

**REQUIREMENTS FOR A NATIONWIDE MONITORING,
REPORTING AND VERIFICATION SYSTEM FOR
GREENHOUSE GAS EMISSIONS**

EXECUTIVE SUMMARY

As climate change speeds up and its impacts grow, it is urgent and critical for governments, businesses and other actors to take action in order to reduce greenhouse gas (GHG) emissions.

In this context, carbon markets emerge as one of the policies adopted worldwide to limit emissions from different actors and enable them to mitigate their emissions through the market in a cost-effective manner. Australia, California, New Zealand, and the European Union are examples of places where initiatives like that are already operating.

Based on theory, international experiences and the Brazilian scenario, this study presents, in details, the main topics related to one of the fundamental tools for building and operating those carbon markets: MRV.

Monitoring, Reporting and Verification (MRV) is the foundation for procedures and guidelines that allow for monitoring emissions through accounting, quantification and communication of accurate and properly assessed information in order to determine: who released which GHGs, from which sources, and how they dealt with their obligations (in case of reduction targets).

AMRV program, besides providing support for designing and conducting carbon markets, may also have other goals, such as providing support for building new public policies, helping in the elaboration of national (regional) inventories, and monitoring sector reduction commitments (mandatory or voluntary).

In order to meet the goals established by a MRV, it is critical to clearly establish its governance, through an institutional arrangement with solid legal foundation. This arrangement will, therefore, establish the competences assigned to the regulatory body, their nature and composition, their methods and responsibilities.

Thus, with the purpose of making it clear to regulated bodies what shall be monitored, in which manner and how it shall be submitted, it is crucial to develop clear and standardized monitoring guidelines, following a common rationale that can be understood by all stakeholders. By determining parameters that help specify the scope of the program and the level of requirements related to the quality of the information reported, the monitoring guidelines become one of MRV pillars.

Elaboration of such guidelines shall be the result of a broad engagement and consultation process to public and private bodies and entities, particularly trade associations that represent the economic sectors that will be regulated, as well as non-governmental organizations, members from the academia, and research institutions. In this process, it is important to foster quality debates, aiming at gathering contributions from different actors in proper stages, in such a way that the organized information and the knowledge created are in fact useful to establish guidelines aligned with the MRV goal and the Brazilian scenario.

One of the key decisions to make when building a MRV is to determine the scope of the program, in other words:

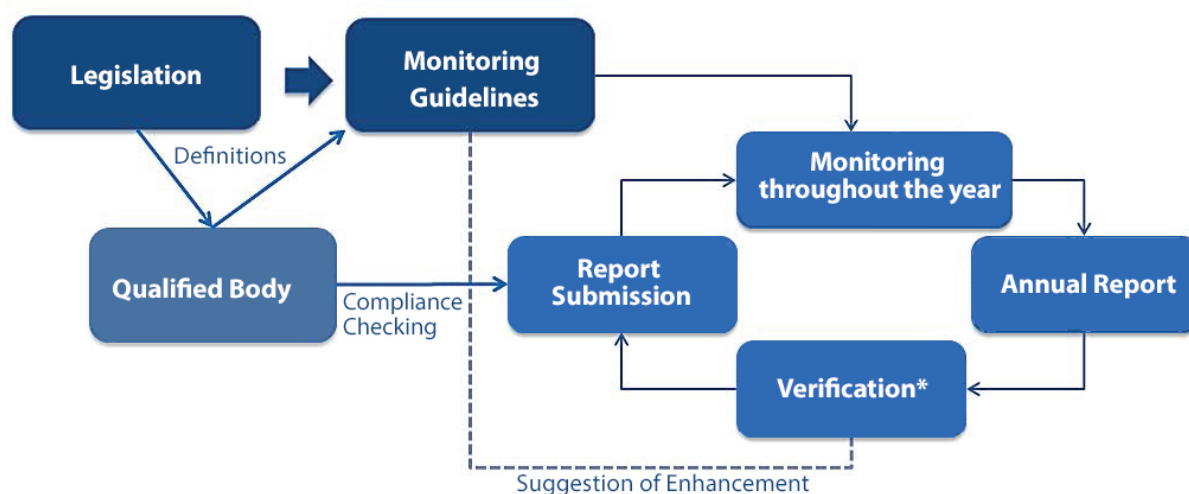
- Who will be regulated? What sectors, activities, companies and facilities will have their emissions measured, calculated and reported?
- What will be monitored? Which gases and emission sources shall be taken into account for each activity?

Once the questions above are answered, and emission monitoring guidelines are established, a MRV program requires assurance that the data collected is accurate and was obtained according to the best possible practices and procedures to collect, calculate and quantify data. So, a Verification process shall be established, through the following possible paths:

- Internal verification by the qualified body: the body in charge of the MRV management carries on analyses of the emission reports, assesses them (i.e.; compares facilities within the same sector) and performs field visits.
- Third-party verification: independent verifiers (individuals or businesses) analyze the quality of the emission reports generated by the regulated business, as well as the methods employed to elaborate them. In that scenario, verifiers shall have their capacity acknowledged by qualified authorities, or an independent body assigned by them, in an accreditation process.

In order for MRV to work in a continuous and consistent way, it is critical to establish proper communication mechanisms between the regulatory body and regulated businesses, in such a way that their obligations are clear and understood by all stakeholders. Additionally, a compliance system shall be structured in a solid way in order to ensure deadlines, targets and procedures established by the regulatory body are consistently met by regulated businesses.

Thus, all MRV program specificities and characteristics can be simplified as follows:



* Scheme summarizing Verification performed by a third-party. If the verification is performed by the agency itself, that stage shall occur after report submission.

Deployment of a MRV structure also results in direct impacts to all stakeholders. It is clear regulatory impact studies are important as decision-making tools to design and enhance MRV. Those analyses shall take into account the costs incurred by the Union to create and manage a MRV system, as well as costs incurred by regulated parties in monitoring and reporting activities, besides eventual verification.

As for Brazil, this study analyzes how some factors, such as market concentration in some of the major GHG emitter sectors and activities, and existing monitoring and calculation methods that are already available, allow for applying a program in the country covering a significant volume of national emissions.

We can also particularly observe two main institutional arrangement possibilities emerge for the creation of a nationwide MRV: use of existing spheres that are already operating with climate and environmental issues in the country, or the design of a new structure responsible for centralizing MRV activities.

Finally, although the debate on carbon pricing in Brazil is still in its early stage, a robust MRV program, collecting and offering public policy-makers reliable and detailed data, could represent an extremely useful tool to choose the best options and to deeply understand the current emission profile in the whole country, including the current context of national and subnational agreements on reduction of GHG emissions.