
Capitalising Green Finance for Nepal

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ACRONYMS

ABS	Assets Backed Securities
ADB	Asian Development Bank
ADFD	Abu Dhabi Fund For Development
ADPC	Asian Disaster Preparedness Center
AEPC	Alternative Energy Promotion Center
AF	Adaptation Fund
AIIB	Asian Infrastructure Investment Bank
ASHA	Adaptation for Smallholders in Hilly Areas
ASTED	Association of Solar Thermal Energy Development
BEK	British Embassy, Kathmandu
BFI	Bank and Financial Institutions
BO2	Business Oxygen
BRI	Belt and Road Initiatives
BUR	Biennial Update Report
CBO	Community Based Organization
CCFF	Climate Change Financing Framework
CIF	Climate Investments Funds
COP	Conference of Parties
CPEIR	Climate Public Expenditure and Institutional Review
CSO	Civil Society Organization
CSR	Corporate Social Responsibility
DAC	Development Assistance Committee
DFID	Department for International Development
DP	Development Partners
EIB	European Investment Bank
EMCAF	Emerging Market Climate Action Fund
ESRM	Environmental and Social Risk Management
ESCOs	Energy Service Companies
FCPF	Forest Carbon Partnership Facility
FDI	Foreign Direct Investment
FITTA	Foreign Investment and Technology Transfer Act
FITTR	Foreign Investment and Technology Transfer Regulation
FNCCI	Federation of Nepalese Chambers of Commerce and Industries
FOREX	Foreign Exchange
FMO	The Entrepreneurial Development Bank
GBIME	Global IME Bank
GDP	Gross Domestic Product
GCF	Green Climate Fund
GEF	Global Environment Facility
GESI	Gender Equality and Social Inclusion
GHGs	Green House Gases
GoN	Government of Nepal
GRID	Green Resilient and Inclusive Development
IDPG	International Development Partners Group
IEA	Initial Environmental Assessment
IFC	International Finance Corporation
IT	Information Technology

LAPA	Local Adaptation Plans of Action
LDC	Least Developed Countries
LDCF	Least Developed Countries Fund
LMBIS	Line Ministries Budget Information System
LTS	Long Term Strategy for greenhouse gases emission
MDB	Multilateral Development Bank
MoF	Ministry of Finance
MoFE	Ministry of Forests and Environment
MRV	Monitoring, Reporting and Verification
MSME	Micro, Small and Medium-size Enterprise
NAPA	National Adaptation Programme of Action
NAP	National Adaptation Plan
NASTE	Nepal Association of Solar Thermal Energy
NDC	Nationally Determined Contributions
NEA	Nepal Electricity Authority
NGO	Non-Governmental Organization
NPC	National Planning Commission
NREP	Nepal Renewable Energy Program
NTFPs	Non-Timber Forests Products
OECD	Organization for Economic Co-operation and Development
PPA	Power Purchase Agreement
PPA	Public Procurement Act
PPD	Public-Private Dialogue
PPPIA	Public-Private Partnership and Investment Act
RETs	Renewable Energy Test Stations
REDD+	Reducing Emission from Deforestation and Forest Degradation
SAARC	South Asia Association for Regional Cooperation
SAP	Strategic Action Plan
SARH	South Asia Research Hub
SASEC	South Asia Sub Regional Economic Cooperation
SBTI	Science-Based Targets Initiatives
SCCF	Special Climate Change Fund
SDG	Sustainable Development Goals
SREP	Scaling up Renewable Energy Program
SUTRA	Sub-national Treasury Regulatory Application
UNFCCC	United Nations Framework Convention on Climate Change
VAT	Value Added Tax
WB	World Bank

PREFACE

Nepal has raised its climate ambition with clear climate action targets articulated in its recent submission of Nationally Determined Contributions (NDCs), Long Term Strategy (LTS), and National Adaptation Plans (NAPs) to the United Nations Framework Convention on Climate Change (UNFCCC). The government is also moving towards mainstreaming climate change in its planning and budgeting process across government and key thematic sectors.

Nepal's financing target for adaptation and mitigation is about 46 billion USD by 2030, which is ambitious but necessary to meet the net zero and climate resilience targets. The current trend and scenarios on climate financing based on the analysis of all sources of climate finance that could be available indicate that over half of the estimated amount remains as funding gaps to meet Nepal's climate commitments.

