



EVALUATION HIGHLIGHTS

Colombia: A tool to facilitate dialogue on the energy transition

Scope Development and deployment of **PowerShift**, a multi-stakeholder strategy game
AFD funding 171 245 €*
Period 2024-2025
Partners LEAF Inspiring Change, ETH Zürich, BFH - University of Lausanne
Monitoring & evaluation LEAF Inspire Change**

In a country heavily dependent on fossil fuels and committed to an ambitious energy transition, how can policymakers, regulators, financial actors, and civil society collectively explore the trade-offs of a just transition? The evaluation of the PowerShift strategy game highlights its contribution to the dialogue on energy transition strategy in Colombia, while also underscoring the inherent limitations of this type of tool.

Context

Colombia has committed to reducing its greenhouse gas emissions by 51% by 2030 and achieving carbon neutrality by 2050. These commitments are set against a complex macroeconomic and social backdrop: dependence on fossil fuel exports; vulnerability to external shocks; budgetary constraints; marked socioeconomic inequalities; and environmental pressures (deforestation, El Niño/La Niña phenomena).

While macroeconomic modeling tools can shed light on possible trajectories, they are insufficient to reveal the strategies and mental models of the actors involved in the transition. The PowerShift tool was designed to facilitate scenario-based discussions through a participatory dialogue tool that simulates the impacts of collective decisions within a complex system.

PowerShift is a serious game based on the companion modeling approach (ComMod). Inspired by AFD's GEMMES macroeconomic model, it was developed to analyze the behaviors of actors in Colombia's energy transition, to strengthen these actors' understanding of macro-financial dynamics, and to facilitate high-level dialogue among institutions.



Key results of the project

12
game sessions
in 2024

150+
participants
in total

50+
institutions
involved

→ Strengthened multi-stakeholder dialogue on the transition

- The sessions enabled a wide range of stakeholders to engage in **dialogue through various formats**: intra-ministerial, inter-ministerial, and cross-sectoral (public-private-civil society).
- In particular, they engaged the National University of Colombia and various ministries (Finance, Mines and Energy, Labor), including **high-level representatives** (deputy ministers, advisors to senior officials).

→ A better understanding of the systemic challenges of the transition

- Participants gained new knowledge and a better **understanding of the interdependencies** between economic, social, and environmental dimensions;
- Participants improved their **capacity for strategic analysis** of possible transition pathways, including trade-offs between climate ambition and macroeconomic stability.

→ Highlighting stakeholders' rationales and mental models

- The game made explicit divergent sectoral rationales; **cooperative, defensive, or protectionist behaviors**; and the tensions between climate ambition, fiscal discipline, and social justice.
- The role-playing exercise fostered a better understanding of the **constraints specific to each category of actor**.

FOCUS

THE VALUE OF POWERSHIFT: CLARIFYING THE TRANSITION TRADE-OFFS

Through the simulation sessions, participants identified several critical situations facing Colombia that, far from being unrealistic, were grounded in the country's realities:

- Oil crisis**: decline in government revenue due to depleting reserves;
- Currency crisis**: capital flight and trade imbalances;
- Unjust transition**: social tensions linked to the costs of the transition;
- Deforestation**: trade-offs between economic development and ecosystem protection.

These scenarios, which resulted from the players' decisions, highlighted the tensions between climate ambition, macroeconomic stability, and social justice—at the heart of the debate on the energy transition.

The conclusions of the evaluation



- **Creation of an innovative tool for scientific mediation and collective intelligence**, translating complex analyses (macro-financial dynamics) into a participatory format and making trade-offs between climate ambition, fiscal discipline, and social justice visible.
- **Collective validation of the game's conceptual model:** adequate representation of the Colombian ecosystem.
- **Strengthened positioning of AFD as a facilitator of multi-level dialogue** on just energy transition, through a safe space that encourages the expression and constructive exchange of stakeholders' perspectives.
- **Enhancement of participants' strategic knowledge and capabilities** (strategic analysis, networking among stakeholders).
- **Establishment of links and/or improvement** of inter-ministerial, cross-sectoral, and public-private interactions, as well as with civil society and the academic community (network effects and mobilization dynamics).
- **Interest expressed by several Colombian institutions in extending or adapting the tool** for other uses, particularly by aligning it with ongoing public policies, reflecting an emerging trend of institutional ownership.



- **A process demanding time and mobilization:**
 - Occasional difficulties in maintaining participant engagement during co-construction phases or extended workshops.
 - Risk of fatigue or competition with other institutional priorities regarding participation in the final workshops.
- **Constraints related to the game format:**
 - Partial exploration of scenarios, limited to two rounds per session due to the time required to learn the game.
 - Limited continuity between sessions, which restricts the analysis of cumulative effects and the in-depth exploration of strategic trade-offs.
 - In a time-limited game format, difficulty in moving from systemic understanding to the formulation of concrete operational solutions.
- **Long-term effects on public decision-making are difficult to document**, as the framework is primarily linked to the dialogue surrounding Colombia's Nationally Determined Contribution (NDC) and has no direct connection to an ongoing reform.
- **Relatively high costs associated with the pilot nature of the project**, particularly for game development, and the facilitation framework.
- **Risk of the tool being instrumentalized or losing its purpose** if deployed without qualified facilitation, underscoring the importance of skills transfer and local ownership.

A REALISTIC AND TRANSFORMATIVE EXPERIENCE FOR THE PARTICIPANTS

Learning, strategic analysis skills, collaboration, strengthening networks... The benefits of the game were numerous. Participants reported a better understanding of the effects of the energy transition on the economy and increased awareness of the associated challenges. The game also fostered a better understanding of the constraints specific to each category of stakeholders and helped develop a form of institutional empathy—a prerequisite for enhanced coordination.

“Interesting fact: the more you play, the more Colombia [a fictional country in the game] starts to look like Colombia.”

“PowerShift turned out to be much more than just a theoretical exercise: it was a dynamic learning experience.”

“The game is very realistic and reflects the real challenges of governance and decision-making.”

RECOMMENDATIONS

- **Continue using participatory tools** to structure multi-stakeholder dialogue on ecological transitions, when the conditions for stakeholder engagement and openness are met.
- **Identify and mobilize high-level institutional representatives** and ensure their regular participation to guarantee legitimacy, strategic impact, and ownership of the lessons learned.
- **Adapt the game to the regional level** where relevant, to strengthen local roots and, where appropriate, align regional dynamics with the national transition strategy.
- **Develop a “group play” format** (where each group explores a different future and plays multiple times within a limited timeframe) to help identify emerging anticipation strategies.
- **Align the framework with a specific sectoral public policy** to strengthen its transformative dimension and facilitate the integration of findings into formal institutional frameworks.
- **Integrate participatory tools prior to quantitative modeling work**, particularly to collectively select the scenarios to be tested and strengthen their legitimacy.
- **Train local facilitators** in collaboration with the institutional sphere to ensure the tool's long-term sustainability.



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