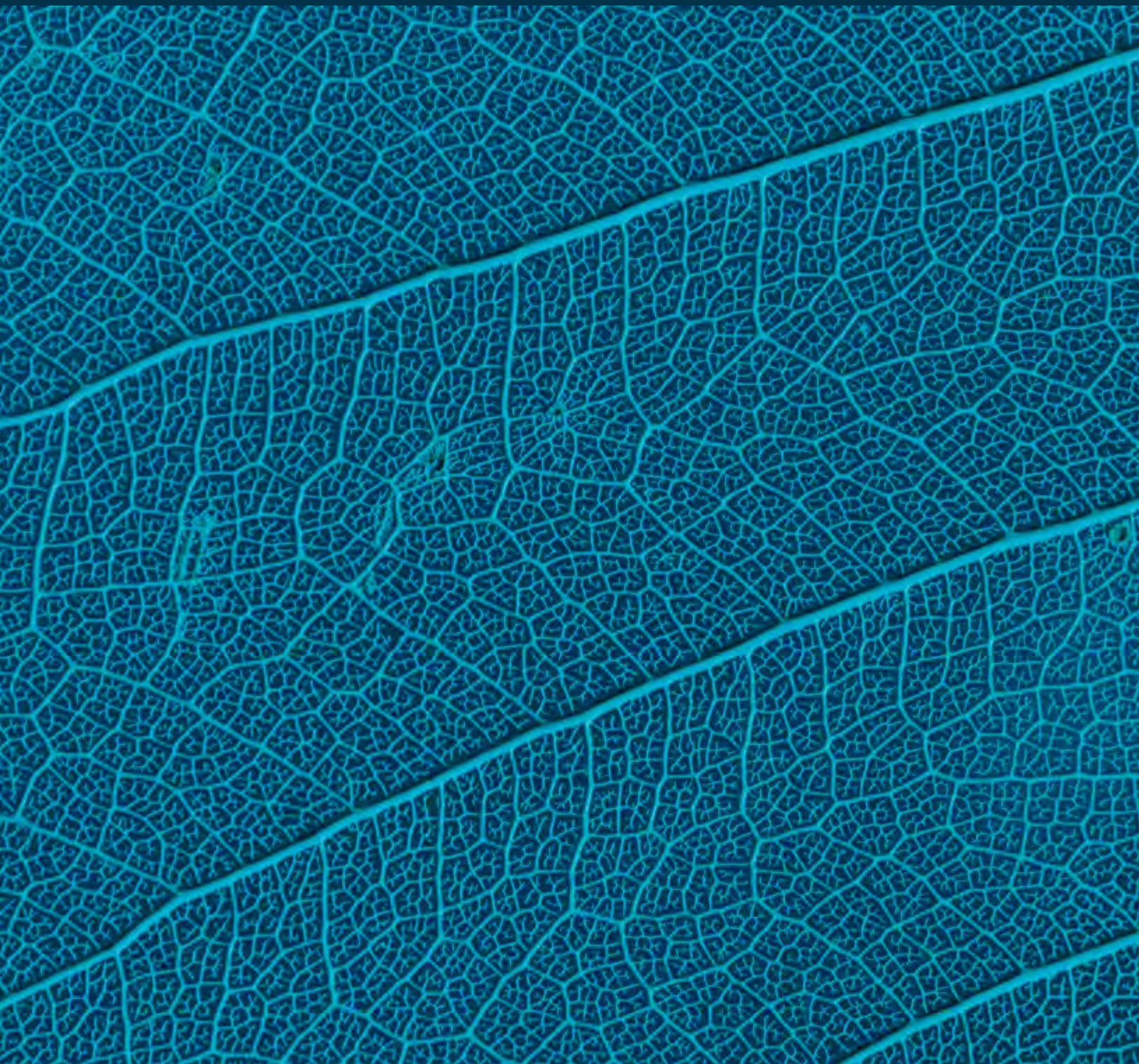
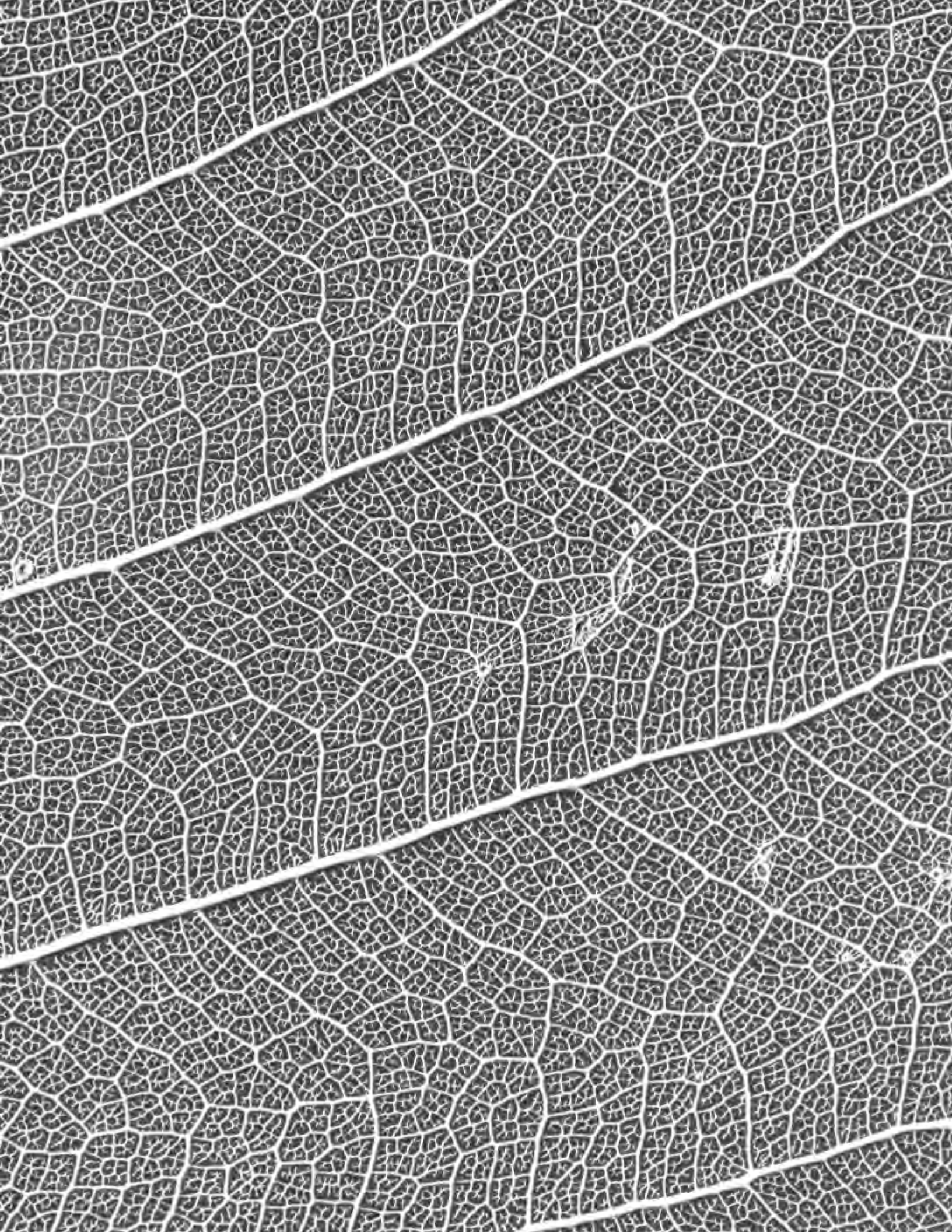
REVIEW

Transitions

December - 2025 Year 1 - Issue 1 ISSN: 3115-0659





Transitions Review
Year 1 - Issue 1
ISSN: 3115-0659
December - 2025
Bogotá - Colombia
rtransiciones@gmail.com

Transitions review is a publication produced with funds from the project The Macroeconomics of Colombia's Green Economic Transition, financed by the Bezos Earth Fund, developed and managed by the Escuela Nacional Sindical (National Trade Union School) in collaboration with the Ministry of Finance and Public Credit of Colombia.

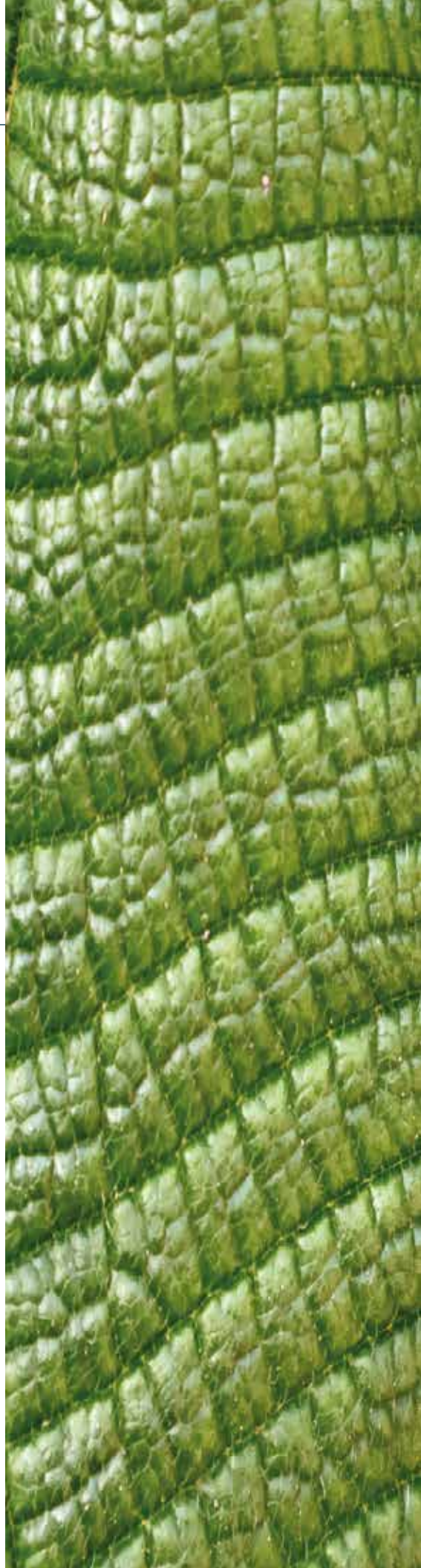


TABLE OF CONTENTS

A Media Cuadra Newspaper

Editorial

The depiction of a catastrophic scenario—one in which humanity, or a part of it, must confront a collapse leading to mass death and the disruption of established social relations and institutions—has become a familiar trope in contemporary fiction. Catastrophe often appears suddenly, imminently, and with an air of imminent and total devastation. The pandemic appeared in this way, although the crisis and its eventual resolution unfolded more slowly, over the course of more than two years.

