ICLEI Local Governments for Sustainability

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Forging Measurable, Reportable and Verifiable actions to tackle climate change

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Measurable, Reportable and Verifiable (MRV) action at the local level is paramount for effective climate change mitigation and adaptation in order to avoid breaching tipping points of dangerous and irreversible anthropogenic changes to the global climate system. This brief explains what MRV entails and what its benefits are.

Key messages

- Vertical integration, also known as multi-level governance approaches, means that different levels of government – from national/federal to state/provincial, other subnational and local government – regularly exchange, plan and coordinate activities that relate to planning, implementation and reporting.
- Measurable, reportable and verifiable (MRV) action at the local level is vital for confronting the challenge of climate change around the world. In the past two decades, MRV has developed from its emergence as a concept for national governments in global negotiations, to MRV frameworks for cities, local and subnational governments to monitor and prove their progress.
- Measuring and transparent monitoring of vertically integrated climate actions results in more effective and efficient support of local and regional authorities to realize their climate targets, which in turn supports the achievement of national climate targets. Examples: the Harmonized Emissions Analysis Tool plus (HEAT+) and ClearPath™ tools for completing greenhouse gas inventories, forecasts, climate action plans, and monitoring at the city level.
- Reporting of GHG emissions inventories must be consistent and comparable between cities, and enable local inventories to be aggregated at subnational and national levels in order to better monitor progress and understand policy impacts at all levels of government. One such example is the carbon*n*® Climate Registry (cCR) reporting platform.
- Verifiable data enhances accountability and the credibility of local governments' policies and GHG inventories and helps identify potential hotspots and needs for support on the basis of reliable emissions inventories. For example, compliance with the Compact of Mayors and utilizing the Global Protocol for Community-Scale Greenhouse Gas Emission Inventories (GPC).
- National governments can accelerate MRV climate activities at the local level through vertical integration of policies and frameworks for action.

Why MRV? Key policy milestones at the national level

Two decades ago, the global community of national governments lacked a common framework to combat climate change and to measure, report and verify their mitigation and adaptation actions. In response, the United Nations Framework Convention on Climate Change (UNFCCC) was adopted in 1992 at the Earth Summit in Rio de Janeiro. Following this, the Kyoto Protocol, the international treaty for Parties to the UNFCCC, was adopted in 1997, therein setting the course for measurable, reportable and verifiable (MRV) actions and obliging nations to collaboratively reduce greenhouse gas (GHG) emissions.

In spite of the strides forward taken by the Kyoto Protocol,

the concept of MRV was not formally introduced until 2007 with the Bali Action Plan (at COP 13/CMP 3). The Bali Action Plan obliged developed world countries to commit to MRV through quantified emissions reduction targets, whilst requiring developing world countries to apply MRV in their elaboration of Nationally Appropriate Mitigation Actions (NAMAs) in line with their development objectives Other key milestones included the 2009 COP 15/CMP 5 in Copenhagen, which constituted a major turning point for MRV through a breakthrough accord of Parties who not only committed to adhering to transparent targets with national reports on mitigation actions every two years, but also financing arrangements in support of MRV. In 2010, the Cancun Agreements (at COP 16/CMP 6) took the "R" and the "V" to the next level by requiring fixed submission dates for national GHG inventories and reports for all Parties as well as the establishment of an international UNFCCC registry for NAMAs to record mitigation actions with an MRV approach.

Since then, the COP 17/CMP 7 in Durban, COP 18/ CMP 8 in Doha, COP 19/CMP 9 in Warsaw and COP 20/CMP 10 in Lima have further crystallized MRV guidelines, yet continue to wrestle with the challenges of establishing a normative MRV framework (see box on p3). Amid these discussions, one major caveat remains: the vital role that local governments play in reducing GHG emissions continues to be overlooked.

Benefits of integrating MRV at the local, subnational and national level

Although local governments are part of the public management systems of national governments, cities do not have a legally binding framework to reduce their GHG emissions, and until 2014, there was even no global standard protocol for how local and subnational governments measure their emissions. The absence of a global standard and MRV framework for local governments has therefore meant losing out on some important opportunities, including:

- **Certainty about whether local climate action targets are being met;**
- **Investment in local climate action based on demonstrable progress, which instead remains limited; and,**
- **Harmonized local, subnational and national data and activities.**

Rio de Janeiro benefits from GPC pilot program's GHG inventory analysis (and becomes first city to comply to the Compact of Mayors)

Rio de Janeiro, Brazil, conducted GHG inventories for 2005 and 2012 as part of the GPC pilot program. Informed by these results, Rio implemented a series of low-carbon transport, waste management, forestry, and energy efficiency projects. By 2014, these actions had avoided 378,000 tons of CO_2 emissions.

Since, Rio has also joined the Compact of Mayors – a common platform to capture the impact of cities' collective actions through standardized measurement of emissions and climate risk, and consistent, public reporting of their efforts – and was the first city worldwide to become fully compliant with the Compact.

