

CLIMATE AMBITION BEYOND EMISSION NUMBERS

**Taking stock of progress by looking inside
countries and sectors**

COSTA RICA

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Disclaimer

The results presented in this report are outputs of the academic research conducted under the DDP BIICS project as per the contractual agreement. The academic work does not in any way represent our considered opinion for climate negotiations and also does not reflect the official policy or position of the Government of Costa Rica.

How is this document relevant to the Global Stocktake?

This document is part of a collective report that assesses the evolution of climate ambition in 26 countries and 3 hard-to-abate sectors through a granular and context-specific analysis of trends and progress of national and sectoral transformations.¹ This approach allows identifying what hinders and spurs action in countries and sectors, and understanding the conditions that can support enhanced ambition, which could be political, social, economic, governance.

These insights are directly relevant to four overarching functions of the Global Stocktake in support of its desired outcome, i.e. "to inform Parties in updating and enhancing, in a nationally determined manner, their actions and support in accordance with the provisions of the Paris Agreement, as well as enhancing international cooperation for climate action" (Article 14.3 of the Paris Agreement):

- Create the conditions for an open and constructive conversation on global cooperation (on e.g., technology, trade, finance, etc.), based on an in-depth understanding of the international enablers of enhanced country ambition.
- Organize a process for knowledge sharing and collective learning, based on concrete examples of actions already in place or being discussed, including best practices.
- Create space for open dialogues across different stakeholders to support better coordination of actions, based on a detailed understanding of the levers to be activated to enhance ambition in national and sectoral transitions
- Facilitate ownership by decision-makers of the climate challenge and the risks and opportunities of the low-emission and resilient transition, based on context-specific and granular analysis of barriers and enablers.

More specifically, the collective report in general – and this document in particular – can contribute to address some of the key guiding questions for the Global Stocktake², notably:

- What actions have been taken to increase the ability to adapt to the adverse impacts of climate change and foster the climate resilience of people, livelihoods, and ecosystem? To what extent have national adaptation plans and related efforts contributed to these actions (Decision 19/CMA.1, paragraph 36(c))?
- How adequate and effective are current adaptation efforts and support provided for adaptation (Article 7.14 (c) Paris Agreement)?

¹ The full report « Climate ambition beyond emission numbers - Taking stock of progress by looking inside countries and sectors" can be found at: <https://www.iddri.org/en/publications-and-events/report/climate-ambition-beyond-emission-numbers-taking-stock-progress>

² Draft Guiding Questions for the Technical Assessment of GST1 (version 20th October 2021), available at: https://unfccc.int/sites/default/files/resource/Draft%20GST1_TA%20Guiding%20Questions.pdf

- What are the barriers and challenges, including finance, technology development and transfer and capacity-building gaps, faced by developing countries?
- What is the collective progress made towards achieving the long-term vision on the importance of fully realizing technology development and transfer in order to improve resilience to climate change and to reduce greenhouse gas emissions referred in Article 10.1 of the Paris Agreement? What is the state of cooperative action on technology development and transfer?
- What progress been made on enhancing the capacity of developing country Parties to implement the Paris Agreement (Article 11.3 Paris Agreement)?
- To achieve the purpose and long-term goals of the Paris Agreement (mitigation, adaptation, and finance flows and means of implementation, as well as loss and damage, response measures), in the light of equity and the best available science, taking into account the contextual matters in the preambular paragraphs of the Paris Agreement:
 - What are the good practices, barriers and challenges for enhanced action?
 - What is needed to make finance flows consistent with a pathway towards low GHG emissions and climate-resilient development?
 - What are the needs of developing countries related to the ambitious implementation of the Paris Agreement?
 - What is needed to enhance national level action and support, as well as to enhance international cooperation for climate action, including in the short term?
 - What is the collective progress made by non-Party stakeholders, including indigenous peoples and local communities, to achieve the purpose and long-term goals of the Paris Agreement, and what are the impacts, good practices, potential opportunities, barriers and challenges (Decision 19/CMA.1, paras 36(g) and 37(i))?

