

# Conservation Finance Seminar: New bond financing structures for marine and terrestrial conservation

## Summary of Proceedings

### Introduction

On the 19th February 2015, a seminar involving individuals and organisations working on bond financing structures for marine and terrestrial conservation was convened jointly by The Prince of Wales' International Sustainability Unit (ISU), the Zoological Society of London (ZSL), The Nature Conservancy (TNC), and the University of Oxford's Smith School of Enterprise and the Environment (SSEE). The event was held at the Mappin Pavillion at the Zoological Society of London, Regent's Park, and brought together a diverse group of practitioners and researchers from the private and public sectors, as well as academia (see Annex B for a full list of attendees and their organisations).

One principal aim of the seminar was to inject clarity around some nascent issues in conservation finance. An overarching concern for the day was how private capital might bridge the gap in funding given the inadequacy of public funds for the scale of the problem. Thus, the 'working hypothesis' during the seminar was that new forms of bond instruments could help to attract the private capital needed.

The scope of financing structures specifically covered was intentionally broad and varied, with the aim being to share learning experiences and innovations in this promising and fast-evolving space in hopes of mitigating or removing common barriers. A sampling of some of these past, present, and (foreseeable) future barriers includes:

- Limited number of viable bond issuers
- Difficulties in project aggregation, monitoring, and management
- Metrics
- Missing cash flows that underpin issuances
- The interrelationship with donor funds
- Investment versus philanthropy, and the pools of capital targeted by issuances
- Additionality and co-benefits
- Complexity concerns
- Balance-sheet capacity and working-capital constraints (especially in the cases of ex post, results-based payments within developing countries)

The specific challenges posed by these and other barriers were discussed by participants, and existing, planned, and possible resolutions were presented and debated. The format of the day's proceedings involved three panel sessions, two of which included prepared presentations that highlighted the hurdles and successes facing current efforts to develop debt-based responses to conservation. The third session entailed a collaborative process wherein attendees were split into break-out groups and tasked with presenting summary recommendations before a panel of experts (The complete agenda for the event appears in Annex A). The day concluded with a thought-provoking talk by an invited speaker - Peter Wheeler, Executive Vice President of TNC - and was followed by informal discussion.

This report summarises the insights and findings from the seminar. It underscores and elaborates on some of the central themes and ideas that emerged. Main highlights of each of the day's sessions appear below.

### *Session I: Bond Proposals under Development*

- A significant diversity of structures have been designed and could be issued; these mechanisms cover a large number of important habitats and often have novel features.
- A considerable obstacle to new issuances is a lack of successful, precedent deals (especially at large scales); furthermore, of the great many projects, not many are considered 'investable', and the heterogeneity of timescales and risk/return profiles among these few projects currently deemed investable is not helping the scalability of new issuances.
- The 'non-standardised' nature of many structures can be problematic, as investors may not be sure how to properly classify them for investment purposes (e.g., for portfolio building).
- The issue of measurement (at both point of design/issuance and thereafter for monitoring) can be a thorny one for many reasons, including (but not limited to): lack of long-term baselines; difficulty or costliness of obtaining accurate data at frequent intervals; properly equipping relevant parties to take appropriate action on data when it does become available.
- The sources of payback opportunities are a crucial consideration for attracting substantial private capital, and many conservation projects do not have clear sources of monetizable returns for investors.
- The management practices (and changes to them) attached to conservation projects affects how investable the projects are; these practices must increasingly consider, however, not only the impacts of projects on biodiversity, but also the local economies and societies in which they take place and influence.
- There is a pronounced shift toward 'pay for performance' in donor capital; this trend may carry mixed implications when combined with non-donor (i.e., for-profit) investment.
- Country-specific risks (including political, sovereign credit, and reputational) are a roadblock for many private investors, who may have concerns or prohibitions on investing in some unstable countries.

### *Session II: Forest Bonds under Development*

- Creating a coherent narrative for investors is problematic in the face of the current tangled policy framework(s) in place.
- Policy uncertainty, however, may give rise to opportunity for some investors, who may wish to invest in 'option-like' structures that could benefit from short-squeeze-type scenarios if/when a concrete policy is enacted (and if the market is then in under-supply).

- Some promising opportunities could stem from converting public finance into working capital to attract private investment (e.g., translating government aid pledges into improvements in local communities that may enhance the investability of projects).
- For some large issuances, principal is guaranteed by governments, but there are not necessarily transparent or totally-binding incentives for those governments to uphold their obligation, especially if repayment is tied to indicators/metrics that can be manipulated, as well as when development objectives may be at odds with conservation goals.
- Pooling projects can be a moderator of risk when aggregation costs are reasonable.
- More efficient and savvy usage of public funds can be used as a bridge over the coming decades to 'prove the case' for private investment (especially if policy frameworks stick).
- A significant barrier for forest finance that is relying on the development of carbon markets may be whether credits can indeed be fungible/portable across different market systems.
- Establishing and ensuring the continued credibility of intermediaries is crucial to success in expanding forest finance.
- The debt markets that issuers of conservation bonds (or similar instruments) are targeting are often resistant to rapid evolution; designers of instruments for conservation finance (especially forest finance) should be careful to make products comparable to ones already familiar to investors, and underscore similar features.
- Corporate supply chains may present genuine opportunities for forest finance from several angles at once.
- To be successful, many forest-based projects must consider outcomes at the landscape and national levels, and not just the project level.