To harness these opportunities, the Global Protocol for Community-Scale Greenhouse Gas Emission Inventories (GPC) was launched at the 2014 COP20/CMP10 in Lima in order to offer local and subnational governments a globally recognized framework that harmonizes the GHG inventories of hundreds of cities of all sizes around the globe. The GPC built on work initiated by ICLEI and was jointly developed with the World Resources Institute (WRI), C40 Cities Climate Leadership Group (C40), supported by the World Bank Group, UN-Habitat and the United Nations Environment Programme (UNEP).

Addressing climate change with MRV approaches not only helps local, subnational and national governments track and measure progress but also offers a wealth of additional multi-level benefits to accelerate and scale up climate change mitigation and adaptation:

1. MRV allows local, subnational and national governments to identify and compare advantages and opportunities of interventions ex-ante. For example, by setting in place defined MRV targets and using ICLEI's mitigation tools for tracking urban low emissions development strategies (LEDS), a government can identify the differential between the cost of business-as-usual development action and the cost incurred in a scenario with investment in more co-benefits.

2. Measuring and monitoring GHG emission reductions offers all levels of government a transparent means to track policy impacts. Governments that incorporate MRV into their climate planning and action show their willingness to "walk the talk" and are perceived to be more trustworthy and accountable than those that do not. (Following the course of an MRV climate action also gives a clear overview of where to strengthen institutional capacity for low emissions development strategies and implementation.)

3. The availability of transparent climate action data places local governments on the fast track to securing finance and capacity building support. MRV paves the way for the integration of local governments within national mitigation action plans and gives the acknowledgment and publicity required for the securing of domestic and international funding.

How ICLEI supports MRV solutions for local and subnational governments

ICLEI recognizes that since cities are responsible for the majority global CO2 emissions, local governments have a unique responsibility as well as opportunity to sharply mitigate GHGs and adapt to climate change. In order to do so, climate commitments alone are not enough. Local governments must adhere to a common MRV framework with the support of their national governments.

The challenges of normative MRV frameworks for the local level

There are limits and difficulties to developing universal MVR frameworks that are to a certain degree inevitably normative. Even once the GPC was developed and set the frame and standards for local governments, the main challenge remains its use and its acceptance by national governments. They are hesitant to support local MRV frameworks, both because they are new and have not yet been sufficiently proven, and because they may prefer to keep own in-country reporting systems that are under their control.

There are also significant unresolved debates around measurement. There is still no single methodology for dealing with questions such as where to attribute the $tCO_{2\,e}$ that is embodied in the commodities bought in one country, or city, and consumed in elsewhere. One result of this uncertainty is that significant parts of embodied CO_2 is simply not calculated at the local level, although there is a big potential for reducing emissions by regulating the consumption of goods.

ICLEI, and partners, hope to eventually add such an additional depth in an annex to the GPC, but funding for such strategic work remains a challenge.

ICLEI is committed to providing local and subnational governments with measurable, reportable and verifiable pathways of climate action to:

- **Measure** progress, understand development circumstances, identify reduction opportunities, facilitate capacity building, and translate these into policy impacts and mitigation results through tools such as the Harmonized Emissions Analysis Tool plus (HEAT+) and ClearPath™, the leading online software platform for completing greenhouse gas inventories, forecasts, climate action plans, and monitoring at the community-wide or local government operations scale;
- **Report** information and progress to the public and higher levels of government to gain recognition for ambitious climate commitments and actions through the carbon*n*® Climate Registry (cCR), which built on the success of the Copenhagen World Catalogue of Local Climate Commitments, and committing to the Mexico City Pact (see more below); and
- **Verify** and enhance the credibility of governments' policies and GHG inventories (e.g. with the GPC), to confirm the state of emissions reductions on a global scale. The Compact of Mayors platform captures the impact of cities' collective actions through standardized measurement of emissions and climate risk, verifies their compliance, and provides collective, consistent, public reporting of their efforts.

In addition, ICLEI identifies and strives to meet local government needs for support and building capacity through the comprehensive GreenClimateCities (GCC) program, as well as various regional and sectoral programs and projects.

> ***"The GPC's standardized system for measuring and reporting emissions is a critical component of the Compact [of Mayors]. It will help cities see what climate strategies are working, better target their resources, and hold themselves accountable for results. The more cities take part in the Compact and adopt the GPC, the greater impact it will have."***
>
> Michael R. Bloomberg,
> UN Secretary General's Special Envoy for Cities and Climate Change and C40 Board Chair

Political commitments, capacity building and advocacy

In terms of political commitments, ICLEI has driven major policy milestones to streamline local governments' participation in MRV climate commitments and action at national and global levels.

Due to the lack of local government inclusion within the UNFCCC's Bali Roadmap at COP13 in 2007, ICLEI introduced the Local Government Climate Roadmap to parallel national-level climate efforts. The Roadmap sets out a comprehensive post-2012 global climate agenda and calls upon local governments to adopt MRV systems for mitigation targets and commitments.

