

## **Introducing a Natural Capital Asset Class in Global Exchange Markets – The Central Suriname Nature Reserve Bond –**

**1. Problem & Context:** Problem: The magnitude of financing required to address environmental and climate change challenges today is daunting, with required investments in trillions of dollars. Given these numbers, it is clear that traditional *public-led* approaches to these challenges, such as those based on mandated regulation, tax policy, need to be complemented by market-based solutions, which can mobilize private capital and crowd in innovation. And over the past decade, a number of *semi-public* solutions have become more prevalent, including parallel “artificial” markets (carbon, SO<sub>2</sub>/NO<sub>x</sub>, wetlands banking, compensation)<sup>1</sup>, natural capital accounting rules, SRI, and natural capital impact bonds. These innovations increase the capital available for environmental programs and facilitate innovation; however, they still have not been able to tap capital markets in a manner required to attract the volume of capital needed to defray preservation of critical natural assets. Most existing solutions still rely on a transfer of wealth (such as the case of “artificial” markets created through regulation). They have been limited by the amount of capital available for transfer, by private investors’ reluctance to rely on artificial markets and have been subject to changes in political will. A vanguard *private-led* alternative is to develop natural resource markets to supply capital demanded by introducing natural capital as a new asset class in the global exchange market. This alternative proved successful in forerunning settings. The potential for pricing natural capital has been shown by the extraordinarily reception from both the local communities and financial investors in recent bond offerings for Santa Clara County, CA (US\$150 million) and Tacoma, WA (US\$198 million). In addition, in 2016, IFC issued a first-of-its-kind bond that gives investors the option of getting repaid in either carbon credits (from the Kasigau Corridor REDD project in Kenya) or cash, raising \$152 million to support private sector development and prevent deforestation in the country.

Context in Suriname: For Suriname, this type of financing alternative can have a disproportionately positive impact, both in terms of expected financial leverage and sustainable development results. The introduction of new asset classes in exchange markets are sensitive processes that require market-signaling under different market conditions. The Central Suriname Nature Reserve (“CSNR”) project presents an unparalleled opportunity to test the viability for such a market. Why Suriname? Suriname is rich in natural capital and is the world’s most forested country: over 90% forested, 80% of which is primary, and has 8% of the world’s surface fresh water, excellent biodiversity and a rich cultural heritage. Perversely, its high degree of conservation has made Suriname *less* attractive to traditional conservation investors who have scarce resources that must be prioritized towards areas that are perceived to be most threatened. In the absence of financing alternatives, Suriname’s natural endowment is today threatened by the extractives industries, such as oil & gas, mining (legal and small scale), and unsustainable timber, agriculture and fishing practices. In this context, the Government of Suriname is committed to securing a sustainable future, seeking REDD + credits, and pursuing non-traditional funding mechanisms as part of its national “green growth” strategy.

**2. Executing Agency, Sponsor and Partners.** CSNR Trust. Given its nature, the project will be developed by a consortium of some of the world’s most highly regarded experts, listed below. The assembled expertise represents the core disciplines of capital formation, conservation, sustainable development, natural capital valuations, and policy solutions required to demonstrate the viability of a new asset class for the purposes of financing sustainable development. To ensure effective coordination and capacity-building at the national level in the context of Suriname’s REDD + National Strategy, the proposed executing agency is the CSNR Trust, a private-public trust operating under the auspices of the Government of Suriname with the specific purpose of valuing/pricing the natural assets of the CSNR and converting this value to financial capital.

**Project Sponsor.** The Intrinsic Value Exchange, LLC (“IVE”). IVE is the project sponsor; it is an online stock exchange designed to value and price natural capital. This includes biological systems that provide clean air, water, foods, medicines, a stable climate assets like human health. IVE creates innovative financial products and employs exchange technologies to value and convert natural capital to financial capital. IVE is the project sponsor and will provide financial tools and exchange technology for the project.

**Partners.** Conservation International (“CI”) is well known for its efforts and innovation in the conservation field. CI has been active in Suriname for decades and was the driving force for the creation of the CSNR. CI

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<sup>1</sup> These solutions are considered semi-public (or hybrid) to the extent they have been induced by the public sector and attempted developing parallel “artificial” markets. The notion of “artificial” markets refers to attempts to develop parallel trading floors to those conventionally used by market actors, as a result of common good pursuing public sector-induced initiatives.

