

The effect of peace processes and diplomacy on environmental security

Peace process and diplomacy interventions has harmful effect on environmental security, as it could accelerate deforestation and forest disturbance in protected areas.

Geographical Region: Latin America and Caribbean

Effect size: Harmful effect ($g=-0.008$)

Confidence in study findings: Low (2 studies with 4 effect sizes)

Short summary

Peace process and diplomacy interventions, such as Colombia's 2016 peace agreement with the Revolutionary Armed Forces of Colombia (FARC), have harmful effects on environmental security. While the agreement aimed to promote rural stability and reduce forest disturbance, it inadvertently accelerated deforestation and illegal land grabbing, particularly in protected areas. Success in improving environmental outcomes is mediated by enforcement capacity and governance.

Long summary

The intervention

Peace process interventions and diplomacy interventions, specifically Colombia's peace agreement with the Revolutionary Armed Forces of Colombia (FARC), aimed to stabilize rural areas through land redistribution, legal titling, and infrastructure development. These measures were intended to reduce conflict and foster sustainable land use, particularly in regions previously controlled by armed groups.

How the intervention is expected to affect this outcome

The intervention was expected to enhance deforestation and forest disturbance outcomes by reducing illegal land use, discouraging speculation, and promoting conservation practices. With formalized land ownership and rural development programs, areas previously protected by conflict-driven inaccessibility were anticipated to transition to regulated and sustainable land management.

The evidence base

The cell includes two non-experimental impact evaluation studies analyzing the environmental impacts of Colombia's peace agreement using geospatial data. Both studies examined protected areas and conflict-affected regions using satellite imagery and local interviews, focusing on deforestation and forest disturbance trends post-agreement.

Evidence findings

Peace agreements can have unintended consequences on environmental security. Clerici (2020) found a 177% increase in deforestation within protected areas and 158% in buffer zones, exacerbated by weak governance and enforcement. Murillo-Sandoval et al. (2020) highlighted a 50% surge in forest disturbance, driven by illegal land grabbing and speculative

activities in former FARC-controlled areas. These findings indicate that peace processes can undermine environmental security if there are no robust governance mechanisms to manage transitions effectively.

Included studies

Clerici (2020) analyzes the impact of Colombia's 2016 peace agreement with the Revolutionary Armed Forces of Colombia (FARC) on deforestation rates within and around Colombian protected areas (PAs). The peace deal ended five decades of armed conflict, which had indirectly protected some forested regions by limiting human access due to the presence of armed groups. Using high-resolution satellite data from the Global Forest Change dataset, the authors compared deforestation rates over two periods: three years before the peace agreement (2013–2015) and three years after (2016–2018). The analysis covered 39 Colombian protected areas and their surrounding 10-km buffer zones. The results indicate a statistically significant 177% increase in deforestation within protected areas after the peace agreement. In particular, deforestation surged in areas within the Amazon region previously under FARC influence, where the government's presence and enforcement were historically weak. Buffer zones surrounding the PAs also saw a 158% rise in forest loss, totaling an additional 686 km². The study also highlights those regions like the Serranía de la Macarena National Natural Park experienced the most significant deforestation increases. The study is rated medium confidence due to its partial description of the intervention and outcomes, and its non-experimental design.

Murillo-Sandoval et al. (2020) investigates the impact of Colombia's 2016 peace agreement on forest disturbance, focusing on the Andes-Amazon Transition Belt (AATB). The agreement ended decades of conflict between the Colombian government and the FARC, with the FARC's previous control acting as a form of enforced conservation. The agreement introduced reforms including land redistribution, legal land titling, and new road construction in former conflict zones. The study employed a mixed-methods approach, combining automated satellite disturbance detection from Landsat images (2010–2018) with ethnographic data. Satellite imagery was used to track changes in forest cover, with disturbance quantified across stages: wartime, negotiation, and post-peace (2017–2018). Ethnographic data from interviews (n=80) in Putumayo, including input from farmers, government officials, and community leaders, provided insights into local perceptions and land-use practices following FARC demobilization. After the peace agreement, forest disturbance surged by 50%, expanding into deeper Amazon areas. Protected areas, previously controlled by FARC, experienced notable increases in deforestation. The study also finds that the peace framework inadvertently accelerated land speculation and illegal land grabbing, particularly in protected areas. The study is rated low confidence due to the inadequate description of the outcomes.

Confidence assessment

Overall low: This cell is rated low as it only contains 2 studies.

Other outcomes in the study:

None