



GREEN
CLIMATE
FUND



| GCF.10

| 10 YEARS OF CLIMATE IMPACT

Climate Change Context and Financing Needs of Nepal: Accomplishments, Impacts and Priorities of GCF Investment

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Ministry of Finance, Government of Nepal

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GCF REGIONAL DIALOGUE

with EAST AND SOUTH ASIA

Colombo, Sri Lanka

14–17 September 2026

Climate Change Context: Nepal



Temperature

Long-term observation- a clear warming of Nepal's climate.

- (1951 to 2020), increased by $\sim 0.2^{\circ}\text{C}$ per decade.
- (1971-2000), increase by $\sim 0.17^{\circ}\text{C}$ per decade.
- (1991–2020) more pronounced increase of 0.15°C per decade,

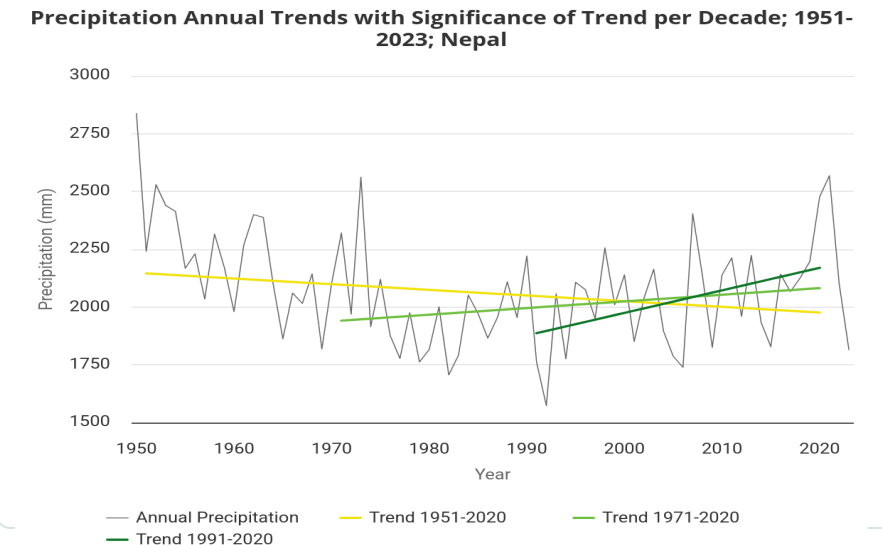
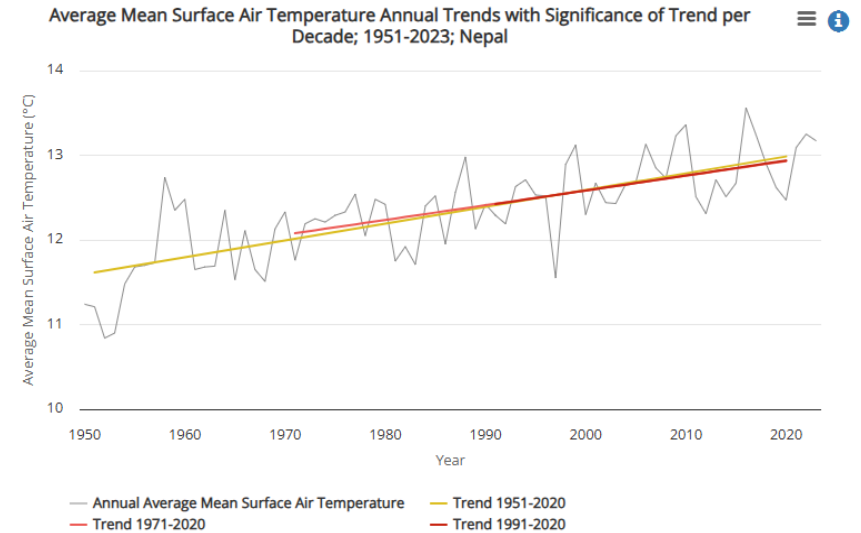


Annual precipitation

- (1951-2000) a decline of -23.75 mm per decade
- (1971–2020) a modest increase of 40.14 mm per decade
- (1991–2020) more pronounced increase of 87.03 mm per decade,

