Concept Note: Monitoring, Reporting and Verification (MRV) – John Ure 14th Feb 2026

MRV (Monitoring, Reporting and Verification) is central to the integrity of carbon markets, and yet those markets have a structural problem that is rarely or inadequately addressed, giving rise to an appallingly poor history ranging from project failure to incomplete project management (e.g., absence of planned co-benefits) to outright fraud. [For a detailed analysis, Chapter 5 in 'Climate Change and Carbon Markets: Late or Too Late' (Springer Nature, January 20260.]

The Problems

Agent-Principal Problem: from an economist's perspective the structural issue is known as the agent-principal problem. A project owner/manager (the principal) hires an agent (usually from an approved list issued by one of the standards bodies) at high cost, but the agent is reliant for the most part upon the information provided by the principal who knows more about the project and her/his intentions for the project than the agent (asymmetric information). The agent can access information independently (for a price) from sources such as satellite imaginary, but this does not substitute for project-specific information. This in turn gives rise to the potential for moral hazard, deliberate misinformation or the withholding of information by the principal or worse, agent bribery. As millions of dollars are involved if credits are given approval, the return on criminal intent can be a very serious temptation.

Cost Problem: the agent could physically visit the project on the ground, but this requires (i) access, (ii) travel and time depending upon the location of the project, (iii) specific skill sets, such arboreal knowledge, wetland knowledge, urban energy construction knowledge, knowledge of different types of renewables such as solar farms or wind farm or wave farms. Time, travel and scarce specialist knowledge are expensive, and frequently beyond the means and reach of projects in the EMDEs.

MRV Skill Sets Problem: this highlights another fatal flaw in the system, that EMDEs frequently lack the professional skills to do MRV from local sources, and therefore also become vulnerable to scams and increased project risk which translates into financial risk for the local capital market (banks, underwriters and guarantors, and other lenders and insurers) and into economic (social and political) risk for local authorities and governments. This is a dependency issue.

The Buyer's Dilemma

Buyers of credits in carbon mitigation projects, such as REDD+, or renewable energy, or green technologies for buildings or for domestic use (e.g., cook stoves to replace charcoal, heat pumps, etc.) face a dilemma. The history of the carbon credits markets over decades is mired with failed projects, unfulfilled promises, and outright deceptions. For good reasons many enterprises avoid carbon markets, yet genuine, well-conceived and well-managed projects make an important contribution to (i) reducing the growth of Green House Gases, with co-benefits, and (ii) the potential to actually reduce them through technologies such as carbon capture, use and storage (CCUS) either from source or from the atmosphere. But how are buyers to know which projects fall into this category of well-conceived and well managed? Currently, the only

real option is to approach one of the global standards bodies, such as Verra or the Gold Standard, but these cost a small fortune. If they find a project credible, then all well and good, and they can provide the contractual framework necessary to complete an investment, including in the best cases some forms of insurance or compensation or buffer stocks against project reversals due to natural events such as typhoons or wildfires. But rarely is monitoring, reporting and verification (MRV) managed in a sustained basis because legal responsibility to do so is often unclear, unenforceable and difficult to manage over long timeframes which could stretch into many decades.

A Gap in the Market?

