



Enabling subnational climate action through multi-level governance

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Introduction

As was agreed under the Paris Agreement, nations are expected to increase their climate commitments over time via their Nationally Determined Contributions (NDCs) – their national climate action plans. National governments are expected to submit their emissions reduction and adaptation targets for the period up to 2030, and update these targets every five years from 2020 onwards, increasing their level of ambition with each submission. This increase is critical given the current gap between national commitments and the actual emissions reductions needed to achieve Paris Agreement goals. Should emissions not be adequately reduced to limit temperature rise, the need for even more vigorous climate change adaptation action is needed. Thus, scaling up efforts all round are key at this important juncture. Strong partnerships are needed, in-country and internationally.

Now is the time for local and regional governments to become partners to nations as they implement the Paris Agreement. The Paris Agreement recognizes that local and regional governments have an important role to play in global climate action. It is time to take this recognition a step further. Local and regional governments can help nations craft policies and implementation strategies that are most effective on the ground.

Well-designed national frameworks need to take into account the roles and mandates of all levels of government to enable action. National ministries and departments with their respective sectoral or thematic functions, as well as regional and local governments need to cooperate, to align strategies, communication and processes for collective coordinated efforts. Top-down designed approaches are not enough for effective climate governance, as the state often

may not adequately consider local realities, needs and challenges. The local level has no possibility of defining the national framework conditions independently. This is where multi-level governance has a key role to play to optimize climate action and sustainable development in all countries around the globe.

No state can implement meaningful climate action without its cities. No city can effectively tackle climate change without a proper framework set by the state. Here is an inter-dependence, as well as the potential to scale up if the system is designed to enable and empower action at the appropriate levels. It is vital that the subnational levels are well integrated in national climate policies, but also that they get the chance to contribute to policy development and co-design the process of multi-level governance. This is relevant for effective communication, joint planning, coordinating, learning and capacity building, and should lead to more ambitious NDCs.

Vertical integration is a continuous process that matures and changes over time. It is a unique, country-specific framework that should be designed to evolve, support and enable. NDC consultation processes domestically with local and regional governments in advance of and at the 2018 Facilitative Dialogue are important. They will help nations strengthen the urban and regional dimension of their Nationally Determined Contributions, to be reviewed and updated by 2020.

This paper was developed by GIZ Vertically Integrated Climate Policies project, ICLEI – Local Governments for Sustainability and UN-Habitat. It aims to support the implementation of NDCs, by fostering sharing and learning from current climate change mitigation examples reflected in short case studies. These include experiences from Colombia, Germany, South Africa, Mexico and Myanmar, that exemplify good practices as well as barriers.

The NDC Partnership

A global partnership for climate change mitigation and adaptation, the [NDC Partnership](#) was established to support the implementation of the NDCs whilst working towards achieving the Sustainable Development Goals laid down in the 2030 Agenda. The German Federal Ministry for Economic Cooperation and Development (BMZ), the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB), the Moroccan government and the World Resources Institute (WRI) initiated this partnership, with many states joining this initiative. It was launched in Morocco at the COP22, Marrakech Climate Change Conference in November 2016.

COLOMBIA: A vertically integrated climate change system

Policy framework

Colombia contributes little to worldwide greenhouse gas (GHG) emissions – in 2010 it was only 0.46% of global emissions, 281 Mton of CO₂eq¹. However, its emissions are related to another pressing global environmental problem: the deforestation of tropical forests. The biggest emission sector in Colombia is “agriculture, forestry and other land uses”. Reducing national emissions from this sector requires well-coordinated national policies together with the subnational level.

Enabling factors

Contrary to many other countries Colombia mentions vertical integration of climate policies in its Intended Nationally Determined Contribution (INDC) as a strategy to achieve the pledges through the “articulation of the National Government, with regional and local governments for the formulation and implementation in the medium and long term, of comprehensive climate change plans that foster competitive and sustainable cities”. It further states: “Colombia’s INDC seeks to give greater participation to the territories and sectors at the local level to prioritize and design their own climate change strategies, with a differentiated approach that takes into account regional circumstances. This aims at reconciling “bottom-up” and “top-down” strategies with a view to establish enhanced coordination and participation of different stakeholders at the different government levels and link in the value chains of the different sectors.”

A clear example of the experience Colombia has with the articulation among institutions on different governance levels

is the formulation of watershed management plans (POMCAS by its Spanish acronym) and the plans for the integrated management and planning of coastal environmental units (POMIUACS). Such plans *per se* are not a success yet but an important step towards the management of natural resources (and the reduction of emissions emanating from the sector) that encompasses all stakeholders. The actors, that take part in their development are i.a. the Environment and Sustainable Development Ministry (MADS), the Regional Environmental Authorities (CARs²), municipalities, and civil society. This vertical coordination of actors ensures that those plans on the one hand reflect national policies and that on the other hand, local and regional needs are adequately considered. Political goals are thus shared and joint ownership is generated, enhancing the chances of a successful implementation.

The need of coordinated vertical efforts in terms of mitigation and adaptation was laid down in the “institutional strategy for the articulation of Policies and actions in terms of climate change”, aka CONPES 3700. A CONPES document is a guiding instrument for lawmakers, developed by the national council of economic and social policy, which is the highest national planning authority and advisory body of the government. One outcome of this strategy was the creation in 2016 of the National System of Climate Change (SISCLIMA) to coordinate Colombian national, regional, local and international climate change efforts.

SISCLIMA organises its regional work via nine regional climate change hubs, covering the whole nation. Each hub consists (among others) of the relevant national ministries, the Department governments, all its municipalities and the CARs, involving thus all national governance levels. Since the climate change hubs have the tasks to plan, implement and monitor mitigation actions in their respective jurisdictions, they are a showcase of vertical integration of climate policies. As a result of the work of the national climate change system, the National Climate Change Policy (PNCC) was published in 2017. It defines territorial and sectoral guidelines for decision making towards climate-resilient and low-carbon growth (e.g. through the strategy of low carbon development, the national adaptation plan, the national strategy for the reduction of emissions due to deforestation and forest degradation and others).

