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INSTITUTIONAL CHALLENGES TO THE IMPLEMENTATION OF NATIONALLY DETERMINED CONTRIBUTIONS IN LATIN AMERICAN AND CARIBBEAN COUNTRIES

Institutional architecture requirements, issues arising from the examination of NDC updates and lessons learned from capacity development interventions.

Koldo Echebarria

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1. BACKGROUND

The nations that signed the Paris Agreement periodically submit Nationally Determined Contributions (NDCs) with climate mitigation and adaptation goals. Complementarily, countries should also formulate and implement National Adaptation Plans (NAP) and periodically update them. This means that every country is required by law to outline a course of action in response to global warming and submit a pledge with specific objectives it is committed to achieving. These pledges are then reviewed and renewed every five years. Every round of pledges is meant to intensify the level of commitment and is negotiable, meaning that other parties can offer concessions or support in return for a more robust pledge. The pledge and review method were introduced first in 1991; however, in 1997, the international community chose to adopt legally binding emission reduction targets in the Kyoto Protocol. The pledge and review methods were reintroduced in the 2009 Copenhagen Accord, following its limited success and the inability to reach an agreement on new targets. The NDC wording took the place of the pledge-and-review expression in the negotiations that resulted in the Paris Agreement.

The fact that NDCs rely on voluntary commitments from signatory nations—many of whom lack the financial, technological, or institutional means to effectively combat climate change—has drawn criticism. Setting top-down targets, however, results in a distributional problem among nations that has proven unsolvable. Furthermore, targets are by no means a good solution in the absence of efficient review and compliance procedures. Since pledges—both in terms of the degree of commitment and the methods used—are subject to review and are not legally binding, NDCs offer a more practical strategy for international collaboration on mitigating climate change.[1] The "naming and shaming" process—a form of peer and reputational pressure—is the foundation of the NDC method. Climate change politics have gradually changed because of the rise of bottom-up society initiatives and transnational networks of non-governmental actors, placing increased pressure on national governments and international organizations.[2]

Transparency is therefore a crucial tool for the Paris Agreement's review process to be successful. After the Agreement, countries approved most of the implementation guidelines – colloquially called the Paris Rulebook – at COP24 in December 2018, and finalized at COP26 in 2021.[3] The Rulebook provides guidance that signing countries must follow in the plan-implement-review cycle of the Agreement. They address issues such as how nations should draft their NDCs and what to include, how periodic reporting should be carried out, what information to report, and how the review procedure should be carried out. The commitments are available for public review, and in addition to the official UN review procedure, civil society organizations are welcome to conduct informal reviews of them. [4]

The Paris Agreement method has made it possible to advance the conversation about the challenges of implementing climate change policies. It centers the focus on the national arenas where real progress in the fight against global warming needs to be made. The success of the Paris Agreement will depend on how the NDCs are put into practice and enhanced over time. This highlights the trade-offs that nations must make to attain their goals, the financial, institutional, and technical resources required for implementation, and the most effective way to use development resources as a means of encouraging developing nations to increase their ambitions.[5] It is worth considering that in middle-income developing nations strategies for low emissions growth may be perceived as at odds with other goals of social and

[1] Robert Falkner, 2016, “The Paris Agreement and the new logic of international climate politics, *International Affairs*, 92 (5), pp. 1107-1125.

[2] D. Bodansky, 2016, “The Paris Climate Change Agreement – A New Hope”, American Journal of International Law, Vol. 110, 2016, pp. 288-319

[3] Paris Rulebook, Decisions 3-20/CMA.1.

[4] L. Ramajani and D. Bodansky, 2019, “The Paris Rulebook: Balancing International Prescriptiveness with National Discretion”, International and Comparative Law Quarterly, Vol. 68, pp.1023-40.

[5] D. Klein (ed.), 2017, The Paris Agreement on Climate Change: Analysis and Commentary, Oxford University Press, 2017.

economic development. In the case of low-income developing countries, the lack of resources and institutional capacity may become an insurmountable barrier if support is not provided.

For this reason, the issue of capacity-building was elevated to the forefront of the Paris Agreement at the request of developing nations. According to Article 11, developed country parties must assist developing country parties in building their capacity, and developing country parties must periodically report on their progress in putting plans, policies, actions, or measures for capacity-building into practice. Article 12 also asks nations to work together to take the necessary actions, recognizing the value of public awareness, education, training, public participation, and public access to information. To address gaps and needs in the implementation of capacity building in developing countries, including the coordination and coherence of the actions undertaken in this regard, the Paris Committee on Capacity-Building was established in 2017. A technical progress report is published every year on the initiatives undertaken to advance capacity building.[6]

Capacity and capacity-building are well established concepts in the international development community to identify and close gaps between available and necessary means to address development challenges.[7] They can be applied to challenges in policy development and implementation, related to a wide variety of social needs. The assessment of capacity can be done at various levels, ranging from society to individuals, from sectors or purposes to nations, regions, and localities. It covers technical, financial, and institutional capacities. The concept's highly abstract nature has drawn criticism, as the final section will highlight. Capacity is viewed as an instrumental notion separated from political ideals and policy possibilities. International organizations have created a range of instruments to evaluate capacity and identify areas in need of capacity-building. To assist nations in strengthening, developing, and enhancing their capacities to meet the goals of the Convention, the Paris Committee on Capacity Building has created a set of tools specifically designed to evaluate capacity gaps to achieve the goals of the Paris Agreement.[8]

The existence of gaps in institutional capacity is commonly acknowledged as one of the most prominent issues facing developing nations. Indicators of governance that demonstrate a significant discrepancy between necessary and actual capacities have been devised to draw attention to these gaps. Additionally, they show that institutional development has progressed unevenly and how political and economic crises can deteriorate institutions, undoing decades of incremental advancement.[9] It is also common knowledge that, in the absence of favorable political conditions, interventions aimed at strengthening institutional capacities in developing nations have frequently failed.[10]In many developing nations, international organizations have been successful in putting adjustment plans into place to shrink the size of the state, but they have failed to establish the vital institutional infrastructure necessary to serve the population. The challenge of NDC implementation must be weighed against the backdrop of waning capabilities and uneven, sluggish institutional development growth[11].

Different patterns characterize institutional structures, and power is allocated both vertically and horizontally based on historically accumulated criteria. As is the case with other social and public goods, it is assumed that the achievement of the NDCs can occur through a variety of institutional arrangements, specific to each country. However, experience also demonstrates that, for an institutional model to be

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[6] United Nations Framework Convention on Climate Change (UNFCCC), *Annual Technical Progress Report of The Paris Committee on Capacity Building*, 20 September 2023.

[7] C.J. Aantjes et al., 2022, “Capacity development in pursuit of social change: an examination of processes and outcomes”, *Development in Practice*, 32:4, pp. 536-550.

[8] United Nations Climate Change Paris Committee on Capacity-building*, Toolkit to assess capacity building gaps and needs to implement the Paris Agreement,* 2022

[9] Matt Andrews, 2013, *The Limits of Institutional Reform in Development*, Cambridge University Press.

[10] A. Leftwich, 2007, *States of Development. On the Primacy of Politics in Development*, Polity Press.

[11] M. Khan, A. Sagar, Saleemul Huq and Penda Kante Thiam, 2016, *Capacity Building under the Paris Agreement*, European Capacity Building initiative.

successful and deliver expected policy outcomes, it must meet certain capacity requirements.[12] For example, the demands of inter-sectoral and inter-governmental coordination cannot be met in the absence of well-established machinery that ensures coordination and consistency in decision making. Also, regardless of the state's political structure, adaptation-enabling measures cannot be implemented unless sufficient capacities and resources exist at the local and regional levels. Finally, independently of the size of the state, private investment has great potential to contribute to NDC goals and requires an institutional incentive structure to direct financial flows toward sustainable activities.

