Case Study:

The Process of Preparing Costa Rica’s Intended Nationally Determined Contribution (INDC)

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The Process of Preparing Costa Rica’s Intended Nationally Determined Contribution (INDC)

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### Acronyms and Abbreviations

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<th>Acronym</th>
<th>Description</th>
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<tr>
<td>AILAC</td>
<td>Independent Alliance of Latin America and the Caribbean</td>
</tr>
<tr>
<td>BUR</td>
<td>Biennial Update Report</td>
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<tr>
<td>CC</td>
<td>Climate Change</td>
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<tr>
<td>CCAFS</td>
<td>CGIAR Research Program on Climate Change, Agriculture and Food Security</td>
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<td>DCC</td>
<td>Department of Climate Change (Dirección de Cambio Climático)</td>
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<tr>
<td>FONAFIFO</td>
<td>National Forest Financing Fund</td>
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<td>GhG</td>
<td>Greenhouse gases</td>
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<tr>
<td>ICE</td>
<td>Costa Rican Electricity Institute (Instituto Costarricense de Electricidad)</td>
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<tr>
<td>IDDRI</td>
<td>Institute for Sustainable Development and International Relations</td>
</tr>
<tr>
<td>IMN</td>
<td>National Meteorological Institute (Instituto Meteorológico Nacional)</td>
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<tr>
<td>INDC</td>
<td>Intended Nationally Determined Contribution</td>
</tr>
<tr>
<td>INDC Team</td>
<td>Team of technicians in charge of preparing the INDC, coordinated by the Minister’s office; includes DCC staff and consultants from the World Bank and UNDP</td>
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<td>MINAE:</td>
<td>Ministry of Environment and Energy (Ministerio de Ambiente y Energía)</td>
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<tr>
<td>NAMA</td>
<td>Nationally Appropriate Mitigation Actions</td>
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<td>SINAC:</td>
<td>National System of Conservation Areas (Sistema Nacional de Áreas de Conservación)</td>
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<tr>
<td>UCI</td>
<td>University for International Cooperation</td>
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<tr>
<td>UNDP</td>
<td>United Nations Development Program</td>
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<tr>
<td>UNFCCC</td>
<td>United Nations Framework Convention on Climate Change</td>
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<td>WRI</td>
<td>World Resources Institute</td>
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Introduction

Climate change is a reality of our times. Its effects have accentuated the meteorological variations of El Niño and La Niña phenomena, whose implications are now being felt in the country. Costa Rica, along with the rest of Central America, share a particularly vulnerable geographical context.

As Party to the United Nations Framework Convention on Climate Change (UNFCCC), the country assumed the obligation to present a document on its Intended Nationally Determined Contribution (INDC), meaning the contribution a country would be willing to undertake ahead of the new post-2020 global climate change regime, based on its situation and capacities. Costa Rica has already made several advances in policies it adopted voluntarily, but preparation of the National Contribution also entailed a reconsideration of their scope at governmental level, ultimately invoking the need to implement new and better policies.

Climate change is a development problem, requiring innovative public policies in both territorial and sector governance. That intent is materialized under the concept of climate action in Costa Rica’s National Contribution. It is a starting point for the design of policies and specific actions that will lead the country to a low-emission economy.

This case study documents the preparation of the INDC. It is divided into six sections describing that process in chronological order: 1) the approach and design; 2) the situation concerning information and debate about its use; 3) development of the future vision narrative used to complement quantitative data; 4) sectoral dialogue as participation strategy; 5) integration of information to produce the initial draft, efforts to publicize the text and public discussion leading to the INDC proposal; and 6) lessons learned from the process and next steps for its review and application in the years ahead.

1 Throughout this document we refer to the Intended Nationally Determined Contribution using its acronym (INDC) and the generic name, “National Contribution”.
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Starting Point

The new government that took power in 2014 sought to respond to demands of activists and academicians for a change of paradigm breaking with technocratic and vertical patterns in national climate policy. Despite incipient efforts to integrate social and economic stakeholders in policies such as NAMAs (coffee and livestock) and the Carbon Neutrality program, the bulk of domestic climate policy was based primarily on integrated estimation models,\(^2\) with little discussion outside of public agencies and climate experts.

