



Meeting of the CTF Trust Fund Committees

Washington D.C. (Hybrid)

Wednesday, February 1, 2023

Revised options paper to support non-IP countries under ACT Investment Program



CLIMATE INVESTMENT FUNDS
1818 H Street NW
Washington, D.C. 20433 USA
T: +1 (202) 458-1801
climateinvestmentfunds.org

CTF/TFC.29/05
January 20, 2023

PROPOSED DECISION

Table of Contents

1	Background	3
2	Proposed options	4
3	Readiness assessment of potential countries.....	6
1.	North Macedonia	6
2.	Morocco	9
3.	Bosnia & Herzegovina	12
4.	Namibia	15
5.	Dominican Republic	19
6.	Botswana.....	25
7.	Colombia	28
4	Readiness of remaining countries for technical assistance	30

1 Background

1. In 2021, the CIF Administrative Unit (AU) invited countries to submit Expressions of Interest (Eols) to be supported through the Accelerating Coal Transition (ACT) Investment Program. Out of the 14 countries that submitted their proposals, an Independent Expert Group (IEG) assessed and ranked the Eols based on several considerations. Following this, the Trust Fund Committee (TFC) of CIF's Clean Technology Fund (CTF) invited four countries to prepare investment plans to be submitted for review and endorsement, namely, India, Indonesia, the Philippines, and South Africa. The indicative allocations for each country were to range from USD 200–500 million based on final assessments during the investment plan preparation. The CTF Trust Fund Committee also acknowledged the IEG recommendation to potentially support all countries that had submitted EOI (see Table 1).

Table 1: ACT Investment Program Eol rankings

Country	South Africa	India	North Macedonia	Morocco	Philippines	Indonesia	Bosnia and Herzegovina	Namibia	Dominican Republic	Botswana	Colombia	Bangladesh	Ukraine	Kazakhstan
Score	88	85	83	83	83	82	80	78	76	75	74	71	71	69

2. The CIF Administrative Unit was thus requested to prepare a proposal on appropriate modalities that could provide this support in collaboration with the partner MDBs. Accordingly, the CIF AU submitted a [proposal](#) covering the following three options to the CTF TFC for consideration: 1) Technical Assistance, 2) Private Sector Window, and 3) Investment Plan.
3. Subsequently, the CTF Trust Fund Committee, at its meeting in June 2022, reviewed the document, "*Options to support additional countries to access funding under ACT,*" and made the following requests:
4. The Trust Fund Committee requests the Implementing Entities to make an assessment, following confirmation of expected funding, of readiness and funding envelopes for individual countries who submitted an Expression of Interest to be supported through the ACT Investment Program, but were not selected for the first phase of Investment Program support in October 2021. The assessment should make recommendations as to potential needs for Technical Assistance (Option 1) and/or Investment Plan support (Option 3). The Trust Fund Committee agrees that geographical distribution and country readiness will be considered as criteria in allocating funding.
5. The Trust Fund Committee requests the CIF Administrative Unit to engage with Implementing Entities and Trust Fund Committee members in exploring a Just Transition policy, approach and/or strategy for the CTF.

6. The Trust Fund Committee notes the interest expressed by some members in supporting a Private Sector Window (Option 2) and agrees to consider that option at a later stage.
7. According to the most recent estimates, and assuming all four countries request and receive USD 500m in allocation as part of their investment plan (IP), it is expected that there will be **roughly USD 235 million in remaining resources** that could be considered for supporting the remaining countries. (Note: This figure will likely change given the exchange rate changes.)
8. Based on the funding expected to be available, the following proposal presents an assessment of readiness and funding envelopes for individual countries who submitted an EOI but were not selected for the first phase (see Table 2). It makes recommendations on the potential needs for technical assistance and/or investment plan support. In addition, this proposal also suggests a Pilot Action Window, which could be used to support stand-alone projects.

2 Proposed options

Investment plan window

9. Under this option, a select number of additional countries could be offered IP support commensurate to similar considerations, like country ambition, readiness, potential for transformational change, among others, and an amount allocated based on a needs assessment. Based on preliminary discussions with the MDBs, there seems to be a preference for this option.
 - *Funding envelope:* Approximately **USD 50–150 million** for each IP for three to four countries, with individual country allocations to be determined based on assessments made at the time of IP preparation.
 - *Readiness of non-IP countries:* See Section 3.

Pilot action window

10. Countries at the early stages of coal phaseout or those with few coal assets belonging to either public or private sectors, may be available for piloting approaches for coal transition. For these, a dedicated window could be used to support stand-alone projects (like CTF's Dedicated Private Sector Program) for non-IP countries.
11. Under this window, projects must be consistent with the key considerations, criteria, and the mandate of the ACT program, including those around just transition and enabling significant co-financing from various sources. It would demonstrate proof of concepts at lower transaction costs due to the smaller size of the projects.
 - *Funding envelope:* Approximately **USD 50–75 million** in total
 - *Readiness of non-IP countries:* There is a potential pipeline of stand-alone projects in countries like Morocco, Dominican Republic, Kazakhstan, and others.

Technical assistance window

12. This support could help countries define coal phaseout plans, dates, and mechanisms; develop decarbonization and just transition strategies, planning tools, and pathways, among other things, and identify the first set of specific actions in that direction. The outputs of these efforts could also complement upcoming similar MDB programs targeting global coal phasedown. Funding may also be used to design and assess, potentially through a joint MDB workstream, the feasibility of innovative approaches for implementing multi-country coal phaseout strategies and investment mechanisms. These findings could ease the coordination approach between MDBs and regional stakeholders, support effective mitigation of local coal transition challenges and lay the foundations for regional roadmaps, allowing the sharing of best practices and encouraging South-South cooperation. The CIF AU will work with the MDBs to ensure coordination with relevant programs that may arise from these efforts.
13. Part of the funding under this window could also include support to develop and pilot tools through a CIF-led call for proposals process. This would help countries currently not selected for ACT IP support to strengthen their capacities and increase their level of preparedness for the next phase of programming, including for an investment plan, should additional resources be made available in the future.
 - *Funding envelopes:* Approximately **USD 20 million** in total available to all non-IP countries to support policy development, analysis, capacity building, and transaction enablers, like innovative business models and instruments, knowledge, and learning, among others.
 - *Readiness of non-IP countries:* See Section 4 which provides further details on readiness and indicative funding needs in selective target countries.

Table 2: Summary of country readiness for non-IP countries

Eol rank	Ranking points	Country	Indicative funding (USD)
3	83	North Macedonia	ACT: 160 million <i>140m loan, 20m grants</i>
4	83	Morocco	ACT: 150 million <i>130m loan, 20m grants</i>
7	80	Bosnia & Herzegovina	ACT 45 million <i>40m loan, 5m grants</i>
8	78	Namibia	ACT: 55 million <i>50m loan, 5m for TA</i>
9	76	Dominican Republic	ACT: 150m <i>140m loan, 10m grant</i>
10	75	Botswana	ACT: 55 million <i>50m loan, 5m for TA</i>
11	74	Colombia	ACT: 20 million <i>19m loan, 1m grant</i>
TOTAL			ACT: 635 million <i>Loan: 569 million</i> <i>Grant: 66 million</i>