I am very happy to see that this paper "Capitalising Green Finance in Nepal" builds on past commitments, opportunities, and Nepal's aspirations to better understand the resources required to realise those ambitions. This report collates up-to-date information and analysis on climate finance needed to meet Nepal's climate ambition and develop an overarching narrative and strategy to meet the financing gaps for green financing in Nepal. The analysis of bottlenecks around climate financing and recommendations are very practical and relevant for the government and other stakeholders to overcome challenges and build on opportunities that exist.

Furthermore, this report has contributed to the background and contextual analysis as well as building the strategic priorities to access and manage the resources to meet the climate commitments in preparation for Nepal's Climate Finance Strategy and Action Plan currently being drafted by the Ministry of Forests and Environment (MoFE), National Planning Commission (NPC), and Ministry of Finance (MoF).

I would like to thank the Ministry of Finance for requesting this study to the South Asia Research Hub (SARH), Foreign, Commonwealth, and Development Office (FCDO), and technical study done by the team of Policy and Institutions Facility (PIF), Oxford Policy Management (OPM).

I hope this report will be vital for all relevant government, non-government, and development partners to continue to take their efforts to access and mobilise climate finance for ensuring Nepal's commitment is achieved by 2030 and beyond.



Dr. Pem Narayan Kandel

Secretary,
Ministry of Forests and Environment
Government of Nepal

ACKNOWLEDGMENTS

Nepal is highly vulnerable to climate change due to its fragile topography and socio-economic condition. Women, children, poor, marginalized and indigenous communities are facing the disproportionate effects of climate change. Climate related risks are anticipated to worsen, threatening the lives and livelihoods of Nepali people.

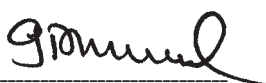
The Government of Nepal has acknowledged threats posed by the ongoing climate crisis and continues to take concrete, bold initiatives in response. Nepal has established specific adaptation and mitigation targets, presented in our Nationally Determined Contributions (NDCs), National Adaptation Plans (NAPs), and Long-Term Strategy (LTS). During the 26th Conference of Parties to the United Nations Framework Convention on Climate Change (COP26), the Government of Nepal announced a series of world-leading commitments to remaining cumulatively “net zero” carbon from 2022 to 2045 and to become carbon negative after that; to halt deforestation and increase forest coverage to 45 percent by 2030, and to protect all vulnerable communities from climate change by 2030.

Nepal has also taken steps to expand our access to climate finance as part of our commitment to a forward-looking, low-carbon, climate-resilient development trajectory. The Government of Nepal anticipates that 46 billion USD will be required to meet our ambitious climate adaptation and mitigation targets. However, Nepal also faces considerable constraints in mobilizing sufficient climate finance and making the necessary large-scale investments to support climate adaptation and mitigation. It is also true that domestic public financing alone will be insufficient to bridge Nepal’s current climate financing and investment gaps; hence private-sector participation remains essential.

This paper, “Capitalising Green Finance in Nepal,” is highly relevant in providing up-to-date estimates and analysis of Nepal’s climate financing needs, as well as offering an overarching narrative on financing shortages and the resulting obstacles to climate action. This research proved critical in providing data and analytics informing Nepal’s Climate Finance Strategy and Action Plan 2022-2032 and has proven instrumental in developing a strategic action plan for Nepal’s Green, Resilient, and Inclusive Development (GRID) approach, now being pursued in partnership with a range of development partners.

I would like to thank Moragh Loose, Craig Irwin, and Simon Lucas of the UK’s Foreign, Commonwealth and Development Office for providing financial and technical assistance in compiling this study. I would also like to express appreciation for the technical assistance provided by the Oxford Policy Management team, particularly Dr. Bimal Raj Regmi, Apar Paudyal, Dr. Ram Prasad Lamsal, Dinesh Acharya, Regan Sapkota, Rojy Joshi, and Phil Marker.

This study, in my opinion, offers a virtual repository of knowledge and insights that will benefit Nepal in obtaining and managing the country’s climate financing and green-funding requirements over the years to come.



