

Powering Resilience in Democratic Republic of Congo

Adapting to Climate Change and Protecting Forests in Mining Communities Driving the Transition to a Low Carbon Future

IMPACT's Powering Resilience project aims to increase the resilience of Democratic Republic of Congo's communities vulnerable to the impacts of mining, particularly critical minerals that are vital for the green transition. The project will enhance the local populations' capacity to restore and safeguard their ecosystems, such as tropical forests and woodlands. It will center women's leadership and promote Indigenous knowledge as part of efforts to support communities to adapt to the adverse effects of climate change. This four-year, SEK 80 million (\$7.6 million USD) project is funded by Sweden.

What is the Link Between Mining and Climate Change?

Critical Minerals Needed for the Green Transition

The mineral wealth found in Africa's Great Lakes region plays a vital role in global efforts to reduce our collective carbon footprint. The DRC boasts abundant mineral resources, including tin, tungsten, tantalum, gold, copper, and cobalt, which are essential for manufacturing "carbon-friendly" technologies like electric batteries or wind turbines. To support the transition to a carbon-neutral economy, the International Energy Agency predicts that meeting the goals of the Paris Agreement will require an increase of at least 400% in the production of critical minerals by 2040.¹

DRC holds over 50% of the world's known reserves of these critical minerals. It currently produces approximately 70% of the world's cobalt²—20% which is extracted by artisanal miners,³ primarily in Lualaba and



Haut-Katanga provinces. DRC assumes a pivotal role in the global ecological transition, leading to a continuous surge in demand for minerals like cobalt, which is expected to increase 25-fold over the next 20 years.⁴

Mining Driving Deforestation and Soil Degradation

Almost 70 percent of DRC's land is covered by forests—around 152 million hectares.⁵ The Congo Basin tropical forest (in DRC's north—including Ituri and Tshopo provinces) is the second-largest rainforest in the world and is estimated to contain 25-30 billion tonnes of carbon. It has the largest carbon stock in Africa and the fourth largest forest carbon reservoir in the world.⁶ The Miombo woodlands (in DRC's southeast—in Haut Katanga and Lualaba provinces) are a vast region of tropical grasslands, savannahs, and shrublands.

However, deforestation is a significant risk for DRC. In 2022 alone, DRC lost more than half a million hectares of forests—accounting for 13 percent of global deforestation.⁷ At the current rate, DRC's primary forests could be completely razed by 2100.⁸ While not the only cause of deforestation—mining continues to be a serious threat.

For a long time, the Congo Basin tropical forest has been “passively” protected due to factors such as low population density, political instability, lack of infrastructure, and high risks for private investors. However, the loss of intact forests in Central Africa has significantly intensified over the past five years and in 2021 alone, the Congo Basin saw deforestation increase by 5 percent.⁹ If deforestation and forest degradation continue unabated, approximately 27 percent of undisturbed rainforests in the Congo Basin that existed in 2020 will disappear by 2050.¹⁰

In the southeastern part of the country, mining has already shaped the landscape. The environment has become dry and dusty from decades of mining and there are not many trees. There are few small gardens or agricultural plots which could supplement the local communities' food supply or income as in other parts of the country.



- 1 International Energy Agency, The Role of Critical Minerals in Clean Energy Transitions, May 2021, <https://www.iea.org/reports/the-role-of-critical-minerals-in-clean-energy-transitions/>.
- 2 Cobalt: Powering the Green Economy, Cobalt Institute, 2023, https://www.cobaltinstitute.org/wp-content/uploads/2023/02/cobalt_institute_fact_sheet_2023.pdf.
- 3 Emmanuel Umpala et al., Islands of Responsibility? Corporate sourcing of artisanal cobalt in the Democratic Republic of Congo, IIED, September 2021, <https://www.iied.org/sites/default/files/pdfs/2021-09/20436iied.pdf>.
- 4 International Energy Agency, 2021.
- 5 EUREDD Facility, Democratic Republic of Congo, accessed January 17, 2024, <https://euredd.efi.int/countries/democratic-republic-congo/>.
- 6 World Wildlife Fund, Congo Basin Forests, https://wwfeu.awsassets.panda.org/downloads/congo_forest_cc_final_13nov07.pdf.
- 7 Global Forest Watch, Tropical Primary Forest Loss Worsened in 2022, Despite International Commitments to End Deforestation, June 2023, <https://www.globalforestwatch.org/blog/data-and-research/global-tree-cover-loss-data-2022/>.
- 8 Central Africa Regional Program for the Environment, Small Holder Clearing Drives Forest Loss in the Congo Basin, November 2018, <https://carpe.umd.edu/news/small-holder-clearing-drives-forest-loss-congo-basin>.
- 9 Reuters, The Next Amazing? Congo Basin faces rising deforestation threat, November 2022, <https://www.reuters.com/business/cop/next-amazon-congo-basin-faces-rising-deforestation-threat-2022-11-11/>.
- 10 Forests News, Over a quarter of Congo Basin forests at risk of vanishing by 2050, November 2022, <https://forestsnews.cifor.org/79903/over-a-quarter-of-congo-basin-forests-at-risk-of-vanishing-by-2050?fnl=>.