### *Session III: Identifying and Overcoming Common Barriers*

- Metrics used for financing mechanisms should:
  - Reflect the intervention to be implemented in the particular conservation effort.
  - Not be excessively costly to gather data on, and not be overly complex or opaque;
  - Bear in mind that more metrics are not necessarily better for success than fewer.
- Scale may be essential to success but comes with trade-offs; structures based on small projects may carry exorbitant transaction costs, but structures based on large projects may be attended by:
  - Management problems: there will often be many donors and investors to deal with as scale increases; attending to all of their demands/requirements can pose problems;
  - Political/governmental issues: substantial scale increases generally mean dealing with multiple local, regional, or even national governments.

- While standardization is desirable, finding ways to work in specific countries/localities is also imperative, and leveraging contracts or existing social norms may be heavily advisable.
- Trustworthiness of parties can be just as important as creditworthiness.
- Working with and getting the support of established institutions can boost odds of success.
- Conservation finance need not always carry top credit ratings; there may be an appetite for structures with substantial risk, if prices of such instruments offer suitable return potential.
- Expanding management capacity and capabilities within the global NGO community may be among the more pragmatic steps for improving the prospects of conservation finance.

The remainder of this report discusses in deeper detail the above highlights, along with further considerations, that were raised within each of the sessions.

## Session I: Bond Proposals under Development

### *Session overview*

The purpose of the first session was for panelists to present the innovations and learning of several in-process projects and issuances, highlighting both the traction and challenges experienced in these undertakings. Panelists were then given the opportunity to respond to questions from attendees, and summary discussion was pursued on select issues raised during the presentations. The panel consisted of:

- Larry Band (chair): Consultant, Environmental Defense Fund
- Justin Adams: Managing Director, Global Lands, TNC
- James Hardcastle: Programme Development Manager, IUCN
- Sue Charman: Lead, Finance and Extractive Programmes, WWF-UK
- Mandar Trivedi: Lead, Conservation Finance, ZSL

### *Justin Adams*

The presentation began with an illumination of the fact that many individuals working within conservation are not deeply versed in finance, and that this lack of fluency has contributed to the difficulties facing the successful launch of large-scale conservation bond structures. A worthwhile objective for conservation finance, therefore, was asserted to be the migration of skills from the banking sector into the conservation sector. The gift by JPMorgan to TNC for purposes of erecting innovative conservation solutions/deals was held up as one strong example of this possibility. Research on sourcing not only projects and deals, but also private capital will be key to making sure that such innovations can be durable.

Of the US\$23 billion going into conservation finance today, approximately US\$21 billion is coming from bi-/multi-lateral public entities, whereas only about US\$2 billion is coming from private actors. Part of the cause for this imbalance is that many projects are not currently palatable for private investment objectives. Some creative opportunities are, however, being developed. Among such opportunities in the Naturevest portfolio (i.e., the entity started by TNC to develop projects with the funds provided by JPMorgan) are:

- A US\$7 million equity/debt deal for sustainable grazing in Kenya; novel features of this transaction (which has closed) include:
  - Backers of the deal will encourage herders to adopt more sustainable pastoral techniques by incentivising herders with appealing prices per head of sustainably-raised cattle
  - These purchased cattle will then be fattened on less-sensitive grazing lands and sold at a higher price to the market
  - Principal will be returned to investors at the projects end with a minor return
- A US\$25 million deal for freshwater rights in the Murray Darling Basin of Australia; novel features of this transaction include:
  - Purchasing of water rights in critical wetlands (using market trading system)
  - In years with excess rain, water will be used to flood wetlands and help restore biodiversity to this endangered ecosystem

- A small return to investors is expected
- A US\$80 million debt restructuring deal in Seychelles:
  - Government debt will be forgiven if an environmentally-protected zone is created
  - Over a 20-year period, should result in a long-term endowment
  - US\$23 million new debt issuance connected with the deal
- A US\$170 million transaction in which land is purchased from timber concession owners in the Pacific Northwest to overcome the 'checkerboard' pattern of habitat
  - Funded largely by a philanthropist in the form of a 0% long-term loan
  - Examining how money can be repaid over time

Collectively, these projects demonstrate the considerable creativity that can be brought to bear in developing form-fit conservation finance solutions. They do not, however, resolve the question of how to scale conservation finance – especially conservation bonds – over time.

### *James Hardcastle*

The presentation described how one of IUCN's core activities, as a global union of conservation organisations, agencies and individual experts, is the compilation and dissemination of its knowledge products, including the Red List of Threatened Species. These products and lists, however, do not necessarily directly translate into any form of advantage in acquiring finance. But, attention to how management practices of areas connected to projects may help to better the statuses of species, ecosystems, and protected areas covered by the lists may help to improve the investment capacities for those areas. The new IUCN Green List of Protected Areas is a global standard and certification tool that recognises conservation performance.

It was carefully underscored, however, that more investment does not necessarily translate into better performance, outcomes, or results with respect to conservation, or other sustainability goals. Particularly, scaling finance can often require standardisation practices that can challenge conservation objectives.