Ishwori Raj Aryal

Joint Secretary

International Economic Coordination Cooperation Division (IECCD)

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EXECUTIVE SUMMARY

This report presents the trends and scenarios on climate financing in Nepal. It examines the current trend of accessing climate finance and analyses climate financing options for 2030 considering Nepal's aspirations, resources required to realise those ambitions, past commitments and opportunities, and next steps. It provides an analysis of existing barriers and enablers in accessing climate finance to diversify investment for Green, Resilient, and Inclusive Development (GRID). The key strategic direction and action plan have been proposed for the governments and wider national and international financiers (including the private sector) to increase investments and meet Nepal's climate/green objective.

Between 2012-2020, Nepal received about USD 4.416 billion in climate finance resources through various international, bilateral, and multilateral sources for climate change adaptation and mitigation. The Government of Nepal is now well-prepared to respond to climate change with a clear plan, targets, and roadmaps for mitigating and adapting to climate change, including loss and damage and estimates of climate financing required to deliver the climate action. Nepal announced ambitious plans during COP26, with the request to development partners to help meet significant funds to achieve adaptation and mitigation targets. Only if both public and private investments are secured, accessed, and mobilised will the estimated USD 46 billion (USD 25 billion estimated by NDC and USD 21 billion estimated by NAP) in climate financing be possible by 2030.

Based on the analysis of all the possible sources of climate finance that could be available to meet the financing targets of NAP and NDC by 2030, it is estimated that about 56.5 % of funding gaps exist to meet the climate commitments target. Meaning that little over half of the amount is still observed as a financing gap in the moderate scenario. This is estimated based on future potential financing opportunities till 2030 from pledges from international development partners, Green Resilient and Inclusive development initiatives, UNFCCC funding windows, international climate windows, Nepal's private sectors, and projected Government of Nepal domestic investments.

Understanding this context, the study analysed current barriers and potential enablers to access climate and green financing in Nepal including private sector investments to meet the climate objectives.

The key barriers have been analysed across five categories and Nepal's priority sectors of a) Clean energy; b) Agriculture; c) Forestry; and d) Sustainable tourism and are summarised here:

1. **Policy, and Regulatory:** There are numerous policy uncertainties and inconsistencies related to mobilising the private sector, development agencies, and Foreign Direct Investments (FDI).
2. **Institutions and Governance:** The implementation of policies is poor; there is the limited institutional capacity to access, mobilise and absorb financing; limited access of vulnerable communities to climate funds for scaling up locally-led adaptation; political uncertainties and hostile owner and labour relationships affect investments; there is inadequate coordination between government and the stakeholders.
3. **Finance and Economics:** There has been limited climate and green finance diversification. The climate investments in Nepal face a relatively high cost of capital, and there are market and commercial risks related to climate projects.

4. **Technology and Markets:** There are specific barriers to private sector investments, including a mismatch of requirements with international funding sources.
5. **Information and Capacity:** There is a lack of clarity on financial needs for mitigation and adaptation; developers face challenges to develop bankable projects; there is limited capacity to appraise climate projects on the side of financiers.

There is a lot of room for private sector investments in climate change and green financing of over USD 46 billion up to 2030. The last five years of climate budget allocation of the GoN showed 4% to 5% of the annual budget for highly climate-relevant actions. If the government allocates sufficient domestic money, i.e., around 10-15% of the annual budget on climate change, the private sector, and other development agencies will be encouraged to invest in Nepal. A friendly and favourable environment for private sector investment and international financing is also required. The Government of Nepal, therefore, needs to be more proactive, strategic, and forward-thinking in terms of climate and green financing. Nepal needs to expedite the exploration of sources of climate finance to accelerate the implementation of climate action by 2030.

The investment strategy and action plan provide structured guidance, with indicative timelines, on the priorities that GoN, with the Ministry of Finance and Ministry of Forests and Environment in the driving seat, should focus on to overcome some of the barriers above.

1. **Policy and Regulatory:** reform policies to avoid inconsistencies and duplications; create policy incentives to accelerate access and mobilisation of green finance including attracting private sector and foreign direct investments; strengthen the integration of climate and green agenda and priorities in planning, budgeting, and financing; continue to further update standards.
2. **Institutions and Governance:** institutional strengthening; governance improvement through coordination of the implementation of the investment strategy.
3. **Finance & Economics:** increase access to and diversify sources of finance; develop the most attractive innovative financial instruments to maximise access to green and climate finance; and ensure the finance reaches to the local level for scaling up locally-led adaptation.
4. **Technology and Markets:** help develops value chains and promotes funding in priority sectors.
5. **Information & Capacity:** establish and functionalised Monitoring, Reporting, and Verification (MRV) System: build capacity of private sector players in the value chain.