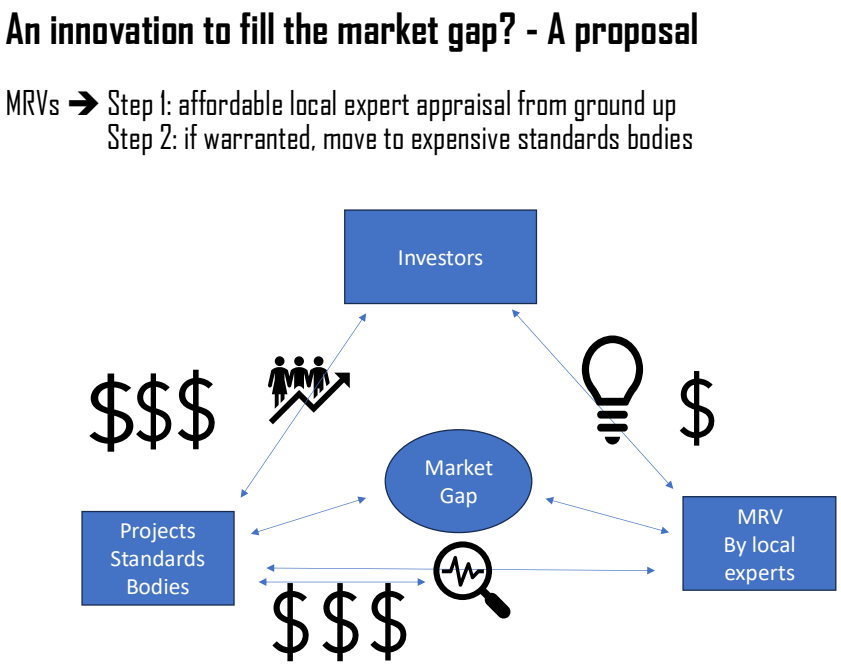

Diagram 1 shows investors buying reports (right-hand side) from the local MRV teams of experts on project represented by the Market Gap oval. If the project is at Grade A the investor then has the choice to pay more directly to a Standards body (left-hand side). By contrast, the traditional route is where the Standards bodies are engaged directly by the project owners and they charge accordingly. So Diagram 1 suggests a shift of payments from Project-Standards to Investors-Standards. This would have the advantage of avoiding the agent: principal dilemma.

How it Could Work

The gap in the market is the gap between an initial cost-effective way to identify projects that have the potential to qualify as genuine, well-managed and likely successful (or well insured against financial loss) and the costs of full scale assessment and due diligence. Rather like

buying a house, an initial survey to ensure the house is structurally sound and in reasonably good repair costs far less money than a detailed survey of the wiring system, the damp-proofing, of the ground substrates (liability of sinking), of the surrounding environment (such as liability of flooding), etc. Part of the decision will rest upon when the house is in a terrace or a detached Georgian mansion. So it is with climate-related or biodiversity or environmental (rural or urban) restoration projects.

Offering potential buyers/investors in projects can therefore have two stages: preliminary (low cost and faster) and in-depth (high cost and more time-consuming). Another way of looking at it is between bottom-up site visits that can capture specific details at low-cost (e.g., species of trees in a forest and soil samples; species of aquatic species downstream of a dam construction) versus top-down assessments using high-resolution satellite videos and regional weather patterns with more limited access to ground-level evidence due to the consultants not actually visiting the site. A remaining difficulty that cannot be easily ascertained from a distance are issues such as the way local regulations and governance are exercised, the views and interests of IPLCs (Indigenous People and Local Communities) and any sense of the personal integrity of the project owner/manager.

Diagram 1 suggests one way to fill this gap. The investor agrees to pay a local team of professionals and experts in the types of projects in which the investors have an interest to physically visit the site within their own country, or in a country with a similar region (e.g., tropic, temperate, coastal, rural, urban, etc.) for several days of inspection. The local team could consist solely of one or two scientists or jointly with a legal or economic expert, depending upon the TOR of the contract. The local team would produce a report of several pages according to a format agreed with the investor. It might, for example, classify projects as Grade A, B or no grading. Grade A would suggest the projects are worthy of investment, and the investor would decide whether to engage warrants a more in-depth assessment by a relevant standards body, which could include one that the professionals involved already follow (e.g., The Global Biodiversity Standard, the Belmorel standard, the IEC standards – see Table 1). Grade B would be projects that could be upgraded to A with appropriate improvements in management policies or use of conservation methods or technologies. Ungraded projects are those that fail to make the grade. Investors buying the appraisal reports are then in an informed position to decide whether to take the next step of engaging one of the expensive standards bodies to undertake a more comprehensive and detailed investigation to verify the project as meeting their standards.

Local MRV Teams

Assembling local MRV teams is the challenge for several reasons.