Foreword

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Country commitments as reflected in enhanced Nationally Determined Contributions submitted to the UNFCCC are insufficient to put the world on track to achieve the collective objective of the Paris Agreement to hold temperature increase below 2 °C or 1.5 °C above pre-industrial levels. Furthermore, concrete policies and actions adopted by countries on the ground are often not sufficient to achieve these NDC targets. These conclusions highlight the need to increase ambition and to provide convincing evidence to accelerate action in the immediate and short term to give effect to this ambition. Yet these assessments are not sufficient to effectively guide the progressive increase of ambition, as organized by the cyclical process of the Paris Agreement.

APPROACH

With this imperative in mind, this report adopts a different, complementary, perspective on climate ambition. It seeks to open the box of emission pathways, by considering multiple dimensions of the conditions that will make these pathways possible. These are technical, economic, political, social and governance considerations in need of attention to enable the required far-reaching and systemic transformation towards the long-term goal. On the one hand, the revision of emission targets needs to be directed by an assessment of how drivers of emissions should change to trigger transformation. On the other hand, converting emissions' targets into pertinent concrete implementation requires well-designed policy packages and investment plans that are also informed by a clear and detailed understanding of the starting point, priorities and interplays between the available levers of transformation.

This bottom-up assessment aims at contributing to the process of collective learning in support of the progressive increase of collective ambition, as inserted at the core of the Paris Agreement paradigm. Approaching climate ambition through the lens of underlying transformations calls for reflecting the heterogeneous nature and the multi-faceted aspects

of transitions in different sectors and countries. This forces a move away from a purely global perspective and adopts a more granular approach based on country and individual sector perspectives. Thus, the report explores trends and progress on these transformations, as locally observed over the past years, notably since the Paris Agreement. This 'backwards looking' approach can help identify where developments are going in the right direction, where they should be accelerated and where major tensions remain that should be addressed as a priority to avoid undermining the transition. The picture of the state of the ambition discussion, firmly embedded in the country and sectoral realities, can provide means for reflection and action within the international climate community, particularly to inform focus areas for advancing the collective ambition agenda.

STRUCTURE OF THE REPORT

This country report describes the recent evolutions of domestic discourses on climate ambition, national climate policy, national governance and concrete policies and actions with a significant effect on GHG emissions. The chapter highlights a selection of striking and structurally important elements to advance the transformation towards carbon neutrality from an in-country perspective.

This report is part of a full series of 26 country chapters and three sectoral chapters. The full report includes a "summary for decision-makers" to present 10 cross-cutting messages emerging from the country and sector analysis, as a guide to the selection of priorities for collective action in the post-COP26 period.

You will find the full report at: https://www.iddri.org/sites/default/files/PDF/Publications/Catalogue%20Iddri/Rapport/DDP_beyond%20emissions%20report.pdf

A SMALL COUNTRY WITH BIG AMBITIONS

This chapter has been written thanks to the support of the International Climate Initiative (IKI) of the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU).

Costa Rica has an extensive tradition of nature protection and leadership to fight climate change. Its existing policies led to almost 100% renewable electricity^[1] and forest coverage of approximately 60%^[2]. We summarize here the efforts made over the last years in climate policy which resulted in its National Decarbonization Plan (NDP)^[3] and National Determined Contributions (NDCs) compatible with a 1.5°C pathway^[4]. We try to be comprehensive in the description, but we also recognise that it relies on expert judgement from the authors.

DOMESTIC DISCOURSE

Costa Rica's leadership in climate action has translated into public awareness on climate change. However, bigger steps are needed to translate awareness into an earnest social dialogue.

Climate change in Costa Rica has been an important subject since the 1980s, when a massive reforestation process started. In fact, it could be argued that it even initiated around 1950, when the main electricity company was created by law and mandated to ensure electricity production for the country using mainly renewable sources^[5]. This resulted in protected territories that correspond to more than 25% of Costa Rica, a forest coverage close to 60%, and a now close to 100% renewable electricity mix^[6].

Costa Rica's legacy in nature protection is still ingrained in the idiosyncrasy of its people. In a 2021 survey, almost three out of four people who live in Costa Rica (72%) said that climate change is extremely or very important to them. For 82% of the people who answered the survey, climate change should be a high or very high priority for the government^[7]. Climate action is expected and celebrated by the people who live in Costa Rica, and it is a center point of discussion during election season amongst candidates. While some of them argue the importance of cutting emissions by 2030 via investments in public and non-motorized transport and support to enable the electrification of transport targeting a net-zero economy by around mid-century, others sug-

gest exploitation of petroleum and natural gas in the country as local transition fuels towards decarbonization. The country must pursue sustainable solutions avoiding carbon lock-in.