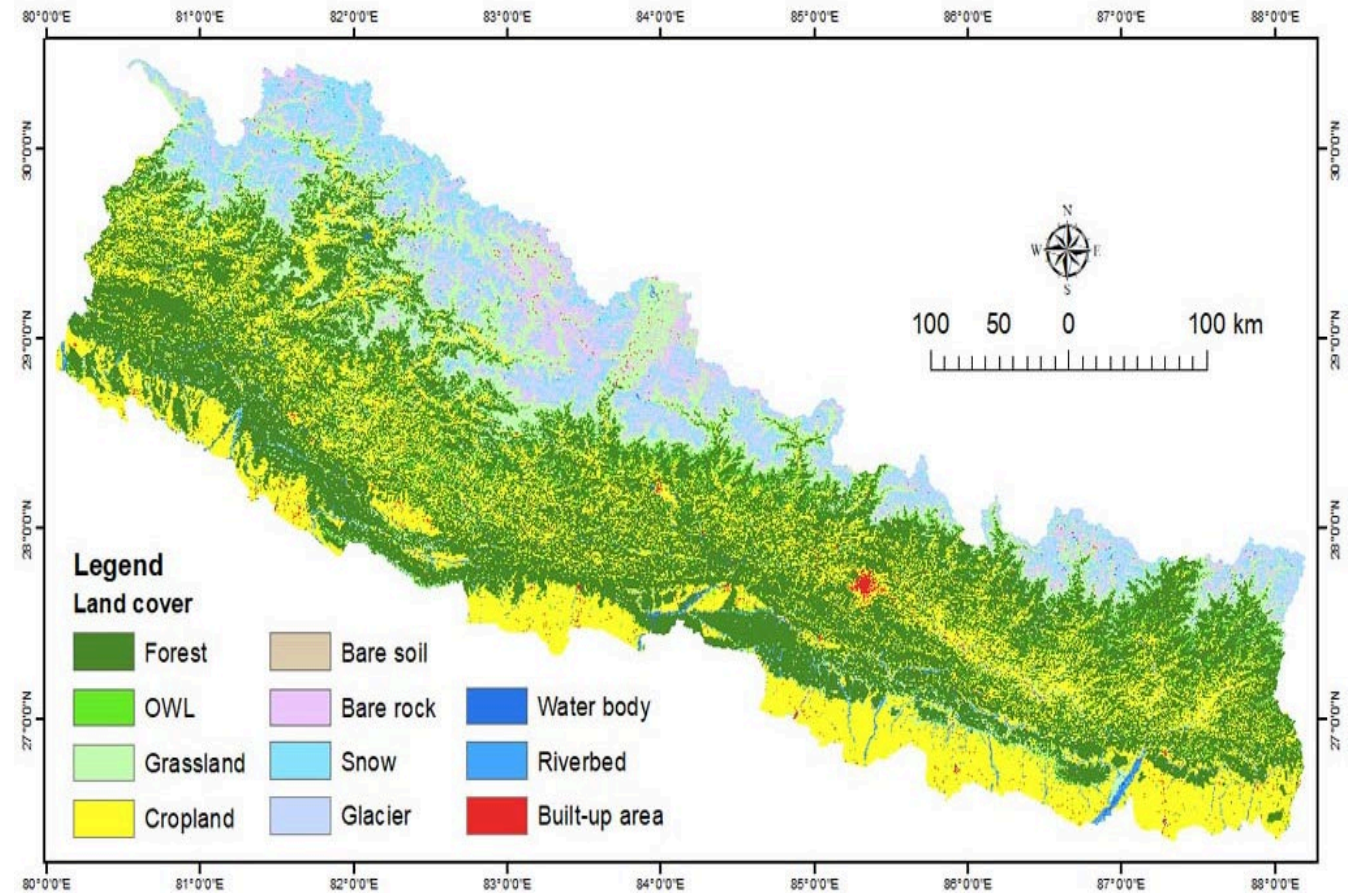
Climate is projected to warm further; rainfall to decrease in pre-monsoon and intensify in monsoon & post monsoon seasons

Source: Climate Change Knowledge Portal



Country Overview

- Nepal is a highly climate-vulnerable, with **exposure to floods, landslides, droughts, glacial hazards** and ecosystem degradation.
- National climate **priorities are anchored** in Nepal's NDC/NAP, **adaptation and mitigation priorities** for the broader development planning framework.
- The GCF is strategically important **not only for project finance**, but also for strengthening **country ownership, direct access, project preparation and domestic climate-finance markets**.
- Nepal's immediate opportunity is to move from individual projects toward a **stronger, country-owned investment pipeline and financing architecture**.



Land cover of Nepal

A Negligible Emitter, Disproportionately Hit

Nepal contributes about **0.027%** of global greenhouse-gas emissions yet sits among the world's most climate-vulnerable nations. The Hindu Kush **Himalaya is warming faster** than the global average.

0.056°C

annual rise in maximum temperature
(DHM, 1971–2014)

47

glacial lakes classified as potentially
dangerous

~2.2%

of annual GDP projected lost to climate
change by 2050 (ADB)

A single GLOF event can cause losses exceeding US\$ 1000 million.

KEY Climate Impacts

Melting Glaciers



- Nepal's glaciers are **melting faster** (0.83% per year) compared to entire Himalaya (0.56% per year)
- Glaciers comprise of over **10% of river run-off**; as high as 30% in Budhi Gandaki and 2% in Likhu Basin (WECS, 2011)

Erratic Rainfall and Flood



- Overall rainfall will remain same but **extreme rainfall** may increase (WB 2023)
- **Extreme rainfall** event will trigger water **induced disasters**; the rainfall volumes during extremely wet days are expected to increase significantly, particularly in western Nepal.

Impacts on forest and bio-diversity



- Apart from the loss of forest area due to climatic disasters; **vegetation range shift, phenological change, forest fires** and the spread of alien species are **notable impacts**
- Both the number of **fire incidence** and burnt area are increasing in Nepal; from 2000-2017 the incidence and burnt area increased by 6 folds (VRA Report, 2021).

