THE CLIMATE PATHWAY PROJECT

DELIVERING ON MID-CENTURY CLIMATE GOALS

UNDER 2°
Secretariat
°CLIMATE GROUP

THE CLIMATE PATHWAY PROJECT:
Case study, Quintana Roo, Mexico

April 2021

Introduction

The Climate Pathway Project is led by the Climate Group as the Secretariat of the Under2 Coalition, in coordination with the following consortium partners: Governors Group for Climate and Forests - GCF Task Force, in Mexico through its Country Coordination, Pronatura Sur; Winrock International; The Climate Strategy Center (CCS); and Libélula.

The Climate Pathway Project aims to support state and regional governments in developing a transformational process or "pathway" to reduce emissions. The pathway approach gives state and regional governments choice so that they can make an informed decision on how best to reduce emissions while supporting economic and social development.

Our experts worked with the governments of Amazonas, Mato Grosso and São Paulo (Brazil), Quintana Roo and Querétaro (Mexico), and Madre de Dios (Peru) to reduce emissions from a range of sectors including Agriculture, Forestry and Other Land Use (AFOLU) and work to support forest conservation and soil restoration.

At the end of the project, states and regions, in collaboration with their communities and businesses, will have a clearly defined pathway to achieve effective, long-term emissions reductions. They will also have the necessary tools to monitor and, with the support of our experts, evaluate progress to keep them on track.

In April 2019, state and regional governments from Mexico, Brazil, and Peru launched a process to develop transformational strategies, or long-term emissions reduction strategies focused on key economic sectors through 2050. The development of pathways starts with the government's long-term greenhouse gas (GHG) emissions reduction goal, and then works backwards to identify the technologies, infrastructure, interventions and investments that will be required to achieve it in priority sectors. By working across sectors, the process helps policymakers set intermediate milestones to reach the goal, and better understand the costs, risks, trade-offs and co-benefits associated with different policy approaches.

Through the Climate Pathway Project, the governments of Amazonas, Mato Grosso and São Paulo (Brazil), Quintana Roo and Querétaro (Mexico), and Madre de Dios (Peru) have received support to develop tailored long-term priority mitigation actions suited to their local contexts. As forest states – where the Agriculture, Forestry, and Other Land-Use (AFOLU) sector is responsible for a significant share of emissions – these states placed a particular emphasis on integrating actions into their pathways that will mitigate emissions from land use. The AFOLU sector has largely been neglected in existing decarbonization planning processes[1], positioning the Climate Pathway project regions as pioneers by becoming the first cohort of subnational governments to integrate tropical forests and nature-based solutions into a holistic, economy-wide decarbonization plan.

---

[1] Bataille, Christoper et al. Net-zero deep decarbonization pathways in Latin America: Challenges and opportunities, Energy Strategy Reviews, Volume 30, 2020, 100510. https://doi.org/10.1016/j.esr.2020.100510.

Through the process, the project regions developed a series of prioritized mitigation actions and a preliminary analysis of the long-term emissions reduction potential, marginal cost-benefit and social and economic implications within the jurisdiction. The pathway approach has given the state and regional governments choice, so that they can make an informed decision on the best way to pursue science-based reduction targets while pursuing other government priorities such as economic growth.

Participating states and regions, in collaboration with communities and businesses, have developed clearly defined actions to deliver effective and long-term emissions reductions through their climate pathway. While the process represents a breakthrough for tropical forests and provides a long-term plan for states to keep forests intact, the pathway itself is just the first step of a long-term process that will require the plans to be converted to action in the coming years.

Subnational governments ultimately will lead the changes to implement actions for a low-carbon future, and it is estimated that up to 80% of the policies and investments to reduce emissions will occur at the local level[2]. The prominence of local-level action is explicitly recognized in the bottom-up approach of the Paris Agreement and by the increasing importance of subnational government, networks addressing climate change, including the Under2 Coalition and the Governors' Climate and Forests Task Force.

While it is broadly acknowledged that climate goals will not be achieved without action from subnational governments, we also know that they cannot do it alone. The transition from commitment to action will ultimately require coordinated efforts across different levels of government, and perhaps most importantly between states and regional governments and their national government counterparts.