While people's awareness is high, the subject has not been in daily conversations. In fact, in the same 2021 survey, only 29% of people said that they talk about the issue frequently with their social circles. Furthermore, the strategies to tackle climate change seem abstract for many; 47% of surveyed people said they need more information on how to avoid climate change^[7]. In a positive manner, people living in Costa Rica are willing to take personal actions to tackle climate change (i.e. most people are willing to take steps such as recycling or using public transportation and 40% have stopped buying a product because of its negative impact to the planet), but they do not participate in climate actions in social and political instances (e.g., meetings, public calls, or organizations)^[7].

Climate change concerns and the need to fight its effects are still encapsulated in the personal sphere of Costa Rica's people, and it does not broadly transcend to social and democratic spaces. Fortunately, population involvement in the climate movement is rising. There has been an upsurge of societal organizations concerned about climate change such as the Costa Rican Youth and Climate Change Network and social mobilisations for improved public transportation and urban planning. There has also been societal participation in important climate processes like the NDC update and long-term strategy formulation and the development of recent plans have always involved civil society.

Climate change is now a protagonist of the narrative of policy-making and long-term strategies formulation in Costa Rica among stakeholders.

Climate change is currently accounted for in existing policies. The National Adaptation Plan 2018-2030 (NAP)^[8] and the NDP^[3] are clear examples of this. The former supports and guides the adaptation of cities, and the latter presents the long-term vision to reach net-zero emissions by 2050. The NDP has been communicated as the country's long-term low-level GHG strategy, in accordance with Article 4 of the Paris Agreement. There are ongoing activities to produce the National Strategic Plan 2050 (NSP) which will

present a roadmap to a 3D economy (digitized, decentralized and decarbonized) by 2050. The NSP is linked to the NDP and it considers the United Nation Sustainable Development Goals.

The creation of climate policy in the country has been based upon a co-creation principle. Ministries, organizations, civil society and technical experts (national and international) have been part of the multiple workshops used to design the NAP, NDP, and the same approach is currently being used in the creation of the NSP. To bring some numbers up, the formulation of key aspects within the NAP and the NDP considered over 500 participants (in total) from different sectors. Costa Rica also believes in science-based policy. These policies, and many other policy-making processes, have also been supported by modelling tools which have also been co-created in participatory processes with key policy-makers and stakeholders of the country. In fact, the policy actions in the NDP, particularly those in the transport and energy sectors, were based on a modeling tool that was produced in-house by a modeling team hosted at a local university^{[6],[9]}.

An increased awareness and optimism on climate action has been visible in the agricultural sector, where groups of coffee and cattle farmers have taken part in the design and implementation of mitigation actions. A big incentive to do so, as they have expressed, are the co-benefits in production of implementing sustainable practices.

Users have also taken part in the design of deployment strategies of electric vehicles and electric industrial boilers, thousands have installed solar systems for water heating or electricity production purposes, and a few have purchased an electric vehicle.

In addition, the COVID-19 pandemic has increased awareness in the country about the harsh socio-economic impacts of climate change on Costa Rican households and business. The immediate priority for the Costa Rican government is stopping the health crisis, attending its social impacts, and restarting the economy. The good news is that there are opportunities to recover in a way that addresses many of the pre-COVID-19 social, environmental, political, and economic challenges in Costa Rica. It is paramount that decision-makers consider a green post-COVID-19 recovery that not only tackles the catastrophic health crisis, but that it also creates jobs and fiscal opportunities for a sustainable economic growth.

NATIONAL GOVERNANCE

Climate governance has been crucial in the success of developing climate policy.