KEY Climate Impacts



Rising burden of disease

- Climate induced disaster resulted in an annual average of 647 mortalities from 1971 to 2019.
- An analysis of **49 years** (1971-2019) of data depicts that Morang, Dang, Jajarkot and Banke are the most epidemic affected districts in Nepal.
- The incidence of **infections rose** from 1971-2019 when the temperature showed an increasing trend while the precipitation showed a declining trend during the same period. (VRA Report, 2021).



Impact on agriculture and livelihoods

- Economic loss from reduction of water flow is equivalent to **0.1% of GDP per year** on average by 2050 and it may reach 0.3% in very dry years.
- In 2017, the monetary value of loss and damage in Nepal accounted for **2.34% of GDP** (VRA Report, 2021).
- Among all hydro-meteorological hazards in Nepal, ranks at the top in terms of severity of impacts on crops.
- From 1971-2007 out of **0.85 million Ha of crops affected**, 38.9% was attributed to drought.
- The direct economic cost of current climate variability in the agriculture sector is equivalent to 1.5% to 2% of the country's GDP on average (VRA Report, 2021).

National Climate Policies, Strategies, and Commitments

Constitutional Provisions

Explicitly outlines the balance between environment and development and state policies focused on environmental protection.

National Climate Change Policy, 2019

Focuses on implementation strategies.

16th Periodic Plan

Prioritizes climate change, biodiversity, and the green economy as key strategies for sustainable development.

International Development Cooperation Policy 2025

The IDCP has strengthened Nepal's commitment to climate change issues.

Climate Finance Mobilization Procedure 2025

(Simplifies the procedures)

Long-Term Strategy

Nepal's commitments is [aligned with the Paris Agreement](#), with a long-term strategy for reaching [net zero emissions by 2045](#).

National Adaptation Plan (2021-2050)

64 climate change adaptation programs across 9 sectors and 3 inter -sectoral themes

\$ 21 Billion by 2030 / \$ 47.4 Billion by 2050.

Nationally Determined Contributions (NDC 3.0)

Ambitious yet realistic,

International support for finance and technology required for successful accomplishment.

Priority climate actions

Nepal's net-zero pathway by sector



Energy

- Hydropower expansion
- Renewables diversification



Transport

- E-mobility program
- Public transport upgrades
- Fuel efficiency standards



Forests & Land Use

- Forest conservation
- Community forestry
- Reforestation



Agriculture

- Climate-smart farming
- Livestock management
- Agroforestry

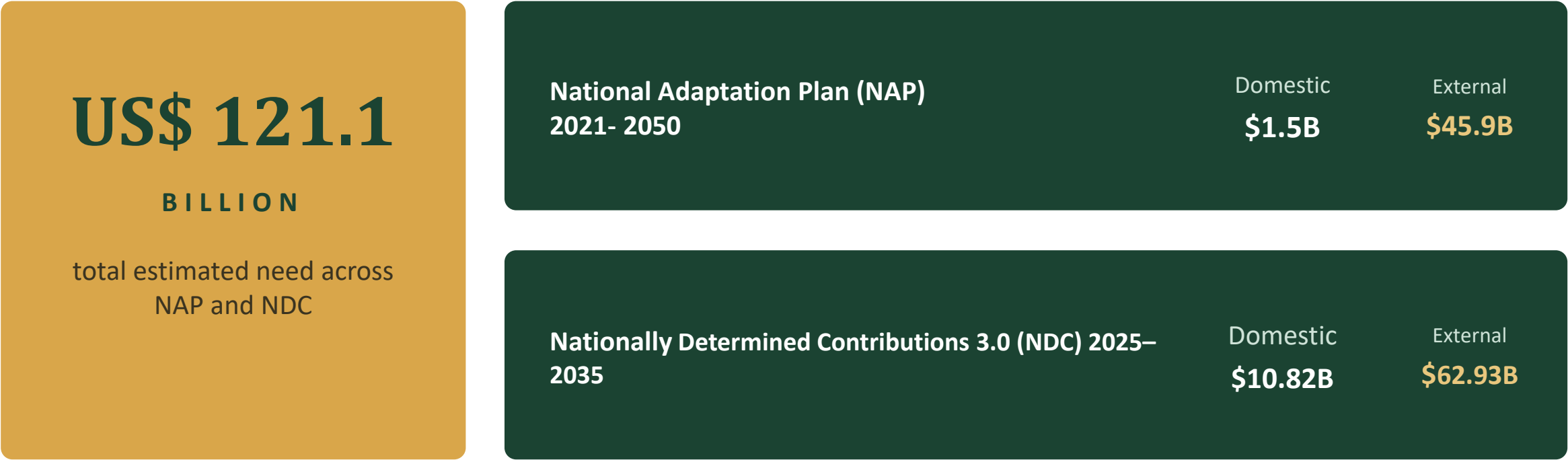


Adaptation & Resilience

- Glacial lake monitoring
- Disaster preparedness
- Community resilience

The Resource Need for Climate Action

Nepal's own plans put a clear price tag on climate action — and the overwhelming majority must come from external sources.



Of the total, about US\$ 108.8 billion (≈90%) is expected from external sources - underscoring why efficient access to global climate funds is decisive.