Vertical integration is pushed forward by the State: all 32 departments have included climate change management into their development plans according to national law and 23 territorial plans have been formulated already (as a result of the collaborative work between the CARs, Municipalities and the national level).

¹ III Colombian National Communication to the United Nations Framework Convention on Climate Change.

² The CARs are authorities at the regional level in charge of administrating the respective environment and natural resources and implementing the national environmental policy given by the MADS.

Stakeholders, actors and irreplaceable drivers

Climate Policies in Colombia are driven mainly by the national level. Though subnational levels plan and implement climate actions (with a clear focus on adaptation and disaster risk reduction) they are not really in the driver's seat. Furthermore, the capacities (knowledge, scientific basis, numbers, etc.) usually are more concentrated at national level. A lot of this originates in the absorption of brainpower of the capital Bogota and less attractive pay at regional entities as well as sometimes clientelistic practices when it comes to staffing in regional entities.

At the national level the National Planning Department (DNP by its Spanish acronym - it could be described as a "superministry") formulates the National Plan that lays the foundation for the sector policies of each new government. Several specialised subsidiary institutions, like the meteorological institute or the disaster risk management unit provide the necessary information for policy makers. The systems of information sourcing and management are vertically integrated as well, encompassing regional structures.

At the regional level, the CARs are the authorities in charge of implementing in their respective jurisdiction the political guidelines laid down by the environment ministry MADS. The municipalities work together with the CARs for land use planning and environmental management. Those cities that have >1 m inhabitants assume the role of an environmental entity for their urban territory instead of a CAR.

Via their (institutionalised) participation in the regional climate change hubs (see above) as well as their (voluntary) participation in round tables for specific environmental projects, civil society (unorganised, trade unions, NGOs) and academia take part in the development of climate change politics and projects as well.

Financing approach

The Financial Management Committee of the SISCLIMA is the interinstitutional coordination mechanism for climate financing. This Committee created the National Climate Financing Strategy, according to which approximately 0,87% of the annual national GDP would have to be spent to accomplish Colombia's emission reduction target up to 2030. 62% of the resources would have to come from the private sector (according to their GHG emissions) and 38% from public investment. The framework proposes the creation of a system of financial mechanisms and regulatory instruments, e.g. adjustment of the tariff for air emissions (equivalent to a carbon tax), green bonds and soft loans for mitigation and adaptation projects.

The Committee will create a mechanism that matches the identified national climate financing needs with international funds. This mechanism will serve, at the same time, as an information platform of the different conditions and terms to access those resources. Financing of adaptation measures relies mainly on sector ministries' budgets, on territorial entities and the CARs or the Colombian Adaptation Fund.

Challenges

The well designed institutional arrangement leads to less implementation successes on the ground than one would think. The gap between institutional and legal framework and implementation reality is still too big and has to be closed. The implementation deficit has to do with corruption at the subnational levels as well as the consequences of the armed conflict (deficient law enforcement in some rural areas). Another problem is the lack of knowledge or conscience about climate change issues (vulnerability as well as mitigation needs). Furthermore, most Colombian cities do not have enough robust data on their GHG emissions, hence they lack the necessary information to take political decisions on mitigation and adaptation³. Projects like "Cities and Climate Change" by UN Habitat help to build GHG inventories.

Scaling-up approach

Several approaches exist in Colombia to scale up successful projects, communicate lessons learnt and mainstream strategies. One example is the Colombian federation of municipalities (FCM by its Spanish acronym), which unites all of the nation's municipalities, organises workshops and training with them and informs regularly on new legal developments (e.g. with their strategic agenda for local governments addressing climate change among others: <http://www.portalterritorial.gov.co/index.shtml>).

The international development cooperation regularly works with the FCM in order to mainstream policies and projects to the municipalities. Another umbrella organisation which is equally important for the roll out of environmental laws, regulations and lessons learnt to the territory is ASOCARS, the national organisation of all Colombian environmental entities. It fulfills a similar function to the FCM, however addressing not municipalities but CARs. ASOCARS as well is a regular counterpart for the international development cooperation.

³ UN Habitat (2014): *¿Qué tan prósperas son las ciudades de Colombia? - Resultados del Índice de Prosperidad Urbana de ONU-Hábitat.*

GERMANY: Access to finance for the local level: The National Climate Initiative (NCI)

Policy framework

In the European Union's NDCs, the EU Member States commit to pan-European emission reduction by 2030 of at least 40 per cent compared with 1990. This goal is embedded in the EU's long-term climate action target of reducing EU-wide greenhouse gas emissions by 80 to 95 per cent by 2050. As the EU Member State with the largest population and the strongest economy, the Federal Republic of Germany plays a key role in achieving the EU climate action target. Thus, by 2020 already its greenhouse gas emissions are to be reduced by at least 40 per cent compared with 1990, and by 2030 by at least 55 per cent.

The national climate policy of Germany aiming at these results is currently reflected in two documents adopted by the federal cabinet in 2014 and 2016: 1) The [Climate Action Programme 2020](#) which incorporates more than 100 defined instruments and measures with quantified GHG emission reduction results until 2020; and 2) The [Climate Action Plan 2050](#) which outlines guiding principles and transformative pathways for the main sectors until 2050 and strategic measures, milestones and targets until 2030. It was developed in consultation with the *Länder* (federal states), local governments, associations and citizens, and emphasises that climate action will be successful only if it is considered and implemented at all levels and by all stakeholders.

Therefore, Germany's climate policy, programmes and action plans rely on the three key areas "Requirements – Support – Information". This means the range of instruments and measures is based on: 1) legal instruments like laws, ordinances and regulations; 2) financial incentives and support programmes; and 3) advisory services and information as well as communication measure.

Klimaschutzinitiative (NKI in German), of the Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB by its German acronym) (Figure 1). It was launched in 2008, with the slogan "Climate action needs your initiative". The NCI aims at anchoring climate action at grassroots level and creating benefits – through subsidies by the federal level – for private households as well as companies, local governments and educational institutions (more details in the [English brochure](#)). Currently, the NCI includes twelve different funding programmes for mitigation actions by these target groups as well as strategic projects to provide information, advisory services and support to these groups, also to help them build capacity.

