

Thematic Paper #6



- Smart Green Infrastructure
- Conservation through Community Incentives
- Capacity-Building
- Landscape-Scale Management
- Addressing Competing Demands
- **Innovative Finance**
- Costing Tiger Conservation



Global Tiger Initiative: Innovative Finance for Tiger Conservation

Draft for Discussion, October 2009¹

Introduction: Potential of Innovative Finance

Innovative finance can mean many things to many people. For the purposes of this paper, innovative finance is defined to include approaches that can help to:

- (a) generate additional development finance by tapping *new* sources – beyond traditional sources like budget outlays from established donors or traditional IFI bonds – or by engaging *new* partners, like emerging donors and the private sector; and/or
- (b) provide tailored development solutions to specific development challenges through financial engineering.

It may be noted that most financial innovations involve combining available financial instruments into a new “package” or applying one or more existing instruments to a new context/setting such as a new sector, country or region. This paper explores options for using innovative financing mechanisms to mobilize funding and design tailored financial solutions for tiger conservation

The active exploration of innovations in development finance dates back to the 2001 United Nations Zedillo Report² and follow-up studies. A decade-long search for “innovative” or alternative sources of Official Development Assistance (ODA) to help finance achievement of the Millennium Development Goals (MDGs) has yielded a number of new ideas and initiatives. Over the past decade, sovereign and private donors have championed an array of initiatives: global solidarity levies proposed by France, frontloading future aid commitments by the United Kingdom, and results-based financing by various actors, including private foundations. Development banks also started issuing new types of bonds that link resource mobilization and development objectives, for example, debt offerings for sustainable investments with climate change-related themes. For their part, developing countries sought not only more financial flows but better financial solutions, for example, partnerships that mobilize private finance for public service delivery, risk mitigation efforts that promote private entry in the productive sectors, and support for carbon trading.

From 2000 through 2008, innovative fund-raising efforts at the global level yielded an estimated US\$57 billion, or about 4.5 percent of total gross official development flows³ The bulk of these efforts involved new debt offerings by development banks (such as bonds issued in developing country currencies or those targeting sustainable investors). Alternative sources of concessional flows including solidarity

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² Zedillo and High-level Panel on Financing for Development 2001. Similar sources of financing were already discussed one decade earlier by Mendez (1992).

³ For details, see “Innovating Development Finance”, CFP Working Paper Series No. 1, World Bank, Washington, DC, June 2009.

levies and contributions from emerging donors totaled at least US\$11.7 billion or 1.3 percent of gross ODA over 2000–8. Carbon finance and frontloading of ODA for global programs, while modest in volume terms, also grew. The World Bank Group accounted for more than a quarter of these innovative fund-raising efforts, primarily through the issuance of a variety of innovative bonds focused on climate-related goals. Examples include the “Cool Bond”, “Eco Bond” and “Green Bond” issued by the Bank’s Treasury; these bonds targeted a new class of sustainable investors.

Efforts involving the use of innovative finance to support **financial solutions** have demonstrated significant potential to help address development challenges – including those related to promoting *global public goods* (where needs extend beyond what market systems or individual countries can do on their own) as well as *country-level solutions* to specific development challenges. At the global level, innovative finance has been used mainly to tackle the challenges of climate change and health. At the country level, innovative finance has been used to help countries deal with various kinds of risks and shocks⁴, leverage private sector resources, for example, through Public Private Partnerships (PPPs), and improve the results focus of development aid, through various types of results-based financing mechanisms.

Financing Options

Revenues from tiger conservation

There are at least four tiger conservation related sources that could generate revenues for tiger conservation. These include: (i) Ecotourism (see Box 1); (ii) Parks management; (iii) Payments for ecosystem services; and (iv) Wildlife-friendly certification. Some of the advantages of these options are that they present sustainable sources of revenue, they can help establish direct links between sources and uses of finance, they can be implemented locally, and they can help engage local communities in tiger conservation and create jobs. On the other hand, their revenue generating potential may be limited, and implementation can be complex and constrained by local capacity, infrastructure and international demand.

Box 1: Ecotourism in Nepal

Mounting pressures on natural resources in the developing nations of Asia make conserving lands adjacent to protected areas an important goal. In Nepal’s Chitwan National Park (an anchor of the Terai Arc Tiger Conservation Landscape) local communities were given the tools and the responsibility to regenerate degraded buffer zone areas, which then became tourist destinations. This generates income that is invested in community development, such as schools and health-care facilities.

What underlies the success of the tourism ecodevelopment project in Chitwan? The key, initial step was a policy change, enacted by the Government of Nepal that enabled communities to share in the revenues generated by tourism to the national park. This was the single most powerful tool for enhancing the success of community-based comanagement of the landscape. Chitwan is also an ecologically forgiving landscape — a flood plain habitat with high resiliency and moderate to potentially high integrity. Thus, the buffer-zone areas in the project regenerated rapidly, attracting both wildlife and tourists within a few years. Moreover, poaching pressure on tigers and prey was relatively low. Remarkably, the project continues to succeed despite the years of conflict and associated down-turn in tourism.