Source: Government of Nepal — National Adaptation Plan & Third NDC.

Nepal's Climate Finance Portfolio from Vertical Funds

Funding Window	Number of projects	Amount (USD Million)	
		Fund	Co-Financing
Green Climate Fund (GCF)	6	157.50	122.07
Global environment Facility (GEF)	34	103.00	497.80
Climate Investment Fund (CIF)	10	153.02	771.35
Adaptation Fund (AF)	1	9.50	
Total	51	423.02	1391.22

Nepal has received only 0.35% of climate finance needed.

SECTION

GCF Investment in Nepal:

Entities, Portfolio, Accomplishments and Impacts

Partnership with GCF

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6 **148.3 million \$**

Number of total projects

Total GCF financing

5 **5.5 million \$**

Number of readiness activities

Readiness support approved

8.42 million \$ **18.84 million \$**

Target beneficiaries

Target tonnes of emissions avoided (Lifetime)

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National Designated Authority

International Economic Relations
Division

Ministry of Finance >> Climate Finance Technical
Committee (CFTC)



Direct Access Entities



Alternative Energy
Promotion Centre



National Trust for
Nature
Conservation



NIMB
नेपाल इन्वेस्टमेन्ट मेगा बैंक लि.
NEPAL INVESTMENT MEGA BANK LTD.

Nepal Investment Mega Bank
Limited



Town Development
Fund

International Access Entities



Empowered lives.
Resilient nations.



Food and Agriculture
Organization of the
United Nations

GCF funded Projects in Nepal

S N	Project Name	Accredited Entity	Executing Entity/ies	GCF Financing (USD)/M	Co Financing (USD)/M	Total Project (USD)/M	Project end date
1	Protecting livelihoods and assets at risk from Glacial Lake Outburst Floods (GLOFs) and climate change-induced flooding in glacial river basins of Nepal – FP272 GLOF	UNDP	MoEWRI/DH, MoAFE/ DoFSC	36.2 (7 years)	13.7	49.9	Mar 2033
2	Mitigating GHG emission through modern, efficient and climate friendly clean cooking solutions (CCS)- FP172 CCS	AEPC	MoEWRI/ AEPC	21.1 (5 years)	28.0	49.1	Dec 2027
3	Improving Climate Resilience of Vulnerable Communities and Ecosystems in the Gandaki River Basin , Nepal -FP131 GBCRP	IUCN	MoAFE/ DoFSC	27.4 (7 years)	5.3	32.7	Oct 2028
4	Building a Resilient Churia Region in Nepal (BRCRN) - FP118 BRCRN	FAO	MoAFE	39.3 (7 years)	8.04	47.3	May 2027
5	E-Mobility Program (7 Countries) -FP225	ADB	Diverse DPs	169.9 (5 years)	284.5	454.4	Nov 2029
6	Building Climate Resilience of Forest Dependent Communities through Enhanced Livelihood Opportunities and Local Capacity in Karnali Province, Nepal (KARNALI) SAP	NTNC	NTNC/MoIFTE Karnali	8.5	0.7	9.2	July 2030

Concept notes Approved- FP pipeline



Enhancing energy access by generating **energy from the waste** for mitigating climate change- AEPC