Success achieved

Among the twelve funding programmes of the NCI, one can find, for example, subsidies for investments in small combined heat and power systems (mini CHP systems) and in more efficient cooling and air-conditioning installations. The main target groups for those two funding schemes are private households and commercial businesses. Another scheme focuses on "Innovative Climate Projects" with the objective of enhanced information on climate change issues, advice and motivation for behavioural change towards climate change mitigation. An overview on all the twelve funding schemes can be found here: www.klimaschutz.de/foerderung (only in German). In total, more than 22,000 projects have been supported with a total of 690 m. EUR of subsidies between 2008 and 2016. They have leveraged investments in climate actions of a total of 2.3 bn. Thereby 1 million tons of CO₂ equivalent per year could already be saved.

The funding scheme "Municipal Directive for Climate Protection"

Having said that, the core of the NCI is the so called "Municipal Directive for Climate Protection in Social, Cultural and Public Institutions", a funding scheme exclusively targeting local governments and institutions under their jurisdiction such as schools and kindergartens (cf. Figure 2). The Federal Ministry hereby recognises the role which municipalities can play in climate action, especially in the cases of energy efficiency in municipal buildings, transport and mobility, water, sewage and the management of municipal enterprises. Local governments can save emissions in all of these areas. They also act as role models for citizens and can shape climate action actively with information, advice and participation services.

Up to now, more than 11,500 projects in roughly 3,000 German municipalities (out of approx. 12,000 in total) have been subsidised with around 525 m. EUR (around 70 % of the total funds of the NCI).

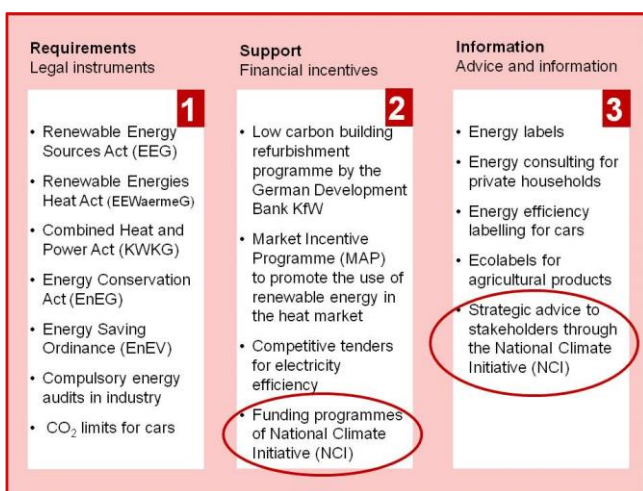


Figure 1: Climate policy measures and instruments by the federal level in Germany [based on BMUB (2016) a]

One of this wide range of instruments and measures is the National Climate Initiative (NCI) (called the *Nationale*

The scheme is based on an incremental approach to implement climate actions: in order to get started with their

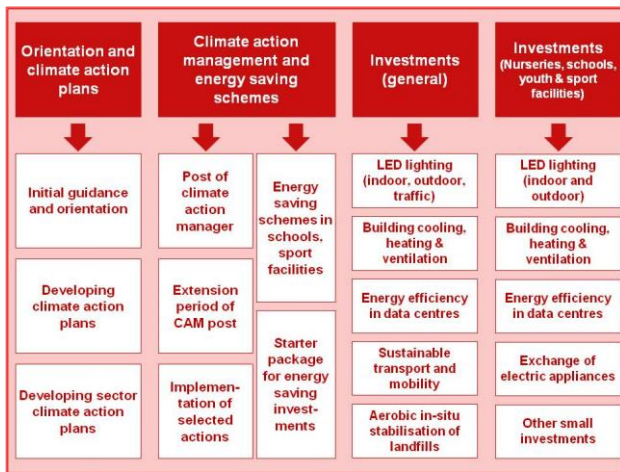


Figure 2: Climate actions eligible for funding by the NCI's "Municipal Directive for Climate Protection in Social, Cultural and Public Institutions" [own figure based on Difu (2016)]

local climate action, municipalities can apply for funding for initial guidance and orientation on mitigation possibilities and for the development of an overall and/or sector climate action strategy and plan. To have a climate action strategy is a precondition for eligibility for funding for most municipal activities related to management to enable the implementation of the climate / sectoral strategies. The key approach here is the financial support for the position of a "climate action manager" within the local administration.

The federal level recognizes the difficulties which the local government level faces when it comes to financing additional personnel. Thus, through the NCI, the federal level subsidises the costs for municipal staff dedicated to the management of climate change mitigation and adaptation action for two to five years. As local resource persons, they work with the public and within the municipal administration as facilitators, linking to and networking with different governmental and non-governmental stakeholders. By providing information, moderation, and management they assist with the implementation of the overall climate action plans and individual measures. This helps to better integrate climate action into municipal administration, institutionalising local climate action.

The "Municipal Directive" funding scheme comprises a wide range of investments which local governments can apply for. These investment projects account for more than half of the funds channelled through the "Municipal Directive" from federal to local level. Over the years, the options were expanded to include more activities eligible for subsidies. These have been regularly revised, not only in response to the needs of the local governments but also to the national climate policy strategy. At first, the main investment area was LED technology for outdoor/indoor lighting but today municipalities can also get subsidies for energy efficiency measures in data centres or GHG reduction at closed landfills.

Strategic advisory service to projects: one important success factor of the NCI is the fact, that the federal ministry not only provides funding schemes for direct mitigation actions but also accompanies these schemes by supporting strategic projects with information, advisory and networking services to the target groups to also help them build capacity. One example is the [Service and Competence Centre: Local Government Climate Action \(SK:KK\)](#) at the German Institute of Urban Affairs (difu). Amongst others, it provides municipalities with up-to-date information on funding opportunities, requirements and procedures by phone and on site. It organises networking events, seminars and training courses. Last but not least difu holds an annual "Climate Action Award for Local Government", a competition rewarding and motivating local governments.

Financing

The federal government's National Climate Initiative is financed with federal funds. Additional means stem from the special Energy and Climate Fund. Within the framework of this special Fund all revenues from emissions trading are made available for measures to transform the energy system, and for domestic and international climate action since 2012.