Contribution: The data and analysis, offered in this study, were utilized as evidence for developing Nepal's climate financing strategies and action plan. The draft plan, which is now undergoing approval, aims to assist Nepal's government in developing the national ability to diversify, access, and disburse the funds required to implement Green, Climate-Resilient, and Inclusive Pathways.

1. INTRODUCTION

This report responds to the request from the Ministry of Finance, Government of Nepal on “Capitalising Green Finance for Nepal”. The study primarily provides credible estimates and analyses, where available, of the broad levels of climate finance needed to meet Nepal’s climate ambition, and consequent gaps, then it highlights the main barriers to accessing the finance, and finally provides an overarching narrative on the steps Nepal can take to overcome some of these challenges.

During the inception phase, with the series of discussions held with the South Asia Research Hub (SARH), Foreign Commonwealth and Development Office (FCDO), British Embassy Kathmandu (BEK), and BEED, it was agreed to use the research under this assignment to support the Green, Resilient and Inclusive Development (GRID) action plan development process. The Government of Nepal and 17 International Development Partners Groups (IDPG) signed the landmark ‘Kathmandu Declaration on 23rd September 2021 to develop a Strategic Action Plan (SAP) for Nepal towards the GRID initiative. The government and development partners intend to scale up green growth opportunities in the areas of sustainable tourism, renewable energy, cleaner transport, resilient roads, integrated solid waste management, sustainable forest management, watershed protection, and water supply, biodiversity conservation, adaptive social protection, climate-smart agriculture, and sustainable cities. Under the GRID, development partners have provided an estimate of USD 4.2 billion of future funding. The Ministry of Finance, Government of Nepal is taking a leadership role in taking the GRID Strategic action plan development forward.

The GRID initiatives are very well aligned to deliver Nepal’s climate ambition both on adaptation and mitigation as articulated in the country’s Nationally Determined Contribution (NDC), Long Term Strategy (LTS), and National Adaptation Plan (NAPs) which have the ultimate aim of promoting green growth opportunities in the context of the post-COVID-19 development priorities. At COP26 in Glasgow, UK the Minister of Forests and Environment, made three key important announcements on Nepal’s commitment to climate ambition to i) Remain cumulatively ‘net zero carbon’ from 2022-2045 and become carbon negative after that; ii) Halt deforestation and increase forest cover to 45% by 2030 and iii) Ensure all vulnerable people are protected from climate change by 2030. In addition, the senior officials of the Government of Nepal communicated bilaterally to various donors and investors on the financing needed to deliver Nepal’s climate action plan.

2. SCOPE OF STUDY

The overarching goal of this study is to provide a detailed analysis and recommendations on the GRID/Climate finance strategy for consideration by the Ministry of Finance (MoF) together with the National Planning Commission (NPC) and Ministry of Forests and Environment (MoFE). This study draws estimates and analyses on the climate finance needed to meet Nepal's climate ambition and develops recommendations for review by MOF on the development of GRID/Climate Finance Strategy and Action Plan to fill financing gaps and barriers. This will enable the Government of Nepal to make informed choices and finalise its Green Finance Strategy to enable resource mobilisation efforts to deliver climate and green development ambition through various sources of funds. This is meant to:

- Guide the GoN on the available sources of domestic and international sources of finance available to deliver climate ambition as committed globally and identify green growth opportunities as initiated through GRID.
- Understand barriers and enablers to access and mobilise climate/green finance for private investors.
- Develop a GRID (climate) finance strategy based on the assessment, including estimating the potential resources available from domestic, international, and private sources and investors
- Support in informing the key areas and contents that can be prioritised for investment at the Green Investment Summit.