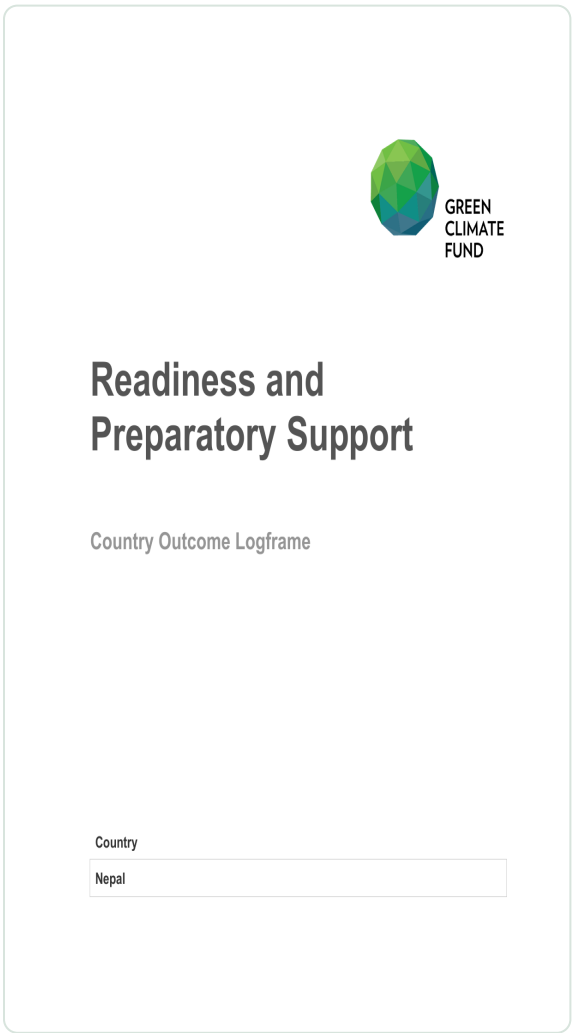
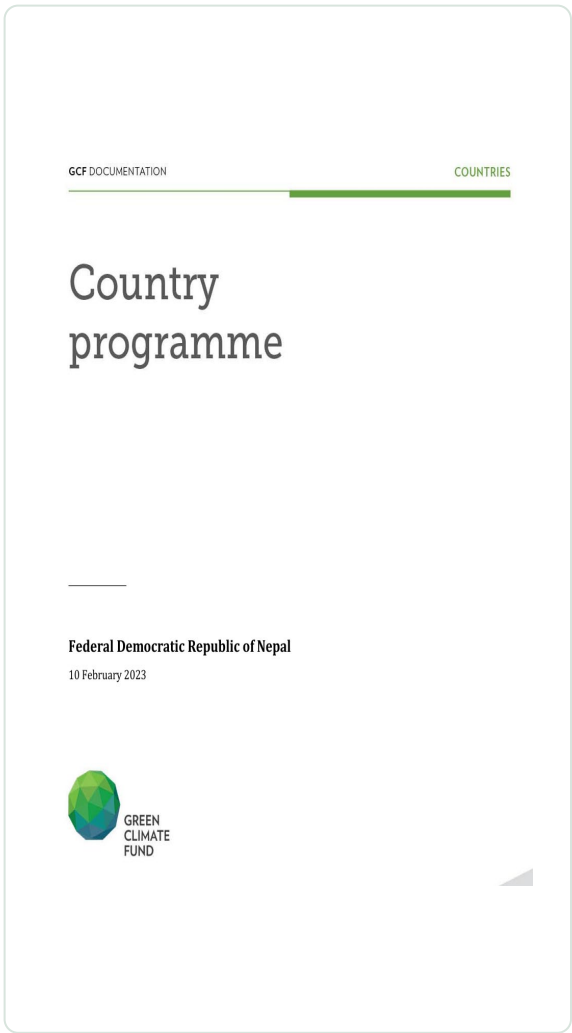
National **Climate Financing** Facility (NCFF)- NIMB



Climate and Health Co-Investment Facility Coordination Programme
(UNDP-Multicountry-15 Countries- Paused)

Country Programme for GCF updated in 2024

- **19 Projects and Programme**
- **Estimated GCF Financing (USD): 750.53 Million**
- **Estimated Co-financing (USD): 280.25 Million**
- **Submitted to the GCF on Jan 2025**



Accomplishments & Impact of Readiness Support



Institutional Strengthening

- Enhanced NDA capacity for project pipeline development and coordination
- Established systems for stakeholder engagement, monitoring, and reporting
- Strengthened climate finance governance and transparency mechanisms



Strategic Frameworks

- Supported development of national climate strategies and sectoral plans aligned with GCF priorities
- Advanced integration of climate resilience into policies and planning processes



Capacity Building

- Training and workshops for government, civil society, and private sector actors
- Improved technical knowledge on proposal development, climate rationale, and fiduciary standards

Accomplishments & Impact of Readiness Support



Pipeline Development

- Increased number of **concept notes** and **proposals** submitted to GCF
- Improved **quality of project design** with stronger climate rationale and adaptation/mitigation linkages



Stakeholder Engagement

- **Broader participation** of local governments, CSOs, and vulnerable groups in climate finance processes
- **Gender and social inclusion** mainstreamed into readiness activities



Long-Term Impact

- **Strengthened national ownership** of climate finance agenda
- **Enhanced ability** to mobilize and absorb international climate finance
- Foundations laid for **scaling up transformative projects** in energy, forestry, and resilience sectors

Accomplishments & Impact- Funding Proposals



Mitigation Outcomes

441,120 tCO₂eq

Total Achieved to Date:
reduced/avoided/sequestered

~6.95M tCO₂eq

Projected Long-Term Impact (with CCS full delivery)

Land & Ecosystem Management:

~129,729 ha forests, agroforestry, and degraded lands under improved climate-resilient management

Clean Energy Transition:

82,336 households shifted to cleaner cooking (ECS, ICS, biogas), reducing reliance on LPG, firewood, and traditional biomass



Adaptation Outcomes

~1.37M people

Direct Beneficiaries: reached with climate resilience benefits

~258,000+

Indirect Beneficiaries (partial reporting; BRCRN indirect target 3.2M)

Gender & Social Inclusion:

- ~51% **women beneficiaries** across portfolio
- Strong inclusion of **Indigenous, Dalit, Madhesi, Muslim** groups
- Gender Action Plan operational in CCS, ensuring **equitable participation**

Resilience Practices:

- **Climate-resilient crops** adopted across ~597 ha
- 85% farmer adoption of **climate-smart practices**
- Reduced indoor **air pollution, lower household fuel costs, improved health outcomes**



Community and Ecosystem Impacts

- Increased **agricultural productivity** via irrigation, resilient crops, and land restoration
- Protection of ~7,000 ha agricultural land worth ~\$420M and >200 settlements from erosion/floods
- **Cleaner kitchens**, reduced smoke exposure, and household savings (NPR 300–2,000/month)
- Ecotourism enterprises generating jobs and local revenue in community forests