The change indicated by academicians and demanded by activists required, on one hand, recognizing the limitations of the climate information utilized, and on the other, broadening the stakeholder base involved in policy formation (Araya & Edwards, 2015; Polimeni, 2015; Vasquez, 2015). As a proposal on climate action measures to be presented to the national community (all social and economic sectors) and international community (Parties to UNFCCC), formulation of the INDC represented a crucial opportunity for making this transformation. Moreover, the INDC defines the climate policy agenda for the next thirty to fifty years (Levin et al., 2015).

Given this context, the INDC team considered criticism by Pindyck (2015), who says that climate models are full of arbitrary elements (in the functions and values of parameters) that remain at the modeler’s discretion, which is, however, not explained to the public when information from the models is used. Pindyck also points to persistent uncertainty about climate sensitivity; we do not know the probabilities or impacts of catastrophic ranges on climate (such as those deriving from a 5°C rise in global temperature). Given this uncertainty, confidence in the models is low, as is their usefulness to guide policies (Funtowicz & Ravetz, 1993; Kriegler et al., 2012).

The limitations of climate models do not imply their proscription from analysis for policy design; what they provide us are parameters for recognition of their relative value within the process (Vergragt & Quist, 2011). However, this requires other ways of generating information suitable to a high-uncertainty and high-risk situation that in turn facilitate climate activists’ repeated demand that more stakeholders be brought into the process.

\(^2\) Integrated Assessment Models (Pindyck, 2015)
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The methodological alternative identified by the INDC team was the development of socioeconomic scenarios (Kok, van Vliet, Bärlund, Dubel, & Sendzimir, 2011; Vervoort et al., 2014; Kupers & Wilkinson, 2015) combined with backcasting a pathway, which Vergragt and Quist (2011) call normative backcasting. The proposal is to use both experts and social actors to generate the pathway (composed of the emissions reduction measures that the INDC will integrate), thus entailing a second order backcasting (participatory) (Eames & Egmose, 2011).

As mentioned already, the methodology of socioeconomic scenarios and backcasting does not exclude the use of econometric over climate models, but to the contrary integrates this information in a broad discussion about the pathway (Colander & Kupers, 2014; Giddens, 2013).

Another core aspect in the design of the INDC process was the integration of climate change mitigation and adaptation. The paradox experienced by Costa Rica, as elsewhere in Central America, is that it is highly vulnerable to climate change, yet its contribution in terms of emissions is miniscule (less than 0.5% of the global total) (Programa Estado de la Nacion (Costa Rica), 2014). This is what makes the effort of linking mitigation and adaptation actions (identifying synergies and complementarities) so critical. (Klein, Schipper, & Dessai, 2005; SWART & RAES, 2011). The first step in this integration is the use of a single concept of “climate action” for both mitigation and adaptation—a concept that had already been employed at COP 20 in Lima and which is adopted in the Paris Agreement (CMNUCC, 2015).

The INDC working group was formed under this vision. The team consisted of a coordinator-in-chief, a methodological advisor for the dialogue process, and two scientific advisors working from the office of the Ministry of Environment and Energy and with the accompaniment of its Climate Change Department. The team designed a process with four stages: metrics, future vision, sectoral dialogue and final synthesis. The table below shows each stage and the sequence.3

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3 Source of the table: the author
The INDC process designed had four singular elements compared to prior climate policy formation. First, the starting point was to recognize the serious limitations of integrated estimation models in forecasting the future of GhG emissions or adequately measuring the potential of abatement measures. Second, socioeconomic scenarios and backcasting were proposed as a means to construct a future vision complementing traditional models and compensating for their weaknesses. Third, extensive dialogue with key sectors would use information from both the models and the scenarios to prepare a pathway. Fourth, mitigation and adaptation measures would be integrated under the concept of climate action.