By providing a 'seal of approval' on projects (vetted through trusted organisations, such as through IUCN and the Green List), investors can be more assured that projects will not disrupt the local societies or economies, and indeed that they may even help with issues of local or regional stability. Additionally, local actors can be assured that investors are committed to global standards and safeguards, and that impact is a core criteria for investment.

One significant hurdle for expanding conservation finance is that it is often most needed in places of high biodiversity, that are also subject to various complexities and access challenges (e.g., Democratic Republic of the Congo, or Papua New Guinea) that might add significant risk for investors.

The IUCN Green List is being developed to serve as a global standard for protected areas. Its intent is to help recognise conservation areas that are committed to effective outcomes in conservation management and equitable governance of their natural values. Accordingly, there will be a sincere need for measured outcomes: indicators that are necessarily context-

specific (i.e., attuned to the landscapes and systems in which they are implemented) but also that strive for (rough) uniformity. Some examples of applications that IUCN is striving for at present for this system include: a cattle project in Kenya; fisheries project in Vietnam; system of protected areas in Peru. In sum, the sound development of verification and assurance systems like the IUCN's could help to unlock conservation finance, and should be iteratively developed with the help of investors.

### *Sue Charman*

Conservation finance can be seen as a lever for change in both ecosystems and local communities. It can also be viewed as a bridge with entities that have content and thematic objectives that are either additional to, or beyond, financial motivations. There will be (for the foreseeable future) the need for entities with loss-taking capacity, because aggregating demand across private investors that have solely profit-centric motivations, but varying time horizons and tolerances for risk/return profiles will be hugely challenging; striking this balance between private and public/donor capital can be difficult.

One important consideration revolves around the processes for identifying investable projects: there already exists a huge volume of projects globally, but the majority of these are not, and will likely never be, investable. But how does one go about pinpointing which projects are actually investable, and, furthermore, how does one build the business/economic case to attract both suitable scales of capital and appropriate investors?

Part of the identification process for investable projects centres on understanding the possible departures from 'business as usual' (BAU) cases. For example, consider the case of the Grand Banks fishery. Intensive overfishing there has led to the precipitous decline of the cod industry, partly as a result of the pervasive usage of gill-netting, which results in substantial bycatch (which is detrimental to marine biodiversity and ecosystem stability), as well as bad handling of intentional catches (which leads to reduced market prices for caught fish). What if instead cod pots could be used? This small change in technology may facilitate larger volumes and higher qualities. One possibility would entail investors financing the purchase of cod pots, and entering into some form of leasing arrangement with harvesters/fishermen to create an outcome benefiting all stakeholders. Indeed, there are some subtle policy issues lying behind these possibilities, but organisations like WWF specialise in policy navigation, and could be an ally to conservation finance in bringing these skills to the table.

### *Mandar Trivedi*

There has been an identifiable shift towards donor capital preferring a 'pay for performance' model. This requirement could be harnessed to help in the acquisition of upfront private capital investment. The general idea underlying such a model centres on the usage of contracts, whereby a commissioning agency (usually of a donor government) commits to paying back investors; the initial private capital goes to making conservation improvements, and if a set of specified outcomes is achieved, then the injection of donor capital can be used to compensate the private investors for bearing the 'implementation' risk for the conservation project. The mechanism is based on social impact bonds (SIBs) that are already in widespread existence (as well as the more recent development impact bonds – DIBs). But how can these structures *specifically* be applied to conservation finance?

A case-study project is being developed by ZSL to address the escalating problem of rhino poaching. The illegal wildlife trade is fueling an imbalance whereby the number of rhino deaths (from poaching) is exceeding the scale of births, and thus sending many wild rhino populations into dangerous states of decline. And while rhino poaching is a multifaceted problem (e.g., both a matter of supply and demand), the use of an impact bond to furnish a supply-side solution could be powerful. Helpfully, the metrics involved in such a proposition are straightforward (impact is measurable in terms of rhino populations); moreover there are established best-practices in rhino conservation, so the path to change is relatively clear, subject to the provision of the financial backing.

The project in question focuses on 34 'blue-chip' sites that contain the vast majority (~3/4) of the world's wild rhino population. These sites were selected such that the populations that they contain could conceivably grow without interference, and be resistant to outside pressure. The project has been boosted by the commitment of a partner government (UK) to be involved, but the question lingered about how to translate the commitment into cash-flow since impact bonds are commitment-backed rather than asset-backed. That question is still being addressed, but the investment case is being bolstered. ZSL and other NGO partners are helping to foster cooperation with on-the-ground operators and managers. The project will support site managers to establish systems that enable them to implement conservation interventions and then measure the results (in terms of key performance indicators, KPIs). Furthermore, tracking and reporting tools (including, e.g., the Spatial Monitoring And Reporting Tool – SMART) may be instrumental in making sites investment-ready.

ZSL is planning a pilot of this programme without investors, but that otherwise functions as if private investment were already in place. Based on proof of concept, they are hoping to secure funding and launch a private investment phase by 2018.