Challenges

In spite of the visible successes of the NCI, some challenges remain. The transition from a funded measure to a self-sustaining measure is not yet successful in every case. The level of real engagement of municipalities still varies, and to date not all local governments have engaged. Furthermore, there are still regional disparities, with some regions where the majority of municipalities are involved, and other regions that lack engagement.

References and further information (all online available):

- BMUB (2014): The German Government's Climate Action Programme 2020: Cabinet decision of 3 December 2014.
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- BMUB (2016) a: Climate Action in Figures: Facts, Trends and Incentives for German Climate Policy: 2016 edition.
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MEXICO: Climate finance from state to municipal level

Policy framework

Mexico has an ambitious NDC. Its fulfillment depends to a great degree on the involvement of its subnational entities (federal states, cities, municipalities i.a.). However, specific goals other than for the central state (excluding those for most vulnerable municipalities) are not mentioned in the NDC.

Many Mexican federal entities (i.e. States) implement mitigation projects and some assist their lower levels to do so as well. The State of Jalisco has created a framework to provide funds to municipalities as well as to associations of municipalities to implement climate protection projects. As well, an environmental fund exists which opens up further financing opportunities for climate change projects by municipalities. The fact that the State regularly puts aside money for mitigation projects and that municipalities match this money with own funds is in itself a success. However, meaningful assignment of funds in order to achieve best leverage is still a challenge for Jalisco.

Enabling factors

Since 2012 the General Climate Change Law provides the main guidance for the implementation of climate policy on national and subnational levels. In this regard, the function of Mexico's 32 federal States is to develop, conduct, and evaluate the state-level climate change policy, implement mitigation and adaptation actions, develop and implement their own climate change programs, and integrate their emission source data into the National Emissions Inventory and the State Risk Atlas⁴. Jalisco passed its State climate change law in 2015. It determines that all its municipalities within one year after publication of the State Climate Change Programme (i.e. before October/November 2018) should pass their respective municipal climate change programmes. Thus, national climate legislation trickles down to the smallest (the municipal) level in Mexico and, at least on paper, it is assured that all State governance levels contribute to Mexico's NDC fulfilment.

However, several innate obstacles still remain, which have to be addressed by the Nation State: though municipal climate change programmes should incorporate a long term planning time frame (15 years or longer), they have to be updated at the start of every new municipal administration, meaning every three years. This tends to make them volatile. Mayors can be reelected only once (as of 2018), leaving thus little room for meaningful long-term mitigation projects that do not hunt for short-term visibility and results.

In Mexico, neighbouring municipalities can link up and form a legal entity to carry out environmental projects. Those associations enhance horizontal as well as vertical cooperation: not only do they carry out environmental projects of several municipalities, but they are steered and overseen by representatives of municipalities, the State government and even the national government. Summing up, from the legal-institutional side the integration and connection of different levels of government (national, state, local) in Mexico is being developed.

Stakeholders, actors and irreplaceable drivers

Climate change projects (be they about mitigation or adaptation) in Jalisco are induced in various different ways: either through legal obligations (as described above), through personal interest from decision makers e.g. in municipal administrations or through international, national or state funding. Ideally, all three converge in one project. There are plenty of stakeholders and drivers for climate change projects in the federal state. A lot of positive energy to work against climate change and for the best possible adaptation to it can be felt in the state and its municipalities. An enabling legal framework that sets obligations for municipalities surely helps to channel this energy.

As well the fact that the state of Jalisco for nine years now has reserved funds for climate projects by municipal councils helps channel energy and bring about projects. Yet, there are shortcomings as well, as has been indicated by state and local officials, which hinder development and/or implementation of climate change projects: limited knowledge on the necessary implementation steps of projects or weak monitoring and/or communication of the project results, in some cases low priority of climate change projects with decision makers, scarce facts on climate change in the local context or lack of knowledge on existing studies on climate change and its impact on the local level.

Lack of knowledge on tools and instruments (e.g. how to quantify CO₂eq. or how to project the impacts of measures) hampers project implementation as well. In spite of a relatively favourable institutional setting, continuity of projects is still too often at risk after an administration changes, as officials relate. And while the vertical cooperation of projects often works well, the horizontal one is still deficient, leaving institutions out of a project that should participate.

Financing approach

Financing is a major catalyst of successful projects, lack of it can hamper widespread action on climate change. Dedicated municipal budgets on climate change do not yet exist. Municipalities in Mexico earn only a minor fraction of their budget themselves and get assigned budgets by the state. They

⁴ 2016. Semarnat. Mexico's Climate Change Mid-Century Strategy.

therefore have less flexibility to implement climate change action. Planning is harder as well when it is not clear, how much money they can earmark for climate change projects. Until now only 10% of federal states in Mexico have earmarked money to spend on climate change projects (GIZ, 2017) which in some cases will be channeled to municipalities.

In the case of Jalisco, the state government provides financial support for climate change projects to associations of municipalities, which have the purpose of managing the municipalities' territory and protecting the environment. It does this in form of a call for proposals, where councils apply with ideas, mainly taken from their climate action plans. Such a process is a good option if the state wants to trigger climate actions at local level; however, it has to be well designed to spend the money effectively.

Part of a good design is e.g. to have clear criteria on what to fund and what not; how much funding is available individually – this allows applicants to tailor their project according to the available funds; communicate clearly how a well written project should look like (concept, goal, milestones, timeframe, budget etc.); communicate priority sectors for the state, which in turn should be addressed by the municipalities etc. The German development cooperation GIZ currently assists the organisation of the call for proposals and the review of incoming projects for the years 2017 and 2018.

Challenges

The example here described shows on the one hand successful vertical harmonisation of climate policies from the highest level to the lowest. On the other hand, in order to ensure local climate projects that align local priorities with federal state as well as national ones, a clear political guidance is necessary. This begins with knowledge exchange (e.g. according to officials on different governance levels, the Mexican NDC is little known by subnational decision makers), capacity development on basic facts of climate change and how municipalities can and should deal with it (adaptation as well as mitigation wise), and the communication of good practices and innovative projects implemented in other municipalities (either in Mexico or elsewhere). Besides, capacity development guidance for municipal projects can (and does) happen through funding guidelines. (Projects not chosen for funding could be assisted by providing information on further funds.)