3. METHODOLOGY

The study was carried out based on a review and analysis of Nepal's investment priorities to deliver climate and green development ambition to provide credible options to attract donors and investors. The study builds on the review, analysis, and synthesis of existing evidence of climate finance flows in Nepal including mapping of resource requirements, funding opportunities at national and international levels, analysed of the key enablers and barriers for investments (in particular private investment) and provide a clear way forward in terms of strategy and action plan for the government and wider investors to meet the low carbon climate resilient objectives of Nepal. In the process, the study reviewed the available relevant literature, carried out stakeholder consultation with various national and international stakeholders, and received guidance from the Ministry of Finance. The detailed methodology adopted for this study is presented in Annex B.

4. UNDERSTANDING THE GREEN FINANCING CONTEXT

This chapter provides an overview of the trends of Climate/Green Finance in Nepal (policy mechanisms, climate finance governance, and fund flow analysis), and an analysis of the sources, institutions, and funds that Nepal can harness soon for climate action and green resilience and inclusive development.

4.1 Climate/Green Finance trends in Nepal

Government climate financing data on domestic contributions are limited; nonetheless, the government asserts that its climate budget has increased dramatically in recent years, both in absolute terms and as a percentage of total climate financing. In 2017-18, the major component of the climate change budget was a USD 2.3 billion transfer from the federal government to local governments. In the absence of a more systematic understanding of what the money was being spent on, this transfer was classified as 100 percent climate-relevant financing. Table 1 demonstrates however that the government has only dedicated 5% of the budget to highly significant climate change actions in the last ten years. The lack of a financial separation between development and climate finance continues to make determining actual climate financing requirements difficult.

4.1.1 Domestic Climate Financing

The framework for climate finance in Nepal began in 2010 with the study on The Future for Climate Finance in Nepal. In the same year, the National Adaptation Programme of Action (NAPA) formulation process estimated about USD 350 million of finance would be needed to implement urgent and immediate climate adaptation priorities in nine different combined areas in the country. With the NAPA, the requirement to provide 80% flow of climate financing to the most vulnerable communities began, which led to the coining of the term Local Adaptation Plans for Action (LAPA).

In 2011, the Government of Nepal approved a National Climate Change Policy with key sector strategy and action plan needing priority to take action on climate. This was further revised in 2019 to address the federal restructuring process in Nepal after 2017. In 2011, Nepal carried out the first global Climate Public Expenditure and Institutional Review (CPEIR), to understand the state of climate financing and mapping of institutions involved in climate change activities at the national level. The CPEIR estimated that about 6% of the total national budget is climate-relevant and categorised 55% of donor resources as off-budget allocations. The CPEIR suggested rigorous tracking of public expenditure inside the national budget system as a vital tool in properly managing public finance. This resulted in the establishment of the first Climate Change Budget Code and User Guidelines in 2012.

The tracking of budget allocations to climate-related activities in the national budget has aided the assessment of climate-relevant investments made through normal development programmes. However, the climate budget code system faced an attribution issue leading to an overestimation of allocations right after the 2015 Earthquake and tagging of the fiscal equalisation grants mechanism to the local government as a climate-relevant expenditure. The

tagging process faces another systemic issue as it is done centrally by the planning and finance officials rather than by each line ministry programme and/or project developer.

Considering these practical issues in the climate budget tagging process, in 2017, the Ministry of Finance (MoF) launched the Climate Change Financing Framework (CCFF), to facilitate the integration of national policies and strategies relating to climate change finance in the budgeting process and help the government to channel all climate projects and streamline investments. The CCFF introduced a public finance management (PFM) reform roadmap primarily to address three policy challenges to climate finance in Nepal. With the introduction of the climate change budget code (2012) and CCFF reform roadmap (2017), the Government of Nepal's PFM system is capable of tracking and producing climate change relevant budget allocations as well as expenditure reporting annually at the federal and provincial levels. The provincial-level LMBIS was made compatible with the federal level LMBIS, hence the reporting format is made similar to the climate budget tagging process. Also, Nepal has already introduced SDG budget coding in the national budget system to monitor public expenditure aligned with the SDGs achievements.

In the last five years, the national climate budget has increased from USD 3.75 billion in 2017/18 to USD 4.66 billion in 2021/22. Similarly, it is becoming more relevant to the climate-related budget in terms of high and moderately relevant allocation. However, the allocation of budget on climate actions has increased in this fiscal year 2022/2023. The federal government has allocated 5.9% budget to highly relevant climate change activities. Also, all the provincial government and one third of the local governments have integrated climate actions in their fiscal year plan and budget. Table 1 shows the entire climate budget as stated in the Ministry of Finance's (MoF) budget speech in the last five years.