⁴ Innovative financial solutions to address risks related to macroeconomic shocks have included GDP-, commodity price- and inflation-indexed bonds, countercyclical loans, local currency bonds, currency swaps, and other instruments. A variety of catastrophic risk insurance instruments have been piloted to help countries cope with shocks related to natural disasters.

Private sector investment in tiger conservation

The private sector is a powerful player in mobilizing finance and employing it in an efficient, effective, and results-oriented manner. The private sector has access to resources, including private for-profit investors, socially-responsible investors (i.e., investors who are not actively seeking new instruments that support social causes but instead are screening the existing landscape in order to avoid instruments with negative environmental and/or social impacts), impact investors (who actively target their investments toward their environmental and social goals), and public investors such as national and multilateral development banks. These investors differ in terms of the social, economic and financial returns they seek. Some investors expect no financial return except for preservation of the principal (see Kiva.org), some expect a certain amount of financial return but also put a high premium on social impact (impact investing and social responsible investing), and some seek to maximize financial return (conventional foreign direct investment). One example of private investment for biodiversity conservation is the Asian Conservation Company (see Box 2).

Impact investing could target funds to companies and organizations engaged in “best-practice” work in tiger conservation. It would achieve a combination of both social and financial returns, with the funding coming from private investors.⁵ Funds would come from private investors who want a reasonable return on their investments, and believe the instruments they are choosing could also contribute to long-term, sustainable improvement in tiger conservation. Typically, impact investors are looking to support entrepreneurs trying to build viable enterprises that would have social benefits in high-risk environments. Potential targets for impact investing could be private park management and ecotourism.

Subsidies and co-payment arrangements may be effective means to attract private investments into tiger conservation. In the case of an investment opportunity that would provide some returns that are, however, too low to cover costs, or when the size of the market is too small, subsidies and co-payments can top up returns to a sufficient volume and increase the size of the market. Subsidies and copayments may be considered if the private sector is better suited to provide certain conservation services. A recent example from the health sector is the Affordable Medicines Facility for malaria that negotiates with manufacturers of anti-malaria drugs to either reduce the price, or provide a co-payment to buyers to lower the price to a level comparable to less effective alternatives.⁶ Another example is an advance market commitment that ensures future co-payments in order to stimulate private sector investment.⁷

Tax deductions or exemptions may provide incentives to the private sector to engage in conservation activities. Tax deductions and exemptions would apply to revenues from conservation activities or properties devoted to conservation (such as land used for private nature reserves).

The success of private sector investments in tiger conservation will primarily depend on viable business models. Biodiversity and tigers are public goods that create value for the public. The challenge will be to translate this value into business models that financially reward those who invest in tiger conservation.

More generally, the model of various forms of social responsible investing and impact investing is viable and brings new, smart funds to the table.

⁵ Global Foundation Leaders Advisory Group (2005), World Economic Forum (2006), Monitor Institute (2009)

⁶ (Arrow, Panosian et al. 2004; AMFm Task Force of the Roll Back Malaria Partnership 2007)

⁷ Kremer (2000), Kremer and Glennerster (2004), Kremer and Zwane (2005), Tremonti and Ministero dell’Economia e delle Finanze (2005b), Tremonti and Ministero dell’Economia e delle Finanze (2005a), Batson, Meheus and Brooke (2006), Ridker (2006), World Bank and GAVI (2006), Ernst R. Berndt (2007)

Box 2: Asian Conservation Company (ACC)

Incorporated in 2001 with assistance from WWF, ACC's goal is to combine private sector investment and biodiversity conservation. The company holds a portfolio of private equity investments that conserve biodiversity while remaining profitable. ACC invests in companies that operate in high-priority biodiversity areas and work to mitigate negative environmental impacts. Company profits provide a sustainable financing stream to support long-term biodiversity conservation. ACC has raised \$12 million and has invested in three projects: a sustainably managed fishery, an ecotourism venture, and a transportation company serving the ecotourism project. ACC has leveraged its private equity investment funds to secure a grant from the Global Environmental Facility of the World Bank. The IFC (International Finance Corporation) is implementing the project which provides funding to areas where ACC portfolio companies are operating. ACC is the first investment holding company in Southeast Asia to be created with a triple bottom line approach.

Market solutions

Biodiversity offsets (also called mitigation banking and conservation banking) are conservation measures taken at one location to make up for, or offset, biodiversity losses at another. Offset credits can be traded between the entity that enhances biodiversity at one location and the entity responsible for land-disturbing activities that cause biodiversity losses at the other location. A well-established example is the system of wetland mitigation banking in the United States: project developers, who are legally required to offset their residual impacts on wetlands, can do so by buying wetland credits from others. Another example is Malaysia's Malua BioBank (see Box 3).

Box 3: Malua BioBank

Biodiversity offsets have been piloted in a tiger country, Malaysia. The Sabah state government in Malaysia has partnered with an Australian based forestry investment firm to protect about 34,000 hectares in the Malua Forest Reserve, home to orangutans, Sumatran rhinos and clouded leopards.

In return for about US\$10 million the investor will create a conservation bank, the Malua BioBank, with the Malaysian government retaining ownership of the forest. To recover the investments the bank divides the logged land into 100-square-meter plots. After restoring the rainforest the bank sells each plot as a biodiversity credit. The biodiversity credits will be sold to palm oil producers, energy companies and other businesses involved in the production of biodiesel - a clean burning fuel made from renewable sources such as palm oil.