3 Readiness assessment of potential countries

1. North Macedonia

Country	North Macedonia
Eol ranking	No. 3 (83 points)
Indicative funding need	CIF ACT: USD 160 million <i>USD 140 million loan, USD 20 million grants</i>
Brief description and justification for funding	<p>North Macedonia has set a NDC target of net 82% GHG emissions reduction by 2030 compared to 1990 levels. In 2021, 39.5% of the country's electricity was generated from coal, supplied by two power plants - 125MW TPP Oslomej and 639MW TPP Bitola. North Macedonia is a net electricity importer (circa 2 TWh p/a). Despite the energy crisis, the country has recently reinforced its commitment to phase out coal by 2027 (Oslomej – 2023, Bitola – 2027) via the draft National Energy and Climate Plan and by joining the Powering Past Coal Alliance (PPCA). The European Union Delegation (EUD) and EBRD are supporting the Government in the development of the territorial just transition diagnostic and action plan (JTD) to ensure that the transition benefits are shared, and to support vulnerable regions, communities, and workers from falling behind.</p> <p>Despite the country commitments, the transition out of coal cannot be implemented in North Macedonia without strong and sufficient support from MDBs and the donor community. CIF ACT support is therefore critical to enable the decommissioning of the country's entire 764MW coal-fired capacity through: (a) enabling the decommissioning/reconversion of power plants and storage solutions on former mine sites, (b) supporting land repurposing to deploy solar PV on site of the former mines, (c) socio-economic support for 3,678 directly (and similar number of indirectly) affected coal powerplant and mineworkers. MDBs, government and private sector, will also contribute to these objectives, as well as to cost competitive RE investments as per the table below, as well as regional economic diversification through SME and infrastructure investments in the affected territories. This support would be complementary to the significant efforts to increase energy efficiency in the country through the Regional Energy Efficiency Programme being delivered by EBRD and partners.</p> <p>Support to North Macedonia would have spill over effects in the Western Balkans (Bosnia and Herzegovina, Serbia, Montenegro) and beyond through: (a) signalling that there is international support for countries with strong decarbonisation commitment, and (b) demonstrating how a comprehensive just transition programme, leading to country-wide coal phaseout, could be deployed.</p>
Use of proceeds	<p>USD 160 mln investment plan from CIF ACT would comprise of the following components, which require grant support/concessional debt:</p> <p><u>Component A: Decommissioning</u> of 125MW TPP Oslomej and 2 units (426MW) of TPP Bitola, and potential reconversion of additional 1 unit (213MW) of TPP Bitola</p>

(e.g., storage or concentrated solar), including feasibility study, as well as storage solutions on sites of former mines.

Component B: Land remediation and repurposing to prepare for deployment of up to 400 MW solar PV on site of the former coal mines, which would facilitate new green jobs for coal miners, affected by transition. The solar PV investment, and other RE investments ahead of 2030 will come primarily from MDBs and private sector and will not require concessional finance.

Component C: Investments into transmission and distribution infrastructure to facilitate capacity replacement by 2.2 GW RE by 2030, ensure reliability of supply and avoid network losses (16% in 2019). *This is a critical component, not expected to be supported by CIF ACT, co-financing details from IFIs are shared below to highlight the scale and contributions.*

Component D: Socioeconomic impact mitigation based on JT action plan, including workforce management (e.g., reskilling/early retirement) and economic diversification in the affected areas.

Approximate breakdown (USD million)

IP Components	ACT			MDBs			Others (country, private sector etc)	TOTAL
	Loan	Grant	ACT - Total	Loan	Grant (1)	MDBs - Total		
Component A: Decommissioning and reversion (incl. storage) of coal-fired TPPs and storage solutions on former mines (2)	138	18	156	140	10	150	100	406
Component B: RE investments (3)	2		2	1115		1115	924	2041
Component C: supporting (RE) capacity replacement investments - transmission and distribution (4)				309	0	309	150	459
Component D: Socioeconomic impact mitigation (5)		2	2	20	3	23	50	75
TOTAL	140	20	160	1584	13	1597	1224	2981

(1) MDB grant - grants channelled via MDBs, incl. other donors; (2) Total capacity – 764MW. Cost of decommissioning for 551MW (1xOslomej, and 2xunits of Bitola) is \$110.2mIn, based on estimate of \$0.2m/MW from WB study:

<https://ieeexplore.ieee.org/document/9448134>; reversion assumption for 213MW Bitola unit - \$205m will be confirmed after feasibility study depending on selected option. Component also includes ≈\$91mIn in concessional finance for storage and batteries on sites of former powerplants and mines. (3) \$2m in concessional finance is requested from ACT will be used for coal mine land remediation and repurposing to support 400MW of solar PV on site of the mine. Actual RE investments in solar, wind and hydro are not expected to have capex grants/concessional support and are based on NECP projections of 2.2GW RE by 2030. ; (4) Includes \$46mIn for network investments in the Action Plan for Power Grid Strengthening for RE till 2025, \$17 mIn for IT, as well as monitoring and control systems, , and ≈\$427mIn for transmission & distribution investments for 2025-2030 based on PRIMES modelling. (5) Includes strategic workforce management plan, supporting worker retraining & re-skilling and investments for regional economic diversification based on JT Action plan in affected regions. Where necessary, early retirement packages will be supported by the Government.

Stakeholder engagement	<p>The EBRD, and European Union Delegation are working closely with the Deputy Minister for Economic Affairs as the main counterpart for the JTD, and the Project Working Group, which includes key ministries – Economy, Finance, Environment and Physical Planning, Labor and Social Policy; local municipalities, generation company - Elektrani na Severna Makedonija (ESM), labour union and NGOs. The assignment also included mission trips and interviews with key stakeholders. One of the assignment outputs is a proposal on governance arrangements to support just transition and enable firm capacity and ancillary power sources.</p> <p>In addition, EBRD is supporting ESM in (a) the development of their company-level decarbonisation plan including Just Transition considerations for workforce management; (b) re-skilling of workers for green opportunities, and (c) 140MW of solar PV capacity investments in the affected regions.</p>
Indicative timeline	<p>Decommissioning: Oslomej – 2023, Bitola - 2027</p> <p>Programme implementation: 2023-2028</p>
Potential GHG savings	1,721,455 tCO ₂ e, based on NDC 66% emissions reduction for energy sector (6,321 Gg CO ₂ -eq)

2. Morocco

Country	Morocco
Eol ranking	No. 4 (83 points)
Indicative funding need	CIF ACT: USD 150 million <i>USD 130 million concessional debt, USD 20 million grants</i>
Funding justification	<p>Morocco's NDC aims to reduce GHG emissions by 18.3 percent below business as usual (BAU) by 2030. With sufficient international support this target can be further strengthened to 45.5 percent. In 2021, 67.6 percent of the country's electricity was generated by coal-fired thermal power plants. The Office National de l'Electricité et de l'Eau Potable (ONEE) owns 16 percent of the coal-fired installed capacity. The remaining newer and more efficient capacity is privately owned by Independent Power Producers (IPPs), which have long-term public-private agreements (PPAs) with ONEE from 2044–2048.</p> <p>Morocco's revised National Energy Strategy (NES) has set a clear direction for accelerating the transition away from coal, with the objective of increasing the share of renewables to more than 64 percent by 2030 compared to the current 37 percent. In addition, Morocco signed the Global Coal to Clean Power Transition Statement at COP26, committing to no new coal power plant permits. CIF ACT support is critical to kick-start the transition through the following:</p> <ul style="list-style-type: none"> • Enabling the earlier decommissioning or reconversion of ONEE's coal-fired capacity, leading to significant GHG reductions • Supporting storage solutions to scale up intermittent renewables on coal TPP sites • Providing technical assistance to analyze models for replicating lessons learned for decommissioning to private sector IPPs <p>MDBs and donors would further facilitate a just energy transition through investments in renewables, as well as re-skilling and redeployment support for around 900 workers affected by the transition and supporting infrastructure and other investments toward regional economic diversification. Support to Morocco would accelerate the decommissioning timeline for state-owned coal capacity and enable integration of renewables. It would also demonstrate asset reconversion/repurposing and just transition models to privately-owned capacities, and showcase transition potential for coal-importing countries.</p>
Use of proceeds	<p>A CIF ACT investment plan of USD 150 million would comprise the following components, which require grant support/concessional debt:</p> <p><u>Component A: Potential decommissioning</u> of ONEE's coal-fired power generation capacity, as well as storage solutions on sites of former coal plants</p>