Table 1: Climate relevant Budget of Nepal in Billion (NPR and USD)

Budget detail		2017/18		2018/19		2019/20		2020/21		2021/22	
		NPR	USD	NPR	USD	NPR	USD	NPR	USD	NPR	USD
Total National Budget in Billion		1278.99	12.18	1315.16	11.74	1532.97	13.22	1474.65	12.50	1632.83	13.90
Climate Budget	highly relevant	57.73	0.55	58.00	0.52	79.84	0.69	79.09	0.67	91.67	0.78
	% of the total budget	4.50		4.41		5.21		5.33		5.61	
	moderately relevant	335.62	3.20	429.00	3.83	384.04	3.31	399.74	3.39	455.55	3.88
	% of the total budget	26.20		32.62		25.05		27.11		27.90	
	Total climate budget	393.35	3.75	487.01	4.35	463.88	4.00	478.84	4.06	547.22	4.66
Climate budget of the total budget (%)		30.76		37.03		30.26		32.44		33.51	

Source: MoF, 2021

Similarly, the provincial government has started to tag their programme as per the federal level procedures on the budget formulation in their budget process. Table 2 shows the provincial climate change budgets for fiscal years 2019/20, 2020/21, and 2021/22. Based on the relevance of climate change-related plans, strategies, and actions, the provincial budget is further divided into direct, indirect, and neutral categories. The direct and indirect figures were considered for this scoping. Karnali Province, Lumbini Province and Province One have however failed to deliver their climate-related budgets in FY 2019/20. Since many of the programs are implemented by the local governments, the provincial governments have implemented only limited climate change programs. Also, the provincial government has different institutional arrangements to look at climate issues and many of the priorities are related to forests and the environment, and other sector ministries present at the provincial level are yet to fully integrate climate change programming.

Table 2: Climate Change related Budget of Provinces in FY 2019/20 to 2021/22 in Billion

Province	Climate Relevance	FY 2019/20			FY 2020/21			FY 2021/22		
		NPR	USD	%	NPR	USD	%	NPR	USD	%
Province 1	Direct	NA	NA	NA	6.46	0.05	15.80	5.95	0.05	18.32
	Indirect	NA	NA	NA	16.11	0.14	39.39	11.64	0.10	35.84
Madhesh	Direct	2.04	0.02	5.26	27.76	0.24	8.27	3.85	0.03	11.4
	Indirect	3.12	0.03	8.07	2.95	0.02	8.79	6.2	0.05	18.34
Bagmati	Direct	4.36	0.04	9.16	2.23	0.02	4.34	3.53	0.03	6.11
	Indirect	14.61	0.13	30.69	16.33	0.14	31.75	15.44	0.13	26.75
Gandaki	Direct	17.35	0.15	54.00	16.92	0.14	48.55	11.35	0.10	37.78
	Indirect	6.85	0.06	21.32	7.68	0.07	22.03	8.86	0.08	29.46
Lumbini	Direct	NA	NA	NA	2.19	0.02	6.02	4.06	0.03	9.92
	Indirect	NA	NA	NA	10.50	0.09	28.88	13.15	0.11	32.10
Karnali	Direct	NA	NA	NA	8.75	0.07	25.93	9.92	0.08	27.14
	Indirect	NA	NA	NA	8.89	0.08	26.36	11.91	0.10	32.60
Sudurpaschim	Direct	12.51	0.108	44.43	15.38	0.13	46.08	14.56	0.12	47.98
	Indirect	7.28	0.063	25.87	9.99	0.08	29.92	7.26	0.06	23.94
Total		68.14	0.59		152.13	1.29		127.68	1.09	

(Source: Province Red Book)

For the local governments, the tagging process is captured in the Sub-national Treasury Regulatory Application (SUTRA). There has not been any analysis carried out so far on local governments' level allocation on climate finance as SUTRA is a new accounting software launched at the local level and is not fully functional at all local levels with rich information. However, it is understood that many of the local government's programs and activities are relevant to addressing the climate change issue. There are several donor-supported LAPA project areas in the local governments where explicit priority on their annual program is given to adaptation and mitigation actions. Further analysis is needed to get a comprehensive picture of local level allocation on climate change.