National governments play an essential leadership role by establishing a domestic climate agenda and setting priorities in international climate change fora. Whether it is negotiating at the United Nations Framework Convention on Climate Change (UNFCCC), setting domestic policy agendas, leading national greenhouse gas (GHG) measurement and monitoring, reporting and verification (MRV) systems, or financing and incentivizing the transition to a low carbon economy, national governments control powerful levers that can support – or hinder – the implementation of subnational climate pathways. Alignment with these efforts is essential to ensure subnational climate pathways are implemented efficiently, with sufficient finance, and through compatible or coordinated monitoring and reporting systems.

In recognition of this reality, the Climate Pathway Project has supported concerted dialogue between select subnational governments and their national counterparts. These conversations focused on three thematic areas:

---

[2] https://www.frontiersin.org/articles/10.3389/ffgc.2020.00001/full

1.   Alignment with national climate change strategies, including nationally determined contributions.

2.   Data availability and exchange, with a focus on monitoring emissions for the AFOLU sector

3.   Finance

This report focuses on lessons learned in Mexico from Quintana Roo's engagement with its national counterparts. The report identifies best practices and key lessons learned and provides insight for other jurisdictions that are planning on engaging in long-term climate planning processes. The methodology for this report is a combination of desk research, meetings, and interviews with the state and federal government, GCF Task Force's Country Coordinator, Pronatura Sur, and the GCF Task Force Secretariat and consultants' work on the project.

1 National Climate Policies and NDCs

"For governments at the state and local levels, the next steps are to align with the national goals in your country's contribution to the Paris Agreement. Immediate action can bring your local growth in line with global goals. As governments discuss the rules, they need to know that their commitments on climate are possible in the policies and practices of the cities and states that power their country's growth. Partnerships between nations are more easily built on a foundation of regional partnerships." – Former UNFCCC Executive Secretary Patricia Espinosa following the adoption of the Paris Agreement.

Box 1. What and Why: National Climate Policies and NDCs

What?	Evaluate how Quintana Roo's pathway actions contribute-to and align-with Mexico's Nationally Determined Contribution and Long-Term Strategy (LTS) and explore opportunities to integrate the state's actions in Mexico's NDC update.
Why?	Mexico's NDC and LTS establish domestic climate policy priorities and a vision for implementation mechanisms and incentive systems over different time horizons. Aligning pathway priorities with these climate policies and targets can open opportunities for states to access climate finance in support of pathway implementation and ensure local efforts are reinforced by national policies. Integrating sub-national governments into the construction of national policies can also close the emissions gap by pushing for enhanced ambition and ensuring different levels of government are working towards a common goal.

Overview

With the adoption of the Paris Agreement in 2015, the international community established a global framework to tackle climate change and keep global temperature rise well under 2 degrees Celsius. The bottom-up approach enshrined in the Paris Agreement allows for countries to establish their own policy priorities and emission reduction targets through the submission of Nationally Determined Contributions (NDCs) and mid-century Long-Term Strategies (LTS). Mexico's NDC, which was updated in 2020, establishes emission reduction goals of 22% unconditionally and 36% conditioned upon international support by 2030. Mexico's LTS, submitted in 2016, established a high-level target of 50% reduction in emissions by 2050, compared with emissions in 2000.

At a high level, any subnational climate pathway will have inherent synergies with the objectives of the national NDCs and LTSs. They both provide a roadmap for achieving long-term, cross-sectoral GHG emissions reductions while setting a vision for responsible, low carbon development. At the same time, it is not unusual for national and local priorities to diverge – differences in overall emissions profiles, economic composition, constituent demands, and local capacity can all contribute to the development of actions that differ from national approaches. Therefore, a more granular approach is needed to identify where pathway actions and NDC priorities fully, or partially, intersect.

Pursuing NDC alignment is an important component of the pathway development process because it can open doors to support the eventual implementation of priority actions. For one, long-term emissions reduction actions that are included in or aligned with an NDC are better positioned to receive support through domestic budgetary appropriations processes, particularly as national governments move to mainstream climate finance into government operations as they pursue their NDC commitments. Second, NDC-aligned actions are also far more likely to secure funding through international climate finance mechanisms such as REDD+, nationally appropriate mitigation actions (NAMAs), Internationally Transferred Mitigation Outcomes (ITMOs), and other forms of support through Article 6 of the Paris Agreement or donor institutions. The national government serves as the gatekeepers for the vast majority of these international climate finance opportunities and is far more likely to support subnational initiatives that align with the country's international commitments.