However, funding guidelines help to set up good projects, but do not follow up on implementation. Since project funding in the case of Jalisco means one-off disbursement at the beginning of the project, there are no financial mechanisms to sanction deficient project implementation. Due to budgetary reasons, funding cannot be spread over several years. One option to counter this one-off logic is to offer a follow-up funding (with new funds) the next year, on the condition that

project implementation is satisfactory. This assessment should be carried out in the due process of project reporting. Reporting is key to ensure that the federal state together with its municipalities not only acts on climate change but let the Nation State know it so that those projects enter national reporting.

Scaling-up approach

Since so few federal States in Mexico disburse funds for municipal action on climate change, the example of Jalisco is well worth disseminating. Federal States should be encouraged by the Nation State to reserve some budget for climate action. The organisation of a contest for municipalities can thereby lead to better project quality and more ownership on the municipalities' side. A combination of federal State's funds with national funds could be considered as well.

Steps for further ambition

Often, the available money for climate change projects is not sufficient for an entire project cycle. Third party financing should be sought by municipalities as well. This should be encouraged by the national or by federal States. Furthermore, climate change should be much more mainstreamed into (non climate specific) laws, regulations and financing instruments, so that it becomes a constant factor in planning and spending. A long term perspective, spanning several administrative terms could be assisted by this as well. Guarantees (either cemented by law or given by the State) are a suitable instrument for this.

References and further information:

- SEMARNAT (2016): [Semarnat. Mexico's Climate Change Mid-Century Strategy](#). November 2016.
- SEMARNAT, GIZ (2017): *Documento síntesis sobre la información nacional del estatus de las políticas estatales en materia de cambio climático*. March 2017.

MYANMAR: Initial steps in empowering the local level

Policy framework

Myanmar is amongst the most vulnerable countries in the world to the negative effects of climate change. The deadly cyclone Nargis in 2008 that killed thousands of people, has been in fact a dramatic wake-up call which many consider the trigger of the democratization process. Inevitably, as part of the historic reform process the country has prioritized climate change and has started to equip itself with national, sub-national and local policies, strategies and tools accordingly. Since 2015, Myanmar has developed its first climate change National Policy, Strategy and Action Plan 2016-2030, six detailed sectoral actions plans, which are in the process of adoption, has ratified the Paris Agreement and is advancing on implementation of its NDC.

Myanmar is also realising that ambitious national goals can only be achieved by effecting substantial change at the sub-national and local level. However subnational and local decentralization is only incipient, and this circumstance challenges the way that national objectives trickle down to the township and village level. Technical capacities are still limited at subnational and local level to both understand and act on the complex effects of climate change.

This case-study illustrates how Myanmar – in as little time as two years – has developed policy and normative tools to tackle climate change and is testing ways to achieve climate protection at the subnational and local levels. However, the process is still quite new; it will need to be tested against technical capacities, availability of funds, and decentralization challenges in the coming years.

Case study and outcome

Myanmar has progressed rapidly over the past two years. In 2015 it had very few climate normative and planning instruments at the national and local level (with the exception of a National Adaptation Programme of Action – NAPA). Today it has a full-fledged toolbox (currently under adoption) that clarifies the State position on the issue over the long-term, defines specific objectives to build resilience and to contribute to global efforts on mitigation, establishes an implementation roadmap, and proposes to assess vulnerabilities to climate change – and plan accordingly – at the Township level.

In terms of institutional strengthening, the Country established a National Environmental Conservation and Climate Change Committee, which is now progressively including subnational committees and, at least in its intentions, should have committees at the Township level. It has created a national platform for coordination of climate change action with all ministries, the three main cities, the civil society and the private sector. At present the Country is prioritizing

actions to implement with the State Union Budget 2018-2019 in the areas of: 1) food security; 2) eco-system management; 3) energy, transport and industrial systems; 4) cities and towns; 5) disaster risks and health; and 6) education and technology.

Instrumental to accomplishing this intense work has been the Myanmar Climate Change Alliance (MCCA) Programme, funded by the European Union and jointly implemented by UN-Habitat and UN Environment, with stakeholders ranging from national departments, state and region ministries and departments, township representatives, villagers, civil society and the private sector. It is being implemented under the guidance of the Environmental Conservation Department (ECD), under the Ministry of Natural Resources and Environmental Conservation (MoNREC).

The country has also piloted local level climate change projects that guide the funding and planning process at township level in a more climate responsive manner. In two Townships of the Delta Area and the Dry Zone Areas, these projects led by MoNREC assess vulnerabilities to climate change and formulate future scenarios; plan for resilience building while integrating eco-system, infrastructure and socio-economic factors; and begin to implement activities as a result, including mangrove replantation, shelters, land-use planning, vocational trainings to diversify local economy, adaptive agriculture among others.

The MoNREC has structured this approach as a training course for their officials, and integrated it in the National Climate Change Policy, Strategy and Action Plans, with the ambition to replicate this format in all 330 townships. In theory this approach should also help with channeling rural development funds from development partners, thus integrating climate change action into development, e.g., by influencing investments by the Asian Development Bank or their own investments from district to local level.

In practice the process is still at an embryonic stage: these formats will still have to be up-scaled and replicated across the very diverse Union States and Regions. This implies technical capacities and funding, which the Government will need to develop and include in the subnational budgets. Decentralization and local governance still need to be reinforced for this to truly happen.

Enabling factors

Between 2015 and 2017 Myanmar developed its National Climate Change Policy, the Myanmar Climate Change Strategy and Action Plan 2016-2030, and six Sectoral Action Plans. These documents integrate views from the states and regions, and from consultations with townships (towns and cities) and are about to be adopted. Specifically, the Sectoral Action Plans Nos. #2 (Healthy Eco-System) and #4 (Resilient and Sustainable Cities and Towns) of the Climate Change Strategy

require the local level – i.e., townships and cities – to: a) develop local level climate change assessments and plans; b) undertake disaster risk reduction activities; and c) implement local adaptation actions. The implementation of the Strategy requires subnational and local level to contribute to the implementation of the Strategy. It requires monitoring of national to local action on a yearly basis, through the State and Region Environmental Conservation and Climate Change Committees, down to the Township level.