The climate and environmental crisis, on the other hand, is embedded within our economic, social, and cultural dynamics, and as such, it rarely presents itself with the same sense of urgency. Instead, it is often perceived as a bearable burden that lends us a chance to correct the situation—even though, for quite some time now, our modes of production and consumption have already been exacting a heavy toll on both lives and land.

While such timelines have enabled the consolidation of debate and have even contributed to the development of a global decarbonization agenda, the resulting commitments have neither found an adequate arena nor permeated into the core of social life. We believe that energy transition does not reside solely in multilateral meetings or in policy documents that sometimes fail to materialize, but also in the convergence—and at times, the clash—of the many voices that, through their own perspectives and lived experiences, shape this transition.

For this reason, *Transitions Review* is committed to amplifying this exchange by including institutional perspectives and national strategies, academic research, and the voices of those whose realities often remain merely at the periphery of the debate, such as workers in transforming sectors and the popular (informal) economy, community organizations, and trade unions advocating for decent work.

Within this interplay of experiences and interests, social dialogue emerges not as a mere option but as the fundamental pillar of a just and inclusive energy transition. It is the essential mechanism for managing costs, equitably distributing benefits, and building a collective national vision. Without this bridge of communication and ongoing negotiation, the risk of social fractures, injustice, and resistance to change will be enormous. This publication seeks to analyze, critique, and foster these spaces for dialogue, where macroeconomics is reconciled with lived experience.

Through its pages, we invite readers to understand that decarbonization is not simply a technological transition but, above all, a social one that must be measured by the protection of ecosystems and the safeguarding of rights. We invite you to immerse yourself in this shared narrative, where every voice is an essential thread in the weaving of Colombia's sustainable future.

Colombia 2050,
The Macroeconomics of the Transition

By: Jhan Andrade
Master in Economics and Researcher French Development Agency

... the energy transition refers to the process of transforming an energy matrix that is heavily reliant on coal, oil, and gas into one where low-emission sources, such as hydropower, wind, and solar, predominate. This shift is accompanied by the adoption of infrastructure and technologies that enable greater electrification of different sectors—particularly transportation and industry—alongside improvements in energy efficiency.

The debate over energy transition takes place within a broader set of global discussions on climate change mitigation, whose most prominent and contemporary expression can be found in the form of the Paris Agreement, signed in 2015 by 193 countries, including Colombia. The signatories to this agreement established a series of commitments to reduce their greenhouse gas (GHG) emissions, three-quarters of which, at the global level, originate from the energy system. Within this sector, the combustion of fossil fuels used for electricity and heat generation, transportation, and various industrial processes constitutes the principal source of emissions.

The debate over energy transition takes place within a broader set of global discussions on climate change mitigation, whose most prominent and contemporary expression can be found in the form of the Paris Agreement, signed in 2015 by 193 countries, including Colombia. The signatories to this agreement established a series of commitments to reduce their greenhouse gas (GHG) emissions, three-quarters of which, at the global level, originate from

the energy system. Within this sector, the combustion of fossil fuels used for electricity and heat generation, transportation, and various industrial processes constitutes the principal source of emissions.

Accordingly, the energy transition refers to the process of transforming an energy matrix that is heavily reliant on coal, oil, and gas into one where low-emission sources, such as hydropower, wind, and solar, predominate. This shift is accompanied by the adoption of infrastructure and technologies that enable greater electrification of different sectors—particularly transportation and industry—alongside improvements in energy efficiency.

From a global perspective, Colombia contributes less than 1% of total GHG emissions and exhibits a distinct emissions profile, with slightly more than half originating from agriculture and land-use change, the latter being largely associated with deforestation. This does not mean, however, that the energy transition is any less of a priority for the country. Currently, the energy sector accounts for one-third of GHG emissions, and projections indicate a continued growth in this share over the coming decades. Therefore, without progress towards decarbonization, it will be difficult to achieve a 51% reduction in projected emissions by 2030 and, above all, to achieve carbon neutrality by 2050, as stipulated in Colombia's official international commitments.

Although the carbon neutrality objective may seem far off, pursuing an early transition agenda yields manifold benefits. It enables gradual reforms in light of the social and technological inertia tied to fossil fuel use, while discouraging the development of carbon-intensive infrastructure. It also generates savings in fuel expenditures, reduces particulate matter pollution, and creates technological, regulatory, and market opportunities for early integration into green value chains and for attracting related investment flows.

The transition, however, also entails challenges of various kinds. Should the global transition advance, the coming decades would likely see a reduction in the demand for coal and oil, resources on which Colombia's exports, fiscal revenues, and regional economies heavily depend. In the absence of a transformation in the areas of production, employment, and public finance, the global energy transition would place the country in a position of external, fiscal, and socio-economic vulnerability.

At the domestic level, the investments required to fully realize the transition are very high and require an unprecedented financial effort from both the public and private sectors. The effort made thus far is insufficient in light of the ambition of the targets, the availability of international financing, and the existence of other investment priorities related to social policy, climate adaptation, and the protection of biodiversity. Although these investments generate multiple co-benefits, other dimensions of the energy transition show that it is not a process free of distributive and social tensions. Among these are the impacts of making changes to

the energy matrix, and of measures such as carbon taxes on energy prices, regulations leading to the early depreciation of assets, the closure of mines and decline of certain high-emission sectors, and conflicts over land use for renewable energy projects.

In this regard, research studies become essential for informing public policy design and assessing different local and global transition scenarios. Within this context, our project *The Macroeconomics of Colombia's Green Economic Transition*—funded by the Bezos Earth Fund, managed by the Escuela Nacional Sindical (ENS), and developed in collaboration with the Ministry of Finance—seeks to analyze how to achieve the decarbonization of the energy system by 2050 and to identify the main macroeconomic implications this would have for the country.

To this end, we are interested in examining which technologies should be prioritized for investment, the value of such investments, and how they would be distributed among stakeholders. Building on these estimates, we aim to evaluate their economic implications, including their effects on economic growth, employment, inflation, the exchange rate, the external balance, and fiscal accounts. We also seek to examine the consequences of different financing strategies for these investments, both public and private.

As a cross-cutting component of our analysis, we study the sensitivity of the Colombian economy to changes in fossil fuel export dynamics and, through a more qualitative and fieldwork-based approach, the tensions and opportunities that the transition entails for the world of work, with particular emphasis on coal-producing regions.

To address these questions, we rely on modeling tools that allow us to design and analyze scenarios for the next 20 to 30 years. In particular, we integrate two types of models. On the one hand, an energy optimization model that identifies the least-cost pathway to decarbonize the energy system, based on information regarding energy service demand, the country's available energy resources, and the portfolio of low-emission technologies. On the other hand, a macro-financial model that represents the main agents of the economy—such as firms, financial corporations, households, the government, the central bank, and the rest of the world—captures their interactions both with one another and with the energy system.

Together, these models illustrate, in a stylized and concise manner, the potential trajectory of decarbonization and its macroeconomic effects under different technological, economic, social, and policy assumptions. They are, therefore, valuable tools for public policy, particularly regarding long-term planning, assessing sources of uncertainty, and developing indicators. For this reason, countries that are signatories to the Agreement also rely on similar models to design and update their national contributions.

In our project, we have adapted and calibrated both models independently for Colombia, as well as developed an integrated

framework through prior research efforts[1]. We are now updating them to incorporate more recent information aligned with official reports such as the updated *National Energy Plan 2022–2052 and the Just Energy Transition Roadmap*. Likewise, we are discussing our scenarios and preliminary results with stakeholders from academia, think tanks, international cooperation, and government institutions.

Our preliminary results show that achieving the decarbonization of the energy system would require increasing current electricity generation capacity nearly eightfold over the next 30 years. This is the result of growing demand for energy services, the progressive retirement and lower capacity factors of thermoelectric plants, and the greater electrification of certain industrial processes and passenger transport, both public and private. During the transition, higher carbon prices

1 Godin, A., Yılmaz, D., & Moreau Santos, A. (Eds.). (2025). Modelling low-carbon transitions in Colombia: Macrofinancial opportunities and risks. Agence Française de Développement; Jacques, P. (2025). Coupling models to understand the interactions between energy transition and macroeconomic dynamics. Université Catholique de Louvain.

and changes in the generation matrix could lead to periods of higher energy prices and increased inflation.

Although the operating and capital expenditures required for the energy transition generate employment and stimulate local economic activity, their effects are moderate, since Colombia produces only a small share of the new transition technologies domestically, such as wind turbines, solar panels, electric vehicles, and batteries. The need to import these at scale, combined with the anticipated decline in fossil fuel exports, would place significant pressure on the country's external accounts. At the same time, the scale and long-term orientation of the required investments would increase financing needs for firms, households, and the government, thereby raising both private and public debt. For all these reasons, a high exchange rate and elevated interest rates could ultimately hinder the transition and raise its overall cost if macroeconomic conditions and policy coordination are not favorable.

Based on these preliminary findings, we seek to discuss different policy options to ease some of the tensions arising from the energy transition and to maximize its benefits. Among the issues of interest are how the government might use carbon tax revenues to create fiscal space and invest in the transition; the role of green financing instruments in incentivizing actors to invest, while reducing their financial burden; the potential effects of industrialization policies and integration into global green value chains, particularly those aimed at increasing the domestic content of transition technologies; the prospects for domestic penetration of green hydrogen, the feasibility and profitability of positioning Colombia as an exporter; and the scale of investment this new industry would require.

Ultimately, this research seeks to foster dialogue on public policies related to the energy transition and, where possible, to serve as input for strategic policymaking. For instance, the government is currently engaged in updating Colombia's Nationally Determined Contribution (NDC) under the Paris Agreement. Since this cycle is centered on implementation measures, the project's focus on investment needs, financing strategies, and the macroeconomic effects of the transition may prove useful for developing roadmaps that outline concrete actions aligned with the national context and with intersectoral dialogue across ministries. From the perspective of the project, the energy transition agenda—as a multidimensional process—should not be shaped solely by macroeconomic considerations, but neither can it entirely disregard them if it is to become a reality.

Jhan Andrade

Key Takeaways from the Second Annual Forum on the Macroeconomics of Green and Resilient Transitions

Copenhagen, June 16–18, 2025 + GMMI Meeting, June 18–20, 2025

By: Juan Felipe Herrera
Economist, Master's student (ESS) at Bocconi University

Its purpose was not merely academic exchange: it sought to build up an international community able to provide finance ministries with reliable, quantitative evidence at a time when the climate transition is becoming a central issue in economic policy.