Theory of Change

Local populations will become more resilient to climate change and its repercussions on soil health, access to clean water, and other ecosystem services that forest-dependent communities rely on.

Local populations are empowered to protect and restore woodlands and forests affected by mining activities, to ensure human well-being and biodiversity improvement.



Local populations have access to new revenue streams derived mainly from natural resources.



All stakeholders participate in efforts to make decision-making and policy mechanisms related to the protection and restoration of ecosystems more inclusive, transparent, accessible and coordinated.



Key Activities in the Powering Resilience Project:

1 Improve the restoration and protection of forest ecosystems by DRC communities affected by mining and vulnerable to climate change



By strengthening the knowledge and technical capacity of local stakeholders—specifically women and Indigenous Peoples—communities will be able to implement actions to restore and protect degraded forests and woodlands through an Ecosystem-based Adaptation (EbA) approach. All proposed EbA solutions will be based upon analysis and developed together with communities through participatory governance mechanisms. Communities will be incentivized to further carry out ecosystem restoration and protection, through the valuation of ecosystem services such as food or wood, creating new economic opportunities and replacing those currently threatened by climate change.

2 Improve ecosystem governance in DRC's forest-dependent and mining-affected communities



The resilience of communities in the context of climate change depends largely on the governance of local ecosystems. Their inclusive governance—including giving voice to women, youth, and Indigenous Peoples in decision making—is essential. The project aims to strengthen and support community mechanisms, as well as aims to support Indigenous and gender representation within government structures. Capacity building for women, youth and Indigenous Peoples will strengthen leadership skills, and conflict mediation will ensure communication actions towards ecosystem restoration and safeguarding are more sustainable.

3 Improve consideration of community interests in plans and strategies which protect ecosystems and biodiversity, or critical mineral production in DRC



To help draw the link between ecosystem management and mining, the project will hold participatory, consultative workshops with community members, women, youth, and Indigenous Peoples. These consultations will develop and review strategies for ecosystem governance at all levels, as well as support communities to create and disseminate recommendations integrating their interests.

Regions of Intervention

In northeast Ituri and Tshopo provinces:

Planned project sites are in Banalia territory in Tshopo Province, as well as Mambasa territory in Ituri Province. These are artisanal gold and diamond mining communities. The ecosystems in these communities are tropical rainforests, part of the Congo Basin tropical forest.

In southeast Haut-Katanga and Lualaba provinces:

Planned project sites include Mutshatsha territory in Lualaba Province and Kambove territory in Haut-Katanga Province. This is a region known for large-scale and artisanal cobalt and copper mining. The ecosystem is a dry forest and savannah (also known as woodlands), part of the Miombo woodlands.



Logic Model Summary

Ultimate outcome: Improved resilience of climate-vulnerable communities through increased restoration and protection of mining-degraded forests and woodlands in DRC.



RESTORATION AND PROTECTION

OUTCOMES

- Increased knowledge and technical capacity to restore mining-degraded forests and woodlands
- Implementation of EbA solutions and protection or restoration of biodiversity affected by mining activities
- Increased valuation of ecosystem-based services harnessed from forests and woodlands

ACTIVITIES

- Assessments on biodiversity, impact of climate change, and local knowledge
- Research on Indigenous knowledge
- Community consultations
- Knowledge building
- Technical capacity building
- EbA activities: reforestation, agroforestry, watershed protection
- Community forestry
- Nature-based income-generating activities



COMMUNITY-BASED ECOSYSTEM GOVERNANCE

- More inclusive and transparent ecosystem management and adaptation governance mechanisms
- Greater, more equitable participation of women, youth, and Indigenous peoples in ecosystem management

- Gender and conflict analysis
- Building leadership and conflict mediation skills
- Inclusive local governance mechanisms
- Community dialogues
- Community action plan
- Inclusive governance strategy
- Monitoring and warning system
- Follow-up and reporting on community action plans



COMMUNITY INTERESTS IN PLANS AND STRATEGIES

- Recognition of community-based structures as interlocutors in the governance of biodiversity, threatened by the mining of critical minerals
- Strengthening networking on issues of ecosystem protection and restoration and management of critical minerals extraction

- Strengthening relationships with networks and civil society
- Identifying and compiling of experiences
- Sharing of knowledge and experiences
- Analysis of policies and strategies
- Recommendations for policies and strategies
- Community outreach to share research and outcomes of activities



What is Ecosystem-based Adaption:

Ecosystem-based adaption (EbA) approaches focus on ecosystem and biodiversity restoration and protection, as part of a strategy to help communities adapt to the negative impacts of climate change. EbA is a nature-based solution that integrates a holistic approach to address climate change. For example, protecting communities from extreme weather or contributing to climate change mitigation by reducing emissions that occur from ecosystem degradation.