Unlike typical biodiversity offsets including conservation market in the United States the financing instrument will not directly offset for palm oil produced elsewhere. Instead they will provide purchasers a opportunity to brand their products as environmentally friendly, much in the fashion of voluntary emission permits in carbon finance.

Source: Australian Associated Press (2007), Katoomba Groups (2009)

Biodiversity derivatives are a proposed mechanism to finance species-recovery efforts – one that would help align the interests of landowners and conservationists and create a market-based incentive for private conservation.⁸ Future conservation and rehabilitation costs for an endangered species would be financed by sales of a bond or derivative whose performance is linked to the growth or decline of that species. The purchasers of the bond or derivative could improve the probability of a good payout through private conservation efforts.

⁸ Mandel, Donlan and Armstrong

Payments for Environmental Services (PES) is a financing instrument that internalizes externalities in the environmental sector on a local basis. The underlying principle is that those who provide environmental services get paid for doing so (“provider gets”) and those who benefit from environmental services pay for their provision (“user pays”).

The key benefits of such market solutions are as follows: they present flexible instruments and can help create a market for conservation efforts. Some of the challenges include the relatively complex institutional and legal framework (including enforcement) required for such solutions to work as well as complex methodologies required for measuring relative losses/gains of species from individual actions (measuring the “additionality”).

Financing and local communities

One of the challenges of saving tigers is to encourage and include local communities in protection efforts. An important reason for tiger decline is loss of tiger landscapes and pressure on tiger habitats by people who are heavily dependent upon forests. Poaching of tigers is often aided by local people. Crop-raiding and livestock kills cause losses to local livelihoods (see thematic paper on “*Creating Local Constituencies for Tiger Conservation through Community Incentives and Alternative Livelihoods*”). Financial instruments may be designed to moderate co-existence of tigers and local communities.

Insurance against losses of livestock caused by predators is a successful example, piloted in Namibia (Human Animal Conflict Self Insurance Scheme)⁹ and Pakistan (Project Snow Leopard), to mitigate threats to local livelihoods (see Box 4). Farmers would be able to submit claims to partially off-set livestock losses to tigers. The insurance premium could be financed by the government, international donors or at least partially by farmers themselves.

An Environmental mortgage is another instrument that would encourage communities to engage in conservation efforts.¹⁰ It combines microfinance with performance-based payments for the conservation of environmental assets, thereby creating long-term incentives for conservation, as well as sustainable economic development. A community would provide an environmental asset, such as a forest, as collateral for a loan. A line of credit tied to the evolving condition of that asset would be extended to community members, who would thus have an economic incentive to protect the environmental asset.

Box 4: Project Snow Leopard in Baltistan, Pakistan

Project Snow Leopard is a mostly self-funding insurance program that compensates Pakistani herders for livestock killed by a snow leopard. The insurance enables the farmers to cover their livestock losses, protect their livelihoods, and be able to leave the snow leopard to roam freely. The insurance requires herders to pay a small premium for every animal they own and is supplemented by grants from private institutions. Also, Five thousand people in 10 villages participate in the expanding project, and it is expected that about 50 snow leopards benefit from the plan’s protection – approximately one-fifth of the entire species left in Pakistan.

Sources: Project Snow Leopard (<http://www.fmntrekking.com.pk/psl.html>), Hussain (2009), and National Geographic (<http://www.nationalgeographic.com/field/explorers/hussain-shafqat-09.html>)

⁹ Lamarque, Anderson, Chardonnet, Fergusson, M., Osei-Owusu, Bakker, Belemsobgo, Beytell, Boulet, Soto and Tabi Tako-Eta (2008)

¹⁰ Mandel, Donlan, Wilcox, Cudney-Bueno, Pascoe and Tulchin (2009) and <http://www.advancedconservation.org>

Community financing concepts such as insurance against losses of livestock and environmental mortgages show strengths in engaging local communities in tiger conservation and creating awareness of the value of tigers in a local setting. At the same time they are designed to support local development and create social impact.

So far, these concepts have been implemented on a pilot basis, but have not been scaled-up. The feasibility of wide-spread application has not been proven yet. Implementation requires sufficient capacity in local communities. Potential financial flows that are generated are limited and at least in a first phase, when the instrument is set up, donor funding seems to be required.

Revenues from REDD

Mechanisms for Reducing Emissions from Deforestation and Forest Degradation (REDD) could use market/financial incentives to reduce the emission of greenhouse gases from deforestation and forest degradation. REDD credits offer the opportunity to utilize funding from developed countries to reduce deforestation in developing countries. An International Working Group on Interim Finance for REDD was set up as an outcome of a high-level meeting convened by HRH the Prince of Wales on April 1, 2009 in London on the need for an international response to tropical deforestation. The Working Group produced a report and a summary of recommendations intended to inform, and be informed by, the international climate change negotiations currently underway. The report proposes the establishment of a global interim REDD+ arrangement that would unite developed and developing countries' efforts around a common goal of reducing deforestation and degradation by 25 per cent by 2015. Its keystone would be the establishment of a results-based incentive structure that rewards countries for reducing deforestation relative to an agreed national reference level. The arrangement would build on a commitment from developed countries to pay participating developing forest countries for protecting their forests and reducing forest-based emissions, and on a commitment from forest countries to place their development paths on a low carbon trajectory and accelerate their progress. Financial flows might occur in the context of bilateral or multilateral deals, and a set of standards is proposed to ensure quality and a minimum level of consistency across deals.