Arriving in Copenhagen in the summer feels like stepping into the crucible of the green transition: bicycles competing with electric taxis, centuries-old buildings covered in solar panels, and a harbor where wind turbines rise over the horizon. Against this backdrop, the Second Annual Forum on the Macroeconomics of Green and Resilient Transitions brought together more than 250 policymakers and economic modelers from 60 countries from June 16 to 18, 2025.

After the conclusion of the forum, the Green Macroeconomic Modeling Initiative (GMMI) hosted a follow-up workshop, extending the debate until June 20. The workshop centered on a crucial question: How can economic models better guide real policy decisions on the green transition and climate resilience?

The event was organized by the Coalition of Finance Ministers for Climate Action, the Ministry of Finance of Denmark, and the Bezos Earth Fund, with support from the Grantham Research Institute at the London

2nd Annual Forum on the Macroeconomics of Green & Resilient Transitions

School of Economics. Its purpose was not merely academic exchange: it sought to build up an international community able to provide finance ministries with reliable, quantitative evidence at a time when the climate transition is becoming a central issue in economic policy.

Colombia played a prominent role in this edition. The delegation, led by Daniel Garzón Hernández of the Directorate of Macroeconomic Policy at the Ministry of Finance and Public Credit, participated in key sessions alongside Jhan Andrade and Juan Felipe Herrera, members of *The Macroeconomics of Colombia's Green Economic Transition project*. During the opening sessions, the Colombian team engaged in discussions with their counterparts from Kenya, Italy, and the European Commission regarding the institutional challenges of ensuring continuity in green policies. The following day, in a session dedicated to Latin America and the Caribbean, the delegation showcased the modeling tools developed in Colombia and discussed the lessons learned on the factoring of climate risks into macroeconomic and fiscal planning. They later joined a panel on *Macroeconomic Risks and Frictions*, highlighting how terms-of-trade shocks linked to carbon pricing can directly affect the fiscal accounts of countries such as Colombia.

Finally, at the GMMI workshop, the Colombian team demonstrated how models analyzing the country's fiscal and macroeconomic accounts are being linked with those projecting the evolution of the energy sector. In practice, this means the ability to

simulate, within a single framework, how a decision on clean energy can affect public finances, growth, or employment. In addition, Colombia participated in the design of a comparative scenario on hydrogen-based industrialization—an initiative aimed at understanding under what conditions this technology could become a driver of development, while also assessing the roadmaps that different institutions have proposed for stimulating the country's economy. Beyond the technical dimension, the Colombian delegation emphasized the importance of developing tools capable of anticipating and more realistically identifying both the risks and the opportunities that the energy transition will entail for the country.

The forum revolved around six major themes: firstly, the need for climate fiscal analysis, enabling finance ministries to evaluate the extent of budgetary space available for investments in adaptation and transition. Secondly, the timing and costs of emerging technologies—such as hydrogen or carbon capture and storage—to identify when they cease to be prototypes and begin to serve as drivers of competitiveness. Thirdly, the risks of physical events—droughts, floods, or hurricanes—that can suddenly disrupt production, revenue collection, and public spending, and for which sovereign insurance instruments emerge as key tools. Fourthly, a debate on how to combine taxes, subsidies, and industrial regulation so that the transition does not hinder growth, but rather steers it toward sustainable sectors. Finally, participants emphasized the importance of strengthening national analytical capacities and generating reliable data to inform decisions about where to compete in global green value chains.

Among the main developments, the GreenREFORM v2.0 tool was introduced—a model that now includes functions to measure the damaging effects of climate change across different sectors of the economy. Notably, it will be made freely available to developing countries, allowing more governments to use it without cost constraints. New tools were also announced for financial institutions: the Asian Development Bank (ADB) and the Inter-American Development Bank (IDB) launched a "risk scenarios" system that enables central banks in emerging economies to assess how the risks of the energy transition could affect financial stability. Likewise, the NGFS network introduced a pilot-phase module that links climate transition scenarios with fiscal accounts, helping to anticipate possible effects on government revenues and expenditures under different decarbonization pathways.

Colombia also contributed a proposal to integrate macroeconomic, fiscal, and energy models to explore the potential of green hydrogen as a base for industrialization and productive growth.

Beyond the announcements, the lessons learned were revealing:

1. The first is that political will remains the fundamental enabling condition: without the reallocation of resources, the green transition remains solely within the realm of theoretical plans.

2. It also became clear that the language of finance has become the primary entry point: speaking about climate risks in a ministry of finance is now as common as speaking about inflation or debt.

3. In addition, the development of institutional capacity was highlighted as the principal bottleneck. For many countries in the Global South, mere financing is insufficient; it must be complemented by support to build robust technical teams, design green investment projects, consolidate methodologies, and establish internal processes that enable autonomous analysis of transition strategies.

4. Another key message was the importance of translating figures into political narratives that can be understood by diverse policy institutions, stakeholders, decision-makers, and the wider public. Numbers alone do not drive action; only when reframed as clear stories about employment, income, or fiscal sustainability can analyses meaningfully influence decision-making.

This is the only way governments will be adequately prepared to confront the range of scenarios associated with climate change mitigation and adaptation.

Moreover, from a more technical perspective, the most important lessons emerged from the comparison and discussion of different tools and models. An economic model is, in essence, a simplified representation of reality, designed to simulate scenarios and address questions such as: what would happen to growth or public finances if the carbon price increases? How would the energy transition affect income distribution or the external sector? The comparison between models revealed that, under different assumptions, some project positive impacts from the transition, while others predict negative ones. These differences are not a matter of minor academic debate: they directly shape how our governments and societies understand the costs and benefits of acting on climate change. Only by contrasting approaches is it possible to build more comprehensive visions, recognize uncertainties, and more realistically anticipate the risks and opportunities of the transition.

On a more personal note, we realized that what experts call "macroeconomic frictions" is, in fact, simply another way of speaking about inequality. In some countries, such as Denmark, the debate revolves around what the appropriate social discount rate should be—that is, how much value we assign today to investments whose effects will be felt in the future. By contrast, in countries such as Uganda, the discussion is far more immediate: its chief concern is how to protect social spending in the face of floods that directly impact the most vulnerable communities.

Ultimately, the forum concluded with concrete commitments: to publish in December a compendium of tools and case studies on the **Green & Resilient Economics** platform; to launch regional virtual working groups focused on analyzing the needs and uncertainties related to the energy transition,

2nd Annual Forum on the Macroeconomics of Green & Resilient Transitions

with quarterly meetings and cross-mentoring; and to continue advancing joint work toward 2026.

As the 10 p.m. sun still lit up Nyhavn, the final takeaway was clear: resilience begins with long-term planning, supported by early, conscious, and decisive action. In the words of Garzón Hernández, "Anticipating is not predicting; it is budgeting for surprise." We returned from the forum with PDFs, suitcases of technical information and case studies, and above all, filled with the certainty that the green transition is not an external dimension of macroeconomic policy—it is, in fact, one of its pillars. Macroeconomic and fiscal analysis must advance in tandem with strategies for prevention and adaptation, within an economy designed for transition—one capable of mitigating climate risks and building a sustainable, resilient economic system.

Financing for Life:
A Challenge for the Energy Transition

Interview with Germán Ávila Plazas
Minister of Finance and Public Credit of Colombia

Photo: Ministry of Finance and Public Credit

Transitions Review (TR): The energy transition has been a key priority for the current government, involving diverse policies across multiple sectors. What role has the Ministry of Finance played in this endeavor?

Germán Ávila Plazas (GA):

The energy transition is more than just a technical slogan; it is a historical necessity. For this reason, it constitutes a structural pillar of the National Development Plan and encompasses all of the proposals outlined therein. The world must move toward alternative ways of producing, consuming, and living—forms that are both fairer and more resilient in the face of current challenges. We cannot continue to depend on an economic model centered on the use of fossil fuels and extractive, polluting practices that are profoundly harmful to life and the planet. On this path, there are social, institutional, and cultural barriers that will take time to overcome, yet we must rise to meet the challenge.

At the Ministry of Finance and Public Credit, we have taken our role in this transition with the utmost seriousness. It is no coincidence that the 2026 National Budget includes specific allocations for the expansion of solar energy use, access to safe drinking water, and the full implementation of the Peace Agreement—commitments that reflect our vision for the country and align with the overarching goal of adapting to climate change.

We have designed instruments that enable the mobilization of both public and private investment toward strategic sectors: renewable energy, sustainable mobility, infrastructure, and ecosystem conservation.

RT: What kinds of instruments are we talking about?

GA: We have proposed fiscal measures that directly incentivize the energy transition. Tax credits for projects based on

non-conventional energy sources will enable more companies—including small enterprises—access to more benefits, which were previously reserved solely for major players. The VAT exemption for equipment and services related to clean energy is intended to stimulate the domestic industry and reduce entry costs. Moreover, rooftop solar panels for vulnerable households are not only an energy policy but also a tool for social equity.

We have also revised environmental taxes. The carbon tax, for instance, has been adjusted to better reflect the real cost of emissions. We cannot continue to implicitly subsidize activities that degrade the environment and jeopardize the future. Increasing its rate and expanding its scope is a decision grounded in scientific evidence, international recommendations, and, above all, common sense.

RT: But many of these policies are not well-received at the political and social levels, as is evident in the debate surrounding the financing law.

GA: Understandably, these decisions are not easy. They entail tensions, adjustments, debates, and a gradual transition. That is what governing is, at heart: making decisions that are not always popular, but that are necessary nonetheless. What we need are educational efforts to foster social ownership of these processes and of their political and economic consequences, as well as to promote a debate grounded in responsibility, sound arguments, and vision. At the Ministry of Finance, we do not regard sustainability as a fiscal constraint but as an economic opportunity. Every Colombian peso invested is a peso that creates jobs, stimulates industry, and reduces vulnerabilities for communities. It is an investment in both the present and the future.

Colombia holds an advantage that must not be overlooked: its biodiversity, solar potential, water resources, and human talent. Yet the country also owes a historical debt to its territories, its communities, and its youth. The energy transition must be just, territorial, and participatory. It cannot come at the expense of populations that have historically been excluded. Our capacity for transformative change lies in the mobilization of communities; for this reason, our fiscal policies are designed to reach those who most need them, to close gaps, redistribute opportunities, and improve conditions for the majority.

RT: The challenges of climate change and decarbonization cannot be addressed in isolation, as they constitute a worldwide problem for which the countries of the Global North bear the greatest responsibility. What can we highlight from the government's international agenda in this regard?

