous ombudsmen, and even debt-for-stewardship programs — it is important to remember that the realization of indigenous rights occurs not in rhetoric, statutes, or declarations, but in on-the-ground projects that have real effects on the lives of real communities. Further research on the intersection of indigenous rights and DFN swaps should attempt to delve deeper into the implementation of funded projects to better determine how the framing and procedural guarantees of indigenous rights at the statutory and treaty levels actually affect the ultimate goal of indigenous self-determination.