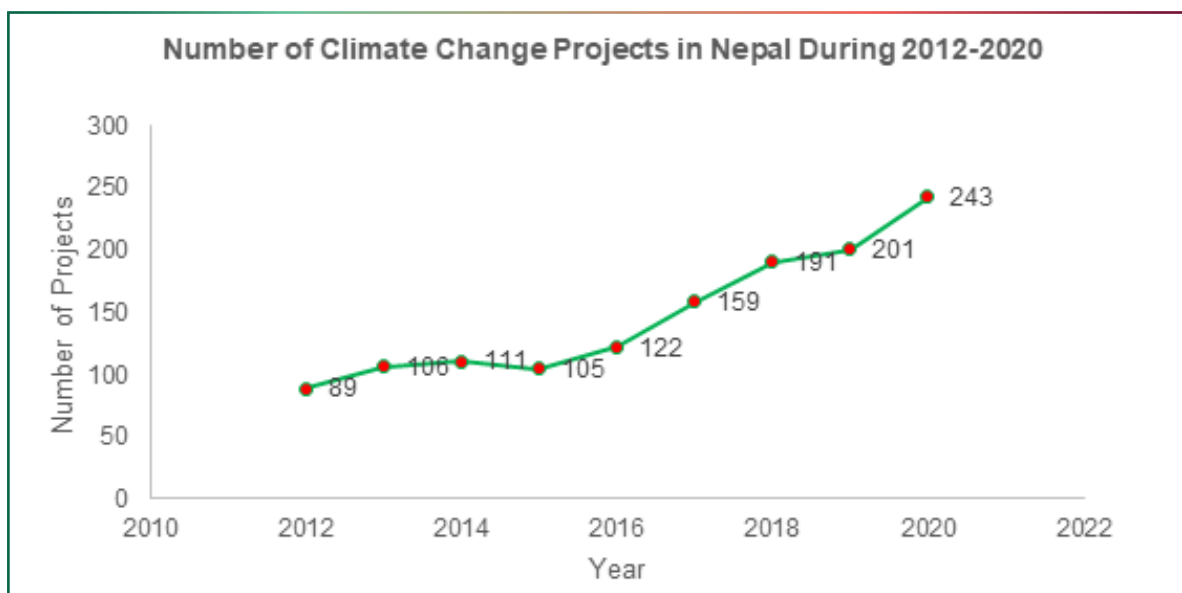
On domestic contributions, Government climate financing data remains patchy - however, the government claims that its climate budget has been growing significantly over the past few years, both in absolute terms and as a share of total climate financing. The largest component of the climate change budget in 2017-18 was a transfer from Central Government to Local Government, equivalent to the USD 2.3 billion. This transfer was treated as 100% climate-relevant financing - an assumption made in the absence of a more systematic understanding of what the money was being spent on¹. On the contrary, the government has only allocated 5% of the budget to highly relevant climate change interventions. This lack of budgetary distinction between development financing and climate financing continues to challenge a proper determination of actual climate financing needs.

¹ PIF. 2018. The Funding of climate change and disaster risk reduction in Nepal: Report prepared for the Department for International Development. Unpublished

4.1.2 Funds Received from Bilateral and Multilateral Sources

The OECD database shows that a total of 1327 climate-related activities were committed to Nepal in the period 2012-2020, with total climate commitments amounting to USD 4.416 billion. Figure 1 shows the climate-relevant projects committed in Nepal during 2012-2020.

Figure 1 Climate Change Relevant Projects Committed in Nepal during 2012-2020



Source: OECD, 2022

From 2012 to 2020 USD 1352.634 million from the Organization of Economic Cooperation and Development (OECD) member countries were committed to Nepal, as shown in Table 3. Similarly, Nepal has received about USD 2.6 billion from the Multilateral Development Bank (MDB) group, (USD1022m in 2020, USD 252m in 2019, USD 435m in 2018, USD 204m in 2017, USD 111m in 2016 and USD 567m in 2015) (MDB, 2020).