This paper aims to outline the fundamental institutional issues that Latin American and Caribbean countries face in implementing NDCs. The upcoming section will examine the institutional framework that can be seen as essential for fulfilling the commitments made under the Paris Convention. This encompasses a broad view of the institutions of the government, market, and civil society, as well as the fundamental requirements expected of them. Second, to pinpoint institutional problems that might be connected to possible deficiencies in institutional capacities, seven updates of NDCs from Latin American and Caribbean nations will be examined. Latin American and Caribbean nations have a tradition of weak governance institutions and failing reform strategies[13] that can compromise NDC implementation. Since NDCs don't specifically address all implementation-related problems, this analysis can only yield some preliminary conclusions. A detailed mapping of pertinent institutions and capacity gaps would be necessary for each nation. The potential and constraints of capacity-building as a tool to close institutional gaps will be covered in the final section. From an analytical perspective, capacity-building appears to be too abstract to be helpful in pinpointing particular problems and suggestions for institutional development. The practice of state capacity development offers important lessons to be learned when dealing with NDC related institutional capacity development. Several suggestions for intervention strategies will be outlined at the end of the final section.

2. THE INSTITUTIONAL ARCHITECTURE OF NDC DEFINITION AND IMPLIMENTATION

This section aims to provide a conceptual framework to help identify and characterize the institutions involved in the formulation and implementation of NDCs. Depending on the characteristics of each country, their features will be different, but they will all be relevant in some way. For example, the state's territorial organization is comparatively more significant in larger nations than in smaller ones; also, each country's resource endowments will also influence the government's portfolio with sectors like agriculture, industry or mining carrying different institutional weights; country location and, for example, exposure to natural disasters will also affect the policy and institutional choices in each case. Finally, contingent political and economic factors, like the degree of political agreement on climate change, the risk exposure, the reliance of the economy on natural resources or the degree of fiscal space, will also affect the way institutions operate in each country.

When we talk about institutions, we mean the specific sets of rules and organizational capabilities required for the formulation and implementation of public goals.[14] This concept is distinct to the one that development theory followed from the mid-1990s, where institutions were conceptualized as "institutional context," or the collection of formal and informal rules that govern actor behavior. The 1980s dominant policy paradigm of development, which was marked by a strong tilt toward market forces and a deep skepticism regarding the role of the state, was behind this conceptual divide between institutions and organizations. Supporting robust institutions entailed creating a structure that would enable market forces

[12] S. Willems and K. Baumert, 2003, *Institutional Capacity and Climate Actions*, OECD Environment Directorate International Energy Agency.

[13] Eduardo Lora (ed.), 2007, *El estado de las reformas del estado en América Latina*, Banco Interamericano de Desarrollo.

[14] A. Israel, 1987, *Institutional development: Incentives to Performance*, John Hopkins University Press.

to function effectively. Accountability was given more weight in the reform of public institutions than capacity, applying to the state apparatus a quasi-market incentive framework. However, accountability without capacity is like responsibility without power, a necessary but insufficient condition for the achievement of collective goals. Organizations must be recognized as institutions when they play a critical role in the definition of the rules or are central actors in implementation. This is what public organizations are supposed to do if empowered with the right capabilities.

The state has gradually come back into focus as a crucial component of any successful development process. For example, the economic growth miracles of China and the Asian tigers would not have been possible without a robust developmental state. It has been acknowledged that institutions play a crucial mediating role between inputs and outcomes, even more so than resources and policies. Governance has been the term used to describe the collection of institutions that define a nation's public sphere.[15] Its broader interpretation includes entities other than national governments, such as civil society organizations, market institutions that support public objectives, and subcentral levels of government. A great deal of work has gone into trying to bring rigor to a field that has historically been more descriptive than normative by characterizing and analyzing these institutions through country analysis and governance indicators. The objective has been that institutions are no longer the unexplained, and residual factor of development. However, more success has been achieved in highlighting the importance of institutions than in understanding the process of institutional development and reform.

When examining institutions and determining capacity gaps, it is never easy to disentangle the fundamental functional requirements from the specific traits of a successful model taken from a developed nation. Because of not making the distinction, institutional reforms have followed a practice that mimics models instead of capturing their essential components and adapting them to various contexts. The outcome has been dismal, as many transplants have been rejected by well-established local forces that sustain strong existing formal and informal institutions. The focus of institutional analysis should be on the fundamental functional requirements rather than on specific models, enabling creative adaptation for every situation. For example, a robust center of government will require certain fundamental tools for coordination and decision-making, but these tools will only function effectively if they are tailored to the existing institutional and political power structures. They cannot be the same in a state that is centralized or decentralized, in a presidential or parliamentary system of government, in the presence of a coalition government or in a context of very limited budgetary resources available.

The following analysis centers on the institutional pillars that are generally acknowledged has having a direct impact on the ability to formulate and carry out NDCs. We purposefully omit discussing political institutions, such as electoral systems, political parties, or the division of powers. It's not that they lack the ability to act as pertinent mediators in the formulation or implementation of climate change policies. They are, in fact, highly influential in every nation, but subject to political preferences and values that lack universal consensus. It is more realistic to leave the political institutions apart, while taking into consideration their significant influence over second-level institutions that can be seen as instrumental to any political regime. The judiciary and other oversight bodies that function at least officially independently of the executive branch will be the lone exception.

The institutions that are directly linked to the accomplishment of the NDC's objectives are examined in the pages that follow. The coordination requirements of the whole government are first addressed, followed by the need to establish a leading climate change authority, the critical importance of sound planning and budgetary processes and the role played by sector institutions affected by climate policies. Oversight is discussed given the importance of proper accountability for the implementation of NDCs. Subsequently, subnational governments, market institutions, and civil society are discussed. The review

[15] World Bank, 2010, *Governance and Development*, World Bank Group.

adds some analytical insights to each of the identified pillars, but it is merely an attempt at showing some of their more fundamental requirements for performance.

1. Whole of government coordination institutional requirements

The definition and implementation of NDCs involves the entire government, necessitating an institutional framework capable of facilitating cross-sectoral agreements and exerting influence over the distribution of resources. It is a component of what has lately been referred to as the government central machinery, which is focused on determining, assisting in the execution of, and overseeing cross-sector commitments and priorities. Based on past experiences, this structure requires a few requirements to function properly, regardless of the makeup of the central government. Below, we concentrate on two institutional prerequisites that, in the context of NDCs, appear to be more crucial.

- The first is a reasonable **concentration of political power**. In this case, content is more significant than style or political rhetoric. If a climate change unit is directly attached to the prime minister's or president's office, or if the head of state chairs a special coordination structure to define and implement the NDCs, we might assume that leadership is guaranteed, although is not necessarily the case. For instance, a lot of nations have established presidential committees on climate change, with the prime minister or president serving as the chair and all ministers impacted by NDCs as members. Although a measure of the attention of top leadership matters, it is not always sufficient evidence of dedicated leadership and may even give the wrong impression. When policy issues are placed on a different track to garner attention may also be losing touch with the daily decision-making process, where effective coordination happens. The currency of political leadership must consider not only formal gestures but also how government resources are distributed and how policy trade-offs are handled. Since this is daily work, true leadership needs to be evaluated in terms of how it affects routine processes and decision-making. The real test of political leadership is how well NDC planning, and execution are integrated into these procedures and receive continuous political support.

