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From science to policy: how can research community contribute to the reporting and verification needs under the Paris Agreement?

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The time for action on the Paris Agreement is upon us, requiring all signatory countries to have a robust reporting and accounting system that is transparent, accurate, complete, consistent and comparable (through the Enhanced Transparency Framework), with a periodical review of the collective achievement of the 2°C temperature goal (the Global Stocktake). The research community is therefore called to reinforce databases and methodologies to improve national greenhouse gas inventory estimates, especially for developing countries that are subject to new reporting obligations, but also to define a comparable scientific “benchmark” to assess the achievement of the Paris Agreement goal.

Despite the key role of science in the process, often research communities working on emission statistics have approached the problem of climate change through different angles and by using terminologies, metrics, rules and approaches (e.g. spatial and temporal scales) that do not always match with those used by the inventory communities. Within the VERIFY project (Horizon 2020, grant agreement No 776810) a networking between the two communities (research and inventory) has been established. The discussion between them highlighted the importance of a continue exchange to increase the mutual understanding of needs, terms, rules, procedures and guidelines in use, especially those adopted under the UNFCCC and Paris Agreement process.

The presentation will therefore guide the researchers through the monitoring, reporting and verification frameworks under the UNFCCC and Paris Agreement, identifying how and where science production can assist the inventory communities in improving greenhouse gasses estimations and verification systems. Land Use, Land-Use Change and Forestry is the most complicate sector to deal with because of intricacy of flux attribution (that can be both

anthropogenic and non-anthropogenic) and methodological complexity, affected also by common misunderstandings in the use of terminologies and different definitions.

On the basis of the available literature and the outcomes of the work undertaken under VERIFY project, we provide an analysis on the possible critical issues and main misunderstanding that could arise, identifying options on how to solve them.