Some examples of EbA solutions that contribute to the fight against climate change include:



tree planting to re-establish biodiversity and protect soil from erosion by absorbing CO² during photosynthesis



reintroducing native vegetation to mine site areas and create opportunities for carbon storage



establishing women-run community gardens and nurseries to promote local biodiversity, provide food, and generate income



strengthening existing early warning systems or establishing new alert mechanisms to enable communities to respond to extreme weather events quickly



promote agroforestry techniques adapted to community needs, emphasizing crop diversification, water conservation, and soil regeneration.



About the Implementing Partners

IMPACT transforms how natural resources are managed in areas where security and human rights are at risk. We investigate and develop approaches for natural resources to improve security, development, and equality. We are an independent non-profit, collaborating with local partners for lasting change. IMPACT has worked in DRC and neighbouring countries for more than a decade with multiple projects supporting responsible supply chains and transparency in the artisanal gold and cobalt sectors.

IMPACT is implementing the project in collaboration with the following partners in Haut Katanga and Lualaba Provinces:

Action pour le Développement et la Gestion des Ressources Naturelles (ADGRN) is a Congolese NGO established in 2010 whose work is based on human dignity. ADGRN's activities focus on civic education, agroforestry, and land issues. It has a wide range of stakeholders such as farming communities, Indigenous Peoples, rural and women leaders, civil society, political parties, trade unions, policymakers, and the private sector.

Protection des Écorégions de Miombo au Congo (PREMI-Congo) is an environmental NGO established in 2002 and active in the mining sector since 2005, specializing in the Miombo woodlands located in DRC. It works on community forestry and defending the rights of local communities and Indigenous Pygmy Peoples, creating maps of the regions affected by industrial mining activities.

IMPACT is implementing the project in collaboration with the following partners in Tshopo and Ituri Provinces:

Organisation Congolaise des Écologistes et Amis de la Nature (OCEAN) is a Congolese NGO dedicated to placing local communities and Indigenous Peoples at the forefront of ecosystem preservation and resource management for over 28 years. Their vision is to contribute to the maintenance and restoration of ecological balance in natural ecosystems while promoting socio-economic development by safeguarding the rights and interests of local communities and Indigenous Peoples. The organization possesses technical expertise in a wide range of areas including environmental management, forestry, conservation, implementation of activities related to REDD+ and climate change, participatory mapping, security, human rights, the mining sector, and Indigenous Peoples.

Programme d'Appui aux Populations forestières en République Démocratique du Congo, Les Pygmées Aussi (PAP-RDC) is a Congolese organization established in 2002. It supports vulnerable forest-dependent populations, particularly Indigenous Pygmy Peoples. PAP has experience in ecosystem protection measures, agroforestry, and support to communities whose ecosystems are threatened by mining. Additionally, PAP works on strengthening human rights, including monitoring human rights violations against Indigenous Peoples, advocacy, and supporting women's and Indigenous Peoples' leadership.

Solidarité Féminine pour la Paix et le Développement Intégral (SOFEPADI) is a national organization that advocates for women's rights. It was established in 2000 in Bunia as part of the community radio station CANDIP/ISP Bunia, to promote and defend women and children's rights, as well as to involve women in the province's peace process. SOFEPADI brings extensive experience in promoting gender equality and women's leadership, conducting peace education and peaceful conflict resolution initiatives, advocating for women's political representation, championing women's socio-economic rights and driving advocacy initiatives.

Tropenbos DRC has been active in the country since 2010. It is part of the international Tropenbos network. Tropenbos' mission is to improve the governance and management of tropical forests for the benefit of people, biodiversity, and sustainable development. Their area of expertise includes forest and natural resource governance, community forestry, and improving the livelihoods of local communities.



IMPACT transforms how natural resources are managed in areas where security and human rights are at risk. We investigate and develop approaches for natural resources to improve security, development, and equality. We are an independent non-profit, collaborating with local partners for lasting change. IMPACT is headquartered in Canada and has offices in Democratic Republic of Congo, Uganda, and Côte d'Ivoire, as well as projects in Burkina Faso, Burundi, Mali, and Zimbabwe.

Photos by:

Artisanal cobalt mines between Kolwezi and Lubumbashi: Federico Scoppa/Getty Images: Page 5 (3 from the left); Sebastien Meyer/Getty Images: Page 1.
Artisanal gold mines in Ituri Province: Sven Torfinn/IMPACT: Page 2, 5, 6.

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