

Insights from
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With large and varied portfolio, EBRD is facing challenges in applying consistent approaches to monitoring, reporting and verification. As a major multilateral development bank (MDB), EBRD must meet a wide range of reporting and transparency standards. Mr. Halubouski discusses the relevance of digitized MRV in the context of the D-MRV programme – a pilot to demonstrate the feasibility of automating and digitizing some of the key MRV processes.

Q: The EBRD has a large and varied portfolio of finance and investments. What are the key challenges you face in applying a consistent approach to MRV and how important is robust MRV to your operations? As a major multilateral development bank, the EBRD must have to meet a wide range of reporting and transparency standards. How much of a challenge is it to align an MRV system to deliver on them as they inevitably grow and change? Does a digital approach offer an opportunity to rationalize this?

A: Robust MRV frameworks are a cornerstone underpinning and facilitating impactful climate mitigation and adaptation action across the globe. Such systems encourage transparency, accountability and trust between parties and provide a high degree of assurance to the international community that efforts to combat climate change are yielding the expected results. Strong MRV systems that credibly link investments to measurable results on the ground are also instrumental in facilitating access to climate finance and carbon markets. Both international climate donors and carbon credit buyers increasingly demand higher levels of stringency in climate impact assessments and reporting.

The EBRD, alongside other partner MDBs, has been at the forefront of climate finance action driven by commitments to substantially increase climate investments and also to align its investments and operations with the goals of the Paris Agreement, having also signed up to the recommendations of the Task Force on Climate-Related Financial Disclosures. This increases requirements for more accurate, robust and up-to-date data on the performance of the portfolio of projects EBRD invests in.

To date, impacts of these investments have been largely assessed and reported on an ex ante basis following common MDB methodologies. However, there is a growing understanding of, and demand for, broader adoption of ex post approaches to report verified results from climate investments to support disclosure and to better inform climate-aligned investment decisions. It is in this context that enhanced MRV approaches have been identified as an essential element of the innovation pillar prioritized in the recently approved EBRD Green Economy Transition approach 2021–2025, which targets green finance ratios of more than 50 per cent by 2025 and cumulative GHG emission reductions of 25–40 million tCO₂ from the Bank’s supported investments over the strategy timeframe. Thus, advanced digital MRV solutions will support the Bank’s green economy agenda aiming for an accelerated green low-carbon transition in our countries of operation.

You're developing various digital approaches to MRV. What do you see as some of the most promising technological advances at the investment level that could help your work?