An initial assessment of alignment with NDCs can be done by creating a simple matrix comparing the state pathway priority actions with the NDC (see table 1). In the case of Quintana Roo, five actions were explicitly mentioned in Mexico's NDC; four actions were within sectors that were broadly mentioned as priorities in the NDC but lacked detail to make a definitive assessment; and one action was not included. In cases where climate

pathway actions do not align with NDCs, engaging in dialogue can be a useful opportunity for states to better understand the root causes of potential misalignment, advocate for their priorities, and encourage the inclusion of their sectoral actions in future NDC revisions.

Table 1. Quintana Roo's priority actions for the Climate Pathway Project compared with Mexico NDCs

Action	Sector	Included in NDC?
Electrification of Vehicles	Transport	Yes – reference to development of National Electric Mobility Strategy
Centralized solar energy	Energy	Not explicitly mentioned, only some reference to clean energy
Centralized wind energy	Energy	Not explicitly mentioned, only some reference to clean energy
Urban housing: efficient design	Residential and Commercial	Yes, explicitly mentioned
Commercial buildings: heating, ventilation and air conditioning	Residential and Commercial	Yes, energy consumption and efficiency mentioned for the sector
Infrastructure and urban growth planning to reduce deforestation to a minimum	Land use, land-use change and forestry	Not explicitly mentioned but includes net-zero goal from deforestation by 2030
Reduce forest fire risks	Land use, land-use change and forestry	No
Reduce municipal waste	Waste	Yes, explicitly mentioned

Recycling and composting solid industrial waste	Waste	Not explicitly mentioned, passing reference to pursuing circular economies in industrial sector
Reduce agricultural burning	Agriculture	Yes, explicitly mentioned
Production of energy from waste	Waste	Not explicitly mentioned, it refers to addressing opportunities related to bio digestion.

Generally speaking, in Mexico there is not yet a clear strategy between states and national governments to develop a bottom-up approach to NDCs or to better align state and federal climate actions. Understanding the underlying reasons that actions were excluded from an NDC can help states assess if further dialogue is warranted. In some cases, perceived misalignment could be due to the fact that sectoral priorities are described with insufficient detail in the NDC. Mexico's NDC, for example, only makes a broad reference to the energy sector 'actions that increase the participation of clean energy in the national electric network'. Mexico's LTS (2016) specified a mid-century target of 50% generation from clean energy sources. The submission does not provide additional information on which clean energies are prioritized and it does not set a target for emissions reductions from mobilizing specific technologies. In this case, additional follow-up dialogue is needed to assess which, if any, of Quintana Roo's clean energy pathway actions align with national priorities.

In other cases, a lack of alignment may have a more technical explanation. Activity Data for forest degradation, for example, is not included in many countries' Forest Reference Emissions Levels (FRELs)[3]. This could lead to a scenario where actions to reduce degradation, such as forest fire suppression, are firm national priorities but not included in the NDC simply because the emission reduction cannot accurately be accounted for. In such a scenario it would be prudent for the state to pursue opportunities to collaborate with the national government to support implementation, despite the fact the action was omitted from the NDC.

Finally, it is not uncommon for state-level actions to simply diverge from the priorities of the national government, because this reflects the differences in local socio-economic contexts, environments and other circumstances that require a diversified approach to climate action at subnational levels. In fact, a subnational climate pathway that mirrors or mimics the actions of an NDC likely has failed to incorporate the nuance of local context or convey the aspirations of local stakeholders. While national policy alignment can be a critical component of long-term pathway actions, the process is not meant to give the national government veto power over any actions or an outsized influence on the pathway more broadly.

---

[3] https://redd.unfccc.int/fact-sheets/forest-reference-emission-levels.html

Ultimately, subnational actions are intended to reflect the **priorities and realities of local government**, business, and civil society which are distinctive and context dependent. As such, the goal of exploring national alignment is not to make the subnational climate pathway appear more like the NDC in form. Rather it is to identify and pursue opportunities for alignment where they naturally exist.