- Second, the **formal and informal tools established to achieve intersectoral coordination** play an important role. The government's decision-making process and collective bodies, such as cabinet meetings and sub-cabinet committees, where decisions are adopted and decisively prepared, are the first things that are typically examined in a top-down formal logic analysis. Although these structures are a crucial component of the coordination effort, it is important to understand that they are a part of other complex institutional practices that are more difficult to observe. A significant portion of influence in the policymaking process is derived from participation in informal working groups and bilateral and multilateral meetings that draft legislation and policy proposals or respond to unforeseen events and crises. In order for climate change-sensitive positions and viewpoints to have a significant impact on the direction of policy, we must ascertain whether they are taken into account in the early stages of the decision-making processes. For example, it is unclear if proposals for new taxes or subsidies take climate policy into account from the outset, or what standards are used to resolve a crisis that is caused by an accident or climate event that sets a precedent for decisions to come. If adhering to climate change viewpoints is left up to a formal decision-making body at the end of the process, the influence will probably be very low and restricted in scope. Climate change perspectives will not contribute as much if they are forced to oppose or resist proposals instead of helping to shape them from the start. In a bureaucracy, veto positions are politically expensive and should only be used in dire circumstances. Ultimately, the advancement of ideas and interests within a bureaucracy depends on actors making reciprocal understandings and concessions that benefit those in positions of power within the bureaucracy. It's well known that some ministries are more adept than others at this game.

These institutional requirements can apply to central and subcentral authorities alike. In federal countries, the second tier of government is entrusted with competences and resources critical to the definition and implementation of climate change policies. In fact, most adaptation initiatives share an intimate connection with the local context where they are to be applied.

2. National climate change institutional policy leaders

Most governments, both developed and developing, have chosen to create ministerial departments with the responsibility of leading environmental and climate change policy. Political recognition is indicated by this status, but other administrative and technical abilities are typically not keeping up. They are relatively new ministries in comparison to others, having grown from sub-ministerial bodies such as environmental commissions or agencies. This indicates that most of their duties have been regulatory in nature, centered on administering incrementally established environmental standards. Their primary operational tool has been licensing and compliance policing, which has helped them build a competency based on technical legal capacities. Other duties, such as the administration of natural reserves or specific competencies to manage environmentally sensitive resources like water, were added later by segregating from more traditional ministries where they had been located. This has been a highly political, without enough consideration to policy consistency or functional implementation structures. This has normally led to a very fragmented structure of climate change relevant government departments and agencies.

From an institutional perspective, recently created climate change ministries lack the technical or financial capabilities of the more established ministries like public works, agriculture, health, industry, or energy, which also have robust and engaged constituencies. Instead, the new ministries are usually meant to carry by greater political than administrative weight. The rivalry between the newcomer and the established ministerial structures is inevitable given the dynamics of bureaucratic politics. Because of this, leading ministries on climate change typically have low institutional profile, which isn't made up for by their higher political profile. When attempting to carry out the difficult task of intersector political coordination, they are likely to be undermined by their comparatively low institutional weight.

These departments need both political weights to counterbalance policy sectors with conflicting interests or policy values and technical capacity to strongly defend their policy initiatives and positions: (i) **political weight** can be measured by the seniority of the head of the department and the closeness and influence on key government ministers and the head of the executive. It can also be strengthened by the closeness to civil society organizations that play an advocacy role for ambitious climate change policies; (ii) **technical expertise** can be assessed through the seniority and skills of professional staff, the inhouse climate change expertise and the degree of participation of staff in key decision-making arenas. Growing technical capacity is usually a long-term endeavor in public bureaucracies that frequently lack the flexibility to adapt quickly to new needs. External support by knowledge external actors like academia and consulting firms can partly offset this lack of internal expertise.

3. Planning institutional capacities consistent with budgetary programming

While putting NDCs into action, nations also have other development goals to work toward. National, regional, and local sustainable development objectives are also being derived from the 2030 Agenda for Sustainable Development. In addition to them, all tiers of government institutions will establish their own priorities based on requirements, context, and the political options favored by the ruling class. For all these exercises to become practical actions, they will need to address trade-offs between various options because institutional, technical, and financial resources will likely be scarce

and insufficient to meet every need at once. In these processes, planning institutions' roles and capacities are crucial in mediating political decisions by setting both rational limitations and enabling possibilities.

Since its founding in the middle of the previous century, planning institutions have played a crucial role in development theory and practice. In developing nations, planning ministries and councils were founded with the goal of formulating a national development strategy that would span a four to six-year period. Aligning scarce public investment resources with the goals of economic development was the core of the plan. To determine the most practical and efficient actions to undertake, rational economic techniques such as cost-benefit analysis were essential. Planning was governed by procedures for consultation and benefited from various types of advisory councils. Certain groups, such as business associations and unions, represented the main organized interests, while other groups included academics and think tanks as knowledge actors. These organizations facilitated widespread agreement on long-term economic policies.

The demise of state-based development models and the drive toward fiscal restraint, economic liberalization, and state-owned enterprise privatization resulted in a loss of capacity and influence for planning institutions. State capabilities were reduced in developing nations, and power shifted from planning bureaucracies to fiscal bureaucracies. International financial institutions, such as the World Bank and the International Monetary Fund, played a crucial role in this development by assisting independent central banks and ministries of finance as their main counterparts. Instruments for public investment planning changed from being enabling to being constraining, filtering expenditure choices with stringent requirements of economic analysis. These shifts led to the dissolution of planning ministries or their reduction to a secondary role in the decision-making process in developing nations, with ministries of finance taking over as the main central coordinating body for economic policy. Development plans able to survive ended up as aspirational documents without strong influence in the allocation of resources.

For NDCs to succeed, planning institutions must take a more active role in ensuring consistency with budgetary programming and other policy decision-making processes. NDCs will be doomed to failure if they are treated merely as vision-projecting exercises, useful for uniting disparate stakeholders around an ideal future vision, but not really connected to actual resource allocation or specific policy initiatives. It seems that at least four institutional prerequisites must be met for this to not to happen:

- First, **NDCs planning needs to be supported by a strong technical muscle**, that offers the diagnostic abilities necessary to conduct thorough analysis. Only after reliable baselines and scenarios have been established can meaningful targets be set. This means that to acquire the critical technical capacities they require, knowledge actors must support the planning authorities of the NDCs. If academic institutions or government-funded research centers have the necessary resources, they can assist with this. Lacking this technical infrastructure, many developing nations are forced to rely on outside consultants paid for by foreign organizations to obtain the analyses needed for planning. For the planning effort to produce results that are pertinent, it is imperative that indigenous technical capacities be developed on a strong institutional foundation that guarantees sustainability.
- Secondly, **planning must forge a solid relationship with the budget programming and execution cycle.** Plans such as NDCs typically have medium-term objectives, whereas budgeting is an annual process. To the greatest extent feasible, budgetary priorities and resource allocation procedures should be aligned with NDC commitments. It will be challenging if NDCs are not followed by implementation plans including certain components that are crucial to the budgetary debate: (i) actions must be accompanied by costing analyses and an initial indication of funding sources; (ii) budget decisions based on cost-benefit analysis

must also be influenced by a sense of priority when resources are scarce relative to needs; and (iii) actions will also benefit from a roadmap approach that allocates them within the timeframe of the NDCs. For this to occur, it is imperative that the budget authority be included in the NDCs definition from the outset, assessing the proposals' fiscal soundness.

- Thirdly, **communication and stakeholder consultation are necessary to support planning**. This will increase the legitimacy of the outcome and enable a broader evaluation of options. Consultation, however, does not imply blindly accepting demands from disparate interest groups. For this reason, it is advised that knowledge actors evaluate and provide well-reasoned counsel on the viability, affordability, and coherence of proposals through a process that mediates consultation. Additionally, it is preferable for consultations to take place in formal settings with defined parameters for representation distribution, such as Economic and Social Councils.