### *Open Discussion*

Pursuant to presentations by the panelists, the discussion was opened to the event's full attendance. The following summarises the course of that dialogue. With respect to the global pipeline of projects, there are many that are hunting capital, but need to have some important questions resolved first. One of these concerns entails the balancing of impact and returns: how much funding must be returned to investors, and what is the right split for funding to be allocated to growing communities and development of local people, versus to 'pure conservation' aims? A big issue connected to this question is the reliability of repayment mechanisms; given the general unreliability of many existing solutions/structures, many financially-minded/focused parties will probably find dissatisfaction from participating in conservation finance.

Secondly, risk-management issues are a stark worry, as much of the world's potential pipeline of projects are located in areas that investors find difficult due to various country-level hazards. Another question concerns the sizes of projects in the pipeline: should the emphasis be on smaller or larger projects? A loose consensus among attendees suggested that 'reputation-building' and trialing of new ideas should focus on smaller projects, and that the ultimate goal should involve migration to larger-sized projects as experience is accumulated.

Some points of clear optimism among discussants revolved around the sheer number of possibilities that remain untried. It was observed that although there are a great many structures that may not work for mainstream private investors, there are so many existing financial ‘templates’ from the world of banking and investment that have not yet been grafted onto conservation applications, that there stands sizable potential that the right fits are still out there. This prospect, however, leads to the realization that the conservation movement needs the participation of the financial community to help it to innovate and experiment with various combinations of possibilities, and that outside expertise may be imperative to pushing the conservation-finance movement toward successful outcomes.

Another key observation is that there is no ‘lack’ of capital should the right combination of features and structures be found. Specifically, it was noted that the green-bond market has blossomed lately, but that most of this investment is currently being directed at multilateral financial institutions (e.g. World Bank, EIB, EBRD) and corporates (e.g. Unilever) rather than for anything conservation-related. Efforts to tap the corporate bond market or align with it somehow could pose an actionable route toward expanding conservation finance in the near-term future.

## Session II: Forest Bonds under Development

### *Session overview*

The ambition for the session was for participants to present and analyse some of the challenges that specifically face a crucial segment of the conservation-bond space: forest conservation finance. Under the understanding that forest conservation finance and policy (particularly carbon policy and regulation) are in a presently tangled and uncertain state, panelists were challenged to present their views on the possibilities for navigating and growing the market for forest finance. Some of the pertinent questions that were to be addressed include:

- Where is scale to be found?
- Where is demand to be located?
- If there is a sudden spike in demand, how could it be absorbed?
- Will there be an ability to handle and cope with step-changes in the financial or policy underpinnings of forest conservation?

The panel consisted of:

- Sir Graham Wynne (chair): Special Adviser, International Sustainability Unit
- Lisa Genasci: CEO, The ADM Capital Foundation
- Ruben Lubowski: Chief Natural Resource Economist, Environmental Defense Fund
- Nick Oates: Finance Programme Manager, Global Canopy Programme
- Stuart Clenaghan: Principal, Ecosystems Services Ltd
- Andrew Ross: CEO, Global Garden Ltd

### *Lisa Genasci*

The presentation focused on rainforest impact bonds (RIBs). ADM Capital are trying to introduce the first-ever RIB, which is based on the vaccination bond model. And, although this bond is still in draft form, it is anticipated to take the form of a structured, unsecured public bond offering for which the payouts depend on achievement of specified financial and environmental outcomes. The structure of this instrument specifically seeks to convert long-term (developed market) government aid pledges into immediately available cash resources for emerging-market livelihood and other local developments initiatives (e.g., healthcare improvements, education). Investors in the bond will, however, only be paid back when the specified financial and environmental targets have been met.

One manifestation of this RIB could be founded on an agreement between Norway and Indonesia: Norway has offered US\$1 billion to Indonesia for rainforest conservation. To facilitate the effective realisation of these aims, a RIB could be issued by special-purpose vehicle (SPV) in the form of a medium-term note. The coupon from such an instrument could be tied specifically to conservation outcomes, and the principal could be guaranteed by the Indonesian government, or by some other multilateral entity.

An institutional investor is 'lined up' to take much of this issuance, but still some questions remain. For one thing, there is the need to keep the performance metrics simple: for

example, canopy cover is a more desirable metric than carbon-based metrics for this situation. Moreover, there are needs to ensure that the interests of the Indonesian government are well-aligned with the project itself, and that the Indonesian government will be responsible in its requests for/use of the investment.

*Ruben Lubowski*

The difficulty of forest bond financing is heightened because of the policy-risk component. Evolving forest bond finance may well rest on crafting policies and frameworks that can support and generate value from carbon policy-related risks. If it were apparent when and how a policy-driven (or mandated) market for forest carbon would emerge, then there would exist little problem: the existence of such a market would independently generate value and innovation.

A simple proposal to remedy the lack of surety around such a policy-driven market for forest carbon may reside in leveraging the significant volume of public/philanthropic capital. Particularly, this pool could be utilised to guarantee a floor price for forest carbon by serving as a first-loss capital reserve for a fixed window of time, until a market develops, or else more clarity is obtained about future forest-carbon policy. In short, what one may envision is an 'option' on forest-carbon assets.

To help characterise the opportunity, recognise that 94% of money in REDD+ comes from public sources; around 6% comes from private foundations, and well less than 1% is private-sector capital. Furthermore, the volume of public pledges through 2020 for capital investment is significant: \$4.9USD billion from bilateral agreements, and \$3.1USD billion from multilateral arrangements.