**Graphic 1. Stages of the INDC Process, Costa Rica**

| Metric | • Identification of the country's available emissions profile, projected future emissions, assessment of mitigation potential and resource mobilization strategies |
| Future Vision | • Establishment of a second starting point complementing the metrics. This would set out the desired low-emissions future vision in narrative form and through backcasting, make it possible to define a pathway on how to reach that future. |
| Dialogue | • Discussion with the key stakeholders from each of the critical sectors (energy, transportation, forestry, agriculture, and waste management) to identify specific emissions-reduction measures and their implementation. |
| Sintesis | • Integration of available information (metrics, future vision, results of dialogue), drafting and consultation of the INDC draft-proposal |
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Phase 1: Identification of Metrics for the INDC

Following this approach, the first task was to compile essential information. According to the WRI-UNDP guidance document on preparing Intended Nationally Determined Contributions, this information includes both greenhouse gas inventories, in Costa Rica prepared by the National Meteorological Institute (IMN), and GhG mitigation and removal options in the sphere of the INDC, based on marginal abatement cost curves. That information was prepared by both the IMN (BUR) and DCC.

Contrary to expectations, the information necessary to launch the process was not available. The IMN’s GhG inventory, included in the BUR, was not presented until mid-November 2015, a month and a half after the INDC had been prepared. As will be explained later, this gap was due to the controversy concerning emissions and removals results in the forestry sector. At the time of this document’s writing, the study on GhG mitigation and removal options is still not available for citation, although information from the study was used during the INDC preparation process, particularly in the sectoral dialogues. During the dialogues, the study’s technical team acknowledged the asymmetry of information available to estimate future GhG emissions and thus calculate removal potential and the costs associated. As can be observed in the following graphic, the result is that GhG emissions never reach a point of decline (with respect to the baseline) and the abatement measures considered in its models do no more than reduce the speed at which emissions rise⁴.

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⁴ Source of graphic: Presentation by Pascal Girot, MINAE Intersectoral Climate Change Coordinator, 2015, during sectoral dialogue workshops.

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The information to estimate emissions was inconsistent and concealed. Not only did the quality of the available data vary from one sector to another, but certain sources tended to concentrate the information and handle its disclosure in an extremely guarded fashion. This affected the possibility of neutral outside verification of the data.

Another of the problems for emissions and removals forecasting was uncertainty about emission and removal data in the forestry sector. The institutions connected with this sector (IMN, SINAC, Forest Authority, FONAFIFO, DCC) were in the process of revising the methodology used, and there was no certainty about the feasibility of using data from previous studies. Due to the importance of forestry in the national inventory, uncertainty in this sector has a significant effect on national data. In November 2015, publication of the BUR ultimately revealed that forest absorption capacity had declined 30% between 2012 and 2015. The entity in charge of the BUR adduced that the main reason for this difference was the change in measurement methodology, which allowed greater precision of data. (Instituto Meteorológico Nacional-Costa Rica, 2015).

**Differences of Perspective**

Problems in the availability and reliability of information on emissions and abatement measures led the DCC and INDC teams (based in the minister’s office) to propose two alternative and opposing responses:
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On the one hand, the DCC’s technical team supported a more traditional approach that would base the INDC on available “hard data” (contents of the Study on GhG Mitigation and Removal Options) and address the weaknesses in metrics (recognized in that same study) by dividing emissions reduction measures into conditioned and non-conditioned. The non-conditioned would include all those with available hard data and whose design and implementation were significantly advanced. The conditioned would be alternatives without sufficient information or with serious barriers to implementation and therefore dependent on international cooperation. This team viewed the INDC as an instrument to orient international aid.

Alternatively for the INDC team, the means for dealing with weaknesses in the metrics were defined by the initial INDC’s preparation design: complement available quantitative information with the development of a future vision (narrative), so that the pathway for reaching that “desired country’s future” could be identified inductively (normative backcasting). The inductive process that would define the pathway (and from it the measures to include in the INDC) would be informed by both the scenarios (future vision) and forecasts made with available data. Present-to-future (forecasting) and future-to-present (backcasting) visions would thus complement one another.

These two alternatives from both teams, kept antagonizing one another throughout the INDC process. Both represent different perspectives on the INDC’s reason for being. The first sees it as a type of agenda for international cooperation, and the second as a way of guiding country development. It was clear during the development of the future vision (with experts) and in the sectoral dialogues (with social and economic stakeholders) that the vision garnering the most support maintained a perspective centered on national development.

Phase 2: Construction of Socioeconomic Scenarios

The aspiration of significantly lowering carbon emissions requires visualizing a completely different country than the one we know now. However, this was the challenge of the INDC. In this process, the aforementioned weaknesses in the information base of climate models heightened the need for retroactive construction of a decarbonization pathway based on exploration of the country’s possible development paths. This section describes the process of formulating future socioeconomic scenarios and their application in backcasting a decarbonization pathway.