1. In most EMDEs there is an apparent lack of MRV expertise. 'Apparent' because within universities and commercial corporations and NGOs there is often an untapped treasure trove of qualified professionals, but even if they are uncovered making arrangements for them to take time-off from the day jobs and with their employers is a bridge to be crossed. But that should not be a problem if it enhances the reputation of their institutions and further assignment opportunities down the road.
2. The MRV skills may only be relevant to a narrow range of projects. Aboral expertise has little to do with engineering skills in renewable projects or with electrification skills in urban building projects. So while this limits the scope of in-country teams it will not limit the scope of team across many different EMDEs. Collaboration across the Global South, especially on a regional basis, is a much needed asset in combatting climate change and environmental issues.
3. The employment professionals and experts as fulltime or parttime consultants in a not-for-profit business organisation is the norm. These have a variety of names, such as Mutual Benefit Corporations (MBC) although other cooperative arrangements may be possible. Whether or not the project itself offers financial or economic returns is not part of the MRV process. The investors themselves would make that call.

Offsetting Offsets?

Carbon offsets are controversial, not just because on the supply side there is an integrity problem, but because of the demand side there are accusations of greenwashing and of buying 'get-out-of-jail' cards on the cheap. Many of these accusations are true, but they don't have to be true. MRV is focused on the supply side, but it is important that the demand is also genuinely concerned with carbon abatement. One way to help establish this is to have a process by which companies buying credits can provide credible evidence that they are using them to finance their own transition to carbon reduction, removal or even avoidance. A 'just transition' or a transition that can justify carbon credits. The extension of Article 6 (6.2, 6.4 and ultimately 6.8) of the Paris Agreement suggests that compliance regulations can be used to improve the integrity of the issuing of credits and of their use.

The Role of an MRV-B Corp

1. **Purpose** to offer a cost-effective guidance to buyers to invest in sustainable carbon-mitigation projects in the Global South through the purchase of carbon credits that can only be used as offsets in a 'just transition', and in appropriate jurisdictions could be used for tax exemptions, and to meet the ESG listing requirements of major stock markets.

2. **Function** – to be engaged by an interested buyer and to employ experts and professionals on a project-basis to appraise a project as either Grade A or Grade B or not. To offer MRV services for the duration of various projects.

3. **Operation** – to engage with experts and specialists from academic, industry, NGOs, etc., to create a cohort of professionals willing and interested and committed to social improvement, the UN SDGs and to climate mitigation and environmental protection with a focus on the Global South. To research available MRV frameworks, the supply of projects and the demand for projects to create a 'Direction of Travel' (a vision) and a 'Journey of Travel' (a roadmap) for MRV-MB-Corp.

4. **MRV-B Corp** – beyond normal (not excessive) salaries for MRV-B staff, and meeting all operational costs any costs of amortization of capital obligations, should MRV-B make an annual surplus over costs, this will go into a fund for the following purposes: (i) covering any years of losses, (ii) extending the scope of work of MRV-B such as new clients, new services, new projects, new geographies, etc. (iii) depending upon the size and sustainability of the fund, possibly investing in climate adaptation projects in the Global South.

5. **Standards formatting** – an early task of an MRV-B would be to map out relevant standards available for different project types and skill-sets required. It is anticipated that experts may already follow particular standards, but where necessary an MRV-B Corp would reach out to standards bodies for the approved use of their standards and to collaborate as widely as possible (geographically as well as technically) with experts and professionals using those standards. The standards used by the MRV MB-Corp would be a subset of those standards sufficient to fulfil the MRV purpose as outlined above.

6. **Starting up** – close collaboration with a relatively small number of like-minded people will be necessary. This may include other bodies aiming at the same outcomes. The priorities need to be (i) the direction of travel that would identify a common goal, a common cause, a common aspiration, (ii) the journey of travel that would map out the practical steps to be taken, e.g., listing issues such as engagement with professionals (without which MRV-B would not function), engagement as a social enterprise with civil society and local financiers, philanthropic capital, angel capitalists, and (iii) when the time is right the setting up of a B-Corp, and (iv) how and who to collaborate with, and undertake, the necessary research (see above).