Project outcomes and lessons learned

Mexico is still detailing the process for cooperation or alignment between states and national governments on climate change actions

In Mexico the process between the states and the federal government to allocate or align climate mitigation actions or policies between the subnational and the national levels is still under development. Consequently, during the Climate Pathway Project in Quintana Roo, the state and project consortium had to develop closer relationships with the relevant national government agencies, and adaptively manage their engagement. It was important specially to designate a state-level leader to champion the outreach and help establish continuity and the necessary institutional/legal processes.

The National Institute of Ecology and Climate Change (INECC) is the authority responsible for leading the development of technical reports to the UNFCCC for Mexico, including NDCs and Biennial Update Reports (BURS). During the Climate Pathway Project, Quintana Roo established a formal collaboration agreement (MoU) with INECC as an initial step towards discussing the alignment of priority and long-term mitigation actions between Quintana Roo and the national climate change action priorities. Through the Ministry of Environment (SEMAQROO), the initial approach to INECC was made. In this process, SEMAQROO established itself as the formal partner that requested support from INECC's General Coordination for Climate Change Mitigation. Based on the request from SEMAQROO, INECC was able to appoint relevant individuals to mobilize support within the framework of the Climate Pathway Project. While consortium partners from the project often accompanied calls between INECC and SEMAQROO, they did so as guests rather than as formal participants in the bilateral partnership.

Although SEMAQROO formally submitted their pathway priority actions to the Secretariat of Environment and Natural Resources (SEMARNAT), as part of Mexico's 2020 NDC update, there is a need to establish a broader, formalized process between SEMARNAT, INECC and the states to analyze the contributions of each state to national climate action priorities. While SEMAQROO shared its progress, there was no discussion, comment, or response to this submission, and it is not clear how state submissions could be incorporated into NDCs or LTSs.

Different methodologies and data present technical challenges for alignment of priority climate actions

In Mexico, SEMAQROO's outreach was received enthusiastically by INECC who recognized the Climate Pathway Project for providing a framework aligned with INECC's mission and allowing them to engage with Quintana Roo on long-term emissions reductions and climate action. However, to ensure the emission reduction estimates for Quintana Roo's priority actions developed under the project methodology were aligned with the approach INECC uses for reporting to the UNFCCC, INECC requested that the state conduct analysis with their data sets and tools. This was challenging, and ultimately beyond the scope of the Climate Pathway Project, and the state lacked the technical capacity or resources to conduct such analysis independently. INECC's Clean Development Mechanism Calculator, for example, was not comparable to the proprietary spreadsheet used to develop Quintana Roo's baseline. And revisions to baseline data (see the *Data and MRV* section of this report) would have caused project delays, requiring a multitude of previous steps to be revisited before finalizing the priority actions.

In the longer term, states would have to develop a technical methodology for state emissions inventories as well as baseline projections and priority mitigation actions that align with the lead technical agency's (INECC) methodologies. INECC places a high value on data transparency and viewed methodological misalignment with states as a potential obstacle for official accounting and reporting of emissions. This was reinforced during meetings with INECC in 2020, acknowledging the need to develop collaborative efforts to systematize indicators and data for decarbonization. Long-term emissions reduction actions would benefit the state and Mexico's efforts on the international level.

Overall, collaboration with INECC presented a multitude of opportunities for Quintana Roo, ranging from technical training to the opportunity to participate in Mexico's official NDC update. Resolving the methodology and data issues remains a key challenge.

Data sharing between national governments and states/partner organizations requires formal arrangements

Official data for the AFOLU sector is primarily provided by Mexico's National Forestry Commission (CONAFOR). Along with INECC, these two agencies under SEMARNAT are the technical lead agencies for climate change reporting. One of the challenges during the Climate Pathway Project was in accessing official data for the AFOLU sector, especially for NGOs. Civil society organizations can play an important role in supporting technical work (as was the case in the Climate Pathway Project). CONAFOR can share information and enter into collaborations with states through formal collaboration agreements signed by their legal departments. Legally, CONAFOR could share information and create collaborations with civil society organizations and academia, if formal collaboration agreements with legal value are also generated. As long as there is a legal instrument that protects the information that CONAFOR shares, it can do so with the states, as well as with NGOs or academia. While there was extensive collaboration and consultation with CONAFOR during the project, there were delays in accessing CONAFOR's data for the project (See details in the Data and MRV section). It would still be worth pursuing for Quintana Roo in the long-term to ensure the

ability to generate state-level inventories and monitor land use change activity, and CONAFOR expressed interest in supporting the state's efforts in the project.