The REDD concept offers the potential for achieving multiple benefits, including the conservation of biodiversity and ecosystem services (such as watersheds), and social benefits (e.g., income and improved forest governance).

Some of the challenges associated with implementing REDD include: (i) designing the structure of funding mechanisms; (ii) setting reference levels to measure the reduction in emissions (countries with different forest covers and historic deforestation rates hold different interests in the way these reference levels are constructed, and involving countries with high forest covers and low historic deforestation rates will be necessary to reduce perverse incentives); (iii) monitoring, reporting and verification of forest cover and biomass and other outputs; (iv) engaging indigenous peoples and Forest-Dependent Communities in the design, implementation and monitoring of REDD activities; (v) distribution of benefits (how can the benefits from REDD be distributed to forest communities in a just, equitable way that minimizes capture of the benefits by national governments or local elites?); and (vi) strategies to prevent "carbon leakage", caused by the displacement of deforestation to other areas

New international public sources

In recent years a number of new international public sources to finance global public goods and development have been discussed, including solidarity levies and sales/auctions of emissions permits.

Solidarity levies are globally coordinated and implemented nationally, on a voluntary basis. Solidarity levies, compared to true global taxes, do not affect national sovereignty and are therefore politically more feasible than true, obligatory global taxes.

- The discussed currency transaction levy (CTL) is a nationally implemented solidarity levy on all currency transactions undertaken in all foreign exchange markets, traditional and non-traditional, and applied to all foreign exchange instruments.¹¹ Countries would adopt the levy on a voluntary basis. It would then apply on a mandatory basis to all trades in that country's currency worldwide. Under the proposal, the levy would be collected by large-scale foreign-exchange settlement systems such as the Continuous Linked Settlement (CLS) Bank and SWIFT (Society for Worldwide Interbank Financial Telecommunication).
- The existing Solidarity Levy on Airline Tickets – a nationally implemented levy adopted by countries on a voluntary basis and coordinated by a coalition of countries – could be expanded and implemented in more countries.¹² The Levy is mandatory for individuals buying airline tickets in participating countries; it is imposed on international departures, but not on transfer passengers. It is progressive, since a higher tax rate is applied to business class than to economy class tickets, and the Levy is borne only by those who can afford air travel.

Other global taxes that have been proposed include carbon and other environmental taxes; aviation taxes on the ticket price, flight distance, or jet fuel; a currency tax (the original currency tax proposal was the Tobin tax); a tax on arms trade; a tax on international shipping; a trade tax on internationally traded goods; a surtax on profits of multinational corporations; a tax on financial transactions of bonds, stocks, and derivatives; a surcharge on domestic taxation; charges on use of outer space, such as a satellite tax; charges on information exchange: mail, telecommunication, or the internet (bit tax); royalties on minerals mined in international waters; charges for exploration in or exploitation of Antarctica; charges for fishing in international waters; charges for the use of the electromagnetic spectrum.

Auction or sales of emissions permits: A potential source of financing is the auction or sale of greenhouse-gas emissions permits under a cap-and-trade mechanism. For example, under the European Union's Emissions Trading Scheme (EU ETS), EU Allowances (EUAs) may be auctioned or otherwise sold to emitters rather than distributed for free. The proceeds could be directed to international development, including health systems. As with solidarity levies, programs could be nationally implemented and internationally coordinated.

Last year, Germany piloted the sales of emissions permits, earmarking some of the proceeds for its development budget. The EU is working to create a similar mechanism throughout the Union. Under the EU ETS for the first years, most emissions permits were allocated for free. The latest EU Commission proposal recommends a system of full auctioning in the power sector starting in 2013, and phasing out free allocations to industry between 2013 and 2020. According to an EU Directive, at least half the

¹¹ Tobin (1996), Schmidt (1999), Spahn (2002), Niskanen (2005), Hillman, Kapoor and Spratt (2006), Spratt (2006b), Spratt (2006a), Schmidt (2007), Schulmeister, Schratzenstaller-Altzinger and Picek (2008)

¹² Kerr (2006), Müller and Hepburn (2006), Segerstad (2006), Keen and Strand (2007)

revenue should be used to fight and adapt to climate change, mainly within the EU but also in developing countries. Although there may be a strong political logic to use all revenues toward climate change, up to half could be used for other purposes including forest protection and conservation.

CTL, solidarity levy on airline tickets and auction or sales of emissions permit could generate significant revenues (hundreds of millions of dollars?), if widely supported, at transaction costs as low as 1 to 2 percent of revenues.¹³ The additional funds raised are expected to be sustainable and predictable. Solidarity levies on airline tickets and auction or sales of emissions permit have been piloted and proven technical and political feasibility. CTL proposal is a relatively recent development, has not been tested yet, and political support seems rather low.