- Finally, **monitoring and assessment tools must be available to planning authorities**. This is necessary to ensure that NDCs are executed under proper supervision and to get the upcoming cycle updates ready. This calls for the use of advanced evaluation techniques to determine the intended and unintended effects of interventions, as well as the possession of centralized data systems and analysis capabilities and scoreboards for monitoring planned initiatives. The Paris Rulebook's Enhanced Transparency Requirements must be met by monitoring tools to properly define NDCs and periodically report on results achieved.

4. Sector authorities affected by climate change policy objectives.

Sector authorities whose domains are impacted by the mitigation and adaptation goals must be capable of executing and committed to the NDCs for them to be successful. These organizations are crucial because they will decide how much sector policies take climate change vulnerabilities into account. This entails identifying which organizations and initiatives that are detrimental to the goals of climate change mitigation and adaptation and which ones are helpful. These analyses have two components:

- First, it is necessary to evaluate **political commitment**. Sector authorities may be influenced by societal and economic forces that are well-established and may not align with policies and actions related to climate change. It is common for business models in the fields of agriculture, energy, industry, tourism, forestry, mining, and fisheries to conflict with goals related to mitigation and adaptation. If businesses are unable to adjust and become less competitive, new policies may result in the loss of thousands of jobs. It goes without saying that sector authorities will mobilize in support of the impacted parties because they regard them as constituents.

- Second, sector departments' policies and implementation procedures might be predicated on **knowledge and technologies** that fail to take adaptation and mitigation requirements into account. These may inform large areas of activity, like projects and programs related to watershed management, irrigation, and transportation infrastructure, for instance. Given that working methods are typically strongly institutionalized in public authorities that are not under market pressure to innovate, successful change may require both technical and cultural change, with incentives playing a large role in the reform process.

The literature on climate change has focused a lot of emphasis on "mainstreaming" or "integrating" climate change into all government agencies and departments to address these needs. This has led to the insert of climate change units into sector departments, treating it like a simple case of adding

a new piece to the machinery already in place. However, it's easier said than done, and mainstreaming initiatives haven't produced the desired results. On the one hand, without a strong climate change ministry who can serve as a political counterweight to restrain entrenched interests, sector institutions will not be able to internalize climate change objectives. On the other hand, it is doubtful that new priorities will be properly implemented without the reform of deeply embedded institutional methods and practices.

Additional to policy departments, attention needs to be given to the **existing arrangements for implementing policies and providing services**, which sits beneath ministerial structures and their level of internal cohesion. Governments have set up specialized organizations, such as agencies or public corporations, with a high degree of operational autonomy to accomplish specific policy objectives more quickly and effectively. Contracts for outsourcing and partnerships with for-profit or non-profit private organizations that are actively involved in service delivery are frequently used in addition to this. When assessing requirements and capacities, it will be crucial to consider the complexity of this structure as well as the capacity for direction and oversight that the central ministerial authorities have built over it. These institutions have been effective in asserting a high degree of autonomy and their effective power frequently surpasses that of the supervising ministry, offering them a strong opportunity to thwart integration and coordination.

5. Subcentral levels of government and intergovernmental coordination

The NDC implementation institutional architecture extends beyond the national government. Subcentral authorities include: (i) states, regions, or provinces in decentralized states; and (ii) local governments, such as counties and municipalities, that can adopt a variety of modalities. The degree of fiscal autonomy and the legal authority bestowed upon subcentral authorities will determine their significance with respect to NDCs. This gives rise to a wide range of institutional options that are best evaluated country-by-country. Nonetheless, several universal issues will influence the mapping in every situation:

- The first concerns **the ways in which political and administrative authority are distributed among governmental tiers**. When it comes to providing public services, second tier authorities have a significant amount of power in politically decentralized states, whether they are referred to as federal or not. Affected sectors may include energy, water and sanitation, public works, watershed management, or land planning. These sectors are pertinent to both adaptation and mitigation. Distribution of competences among levels of government does not necessarily follow the functional requirements of rational policy making. Overlaps and inconsistencies are frequent and decisions pertaining to land use are often divided among tiers of territorial authorities. Because local governments have a different typology of capacities and jurisdictions, they present a more varied picture. Large cities' governance structures will be crucial since they will be responsible for providing public services that are essential to the goals of combating climate change. For example, reducing emissions in urban areas requires an ambitious implementation of clean public transportation systems.
- The second problem relates to **subcentral administrations' technical and administrative capabilities**. There is usually greater disparity between duties and administrative and financial resources the lower the level of government. Countries that rely on decentralized government structures to carry out their commitments must ensure that their capacities are adequate given the technological needs to achieve NDCs. Because they are in closer proximity to the people, regional and local governments have different incentives for acquiring power and being held accountable. Local governments should be more aware of and sensitive to people’s needs, but this could also result in more politicized institutions at the expense of

organizational and technical strength. There is a wealth of evidence indicating that the recruitment of professional and managerial cadre in subcentral governments is less meritocratic the more competitive is the access and conservation of power.

- The **degree of consistency between the powers delegated to subcentral authorities and their ability to raise the necessary funds to guarantee delivery** is the third issue. The push to achieve NDC goals may contribute to the widespread issue of top-down legislation that is not adequately funded. There is also a chance to use fiscal transfers as incentives to encourage the accomplishment of NDC objectives. If managed through national programs shared by central and subcentral authorities with carefully thought-out incentives, international resources can be helpful for that.

- Lastly, and following on from the earlier problems, **the formulation and implementation of NDCs in decentralized nations necessitate persistent intergovernmental management work**. By this, we mean the cooperative arrangements that make it possible to develop and carry out shared objectives and strategies. To make things happen, even centralized nations with high population densities in big cities will require robust mechanisms of coordination with local authorities. Intergovernmental coordination is more difficult than inter-sectoral coordination because political autonomy creates a strong incentive for competition and differentiation. Institutions for fiscal allocation and coordination can play a crucial role in reaching long-lasting agreements when pursuing shared goals such as those contained in NDCs. Furthermore, when more than one level of government is involved, specific instruments of collaboration will be required for sectoral policy coordination, such as the establishment of joint authorities to carry out important policy objectives. Once more, initiatives to transition metropolitan areas' public transportation systems to cleaner options are an example of how intergovernmental management organizations are necessary to produce the desired outcomes.

6. Oversight institutions

As was previously mentioned, the Paris Agreement's pledge and review process heavily relies on "naming and shaming incentives" to persuade public and private actors to establish and carry out ambitious goals. To make this happen, institutions of oversight—which are vital to accountability—must be involved in the application of laws and policies pertaining to climate change. This is another instance whose effective contribution comes down to a matter of institutional will as well as technical capacity. The following are the most crucial entities to consider:

- The **legislature** is crucial to monitoring government performance in addition to approving laws and reviewing policies. Further to political preferences, this effort will rely on the capacities of members of parliament and their support staff. The role of the legislature can be examined through the work done by specialized committees devoted to the subject, the number of questions the government is required to respond to on this matter and the inquires opened on climate change policies and legislation.

- The **judiciary** is responsible for protecting rights impacted by climate change legislation and enforcing its provisions. Due to the intricacy of environmental regulations, courts require specialized knowledge and professional assistance. Access to justice by citizens and groups affected by climate change episodes needs to be guaranteed. Enforcement of court rulings in environmental cases needs to be reviewed to avoid unjustified delays and uncomplete reparation.

- It is also necessary to look **at independent audit and evaluation bodies'** ability to monitor how climate change policies are being implemented. It can include whether authorities follow established legal procedures, meet performance goals, and also evaluating the efficacy and efficiency of policies. When recommendations are issued, follow-up procedures need to be established to verify acceptance and compliance.