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provides country expertise, access to capital resources, interface with the government and other stakeholders, knowledge of monetized ecosystem services revenue streams, and will help manage the CSNR Trust. Earth Economics (“EE”) will provide the natural capital and ecosystem service valuations for all phases of the CSNR Trust capital raise. They are a global leader in science-based economics. The company provides Ecosystem Services Valuation, Benefit-Cost Analysis, Industry Analysis and Finance & Investment Strategies with expertise in working lands, freshwater, oceans, forests, and communities. Pan American Finance (“PAF”) is providing investment banking and financial advisory services for the capital raise for IVE and the CSNR Trust. PAF provides strategic advice and capital raising services to its clients in the Caribbean, Latin American and North American markets. The firm has an extensive track record of raising debt, mezzanine & equity capital, including from development finance institutions. Resolve will assist the team in the allocation of shareholdings in the CSNR Trust to help solve land claim issues and provide alternatives to small-scale mining operations. Resolve is an internationally recognized leader in applying conflict resolution to natural resource, environmental, and public health issues. The Company has a 38-year track record in building strong, enduring solutions to environmental, social, and health challenges. Resolve is currently working in Suriname on indigenous land claims and on conflicts with mineral extraction.

**3. Proposed Solution.** IVE has been authorized by the government of Suriname to create, manage, and capitalize a trust company for the CSNR (the “CSNR Trust”). The primary mission of the trust company is to value/price the natural assets of the CSNR and to convert this value to financial capital using the tools and exchange mechanism of IVE. These natural assets can be claims on benefit flows that produce private returns (e.g. water, genetic material, pharmaceutical, ecotourism), and public returns (e.g. carbon, biodiversity). If the later, they represent an *intrinsic value*.<sup>2</sup> An initial review by IVE identified 237 categories of services in the CSNR that can potentially be developed and monetized. Of these 237 services, IVE has identified three which already have demonstrated revenue streams, estimated at US\$40 million annually, including carbon credits of US\$2.7 million per year, sustainable fresh water harvesting of US\$150,000 per year, and ecotourism of US\$2.5 million per year. These monetized ecosystem service revenue streams will provide a base valuation for the CSNR Trust.

IVE would employ a capital markets toolset to monetize those assets and ecosystem services that cannot be readily monetized today. Only a handful of ecosystem services, such as carbon, have been monetized. Assessments in similar rainforests, such as in Ecuador, value these services in a range from \$2,500 – 5,500 per acre per year. Applying this valuation to the CSNR’s 1.6 million acres, yields between US\$4 – 8 billion per year in potential services. Assuming that only a small fraction of the natural assets and ecosystem service values of the CSNR are converted to financial capital, even 5%, this would represent a 10-fold or greater increase in capital formation over existing, or potential, conventionally monetized streams. IVE will use a Derived Equity instrument to incorporate the monetized revenue streams, the un-monetized ecosystem service values, and intrinsic values into a single equity pricing. The shares of the CSNR Trust will be brought to the market via an equity IPO to generate the capital for the CSNR Trust. The equity in the CSNR Trust company will be divided amongst shareholders and stakeholders. As a stakeholder, the people of Suriname will benefit from the project through the continued conservation of the CSNR, and through the financing that will favor development of economic activity that is more aligned with a sustainable future. Suriname will also be expected to be a shareholder in the CSNR Trust, whose participation will reflect a valuation of their past conservation efforts in the CSNR. The capital created through the CSNR Trust via an equity IPO will create a “green” sovereign wealth fund for the government and people of Suriname, creating a capital flow and investment to invest in the protection of a globally important rainforest habitat, capitalize a sustainable economy – including renewable energy, sustainable agriculture, tourism, water resources -, combat climate change, and provide a shared national asset for country and individual wealth creation.

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<sup>2</sup> The intrinsic value is what transcends that pure productive asset valuation. We can measure service production and translate that to a price, but there is more intangible value when we include value of nature as we do with gold, paintings, or antiquities. They don’t necessarily produce anything but we like them and value them. In corporate world, the goodwill attached to brands, intellectual property, and human capital of the management team and employees are considered intrinsic values and often a substantive part of the firm’s shareholders value. These intangible values give us those variations in multiples attached to companies with similar metrics. This has been the case with natural assets in the bond offerings in Santa Clara, CA and Tacoma, WA.