GA: On the international stage, Colombia has demonstrated significant leadership—not only by promoting debate in various multilateral forums and through direct dialogue with other countries, but also by hosting COP16, an unprecedented event in our nation that brought biodiversity into focus as a part of the climate change and decarbonization agenda. In addition, Colombia has advanced regional strategies and cooperation frameworks that are redefining the country's role in both the global and regional arenas.

We have promoted the creation of the Tax Platform for Latin America and the Caribbean and are preparing to strengthen the related agenda within CELAC. We do not want an economy in the region that grows at the expense of ecosystems, communities, and dignity. What we want, for our sister nations as well, is an economy that grows with purpose, equity, and sustainability.

Recently, we have structured and launched the País Platform, an articulation instrument of the National Government designed to bring together a multisectoral portfolio of projects in key areas such as sustainable territorial development and the energy transition, intending to channel resources from international cooperation, multilateral banking, and private investment.

RT: We thank you for your time and willingness to grant us this interview. Would you like to share a final message?

GA: Yes. I would like to reaffirm that the energy transition is an opportunity for Colombia, but not one that will happen on its own. It requires bold decisions, coherent policies, and an engaged citizenry. We at the Ministry of Finance reaffirm our commitment to a fiscal policy that serves as a driver of sustainable development, a guarantor of climate justice, and a promoter of an economy for life.

I am grateful for the invitation to this space and for the promotion of this dialogue, which is essential to ensure that the path of the transition continues to advance with informed and active citizen participation.

La Unión Solar Photovoltaic Park. Montería
Photo: Mayor Chaparro—Office of the President of the Republic

The Colombia Solar Program has Already Secured Fiscal Approval

By: Mauren Maya
Researcher, Writer, and Journalist

Colombia has the potential to play a leading role in the energy transition, owing to its abundant renewable resources—primarily solar and wind—as well as a favorable regulatory and policy-making framework for clean energy investment. CONPES[1] 4075 establishes an Energy Transition Policy and defines four strategic pillars aimed at enhancing energy security, fostering innovation in the transition, and promoting greater competitiveness and socioeconomic development. Further, the National Energy Plan 2024–2054 addresses diversification, energy infrastructure, Non-Conventional Renewable Energy (NCRE) projects, and the implementation of energy efficiency labeling systems. These are essential steps in providing an institutional framework for meeting the established decarbonization targets. Equally crucial is the reduction of deforestation in the Amazon, a fundamental government objective in which significant progress has already been made.

Colombia has the potential to play a leading role in the energy transition, owing to its abundant renewable resources—primarily solar and wind—as well as a favorable regulatory and policy-making framework for clean energy investment.

In 2024, Colombia reached a record investment of over 9 trillion Colombian pesos in renewable energy projects, with more than 97% directed toward solar energy. Likewise, major solar projects have been launched, including the Guayepo Photovoltaic Park (486 MW), La Loma (187 MW), and Bosques Solares de Bolívar (100 MW).

1 CONPES document is a strategic policy instrument which becomes the reference for implementation.

In this context, one of the most important initiatives of the National Government is the Colombia Solar Program, which seeks to advance a fair and inclusive energy transition with tangible benefits for the most vulnerable communities. The Program—led by the Ministry of Mines and Energy, with the support of the Ministry of Finance and Public Credit and the Grupo Bicentenario[2]—aims to progressively replace electricity rate subsidies by way of large-scale installation of photovoltaic solar systems in low-income households. In this way, a recurring public expenditure such as energy subsidies (which currently comprise more than 75% of the Ministry of Mines and Energy's investment budget) would be transformed into a long-term strategic investment, while also strengthening communities and generating additional resources for the population.

This project, included in the 2022–2026 National Development Plan *Colombia World Power of Life*, was found feasible by the National Planning Department last May. The Ministry of Finance subsequently recommended that fiscal approval be granted, that it be designated as a project of strategic importance, and that exceptional future budget allocations be authorized for its implementation. On September 10, the Superior Council of Fiscal Policy (CONFIS) granted fiscal approval for more than 8 trillion Colombian pesos between 2026 and 2030, ensuring alignment with the Medium-Term Fiscal Framework.

2

The Bicentennial Group (Grupo Bicentenario) refers to a holding of state-owned financial institutions created to improve coordination, efficiency, and governance among public banks and financial entities.

A Social Commitment

The program seeks to promote a model of social equity by providing low-income users with access to clean energy technologies that improve service quality. This social component is integrated throughout the project.

The first phase seeks to benefit one million households across several departments, subject to budgetary capacity, and is designed with a focus on particularly challenging regions. These include Chocó—due to its demanding conditions and logistical difficulties—and the Caribbean, where high tariffs, supply interruptions, an inequitable and deficient billing system, corruption, and mismanagement have historically disadvantaged the population. It is estimated that over 60% of electricity bills paid by users in the Caribbean do not correspond with actual power generation costs, which are uniform across the country.

It is projected that Colombia Solar will cover eight departments: Meta, Chocó, Huila, Caquetá, Nariño, Atlántico, La Guajira, and Magdalena. Local energy operators such as EMSA, DISPAC, ElectroHuila, ElectroCaquetá, and AIR-E are expected to implement the program.

This Just Energy Transition (JET) model integrates institutional, technical, community, and regional actors into its social component. It also enables the development of educational and organizational processes, fostering grassroots leadership, strengthening community ties, and empowering communities

Photo: Office of the President of the Republic

by providing a public service that benefits all of its members.

The program's implementation includes an educational plan adapted to each region, potentially involving public universities and SENA[1], as well as an outreach and training effort to be undertaken by popular, alternative, community, and digital media outlets—as proposed by Finance Minister Germán Ávila Plazas on June 11, when he put his signature to the Pact for Informational Plurality.

Colombia Solar represents not only a major public investment but also a structural reform of the subsidy model, strengthening the competitiveness of the electricity sector, improving the quality of life of millions of people, and aligning the country's energy policy with international sustainability standards.

3

SENA stands for Servicio Nacional de Aprendizaje (National Training Service) in Colombia.

Decarbonization and the World of Labor

BY: José Fernando Gutiérrez L.[1]
Researcher, Escuela Nacional Sindical

Environmental and climatic changes are key drivers of the ongoing transformation of the labor market.

In its Centenary Declaration for the Future of Work, the ILO (2019) emphasizes that environmental and climatic changes are key drivers of the ongoing transformation of the labor market. It also highlights how essential a just transition is to the ILO's mission of advancing sustainable development—economically, socially, and environmentally. This position reflects the broad consensus that climate change poses significant challenges to sustainable development and entails far-reaching consequences in terms of economic growth, employment, health, and livelihood.

This underscores the importance of fulfilling the Paris Agreement, primarily through decarbonization. This is generally understood as the process of reducing or eliminating carbon dioxide (CO_2) and other greenhouse gas (GHG) emissions, which stem mainly from human activities—particularly the use of fossil fuels (coal, oil, and gas), as well as intensive livestock farming and agriculture. Achieving this objective requires the advancement of circular economy strategies and the reshaping of consumption patterns (Rodríguez, 2023).

Several studies suggest that the global transition toward a sustainable, low-carbon economy requires four major types of change in the labor market: a) the creation of new jobs; b) the substitution of some

jobs with others; c) the transformation of existing occupations; and d) job losses and elimination (ILO, 2020). While not all of these changes have been adequately measured in quantitative terms, nor has the regional distribution of their potential repercussions been fully documented, sectoral estimates and regional impacts have been analyzed in relation to both job creation and job losses.

It is clear that the structural transition away from the current energy system—based primarily on fossil fuels (coal, oil, and gas)—and toward one grounded in renewable and sustainable sources (such as solar, wind, and green hydrogen) could yield many benefits, depending on its design and orientation. These include the creation of new jobs in sustainable sectors, greater access to energy—particularly for marginalized communities—economic diversification, and the reduction of social and regional inequalities through a participatory approach. Taken together, these transformations can foster innovation, strengthen social justice, and promote equitable and sustainable global development.

At the same time, inadequate management of the energy transition may lead to unintended consequences. These include a higher cost of living, loss of income in extractive economies, increased energy and food insecurity, widening socio-economic gaps between developed and developing countries, and, not least, significant job losses.

The potential loss of thousands of jobs represents one of the main risks—and fears—associated with decarbonization. In this regard, the ILO (2018) states that the transition to a green economy will inevitably entail job losses in certain sectors as carbon- and resource-intensive industries decline. It also highlights that policies concerning energy production and consumption are expected to lead to the loss of nearly six million jobs.

Another study estimates that the transition to a net-zero economy will, by 2030, result in the elimination of 7.5 million jobs in fossil-fuel-based electricity generation, fossil fuel extraction, and animal-based food production (ILO & IDB, 2020). Although these studies generally suggest that said job losses will be more than offset by new employment opportunities, it must be acknowledged that employment often functions as a buffer variable, and that job elimination generally unfolds more rapidly than job creation, a pattern frequently seen in post-crisis recoveries.

It is therefore worth examining the potential socio-economic effects of policies aimed at reducing oil and coal production in the context of Colombia's energy transition. The National Planning Department, in collaboration with the French Development Agency and ECLAC (2023), presented the results of a study assessing the impact that halving oil and coal production would have on employment, GDP, and poverty. The findings indicate that, under such conditions, a low-carbon economy would produce adverse effects, given that the oil and coal sectors still constitute critical sources of foreign exchange revenues for the country. These

revenues are used, among other things, to fund social programs that benefit poor and vulnerable populations.

The scale of these figures is considerable. Over the past decade, oil and coal production in Colombia has accounted for 56.2% of total exports and 34.9% of foreign direct investment. Simulations show that as many as 362,960 jobs could be lost nationwide. In Colombia's oil-producing departments (Arauca, Casanare, Meta, Santander, and Putumayo), production could fall by 12.1%, leading to an 8.3% drop in employment, the equivalent of 117,075 jobs being lost.

Similarly, in coal-producing departments (Cesar, La Guajira, and Norte de Santander), the impact on employment would amount to an 11.8% reduction in production and the loss of 145,840 jobs. In addition, the remaining departments are projected to experience the elimination of slightly more than 100,000 jobs.

The results presented in the study led by the National Planning Department are noteworthy. While it is true that the energy transition holds promise for job creation, it is equally evident that the process will cause many to lose out, and in some sectors and regions, it will not be easy to replace the jobs that are lost. The study shows that in the decarbonization policy scenario, the possible loss of 362,960 jobs would not be offset by new employment in other sectors of the economy (see Table 1). Specifically, agriculture would generate approximately 45,000 new jobs, while agroindustry and tourism would account for 107,250 and 95,213 jobs, respectively. In total, an estimated 247,965 jobs would be created—a figure insufficient to offset the overall loss of jobs **(go to table 1)**.