Project Wise Mitigation Outcome

Greenhouse gas (GHG) emissions reduced, avoided or removed/sequestered — cumulative progress vs. target

BRCRN

- Cumulative: 433,101 tCO₂e reduced/avoided/sequestered (18.3% of revised target 2,353,879 t)
- By year: 2024 – 35,386 t (1.5%); 2025 – 174,057 t (7.4%); 2026 – 223,658 t (9.4%)
- Achieved through forest restoration and sustainable natural resource management

CCS (FP172)

- Project target: 6.51M tCO₂eq expected over the investment's 24-year effective lifespan
- Mitigation pathway: displacing LPG/biomass with 43,418 ECS, 37,234 ICS and 1,684 biogas systems deployed to date
- 82,336 of 1,000,000 target households transitioned so far; cumulative tCO₂e achieved not yet reported

GBCRP

- Cumulative: 8,019 tCO₂eq reduced/avoided (about 4% of project target 200,974 t)
- Delivered via forest and agroforestry land-management interventions
- Mitigation delivery still at an early stage relative to target

Project Wise Adaptation Outcome

- 772,829 direct beneficiaries reached (80% of target 963,268); 51% women
- Inclusion: 51% Indigenous Nationalities, 13% Dalit, 9% Madhesi, 25% Brahmin/Chhetri, 1% Muslim; 17% youth
- 3,012 households reached via 112 NRM Field Schools (72% women); 85%+ adoption of climate-resilient agriculture practices
- Ecotourism and agroforestry-based livelihoods restored on 50 ha of degraded land

- No formal adaptation target (project is mitigation-focused); beneficiary/health co-benefits reported instead
- Reduced indoor air pollution; lower fuel expenditure and fuel-collection time for households
- Greater participation of women and vulnerable groups; 114 Mobilizers active across target Local Governments
- Gender Action Plan (GAP) operational with gender-responsive monitoring and data

- Direct: 42,615 HH / 183,244 people (of target 198,016 HH / 833,647 people); Male 89,789, Female 93,455
- Indirect: 65,000 HH / 258,000 people (of target 250,000 HH / 1,052,000 people)
- 24,000 HH adopted diversified climate-resilient livelihoods (of 198,000 target)
- 52,900 people made aware of climate threats and responses (29,500 male, 23,400 female) against larger targets

Source: BRCRN Overall Progress on Core Impact Indicators; CCS Project Overview; GBCRP Key Achievements and Results (slide decks, Sept 2026).

Key Lessons

Nepal's NDA perspective, synthesized across the GCF portfolio

1. Institutional readiness before scale-up

Deliver institutions, standards and coordination mechanisms before large-scale disbursement. Retrofitting institutions after rollout slows delivery and raises cost.

3. Landscape- and basin-level planning over project boundaries

Upstream-downstream and river-basin approaches deliver more durable mitigation and adaptation outcomes than planning confined to individual project sites.

5. Predictable, phased (co-)financing sustains momentum

Cofinancing delays and cost escalation from external shocks are recurring risks across sectors; phased release aligned to institutional readiness reduces exposure.

2. Local governments as the delivery backbone

National-scale results depend on local governments and community institutions being structurally embedded in planning, outreach and monitoring - not treated only as beneficiaries.

4. Locally-driven technology and practice selection

Matching technology and practice choice to local conditions, with demand data continuously informing procurement, outperforms uniform national targets.

6. Embedded gender and social inclusion, not an add-on

Institutionalizing gender action plans, disaggregated data and inclusion targets into design and MIS from the outset produces stronger, more equitable outcomes.

Public and private sector: where Nepal stands

Public sector - established base

- All five Nepal-specific national projects currently highlighted by GCF are [public-sector investments](#).
- Strong concentration in [adaptation, ecosystems, disaster risk, livelihoods and clean cooking](#).
- [International](#) AEs remain important: FAO, IUCN and UNDP, alongside [national](#) DAEs AEPC and NTNC.
- Public finance remains central to de-risking high-vulnerability investments.

Private sector - emerging frontier

- Private-sector participation is [still nascent](#) in Nepal's GCF country portfolio.
- [NIMB's readiness](#) support is designed to strengthen institutional capacity for renewable energy, resilient infrastructure and climate-smart finance.
- The [next step](#) is to translate readiness into a pipeline of investable transactions and [blended-finance](#) structures.
- [Potential areas](#): clean energy, e-mobility, resilient urban infrastructure, climate-smart agriculture and MSME finance.

Challenges in Mobilizing Climate Finance



Limited domestic resources

A low-income economy cannot self-finance the bulk of the need.



Restricted external access

Few accredited entities and tight country allocations.



Lengthy, complex processes

Long approval cycles slow projects from concept to cash and conditionalities.



Differing understanding

Stakeholders interpret climate finance rules differently.



Weak preparation capacity

Limited ability to build bankable, climate-rationale projects.



Fragmentation & low absorption

Scattered aid and weak utilization reduce impact.

Nepal's opportunity pipeline



Climate-resilient water security and river-basin management, linking adaptation outcomes with investable infrastructure.



Integrated early warning and anticipatory action, building on GLOF and flood-risk experience.