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**4. Wow Factor / Project Innovation.** This project will demonstrate the viability, through the introduction for the first time in the LAC region of an equity IPO for natural capital, of a new financial asset class that can bring sustainable investing into the mainstream of the economy. By creating the first market for natural assets, IVE can directly address a core financial markets failure that today do not properly value natural assets. If successful, this innovation has extraordinary potential as an alternative private-led solution, in the context of the compliance with commitments of the Global Conferences on Climate Change and Biodiversity.

**5. Scalability.** The project's scalability rests on its ability to demonstrate that natural capital can be monetized and traded on a market platform, and that this vehicle is able to attract capital. Considering prior experiences with bond offerings for Santa Clara, CA and Tacoma, WA, and with the IFC bond for the Kasigau Corridor REDD project in Kenya, there is a clearly identifiable opportunity to structure new bond offerings of the same scale for the CSNR in Suriname, and in other LAC countries. In the context of the next ten (10) bond offerings in LAC, the total value of shares could conservatively reach a value of US\$1 Billion.<sup>3</sup>

**6. Alignment with IDB Group Strategies.** The IIC and the IDB have taken part of the discussion of this initiative since its inception. Both windows are part of the team and are interested parties for the scale-up of the process. If successful in Suriname, and in the context of market development during a commercial phase, the IIC would be interested in collaborating with IVE and the MIF to expand the model, as part of an initiative to develop structured finance instruments for Green Investments, and as part of a new line of work of forest bonds linked to REDD projects. CCS, in collaboration with the Green Climate Fund and the Nordic Development Investment Fund, will play a key role in mainstreaming this model as part of IDB's support in financing national efforts to comply with their global commitments on Climate Change and Biodiversity. During the scale-up phase, this IDB-wide complementary intervention package will build-up a critical mass of rigorously evaluated experiences, to accelerate the development of markets, and position politically natural capital exchanges as a privately-led alternative to conventional green financing instruments.

**7. The MIF Area.** The project is aligned with the objectives of the Climate Smart Agriculture pillar of the MIF. Indeed, the project will contribute to test a private sector solution for sustainable forestry with substantial impact of reduced CO<sub>2</sub> emissions through carbon storage.

**8. Key Thematic Area Indicators.** The project will contribute the following key thematic area indicators:

- Carbon Storage – CSNR 910,000,000 tons @ \$5/ton = \$4,550,000,000
- Avoided Deforestation Rate Calculation: 546,000 tons per year = \$2,730,000
- 10,000 net jobs created through sustainable development practices in the CSNR

**9. Instrument, Estimated Cost.** Investment by the MIF of US\$1 million in this project will be used to structure the project trading platform and infrastructure, facilitate state-of-the-art business development advisory to ensure exceptional return on investment, to develop and ascertain sustainable development management projects, as well as providing accurate natural capital valuations and measurement of business and environmental impacts. MIF's contribution will be in the form of a contingent technical cooperation, convertible to CSNR's capital shares. This project has already attracted significant interest from a prestigious group of impact investors who are anticipating and relying on the MIF's leadership in structuring and providing funding for the project, given the IDB's expertise in Suriname and Latin America. The grant from the MIF will be matched by an expected US\$4 million co-investment funding from the MacArthur Foundation, the Moore Foundation, the Smith family and Conservation International. CSNR's total financial leverage for investment in this project over the course of its duration of 3 years is estimated at US\$24 Million.

**10. Project Team.** Alejandro Pardo (MIF/CSA), Greg Watson (MIF/CSA), Matthieu Pegon (INO/NFP), Thiago De Araujo Mendes (CSD/CCS), Graham Watkins (CSD/CCS), Nicola Karcher (MIF/CSU), Monica Otzuka (MIF/CSA) and George Rogers (GCL/GCL).

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<sup>3</sup> The potential of this new asset class globally is yet to be fully scoped, but it has been estimated that natural infrastructure produces goods and services worth US\$142 Trillion per year (Constanza, 2014). The asset value of the CSNR, like any productive asset, should be valued at some multiple of this productivity. Today, without a market, we can only estimate the real values inherent in natural capital. Through demonstration projects like the CSNR Trust, we can provide actual market data to determine these values. MIF and other investor's seed funding in the CSNR Trust and in IVE's trading infrastructure allows for a powerful new tool to be demonstrated. Further, lead investment can be leveraged to bring in additional capital and resources via grants, investment, and sponsorships.