

Emission Reduction-Linked Notes Mobilize Private Capital for Climate Friendly Project

In February 2023, the World Bank issued \$50 million Emission Reduction-Linked Notes that mobilized private capital to finance a water purifier project in Vietnam and provides bond investors with a return linked to carbon credits generated by the project.

The innovative outcome bond provides financing to a project that will make clean water available to two million school children in Vietnam and reduce greenhouse gas emissions by almost three million tons of carbon dioxide over the 5 years of the bond.

Background

Project developers often struggle to secure the upfront financing that is required to initiate and implement projects that will generate positive climate impacts such as reducing emissions. Carbon markets can support these projects, with buyers purchasing the verified carbon credits once generated. However, there is a timing mismatch between the financing required and the future carbon credit sales revenue of projects.

In Vietnam, a private project developer needed funds for a water purification project that aimed to manufacture and distribute 300,000 water purifiers to 8,000 schools and institutions in Vietnam. The purifiers would make clean water available to around two million school children while also mitigating greenhouse gas emissions by avoiding the burning of biomass to purify water. The project aims to achieve positive development and climate impacts, improving drinking water quality, improving public health, reducing deforestation, and reducing carbon emissions.

Objectives of the bond

The objective of the Emission Reduction-Linked Notes is to make up-front financing available by securitizing potential future carbon credit sales revenue.

The bond mobilizes and channels funds from IBRD bond investors to support the financing needs of the Vietnam water purifier project, by diverting ordinary bond coupons to the project and linking investors' returns to the future carbon credit sales revenue from the project.



Financial Solution

The World Bank issued a five-year \$50 million, principal protected Emission Reduction-Linked Notes with 100% of the proceeds used to finance the World Bank's sustainable development projects and activities globally.

Unlike regular World Bank bonds, the bond investors forego ordinary interest payments. These coupons are instead converted to an equivalent upfront amount (\$7.2 million) and transferred (through an offtake agreement with the carbon credit purchaser) to the project developer in Vietnam. The project developer uses these funds to finance the water purification project that aims to manufacture and distribute water purifiers to schools and institutions in Vietnam.

The project is expected to generate 600,000 carbon credits per annum over the next 10 years. The project developer entered into a purchase agreement whereby they agreed to sell a portion of the verified carbon credits to the offtake purchaser for a fixed price in the future. Sales proceeds from the first 1.8 million of verified carbon credits will be

used to provide the return to the bond investors who gave up ordinary interest payments. Therefore, the bond investors will earn semi-annual coupon payments linked to the issuance of verified carbon credits times a fixed price (up to \$10.4 million total coupon payments).

Irrespective of the project performance, investors will receive the return of bond principal plus a minimum return (from issuing below par) at maturity.

Outcome

The Emission Reduction-Linked Bond was a groundbreaking approach to raise financing for a climate friendly project. Key features included:

- 100% principal protected bond with investors receiving the return of principal plus a minimum return at maturity
- Use of forgone ordinary bond coupons (monetized through an interest rate swap) to make upfront financing available to a climate friendly project that will generate carbon credits in the future
- By securitizing the future carbon credit sales revenue, bond investors earn coupons linked to the number of verified carbon credits generated by a project

The bond was privately placed with three institutional investors and the structure has the potential to serve as a model for replication to support other climate friendly and development projects globally.

World Bank's Role

The World Bank (International Bank for Reconstruction and Development or IBRD) is the issuer of the bond. An evaluation of the project, the emission reduction methodology and the carbon registry benefited from input from the World Bank's Climate Change Group and Country Management Unit (CMU).

Working closely with internal groups including LEGFI, the Climate Change Group, CMU and WFA, TRE led the structuring and execution of the transaction. This transaction benefited from the World Bank's large institutional investor base and bond issuance infrastructure.

Transaction Summary

Size / Maturity	USD 50 million / 5-year
Rating	AAAp by S&P
Issue Price	97.38 %
Redemption Payment	Redemption at Par
Issue Date	February 22, 2023
Maturity Date	March 31, 2028
VCU Linked Interest	Linked to the number of Verified Carbon Units (VCUs) issued by Verra for the water purifier project, paid semi-annually subject to a cap

Transaction Structure