The 2010 World Mayors Summit on Climate in Mexico City witnessed thousands of authorities and local governments catalyze MRV actions at the subnational level. ICLEI, together with the World Mayors Council on Climate Change and United Cities and Local Governments (UCLG), adopted the Global Cities Covenant on Climate, known as the Mexico City Pact, and jointly launched the carbon*n*® Climate Registry (cCR) platform. With its stringent mission to enhance transparency, accountability and credibility of local climate action, this voluntary reporting platform has thus far elicited inspiring results.

Results of the carbon*n*® Climate Registry

As of mid-2015, over 520 cities and subnational authorities worldwide report to the cCR, representing over 12% of the global urban population. In total, over 5,200 climate mitigation and adaptation actions have been reported – 1,000 of which related to climate and energy commitments mitigating the emission of 2.28 gigatons of GHGs (GtCO2eq). Further, more than half of the reporting cities (54%) had in 2014 reported reduction ambitions of above 1% per year, exceeding the value of even the most ambitious national governments under the Kyoto Protocol.

ICLEI utilizes the cCR as a means to build capacity while increasing global accountability and ambition through partnerships and projects. For example, the Climate Action Plan for Municipalities Programme (PACMUN) is a Mexican initiative launched in by ICLEI 2011 that has supported over 250 local governments in Mexico to develop, monitor and report climate action plans, harnessing vertical integration to tackle climate change from the local to the national level (further information in the ICLEI Case Study on PACMUN).

Not limiting MRV advocacy efforts to mitigation action, local governments also propelled MRV forward in 2011 through the adoption of the Durban Adaptation Charter for Local Governments (DAC). At the COP 17/CMP 7 in Durban, 114 signatories representing 950 local governments signed the

Local Government commitments for MRV: the Mexico City Pact and the Durban Adaptation Charter

Article 4 of the Mexico City Pact states signatories' commitment to:

"Register our emission inventories, commitments, climate mitigation and adaptation measures and actions in a measurable, reportable and verifiable (MRV) manner"

Article 8 of the Durban Adaptation Charter for Local Governments states signatories' commitment:

"To develop an acceptable, robust, transparent, measurable, reportable and verifiable (MRV) register MRV systems should reflect the local context in which adaptation takes place."

DAC declaring that "MRV systems should reflect the local context in which adaptation takes place" in order to ensure that adaptation strategies align with mitigation efforts.

In 2014, the adoption of the Paris Declaration on Climate Action at the World Summit of Regions for Climate saw over 3,000 subnational governments commit to MRV climate action, public reporting and disclosure of GHG reduction efforts. ICLEI, C40 and UCLG subsequently together launched the Compact of Mayors at the UN Climate Summit 2014 in order to further mobilize respective members in their commitments to MRV actions.

The subnational momentum for MRV continued at COP 20/ CMP10 in Lima, December 2014, through the launch of the Non-state Actor Zone for Climate Action (NAZCA). Linked to the cCR and the Local Government Climate Roadmap, the online NAZCA portal demonstrates strategic climate action on behalf of non-state actors.

Next steps for MRV

In order for local governments to accelerate reductions of GHG emissions, national governments must:

- **Vertically integrate** local governments into the process and provide for appropriate enabling frameworks and conditions, both in developed as well as in developing countries;
- **Ensure consistent and transparent measurement and reporting** of GHG emissions between cities, following internationally recognized accounting and reporting principles; and,
- **Enable city inventories to be aggregated at subnational and national levels.**

Last but not least, national governments must keep demonstrating the important role that cities play in tackling climate change, and facilitate insight through benchmarking – and aggregation – of comparable data. Measuring, reporting, and verifying data is empowering cities throughout the globe. After all, if you can measure it - you can manage it.

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No. 05 - Reporting platforms for Local and Subnational Climate Action

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Further Reading

- GIZ (Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH) (2014) Vertically Integrated Nationally Appropriate Mitigation Actions (V-NAMAs) Policy recommendations, case studies and tools for the integration of sub-national actors in national mitigation actions. Eschborn, GIZ on behalf of BMZ in collaboration with ICLEI and Ecofys. Available at: http://e-lib.iclei.org/?tag=v-nama-project
- ICLEI (2009) International Local Government GHG Emissions Analysis Protocol (IEAP). Available at: http://carbonn.org/fileadmin/user_upload/carbonn/Standards/IEAP_October2010_color.pdf (accessed 11 September 2015)
- UNFCCC (2010) the Cancun Agreements of the UNFCCC are available here: http://cancun.unfccc.int/mitigation/developed-country-emission-reduction-targets/#c147 (accessed 11 September 2015)
- UNFCCC (2010) "Report of the Conference of the Parties on its fifteenth session, held in Copenhagen from 7 to 19 December 2009". Available at: http://unfccc.int/resource/docs/2009/cop15/eng/11a01.pdf (accessed 11 September 2015

More briefing sheets here

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