	<p>Component B: No CIF ACT financing requested. Parallel investments for 6.2 GW of renewable energy are expected from MDBs and the private sector in line with Morocco’s NDC.</p> <p>Component C: Investments into transmission and distribution infrastructure to facilitate capacity replacement and integration of 6.2 GW of renewable energy by 2030, ensuring reliability of supply and avoiding network losses. This is a critical component, not expected to be supported by CIF ACT (see breakdown table for co-financing details from IFIs are shared below to highlighting scale and contributions).</p> <p>Component D: Socioeconomic impact mitigation, including workforce management (e.g., re-skilling or early retirement)</p> <p>Component E: Technical assistance to support the early preparedness and exploration of private sector decommissioning models, as a potential scale up from ONEE decommissioning experience</p> <p>Approximate breakdown (USD million)</p> <table><tr><th rowspan="2">IP Components</th><th colspan="3">ACT</th><th colspan="3">MDBs</th><th>Others</th><th rowspan="2">TOTAL</th></tr><tr><th>Loan</th><th>Grant</th><th>ACT - Total</th><th>Loan</th><th>Grant (1)</th><th>MDBs - Total</th><th>(country, private sector etc)</th></tr><tr><td>Component A: Decommissioning and reversion (including storage) of coal-fired TPPs (2)</td><td>128.00</td><td>20.0</td><td>148</td><td></td><td>30</td><td>30.00</td><td>50.00</td><td>228</td></tr><tr><td>Component B: RE investments (3)</td><td>-</td><td>-</td><td>-</td><td>8,056</td><td>-</td><td>8,056</td><td>1,124</td><td>9,180</td></tr><tr><td>Component C: supporting (RE) capacity-replacement investments - transmission, distribution and storage (4)</td><td></td><td></td><td>-</td><td>2,252</td><td></td><td>2,252</td><td>1,545</td><td>3,797</td></tr><tr><td>Component D: Socioeconomic impact mitigation (5)</td><td>2.00</td><td></td><td>2</td><td>18.5</td><td>1.2</td><td>19.7</td><td>4.00</td><td>25.70</td></tr><tr><td>Component E : Analysis of model options for decommissioning / reversion of privately owned TPPs (6)</td><td></td><td></td><td>-</td><td>TBD</td><td>TBD</td><td>TBD</td><td>TBD</td><td>TBD</td></tr><tr><td>TOTAL</td><td>130.0</td><td>20.0</td><td>150.0</td><td>10,327</td><td>31</td><td>10,358</td><td>2,723</td><td>13,231</td></tr></table> <p>Notes:</p> <p>(1) MDB grant: grants channelled via MDBs, including other donors</p> <p>(2) Total capacity: 650 MW. Cost of decommissioning is USD 100 million, based on estimate of USD 0.15 million/MW. Additional USD 128 million are a high-level estimate for storage/repurposing solutions on former TPP sites.</p> <p>(3) Based on the 2021 updated NDC for unconditional and conditional investment in electricity generation. This scenario assumes the development of 2,180 MW wind capacity and 4,000 MW solar capacity.</p> <p>(4) Includes strategic workforce management plan, supporting worker retraining and re-skilling (assumption: 20% of decommissioning costs in line with World Bank Group study. Where necessary, early retirement packages could be supported by the Government.</p> <p>(5) MDB and private sector support will depend on the final structure approved by the government for early decommissioning of private TPPs.</p>	IP Components	ACT			MDBs			Others	TOTAL	Loan	Grant	ACT - Total	Loan	Grant (1)	MDBs - Total	(country, private sector etc)	Component A: Decommissioning and reversion (including storage) of coal-fired TPPs (2)	128.00	20.0	148		30	30.00	50.00	228	Component B: RE investments (3)	-	-	-	8,056	-	8,056	1,124	9,180	Component C: supporting (RE) capacity-replacement investments - transmission, distribution and storage (4)			-	2,252		2,252	1,545	3,797	Component D: Socioeconomic impact mitigation (5)	2.00		2	18.5	1.2	19.7	4.00	25.70	Component E : Analysis of model options for decommissioning / reversion of privately owned TPPs (6)			-	TBD	TBD	TBD	TBD	TBD	TOTAL	130.0	20.0	150.0	10,327	31	10,358	2,723	13,231
IP Components	ACT			MDBs			Others	TOTAL																																																															
	Loan	Grant	ACT - Total	Loan	Grant (1)	MDBs - Total	(country, private sector etc)																																																																
Component A: Decommissioning and reversion (including storage) of coal-fired TPPs (2)	128.00	20.0	148		30	30.00	50.00	228																																																															
Component B: RE investments (3)	-	-	-	8,056	-	8,056	1,124	9,180																																																															
Component C: supporting (RE) capacity-replacement investments - transmission, distribution and storage (4)			-	2,252		2,252	1,545	3,797																																																															
Component D: Socioeconomic impact mitigation (5)	2.00		2	18.5	1.2	19.7	4.00	25.70																																																															
Component E : Analysis of model options for decommissioning / reversion of privately owned TPPs (6)			-	TBD	TBD	TBD	TBD	TBD																																																															
TOTAL	130.0	20.0	150.0	10,327	31	10,358	2,723	13,231																																																															
Stakeholder engagement	The country has already taken the first step toward reducing coal-based electricity generation and has cancelled the planned development of the 1,320-MW Nador coal power plant. Morocco intends to go beyond cancelling new coal generation to explore early retirement of existing coal fired power plants. As a first step, the Ministry of Energy Transition and Sustainable Development is willing to explore the early retirement of coal-fired power plants owned by ONEE. This is supported by EBRD’s ongoing discussions on potential scenarios with ONEE. It is important to consider the country’s coal decommissioning plans in the context of the current energy crisis and associated price																																																																						

	hike in global gas prices, as well as the closure of the Gazoduc Maghreb Europe (GME) pipeline, which is limiting gas supply options to Morocco.
Indicative timeline	Decommissioning of two power plants by 2030, subject to ONEE and Government approval.
Potential GHG savings	Early retirement and closure by 2030 of the coal power plants owned and operated by ONEE would bring very significant GHG savings to the country.

3. Bosnia & Herzegovina

Country	Bosnia and Herzegovina (BiH)
EoI ranking	No. 7 (80 points)
Indicative funding need	CIF ACT: USD 45 million <i>USD 40 million loan, USD 5 million grants</i>
Funding justification	<p>BiH has taken various steps to address climate change. In 2020, with the signing of the Sofia Declaration, BiH agreed to align with the European Union's Green Agenda and pledged to reduce CO2 emissions and work toward the 2050 target of a carbon-neutral continent. In April 2021, the UN Climate Change Secretariat published BiH's updated NDCs, calling for a reduction of emissions in the country by over one-third by 2030 and almost two-thirds by 2050 compared to emission levels in 1990. An Environmental Strategy and Action Plan 2030+ is under development, which will provide strategic goals and feasible actions on air quality, climate, and energy. BiH is also developing its National Energy and Climate Plan (NECP), a strategic document that will help pave the way for a full decarbonization of the country by 2050.</p> <p>Energy production contributes to over 60 percent of GHG emissions in BiH, with CO2 emissions of 7.1 metric tons per capita. Coal dependence is such that, in 2020, a total of 68 percent of electricity in BiH was produced by five operational coal-fired thermal power plants. BiH has 11 active coal mines, producing about 14.3 million metric tons of coal annually, almost exclusively used to fire the five coal plants. To maintain its energy security and achieve its 2050 decarbonization goal, BiH urgently needs to expand lower carbon energy alternatives, including utility-scale hydropower, a major shift to solar, and wind, and prioritize the support for a Just Transition in coal regions.</p> <p>Early preparations for BiH's transition away from coal started in 2020 with the development of a Road Map for Just Transition in Coal Regions of BiH. This analytic work was performed by a 12-person team within the World Bank global practices of Energy and Extractives and Social Protection and Jobs. Dissemination of the Road Map in BiH is set for December 2022.</p> <p>The Roadmap provides a clear pathway for piloting approaches to a Just Transition in select BiH coal regions. The World Bank is using these findings to work with the two entities and their utilities, as well as the Banovici mine, to define a set of just transition activities for each site. The proposed lending operation (for which CIF ACT financing is being sought to complement) will look at : (i) land repurposing, (ii) support in labour transition, and (iii) development of governing systems and stakeholder engagement across three coal mines and associated thermal plants in both entities of BiH.</p> <p>CIF ACT resources would specifically allow an expansion of activities to a fourth site in the Republika Srpska side, specifically Ughlevik.</p>