Finally, establishing a framework of transparency and public access to information is necessary to optimize accountability through oversight institutions. This makes it possible for those who are impacted by lack of compliance or failure at implementation to request that oversight organizations investigate possible malpractice. The impact of oversight work is further reinforced by an independent and diverse media that takes follows climate change policies.

7. Market forces as complementary institutional partners

The NDCs will not be able to be fulfilled by the public sector alone. The challenge in both developed and developing countries is far beyond its capabilities and means. Within the framework of market forces, private actors need to contribute their organizational, technical, and financial capabilities. Multinational corporates are key drivers of climate action. They combine financial strength, operational efficiency and innovation capabilities that allow them to conceive and execute projects to carry out scalable low carbon solutions. Experience has shown that a significant investment by developing nations in market compatible institutions is necessary for this endeavor to be successful.

Market development can be defined as a process in which incentives are designed to draw resources in a manner that simultaneously serves the interests of the public and private sector. The conventional zero-sum approach to public and private sector roles does not adequately explain this dynamic. Less public involvement won't always be beneficial for market development; occasionally, different, or even more selective involvement may be. What must be examined and addressed is the complementarity of public and private forces through strong market institutions that create the appropriate incentives.

Like other domains of institutional development, there exists a possibility of conflating fundamental prerequisites with idiosyncratic institutional models. Efficient and effective market institutions are compatible with varying types and degrees of fiscal effort, ownership participation of the public sector in business, regulatory conditions, and compliance oversight, as demonstrated by the experiences of various countries. All these interventions have the potential to help align private forces with public goals without jeopardizing private investment if they are properly planned and carried out. What is required is an institutional regimen that is predictable, stable, and enables a sufficient long-term return on investment. Institutions play a crucial role in limiting risk to a manageable level so that resources can be gathered at a level appropriate for the needs. This entails examining the cumulative impact that multiple institutional prerequisites may have on private investment and operation. The most important are mentioned below:

- First and foremost, **regulatory institutional incentives** need to be considered. Regulation has always been the foundation of environmental policy, setting ever-higher requirements that producers and consumers must meet. It is commonly acknowledged that achieving NDCs will require effective and efficient regulation in developing nations. To create regulatory regimes that are contextually appropriate and have a genuine chance of succeeding, regulatory authorities must possess adequate technical resources and follow high professional standards that ensure legal certainty. Compliance tools, such as the ability to conduct verifications and implement enforcement actions in the event of non-compliance, must be used in tandem with financial incentives to entice compliance. One common tool used in policymaking is the imposition of emission limits or sunset clauses on contaminating technologies. This has distributional implications and, if implemented without compensation

measures, can have a detrimental effect on entire economic sectors, leading to strong opposition due to prohibitive costs.

- Secondly, it is well known that market behavior can be significantly influenced by **economic inducement in the form of both positive and negative financial incentives.** This has been applied to policies pertaining to climate change through a range of tools that are still in the early stages of development. One of these tools, carbon markets, can be a significant source of funding for developing nations eager to safeguard and increase their natural resource assets—that is, provided they build the capacities required. In addition to being used for a wide range of objectives linked to environmental and climate change policies, tax laws have also been used to reward or punish specific consumer and producer behaviors. To reduce the potential price difference between clean and outdated technologies, supply and demand subsidies have also been employed. The effectiveness of an economic inducement must be evaluated in relation to alternative options. Research has demonstrated the relative costs of providing subsidies to public transportation users versus investing in additional infrastructure to decrease the use of private vehicles. These are all complex policy options that demand competent knowledge from decision-making bodies and developing nations might not have as much capacity as they need. Temporary assistance from foreign consultants is possible, but the creation of endogenous capacities is necessary for the sustainability of policies and their future adaptation.

- Third, through a range of **public-private partnerships**, the private sector can be involved in the delivery of solutions. This is a general term that can be used to describe a variety of cooperation models. The simplest is hiring someone to perform tasks or provide services for a set fee. Depending on the type of work or service rendered, public procurement laws provide several contract modalities to ensure market competition and the best possible balance between price and quality. Green clauses have been added to procurement rules to ensure climate change compatible tenders. Concession agreements, in which private investors compete to construct infrastructure and render services for an extended length of time in accordance with specific cost and quality standards, are more complex and lengthy arrangements. Concessions are crucial to the construction and upkeep of road infrastructure, waste management, water and sanitation, transportation, and other climate change-sensitive industries. Research suggests that for concessions to be successful, an institutional investment is required in a strong regulatory framework and an authority with the necessary legal and technical skills. The availability of foreign resources through loans or guarantees, which lower the cost of financing for the investors, is a complement to these modalities.

- Lastly, there are circumstances in which a **long-term mutual interest strategic association** would be more suitable for the partnership required to meet a need or find a solution than a contractual agreement to deliver a specific set of predetermined outputs. This happens when a problem or a technology that can be used to solve it is fraught with a great deal of technical or financial uncertainty. This is the case of promising clean technologies, like green hydrogen that need more investment in development before they can be commercialized. To accelerate technology development, the public sector can form joint ventures with private companies using various modalities. If the experimentation phase proves to be successful, the rewards and risks will be shared. This is a challenging institutional modality that will need advanced scientific and technological knowledge in addition to financial resources to establish a true partnership. By collaborating with institutions in developed countries, research centers in developing countries could lessen these restrictions.

8. The contribution of civil society institutions

At the national and international levels, civil society movements and organizations have shown to be highly influential in the formulation and execution of NDCs. They have been a major force in the battle against climate change for many years, and they were instrumental in getting the world to sign the Paris Agreement. From tiny local issue movements to multinational networks with a large audience and growing influence on international organizations and decision makers, civil society exhibits an increasingly complex structure. Strength and structure of civil society are critical for the implementation of the NDCs because of the voluntary nature of their pledges and the "name and shame" incentives needed for meaningful development.

There are significant disparities between industrialized and developing nations when it comes to the capabilities and potential of civil society institutions. Communities where there is a high degree of social mobilization toward goals benefit from the growth of civil society groups. Certain political and economic interests that would rather dominate social dynamics may fight against it. Thus, a crucial part of the entire institutional evaluation process is mapping the civil society institutions and their potential contribution to the aims and activities of the NDCs in each nation. We can distinguish among different roles civil society organizations can play in advancing NDCs:

- First, there is the more conventional function of traditional interest groups, trade unions, business groups, and professional corporations in **representing and defending economic and social interests**. Although their previous influence has diminished in favor of groups that are more idea-focused, they still have a significant role to play. Since they are in line with existing interests, they may be perceived as intrinsically opposed to policy changes that may be seen as opposing them. Policies addressing climate change, for example, would necessitate adjustments to productive methods, which may be expensive for business and workers. But interests may also join the coalition for change as they adjust and seek long-term sustainability, particularly when financial incentives are used. These groups are also crucial for understanding the difficulties private players have in contributing to NDCs and for directing policy decisions toward workable solutions. Furthermore, they are highly helpful partners for the execution of policies because of their capillarity with the interests they represent. They can efficiently spread goals and initiatives while also providing technical and financial assistance for their execution.

- A second group that has been increasingly relevant over the past several decades is the **organizations that focus on advocacy**. They promote an idea or set of ideas they believe in, raising public awareness and pressuring policymakers to take measures to adhere to them. They can be anything from taking up a local cause, such as opposing a project believed to be harmful, to joining a worldwide group like Greenpeace that is dedicated to environmental conservation. Their working techniques are political by nature; they aim to mobilize their followers in public and run campaigns to obtain broader support for their objectives. They can also interact with other groups that share their values, such as grass-roots community organizations, religious establishments, and political groups like the green parties. Their ability to sway public opinion and exert pressure on decision-makers is a key factor in their power. They appear to have had greater success thus far on the worldwide stage than in the national developing country arena, but things are changing quickly as international organizations are supporting locally affiliated groups. In any event, the Paris Agreement's "naming and shaming" strategy depends on influential advocacy groups from civil society, operating both at the international and local levels.