The Socioeconomic Scenarios
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As described in the previous section, the situation with regard to metrics available for INDC preparation was problematic. In the sectoral dialogues, particularly, recognized controversies about metrics could have led to a concentration on the data itself. There was a risk that the dialogue would be bogged down in a discussion of the data’s credibility having little to do with the most critical issue: mitigation measures and how to implement them.

This risk was connected with other problems, such as the disparity of knowledge possessed by potential participants of the consultation. Some had the capacity to question the base data and see the specifics of metrics and measures; others, just as interested, have a greater understanding of their sector but not about climate at a technical level. What was needed was a platform responding to the great interest generated by the topic, but which would account for the difference in knowledge. Already several activists had indicated that in essence, discussion of the National Contribution had to do with development and the key question: What country do we want to live in? (Araya, 2015a; Granados-Solis, 2015). The methodology of socioeconomic scenarios was thus an appropriate way of profiling that “desired country” and from there, identifying the pathway to reach it.

The idea then arose of using the socioeconomic scenarios methodology employed by the CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS) and the University for International Cooperation (UCI), based on the experience of team members in 2013 when they supported the creation of future scenarios for Central America (Loboguerrero, 2013). To obtain inputs on emission reduction goals from participating stakeholders, the CCAFS and UCI team facilitated the creation of multiple plausible scenarios demonstrating the possible evolution of GhG emissions in Costa Rica. In addition, the scenarios served as context for trials to gauge the effectiveness of the measures in future contexts while also identifying potential barriers and enabling conditions for their implementation. (Veeger, Vervoort, Martinez, DeLeon, & Paniagua, 2015).

With that objective in mind, a working document was drafted integrating the general situation of each sector relevant to the INDC (electricity, waste, forestry, agriculture and transportation) and main ideas about mitigation measures according to sector. This document was prepared with the information available at that time and indicating the corresponding data gaps and weaknesses of each sector.

**Workshop on Socioeconomic Scenarios**

Thirty climate change experts were convoked in each key sector of climate change. Using the working document as base and following CCAFS methodology, participants first reviewed the initial work, incorporating new ideas about emissions mitigation measures and insisting on the
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Integration of climate change adaptation. Four socioeconomic scenarios were then constructed for the Costa Rica of 2030. Each represented different assessments of government institutional capacity, markets, distribution of wealth, availability of natural resources such as water, and other important emissions reduction factors with uncertainty. Examples included technological innovation, production practices and waste management. The next step was to assess the feasibility of mitigation proposals in each of the scenarios, identify the most robust measures (those that were feasible under all scenarios) and decide how to strengthen the weakest to enhance their possibilities for success.

The workshop achieved the aim of generating a shared vision. Participants identified structural, socioeconomic and institutional aspects that condition the orientation of country development and discussed how these factors affect the possibilities of each mitigation measure. Main emissions-reduction actions would have a series of positive collateral effects, expanding the economy while also improving quality of life and distribution of wealth.

The scenarios workshop generated three valuable results for the next stage of sectoral dialogue.

1. The workshop helped identify a series of sectoral mitigation measures made more robust through the scenario evaluation process. These measures were integrated in the initial presentation on GhG reduction measures and their impact given at the beginning of each sectoral workshop.
2. The workshop aided recognition of the need to focus on developing the pre-conditions necessary for sectoral measures to be effective: open data, governance, fostering of research and institutional strengthening (among others).
3. The workshop helped to recognize and underscore the collateral effects of certain sectoral measures; for example, how an improvement in public transportation initially proposed to reduce emissions would also have positive effects on health and quality of life.

The scenarios workshop also helped make it clear that the sectors and society in general were not opposed to applying emissions reduction measures. To the contrary, the expectation of these actors was that government should play a dominant role in transitioning to a decarbonized economy. It also strengthened the internal position that the INDC should be ambitious, and an opportunity to rethink country climate policy—in other words, focus on national effort that actually transforms the economy, not just set out an international cooperation agenda.
Phase 3: The Process of Sectorial Dialogue

The actual duration of INDC preparation was three months. During that period a series of five workshops for sectoral dialogue were held, along with a national event to present the INDC draft document. The sectors selected were those with the greatest influence on CO₂ emissions: electrical energy, waste management, forestry, agriculture and transportation/fuels. The aim of these meetings was to provide information about INDC, the status of emissions and potential mitigation measures in the country, and to hear each group’s viewpoints, conditions and ideas about appropriate mitigation measures for its economic sector. These inputs would make it possible to construct a pathway whose particular measures would constitute the INDC.