Use of proceeds	The USD 110 million lending operation (see table below) includes the following components across four coal mines and associated plants:																																		
	Component 1: Land repurposing , including baseline assessment and spatial planning and physical closure and lands repurposing of selected mines																																		
	Component 2: Supporting labor transition , including design and implementation of specific labor support packages for coal workers and TPP workers																																		
	Component 3: Governing systems and stakeholder engagement , including capacity building of municipal, entity, and state authorities to implement a just transition in BiH and to manage a comprehensive stakeholder engagement plan over the life of the project																																		
	Table: Approximate breakdown (in USD million) presented below																																		
	<table><tr><th rowspan="2">Activities</th><th colspan="4">Project sites</th><th rowspan="2">Total</th></tr><tr><th>Gacko</th><th>Banovici</th><th>Zenica</th><th>Ugljevik</th></tr><tr><td>Component 1: Land Repurposing</td><td>13.9</td><td>7.0</td><td>14.0</td><td>20.4</td><td>55.3</td></tr><tr><td>Component 2: Supporting Labor Transition</td><td>17.5</td><td>5.0</td><td>16.5</td><td>14.6</td><td>53.5</td></tr><tr><td>Component 3: Governing Systems and Stakeholder Engagement</td><td>0.4</td><td>0.2</td><td>0.5</td><td>0.4</td><td>1.4</td></tr><tr><td>Total</td><td>31.7</td><td>12.2</td><td>30.8</td><td>35.4</td><td>110.0</td></tr></table>	Activities	Project sites				Total	Gacko	Banovici	Zenica	Ugljevik	Component 1: Land Repurposing	13.9	7.0	14.0	20.4	55.3	Component 2: Supporting Labor Transition	17.5	5.0	16.5	14.6	53.5	Component 3: Governing Systems and Stakeholder Engagement	0.4	0.2	0.5	0.4	1.4	Total	31.7	12.2	30.8	35.4	110.0
Activities	Project sites				Total																														
	Gacko	Banovici	Zenica	Ugljevik																															
Component 1: Land Repurposing	13.9	7.0	14.0	20.4	55.3																														
Component 2: Supporting Labor Transition	17.5	5.0	16.5	14.6	53.5																														
Component 3: Governing Systems and Stakeholder Engagement	0.4	0.2	0.5	0.4	1.4																														
Total	31.7	12.2	30.8	35.4	110.0																														
	CIF ACT funds in an amount of USD 45 million would directly contribute to implementation of all three project components.																																		
Stakeholder engagement	<p>Extensive stakeholder consultations were undertaken to produce the roadmap. A series of recommendations have been made to the authorities on a stakeholder engagement plan and a communications strategy to be put in place at the outset of this proposed lending operation.</p> <p>The main activities under the project will be focused on establishing Just Transition Committees to manage and monitor project implementation. The committees would be responsible for the following tasks:</p> <ul style="list-style-type: none">• Produce and manage a stakeholder engagement plan for communities in the immediate surrounding of the project area• Conduct comprehensive stakeholder consultations/engagement during planning and implementation stages of the investment project at entity and municipal level• Develop and implement the communication strategy on the transition process at the project level• Set up and run a grievance redress mechanism to address complaints and concerns that stakeholders and the general public may have regarding the transition process																																		
Indicative timeline	Five years																																		
Potential GHG savings	Repurposing of coal mines and plant lands alongside deployment of variable renewable energy would contribute to a significant reduction of GHG emissions.																																		

4. Namibia

Country	Namibia
Eol Ranking	No. 8 (78 points)
Indicative funding need	CIF ACT: USD 55 million <i>USD 50 million loan, USD 5 million for technical assistance</i>
Funding justification	<p>Namibia aims to become the first zero-emissions country in Africa, playing a vital role in fighting and adapting to climate change. Namibia's second NDC makes an ambitious commitment to avoid 91 percent of BAU emissions by 2030 and achieve net zero emissions by 2050, representing an increase in ambition from its first NDC. The energy sector has a mitigation potential of 2.8 million tons of CO₂ equivalent (MtCO₂e). This is expected to be achieved by phasing out existing fossil fuel capacity and reducing reliance on imports.</p> <p>The total funding requirement for climate mitigation through the NDC is estimated at USD 5.33 billion, of which energy requires over 25 percent of the funds (USD 1.36 billion). Namibia expects only 10 percent of its NDC commitment to be funded by its own resources (unconditional NDC). The rest is conditional on international funding. Climate goals are also integrated in national plans. The Harambee Prosperity Plan II, launched in March 2021, is Namibia's presidential socio-economic development plan, which articulates Namibia's plans for low-carbon growth.</p> <p>Namibia aims to become a regional leader in renewable energy deployment. Namibia's National Renewable Energy Policy signals the government's commitment to a clean energy future for its people, powered by renewables and replete with economic opportunities created by the growth of the renewables sector.</p> <p>The country has one of the highest solar irradiation levels in the world, at over 6 kWh per square meter and more than 300 sunny days per year. Namibia has over six onshore wind sites that boast wind speeds of more than 8 meters per second, as well as excellent wind resources offshore with wind speeds of more than 9 meters per second. Furthermore, wind resource availability is favourably correlated with demand. Namibia's second NDC outlines plans to install 330 MW of solar PV capacity by 2030, resulting in 0.8 TWh of clean energy generation. This is expected to reduce electricity imports by 30 percent from 2018 levels by 2.668 TWh. Namibia's long-term vision is to become an exporter of renewable electricity, thereby contributing toward shifting the southern African region's reliance on fossil fuels to clean energy and creating a path for regional decarbonization.</p> <p>The Government of Namibia has launched an ambitious and comprehensive strategy on the deployment of green hydrogen and derivatives, leveraging its world-class renewable energy resources. Namibia's economy has traditionally relied on mining for growth, accounting for 25 percent of the country's income. Going forward, Namibia is actively developing opportunities for climate-friendly development based on the production of clean energy and fuels required by global investors. The development and operational cycles are expected to result in the creation of over 20,000 jobs. The</p>

	<p>development of green hydrogen is expected to require massively scaled-up renewable energy capacity. Namibia launched its National Green Hydrogen and Derivatives Strategy at COP27, and is announcing concrete plans to build large-scale plants for the development of this emerging industry.</p> <p>Namibia aims to help fill the anticipated global hydrogen supply-demand gap and lower the cost of the net-zero transition while maximizing the associated socio-economic benefits. Namibia will be able to produce hydrogen and its derivatives at highly competitive costs. It aims to export hydrogen products (ammonia, methanol, synthetic kerosene and hot- briquetted iron) that have relatively lower shipping costs. Namibia also aspires to create an at-scale green fuels industry with an annual production target of 10–12 million tons of hydrogen equivalent by 2050. It aims to establish an integrated, thriving green ecosystem across Southern Africa by creating synergies in shared infrastructure, manufacturing collaboration, and power exports with South Africa, Botswana, Zambia, and Angola. Further details on Namibia strategy on green hydrogen and derivatives are available through the following link: https://gh2namibia.com/wp-content/uploads/2022/11/Namibia-GH2-Strategy-Rev2.pdf.</p> <p>Measures to ensure equitable low-carbon growth are essential. As the driest region of Sub-Saharan Africa with a long coastline, Namibia is vulnerable to climate risks. Droughts already impact hydropower generation across southern African. Vulnerability to climate is driven by broader social, political, economic, and structural factors that shape the ability to maintain secure livelihoods. Income inequality in Namibia is one of the highest in the world. Over 17 percent of the population lives below the national poverty line. The unemployment rates is one of the highest in the world, at over 30 percent. The impacts of climate change are likely to be most severe for poor and marginalized communities.</p> <p>State-owned utility NamPower intends to decommission the Van Eck coal power station. This is consistent with the goals outlined in Namibia’s second NDC, which commits to increased renewable energy development to achieve emission reductions. The NDC envisions an electricity mix composed entirely of renewable resources, including hydro, wind, solar, and biomass. The planned renewable energy capacity expansion is expected to replace about 30 percent of total electricity imports.</p> <p>CIF ACT resources can accelerate the achievement of Namibia’s goal to become a zero emissions economy. Namibia’s potential for clean electricity production is many times the country’s domestic electricity consumption. NamPower is one of the rare power utilities of Africa to operate in a cost-recovery electricity market and to generate a profit. NamPower, in discussion with the Government, has prepared a USD 1 billion equivalent capital investment program that aims at financing transmission expansion, renewable energy generation, and backup supply (through battery storage). Concessional financing can help leverage capital from private finance markets, while ensuring that the financing terms offered by the private sector allow for the production of affordable clean electricity. This can accelerate the deployment of scaled-up renewable energy to substitute fossil fuel imports.</p> <p>CIF ACT resources can enable the creation of livelihood opportunities through green economic growth. Namibia’s Harambee Prosperity Plan II outlines a people-centered</p>
--	---