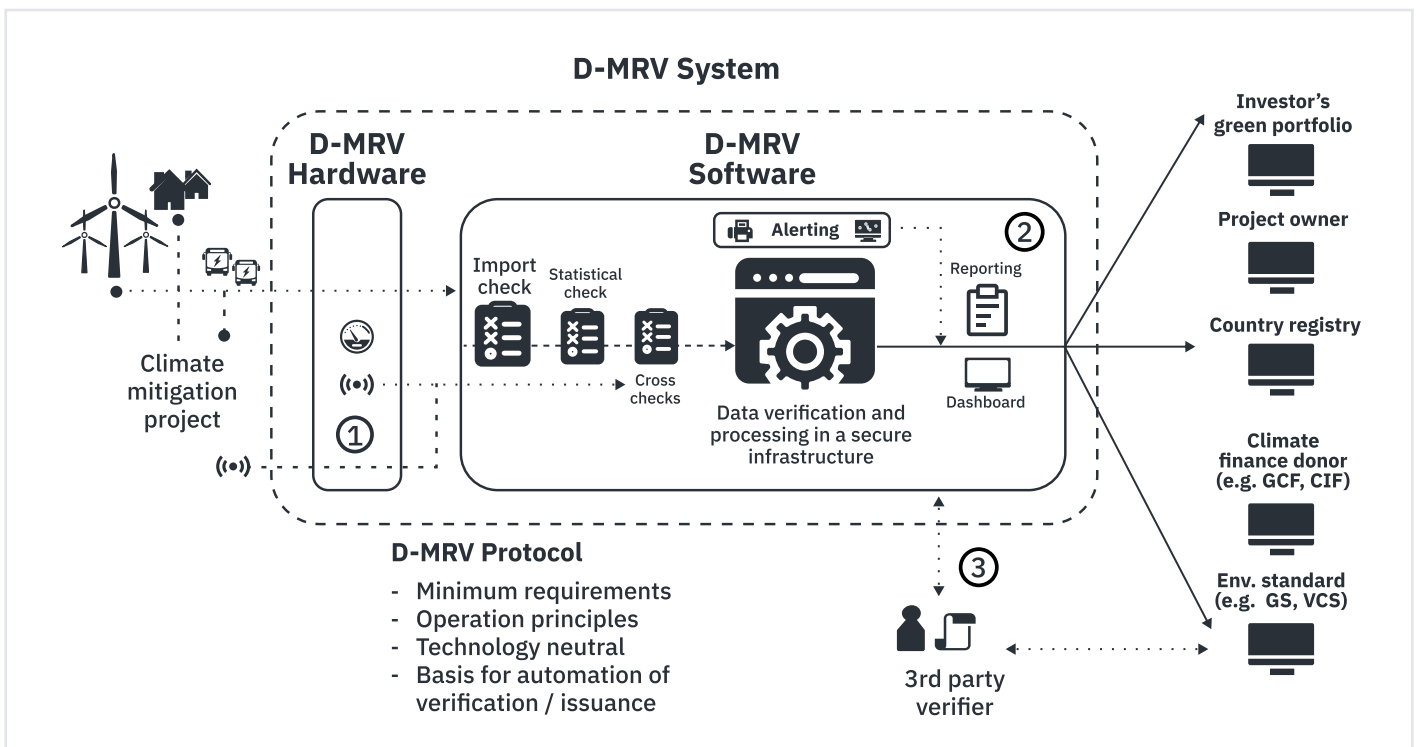
Conventional MRV systems rely substantially on manual data entry and management, making them quite cumbersome, error-prone and costly to implement with a sufficiently high degree of accuracy, reliability and timeliness. In fact, the experience of CDM under the Kyoto Protocol clearly demonstrated that MRV requirements mandated by international standards often create additional barriers to implementation of impactful mitigation interventions – particularly small-scale, spatially and/or temporally distributed ones – due to the prohibitive cost of MRV, disruptions and delays, and generally, long lead times for bringing certified mitigation assets to the market.

At the same time, the latest advances in digital and IT technologies – such as smart meters, digital sensors, distributed ledgers – hold the potential of generating significant gains in terms of cost, time, accuracy, transparency and reliability throughout the MRV process. Reduction of MRV costs can help open up additional revenue opportunities through carbon markets for a range of climate projects previously prevented by the high MRV transaction costs, as, for example, would be the case for small-scale distributed renewable energy projects.

Driven by the shared ambition of staying ahead of the curve in climate finance, EBRD, supported by the Spanish Climate Change Office, piloted in 2019 the development of a prototype advanced digitalized MRV system – what we’ve dubbed “D-MRV” – with the primary objective of demonstrating the feasibility of automating

and digitizing some of the key MRV processes, all in a secure platform. The pilot was also intended to provide insights into the scale of potential MRV transaction cost and time savings that D-MRV system could help unleash.

The D-MRV solution has been successfully tested on a renewable energy project that forms part of EBRD's portfolio – the Khalladi wind farm in Morocco. The project has been connected to the prototype D-MRV system, enabling direct data acquisition, transfer, plausibility and integrity cross-checks, and yielding system pre-verified carbon emission reduction calculations in an automated way. The pilot results were presented at a side event organized by EBRD as part of COP 25 in Madrid in December 2019, while the overall concept of the system design and potential rule changes were also opined upon – largely in a supportive way – by Gold Standard and an independent verifier.