Numerous options and alternatives have been proposed in response to the labor-related impacts of decarbonization, such as economic diversification, reskilling of the

Table 1. Jobs lost due to the reduction of oil and coal production vs. potential jobs in other sectors of activity (agriculture, agroindustry, and tourism)

SECTORS	EMPLOYMENT REDUCTION	Potential Jobs				
		Agriculture (1)	Agroindustry (2)	Tourisme (3)	(1)+(2)	(1)+(2)+(3)
OIL-PRODUCING	-117.075	20.605	45.451	27.779	66.056	93.835
COAL-PRODUCING	-145.840	20.704	45.895	54.126	66.599	120.725
OTHER SECTORS	-100.045	4.194	15.904	13.307	20.098	33.405
TOTAL	**-362.960**	**45.503**	**107.250**	**95.212**	**152.753**	**247.965**

Source: DNP (2023)

workforce, and a just transition for mining regions. While these are valid and pertinent measures, the call is to proceed with prudence, incremental steps, and inter-institutional coordination, taking into account the perspectives of multiple stakeholders. This was reaffirmed by the Constitutional Court in ruling T-029 of 2025, which protects the rights of communities and workers affected by the closure of the La Jagua and Calenturitas mines in Cesar. The ruling requires that such processes be carried out in a fair manner and with the genuine participation of those whose livelihoods depend on this economic activity. Furthermore, it mandates the establishment of a Negotiation Roundtable with communities, trade unions, and authorities to ensure adequate compensation as well as environmental and social restoration. Ultimately, addressing the effects of decarbonization on the labor market requires deep transformations that guarantee not only alternative employment opportunities but also decent and sustainable working conditions for current and future generations.

References

Inter-American Development Bank (IDB) and ILO (2020). Employment in a net-zero emissions future in Latin America and the Caribbean.

ECLAC and ILO (2018). Labor Situation in Latin America and the Caribbean October 2018 Number 19 Environmental sustainability with employment in Latin America and the Caribbean.

CIPAME (2025). Historic ruling on mine closures in Cesar: a step towards a just energy transition.

DNP (2023). These are the effects of the low-carbon economy on employment and the social security system. Note taken from the website: https://www.dnp.gov.co/Prensa_/Noticias/Paginas/estos-son-los-efectos-en-el-empleo-y-el-sistema-de-seguridad-social-de-la-economia-baja-en-carbono.aspx

Galtés (2025). Presentation “Energy Transition and Just Transition in Colombia.” National Trade Union School. July 14.

ILO (2018). World Employment and Social Outlook.

ILO (2019). ILO Centenary Declaration for the Future of Work.

ILO (2020). The role of the ILO in responding to climate change and promoting a just transition for all.

Rodríguez (2023). Present and future of the environment in Colombia. Penguin Random House. Bogotá.

Labor Conflicts Amid the Energy Transition

Interview with Johnny González Polanco,
president of the Central Unitaria de Trabajadores CUT, CESAR.

By: Hiller Alberto Muñoz and José Fernando Gutiérrez L (ENS)

Introductory Note:

In the region once known as the mining corridor—now called the "corridor of life"—which spans the municipalities of Agustín Codazzi, Becerril, La Jagua de Ibirico, Chiriguaná, and El Paso in the department of Cesar, mining was historically the backbone of the local economy. This region now faces deep uncertainty due to the closure of several coal mining companies and the resulting consequences: displaced workers, the reduction or total loss of household income for thousands of families, and declining royalty revenues, among others. Further closures are anticipated, with additional companies having announced the termination of their mining operations. The following interview provides an overview of the labor conflicts arising from this downturn in mining activity.

ENS: What was the reason behind the closure of the La Jagua and Calenturitas mines?

Johnny González Polanco (JGP): Unfortunately, during the pandemic, [the company] Prodeco unilaterally decided to halt mining operations in the municipality of La Jagua. The company justified its decision by claiming that mineral resources were becoming scarce, making extraction increasingly costly. Consequently, with the approval of the national government, the company closed the mine. This was done without any recompense for the community, neither addressing the environmental damage suffered by residents nor respecting the workers' labor rights.

ENS: What has the impact been on the displaced workers?

JGP: The abrupt closure of the mines led to what can only be described as the wholesale destruction of the local labor market. Nearly five thousand workers lost their jobs and were sent home without any severance pay or financial resources, and in extremely

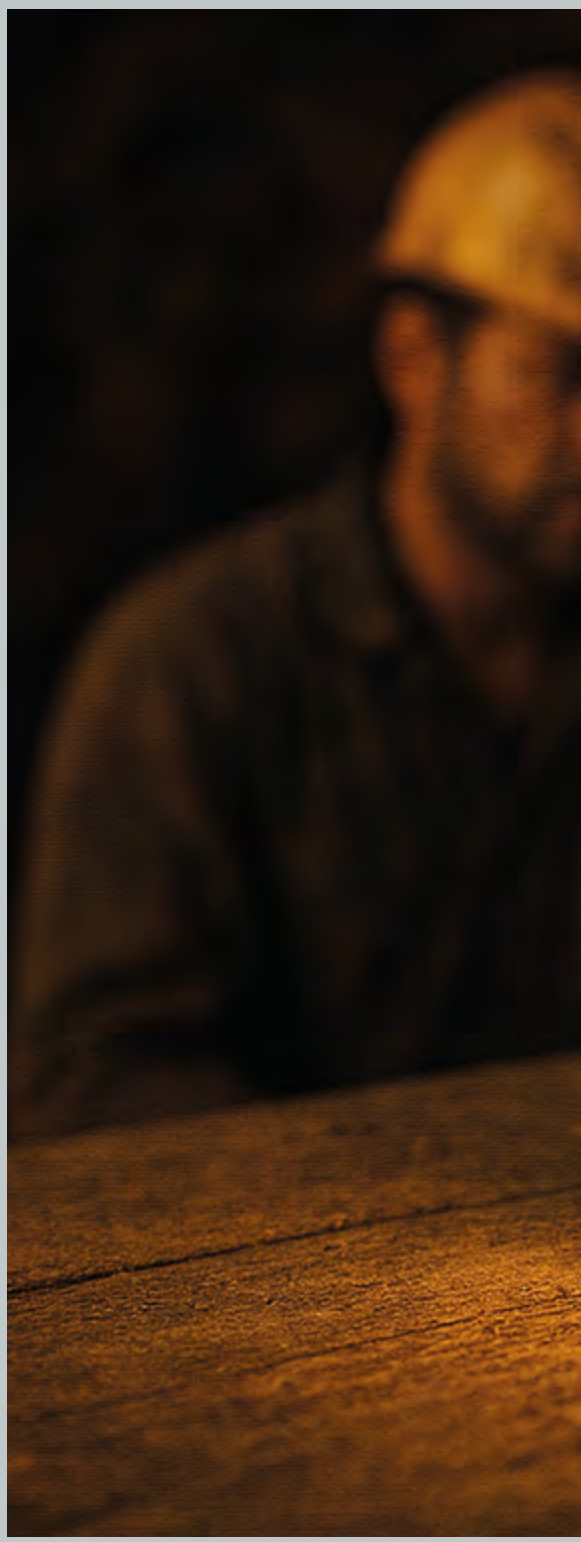
precarious conditions. Some workers suffer from serious health problems; according to assessments, more than 300 former employees are now living with disabilities, and have received no support either from the State or from the company.

The situation has been so extreme that it has led to the breakup of whole families, as well as the tragic case of three former workers having taken their own lives.

ENS: ¿Y en los municipios y territorios que dependían de las regalías de la actividad minera, actividades conexas y generación de empleos?

JGP: La Jagua de Ibirico is the municipality within the so-called "corridor of life" most affected by the mine closure and the loss of jobs. Severe social and economic challenges have arisen, given the community's almost total dependence on mining. Beyond the dismissed Prodeco workers, the wider community has been affected by a decline in commercial activity and household income. Many residents who took out bank loans to improve their homes are now unable to repay them. Numerous services—such as laundry, food preparation, and others—depended directly on the income of Prodeco's workers.

La Jagua fue un municipio muy rico con la La Jagua was once a thriving municipality due to mining revenues. However, the political class failed to reinvest these resources for the benefit of the community. Today, the municipality is grappling with serious deficiencies in its potable water supply, road infrastructure, and hospital facilities. Moreover, many mayors have been implicated in corruption cases.



The environmental consequences have also been severe for local communities. Prodeco's operations were highly aggressive, leading to the loss of five water sources. One of the rivers has been rendered completely unusable, an irreparable loss. Because the mining was done using open-pit methods, the surrounding rural areas remain heavily contaminated. None of this damage has been remediated by the company.

Equally important are the occupational diseases acquired as a result of coal mining. Many workers suffer from pulmonary and cardiac illnesses, as well as other types of cancer, within the population. Despite this, there has been no comprehensive study carried out into the full extent of this situation.

These conditions have triggered mass migration, as people are forced to relocate in search of livelihoods for themselves and their families. Before mining, these municipalities had a strong agricultural tradition, offering a higher quality of life and greater employment potential than coal mining. Now, however, the municipalities and their lands are deeply contaminated and unproductive. The situation is thus exceedingly complex.

ENS: Does the shift to alternative economic activities, such as the expansion of oil palm cultivation, generate positive impacts in terms of employment and resources for municipalities in the department?

JGP: We are advancing a proposal centered around the cultivation of fique plants. This crop has not only the potential to generate employment, but also to regenerate soils that have been rendered unproductive. However, the initiative has not yet generated jobs, which is why we require government support and resources to help address the unemployment crisis that we face. In La Jagua, there are weekly protests related to the very issues we have mentioned: lack of land, water shortages, and unreliable electricity services. A wave of social unrest is emerging because people simply cannot endure these conditions any longer.

ENS: Let us turn to the initiatives of different ministries (Labor, Environment) aimed at transforming the former mining corridor into the so-called corridor of life, with a corresponding focus on economic activities beyond mining.

JGP: We have engaged in dialogue with all sectors. For instance, we held a meeting with the Governor of the Department of Cesar. We have also met with the Ministry of Mines, the Ministry of Labor, the Ministry of Agriculture, the National Land Agency, and the ILO, among others. We have been knocking on doors everywhere, emphasizing that both the problem and the solution transcend political affiliations. We told the Governor of Cesar that resolving this issue is possible, but that it requires the unity of all sectors. As workers, we refuse to remain passive; we are looking to create and put into practice initiatives that will yield benefits for all stakeholders involved.

It is true that the National Land Agency has focused on the agricultural sector and has distributed land. But this effort still falls short of addressing the sheer scale

of our needs. Beyond distributing land, it is essential to bring farmers into the process, provide them with the necessary tools, and ensure the sustainability of their crops over the long term. The Ministry of Mines, the Ministry of Labor, and the National Land Agency have committed to supporting our fique production project. What we need now is for the project to be implemented before the end of the year.