The upside for public capital, as well as interested private investors, is if a marked demand for forest carbon develops in the near-to-mid term (i.e., next 10-15 years), in which case a foreseeable 'short squeeze' situation from policy requirements could drive the price of forest carbon up within a short space and compensate investors for bearing the policy risk. In such a case, for non-profit-minded investors, the minimum-price guarantee functionality of the structure would not even be needed, and the investment could be used as perpetual working capital to fund other projects and forest-carbon-related operations. But if such a market did not develop over that (or a comparable) span, then this early capital could function to absorb the losses to others, and possibly preserve the future potential for a market in forest carbon. In essence, this sort of structure operates along the idea of a 'rental agreement with the option to buy', and thus has features of a call option. Functionally, options could be sold to 3rd parties, or else accrue to investors, and the scheme in general is less risky than having to purchase credits outright from the start, but carries the upshot of price appreciation and/or risk mitigation should forest-carbon prices rise. In sum, efforts such as this should serve to cultivate the pipeline of forest-carbon projects and credits.

*Nick Oates*

A serious opportunity for unlocking forest finance may reside in growing forest-friendly economies that work with the supply chains of the world's largest corporate actors. Forest bonds can help in this mission, and the Global Canopy Programme is piloting issuances of three such instruments (two in Brazil, and one in Peru). Capital from these issuances will

target three areas of thematic improvement: people's livelihoods; corporate supply chain sustainability; and conservation efforts. For example, the Peruvian pilot is looking at seven forms of supply-chain enhancement, one conservation measure, and one livelihood improvement programme. This sort of model rests considerably on implementing a particular form (or else parallel forms) of management system change in the corporate supply chains concerned; these changes bear upfront costs, and are designed to have eventual positive environmental impacts. With monitoring and continued enforcement/incentivisation, these sort of arrangements can amount to portfolios of investments that are socially, environmentally, and financially credible.

Part of the threshold for success of these forms of financial innovation, however, relies on a keen understanding of who the different implementing agents are in each of the concerned regions, and these need not be just the explicitly contracted entities, but can stretch to banks, ancillary businesses, etc. Once such parties and their specific needs and motivations have been properly understood, then this framework could be structured into a viable investment proposition.

Thus far, with the Global Canopy Programme efforts, Credit Suisse, Culver, and several other partners have been brought in to help in the efforts of generating informative disclosures on risks, returns projections, additionality assessments, and impact assessments. It is intended that from 2017 onward these investment propositions can be used by local governments and stakeholders to catalyse action.

A major hurdle, however, could stem from the creditworthiness of the intermediaries who are central to the success of projects following this template. At this stage, the Global Canopy Programme is in consultation with such intermediaries about their track records and barriers that they face in obtaining credit. Particularly, the access to credit by individual farmers and cooperatives is posing an issue, and resolving that concern could be a major step toward scalability.

*Stuart Clenaghan*

Bond markets tend to be relatively reluctant to embrace rapid innovation, and to this end debt-based conservation finance must be mindful in its attempts to separate its philanthropic ideals from the capital mission that private investors tend to pursue. There will be more demand for vanilla structures than for complex ones, and greater scalability will come for those structures whose value propositions are couched in terms that are already familiar to the world's major bond desks (and not just niche specialists).

By working with Development Banks, large-scale projects (or aggregations thereof) may be able to obtain ratings that are interdependent with the sovereign rating of the host country; and these validated ratings can drastically improve the desirability of instruments on the bond market. But, reciprocally, these arrangements may help to boost the stability of the host developing countries in which they are situated: there is a big link between destruction of natural capital and creation of financial capital in many developing countries, but the sustainability of both can be in jeopardy if the transformation is not done in a responsible and planned way. To this end, it is observable that the success of REDD+ will depend on scale; and project-driven REDD+ will stumble - and perhaps fail - unless it can deliver widespread and durable changes to people's lifestyles and wealth. The success of REDD+

will also depend on access to low-cost finance that is not (foreseeably) going to come through the carbon market in the near future.

REDD+ must therefore overcome shortcomings in local financial markets, as well as lower the cost-of-capital (CoC) for delivering REDD+ activities. This reduction may be achievable by enhancing availability of equity capital into the financing mix. Government-to-government transfers may be one route to providing this increased equity-capital availability by providing upfront financing. These transfers could be easily measurable and transparent. Part of this transfer could be conducted with National REDD+ Development Banks (that could be embedded within existing Development Banks), and could improve the socio-economic standing of host developing countries (and thereby sovereign credit) through (in part) using received capital to create jobs outside the forest for people who may otherwise consume forest resources in an unsustainable way.

Furthermore, this sort of entity might be able to fund projects at the community level; using community forestry as collateral for community-level loans (through the relevant Development Bank) might be an ideal mechanism for aligning lender and borrower interests. The draw of this approach is that community-based lending can be a route to community-owned financial access. Such access could be used for capital acquisition that could drive education, purchase of better farming implements for more sustainable management practices, and other investments to escape the treadmill of poverty.