Competition for funds from these sources is high. Recently it has been discussed that these sources should be tapped to finance the Millennium Development Goals, health systems strengthening, environment, adaptation to and mitigation of climate change, and other causes¹⁴.

National Public sources

Introducing and expanding an earmarked tobacco tax would institute a tobacco tax in the few countries without one and to raise the rate in countries with one. The proposed mechanism intends to generate proceeds from tobacco taxes in developing and developed countries. The tax could be implemented nationally and coordinated internationally. The additional revenues could be channeled to developing countries and earmarked for health systems.

The tobacco tax scores high on financial and some aid-effectiveness criteria. The value added is to raise funds for health systems while, by decreasing tobacco consumption, directly improving people's health. The tax could generate significant new funds – several billion dollars in low- and middle-income countries and up to US\$ 10 billion in high-income countries. Transaction costs are expected to be similar to those for the other tax and levy proposals discussed (as low as 1 to 2% of revenues).

The tax has been implemented and proven to be technically feasible in numerous countries, including countries where revenues are earmarked for health systems. Scaling it up might be faster and less complex than implementing other taxes and levies. But precisely because a tobacco tax already exists in most countries, the degree to which it could be scaled up is limited.

The tax would require one of the channeling mechanisms discussed for the CTL, such as one or more IHP+ institutions, a multi-donor trust fund, or one of the channels discussed in this review.

The tobacco tax has several compelling advantages: (i) Raising funds in low-, middle-, and high-income countries would demonstrate a joint effort and new burden-sharing agreement among countries and increase the accountability of developing countries. It would pose responsibility for financing to all, according to their ability to pay. (ii) A tobacco tax would generate a double dividend: while raising funds, it would also reduce tobacco consumption and tobacco-related disease and death. (iii) Tobacco taxes enjoy broad public support, especially when the proceeds are earmarked for health.

¹³ High Level Taskforce on International Innovative Financing for Health Systems (2009)

¹⁴ Atkinson (2005), Müller (2008), High Level Taskforce on International Innovative Financing for Health Systems (2009), Spratt (2009)

Voluntary contributions, blended value products, cause marketing, philanthropy, and debt-for-tiger swaps

There are also a variety of other innovative mechanisms for fund-raising (see Annex 1). One such set of sources include fundraising campaigns, blended value products, voluntary solidarity contributions, etc. The advantages of these approaches is that they are feasible to implement, and would create greater awareness around tiger conservation issues. The challenges are as follows: fundraising campaigns carry high transaction costs, and are associated with low levels of predictability and sustainability; blended value products have a limited revenue generation potential and low predictability; and voluntary solidarity contributions have not been tested for scale and are also associated with low predictability of revenue-generating potential.

Debt-related instruments also offer a potential for mobilizing resources for tiger conservations. For example, a “Debt-for-tiger swap” could be used to apply Debt2Health, a recently developed finance mechanism, to additional countries and/or organizations. Debt2Health involves a three-way partnership between creditors, grant-recipient countries, and a multilateral institution – currently, the Global Fund to Fight AIDS, Tuberculosis, and Malaria. Under an agreement facilitated by the Global Fund, creditors forgo repayment of a portion of their loan to a developing country on the condition that that country invests an agreed-upon counterpart amount in health. The investment is made through the Global Fund according to the systems and principles it regularly uses to disperse grants.

Frontloading through debt financing: “Tiger Bond” issuance

Funds could be made available now through the issuance of a “tiger bond”. A bond would frontload future funds and would make them available now at the expense of interest payments and future repayment of the principal. It would not create more funds (no financial additionality) but shift their availability forward in time.

Frontloading can be justified as bridge financing when it is expected that more sustainable sources can be tapped in the future (or for investments with returns higher than the interest payments). At the same time, the downside of frontloading is that it is not sustainable and might exhaust funds needed in the future. Arguably, the urgency of tiger conservation might justify frontloading. If the necessary funds are not available now, it might be too late to save the tigers (see Box 5 for two examples of dedicated bond programs that could provide useful lessons for a potential tiger bond). One of the advantages is bond programs is predictability. Costs, timeframe for implementation, technical feasibility, and the flexibility in the use of funds depend on the design of the bond, particularly on the entity that issues the bond and the source of future funds that would cover interest and repay the principal. Potential issuers are:

- **New entity (special purpose vehicle– SPV):** A new entity could be created that issues the bond. This would provide great flexibility in the use of funds and in designing tailored programs and policies. Also, the bond issuance would create news and additional awareness for the tiger case. If the new entity would be set-up as a mutual project between tiger countries, it could facilitate wider cooperation. As one of the downsides, start-up costs would be relatively high, implementation would require a long lead time, and a new institutional framework would need to be set-up. Financing costs depend on the security of the source of future repayments. Future development aid or financing by creditworthy countries or guarantees by these countries would lead to relatively low costs, comparable to a multilateral development bank or national

governments. Unsure and risky future reflows, as for example from REDD or direct revenues from tiger conservation, would lead to relatively high costs of financing.