About a decade ago, in 2010, the Directorate of Climate Change (DCC) was created and mandated to lead and coordinate between ministries the design of climate policy. DCC has pushed for creating policies based on science and with support from many multilateral organizations. In 2012, DCC created the Carbon-Neutrality Country Program to help organizations, communities, and civil society joining the ambition to decarbonize the country^[13]. The program considers five categories: organizations, schools, products, events, and cantonal. To recognise the efforts made by actors within any category, DCC makes a public announcement. The program has involved over 200 organizations, 21 municipalities (representing 38% of the national territory), and 2 districts. The social benefit of the program is estimated at \$45 million. Since its creation, the program has reduced or compensated the equivalent of almost 631 TCO₂ and has removed about 450 TCO₂.

In 2015, DCC led the formulation of previous NDCs to cut emissions according to a 2°C pathway. In parallel, it conceived a long-term energy planning tool to formulate a roadmap of the sector in line with low emissions trajectories. Non-energy sectors were also studied but with lower levels of detail. From 2018 to 2020, the country developed in-house tools to study the decarbonization roadmap of the entire economy. A crucial step towards GHG emissions mitigation in Costa Rica was the announcement of the NDP in 2019. Its creation has led to multiple and coordinated efforts to enable the transition towards a green economy in all sectors. In a recent study, it was shown that the transformation promoted in the NDP to reach net-zero greenhouse gas (GHG) emissions by mid-century will bring a net economic benefit estimated at US\$41 billion between 2020 and 2050^[11]. The NDP was also used as a baseline for the updating process of the NDC^[4].

In 2020, Costa Rica used modeling tools that technically support the updated NDC. The use of tools to inform policy has become commonplace. The creation of an open data repository has supported this^[10]. Through a decree, the government is promoting the creation and use of common open data to study dif-

ferent aspects of climate change. It is expected that SINAMECC^[10] will become the source of data to modeling tools and the interface between modelers and policymakers through dynamic and easy-to-understand visualizations. SINAMECC is also anticipated to work as an open access monitor of the advances in policy-making, goals, climate actions, and climate data to all the population.

The government also introduced the Territorial Economic Strategy during the first months of 2021^[12]. This, alongside the NSP, will trace the route for Costa Rica to have a 3D economy by 2050. This strategy spots the potential of specific regions of the country, and the link between economic development in each of them and decarbonization.

ACTIONS AND POLICIES

Climate change is now part of wide-ranging plans and climate actions aiming to decarbonize Costa Rica's economy, while maximising the benefits of this transition.

Climate change has traditionally been in the government agenda; although it has taken greater relevance in recent years. Incentives to low emissions vehicles have been in place since 1997. Changes were constantly made through decrees until 2018 when the law 9518 was officialised^[14]. It officially cuts taxes to electric vehicles for a period of five years and enforces the development of charging infrastructure to support the transition. Electromobility in Costa Rica will benefit from its renewable electricity system. The law was a catalyst to the creation of the National Plan of Electric Transport^[15]; a plan aligned to the National Energy Plan^[1]. The National Energy Plan represents the country's roadmap to promote the transition to a greater participation of renewables in the energy mix, as well as the modernization of energy systems along with energy efficiency measures.

The advances in electric transport policy led to an important deployment of charging stations. There are over 100 charging points in the country and an order to install 43 fast chargers in the next few years. This is expected to kick-start the adoption of electric vehicles in the country, as the charging points will be strategically located to make trips by electric vehicles around the country possible^[16]. Public banks have also

improved their credit options to ease electric vehicles acquisition. Public institutions such as the post office, electricity distributors, transport regulators and public universities have also started the electrification of their vehicle fleet. Most recently, the German Government donated three electric buses that are currently used in the first pilot project in public transportation. The low-carbon livestock strategy drives the transformation in the agricultural sector^[17]. It strives for stimulating livestock farming as a profitable and low-carbon activity by implementing training to farmers, promoting research in the sector, and deploying practices such as improved pasture management, silvopastoral systems, use of concentrates, among others. This strategy works alongside an already designed and presented Nationally Appropriate Mitigation Action (NAMA) for the sector, which is already being implemented in more than 100 farms in the country^[18]. Its implementation is expected to not only reduce emissions, but also increase productivity and reduce operational costs bringing benefits to farmers. The country also introduced the world's first agricultural NAMA: Costa Rica's coffee NAMA^[19]. The goal is to reduce GHG emissions and improve the efficiency of the activity through an improved use of fertilizers, a more efficient use of energy and water in coffee production, financing to farmers and research. Costa Rica's coffee NAMA reports a total of 8972 trained coffee producers, 24770 acres of coffee using sustainable practices and a mitigation of 71763 TCO₂e. One of the reasons for the success of this action are the co-benefits that farmers experienced from its implementation; it is a mitigation strategy, but a promising marketing strategy and beneficial practice for the farmers as well. There are ongoing efforts to extend the NAMAs to other agricultural activities such as sugar cane crops, as well as to other sectors such as waste. In terms of the waste sector, the country expects to treat 100% of its wastewaters by 2045, according to its National Wastewater Sanitation Policy^[20], which includes an investment plan for sewerage and treatment plants as well^[21]. In the same sector, the government launched in 2021 the Integral Waste Management Plan, and local governments have been leading recycling campaigns to promote the circular economy in solid waste.