Key takeaways

*Establishing institutional collaboration between state and national governments and key agencies is essential for the alignment of priority mitigation action*s:

While it was not possible to meet INECC's requirements for the alignment of priority actions developed in the project, it was an important first step for the states to advance in their strategies and commitments they have with the federal government. The project allowed the generation of this formal collaboration between INECC and SEMAQROO, which generates a long-term benefit for the state beyond the project's duration. Through this instrument for collaboration, INECC and SEMAQROO will have the opportunity to generate specific agreements related to the implementation of the decarbonization pathway and to jointly seek resources to make it operational. Likewise, this collaboration could provide the opportunity for Quintana Roo to begin a specific dialogue with INECC to begin to ground the state's contributions to the NDC or mid-century targets, based on the targets of Mexico and the contribution from Quintana Roo. This would be a model that other Mexican states interested in pursuing decarbonization strategies could benefit from.

Technical capacity and data-sharing between national and state agencies would facilitate alignment:

Local technical capacity is very important in order to enable states to develop better state-level emissions inventories trajectories of future emissions baseline scenarios and many other technical aspects of decarbonization pathways. In Mexico, national agencies also have the mandate to conduct technical analyses on long-term mitigation strategies, reporting and many other aspects of climate change action. In order for states to achieve alignment with national agencies and climate action priorities, data sharing arrangements and collaboration/technical support are key elements in moving towards alignment and collaboration between states and the national government.

2 Data and MRV

Box 2. What and Why:- Data and MRV

What?	Explore how data produced at the national level can aid in the development of Pathway baseline and feed future monitoring, reporting and verification (MRV) systems.

Why?	Integrating official data into a Climate Pathway at an early stage can improve alignment on baselines and position the pathway to gain broad acceptance at the national and international level. Once a pathway has been developed, future MRV systems can be developed more efficiently if they leverage data produced by the national government. Mobilizing official data can prevent a duplication of efforts, add credibility to the MRV system, and ensure monitoring data is comparable to the data used to construct the baseline. Alignment with official data sources for MRV systems can also facilitate access to international sources of climate finance. This is particularly true for the land-use sector, where national forest monitoring systems will provide the basis for future REDD+ results-based payments.

Overview

In Mexico, the national MRV system is developed by the federal government, and in effect the data or methodologies are not disaggregated at the state level, for many reasons, including a lack of budget and human resources. State governments are obliged to build their state MRV systems aligned and nested with the national one by the national climate change law in Mexico. There is interest on both state and federal levels to generate agreements and collaborate so that the federal government can guide the state governments in the construction of their own MRV systems and facilitate disaggregation of MRV data. There are several advantages for states to use official data produced by federal agencies like INECC and CONAFOR. These include consistently produced data using established methodologies, with clear quality control procedures.

At the same time, locally derived emissions data produced by researchers or NGOs may provide advantages not found in official national government data. For one, these data sources may be created specifically for the state, or more easily disaggregated at the state level. In many countries national GHG inventories are not disaggregated at the state level, leaving a significant gap for the development of pathway baselines. Data collected by local stakeholders are also more likely to integrate locally relevant information such as location-specific emissions factors. For the AFOLU sector, local efforts might use higher resolution data or satellite imagery, resulting in lower uncertainty than their national forest monitoring system data. However, extra caution should be taken to evaluate the quality of non-official data and determine if the data will continue to be produced in the future to integrate into monitoring systems.

Deciding between official national data and data sources from researchers or NGOs that might be more fit-for-purpose is a common conundrum that states may face in the development of inventories and priority actions. Both approaches have their advantages and trade-offs which must be weighed accordingly. One advantage of using official data is the fact national governments face enhanced scrutiny when they report through the UNFCCC processes. BURs and FRELs, for example, are subject to technical reviews from the international community and receive intense scrutiny from civil society organizations. The

technical review process, in particular, can help identify methodological weaknesses early – as was the case with Mexico's initial FREL – and provide an extra layer of confidence that national governments are producing valid data. Integrating national data is particularly essential for forests, as agreements under the UNFCCC have enshrined national forest monitoring systems as the standard for reporting REDD+ performance to the international community. While countries theoretically could build national forest monitoring systems by combining multiple sub-national monitoring systems, the vast majority, including Mexico, have taken top-down nationally led approaches. This means data produced by the national governments will be key to results-based payments or reporting performance to the international community, making alignment a critical component of both near-term and long-term success of emissions reduction actions.