Convocation and Participation

The workshops had 373 participants in total. Disaggregated by gender, 208 were male (55%) and 165 female (45%). Information about participation is illustrated in the graphic below.

Graphic 3 Workshop Participation by Gender

Graphic 3 represents participation by sector:

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5 Source: Informe Final Consultoria sobre Diseño Metodológico y Conducción de Dialogos Sectoriales sobre Cambio Climático, Proyecto AMAS UNDP-MINAE, 2015
Sectoral Dialogue

The six-hour workshops opened with a presentation on the INDC and another on sector emissions data and abatement measures; both included data from technical studies and measures proposed in the scenarios workshop. The presentations were followed by small-group discussion (8 to 10 people), the first session focusing on mitigation measures in the sector and the second on how these measures could be implemented (identifying pre-conditions and potential barriers). The workshops closed with a plenary session in which each group presented its work and a general discussion.

At the first workshop on energy, participation was evenly balanced in terms of interventions by representatives of the public sector, private sector and civil society. The workshop on waste management had the fewest participants, but a large number of proposals were generated. The major protagonists of interventions at the forestry workshop were participants from academia. At the agriculture workshop, 60% of all interventions came from members of the public sector, twice those of the private sector. The transportation workshop was similarly dominated by the public sector, totaling 46% of interventions in the working groups. Nonetheless, civil society and the private sector contributed a significant portion of the interventions with the most innovative ideas, that later became part of the INDC.

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6 Source: Informe Final Consultoria sobre Diseño Metodológico y Conducción de Diálogos Sectoriales sobre Cambio Climático, Proyecto AMAS UNDP-MINAE, 2015
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Workshop dynamics primarily consisted of open dialogue with discussion of specific mitigation measures (among other topics), but these were not voted on. By sector, main points were as follows:

- **Electrical Energy**: The terms social equity and energy security should be included. Environmental and social costs should be taken into account for each of the paths in ICE’s expansion plan. Also, promote diversification of sources, incorporating the element of technical and social complexity. Move advances in renewable energy into transportation, plus electrification of vehicles (train-passenger cargo-public transportation-private transportation).

- **Waste Management**: There is a large number of regulations that in many cases are not applied. Mechanisms are needed to enforce compliance with what already exists. Also, strive for compatibility between laws and municipal capacity.

- **Forestry**: Generate favorable conditions for forest management. Need to manage forest health and establish restoration/regeneration of natural forest as mitigation activity. Establish intersectoral agreements (industry, agriculture, housing, energy…) and integration/incorporation of the private sector with the government for innovative business models.

- **Agriculture**: For sectors that already contribute, need to implement a public policy that includes credit, research, organization, institutional strengthening and insurance. There should be a policy of incentives, not a punitive policy. In addition, it is important to enable investment, political will and institutionality as prior conditions.

- **Transportation and Fuels**: Modernize public transportation. As a vital tool, participants pointed to the importance of promoting this type of transportation. Implement electronic payment, address the sectoralization of the public transportation system and share information with the user about using public transportation efficiently.

These workshops confirmed that the sectors do not oppose or have a negative attitude about the idea of reducing emissions. Fear that the workshops might provide a staging ground for expressing opposition to government policies in general was unfounded. The overall interpretation is that the sectors understand the problems of climate change and far from being opposed, they expect leadership on the part of government.
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Phase 4: Synthesis and Publicizing of the INDC

Costa Rica’s National Contribution, presented to the UNFCCC on October 1, 2015, reaffirmed the aspiration of aiming for carbon neutrality\(^7\) by 2021 as part of voluntary pre-2020 actions. The country pledges absolute maximum emissions of 9,374,000 tCO\(_2\)e by 2030. This is equivalent to a trajectory of 1.73 tons per capita by 2030, 1.19 tons per capita by 2050, and -0.27 tons per capita by 2100 (Republica de Costa Rica, 2015). This trajectory is consistent with the trajectory of the EGR (Emissions Gap Report) of 2°C (PNUMA, 2014).