- A Multilateral Development Bank could issue a “tiger bond”. The costs, specifically costs of capital are expected to be lower than for other options. On the other hand, the use of funds raised would be less flexible and more restricted because funds would be disbursed through the MDG’s channels and its rules and procedures would apply. Also, MDBs might consider it more realistic to finance forests and ecosystems as a whole.

Yield of Government Bonds in Percent									
Tiger Range Countries									
September 2009									
	3-month	6-month	12-month	2-year	3-year	5-year	7-year	10-year	30-year
Bangladesh	-	-	-	-	-	-	-	-	-
Bhutan	-	-	-	-	-	-	-	-	-
Cambodia	-	-	-	-	-	-	-	-	-
China	1.36	1.39	1.52	1.66	2.30	2.92	3.31		4.10
India	3.39	3.96	4.43	5.93	6.53	7.02	7.10	7.09	8.20
Indonesia			6.12	7.88	8.42	9.20	9.57	10.21	11.46
Laos	-	-	-	-	-	-	-	-	-
Malaysia	1.98	1.99	2.00		2.91	3.71		4.18	
Myanmar	-	-	-	-	-	-	-	-	-
Nepal	-	-	-	-	-	-	-	-	-
Russia	-	4.03	-	3.70	-	-	-	-	-
Thailand	1.24	1.38	1.58	2.12	2.80	3.34	3.76	4.05	-
Vietnam	-	-	9.12	9.56	9.78	10.05	10.21	10.16	-

Source: Bloomberg

- National governments could issue bonds earmarked for tigers. Since this would result in future liabilities, the bond issuance would depend on national priorities. Also, costs would be relatively high, given the credit ratings of tiger countries and/or their limited access to capital markets.

Sovereign Credit Ratings¹⁵ in Tiger Range Countries September 2009		
	S&P	Moody's
Bangladesh	N/A	N/A
Bhutan	N/A	N/A
Cambodia	BB-	B1
China	A+	A1
India	BBB+	Baa2
Indonesia	BB+	Ba1
Laos	N/A	N/A
Malaysia	A+	A3
Myanmar	N/A	N/A
Nepal	N/A	N/A
Russia	BBB	Baa1
Thailand	A	A3
Vietnam	BB+	Ba2

		Issuer			
		New entity (SPV)	Multilateral Development Bank (MDB)	National government	Subnational government
Repayment of principal and interest	Development Aid	Donor? (Example: IFFIm)	Donor?		
	National general budget	Regional Bond?	MDB? (Example Green bond)	Country priorities?	
	Subnational general budget	Regional bond?	Green bond for subnational lending?		Local priorities?
	New international public sources	Predictability of source? Risks for investors	Predictability of source? Risks for MDB	Predictability of source? Risks for country	Predictability of source? Risks for government
	Revenues from conservation (with guarantee)	Volume? Predictability of source? Risks for investors	Volume? Predictability of source? Risks for MDB	Volume? Predictability of source? Risks for government (Example: Eco-backed security)	Volume? Predictability of source? Risks for government
	Revenues from REDD	Risks to investor. Costs?	Risks to investor. Costs?		

¹⁵ Standard & Poor's Sovereign Credit Ratings, Moody's Sovereign Credit Ratings:
http://www2.standardandpoors.com/portal/site/sp/en/us/page.topic/ratings_sov/2,1,8,0,0,0,0,0,1,3,0,0,0,0,0.html
http://v3.moodys.com/researchandratings/viewall/sovereign/sovereign/005005001/4294966288/4294966623/1/0/issr_nam/1/0/0/-/0/-/rra

Eco-backed security

An eco-backed security (also called a forest-backed security, eco-securitization, and forest-securitization) is an asset-backed security or debt obligation that represents a claim on cash flows from the management of forests or other ecosystems. The sources of these flows can range from timber production to various public goods produced by an ecosystem, such as rainfall, carbon and biodiversity storage, and weather moderation. Funds are raised on the capital markets and repaid from these future flows. The challenge of creating eco-backed securities is to identify sustainable and low-risk revenues.

Box 5: Two examples of dedicated bond issuance programs

International Finance Facility for Immunisation. IFFIm raises finance in the international capital markets by issuing bonds. Its financial base comprises long-term (15-20 years), legally-binding, conditional commitments provided to it by seven sovereign donors: France, Italy, Norway, South Africa, Spain, Sweden and the United Kingdom. Based on its sovereign assets and financial management policies, IFFIm has been classified as a multilateral development organization and is rated a triple-A by the three leading credit rating agencies. This has enabled IFFIm to borrow funds at highly competitive rates, even during the current market turmoil. Since it was launched in November 2006, IFFIm has raised US\$2 billion in the capital markets and distributed \$1.25 billion for GAVI's programs; donors have contributed \$323 million in cash. Over its current life, IFFIm is expected to raise approximately \$3.3 billion through 2015.

Penguin Future Bondⁱ. In 2008, Capital Partners of Japan made a public offering of ECX index linked bond "Penguin Future Bond," providing clients a chance to invest in a mechanism of reducing carbon emission. Out of this effort it donated 1,000 tonnes of carbon credit and contributed our Government's effort to reduce emission by 6% (compared to Year 1990 levels) as defined in Kyoto Protocol.