	<p>approach to development to ensure improved quality of life for all Namibians, especially the most vulnerable members of society. Transparent and consultative processes for the development of green growth sectors are expected to maximize national benefits through synergistic partnerships with the private sector for inclusive growth in Namibia. Ongoing technical work as part of the World Bank-supported renewable energy roadmap has identified opportunities for ensuring that a green economy benefits all sections of society. The socio-economic analysis carried out as part of the World Bank supported renewable energy roadmap development highlights opportunities for creating local jobs and higher local economic benefits. CIF resources can support a structured approach toward training and skilling workers, including vulnerable sections of society, to participate in the opportunities created by the substitution of electricity imports with clean energy. This would result in livelihoods diversification to reduce vulnerability.</p>
Use of proceeds	<p>CIF financing would support the following activities:</p> <p>Component A: Technical and financial support for decommissioning the 90-MW Van Eck coal plant. This includes investigating the potential for repurposing the coal plant to help increase system flexibility and facilitate the integration of higher volumes of renewable energy.</p> <p>Component B: Land remediation and repurposing to prepare for the deployment of a solar PV on the site</p> <p>Component C: A stakeholder engagement strategy and communications plan for the decommissioning or repurposing of Van Eck, as well as a labor reskilling and training program to enable greater local benefits from renewable energy development.</p> <p>The proposed CIF engagement will support resilient, low-carbon development in Namibia. The decommissioning of coal and substitution of fossil fuel-based electricity imports is expected to result in significant emission reductions and climate mitigation benefits. Scaled-up renewable energy deployment accompanied by suitable strategies to maximize socio-economic benefits will create employment opportunities and share the benefits of green economic development across the local economy. The development of climate-resilient infrastructure will reduce climate risk and vulnerability.</p>
Stakeholder engagement	<p>The decommissioning of the Van Eck coal plant and substitution of imported fossil fuel-based electricity are aligned with the ongoing World Bank operation in Namibia. The CIF ACT program can dovetail with the ongoing energy sector dialogue of the World Bank to enable decarbonization of the electricity system. Activities related to labor reskilling and training to address skill deficits in the work force are aligned with the renewable energy roadmap developed by the World Bank.</p> <p>Extensive stakeholder consultations have already been undertaken by the World Bank through the renewable energy roadmap. In addition, NamPower has developed a Stakeholder Engagement Plan as part of an ongoing World Bank-funded small grant provided through recipient-executed trust fund investment project financing.</p>

	<p>Moreover, Namibia is part of the Mega Solar initiative, a partnership between the governments of Namibia and Botswana, the African Development Bank (AfDB), the World Bank Group, and the African Union Development Agency-New Partnership for Africa's Development ("AUDA-NEPAD") developed under USAID's Power Africa initiative. The Mega Solar Memorandum of Intent (MOI) was signed by the Minister of Mines and Energy of the Government of Namibia in April 2021. The Mega Solar initiative is expected to add up to 5 GW of solar power and to avoid an estimated 6.5 million tons of CO₂ annually. The MOI offers an opportunity to engage with the African Development Bank in supporting Namibia's vision for reducing GHG emissions through clean energy development.</p>
Indicative timeline	Five years
Potential GHG savings	To be determined

5. Dominican Republic

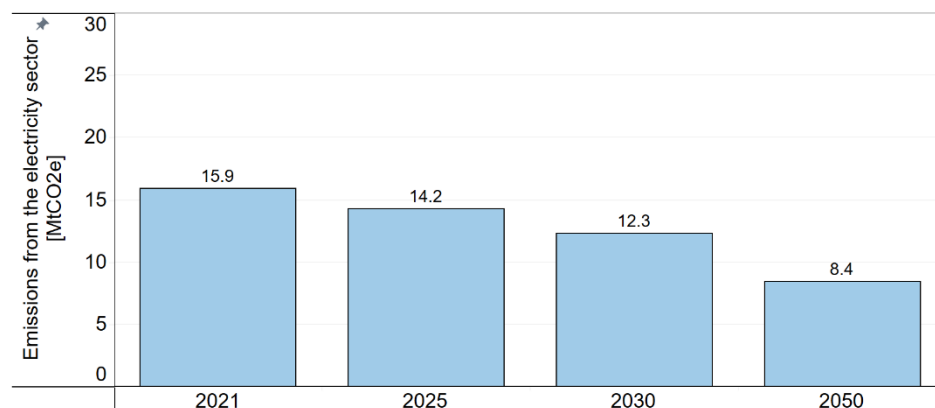
Country	Dominican Republic
Eol Ranking	No. 9 (76 points)
Indicative funding need	CIF ACT: USD 150 million <i>USD 140 million concessional debt, USD 10 million grants</i>
Funding justification	<p>In the Dominican Republic, a third of the electricity production in 2021 (6,587 GWh) came from coal-fired power plants. The Government has made significant efforts to decarbonize the economy. Constant dialogue with the private sector has enabled consensus to define a common pathway for the country, recognizing the challenges ahead and the need for advanced planning to ensure a viable and just transition.</p> <p>The country has the capacity to identify and design a critical pathway to phase out coal-fired power plants. Currently, it is carrying out a study with the Inter-American Development Bank (IDB) – using the Robust Decision Making (RDM) approach - to assess barriers, evaluate costs and co-create alternatives that bring benefits to all actors. The project is expected to provide a detailed assessment of the costs and benefits of different alternatives to phase out all coal-fired power plants¹ and decarbonize the electricity sector, along with establishing a critical pathway to phase out these power plants with the identification of barriers and actions to overcome these barriers. It includes the assessment of social impacts and the need to plan a just transition in which no one is left behind, including gender and diversity aspects. This emerging insight on public and private participation, policies, and reforms required in the electricity sector for an effective transition will provide the basis for an investment plan.</p> <p>Despite anticipated institutional, regulatory, financial, operational, and other challenges, public and private sector commitment to phase out coal-fired power plants is strong. The Dominican Republic's revised 2020 NDCs consider the assessment of options to close or replace obsolete coal-fired power plants. The country has also committed to a comprehensive and innovative package of electricity sector reforms, in line with its 2020 NDCs and its aspiration to become carbon neutral by 2050. The window of opportunity to accelerate the Dominican coal transition is now. Institutional, regulatory, financial, reliability of supply, lack of transmission and storage capacity and planning challenges will be faced and will need to be overcome to enable the transition towards a cleaner electricity system.</p> <p>A comprehensive and holistic action plan is needed to understand when and how these generation units will be closed or converted. Phasing out coal-fired power plants comes with social challenges that must be addressed as jobs and economic activities are directly or indirectly linked to the operation of these plants. The process will require dialogue between the Government and stakeholders, including the private sector, civil society, academia, and other relevant actors of the sector.</p>

¹ <https://mem.gob.do/sala-informativa/noticias/gobierno-y-bid-realizan-taller-consultivo-para-avanzar-en-proceso-de-descarbonizacion-del-sector-electrico-rd/>

The private sector is eager to see financial support to make a transition toward renewable energy. Funding and financing mechanisms need to be defined to enable this. It is also critical to understand the renewable energy alternatives that the country could adopt to replace or convert the existing coal-fired power plants.