It was the intention of the Myanmar policy-makers formulating the Policy and Strategy to ensure that objectives relevant at the national level were built on local needs and requirements, and implementation has been proceeding accordingly. However Myanmar's decentralization process is still being shaped. It is true that the Union State Budget is increasingly decentralized at State and Regional level (14 states and regions exist in Myanmar); however, local level township administration remains wanting. The townships are in effect managed by representatives of the national ministries, and there is no actual municipal governance with the exception of the three large cities, Yangon, Mandalay and Nay Pyi Taw. This becomes an issue when one tries to translate national level objectives for adaptation and mitigation to the local level. Municipal-type governance, including programming and budgeting, is normally required to plan ahead and incorporate actions necessary for resilience over the long-term.

Through the MCCA MoNREC has developed a mechanism whereby *Township Climate Change Vulnerability Assessments* (which are conducted at the township scale) produce scenarios that illustrate the expected impact of climate change downscaled to a 25km resolution; these in turn provide the basis for *Local Resilience Plans* that integrate actions on ecosystem, social and economic development and infrastructure. These plans are aligned with national sectoral outcomes. So far only two pilots of this model have been implemented: in the dry zone area township of Pakokku, and in the delta area Labutta township. One additional analysis is being conducted in the mountainous regions, in the Hakha township. This model is extremely promising, and is attracting the attention of several ministries at national and regional level, as well as the donors' attention.

In summary, Myanmar has made considerable progress in the last 2-3 years to equip itself with normative instruments, starting from a very low baseline. There are promising developments regarding national-to-local climate action implementation, but further progress will be achieved only within the framework of broader decentralization processes.

Stakeholders and engagement of indispensable actors

Since 2015 MoNREC has mobilized national to local actors in the attempt to set up a technical platform for coordination,

integrate comments from civil society and consult with the local level regarding the national policies.

The stakeholders involved in this work are various, and coordination has steadily improved over the last two or three years. This coordination involves all ministries, including Planning and Finance at National and State-Regional Level; the City Development Councils of Yangon, Mandalay and Nay Pyi Taw; civil society organizations and the associations of the private sector. At the local level, in the 330 towns of secondary and tertiary size, the Township Administrations will play an increasing role.

Local governance is still wanting while there is a very limited local revenue and fiscal basis. However there seem to be political and institutional will, in the climate change arena, to further integrate subnational actors, as ultimately all policy and strategic objectives will have to be implemented locally. The mechanisms put in place so far – the State-Region-level Environmental Conservation and Climate Change Committee, the Township Committees, the Local Resilience Planning Pilots – are promising. However, more will need to be seen in the next years. Amongst the limitations there are the technical capacities to understand the effects of climate change in sectors as varied as environment, agriculture and infrastructure in a country that is emerging from decades of isolation. Indeed capacity-building, and the creation of a critical mass of people that can understand and multiply know-how on climate change, lies at the core of the new Policy and Strategy.

MoNREC is a key actor in this, but it has to work with other indispensable ministries and actors to be able to have an impact at local level. Among the necessary actors are the Department of Rural Development of the Ministry of Agriculture, as well as the City Development Councils in the major cities, and the Department of General Administration, the de facto local administration of the townships.

Financing approach

To date climate change action in Myanmar is still mostly induced through international climate finance and donors. However, there is a very recent important switch to a three-level climate finance strategy. At the core of this new approach – promoted by the Policy and the Strategy – there is the Union State Budget, down to State-Regional level; it is still more limited in magnitude, but shows that Myanmar wants to implement action with its own capacity. The biennium 2018-2019 will probably be the first in which climate finance is integrated into the national budget.

The second layer of this strategy is international climate finance, which is currently financing most of the projects at the national and local levels. These international sources include the Adaptation Fund and the Least Developed

Countries Fund, grants from multilateral organizations such as the European Union, and bilateral funding. Green Climate Fund projects are in the pipeline but not yet started. The outer circle – and potentially the largest – is that of sectoral finance, which will need to contribute to climate change action in Myanmar according to the Policy and Strategy. This includes both national and local level investments. The idea is to create a ‘climate change marker’ through which relevant projects – even those that at first glance seem unrelated to climate change – will contribute to implement the climate change strategy from the national to the local level.

Challenges

Myanmar is emerging from several decades of isolation, which has increased its vulnerability *vis-à-vis* natural hazards and to the less visible effects of climate change. Around one-third (34 percent) of Gross Domestic Product derives from climate-sensitive rain-fed agriculture; this sector also employs around 75 percent of the active population. Productivity has declined as a result of increased temperatures and other effects, fueling trends of migration. Thirty-five (35) percent of the housing stock in the country is built of non-durable materials; this proportion rises to 95 percent in some at-risk areas such as coastal regions.

In this context there are a number of challenges for localizing climate action. Firstly, is the low baseline of normative and planning processes required to generate local outputs in line with national objectives. Secondly is the still insufficiently realized decentralization and local governance. Thirdly one finds large gaps in technical capacities outside the major centres, which challenge the ability to identify climate priorities and act upon such at the local level. The extent to which national objectives will translate into local impact will be largely defined by the ability to create technical capacities and strengthen local governance in the next years. Finally are the financial challenges, in the context of conflicting priorities and a limited local revenue base.

Nonetheless, from the Myanmar example one learns that motivation and political drive exist to fill the gaps through a variety of means. The localization of the National Climate Change Policy and Strategy is an actual preoccupation of the national stakeholders. The models tested in Labutta and Pakokku, and now in Hakha, as well as their development into a national tool for training of Township Administrators, illustrate this commitment. There is political guidance at present, and the conscience that local level action is a priority. What will be required in the immediate future is to strengthen the national-to-local planning mechanisms, and the widespread replication of the Vulnerability Assessments and Local Resilience Planning tools.

Scaling-up approach

The models of Labutta and Pakokku, and now Hakha are due for replication at national level. In the exercise of prioritization for the Union State Budget 2018-2019 this was flagged as an important action. In addition, the approach is being discussed with international donors and banks, to support the replication at national level. Finally, the establishment of local level township climate change committee has also been approved for the whole country, although competing priorities and low capacities persist.