- Thirdly, civil society groups can function mainly as **knowledge actors** by taking on the form of more activist think-tanks or specialized academic and research institutes. Their commitment to scientific standards for the production and dissemination of knowledge ought to be their most remarkable quality. The extent to which these players participate actively and influentially in the policy-making process is seen to be a critical determinant of the quality of public policies. NDCs rely on the contributions of reliable knowledge actors to adapt effective technologies and practices to the unique circumstances of the local setting. Since the area of climate change is ideologically contentious, these players play a crucial role in issue analysis, evaluating potential policy alternatives, and tracking and assessing outcomes. Although developed nations produce more knowledge than developing nations, contemporary communication technologies have made knowledge more accessible.
- Finally, in developing nations, civil society groups can have a significant impact on the **provision of goods and services**. This position may have an impact on the adoption and expansion of environmentally friendly solutions across several industries and domains. NGOs have been heavily involved in the creation of low-carbon water and sanitation facilities, green energy networks, and rural development projects focused on food security. By adjusting to local requirements, collaborating with community institutions to guarantee sustainability, and reaching out to distant and conflict-affected regions, they have demonstrated a strong capacity for innovation. Additionally, they have been effective in forging alliances with businesses and government agencies that possess the capital and know-how needed to expand their reach.

Civil society groups could combine these roles with one prominent position. Interest and advocacy typically go hand in hand, and knowledge may be a crucial lever for lobbying. Delivering solutions requires a strong foundation in knowledge and is typically accompanied by promoting their advantages. Most civil society groups are part of networks that function on various levels. Some organizations operate through recognized national partners that provide financial and technical assistance, while others have local offices. They can become more influential on a global and national scale thanks to transnational networks.

In addition to the mapping of civil society organizations and evaluating its contribution to NDCs, it's critical to examine the contextual factors influencing their functioning. This has to do with the political dynamics that impact their power and autonomy through the legislative framework that establishes the requirements they must meet to be recognized. Financial regulations, for instance, can affect the ability for civil society organizations to mobilize funding and become a relevant actor in the delivery of innovative solutions. Further to that, informal practices of recognition and association between public authorities and civil society organizations will also be an important part of the institutional context shaping their relevance.

3. A REVIEW OF NDC UPDATES: SALIENT INSTITUTIONAL ISSUES

Several institutional challenges raised by national governments' last NDC updates are examined in this section. Since NDCs cannot be seen as implementation plans, any conclusion derived from the analysis must be taken as preliminary. NDC documentation must adhere to a standard template established by the Paris Rulebook that demands minimal details about the mechanisms of implementation. For example, even if it is necessary to arrive at the plans and evaluate their viability, information on resource needs and sources of finance is not required. Actually, a few NDC documents state that an implementation plan outlining the necessary funding and other arrangements will come after them. This review shows that

NDCs are fundamentally aspirational documents supported by explicit political will rather than comprehensive planning exercises.

The following topics are derived from a review of a selection of the most recent NDC updates from Latin American and Caribbean nations. The NDCs from Dominican Republic, Argentina, Bolivia, Colombia, Guatemala, Jamaica, and Mexico are examined.[16] These countries have been chosen to represent a diversity of sizes, locations, political systems, and levels of development. The most salient intakes on institutional requirements for implementation are highlighted below.

1. Outcome-based mitigation goals and adaptation objectives

Except for one document, every update we looked at set a target for reducing world emissions by 2030. Updates reveal that the mitigation component of the NDC is more ambitious than in the previous pledge. Goals are not always in line with each nation's percentage of global emissions; low emitters tend to be more ambitious than comparatively high emitters. Comparisons are challenging, though, as some NDCs define the objective in relation to an estimated future level of business as usual, others compare it to a level that was established in the past, and two NDCs set an absolute aim of emissions as a legally enforceable limit by 2030. Most nations tie a portion of their goals to obtaining outside funding but without linking resources to specific investments. The conditional pledge is more significant as a proportion of the total outcome to be achieved in less developed nations.

The Guatemala NDC is the best example of the few papers that allow to link the mitigation outcomes pledged to with an estimate of the outputs and inputs needed to accomplish them. The other documents are way vaguer and more unspecific in making these connections. One of the concrete cases where the relationship between outputs and outcomes is presented in several updates is the switch to renewable energy sources to produce electricity. Still the lack of detail on the availability of public or private financial resources for investments makes the achievement of results highly uncertain.

Detailed outcome and output objectives are not usually presented for adaptation activities. This can be explained by the need to present complementary National Adaptation Plans. However, a few countries combine outputs and outcomes divided by sectors or generally defined priority adaptation areas. The efforts take the form of a lengthy list of activities divided by preexisting sectors. Several publications refer to specific sector plans that have previously been established as the foundation for reporting adaptation efforts. The documents' specifications are insufficient to evaluate the adaptation efforts' cross-sector consistency. Prioritization is also lacking among them. Most documents mention the importance of subnational authorities in implementation but abstain to be more specific about goal subdivision and resource attribution.

As previously said, NDCs are basically aspirational documents that lack details linking outcomes with outputs and funding commitments. This may be the most that can be expected given the nature of the pledge and review process set by the Paris Agreement, but it is not encouraging regarding implementation prospects.

2. Estimates given of funding requirements and budgetary commitments.

Every document emphasizes how the NDC aims are aligned with higher more comprehensive planning. National development plans, the 2030 Agenda, and the Sustainable Development Goals are all

[16] Actualizacion de la meta de emisiones netas de Argentina al 2030, Octubre 2021; Nationally Determined Contribution of the Plurinational State of Bolivia, 2021; Actualizacion de la Contribución Determinada a Nivel Nacional de Colombia (NDC), 2020; Contribución Nacionalmente Determinada, Gobierno de la Republica Dominicana, Diciembre 2020; Contribucion Nacionalmente Determinada, Guatemala 2021; Update of nationally determined contribution of Jamaica to the UNFCCC, June 2020; Contribucion Determinada a Nivel Nacional. Actualizacion 2022, Gobierno de Mexico.

mentioned as the overall framework in which NDCs have been defined. However, there is no discussion of trade-offs between the NDC aims and other development goals, such as economic growth, income distribution, or poverty reduction. Less so, there is not any hint of potential conflicts on the use of natural resources implicit in sector priorities. No document offers a scenario approach to achieving the goals, based on factors whose progression might affect the entire endeavor.

Answering a question contained in the Rulebook, most NDCs are presented as the product of an ad hoc planning process. Legislation pertaining to climate change has in certain instances established a procedure that outlines the parties involved, including civil society groups, and who is accountable for what. A robust consultation process and the importance of national advisory organizations are highlighted in other documents, also in response to Rulebook questions. Most updates base the actions proposed on earlier policy programs that were incorporated into the NDC. Only a few documents appear to be more the product of compiling pre-existing documents.

The finance requirements linked to the promises are not estimated by most documents. Neither do they separate the investments that will be financed by country resources versus those needing external funding. The only update that offers a precise estimate of the investment requirements is the Dominican Republic's, separating mitigation and adaptation. There is no information in any document regarding how the NDCs would affect how government resources will be distributed in the upcoming years. The publications do not include sector budget projections for adaptation and mitigation. Similarly, there is no presentation of initiatives to boost resource mobilization from ecologically friendly levies or cutting environmentally detrimental subsidies. The same is true of pricing laws, which have the potential to either strongly encourage or discourage the development and use of natural resources.