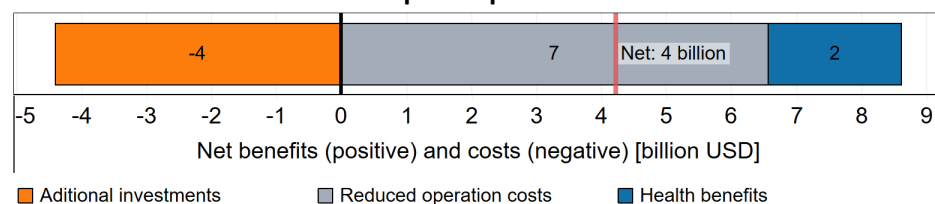
The ongoing study has already performed a preliminary estimation of emissions trajectory, benefits and net jobs resulting from the decarbonization of the electricity sector that includes the phase out coal fired power plants. It finds that the decarbonization of the sector, including the replacement of coal-fired power plants enabled by investments in new renewable energy, storage capacity, and transmission, will halve emissions by 2050, bring net economic benefits of USD 4 billion, and create 75,000 thousand net jobs (see Figures 1, 2 and 3).

Figure 1: Emissions trajectory in the electricity sector under a decarbonization strategy that phases out coal-fired power plants



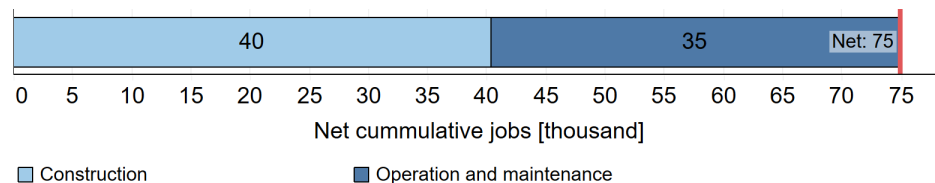
Source: IDB's study, 2022 (forthcoming)

Figure 2: Net benefits of decarbonizing the electricity sector, including the phase out of coal fired power plants relative to BAU



Note: Discounted to 2023 at 5% discount. Source: IDB's study, 2022 (forthcoming)

Figure 3: Net jobs created by the decarbonization of the electricity sector relative to BAU



Source: IDB's study, 2022 (forthcoming)

	<p>With the proper support, the Dominican Republic could become a model of the ACT program for the replicability in other small countries, especially small island developing states (SIDS) in the Latin America and Caribbean region and around the world.</p> <p>The ongoing analysis shows that to phase out coal-fired power plants and replace it with energy from renewable sources requires an estimated investment of nearly USD 4,900 million organized into four work packages. The Government of the Dominican Republic seeks USD 150 million in concessional support from CIF ACT to fund the decommissioning of Itabo 1 (128 MW) and Itabo 2 (132 MW), the reconversion of Barahona to biomass (52 MW), and the development of new storage capacity. MDBs could finance new transmission capacity and storage capacity to ease private investment in renewable generation that can support a staged phase out of coal-fired power plant capacity in the system.</p> <p>The governance work package (WP1) will support mechanisms at the national and local levels, ensuring participation of women and youth and learning from experiences of other countries. Financial needs are currently estimated at USD 10 million to support activities related to the design and implementation of the roadmap, field trips, baseline assessment, stakeholder engagement, and capacity building of municipal entity and state authorities to implement a just transition.</p> <p>The financial support for the people and communities work package (WP2) is estimated based on similar processes, like the Chilean case. This work package focuses on training, labor force re-education, social plans, workers' compensation, workforce management, (reskilling or early retirement), and economic diversification.</p> <p>The land, power plants, and other infrastructure work package (WP3) focuses on decommissioning of Itabo 1 (128 MW) and Itabo 2 (132 MW), replacement with renewable energy (not financed by ACT), deployment of energy storage, and conversion of Barahona to biomass (52 MW). The financial support for decommissioning is estimated to be USD 120,000 per MW using models built as part of the ongoing work supported by the IDB. The conversion of Barahona is estimated at USD 632 million based on a joint effort with private shareholders. Both estimations will be further refined.</p> <p>The last work package (WP4) focuses on Punta Catalina and will not be financed by ACT, as its decommissioning and conversion are envisioned in a 2030–2040 perspective.</p>
--	---

Use of proceeds	The Government of the Dominican Republic plans to request CIF ACT funding to support the following activities of the Work Package 1, 2 and 3 (not 4):					
	Work package	Summary of activities	Total estimated cost (USD million)	ACT (USD million)	MDB (public & private) (USD million)	Others (country, private, etc.)
	WP1: Governance	<ul style="list-style-type: none">Field trips to capture experiencesRoadmap design and implementationBaseline assessment and spatial planningCapacity building of municipal entity and state authorities to implement a just transition and to manage a comprehensive stakeholder engagement plan over the life of the projectEngagement with communities and stakeholders (especially women and youth)Communication strategies	10	10 (debt and grant)	0	0
	WP2: People & communities	<ul style="list-style-type: none">Funding training, and re-education of labor forceSocial plansWorkers' compensationWorkforce management	10	10 (debt and grant)	0	0

		(reskilling/early retirement)				
		• Economic diversification				
		• Training to operators	10	0	0	10
		• Exchange of experiences with other operators				
		• Software for operation of highly renewable energy systems	20	0	10	10
	WP3: Land, power plants, and other infrastructure	• Decommissioning of Itabo 1 (128 MW) and Itabo 2 (132 MW)	32	30	2	0
	Itabo 1 & 2 (260 MW) + Barahona (52 MW)	• Land remediation and repurposing	5	5 (debt and grant)	0	0
		• Deployment of renewable energy to replace Itabo 1 and 2 (260 MW)	910	0	140 (public and private)	770
		• Deployment of energy storage for Itabo 1 and 2 replacement	506	55	50 (public and private)	401
		• Grid reinforcement caused by Itabo 1 and 2 replacement	114	0	0	114
		• Conversion of Barahona to biomass (52 MW)	62	40 (private and public)	0	22
	WP4: Land, power plants, and other infrastructure	Decommissioning of Punta Catalina (782 MW)	48	0	0	48
	Punta Catalina	Deployment of RE to replace Punta Catalina (782 MW)	2,737	0	0	2,737

	Deployment of energy storage for Punta Catalina replacement	245	0	0	245
	Grid reinforcement caused by Punta Catalina replacement	173	0	0	173
	TOTAL	4,861	150	202	
Stakeholder engagement	<p>Phasing out coal-fired power plants comes with social challenges that will also need to be addressed. The country seeks to design a plan that will enable gender and social inclusion. The process will require transparent dialogue between the Government, private sector, and stakeholders.</p> <p>Currently, the study – using the Robust Decision Making (RDM) approach - to assess barriers, evaluate costs and co-create alternatives that bring benefits to all actors includes the assessment of social impacts and the need to plan a just transition in which no one is left behind, including gender and diversity aspects. It is being executed following a participatory approach that includes three workshops with public and private stakeholders. The first one occurred in early September 2022. Ten different high-level meetings were held along with a four-hour main workshop that involved 74 people representing 28 institutions of the Dominican Republic electricity sector.</p>				
Indicative decommissioning timeline	<p>Program implementation: 2024–2029</p> <p>2028–2029: Decommissioning of Itabo I (128 MW) and Itabo II (132 MW)</p> <p>2027–2028: Conversion of Barahona (52 MW)</p>				
Potential GHG savings	<p>Shutting down or converting these three power plants will help reduce between 6,000 gigagrams (Gg) and 8,000 Gg of CO₂e annually (depending on the level of activity of the power plants) and strongly support the country's goal to reach carbon neutrality by 2050.</p>				