Climate-smart agriculture and resilient food systems, with stronger value-chain and private-finance components.



Low-carbon urban mobility and e-mobility, including links with ADB's multi-country E-Mobility Program.



Clean cooking and distributed renewable energy, moving from household adoption toward market transformation.



Nature-based solutions, forest landscapes and locally led adaptation at provincial and local levels.



Climate finance for MSMEs and domestic financial institutions through blended-finance facilities.

Way Forward to Climate Finance Mobilization

- 1 Expenditure **prioritization, cost-effectiveness, efficiency** and improvement in expenditure systems
- 2 **Adaptation Capacity development** (project preparation, climate rationale)
- 3 **Carbon trading** (regulations, carbon registry and private sector involvement)
- 4 **Innovative financial instruments** (Debt Swap, Green Bond, Blended Finance, Payment for ecosystem service, Rhino Bond, Tiger Bond, Conservation Dividend)
- 5 Leveraging the private sector and **de-risking private investment**

PROPOSED PARTNERSHIP PRIORITIES

What Nepal would value from GCF

- 1 Stronger support for a country-owned, multi-year GCF investment pipeline.
- 2 More predictable and faster project approval
- 3 Institutional capacity development of DAEs
- 4 More focus on climate resilient and adaptation projects
- 5 Continued peer learning among EASA countries on successful project structuring and implementation

A WARNING FROM THE HIMALAYAS

Bhote Koshi- Trisuli River Floods • Climate Justice

A local catastrophe can become a regional development shock — and a global climate message.

THE CLIMATE JUSTICE LENS

0.1%

of global emissions from Nepal

½ t

CO₂e per person per year

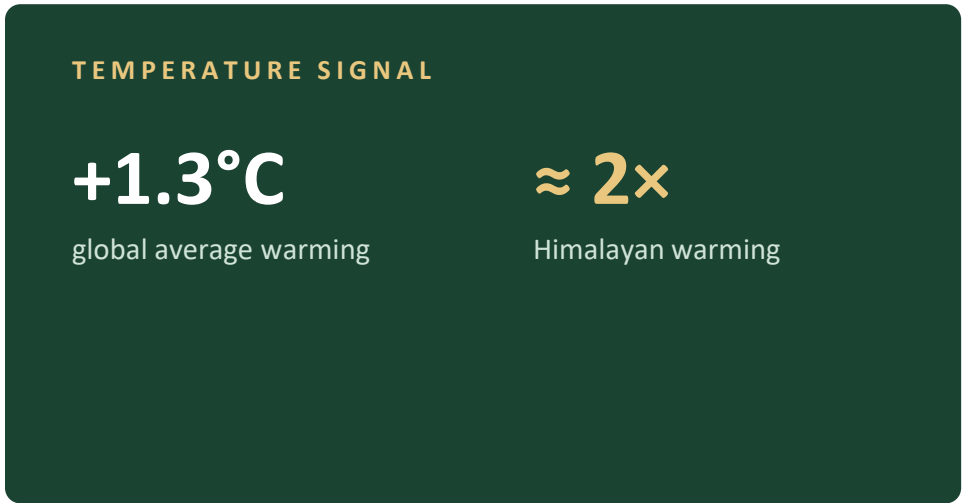
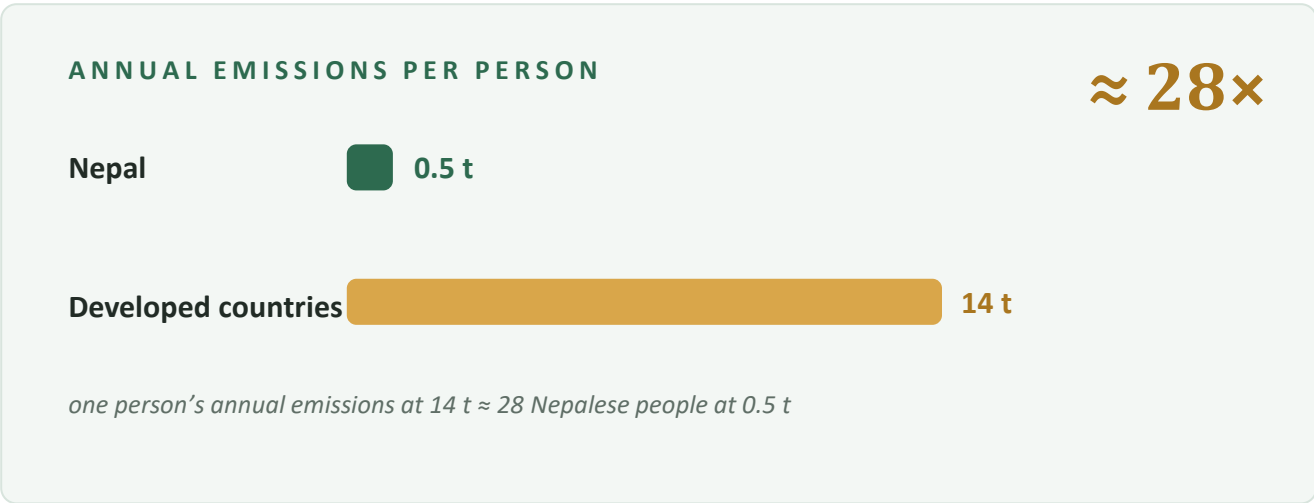
Yet the Himalayan cryosphere is changing faster than communities can adapt.