*Andrew Ross*

Appropriate natural-capital accounting policies may be crucial to deepening conservation efforts. And the suitable scale for this accounting is ideally at the landscape level, not the project level. As a specific and powerful example, project supply chains of all corporates in the world depend on the hydrological cycle, and almost excessively on the freshwater component of this cycle. Yet one-third of the world's freshwater resources are being unsustainably managed, and this mismanagement poses an enormous risk. Beyond their own activities, corporations cannot exert much control over the water systems upon which they are inextricably dependent. Moreover, the forests that are a key part of the watersheds on which those water systems rely are being improperly valued, precisely because these water systems are being economically undervalued.

Work by Global Garden, in collaboration with King's College London, has established an algorithm to more appropriately value the watershed contribution to corporate supply chains for forest ecosystems. This analytical tool could help provide the clarity needed to generate bonds that will allow investment in global watersheds with established market values. Such an instrument could permit:

- Capital return from forest assets (e.g., timber and carbon credits)
- Securitisation of the supply water chain and soil systems
- Natural capital valued security that is asset-backed and issued by governments themselves

Furthermore, this added information would be integral to the non-financial reporting by corporates that is mandated under EU law under its reporting directive that will take effect this year. Schemes such as this have the potential to reduce risks to many interlinked parties, and could increase the borrowing capacities of issuing countries. Furthermore, there are myriad possibilities to bundle this sort of supply-chain-rooted scheme with civic/municipal financing for developing (and even developed) mega-cities.

## Session III: Identifying and Overcoming Common Barriers

### *Session overview*

The aim of this third session was to encourage discussion and debate among attendees about three vital themes in bond conservation finance. In an effort to generate synthesis, attendees were asked to work in breakout groups on assigned themes, and then present their recommendations to an expert 'challenge' panel who offered feedback and views on these recommendations. The themes were:

- Metrics, additionality, and co-benefits
- Project aggregation, monitoring, and management
- Bond issuers and viable counterparties

The expert panel for this session consisted of:

- Ian Temperton: Managing Director and Head of Advisory, Climate Change Capital
- Professor Gordon Clark: Director, Smith School of Enterprise and the Environment, University of Oxford
- Stuart Clenaghan: Principal, Ecosystem Services Ltd.
- Lisa Genasci: CEO, The ADM Capital Foundation

Each of the breakout groups convened and debated what should be the overarching objectives and advisable best practices with respect to the themes tasked to them. The goal for such deliberations was synthesis of views, and identification of common denominators. Each group then reported on its recommendations before the expert panel, and were given feedback from the panel. The following distils the findings and panel commentary from each group.

### *Metrics, additionality, and co-benefits*

Among the key recommendations from this group were that relevant metrics should ideally be identified through stakeholder engagement processes, but that there should be an attempt –where possible – for these metrics to conform to extant standards (e.g., those from the Millennium Development Goals and future Sustainable Development Goals, etc.). It was also highlighted that the metrics should be matched to objectives that are realistically achievable within the timespans of the projects that are supported by the financing mechanisms in question. Furthermore, there was concern about the rigidity of metrics over the time-courses of projects: the basis for the metric, it was suggested, should not change substantively over the course of the project lifespan. Moreover, it was proposed that the metrics used for any project should clearly relate (at least in part) to the interventions to be realized, and factor into consideration pertinent co-benefits that might be achieved. It was also advised that metrics should include some indication of cost minimisations (or else efforts towards them), as well as reflect best practices in biodiversity sampling techniques (where appropriate). Additionally, it was stated that metrics should be felt relevant by local communities, and should provide both benefits and inducements for ongoing local stewardship of environmental assets.

With respect to the process of providing information (either pre- or post-investment) to serve the appropriate metrics, it was noted that the verification process for both data and certification of any financial instruments (whether bonds or carbon credits, for example) should be both as transparent and standardized/uniform across projects as can feasibly be accomplished. It was further recommended that any data collection efforts be suitable such that they provide value to stakeholders beyond just the lives of the projects themselves; in short, the data-collection components of projects and project-verifications should be persistent.

The responses from the expert panel to these recommendations were generally supportive, but included several caveats. Of note, Professor Clark reminded attendees that organisations (whether corporations, communities, conservation groups, governments, or otherwise) pervasively tend to “manage what they measure”; that is, measurements and metrics are only relevant if they are actionable, and that most indicators generally prompt some form of response from concerned parties (but whether such a response is suitable can depend on the context). It was therefore suggested, and generally agreed upon by the panel, that simplicity should be the guiding principle with respect to metrics and indicators in conservation finance, particularly given the many diverse stakeholders that will typically be involved and the need to focus their collective attentions on the most important elements of projects (as well as overarching conservation objectives).

It was also noted that metrics are about more than just management: they also can carry assurance for investors. But too many metrics can in fact get in the way of solid assurance, because they can cause too little transparency and can create a tangled web of signals for concerned parties. Instead, it was suggested that it may be better to focus on relatively few metrics, but emphasise their transparent, accurate, and timely gathering. Moreover, there were voiced concerns about the costs associated with excessive usage of metrics, and that success would be more likely if the expenses linked to gathering and reporting metrics were strongly controlled.