ENS: Have there been any attempts to first implement a (just) labor transition before moving toward the energy transition?

JGP: First and foremost, it must be clarified that there was no labor transition here. What occurred was the utter destruction of the labor market.

Regarding the energy transition, the world is indeed changing, and clean energy is vital—we fully agree with this. What we lack, however, is the necessary technology and infrastructure. For a serious energy transition that ensures our participation, both technological capacity and financial resources are crucial.

ENS: Some time ago, you mentioned that, despite the closure of the mines, Prodeco continued exporting through other firms or by creating shell companies. How does this work?

JGP: Prodeco gave up its mining license, but it still owns the railway system and continues to manage and export coal through these railway tracks. As far as we can tell, they either hold significant coal reserves or purchase coal from other municipalities and departments. In this way, they continue to invoice and fulfill their international contractual commitments.

ENS: Finally, what is the most important challenge faced by trade unions in the sector, and what proposals are being put forward in response to this situation?

JGP: The greatest challenge we face is survival—not only as a trade union organization but also as residents of Cesar and as workers. Our jobs have been taken away, and many of our colleagues are not trained for other types of activities. We require the State's commitment to policies that are serious and consistent in this context. Coal will not disappear anytime soon, as it remains in global demand. In the meantime, we need environmental, labor, and human rights policies that safeguard the lives and dignity of both workers and communities.

Periodico El Callejero

Biomass: From Waste to Valuable Resource

By: Daniel Prieto Sánchez
Political Scientist. PhD in Social Sciences in Development, Agriculture, and Society
Email: daniel.prieto.eco@gmail.com

ORB emerges as a key instrument for the fostering of community-managed production systems, both for energy generation and for the development of agricultural inputs that support ecological soil restoration and the production of food free of agrochemicals.

Organic Residual Biomass (ORB) represents a lesser-known pillar of a just energy transition, with the potential to address the needs of waste management in productive but hard-to-decarbonize sectors. It is generated through the natural or induced degradation of organic matter derived from biological processes, such as photosynthesis in plants or the metabolism of heterotrophic organisms. It also stems from the socio-metabolic dynamics of human societies. Taken together, ORB comprises biological residues produced in agricultural, agro-industrial, livestock, forestry, and urban activities. These include crop residues; bovine, swine, and poultry manure; plant- and food-based waste from markets, green areas, and tree pruning; household organic waste; and biosolids generated in wastewater treatment plants.

ORB is a significant and widely distributed resource in Colombia. According to the Ministry of Science, Technology, and Innovation, it represents an annual potential of nearly 33 million tons of agricultural residues, over 5 million tons of livestock byproducts, and more than 43 million tons

of residual plant biomass. Such volumes highlight strategic opportunities for value-recovery pathways that convert waste streams into valuable resources, particularly for improving land-use efficiency, expanding renewable energy generation, and promoting the sustainable management of natural capital.

For this reason, ORB is classified under Colombian law as a Non-Conventional Renewable Energy Source (NCRES), alongside solar, wind, small-scale hydropower, geothermal, and tidal energy. Despite its inclusion in the national energy portfolio, it remains heavily underutilized today. ORB's potential lies in its ability to be converted into energy carriers through physical, biochemical, or thermochemical conversion routes, facilitating the generation of co-products such as biofertilizers and liquid and gaseous biofuels, while simultaneously maintaining carbon cycle balance and contributing to the attainment of nationally determined contributions (NDC) under the Paris Agreement.

This resource is gaining recognition not only from the agro-industrial sector but also from rural communities, farmers' organizations, recycling associations, and agroecological networks. In this regard, ORB emerges as a key instrument for the fostering of community-managed production systems, both for energy generation and for the development of agricultural inputs that support ecological soil restoration and the production of food free of agrochemicals. By taking advantage of this, new opportunities arise for rural development, economic decarbonization, and the diversification of the national bioenergy matrix.

Despite its strategic relevance, the energy potential of ORB remains significantly underexploited. According to the National Planning Department and the Superintendency of Public Utilities, over 60% of Colombia's solid waste is disposed of in landfills or open pits. Nearly half of this originates in food loss and waste generated along urban and rural supply chains—amounting to approximately 9.76 million tons per year—highlighting not only profound inefficiencies across the supply chain but also the social and environmental injustices linked to hunger and pollution.
This dominant waste disposal model has lasting consequences for terrestrial and aquatic ecosystems, intensifying biodiversity loss, exacerbating extreme climate events, and undermining the quality of life of communities located near these facilities, particularly those inhabiting peri-urban and rural areas. Air, soil, and water pollution negatively affect public health while simultaneously eroding the fundamental and collective rights of communities living in areas burdened by widespread waste disposal.

In this context, municipal energy management emerges as a pivotal instrument for promoting the recovery and use of ORB. When integrated into local public policies, this can contribute to reducing energy costs, improving public spending efficiency, and fostering a decentralized, participatory, and ecological energy transition. Moreover, it enables the coordination of

strategic sectors such as agriculture, energy, and public services, which in turn strengthens ties between public governance—at national, departmental, and local levels—and grassroots initiatives within the popular and community-based economy aimed at developing local energy systems.

All of this requires the implementation of policies that integrate separate collection, transportation, treatment, and the transformation of these residues into energy resources.

The institutional basis for advancing this agenda is provided by regulatory frameworks and policy instruments such as Law 1715 of 2014, which regulates the incorporation of NCRES into the National Energy System; the National Circular Economy Strategy, which identifies flows such as ORB as a priority axis; and Law 2099 of 2021, which authorizes public financing through allocations from the General Budget and the General System of Royalties, while also enabling territorial entities to participate in projects related to generation, distribution, commercialization, small-scale self-generation, and distributed generation with NCRES.

In this way, the State can promote this component of the transition through technical training, scientific education, and financial support for municipal administrations, encouraging a genuine break from the production, consumption, and disposal patterns inherent in the linear economy model. This approach can, on the one hand, stimulate national production of high-value-added goods and, on the other, minimize waste in final disposal sites. Achieving this goal requires urgent inter-ministerial and intersectoral coordination that integrates not only regulatory, financial, and normative dimensions, but also the social dimensions of labor, land, and the Popular Economy as foundational pillars of the energy transition.

The valorization of ORB is more than a mere technological or economic opportunity; it is a real alternative for transforming our relationship with energy, nature, and communities themselves. Consequently, this eco-social transition requires the integration of science, traditional knowledge, and collective practices to confront systemic conflicts such as pollution, hunger, and energy exclusion. Colombia has the potential to advance toward a more participatory and democratic model of energy governance, but this will require political will, investment in local capacities, and a dialectical vision of the State's role in addressing the ecological crisis. ORB can thus serve as a point of departure for envisioning an energy and socioecological transition that does not reproduce injustices, but rather questions them and seeks to transform the world.

El Callejero Newspaper

Climate Action with Social Justice: The Potential of Popular Economies in the Socio-Ecological Transition

B y: Paula K. Triviño-Gaviria
Sociologist and Master of Science in Economics.
Professor and researcher in the areas of political economy, public policy, and differential approaches.

In the current context of the climate crisis, global responses are unfolding along two divergent paths: one that reproduces market-oriented models through technocratic and financial solutions that marginalize popular sectors, and another that advances a socio-ecological transition grounded in social justice, the recognition of community labor, and care for life. It is through this second path that the Popular and Community Economy (PCE) takes on a strategic role in reconfiguring the relationships between society, nature, and the State.

...the PCE cultivates knowledge systems, leadership, local practices, distinct forms of social protection, and alternative, sometimes solidarity-based financial arrangements. In this sense, they also function as a platform of political agency to contest the orientation of energy and climate transitions.

The PCE, understood as the range of paid and unpaid activities that sustain households and communities, has historically been overlooked in public policy design. Their exclusion has often been justified by attributing to them the notion of "informality," a concept that reduces them to a marginal sphere lacking structure and legality. From a critical perspective, however, PCEs constitute a vital economic foundation, particularly in peripheral countries such as Colombia, where waged labor has lost its centrality and social well-being increasingly depends on community networks, unpaid care work, and local economies that support everyday life.

Far from being residual, the PCE cultivates knowledge systems, leadership, local practices, distinct forms of social protection, and alternative, sometimes solidarity-based financial arrangements. In this sense, they also function as a platform of political agency to contest the orientation of energy and climate transitions. The prevailing wisdom promotes carbon markets, large-scale "green" extractive projects, and corporate-controlled clean energy or emissions offsetting. Yet, a transition grounded in social justice requires recognizing and financially supporting the ways of life that already sustain ecosystems and communities.

Against this backdrop, diverse forms of Popular and Community Public Partnerships (PCPPs) emerge as an innovative institutional framework to enable such a shift. Instead of reproducing the public–private partnership model centered on corporate profit, PCPPs allow popular sectors to be incorporated as legitimate actors in the provision of goods and guarantees essential to the transition: environmental stewardship, energy transition, waste management, sustainable tourism, animal protection, among others. In these partnerships, the State contributes technical and financial resources, while communities provide local knowledge, collective labor, and social oversight.
Some examples of PCPPs with high potential for a socio-ecological transition include:

- Restorative and Reparative Work (RRW): initiatives that combine environmental service payments with processes of regional reconciliation and peacebuilding[1].
- Strengthening energy communities: ensuring that workers within the popular economy are not regarded merely as beneficiaries of energy access but as key actors in the design, installation, operation, and maintenance of local energy solutions. This approach leverages their technical skills, local knowledge, and existing organizational forms—such as neighborhood associations, cooperatives, or *mingas*[2]—to drive community-based energy transitions.
- Economic transition toward ecological and sustainable tourism: enabling communities to lead productive models that protect ecosystems. In rural and peri-urban areas, for example, community organizations have developed ecotourism routes managed by community action boards, peasant associations, and women's networks. These initiatives integrate agroecological practices, rural accommodation, guided walks led by local environmental leaders, and educational activities centering on biodiversity[3].
- Participatory waste management: rooted in the recognition of the historical and

1

Restorative and Reparative Works, Projects, and Activities (RRWPA) are a restorative measure established under the 2016 Final Peace Agreement in Colombia. They are directed exclusively toward individuals who participated in the armed conflict and have committed to reincorporation into civilian life, particularly those appearing before the Special Jurisdiction for Peace (JEP). Nonetheless, the involvement of popular economies in RRWPA is considered valuable for the restoration of social and community fabrics.