MESSAGE

Climate impact is not proportional to climate responsibility.

The injustice is visible in the numbers

Very low emissions. Very high exposure. A widening adaptation burden.



CLIMATE JUSTICE

Those who contributed least to the problem are often asked to absorb the highest adaptation costs.

The GCF can help close that gap by moving finance toward risk reduction before disasters occur.

Source: user-provided facts; Nepal's 0.1% global GHG contribution and ~0.5 tCO₂e/person are consistent with World Bank reporting.

A flood became a development shock

Your supplied figures show losses spreading across every layer of the economy.

1,300+

bodies recovered

5,000+

people missing

10,000+

people rescued

US\$ 4.16 bln

property loss (approx.)

ENERGY

14 hydropower plants

≈ 750 MW destroyed

INFRASTRUCTURE

40 motorable bridges

40 km paved roads
destroyed

FINANCE

16 bank branches

NPR 26B insurance
claims

SETTLEMENTS

10,000+ homes

destroyed / unsafe to
live

“Many things collapsed within minutes - not years.”

One river corridor. Six systems disrupted.

The Bhote Koshi experience connects humanitarian risk with economic and regional connectivity risk.



The vulnerability is interconnected.

From warning to action

What should climate finance do differently after Bhote Koshi?

01

RISK INTELLIGENCE

Real-time cryosphere, flood and landslide monitoring across the Himalayan region.

02

ANTICIPATORY ACTION

Finance early warning, evacuation, emergency logistics and pre-arranged response funds.

03

RESILIENT INFRASTRUCTURE

Climate-proof roads, bridges, hydropower, settlements and border facilities.

04

REGIONAL COOPERATION

Strengthen data sharing, transboundary warning and coordinated disaster preparedness.

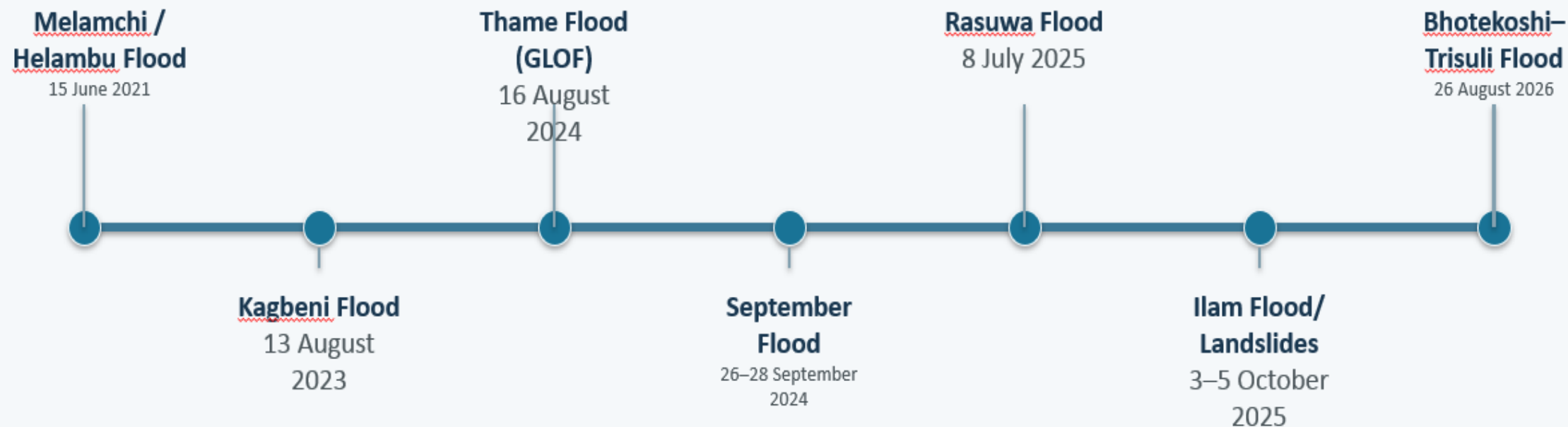
05

LOCALLY LED RECOVERY

Restore livelihoods, services and trust — not only physical assets.

NEPAL'S MESSAGE: The Himalayas are a global life-support system - protecting them is a shared responsibility.

Bhotekoshi-Trisuli Flood is not only the one:





PRE-EVENT (TIMURE BAZAR)



POST-EVENT (DEBRIS FLOW WASHOUT)



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Before

F.10



Now.





Conclusion

- High Climate vulnerability: Floods, Landslides, Droughts, Ecosystem Degradation, Glacier melting and GLOFs,
- NDC/NAP/LTS require significant investment with a huge financing gaps (73.7 billion NDC/ 47.4 billion NAP)
- GCF is a major source of climate finance for Nepal
- Nepal is ready to deepen its partnership with GCF and Regional Peers

Solidarity for Climate Justice



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| 10 YEARS OF CLIMATE IMPACT |

Thank you

Colombo, Sri Lanka
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