6. Botswana

Country	Botswana
EoI Ranking	No. 10 (75 points)
Indicative funding need	CIF ACT: USD 55 million <i>USD 50 million loan, USD 5 million for technical assistance</i>
Funding justification	<p>Botswana’s commitment to addressing climate change is captured in several policy documents. Botswana’s NDC aims to reduce overall emissions by 15 percent by 2030 from the 2010 baseline. Through its Vision 2036, Botswana strives to be a society that is sustainable, climate resilient, and whose development follows a low-carbon development pathway in pursuit of prosperity for all. The National Development Plan (NDP) is a six-year planning document that is subject to a mid-term review (MTR) after three years. The NDP 11 MTR (2020) and Botswana’s Economic Recovery and Transformation Plan (ERTP) include an explicit commitment to “building resilience,” including the response to climate change. The ERTP notes that for the COVID-19 recovery to be sustainable, “the opportunity should be taken to accelerate this transition, e.g., moving toward solar power generation, reducing subsidies to the use of fossil fuels, and introducing carbon taxes.” Botswana’s Climate Change Policy also commits to the implementation of a carbon tax.</p> <p>The World Bank’s ongoing dialogue supports greening the economy, with a particular focus on the energy sector. The World Bank’s ongoing engagement with the Government of Botswana through a Programmatic Development Policy Operation lays the foundations for a transition to a private sector-led green economic recovery and the promotion of green growth. The World Bank has also supported the development of a renewable energy roadmap and is providing technical assistance for the design of a carbon tax. The ongoing dialogue is supporting preparation for a renewable energy IPF through a small recipient-executed trust fund (RETF).</p> <p>Botswana’s Integrated Resource Plan (IRP) proposes to phase out the 132-MW Morupule A plant by 2027. Morupule A is a 33x4 MW plant that was commissioned in 1989 and uses coal supplied from the adjacent Morupule Colliery. Its availability is estimated at 70 percent. The 600-MW Morupule B,² commissioned in 2012, has not been operating at full capacity due various technical issues and major ongoing remedial work. Botswana’s IRP suggests that its total electricity demand under BAU conditions would be in excess of 4 TWh for 2020 and expected to grow to 6–8.5 TWh by 2040. Regional electricity supply has also faced challenges in recent years on account of operational issues at Eskom and droughts impacting hydropower supply. Therefore, the strategy for decommissioning or repurposing of Morupule A needs to take into consideration the potential impacts, not only on the workers and communities that depend on</p>

² The World Bank provided a partial credit guarantee of USD 224.8 million and a loan of USD 136.4 million for the Morupule B Generation and Transmission Project (P112516) over 2010–16. The project also received co-financing of USD 203 million from AfDB.

	<p>the plant for livelihood, but broader economic challenges that could be created by the lack of availability or affordability of electricity.</p> <p>Botswana aims to become a global leader in solar energy. Botswana’s Economic Recovery and Transformation Plan (ERTP), approved by the Parliament in 2021, highlights the country’s commitment to supporting renewable energy projects. Botswana’s IRP expects renewable energy to contribute the majority of new generation over 2020–40. Botswana is part of the Mega Solar initiative, a partnership between the Governments of Botswana and Namibia, AfDB, IBRD, and IFC and the African Union Development Agency-New Partnership for Africa’s Development developed under USAID’s Power Africa initiative. Through Mega Solar, Botswana’s ambition is to contribute toward the decarbonization of the Southern African electricity system through clean energy exports, which can transform the energy system of one of the most emissions intensive regions in the world.</p> <p>CIF ACT resources can initiate a green socio-economic transition in Botswana. A just transition as part of decommissioning of Morupule A can pave the way for decarbonizing Botswana’s electricity system. The transition toward renewables has been slow in Botswana. CIF ACT resources can demonstrate the potential for accelerating private sector-led clean energy deployment to achieve NDC goals. The decommissioning or repurposing of Morupule A can also build the necessary experience and expertise at the country level for decarbonizing Botswana’s electricity system and ensure the sharing of the socio-economic benefits of green growth across communities. CIF resources can also support a structured approach toward training and skilling workers, including vulnerable sections of society.</p>
Use of proceeds	<p>CIF ACT financing would support the following activities:</p> <p>Component A: Technical and financial support in decommissioning of the Morupule A coal plant. In particular, more investigation is needed on the potential for repurposing the coal plant to help increase system flexibility to facilitate the integration of higher volumes of renewable energy.</p> <p>Component B: Land remediation and repurposing to prepare for the deployment of a solar PV on the site</p> <p>Component C: A stakeholder engagement strategy and communications plan for the decommissioning or repurposing of Morupule A, as well as a labor reskilling and training program to enable greater local benefits from renewable energy development</p>

Stakeholder engagement	<p>Extensive stakeholder consultations have been undertaken through the renewable energy roadmap. As part of the World Bank-funded small RETF IPF, a Stakeholder Engagement Plan has been developed. The work on the carbon tax is also expected to support the development of a communications and stakeholder engagement strategy using BETF resources.</p> <p>The main activities under the project will be focused on establishing Just Transition Committees to manage and monitor project implementation. The committees would be responsible for the following tasks:</p> <ul style="list-style-type: none"> • Produce and manage a stakeholder engagement plan for communities in the immediate surrounding of the project area • Conduct comprehensive stakeholder consultations during planning and implementation stages of the investment project at entity and municipal level • Develop and implement the communication strategy on transition process at the project level • Set up and run a grievance redress mechanism to address complaints and concerns from stakeholders and the general public regarding transition process
Indicative Project Implementation period	Five years
Potential GHGe savings	Decommissioning or repurposing of Morupule A alongside deployment of variable renewable energy will contribute to a significant reduction of GHG emissions.

7. Colombia

Country	Colombia
Eol Ranking	No. 11 (74 points)
Indicative funding need	CIF ACT: USD 20 million <i>USD 19 million loan, USD 1 million grants</i>
Brief description and justification for funding	<p>In 2020, Colombia was one of the first countries to update its NDC. By 2030, Colombia has committed to reduce GHG emissions by 51 percent, one the most ambitious NDC goals worldwide and signalling the country's strong commitment to global climate change agenda. Critical to attaining NDC targets, the energy sector approved the Integrated Climate Change Management Plan (PIGCCme), which is currently being implemented. This planning instrument establishes that the emissions reduction target for the mining and energy sector for 2030 is 11.2 MtCO₂e, which is expected to contribute 17 percent to the national target.</p> <p>In Colombia, coal is the second most important export product, accounting for 18 percent of national exports and generating more than 120,000 jobs. The mining sector accounted for 20 percent of total royalties, of which, coal contributed 85 percent. Coal contributed to 1.3 percent of Colombia's GDP in 2020 and 53 percent of mining GDP, according to the National Mining Agency. The country also has approximately 1,770 MW (divided in 16 generation plants) of coal-fired thermal generation, representing 9 percent of the country's installed capacity. The country is committed to progressively phasing out its coal-based thermal generation.</p> <p>Colombia is committed to initiating a decommissioning process of coal-based fired generation to fulfil its NDC commitments and its 2050 carbon neutrality goals. However, this requires institutional, regulatory, and financial adjustments, as well as a comprehensive and holistic action plan to understand when and how these generation units will be closed or converted. CIF ACT resources would play a key role in initiating this coal transition process by providing support to develop the required policy, regulatory, analytical, and technical instruments to develop and initiate the implementation of this transition process and to develop innovative activities, projects, and pilots that in the next years that can contribute to accelerating coal transition in an articulated manner with public entities, the private sector, and communities.</p>
Use of proceeds	<p>CIF ACT financing would support the following activities:</p> <p>Component 1: Policy, regulatory, and technical assistance to prepare the required instruments and roadmap for decommissioning coal-fired power plants. It will include the following activities:</p> <ul style="list-style-type: none"> • Develop a carbon neutrality plan for public and private companies that own coal-fired thermal power plants, including an incentives strategy to ensure is implementation • Develop a regulatory analysis to define mandatory carbon neutrality for thermal plants