Steps for further ambition

Achieving effective climate protection at local level will require officials to follow a more coherent plan to develop national-to-local (and local-to-national) planning abilities. Firstly, there is the need to strengthen township level governance that is able to identify priorities and plan in the mid- to long-term, in alignment with national priorities. Secondly, all intermediate layers of governance (from national to village or urban ward level, through state-region, district, township and city council) will need to adopt and prioritize the policy requirements, which is now a priority of Myanmar. Thirdly, capacities will need to be reinforced. Finance will hardly ever be sufficient to fill the considerable gaps.

However, the multi-level strategy for financing (i.e., state budget, international climate finance, and sectoral investments) is promising. If Townships and Cities manage to plan better, and direct investments toward climate sensitive priority investments, Myanmar stands a good chance to localize climate change actions and optimize results, making its population less vulnerable to disastrous climate change impacts in the coming decades.

SOUTH AFRICA: Developing a system to monitor and evaluate

The South African NDC defines a peak, plateau and decline in the greenhouse gas emissions (GHG) trajectory range. It gives a range of 398–614 MtCO₂e/year between 2025 and 2030, reaching a peak between 2020 and 2025 and a plateau for the following decade, and then a decline in GHGs.

It is important to note that South Africa as an emerging economy has a growing population that requires access to energy and other services. This is highly relevant to cities and urban areas, which are growing and also need to address climate change and sustainable development, in addition to the increasing energy needs of development.

Policy framework

The national climate policy framework includes the National Climate Change Response Policy (NCCRP) of 2011 and the National Development Plan – Vision 2030, which outline the country's approach to contributing its fair share to global climate change mitigation efforts, as well as dealing with the impacts of climate change. The National Climate Change Response White Paper (NCCRWP) (DEA, 2011) and the National Development Plan (NDP) (NPC 2011), present a vision for an effective response to climate change.

Both policies address the immediate and observed threats of climate change to the country's society, economy and environment and provide the basis for tracking South Africa's transition to a climate resilient society and lower carbon economy. These clearly highlight the importance of understanding the nation's progress towards achieving its target(s), as well as the need for accountability through leadership, management, monitoring, verification and reporting of this transition. To this end, they call for the setting up of a mandatory national monitoring, evaluation and reporting system for climate change information. This has direct relevance also to the subnational governments.

Chapter 5 of the NDP sets out the government's vision on the transition to a low-carbon, resilient economy and a just society, which should be well underway by 2030, namely:

- Providing a detailed analysis and implement mitigation policies and measures.
- Ensuring a just transition.
- Building resilience of both the economy and the society
- Defining structural change, trade-offs and lock-ins.
- Managing the transition.
- Assuming a guiding role at national level, with collective responsibility for the transition by all stakeholders.
- Aligning existing policy and mainstreaming climate change mitigation and adaptation considerations into the activities of all government departments across local, provincial and national government.

- Building an evidence base to inform planning, prioritize data-collection mechanisms, including urgently setting up mandatory monitoring, evaluation and reporting processes for all relevant stakeholders.
- Monitoring, reporting and verifying GHG emissions and climate impacts to understand South Africa's progress compared to national goals.

The NCCRWP commits South Africa to monitoring, evaluating and reporting its progress in responding to climate change in addition to coordinating an effective national response to the unavoidable impacts of climate change and, reducing the country's greenhouse gas (GHG) emissions. To this end the Department of Environmental Affairs (DEA) finalized the National Climate Change Response Monitoring and Evaluation (M&E) Framework in 2015, to inform the tracking of South Africa's transition towards a climate resilient society and lower carbon economy as mandated by the NCCRWP.

The 1st Climate Change Annual Report (CCAR), published in 2016 (DEA 2016a), provided a comprehensive overview of South Africa's progress in catalysing action in response to climate change impacts and risks.

Setting up a monitoring and evaluation system

South Africa's climate change M&E system addresses the measurement, reporting and verification. The M&E system goes beyond a monitoring function, but also aims to evaluate climate change impacts and the effectiveness of responses in South Africa. This system is currently, broadly composed of the following elements shown in Figure 3 below:

Data and Information Coordination Networks	National Climate Change Response Database	Greenhouse Gas Inventory System
<ul style="list-style-type: none"> • Public databases • Climate and atmosphere monitoring networks and systems • Research institutions • Programme/ project implementers 	<ul style="list-style-type: none"> • The current web-based platform is called the National Climate Change Response Database (NCCRD) • A more comprehensive web-based platform, the National Climate Change Response Monitoring and Evaluation System 	<ul style="list-style-type: none"> • The GHG Inventory System is a web-based database linked to the South African Air Quality Information System (SAAQIS) • The SAAQIS houses the National Atmospheric Emissions Inventory System and tracks priority air pollutants, including GHGs

Figure 3. The main elements of South Africa's Climate Change monitoring and evaluation system

It is through this overall system, that monitoring and evaluation of all climate change information, such as the national GHG inventory, policies, strategies and actions will be undertaken; including the elements of the Mitigation System – carbon budgets and sectoral emission targets; and the Adaptation Goals. The monitoring and evaluation will be linked with existing systems; including but not limited to the following:

- ICLEI – Local Governments for Sustainable Development (ICLEI): hosts and manages the [carbonn Climate Registry](#) (cCR), through which a number of cities and provinces report their climate change mitigation and adaptation commitments, programmes and progress.
- South African Risk and Vulnerability Atlas (SARVA): an online spatial database and a content management tool. It has been identified as a key resource under the National Climate Change Response Strategy as both an input and dissemination tool for relevant assessment and response exercises.
- South African Weather Service (SAWS) Climate Data: collates, maintains and runs a quality control process of South Africa's meteorological and climatological data and related information. The data consists of climate change databank, drought monitoring desk and scientific publications.
- National Disaster Management Centre (NDMC) System: contains content, maps and a news feed related to disasters, risks and vulnerabilities of these disasters.
- The National Atmospheric Emissions Information System (NAEIS): will hold and manage all information related to South Africa national GHG inventory as required by the National GHG reporting regulations. It is owned, managed and hosted by DEA.
- Independent Power Procurement Programme (IPPP) system: provides professional advisory services, procurement management services, and monitoring, evaluation and contract management services for the IPPP. The IPP office is in the process of developing a web-based tool which will provide up-to-date information about the IPP projects.