There is no distinction made in any of the studied papers between measures that rely on efforts from the public sector and those that call for resources and initiative from the private sector. Consequently, none of the documents provide estimates of the amount that the private sector would need to invest. None of the documents mention programs that offer financial rewards for private investment or joint ventures on climate-related projects.

3. The institutional setting and capacity gaps.

The institutional frameworks supporting the NDCs are presented in varying levels of depth. In most cases, the document is authored by the national coordinating institution in charge of climate change policy. Usually, this is a particular ministry of the government named after the environment, natural resources, or climate change. A sub departmental entity of a ministry with broader duties, such as planning or economic management, may occasionally be designated as the leader or co-leader. In the latter instances, documents typically offer a stronger link to national and government-wide planning initiatives. It is impossible to conclude if the NDC shows more strength in coordination and consistency in these cases.

The documents also reference inter-sector coordination bodies, which appear to be the decision-making entities for climate change policies. These are legislatively instituted all-government councils or committees that comprise all agencies pertinent to climate policy initiatives. They appear to be the body that approves NDCs, but it's unclear exactly what part they have played in goal definition and will play in execution. Most NDC actions seem to have been defined following an existing government horizontal division of labor, assigning actions to preexisting ministries and agencies. Experience shows that lack of effective coordination mechanisms and overlapping and inconsistent ministerial mandates will hinder a whole government approach to action, but NDC documents are insufficient to make an informed assessment if this is the case or not.

A few documents also refer to official permanent consultative committees that are composed of representatives from civil society and specialists from knowledge institutes. Furthermore, no document addresses their capacity in influencing the formulation or execution of policies. Sector authorities involved in climate change policies are also listed in some of the documents examined when mentioning the actions attributed to their competences, but their degree of responsiveness to climate change policies is left unanswered.

The part subnational authorities must play in implementation is also mentioned in documents. This is especially important in federal or highly decentralized nations because subnational governments are required to implement most adaptation programs. The degree of subnational authorities' involvement in the planning process and their potential co-responsibility for the commitments are not mentioned in any document. Intergovernmental mechanisms that provide cooperation between the national and subnational levels are not presented. There is no reference to fiscal arrangements between central and subcentral governments that will be linked to finance NDC goals.

A few countries mention the scientific and technical bodies that provide the knowledge supporting the diagnostic and the estimates been used to set the targets. Except for one document reviewed, there are no specific provisions for policy evaluation mechanisms to understand the impact of the actions planned and allow for necessary adjustments. Several NDCs also include references to information systems essential for reporting according to the transparency requirements of the Paris Agreement. They mention information systems already available by sectors and point to future projects to enhance transparency and reporting capacities.

The image that emerges from the materials reviewed is not particularly encouraging in terms of developing nations' ability to fulfill their commitments under the Paris Agreement. Most documents condition result accomplishment on both financial and capacity development support. However, there isn't much effort in identifying institutional reforms necessary for a nation to fulfill its obligations. The only NDCs that identify various issues with governance and the need for institutional strengthening are those of Guatemala and Colombia. The perception is that countries have interiorized climate change standards into existing institutional structures without enough reflection on the compatibility between both. If norms are absorbed into institutions that cannot provide for effective implementation, they will likely not make the desired effect, failing to supersede persistent practices supported by prevailing political-economy forces.

Progress on institutional reform and capacities is hard to be seen. The 2023 stockade findings report that “capacity limitations present barriers across all dimensions of climate action, including mitigation, adaptation and enabling and using technology and finance,”[17] but there no specifics on what needs to be done and how the COP process can be influential in addressing these challenges. The Independent High-Level Panel on Climate Finance also points to implementation failures as the main reason that the world is not on track to realize the goals of the Paris Agreement. They directly blame “the lack of investing, particularly in emerging and developing countries outside China.”[18] According to their analysis, investment in developing countries has stalled and “institutional structures that can create investable pipelines of projects” are badly needed.

There are reasons to think that the COP process needs to be rethought in order to shift the focus from a multilateral process of negotiation to a platform that supervises and supports the implementation of climate goals. Multilateral negotiation is not how implementation takes place. Achieving the Paris targets

[17] UNFCC, Technical Dialogue of the First Global Stocktake, *Synthesis report by the co-facilitators of the technical dialogue*, 8 September 2023, p.39.

[18] *A Climate Finance Framework: Decisive Action to Deliver on the Paris Agreement*, Second Report of the Independent High-Level Expert Group on Climate Finance, 30 November 2023.

will require solid implementation strategies that include adequate funding, institutional capacity, and technological resources.

4. CAPACIY-BUILDING FOR INSTITUTIONAL DEVELOPMENT: LESSONS LEARNED AND IDEAS FOR ACTION

The Paris Agreement establishes capacity-building as the solution to address implementation challenges. This is in accordance with developing nations' insistence that capacity-building should be considered a prerequisite for implementing the NDC. As a result, Article 11 of the Agreement was added, indicating a potentially new approach for expanding capacity. It points out that capacity-building should be country-led, based on and responsive to national needs and it should be guided by lessons learned. There is also the commitment that countries communicate on actions on capacity building and that developing countries regularly communicate progress made on that regard. Article 12 complements this wording by establishing the need of cooperation to enhance climate change education, public awareness, public participation, and public access to information.

Capacity-building has become the most sought kind of assistance.[19] More than a dozen thematic groups and operational units of the UNFCCC carry out capacity development activities in developing nations. As Activities include seminars and e-learning modules, thematic discussions, technical guidance, and support for stronger institutions. Regretfully, there are no thorough assessments of how the Paris Agreement's resources for capacity building have been used. It is also exceedingly difficult to objectively analyze progress due to the lack of diagnostic tools and indicators to compare state capacities to implement NDCs.

1. Capacity-building needs a more specific approach to institutional development.

Capacity building or development is "the process by which individuals, groups, organizations, institutions, and societies increase their abilities: to perform functions, solve problems, and achieve objectives; to understand and deal with their development needs in a broader context and in a sustainable manner."[20] Since the outset, capacity and capacity building have been at the core of development aid, progressively extending to new contexts and needs. Capacity development has successfully navigated the complexity of international politics by being presented as a simple, aseptic concept that can be easily accepted by all countries. However, it is a highly abstract concept that is less useful the more precise the conditions under which it must be used.[21]

The definition of capacity building given above rests on two debatable assumptions. The first is that acquiring capacity is a process that is universal to a wide range of contexts, from individuals to entire communities. Experience demonstrates that they can follow rather distinct patterns of evolution and that there is no essential aggregation from one level to the next. The second dubious assumption holds that capacity is defined by abilities. Once more, aptitude is only one of many characteristics that influence capacity in various circumstances, and it is not always the most important component

[19] Mizan Khan, David Mfitumukiza and Sallemul Huq (2019), Capacity Building for implementation of nationally determined contributions under the Paris Agreement, *Climate Policy*, https://doi.org/10.1080/14693062.2019.1675577

[20] UNDP, Capacity Development: A UNDP Primer, 2009.

[21] See Martin J. Williams, 2021, "Beyond state capacity: bureaucratic performance, policy implementation and reform", *Journal of Institutional Economics* 17, 339-357.

to explain performance. The assumption that capacity development is a technical and apolitical subject, where factors like interests, values or power can be subdued by abilities.