Finally, there were some warnings about the best place for metrics to be ‘housed’ for various projects. That is, whether metrics should be formally embedded and spelt out in bond (or other relevant legal) documents, which may make them more fixed and rigid; or else introduced at the governance level, which could make them more adaptive and fluid. The matter was discussed, and the panelists advised it best that – in most cases – the metrics be enshrined in the legal documents themselves in order to prevent the manipulability of targets and standards.

### *Project aggregation, monitoring, and management*

The breakout group tasked with this topic first acknowledged the primacy of the issue of scale in aggregation, and that attaining scale for conservation projects is laced with tradeoffs. While it was noted that larger scales generally reduce some forms of transaction costs, it was also observed that increasing scale can raise transaction costs in other areas, including having to deal with multiple forms of government due to operating across several jurisdictions simultaneously. A main recommendation was forwarded that investment-ready projects received the most immediate emphasis (even if other less-developed projects might have eventually more conservation impacts) and that existing channels and networks should be utilised whenever possible.

With respect to management concerns, it was remarked that serious problems tend to arise when large number of donors (but not necessarily private, for-profit investors) and intermediaries become involved (or are needed to be involved) in any given project, or series of related projects. An example of such a concern entails situations (which are becoming increasingly common) of multiple donors that expect results-based provision structures, but may have differing or split objectives in terms of what results – or else methods for measuring results – are most desirable. Similarly, it was noted that having diverse intermediaries involved may create deleterious frictions in the execution of the project and can distract from the core mission. A main difficulty in this latter situation lies in creating suitable incentives that can match the needs of intermediaries. The main recommendation to all of these ends was to ensure that all relevant stakeholders be involved in the project's development from as early a stage as is feasible in order to align interests and try to coordinate expectations from the start.

The response from the expert panel was strongly supportive, and it was noted that, in particular, the issue of scale is a worrying one: trying to standardise many small projects can be a recipe for failure (sustainability schemes on small UK farms was cited as an example of this challenge), but large size does carry its own hassles. Nonetheless, it was observed that most of the money that has been successfully raised to date in conservation finance has indeed come from larger projects, and it was proposed that these continue to garner much of the concentration for future efforts.

With respect to the proposals on management, there was substantial support for the recommendation that aggregation be conducted in a 'pragmatic' fashion that leverages existing channels and networks, but is sensitive to the needs for change (even if more than incremental) to achieve greater impact. It was suggested that local institutions may be the most suitable sites for pragmatic approaches, because they should tend to be more attuned to local circumstances and requirements for doing business than are global entities, and moreover they may be able to more readily accept and benefit from significant changes in process or policy.

On the challenge of coping with multiple intermediaries, especially when intermediaries must act in succession, attention needs to be paid to the chronology of their chain of contribution, and ensure that incentives are properly aligned from one step to the next, and not just more globally in the overall process. Failure to pay such attention might result in chaos rather than coherence in progressing from one link to the next over the lifespan of the financial instrument and the project(s) on which it is based.

### *Bond issuers and viable counterparties*

The group in charge of delivering recommendations on issuers and counterparties began by stressing the importance of focus on trustworthiness of all parties, and not exclusively creditworthiness. Aside from the centrality of trust, another concern should be with contingencies; specifically, parties should be mindful of the question: "What is the underlying 'asset' really worth if the project falls apart?" Attention to what can, or even should, be collateralised, and the priority of claims in the event of default or some other substantial setback should be duly paid in any case.

In such trying situations, it was observed, markets often do not look so much at the 'green things' that are being packaged into investments, but tend (especially when instruments and

structures are particularly innovative or novel) to focus instead on the trustworthiness and/or name of the institutions involved; thus, the reputations of the most salient actors in many conservation financings can be a deal-maker or breaker. Oftentimes, however, it will not be the local institutions that are the most renowned or trustworthy, and it is therefore advisable that the national institutions (or multilateral institutions) that are involved in projects be willing to engage investors, and attention to their reputations and statistics like credit data is important for inspiring investor confidences. Casting an eye to future potential, the group suggested that, in the future, conservation projects might be valued in such a way that they offer up more collateralisable elements; but in the interim it is likely to be the reputations of key stakeholders that are the greatest assistances or hindrances to project development and issuance.

The expert panel approved these recommendations, and Ian Temperton especially was quick to applaud the advice on needing to involve large, reputable multinational organisations (or even, in some instances, national institutions) in order to offer assurances on the bond structure's future. Professor Clark, however, asked attendees to consider the possibility that conservation bonds need not be very safe investments, and that some stripes of investor may be content to purchase instruments that were decidedly risky (if rated at all), so long as there might be a promise of significant return (generally from attractive initial pricing due to an attractive risk premium). Stuart Clenaghan agreed, and forecasted that there will be a spectrum of issuances eventually, but that there would likely only be 'AAA-like' issuances that would succeed at first, but with time there might be an increased appetite for instruments with greater diversity in their risk profiles and returns prospects. To this end, Mr. Clenaghan proposed that part of the success of conservation bond financings will hinge on educating analysts and raters about what is crucial to valuing conservation bonds, and what is not essential or even superfluous. A main goal should be that a point is reached whereby conservation bonds (and other financial instruments with conservation elements) can be cheaply, speedily, and reliably analysed without requiring specialist training. Finally, Professor Clark urged attendees to give due consideration to the risk profiles and analytical concerns of not only individual projects and instruments, but also to the potential portfolios of such that investors might hold (or someday wish to hold).