Costa Rica plans to continue with its legacy of nature protection and forest restoration. In 2020, the govern-

ment announced a program aiming to restore land in the north part of the country by planting 200 thousand trees. The project will include secondary forest restoration, frutal trees plantations and the promotion of agroforestry systems, and will generate 200 direct jobs^[22]. Since the country was awarded with resources from the Green Climate Fund, these are planned to strengthen and extend the Payment for Environmental Services Program in rural and indigenous land, which has been working since 1996. These are projects that go beyond carbon capture, and tackle issues such as green job generation, air quality, and conservation. Costa Rica's economy has advantages to face the transformation towards decarbonization. There are challenges to be overcome, but its ambitions are greater.

Costa Rica's historical investment in natural capital and its renewable electricity mix give the country an upperhand to jump-start a transformation towards a decarbonized economy. There will be challenges including the fiscal impact that lower fossil fuel sales will cause in the income of the government. Public transport needs to be modernized and fully electrified. Waste management needs to be truly considered to make the most of its co-benefits. Investments to enable non-motorized transport will be paramount; bike and pedestrian pathways in the country are limited, mainly due to a growing deployment of private vehicles in the early 2000s. Costa Rica's success regarding GHG mitigation in the coming years will depend on its ability to revert these infrastructure lags, and relocate investments into low and zero-carbon mobility options.

People's willingness to have a better future however surpasses the barriers. Most of the presidential options for 2022 elections are also aware of the climate change needs. Costa Rica's past experiences show that the country is willing to take ambitious steps towards climate change. The country launched the National Decarbonization Plan which proves that a green economy is more beneficial than the traditional approach. Costa Rica is a small country, about 0.5% of Europe; however, its ambition is as big, or even bigger, and its people will make the needed actions to enable a better future to upcoming generations.

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DDP

The DDP is an initiative of the Institute for Sustainable Development and International Relations (IDDRI). It aims to demonstrate how countries can transform their economies by 2050 to achieve global net zero emissions and national development priorities, consistently with the Paris Agreement.. The DDP initiative is a collaboration of leading research teams currently covering 36 countries. It originated as the Deep Decarbonization Pathways Project (DDPP), which analysed the deep decarbonization of energy systems in 16 countries prior to COP21 (deepdecarbonization.org). Analyses are carried out at the national scale, by national research teams. These analyses adopt a long-term time horizon to 2050 to reveal the necessary short-term conditions and actions to reach carbon neutrality in national contexts. They help governments and non-state actors make choices and contribute to in-country expertise and international scientific knowledge. The aim is to help governments and non-state actors make choices that put economies and societies on track to reach a carbon neutral world by the second half of the century. Finally, national research teams openly share their methods, modelling tools, data and the results of their analyses to share knowledge between partners in a very collaborative manner and to facilitate engagement with sectoral experts and decision-makers.

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The Institute for Sustainable Development and International Relations (IDDRI) is an independent, not-for-profit policy research institute based in Paris. Its objective is to identify the conditions and propose tools to put sustainable development at the heart of international relations and public and private policies. IDDRI is also a multi-stakeholder dialogue platform and supports stakeholders in global governance debates on the major issues of common interest, such as actions to mitigate climate change, protect biodiversity, strengthen food security, and to manage urbanisation. The institute also participates in work to build development trajectories that are compatible with national priorities and the sustainable development goals.

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