The definition of this emissions trajectory combined information from existing climate models (giving the actual volume of emissions) with the total desired volume to keep us below two tons per capita, taking into account changes in the country’s population (by 2050). The curve therefore uses projection estimates from models such as backcasting, based on per capita emissions by the future population as reference point.

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\(^7\) Carbon neutrality, initially announced in 2007 and then reaffirmed in 2009, sets out zero growth in emissions compared to 2005 emissions. The main mechanism for reaching this goal was through forest and expansion of the national system of payment for environmental services (FONAFIFO).

\(^8\) Source: Costa Rica’s Intended Nationally Determined Contribution, presented to UNFCCC in 2015
Along with the described trajectory, Costa Rica’s INDC sets out institutional changes facilitating the application of these measures. The text of the INDC presents 23 ideas for climate action as stepping stones toward decarbonization of the economy, a pathway that must be spelled out in the next few years. These proposals had highly diverse origins in the INDC design process. A base of seven proposals had been put forward earlier in forums such as the national dialogue on energy, transportation and fuel, which laid the foundations for the National Energy Plan. Almost half (ten) came from the INDC workshops, and a final group (five) arose during the team’s internal discussions during the synthesis phase. The table below summarizes the main proposals (policies, measures, actions, and plans) included in the National Contribution, showing the moment during the process that each was proposed.

Table 1: Moment the INDC Proposals Were Made

<table>
<thead>
<tr>
<th>INDC</th>
<th>Ideas Advanced Earlier</th>
<th>Mitigation Measures Study (WB)</th>
<th>CCAFS Scenarios Workshop</th>
<th>Sectoral Dialogue Workshop</th>
<th>Desk Work</th>
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<tbody>
<tr>
<td>Establish net rather than percentual reduction with respect to BAU</td>
<td></td>
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<td>X</td>
<td></td>
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<tr>
<td>Use a per capita measure as reference for the emission reduction goal</td>
<td>Idea proposed by Minister E. Gutiérrez</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Concept of Climate Action: integration of adaptation and mitigation and focus on emissions reduction</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Open Data/Open Government / consolidation of SNIT-CENIGA</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
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<tr>
<td>Scientific Council</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
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<tr>
<td>Increase the budget for climate change research at country level</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>Citizen Council / working groups</td>
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<td></td>
<td></td>
<td>X</td>
<td></td>
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<tr>
<td>Combination of methodological approaches for INDC preparation</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
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<tr>
<td>Expand PES to include ecosystem-based adaptation</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
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<tr>
<td>Inter-urban train</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
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<tr>
<td>100% renewable power generation</td>
<td></td>
<td>X</td>
<td>X</td>
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<tr>
<td>Electrification of the transportation sector</td>
<td></td>
<td>X</td>
<td>X</td>
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<tr>
<td>Multi-modal cargo transport</td>
<td>VII P. of Energy</td>
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<td>X</td>
<td></td>
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<tr>
<td>Payment for results of emissions reduction in the agriculture sector: e.g., Carbon auction by farm</td>
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<td></td>
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<td>X</td>
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The ideas proposed for climate actions are not entirely new. These initiatives were ripening in different spheres of national activity (the State itself, social movements, academia and private business) and moved into national policy discussion through the INDC process. An example in the government sphere is capacity building to generate and analyze climate data and move forward in setting up a system of climate information open and effectively available to all interested parties. The private agricultural sector and corresponding ministry have been working together on transformation to low-emission livestock and coffee production. Academia and social movements have driven the integration of adaptation and mitigation in one climate policy, a vision that has been brought into this INDC.

Extensive participation in the process, and as will be seen in the following section, a good reaction to the National Contribution indicate that an enabling social and political environment exists for applying the proposals sketched out in the INDC.

Publicizing

Once finalized, the draft INDC was then publicized nationally. A first round of feedback was gathered in a national workshop and then expanded through meetings, presentations and exchanges with the national press and indigenous groups (among others). The second event
was a workshop with international experts,9 who reviewed the draft, endorsed the ambition of the Costa Rican mitigation and adaptation goals, and proposed editorial and substantive changes that were incorporated in the INDC.