These conceptual and analytical limitations become evident when capacity building is applied to institutional development. The reasoning is that with the appropriate number of inputs, namely financial resources, people, technology, and knowledge, institutions can maximize performance. The focus is on a hypothetical capacity to accomplish goals—an institution is thought of as an empty bottle to be filled. However, institutional behavior is shaped by factors that extend beyond the sum of its constituent parts. It is commonly known that when two institutions that are formally identical receive the same amount of input, the outcomes accomplished may be vastly different. There can be significant variations depending on how inputs are merged and aggregated in each unique context. When outputs and outcomes are difficult to quantify, as is the case in the public sector, these disparities are probably going to be more noticeable.

2. The disappointing record of state capacity development

When it comes to state capacity, development interventions have not performed up to expectations. Evaluation studies all come to the same conclusion: there has been a lackluster performance in helping governments develop their capacity. [22] Based on existing indices, assessments of the evolution of state capacity in emerging nations reveal that state capacities have not only stagnated but have regressed. The problem is accurately depicted by Andrews et al. [23] According to their data, just 8 out of 102 emerging nations have strong state capabilities. 17 countries are placed in the category of failing or failed states. The remaining seventy-seven are seen as being in the middle. Even worse is the finding that 70 countries—44 of which are in the middle—show a negative trend in state capacity between 1996 and 2012. There are several well-known reasons to explain these results:

- The first concerns the effects of programs for structural adjustment. Developing nations have been experiencing recurring episodes of fiscal crises for many years, which has forced them to implement state retrenchment measures to restore balance. These were included in rescue packages reached with international financial institutions to get the funds necessary to pay off debt and meet most urgent necessities. Even in the priority sectors, budgetary adjustment exercises are unlikely to be consistent with capacity protection. They are accomplished by general budget cuts, typically focusing on staffing and administrative expenses, and they place a higher priority on expediency than selectivity. Rolling back the state is far easier than strengthening it again, and adjustment has resulted in permanent capacity losses in many nations.
- The second has to do with the theory of change that most initiatives aimed at building state capacity adhere to. Reforms have been motivated by **best-practice models** imported from developed nations. The attempt has been to embrace these formal structures—which are seen to be superior—by transferring them. As a result, developing nations now "look like states" yet are devoid of true state capabilities. [24] Failure has been the result of inadequate consideration of context and other specific circumstances. Legislation can readily make forms, but functions are not always carried out as intended. Even worse, newly established institutions have been given more ambitious mandates, leading to an overload problem that

[22] Alain de Janvry and Jean-Jacques Dethier, 2012, *The World Bank and Governance. The Bank's Efforts to Help Developing Countries Build State Capacity*, Policy Research Working Paper, World Bank.

[23] Matt Andrews, Lant Prichtett and Michael Woolcook, 2017, *Building State Capability, Evidence, Analysis, Action*. Oxford University Press.

[24] Lant Pritchett et al., 2013, Looking Like a State: Techniques of Persistent Failure in State Capability for Implementation, *The Journal of Development Studies*, 49 (1), 1-18.

worsens performance. This is a danger that should be carefully considered when formalizing climate change policies and institutions carrying more demanding standards.

- The third reason is the **undervaluation of the political factors** that shape institutional frameworks. State capacity initiatives have been guided by theories of change that have misinterpreted or disregarded political demand. They operated under the mechanical metaphor, treating state capabilities as malfunctioning devices that might be fixed by a skilled technician. But genuine institutions are always the product of the political dynamics at work in every given situation. Ignoring politics has proven especially harmful in environments of precarious states when institutions are likely to be captured by predatory politics. The result are capability-traps that impede social and economic advancement and make development assistance ineffective.

- Finally, when **development interventions circumvent state institutions** to speed up execution and achieve tangible results, permanent capacities are undermined. Permanent institutions lose key personnel and relevant functions, shattering links between capital and current spending. This has detrimental effects on both the sustainability of the results and the continuation of policy reforms. Considering that these arrangements are the most prevalent when international resources are used, climate change programs should be careful in avoiding these kind of capability traps.

A new wave of institutional development theories of change, influenced by lessons learned from these mistakes, emphasizes the need of prioritizing function over form and creating designs that are appropriate for specific local circumstances. This concept of "good-enough" or "second-best" institutions is backed by empirical research conducted in developing countries, which demonstrates how institutions that appear to be less than ideal may yet function satisfactorily and efficiently handle challenges, thanks to superior adaptation to local contexts.

3. What can be done? Preliminary suggestions for institutional capacity development

Developing nations face enormous challenges when it comes to implementing NDCs. Despite the wide range of bilateral and multilateral efforts, "most developing countries continue to face significant challenges that undermine their ability to effectively or fully carry out the climate action that they would like to pursue."[25] In fragile contexts, the capacities needed for implementation are severely lacking. Institutional capacity rather than in financial resources must be seen as a more binding constraint to achieving the goals of the Paris Agreement. Even if financial resources are available, lack of institutional capacities will compromise them being used effectively. Shortcomings, such as low disbursements relative to commitments, insufficient investment project pipeline available or the lack of absorption capacities of the countries most affected by climate change are the direct result of inadequate institutional capacities.

The following are some initial recommendations made to address these constraints:

- To begin with, diagnostic capacity on institutions regarding climate change needs to be increased to measure progress and compare nations objectively. Based on a common analytical framework, the World Bank has begun to elaborate diagnostics on national climate change institutions. An actionable body of knowledge that can guide interventions to boost institutional capacity is beginning to emerge from this. To create meaningful comparisons between nations, more research on objectively comparable evidence would be required.

[25] Yamide Dagnet, Eliza Northrop and Dennis Tirpak, *How to Strengthen the Institutional Architecture for Capacity Building to support the Post-2020 Climate Regime*, World Resources Institute, Working Paper, December 2015, p. 2

- To begin with, **diagnostic capacity on institutions regarding climate change needs to be increased to measure progress and compare nations objectively**. Based on a common analytical framework, the World Bank has begun to elaborate diagnostics on national climate change institutions.[26] An actionable body of knowledge that can guide interventions to boost institutional capacity is beginning to emerge from this. To create meaningful comparisons between nations, more research on objectively comparable evidence would be required.
- Secondly, **scientific, and technical local institutions need urgent strengthening** for diagnosing climate change and assessing advancements. The majority of developing nations lack the capacity to generate trustworthy knowledge, which is necessary to set policy priorities and allocate resources. Capacity development initiatives should prioritize strengthening these institutions. Based on past experiences, it may be beneficial to encourage institutional "twinning." This entails establishing a long-term partnership between an institution in a developing country and its formal equivalent in a developed one. Through a collaborative approach, research, information, and technology will be exchanged, enabling the institutions in the developing countries to raise its level of scientific output to an advanced level. This strategy was extremely effective in bringing Eastern European institutions up to the technical standards of the European Union, prior to accession.
- Fourth, **project selection directed at institutional capacity development should be based on the most pressing issues facing each country**. State capacity efforts should be concentrated first on areas that are perceived as critical and allow for feasible reform. It is best to steer clear of best practice transplants that rely on a solution-driven methodology. Demand analysis should consider the entire authorizing environment of institutions, not just the support of formal authorities. This entails taking a close look at the end users who are impacted by the problems to be solved and gathering civil society support. When it comes to institutional development, practical arrangements that work in specific contexts should take precedence over form.
- Lastly, **the solution-focused, project-based approach of international development does a poor job** of supporting the long-term work of institutional development. When one concentrates on solutions, resources are allocated toward the process rather than the outcome. The process of institutional reform is one of learning and adaptation over time, where advancements and setbacks need to be considered. This demands long-term focus and experimental flexibility in intervention strategies rather than tightly defined plans with predefined inputs and outputs. are absent from projects as currently defined.

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[26] World Bank, *Climate Change Institutional Assessment*, 2021.

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