## Annex A: Agenda

10:30 – 11:00 – **Registration; Tea & Coffee**

11:00 – 11:05 – **Welcome and Opening Remarks**

Justin Mundy, Director, International Sustainability Unit

11:05 – 12:45 – **Session I – Bond proposals under development**

Chair: **Larry Band**, Consultant, Environmental Defense Fund

Panelists:

**Justin Adams**, Managing Director, Global Lands, TNC

**James Hardcastle**, Programme Development Manager, IUCN

**Sue Charman**, Lead, Finance and Extractive Programmes, WWF-UK

**Mandar Trivedi**, Lead, Conservation Finance, ZSL

12:45 – 13:45 – **Lunch**

13:45 – 15:15 – **Session II – Forest bonds under development**

Chair: **Sir Graham Wayne**, Special Adviser, International Sustainability Unit

Panelists:

**Lisa Genasci**, CEO, The ADM Capital Foundation

**Ruben Lubowski**, Chief Natural Resource Economist, EDF

**Nick Oates**, Finance Programme Manager, Global Canopy Programme

**Stuart Clenaghan**, Principal, Ecosystem Services Ltd.

**Andrew Ross**, CEO, Global Garden Ltd.

15:15 – 15:45 – **Coffee break**

15:45 – 17:15 – **Session III – Identifying and overcoming barriers**

Chair: **Ben Caldecott**, Adviser, International Sustainability Unit

The topics for the breakout groups are:

*i) Metrics, additionality, and co-benefits*

*ii) Project aggregation, monitoring, and management*

*iii) Bond issuers and viable counter-parties*

The expert panel consists of:

**Ian Temperton**, Managing Director, Climate Change Capital

**Professor Gordon Clark**, Director, Smith School, University of Oxford

**Stuart Clenaghan**, Principal, Ecosystem Services Ltd.

**Lisa Genasci**, CEO, The ADM Capital Foundation

17:15 – 17:35 – **Keynote**

**Peter Wheeler**, Executive Vice President, TNC

17:35 – 17:45 – **Closing Remarks**

**Sir Graham Wayne**, Special Adviser, International Sustainability Unit

17:45 – 19:15 – **Drinks Reception**

## Annex B: Participant List

**Justin Adams**, Managing Director, TNC

**Daniel Baltzer**, Business Development, Smith School, University of Oxford

**Larry Band**, Consultant, Environmental Defense Fund

**David Barley**, Consultant, Althelia

**Robin Bidwell**, President, ERM Foundation

**Robert Brett**, Director, Africa Programme, Fauna & Flora International

**Paul Buckley**, Managing Partner, First Avenue & Wilderness Foundation

**Ben Caldecott**, Adviser, International Sustainability Unit

**Sue Charman**, One Planet Finance Leader, WWF

**Shuen Chan**, Director of Development, Permian Global

**Stuart Clenaghan**, Principal, Ecosystem Services Ltd

**Rachel Crossley**, Global Impact Investing Network

**Edward Davey**, Senior Programme Manager, International Sustainability Unit

**Cathy Dean**, Director, Save the Rhino Foundation

**Christian del Valle**, Founder and Managing Partner, Althelia

**Raymond Dhirani**, Sustainable Finance Officer, WWF

**Kenneth Donaldson**, Independent

**Raoul du Toit**, African Rhino Program Coordinator, International Rhino Foundation

**Richard Emslie**, Scientific Officer, Rhino Owners

**Tom Evans**, Lead, REDD+ and Forest Conservation Program, Wildlife Conservation Society

**Judith Gasser**, Development Manager, Zoological Society of London (ZSL)

**James Hardcastle**, Programme Development Manager, IUCN

**Abigail Herron**, Head of Responsible Investment Engagement, Aviva Investors

**Lucy Holmes**, Senior Programme Manager, International Sustainability Unit

**Fabian Huwyler**, Vice President, Public Policy and Sustainability Affairs, Credit Suisse

**Paul Jepson**, Leader, Conservation Governance Laboratory, University of Oxford

**Leonie Kelly**, Manager, Sustainability Services, Deloitte

**Steven King**, Programme Officer/Economist, UNEP World Conservation Monitoring Centre

**Tim Laing**, Post Doctoral Researcher, London School of Economics and Political Science

**Ruben Lubowski**, Chief Natural Resource Economist, Environmental Defense Fund

**Justin Mundy**, Director, International Sustainability Unit

**Campbell Norwood**, Trustee, Elephant Family

**Nick Oates**, Finance Programme Manager, Global Canopy Programme

**Paul O'Connor**, Executive Director, Global Environmental and Social Risk Management, J.P.Morgan

**Andrew Ross**, Director, Global Garden Ltd

**Amanda Smith**, Finance Director, ZSL

**Ian Temperton**, Managing Director, Climate Change Capital

**Mandar Trivedi**, Lead, Conservation Finance, ZSL

**Cecilia Valdes Canales**, Manager, Sustainability Services, Deloitte

**Peter Wheeler**, Executive Vice President, TNC

**Sir Graham Wynne**, Special Adviser, International Sustainability Unit