Trust fund for tiger conservation

The World Bank describes trust funds as "financial and administrative arrangements between the World Bank and external donors under which donors entrust funds to the Bank to finance specific development-related activities." Formal legal agreements with donors designate the Bank as trustee and define the terms and conditions for use of the funds. The Bank channels trust fund resources to the intended beneficiaries in accordance with its agreements with the donors. Alternatively, donors may request the Bank itself to utilize the resources and carry out activities that bring about desired outcomes in developing countries.

A Trust Fund for tiger conservation could be set up either as a Multi-Donor Trust Fund or a regional or national trust fund could be established. The advantages of the latter approach would include a higher level of regional or national ownership and accountability. The challenge of course is that funding depends on donor interest to contribute. Also, the recent proliferation of trust funds has added complexity to the aid architecture and resulted in challenges for country-driven and country-owned approaches that are aligned with country strategic priorities.

Conclusions/Next Steps

This paper has presented a variety of innovative finance options that could help raise *more* funding for tiger conservation and/or ensure *better* financing -- that is more sustainable and predictable, creates

awareness for the tiger cause, and includes local communities in the conservation efforts. Many of the approaches described have been used to support other sectors/causes and appear to offer a potential for replicability in the areas of biodiversity and tiger conservation. However, this needs to be analyzed further. Each of the options described carry both costs and benefits, which need to be weighed carefully, along with such factors as implementation challenges, potential impact, demand from the tiger countries, and interest among sponsors.

Much more work is needed before specific recommendations can be made on which of the options described in this paper would be best suited for tiger conservation. This paper is just a starting point. The next step will be to finalize a needs/gap analysis (how much funding needed and for what) and undertake a more detailed analysis of the financing options based on technical, financial, other criteria (see Annex 2):

- Technical criteria: feasibility, ease of implementation (time, cost), replicability, scalability
- Financial criteria: volume of potential flows, transaction costs, additionality, sustainability, predictability
- Other: value added, country demand, sponsorship
- Impact/Double dividends: creating awareness, trans-boundary impact, development and social impact

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ANNEX 1: OTHER SOURCES OF INNOVATIVE FUND-RAISING

Voluntary contributions, blended value products, cause marketing, and philanthropy

Blended value products including affinity credit cards: Blended value products stimulate voluntary contributions from individuals by combining consumption with charity. When a purchase is made, a charitable contribution is added to the bill. This can be done either through focusing on specific products (as in the case of the Global Fund's (PRODUCT) RED, for example) or through "affinity" credit cards. This mechanism would initiate a dedicated blended value product line for health systems. It could include several consumer products as well as an affinity credit card offered in multiple countries.

Blended value products and VSCs are similar in that they combine a commercial transaction with a charitable contribution. With a blended value product, the charitable contribution is inextricably linked to the purchase of the product; in other words, once a consumer has chosen to buy a product identified with the programme or to use an affinity credit card, the charitable contribution automatically follows. In contrast, VSC consumers choose whether they want a charitable contribution to be tied to their purchase.

The value added of a blended value product line is to raise additional funds. However, fundraising potential is estimated to be low (about US\$ 50 to 150 million annually). Revenues are expected to be additional but may crowd out some funds from private giving campaigns and from the existing blended value product line, (PRODUCT) RED, which funds Global Fund HIV/AIDS programmes in Africa. The costs of implementing blended value product lines are relatively low; the mechanism can be set up so that corporate partners cover most administrative and transaction costs.

Associated products tend to have high visibility and can help create awareness of the importance of health systems. This benefit could be smaller than that of a private giving campaign (because the primary reason for giving is not charity but consumption) or higher (because of the high visibility attached to consumer goods). Further experience is needed to assess this effect.

Funds raised through blended value products require a channeling mechanism. As in a private giving campaign, not all channels are suitable, because of consumer preferences. However, it is expected that the proceeds from a blended value product line would be less restricted with respect to channeling than the proceeds from a private giving campaign, because donors' primary motivation is not charity but consumption.

Voluntary solidarity contributions: The proposed Airline Ticket Voluntary Solidarity Contribution (VSC) gives individuals and corporations the option of making a micro-contribution to a charitable cause (for example 2 \$, €, or £) when buying an airplane ticket. The consumer can exercise this option in a simple, convenient manner – e.g. by checking a box while making an online booking. The Millennium Foundation for Innovative Finance for Health is developing a pilot programme, whose proceeds are expected to go to UNITAID.

The value added of an Airline Ticket VSC is to raise additional funds. It would potentially generate revenues of up to US\$ 980 million a year by 2011. The funds are expected to be additional. According to the Millennium Foundation, the sponsor of a pilot programme, transaction and administrative costs should be low (about 1 to 3% of revenues). Even so, costs are higher than for blended value product instruments, where costs can be transferred to corporate partners.

The Airline Ticket VSC would raise visibility and create greater awareness of the importance of health systems, but not to the same extent as a private giving campaign, which is focused solely on philanthropy and has no commercial component.

Technical feasibility has not been proven but looks promising. Early assessment by a leading consulting firm (October 2007–April 2008) suggests that the VSC could be successfully implemented in the air-travel industry.