2

Form of collective work and solidarity-based cooperation common in Indigenous and rural communities across the Andes (Colombia, Ecuador, Peru, Bolivia, Chile).

3

These models not only generate income but also strengthen territorial sovereignty, environmental stewardship, and non-market community labor, thereby breaking with the extractive logics of conventional tourism.


Periódico El Callejero

daily labor of grassroots waste pickers, who comprise a central part of the urban PCE. Their work not only contributes to the circular economy but also reduces emissions associated with waste management and reduces pressure on landfill sites. Examples include recycler associations that organize selective collection routes, operate recovery plants, and lead educational campaigns in neighborhoods. Strengthening these popular practices—through fair remuneration and access to equipment, legal recognition, and participation in public policy—transforms recycling into a pillar of environmental and social justice, rather than reducing it to a peripheral, outsourced service.

These projects not only have the potential to transform the established structures relating to production and energy, but also to reconfigure power relations by recognizing communities as political entities in their own right, and providing them with the tools they need for regional development. In this sense, PCPPs function as both a means of democratizing public policy and, at the same time, as a mechanism for restoring economic and social rights to populations historically marginalized, criminalized, or impoverished by policies that delegitimize them and restrict their livelihoods.

This approach also entails confronting the powers that oppress the PCE: exclusion from the social contract, institutional violence, and regional control exercised by illegal economies such as predatory lending (*gota a gota*[4]) and small-scale drug trafficking. Social justice based on climate action cannot avoid these tensions: it requires a present and redistributive state, capable of engaging in dialogue with territories and forging alliances that deal with more than mere capital.

In sum, a socio-ecological transition with social justice must begin by recognizing and strengthening popular and community economies as the foundation of genuine sustainability. Rather than treating them as obstacles to development, it is necessary to understand that they embody profound knowledge of care, a relational ethic toward nature, and organizational capacities that can guide us toward more livable and compassionate futures.

[4] Lliterally "drop-by-drop" is an informal, high-interest lending practice common in parts of Latin America, especially Colombia.

El Callejero Newspaper

Decarbonizing Everyday Life.

Community Strategies for Decarbonization

By: Luis Eduardo Tiboche
Coordinator, La Adela Agro-cultural Unit

Since the Industrial Revolution and the rise of capitalism, the intensive use of energy has come to underpin nearly all aspects of human life, becoming a decisive driver of climate change. Both economic growth and industrial expansion brought them a pattern of the exploitation and depletion of natural resources, as well as an ever-increasing output of greenhouse gases, with significant global repercussions.

It is therefore imperative to develop alternatives that go beyond mere protest and promote agreements and actions rooted in the real collective power that we can exercise in our crisis-ridden society.

In recent decades, various global initiatives have sought to secure agreements among nations to curb the effects of the climate crisis. Yet, the outcomes of such agreements have not demonstrated tangible results in mitigating emissions into the atmosphere. At the same time and in diverse areas, voices grow louder, warning of the imminent expiration of deadlines set to avoid crossing the point of no return, after which the climate crisis will become irreversible.

It is therefore imperative to develop alternatives that go beyond mere protest and promote agreements and actions rooted in the real collective power that we can exercise in our crisis-ridden society. One such community space promoting ongoing dialogue over this deterioration, and the possible ways to confront it and generate alternatives—through both thought and practice—is

the agroecology group *La Adela*, located in the southwest of Bogotá, in the historic region of Techotiva. Just over a decade ago, *La Adelita*, as it is more commonly known, was little more than a rubble-filled lot behind a marketplace in the locality of Kennedy. Today, for many converging reasons, it has been transformed into a refuge for agrobiodiversity and solidarity. It functions as a permanent meeting place where organizations and individuals collaborate to develop strategies and proposals that strengthen collective production and support the care of life in the region.

The discussions and the networks formed within this space permeate the everyday lives of communities and their members, touching upon matters as seemingly small as the ways we dress, eat, move about, and inhabit cities. We tend not to associate decarbonization with daily life, as it has been presented to us as a titanic undertaking, the domain of governments, corporations, industries, NGOs, and the like. Yet the tasks, occupations, and forms of consumption that shape our days remain tied to a production model rooted in fossil fuels.

Clothing

The items of clothing we wear daily have a short life cycle and often end up in massive piles in landfills, when they are not incinerated outright. The global textile industry's production system extracts enormous quantities of non-renewable resources, with estimates putting the resulting greenhouse gas emissions at between 4% and 8% of the global total.

As organized communities, we must demand that industry produce higher-quality, longer-lasting fabrics and garments. At the same time, we should turn to the work of tailors, who can adjust and repair clothing, thus extending its effective lifespan. In doing so, we strengthen the local economy, as the repair of clothing, shoes, and countless other objects is a key pillar of this sector.

This same approach should also be extended to other sectors, such as those that produce furniture, household appliances, and electronic devices.

Food and Nutrition

Global food production, based on monocultures and large-scale agroindustrial models, accounts on average for 26% of greenhouse gas emissions. This model relies on the intensive exploitation of fossil fuels throughout the production chain: nitrogen-based fertilizers, agricultural machinery, and the transportation of inputs and food. It also depends heavily on energy for irrigation and drinking water systems, which, along with the soils, are deeply contaminated. Climate change is generating a growing global food production crisis, which in turn causes an even greater energy demand.

At *La Adelita*, we maintain an ongoing dialogue on forms of community organization aimed at advancing food sovereignty. To this end, diverse organizations are collaborating in the construction of an agroecological school for the territory and the region, creating spaces for dialogue with farmers'

organizations and strengthening supply processes—including marketplaces—while promoting shorter distribution chains and fostering a permanent conversation around food culture.

We also participate in a network of urban gardens that produce native trees, as well as food for community use. At the same time, we are raising awareness of the enormous harm caused by the city's landfill through its methane emissions and contamination of the Tunjuelo and Bogotá rivers. This awareness-raising includes bringing attention to the increasingly widespread practice of transforming household organic waste into fertilizers and substrates through techniques such as composting, vermiculture, and biodigesters. At *La Adelita*, we also make use of biomass generated by the local market to produce fertilizers for the community garden. Likewise, we contribute to raising awareness and promoting education through popular media outlets.

Mobility

One of the main contributors to greenhouse gas emissions is transportation, and Bogotá particularly exemplifies this. According to international organizations such as the IDB, transportation accounts for 24.3% of all estimated emissions in Bogotá and the surrounding area. Key factors behind this high percentage include slow traffic flow, constant congestion caused by the poor quality of public roads and the simultaneous construction of road and infrastructure works, and an inefficient public transport system.

Within our communities, we promote the use of bicycles as a non-polluting means of transport, while also demanding a sufficient, wide, well-signed, and fully-connected network of bike lanes and cycling zones. It is essential to call for policies that discourage the use of private cars as a primary mode of transportation.

Re-Greening

Fighting climate change requires a significant effort from citizens in general and from social organizations in particular. In a city with a growing deficit of trees and green areas—disappearing daily to make way for buildings and concrete that entail increased greenhouse gas emissions—there must be a shared purpose for each of the more than 9 million people inhabiting this vast geographical area. Every day, more individuals—young people in particular—are participating in the task of planting and cultivating trees through care, protection, and the processes of seed germination and growth. Now we must expand this practice still further and, through large-scale campaigns, transform the landscape of a city that successive administrations have rendered increasingly grey. Planting the seeds of life is a collective responsibility.

Techotiva Territory, Water Territory

Edwin Roncancio

Chronicle of a Jungle in Transition

By: Mayra González
Geographer, Master in Environment and Development

In the northern Colombian Amazon, in San José del Guaviare, a troubling perspective still endures—one held and propagated by Andean migrants who still remember the great coca, timber, hide, and rubber booms of times past. This lingering perspective is one of the jungle as an object of an inexhaustible resource, existing solely to be exploited. Yet, other worldviews crop up, ones that open up different ways of seeing nature—visions of the jungle as something that can also represent memory, nourishment, livelihood, and the future.

With the Peace Agreement as a backdrop, the territory opened its doors to new initiatives. In that context, we accompanied the Nukak people in their territorial recovery and political organization.

We arrived in Guaviare in 2016, but our relationship with the region began in 2010, when—working from Bogotá and in partnership with the Reciclatespecies SOS Foundation—we supported food sovereignty initiatives with Jiw communities in southern Meta and Guaviare. We were a group shaped by our experiences in urban agroecology, mingas , and seed recovery. That first encounter was simultaneously an exchange of knowledge and a discovery: behind every crop lay the cultural wealth of Indigenous peoples.

With the Peace Agreement as a backdrop, the territory opened its doors to new initiatives. In that context, we accompanied the Nukak people in their territorial recovery and political organization. Walking alongside

them was eye-opening; they taught us that the jungle is not solely nature, but also home, history, and medicine. Their eyes knew how to read the forest, to find food in what others dismissed as mere brush; yet we were also struck by the harshness of institutional neglect: young people addicted to bazuco , everyday discrimination, and social invisibility.

As we learned alongside them, another search was also taking shape: food transformation. What began as an experiment among friends grew into Alimento de Selva (Food from the Jungle), a venture to bring value to Amazonian fruits and territorial knowledge under the principles of fair trade, sustainability, and cultural respect.
Today, at our reserve El ReCreo, we have established a small processing plant. There, bioconstruction, organic fertilisers, and forest regeneration coexist with Amazonian fruit trees such as seje, açaí, moriche, copoazú, and borojó. From here, we transform what once seemed invisible: flavors that heal, economies that protect, and fruits that tell stories.

Yet our experience is far from unique. In the village of Guacamayas, Laura and six other families embarked on a similar path. Each family maintains its own plot of land, but they work collectively through the Community Action Board, proudly affirming that they are 'daughters of the Peace Agreement.' With the support of the National Programme for Illicit Crop Substitution, they began lawful projects, including turmeric cultivation. Through shared effort and learning, they discovered that this

root—once overlooked—could be turned into a viable product. With the help of the Universidad Externado de Colombia, they further confirmed that their turmeric contains 5% curcumin, a medicinal compound of substantial value.

Laura says it has not been easy, due to a lack of time, machinery, and infrastructure. Yet the achievements that have been made more than compensate: they have learned to organize and to live better together as families, and have shown that it is not necessary to cut down the jungle to create products. Today, their turmeric reaches other regions, and its reputation spreads by word of mouth among women who research, test, and recommend it.

A little further south, in Bocas del Raudal del Guayabero, Zury Ramos and her community


Edwin Roncancio

have found another path: community tourism. 'We used to work with coca,' she recalls, but peace opened a door for them, and from that shift—from the illicit to the licit—a gastronomic venture was born that now welcomes visitors with local dishes, trail walking, river swimming, and visits to cave paintings.