D-MRV System. Source: EBRD

Building on this prototype system experience, EBRD proceeded in 2020 to develop a fully functional D-MRV system that would automate and digitize the entire project MRV workflow – directly acquiring project monitoring data and processing it through to output of system pre-verified mitigation results; reporting on project performance and environmental results achieved to different groups of stakeholders using predefined templates; and enabling independent verification of climate results claimed and of the entire MRV value chain to ascertain accuracy, complete-

ness and integrity of data flows and compliance with applicable rules and requirements.

Quite importantly, the system will also provide additional functionality to support avoidance of double counting of environmental outcomes under different standards or programmes such as carbon credits and renewable energy certificates. Establishment of direct communication links with country or organization registries for data exchange will also be explored.

During the first half of 2021, the full-scale D-MRV system is going to be developed and deployed to a number of EBRD projects to support both monetization of carbon credits generated by a distributed portfolio of renewable energy projects in Jordan, as well as utilization of concessional climate finance for renewable energy projects, and associated reporting obligations, under a Clean Technology Fund programme managed by EBRD across several countries in our region of operation. The experience of this extended piloting of the D-MRV system will provide valuable insights into its further improvement and expansion to other sectors beyond renewable energy, potentially informing further digitalization of MRV in the post-2020 carbon markets.

Obviously, the regulations of environmental standards need to be adapted to allow for full digitalization of MRV, and this is the area where joint efforts by the international climate community are required and where EBRD has been engaging with carbon governance bodies, such as Gold Standard, and independent verification entities to seek buy-in on potential enhancements. There seems to be a general consensus in the market that the benefits of MRV digitalization on improving the quality and value of mitigation outcome data, though carrying potential risks such as data security and integrity and verifier liability, need to be carefully analysed and reflected in the updated regulations.

You've been working on a Digital MRV Protocol applied to some exciting use cases, could you describe the Protocol and how it is targeting some of those challenges and opportunities in MRV? How does the Paris rulebook affect the thinking behind the Protocol, if at all? Would it be helpful to be able to refer to common digital principles? And if so, what do you think they would need to cover and who should own them?

Yes, indeed, EBRD has been spearheading the development of a Protocol for Digitalized MRV, or D-MRV Protocol, which in our view could be an instrument for instilling trust in D-MRV approaches within the climate community. The D-MRV Protocol, which is due to be released shortly, aims at establishing basic requirements for and principles of operation of a D-MRV system with the objective of ensuring accuracy, consistency, traceability and integrity of mitigation outcome data from on-site raw data measurement through to output of mitigation results calculation. By establishing these minimum requirements – or we can call

them digital principles – both at the hardware and the software level of the D-MRV system, covering the areas addressed by the above objective, the protocol would provide a basis for certification or validation of such systems by independent entities, facilitating their integration into the project design.

Digitalization would enable significant improvement in the efficiency of MRV processes, most importantly at verification and issuance, effectively reducing MRV transaction costs and time to market for mitigation assets and facilitating faster payment terms.

Robust digitalized MRV systems will clearly become instrumental in unlocking the full potential of scaled-up carbon markets under the new paradigm of Article 6 activities under the Paris Agreement. And we clearly see the benefit of the protocol in setting minimum standards and providing further guidance on application of digitalized MRV approaches across the whole spectrum of heterogeneous actions under Article 6. Converging on a comprehensive set of requirements applicable to different types of mitigation activities and having these eventually endorsed by the climate market regulatory bodies and assurance providers and embraced by the market would take time and concerted efforts of the climate community.

The extended piloting of the D-MRV system in a range of renewable energy projects, as described above, will provide EBRD with additional insights to inform further enhancements of the D-MRV Protocol.

As much as we like pioneering such initiatives, EBRD appreciates the value of an international body – D-MRV platform – that would convene the key stakeholders, including environmental standards, independent verifiers, national climate authorities, MDBs, to facilitate consensus building on common approaches to digital MRV. Such a body could host and support further updates of the D-MRV Protocol, promoting its wider adoption in the market.

We hope the path that EBRD is laying out with the protocol will help lead to application of more robust and efficient digitalized MRV approaches in the market, facilitating transparency, integrity and impact of climate action around the globe!