	<ul style="list-style-type: none"> • Develop the initial structuring of the renewable energy transition plan for the nation's thermal generation companies, with special focus on regulation, social and environmental issues, as well as an analysis related to coal mining activities that allow the operation of thermal power plants (social impact a result of reconversion processes) • Prioritize and implement recommendations for the decommissioning of coal-fired power plants and development of transition plans to renewable energy, including general timelines, potential partners, and associated investments <p>Component 2. Decommissioning of at least one state-owned coal-fired power plant. Based on the recommendations of the studies carried under Component 1, this component will finance the decommissioning of at least one state owned carbon-fired power plant. This component will finance the following:</p> <ul style="list-style-type: none"> • Decommissioning of one coal-fired power generation plant and potential reconversion to non-conventional renewable energy generation, including feasibility study • Land remediation and repurposing to prepare for deployment of a new non-conventional renewable energy power plant • Investments in transmission, distribution, and storage infrastructure to facilitate capacity replacement • Socio-economic impact mitigation, including workforce management (e.g., reskilling/early retirement) and economic diversification in the affected areas to ensure an inclusive and just transition
Stakeholder engagement	<p>An inclusive and just transition plan will be developed with ACT funding to phase out coal-fired power plants. The country seeks to design a plan that will ensure that no one is left behind, guaranteeing a just transition that is viable for all, including gender and diversity considerations. The process will require transparent dialogue between the Government, private sector, and stakeholders.</p> <p>CIF ACT program can help Colombia achieve its climate change goals and become a competitive market capable of offering legal stability and competitive conditions for investors, while diversifying the energy matrix and ensuring a socially equitable transition. CIF ACT funding would be catalytic to allow the country to implement measures to tackle social issues arising from such actions.</p>
Indicative decommissioning timeline	<p>Component 1 will define the decommissioning timeline. In general, by 2030, Colombia has committed to reducing GHG emissions by 51 percent, being one of the few countries that enhanced its NDCs in 2020.</p>
Potential GHG savings	<p>The emissions reduction target for the mining and energy sector for 2030 is 11.2 MtCO₂e, which is expected to contribute 17 percent to the national target.</p>

4 Readiness of remaining countries for technical assistance

14. **Kazakhstan:** Kazakhstan is heavily reliant on coal for its power generation (roughly 70 percent) and heating generation (over 95 percent). The Government has started its decarbonization journey, by setting targets for climate neutrality by 2060, 15 percent emissions reduction by 2030 (compared to 1990 level) in its NDC, and increasing the share of renewable energy in power generation from the current 4 percent to 15 percent by 2030.
15. The energy sector Low Carbon Pathway, supported by EBRD and USAID, has been endorsed by the Ministry of Energy. It includes the full phase out of coal generation by the mid-2050s, under a climate neutrality scenario. The draft long-term strategy further emphasizes the need to decommission coal-fired power plants older than 30 years, which constitute over 60 percent of the fleet, by 2035. These old power plants are much less efficient and more polluting than newer ones. Despite reaching an end of their economic and often technical lifetime, a substantial portion of the outstanding fleet is expected to continue operations for the foreseeable future and could be subject to upgrades.
16. As such, CIF ACT support will lead to significant mitigation impact, especially if targeted toward old power plants. This need is also substantiated by two most recent accidents at the combined heat and power plants of Ekibastuz and Ridder that left more than 100,000 people cut off from district heating in the beginning of harsh winter, highlighting the need for urgent low-carbon conversion. In this context, international grant and concessional finance support is needed for (a) power plant decommissioning and reconversion, including to low-carbon heating technologies; (b) grid strengthening and storage infrastructure to enable renewables absorption; and (c) just transition for workers and communities.
17. Technical assistance from ACT would help Kazakhstan (i) support coal asset owners' decarbonization plans, including both investment planning and strategic workforce management analysis, such as the development of a Coal Transition Action Plan for the analysis of decommissioning or repurposing power plants and mines, for example, to renewable energy sources with storage, or hydrogen, (ii) develop just transition diagnostics and action plans for most affected regions, communities, and workers, including re-skilling for coal miners and creating job opportunities in the growing green energy sector, and (iii) support decommissioning projects via engagement of technical and environmental expertise. This support is essential to facilitate the move from concept to detailed planning and implementation and, thereby, accelerate the transition and lead to substantial emissions reductions.
18. **Bosnia and Herzegovina:** Under the latest NDC, Bosnia and Herzegovina (BiH) updated its conditional GHG emissions reduction target to 36.8 percent (unconditional: 33.2 percent) below 1990 levels by 2030. The country is also a signatory to the Sofia Declaration on the Green Agenda for the Western Balkans, with an ambition to align with EU climate law, including the 2050 climate neutrality target, and is currently preparing its National Energy and Climate Plan.

19. About 65 percent of BiH's power generation is reliant on coal, primarily from 11 domestic coal mines. BiH has five coal-fired power plants with 2 GW of installed capacity, with 1,153 MW in the Federation of Bosnia and Hercegovina (FBH) and 855 MW in Republika Srpska (RS). By 2030, up to 700 MW of capacity could retire in FBH and up to 276 MW in RS. There are ongoing discussions on plant closures at least two coal mines. Some 11,500 jobs rely on coal mining, 1,500 on power plants, and another 15,000 indirectly rely on coal value chains. In this context, international grants and concessional finance support is needed for (a) power plant decommissioning/reconversion, which could include storage infrastructure and ancillary services and land repurposing and recultivation in line with CIF ACT scope, and (b) just transition for workers and communities. These actions are essential to accelerate transition and lead to substantial emissions reductions.

20. The technical assistance would help BiH in the following ways:

- i. Support coal asset owners' decarbonization plans, including both investment planning and strategic workforce management analysis
- ii. Develop re-skilling just transition programs in the most affected regions, aligned with the World Bank roadmap under development for the Government of BiH
- iii. Support the relevant studies for storage solutions and ancillary services
- iv. Support other decommissioning and reconversion projects via the engagement of technical and environmental consultants, and where relevant, associated grants

21. **Ukraine:** Last year, Ukraine increased its NDC ambition of emissions reduction by 2030 to 65 percent compared to 1990 levels (earlier target was 40 percent). At COP26, Ukraine also joined Powering Past Coal Alliance (PPCA) and announced a coal phase out target by 2035. The EBRD had been supporting the Government on just transition diagnostics and action planning, with support from the CIF's Technical Assistance Facility in the context of green COVID-19 recovery prior to February 24, 2022. With Russian full-scale invasion, this work has been put on hold, but the Ukrainian Government continues to reiterate its climate ambition. The Russian missile strikes destroyed significant parts of critical energy infrastructure in Ukraine, including approximately 25 percent of thermal power plants and 16 percent of combined heat and power plants to date (details restricted by the Government for security reasons). While the ongoing attacks are causing harm to the population and businesses, the reconstruction and recovery phase provide an opportunity to build back better.

22. Depending on the evolution of the situation, an investment plan under the next replenishment with high grant components could help Ukraine invest in low-carbon alternatives and forgo refurbishment of coal-fired thermal power plants and combined heat and power systems. It could help avoid lock-in of assets and infrastructure that do not meet the goals of national commitments, including under the Paris Agreement. An explicit mention of CIF ACT's intention to support Ukraine in the future, subject to replenishment, would help to ensure that the country does not miss out on opportunity, while additional technical assistance, including for proposal preparation, in the interim period would increase Ukraine's readiness for transformational decarbonization.



23. Specific immediate technical assistance could include the following:

- Technical and financial assessment of reconversion potential of damaged powerplants into lower carbon alternatives and identification of financing mechanisms, including grant support
- Analysis of land reclamation and repurposing options for coal mines that used to supply powerplants but are now flooded beyond restoration
- Just transition support options



The Climate Investment Funds

The Climate Investment Funds (CIF) were established in 2008 to mobilize resources and trigger investments for low carbon, climate resilient development in select middle and low income countries. To date, 14 contributor countries have pledged funds to CIF that have been channeled for mitigation and adaptation interventions at an unprecedented scale in 72 recipient countries. The CIF is the largest active climate finance mechanism in the world.

THE CLIMATE INVESTMENT FUNDS

c/o The World Bank Group
1818 H Street NW, Washington, D.C. 20433 USA

Telephone: +1 (202) 458-1801
Internet: www.climateinvestmentfunds.org



@CIF_action



CIFaction



CIFaction



CIFaction



CIFaction



@CIF_action