Their process has been one rooted in dedication and unity. Through training and community organization, they have managed to create a space to welcome tourists. The challenges remain considerable, of course: improving infrastructure, competing with other attractive destinations, and sustaining themselves. Yet along the way, they have learned to work in networks and show solidarity with other tourism projects in the region. Today, they are part of a gastronomy network and take pride in the recognition they have earned at the national level.

Environmentally, Zury and her community make use of local raw materials, showing that tourism can exist in harmony with, and to the benefit of, the jungle. Socially, they strengthen families who now rely on a lawful source of income, sharing knowledge and proving that another kind of economy is possible.

These are three stories—three distinct voices—that converge on the same message: the jungle is not treasure to be plundered, but rather a living territory that teaches, nourishes, and sustains. Through food transformation, community agriculture, and solidarity-based tourism, alternative economies are emerging in Guaviare that dignify life and protect the forest.

In these experiences, the Amazon ceases to be a frontier or a periphery. It becomes a seed of the future.

ESCUELA NACIONAL SINDICAL

Centro Del Pensamiento Del Mundo Del Trabajo

31
CONCURSO LATINOAMERICANO DE FOTOGRAFÍA DOCUMENTAL

Los Trabajos y los Días

Bases de datos ENS

La ENS cuenta con la Base de Datos más actualizada sobre la vulneración a la vida e integridad de sindicalistas en Colombia

Programas de formación

Formamos a trabajadores, sindicatos, organizaciónes y demás actores del mundo del trabajo

InvestigacionesENS

Desarrollamos estudios sobre el trabajo decente, los derechos laborales, género y democracia sindical.Gestionamos conocimiento aplicado al cambio social

43 años defendiendo la libertad sindical, la justicia social y el trabajo decente

En el Portal de Transparencia Económica (PTE), de la Dirección General de Presupuesto Público de la Nación, encontrarás información de primera mano sobre el ciclo presupuestal y datos del PGN que facilitarán tu análisis para la toma de decisiones.

Para el PTE eres protagonista de una gestión pública, abierta, eficiente y confiable.

Visitanos en www.pte.gov.co

Hacienda

EN CLAVE Económica

Portal web de noticias del Sector Hacienda

EN CLAVE Económica

Temas de la semana

Presupuesto 2026

30 Septiembre 2025

Las Comisiones Económicas Conjuntas en medio de un escenario de diálogo con el Gobierno aprueban presupuesto General de la Nación y queda fijado en $546,9 billones de pesos.

Dato de la semana

17 Octubre 2025

El Nobel de Economía Paul Krugman ha publicado un extenso post en el que argumenta y explica por qué la economía de China ya es mucho más importante que la de EEUU en términos reales y de influencia

Reducción de deuda externa

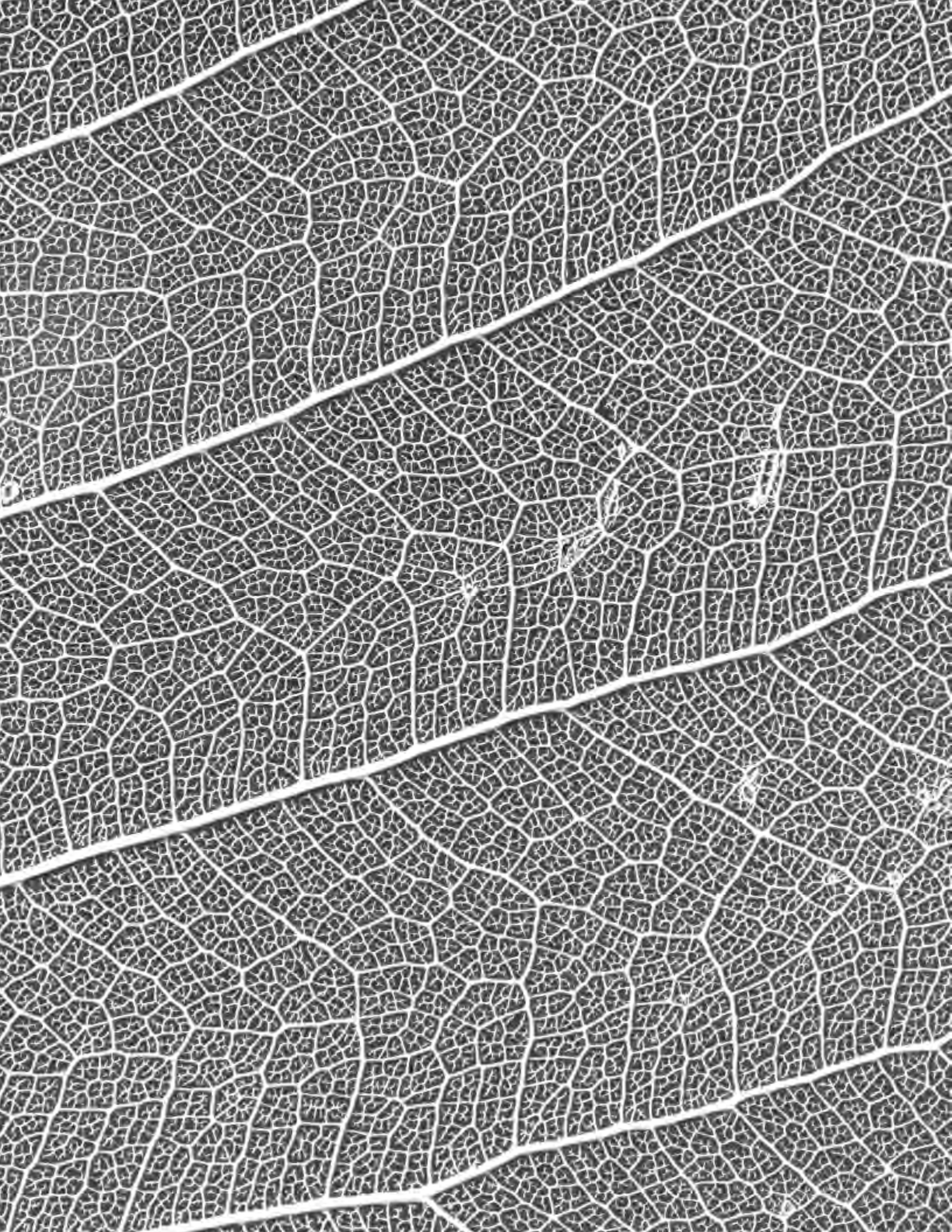
15 Octubre 2025

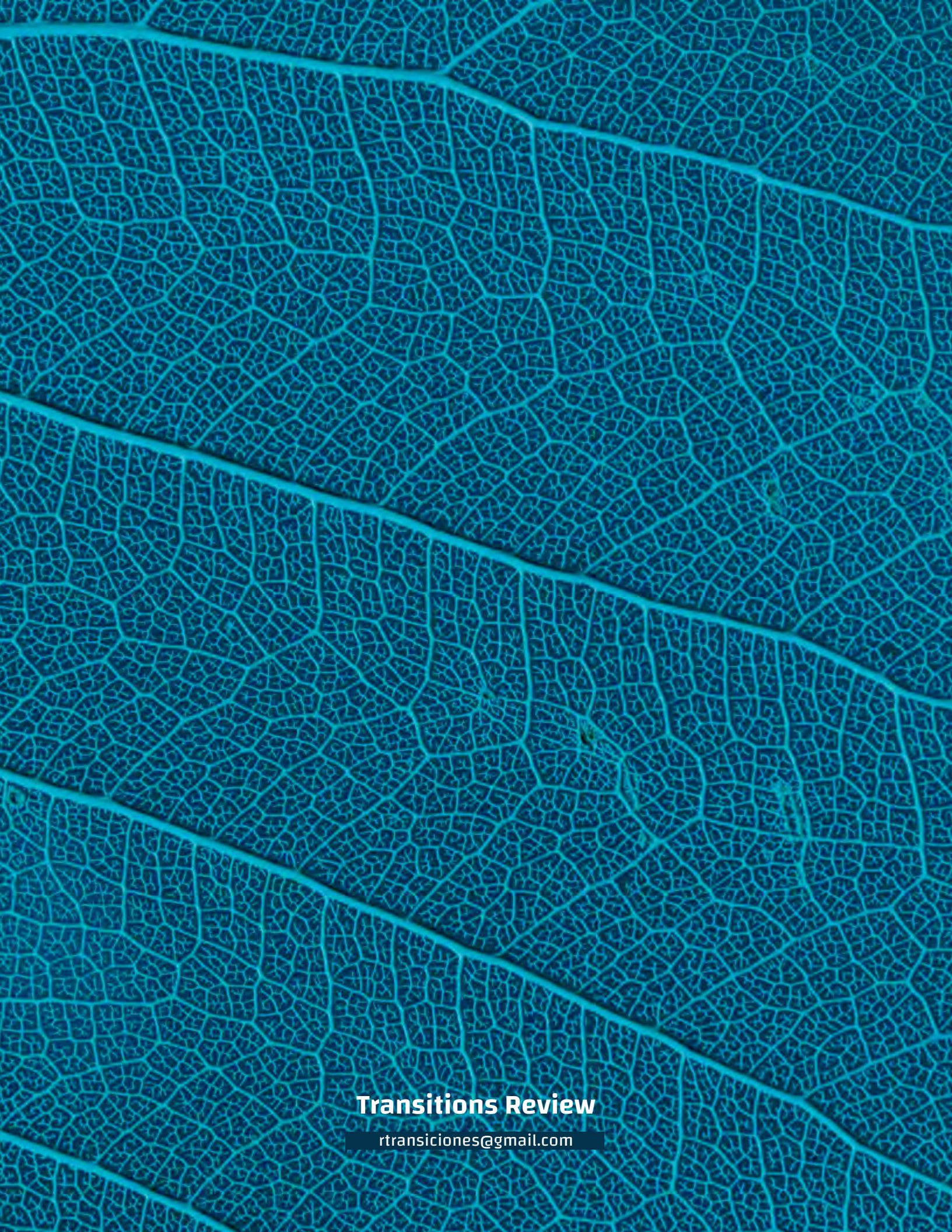
Una estrategia técnica para reducir deuda, costos y riesgos tras el aumento de la deuda pública durante la pandemia, el Gobierno Nacional, a través de la Dirección de Crédito Público y Tesoro Nacional del Ministerio de Hacienda, puso en marcha

7 Días MinHacienda

14 Octubre 2025

El Congreso Nacional aprobó el Presupuesto General de la Nación 2026 por $546,9 billones, manteniendo las prioridades del Plan Nacional de Desarrollo en paz, salud, educación, agua y transición energética.





Transitions Review

rtransiciones@gmail.com