The UNFCCC also requires official data to be produced transparently and consistently over time, which can give states an assurance that future data produced by the national government will be methodologically comparable to the data initially used to construct the baseline. GHG inventory efforts led by civil society organizations or academic institutions rarely have a similar level of permanence or stability. This can eventually lead to issues if future monitoring data is methodologically incomparable with the data used to construct the baseline.

In this sense, any collaboration with external actors (NGOs, academia, private initiative) that the states generate to strengthen their capacities and improve information, methodologies, and tools, must be aligned with the national level. As mentioned above, it is recommended that any interaction required between allied state government actors and federal government agencies be generated through the states; this allows strengthening strategies between the national and subnational levels and ensuring alignment and nesting of processes

Project outcomes and lessons learned

Developing state-level emissions inventories is challenging due to a lack of state-level data and the need for regular updates to incorporate improved data

In Quintana Roo, data availability was one of the first challenges the state faced in the development of their climate pathway. While historical emissions data lays the foundation for developing an emissions baseline, only one state-level inventory had been conducted in 2010 by a local university. At the national level, much of the national greenhouse inventory data was not readily available and disaggregated at the subnational level. SEMAQROO did not have the capacity to provide significant amounts of activity data for emissions estimates and socioeconomic data using the technical consultants' tools and spreadsheets, which caused significant delays and uncertainty in the baseline and emissions reductions modeling work.

Quintana Roo had an advantage when it came to data from the land-use sector due to the state's long history of collaborating with CONAFOR on the country's National Forest

Monitoring System (NFMS). This relationship was built through years of cooperation through initiatives such as the Forest Carbon Partnership Facility Emissions Reduction Initiative (FCPF-ERI), the Mexico-Norway initiative, and support that has been provided by donors to allow the state's MRV working group to engage with CONAFOR. Quintana Roo is one of the five REDD+ early action states in Mexico that received funding and support from the federal government, particularly with CONAFOR to develop forest cover, land use change and other AFOLU data for REDD+.

This history of collaboration was key to unlocking data at institutions such as CONAFOR and the National Institute of Statistics and Geography (INEGI). As mentioned earlier, a lack of sub nationally disaggregated emissions data is a common challenge in developing pathway baselines and monitoring systems, and one that can only be overcome by intensive engagement with national counterparts. In Quintana Roo, the state had spent years working with INEGI and CONAFOR to develop a deforestation baseline for the FCPF, allowing them to move quickly to establish an initial baseline for the AFOLU sector.

However, Quintana Roo faced an additional hurdle due to the fact that the national government was changing its approach to forest monitoring, rendering all existing (and available) data obsolete. The deployment of a new monitoring system, called Sistema Satelital de Monitoreo Forestal (SaMoF), was occurring parallel to the development of the pathway and left Quintana Roo with a conundrum: delay the baseline and pathway development for several months while CONAFOR finalized its data, or push forward with existing data that could lead to misalignment in the future.

After weighing options, Quintana Roo prioritized the need to continue making progress and not wait for perfect data in the interest of completing the priority action modeling and analysis. The state decided to utilize the existing available data to finalize the baseline, but also vowed to work with CONAFOR to assess new data from SaMoF and determine its impact on the climate pathway once it was available.

In January 2020, CONAFOR presented the last national FREL, but had not disaggregated the data to the state level. To address this, Quintana Roo, with close support from GCF Task Force coordinator Pronatura Sur, worked hand-in-hand with CONAFOR to develop a state-level data set that would align with Mexico's new FREL.