Framework – A Note
Accessibility to the information, to the project by the verifier, would be the first criteria. The agent-principal problem is rampant among projects. A professional verifier who is denied access to anything relevant would need to immediately downgrade to at least a B if not to no grade.

Table 1: Standards

Project	Standard
Biodiversity	The Global Biodiversity Standard (TGBS)
Ecosystem restoration (environment and agriculture)	1. The United Nations Decade on Ecosystem Restoration 2021–2030 2. LEAF (Linking Environment and Farming)
Energy systems	Belmorel
Mangrove restoration	1. Blue Carbon Initiative: Global Mangrove Alliance - Best practice guidelines for mangrove restoration 2. Chinese Academy of Sciences' South China Sea Institute of Oceanology standard
Renewable energy IEC standards	International Electrotechnical Commission (IEC) standards

Example: The Belmorel system

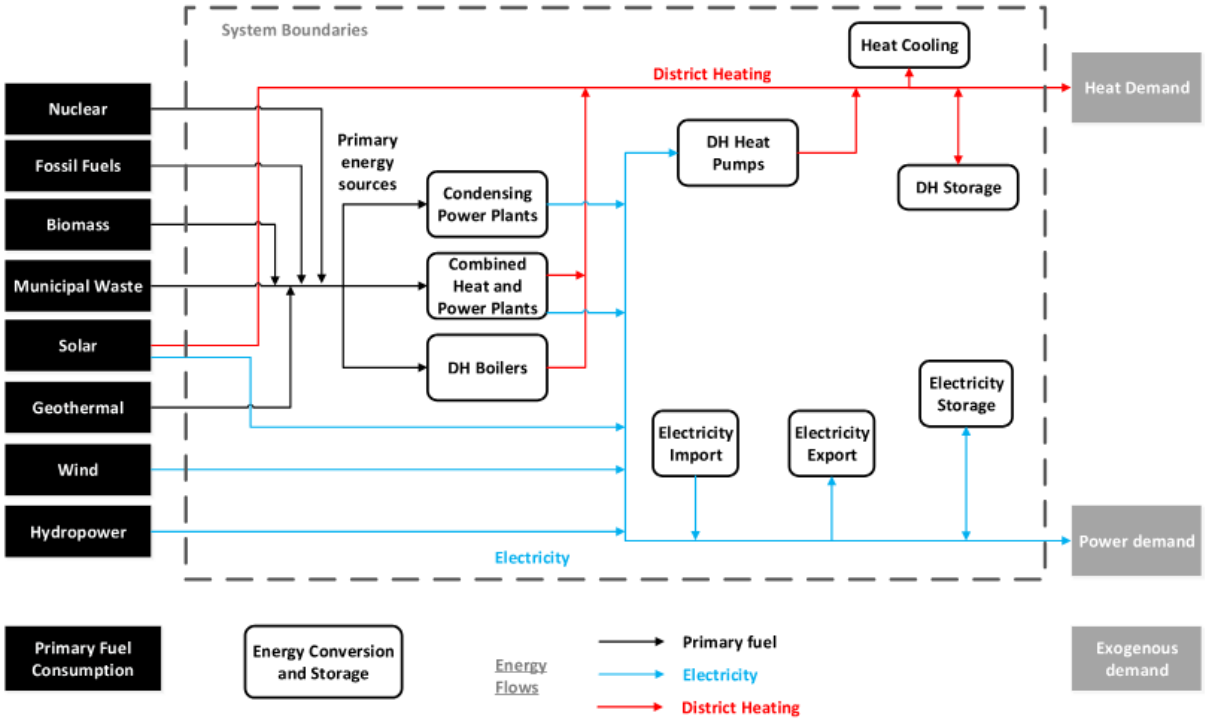

Fig. 1. Balmorel core structure.