Debt-related instruments

Debt-for-tiger swap’’: The proposed mechanism would apply Debt2Health, a recently developed finance mechanism, to additional countries and/or organizations. Debt2Health involves a three-way partnership between creditors, grant-recipient countries, and a multilateral institution – currently, the Global Fund to Fight AIDS, Tuberculosis, and Malaria. Under an agreement facilitated by the Global Fund, creditors forgo repayment of a portion of their loan to a developing country on the condition that that country invests an agreed-upon counterpart amount in health. The investment is made through the Global Fund according to the systems and principles it regularly uses to disperse grants.

Debt2Health could be scaled up by the Global Fund to support its health systems strengthening programmes. It could also be extended to other IHP+ multilateral institutions.

The value added of Debt2Health is to target additional funds to health systems through debt conversion. Debt2Health has generated €45 million to date. Its potential depends on donors’ willingness to cancel debt and the stock of debt available to be cancelled. There is disagreement over the mechanism’s additionality, since Debt2Health is connected to creditors’ conventional aid budgets.

Debt2Health is similar to conventional bilateral and multilateral aid with respect to such criteria as sustainability, timeframe, and costs. It makes use of existing multilateral channels to target financing for health. Through its trilateral structure, it could have a potentially positive impact on the effectiveness of aid. The design transforms recipients into donor/partners, thereby potentially increasing their ownership and accountability.

A buy-down (also called “credit buy-down” and “loan buy-down”) is the use of grant funding to reduce the amount of or interest level of a loan or to pay it down completely, increasing the level of concessionality. The buy-down is triggered by the achievement of defined results/targets. Buy-downs could be used to buy down concessional loans, including IDA credits, in order to fill financing gaps in health systems development. The developing country receives funding for a specific project up front, along with insurance that, if the project is successfully implemented, a donor will cancel or reduce the debt.

In general, buy-downs have been considered for three reasons: to support countries under debt distress; to support countries producing cross-national public goods; and to link concessionality levels to results in targeted sectors. In the case of health systems, the third reason applies. This mechanism would create additional buy-downs for health systems.

The value added of a buy-down is to increase the level of concessionality of loan financing where appropriate, and to create incentives for governments to achieve results, thereby increasing the effectiveness of funding. Buy-downs for health systems might be a good tool to incentivize senior

government officials to allocate resources to health systems and to invest resources to achieve certain results.

Buy-downs can increase aid effectiveness if designed properly, and can increase the degree to which development aid is focused on results. They can also be designed to use country systems.

Buy-downs may not be the best solution for all health-systems needs. However, their ability to incentivize and align governments and senior officials behind common goals might make them a good tool for large-scale reform projects.

ANNEX 2: CRITERIA FOR EVALUATING FINANCING OPTIONS FOR TIGER CONSERVATION

The Annex presents a preliminary list of criteria that could provide direction for prioritizing among innovative sustainable financing mechanisms for tiger conservation.

General criteria

Implementability and technical feasibility: Technical obstacles to implementation (legal, administrative, operational, etc.)?

Timeframe for implementation: How long would it take to implement and scale up?

Value added: What is the financial function of the mechanism and does it fit the challenge of tiger conservation? For example, additional funds, targeting concessionality toward tiger conservation, channeling funds efficiently, creating predictability, frontloading, creating incentives, engaging the private sector, etc.

Sponsorship: Who are the sponsors and who wants to implement the mechanism?

Financial criteria

Potential flows: Volume of potential flow the mechanisms could generate (for mechanisms that create financial additionality)? Volume of flows that the mechanisms could channel or disburse (for mechanisms that increase efficiency and effectiveness)?

Costs: Cost to set up and run a mechanism? Costs relative to value added (for example, for a mechanism that generates additional funds, estimates the cost of raising one dollar; for a mechanism that targets concessionality, estimates the cost of redirecting one dollar to health systems; and for a mechanism that frontloads aid, estimates the cost of providing one dollar X years earlier?)

Additionality: What is the true financial additionality of funds? Does the mechanisms crowd out existing funds? Are funds grants or have they to be repaid (concessionality of funds)? The baseline for additionality is the amount of funding that would exist if the new mechanism is not implemented. Assessments of crowding out relates to the degree to which the mechanism is estimated to compete with conventional mechanisms for funds. For example, new or additional grants and loans are evaluated with respect to their likely competition with conventional ODA; new philanthropic funds with respect to their likely competition with existing philanthropy to tiger conservation.

Sustainability: How sustainable is the financing over the long run? Sustainability may depend on the nature of the mechanism (for example, the sustainability of a mechanism that involves tax increases will require a stable tax base), and/or on political factors (such as the likely impact of changing priorities in the event of a financial crisis).

Predictability: How stable/volatile are the financial flows of the mechanism?

Double dividends

Creating awareness: Besides financing, to what degree does the mechanism create local, national, and global awareness in support of tigers?

Transboundary impact: Does the financing mechanism align countries in their conservation efforts? Does it support neighboring countries to create transnational tiger habitats?

Development and social impact: To what degree does the mechanism support wider developmental and social goals including impact on local communities, pro-poorness, country ownership, alignment, harmonization, accountability, and focus on results?

ⁱ <http://www.capital.co.jp/english/aboutus/csr.html>