Key takeaways

Developing state-level data and MRV capacity in coordination with the federal system and local partners is critical

The federal government has not defined a strategy to start generating information at the state level, however, as mentioned above, it is interested in supporting the states and providing them with the capacity to advance both in the construction of their state MRV and in the updating or development of their gas inventories. States will need to define the best strategy to begin these processes and will need to continue to seek collaboration with

CONAFOR and INECC to ensure alignment and nesting of these processes. In this sense, collaborations with local partners (NGOs, academia, private sector) that the states generate to strengthen their capacities and improve information, methodologies and tools, should be aligned with the national level. As mentioned above, it is recommended that any interaction required between allied actors from state governments and federal government agencies be generated through the states; this allows strengthening strategies between the national and subnational levels and ensuring alignment and nesting of processes. Periodic review to update state level GHG inventories and evaluate the impact of priority actions is an essential component of pathway implementation. As it happened with CONAFOR data sets this time, new data sets might be produced in the future. This is the nature of the pathway; periodic reviews should be completed to make a living, dynamic document.

3. Finance

Box 3. What and Why: Finance

What?	Explore opportunities for the national government to mobilize new sources of finance and realign existing sources of finance in support of climate pathway actions
Why?	Adequate finance is the primary barrier in translating climate strategies into implementation, and national governments control the primary levers for both domestic and international climate funding.

Overview

Adequate finance is one of the primary challenges facing states looking to implement long-term emissions reduction actions, and one of the primary motivations for Quintana Roo to participate in the Climate Pathway Project. Securing finance for mitigation activities in the land-use sector has proven to be particularly challenging over the past decade. Conventional wisdom once told us that forests and agriculture could provide the global community with a cheap, quick, and easy win in the fight against climate. Under this theory, the 'real' work, according to the experts, needed to focus on financing the decarbonization of our energy, transport, and building sectors.

Although the past decade has shown us that nothing could be further from the truth, both domestic and international funding has followed the route of conventional wisdom. This miscalculation by the global community—that natural climate solutions would sort themselves out without much financial attention— has resulted in forests and agriculture receiving less climate finance than energy, transport and building sectors during the past decade. Based on anecdotal evidence on federal expenditure comparisons, more than $100 (USD) has been invested in renewable energy for every $1 spent on forest conservation, $40 is invested in activities that cause deforestation for every $1 spent on conservation efforts, and $10 is spent from public budgets on traditional agriculture and forestry for every dollar

spent on REDD+ activities. These imbalances must change dramatically if states are to succeed in reaching ambitious goals for reducing emissions for the land-use sector.

National governments could play a central role as part of the climate finance solution, but states have few options for accessing additional funds, specifically for state-level emissions reduction actions. This remains a significant barrier for implementation of the priority actions in the short or long term for states. Domestically the federal government controls national appropriations processes and manages the disbursement of significant portions of funding to state-level governments. Opportunities exist both to channel these existing funding sources towards emissions reduction actions, but also to avoid funding activities that increase emissions and inhibit progress towards decarbonization. In Mexico, for example, the Ministry of Agriculture and Development (SADER) spends around $1.5 billion USD on agricultural subsidies every year, while the Secretariat of Wellbeing has a budget of $1.4 billion USD in support of the Sembrando Vida ("Sowing Life") program. Currently these funding streams are not working in support of, and in some cases are working directly against, effective land-use mitigation efforts. But with improved alignment, these subsidy allocations could become a boon to Quintana Roo's climate action priorities.

On the other hand, SEMARNAT is about to publish its Special Climate Change Program (PECC) 2020-2024, in which it endorses Mexico's commitments under the Paris Agreement. Through this instrument, the Federal Government presents greater detail of the programs and actions committed by the 14 Secretariat members of the Inter-Ministerial Commission on Climate Change (CICC) of the different sectors, to achieve the climate action commitments of the current administration. It is through the various programs offered by the Ministries involved, that the Government of the State of Quintana Roo could begin negotiations to access resources from public programs and subsidies to start implementing the decarbonization trajectory of the current administration.

National governments also hold the keys to critical international climate finance processes, whether it is the multitude of opportunities presented by Article 6 of the Paris Agreement, access to the Green Climate Fund, or opportunities to secure finance from international donors and development banks such as the REDD Early Movers Program or Biocarbon Fund. Accessing these sources of funding have very specific technical and bureaucratic requirements, often requiring approval from certain national ministries. This makes outreach and dialogue with appropriate national counterparts an essential component of the process for exploring finance opportunities for pathway implementation.