Public debate was opened on the proposal after its presentation to UNFCCC. While the overall reaction was very positive, there are some detractors and voices of concern due to the future costs of its application. The most controversial issue was how the INDC related to the carbon neutrality policy originally announced in 2007 and formalized in 2009.

In 2007, Costa Rica proposed to become carbon neutral by 2021, its bicentennial year. An innovative initiative at international level, the aim of carbon neutrality reinforced the country’s environmental leadership and generated national awareness and identification with the goal and date. However, the weaknesses of this proposal were already being recognized and discussed at country level. First, far from endeavoring to reduce emissions, the proposal focused on forest to offset national emissions. Second, the metric used to estimate forest absorption of CO₂ was very rudimentary. While forest absorption was originally estimated at around 15,000 tons of CO₂e, in data published by the IMN for 2015 that figure was rectified to an estimated 2077 tons of CO₂e (Instituto Meteorológico Nacional-Costa Rica, 2015).

Public identification with carbon neutrality has made this a newsworthy topic, so much so that Costa Rica’s National Contribution was perceived by some media as postponing carbon neutrality (Soto, 2015a). Even though the actual text of the INDC reaffirms carbon neutrality as voluntary pre-2020 measure, the newspaper headline generated other opinion articles accusing the government of abandoning the country’s environmental commitments. At the core, discussion about carbon neutrality has to do with its plausibility, not abandonment by the government. As mentioned earlier, data presented in 2015 show that reaching the goal by the date originally proposed will be extremely difficult. CO₂ emissions continue to rise in Costa Rica, estimated to be 30% higher in 2015 than in 2005. (Soto, 2015b).

Apart from the issue of carbon neutrality, press reaction and opinion about the National Contribution has been very positive, pointing out that Costa Rica’s INDC is an ambitious effort and addresses four gaps in climate policy: adaptation; the urban agenda; transparency of information and, climate governance (Araya, 2015b; Murillo, 2015). The National Contribution

9 Experts of the following institutions: UNDP, World Bank, Institute for Sustainable Development and International Relations (IDDRI), WRI, Alianza Independiente de Latinoamérica y el Caribe (AILAC) and NIVELA.
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was also presented at various discussion forums organized ahead of the COP 21 in Paris. The general reaction has been similar in terms of the need for a) greater clarity about the relation between the INDC and carbon neutrality, and b) support for the Contribution’s proposals. In the words of legislative deputy Gerardo Vargas (Christian Social Unity Party, 2014-2018): “We agree about the what, now we need to agree about the how.”

Conclusions

Costa Rica’s National Contribution goes beyond the UNFCCC proposal, as its design prioritizes a national vision. It was prepared collaboratively and integrates pre-existing efforts that extend beyond public institutions, reflecting the high level of interest and awareness of civil society, academia and the private sector in transitioning to a low-emission economy.

Methodologically, this INDC offers a vivid example in its recognition and handling of the limitations of climate models to formulate climate policy, due to their dependence on the quality of information available and inability to integrate innovative ideas/technology potentially disruptive of the current economy. The approach to INDC preparation took these limitations into consideration by employing socioeconomic scenarios and normative backcasting. The scenarios methodology served to construct a change of paradigm in how to lower emissions over a broader period than the one adequately covered by econometric models.

The concept of climate action has now taken on a national connotation that represents, firstly, the integration of both mitigation and adaptation policies and actions, and secondly, an expanded mitigation policy agenda encompassing more than forest offset. With climate action, the country assumes the challenge of reducing emissions at the source, not merely offsetting them with forest. Climate action also requires institutional development with greater transparency and accountability. Climate data, statistics and reports must be available for public use. The INDC points to other institutional challenges as well, including interinstitutional coordination through a council and tracking specific actions of key agencies—in other words, avoid the disruption of public policies caused by electoral cycles.

In the same strategic manner it was conducted during INDC preparation, dialogue must be maintained to tackle challenges such as a collaborative definition of the concept of decarbonization. Joint efforts are also needed to determine specific metrics for recognizing a deviation from this macro objective in the country. In this same sense, measurement of emissions per capita is an instrument to promote the co-responsibility of all Costa Ricans in climate action, not just the State or private business. The task is to define how this co-
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responsibility is exercised, and what tools must be developed so that citizens know precisely what their climate footprint is and have mechanisms to reduce or offset it.
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