- South African National Energy Development Institute (SANEDI) systems: is in the process of developing and improving the Carbon Capture and Storage system and the [12L tax system](#).
- ESKOM systems: participate in several climate change mitigation programmes such as the Clean Development Mechanism (CDM) and the Integrated Demand Management (IDM). Eskom hosts a number of systems and publishes annual reports for their projects.

ICLEI runs support programmes for local governments, together with [South Africa Local Government Association](#) (SALGA), [South Africa Cities Network](#) (SACN) and other NGOs, to promote climate action and monitoring by local governments. The M&E system team will also consider how they can support this work in the interest of the M&E system.

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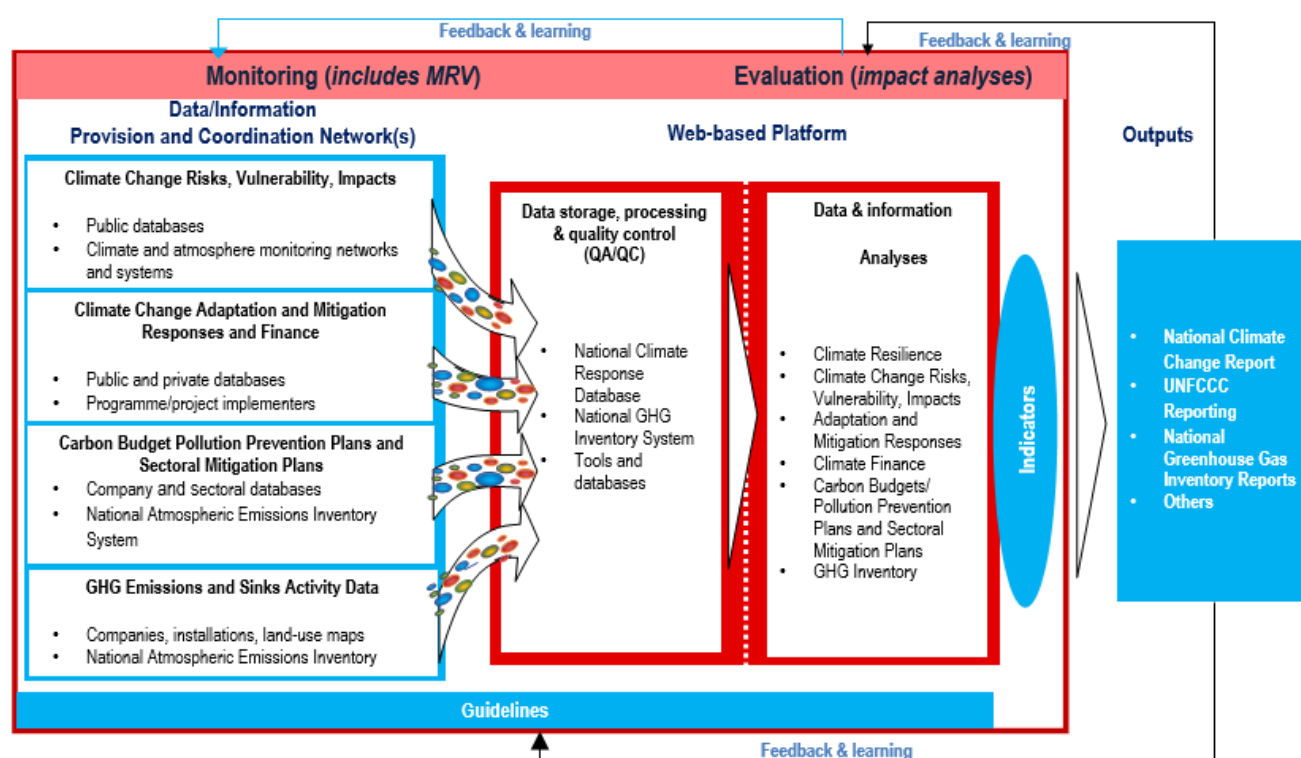


Figure 4. Overview of South Africa's overall climate change monitoring and evaluation system

Closing remarks

This paper presents a range of measures for enabling subnational climate action through multi-level governance. A national climate **policy framework** that gives the necessary leeway to the subnational level to implement meaningful mitigation actions is always a necessary condition for success. Colombia's experience of inserting this approach in its INDC and recognising the articulation of the national level with regional and local governments stands out as an **enabling factor**. Another approach is to realise decentralisation processes, such as the one of the Government of Myanmar. Downscaling climate instruments from national to township level empowers municipalities here. Furthermore, evaluating and monitoring climate variables is key to identify necessities as well as achievements worth to replicate; in this sense South Africa shows a well organised monitoring and evaluation system rooted in its National Development Plan and also requests provinces and municipalities to set up their internal monitoring systems.

Regarding **stakeholders, actors and irreplaceable drivers**, the creation of national systems of climate change and committees is a common practice among countries to organise stakeholders vertically and horizontally. In this context subnational organisations are key players to drive, empower, disseminate and build capacity for local climate action. Interesting examples in this field are the Regional Environmental Authorities and the Colombian federation of municipalities, the German Institute of Urban Affairs (Difu), the association of municipalities in Jalisco (Mexico), the South Africa Local Government Association (SALGA), or the South Africa Cities Network (SACN). As for the **financing approach**, the access to funds is one of the most important challenges at local level. Good practices identified in this paper are the National Climate Initiative in Germany that provides funding for municipalities for direct mitigation actions but also accompanies this funding by supporting strategic long-term projects. Other examples are earmarked funds in the annual national budget as done by Jalisco to ensure the implementation of climate actions at local level in coordination with Municipalities Associations.

Challenges differ from case to case but can be grouped in: 1) institutional challenges; 2) challenges in the monitoring and reporting system of the state and/or municipalities; 3) financial challenges; 4) lack of engagement of municipalities; and 5) limited municipal capacities and technical knowledge about mitigation measures.

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