Project outcomes and lessons learned

Pursuing finance for implementation of priority actions and the development of MRV systems is essential for implementation

SEMAQROO was very motivated to participate in the Climate Pathway Project and had supported the proposal of a project extension to allow the state to work on pursuing funds for the implementation of the priority actions and MRV. State governments require this

extended support on obtaining finance, since negotiations with the federal government are the state's mandate and require longer than a single project's timeframe. Similarly, for the issue of updating their inventory, the federal government could support the state not only by allocating more funds, but by offering support from INECC and CONAFOR to update the state inventory, in alignment with and using the internal tools the federal government already has. On the other hand, and as a learning outcome of this process with Quintana Roo, we identified that other support that the state governments require is linked with implementing robust processes of information sharing negotiation with the congress. Although it is difficult to visualize that the congress could approve funds to implement the climate pathway of a state, the reality is that positioning these instruments at the public policy level is key to advance with the long-term goals. However, the period of a short project is not the best ally for this type of effort, but it is undoubtedly a lesson that shows us the opportunity of collaboration in the long term.

Key takeaways

Opportunities for Quintana Roo to explore finance and support from the federal government

With the conclusion of the Climate Pathway Project, the following opportunities for further dialogue between the federal government and Quintana Roo could be avenues for a strategy for finding finance and support for state-level priority mitigation actions:

- Pursuing the improvement of federal subsidies and finance for agriculture, livestock, and programs like Sembrando Vida that may have unintended consequences of increasing emissions from deforestation, forest degradation of agriculture/livestock expansion.
- Establish dialogue and support within the Mexican congress to pursue direct appropriations of funds for pursuing priority actions and sustainable low emissions development at the state level.
- Assess opportunities to access international climate finance and map opportunities and understand requirements for accessing funding from multilateral development institutions such as the World Bank FCPF, REDD Early Movers, Global Environment Facility, Green Climate Fund, and others.

Conclusions

The Climate Pathway Project provided a foundation for the state of Quintana Roo to develop a more robust planning process for their climate action commitments. Pursuing NDC alignment is an essential component of pathway development, in order to assure the alignment of national and subnational climate action. However, in Mexico, there has been no clear strategy between states and national governments to develop a bottom-up

approach to NDCs or better align state and federal climate actions. Consequently, during the project, Quintana Roo developed closer relationships with the relevant national government agencies and designated a state-level leader to champion outreach and help establish continuity, including necessary institutional/legal processes.

On the other hand, different methodologies, and data present technical challenges for the alignment of priority climate actions. One of the most critical challenges of the project was the access and availability of data. This is not particular to the State of Quintana Roo, it is a common challenge at both national and subnational levels in Mexico. A takeaway of this project is that technical capacity and data-sharing between federal and state agencies would facilitate alignment in terms of climate action approaches. Data sharing requires formal arrangements to establish institutional collaboration between state and national governments and key agencies.

Another aspect linked to data and information availability is the challenge to develop state-level emissions inventories due to a lack of data and the need for regular updates to incorporate improved data. Even though Quintana Roo does not have a complete and updated GHG inventory, the project was able to develop a robust baseline. A few limitations will need to be addressed for monitoring implementation of the priority actions.

As discussed throughout this document, states' financial and human resources can be limited, which is also a challenge for developing these types of specialized planning instruments. The project process has shown that pursuing finance to implement priority actions and the development of MRV systems is essential.

For a state like Quintana Roo, the pathway represents strength national and international levels. The state is aware that this pathw the first level of planning, which will allow them to start better a orienting them towards the contribution of both state and national such as private initiatives, civil society organizations, and donor opportunity to learn about the scale and level of commitment requi development. Undoubtedly, learning from this process will allow support and alliances with both state and federal governments, al conditions to advance countries and regions long-term climate goals

THE CLIMATE
PATHWAY PROJECT

THE CLIMATE PATHWAY PROJECT

SUPPORTED BY ——— LEAD PARTNER ——— PARTNERS ———

NICFI
Norway's International Climate and Forest Initiative

°CLIMATE GROUP

GCF task force

WINROCK INTERNATIONAL

THE CENTER FOR
CLIMATE STRATEGIES