Table 3: Climate finance provider to Nepal from 2012-2020

Country	USD millions	Country	USD millions
Australia	25.25	Ireland	0.98
Austria	8.36	Italy	2.33
Belgium	2.92	Japan	56.17
Canada	13.38	Korea	56.05
Czech Republic	0.17	Luxemburg	0.76
Denmark	38.94	Norway	154.86
EU	67.21	Spain	0.36
France	26.28	Sweden	11.37
Finland	92.98	Switzerland	22.89
Germany	123.52	UK	275.15
Newzealand	0.29	USA	139.44
Total			1352.63

Source: OECD, 2022

Even in the absence of any measurable estimates on (a) loss and damage from climate change impacts; and (b) actual costs to manage climate change risks, the following overview reveals that Nepal has been able to generate a seemingly significant amount of climate change financing.

In 2021/2022 donor contributions to climate-relevant initiatives were equivalent to NPR 124.71 billion equivalent to USD 1.0479 billion (Table 4). The three largest providers of climate finance to Nepal remain the Multilateral Development Banks (MDBs) (see Figure 2). The largest financier was the World Bank (WB), providing around 33% of all climate-related finance flows. The next largest provider was the Asian Development Bank (ADB) at 29%, followed by the European Investment Bank (EIB) at 11%. Most of these funds were in the form of concessional loans.

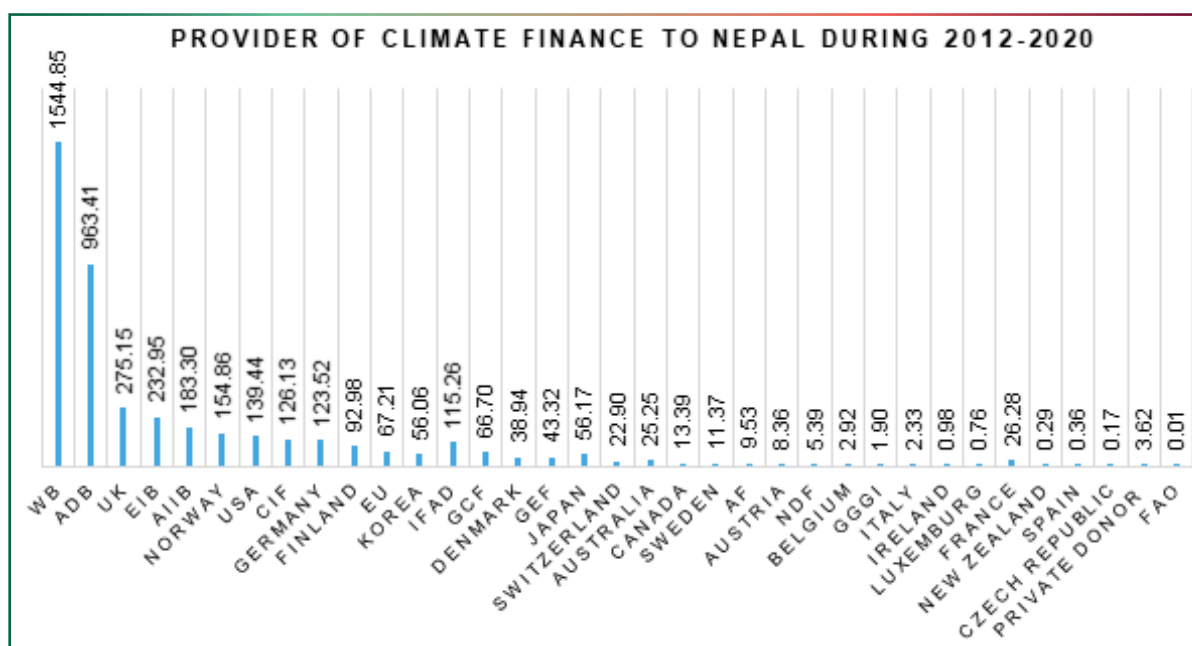
Table 4: Climate finance allocation in the last 5 years.

Budget detail		Fiscal year					
		2017/18	2018/19	2019/20	2020/21	2021/22	
Total climate budget (in NPR billion)		393.3	487.01	463.87	478.83	547.23	
Contribution	Government	319.97 (81.31%)	392.65 (80.62%)	363.35 (78.33%)	355.04 (74.15%)	422.52 (77.21%)	
	Donor fund	Grant	15.68 (3.98%)	24.20 (4.97%)	18.80 (4.05%)	30.22 (6.31%)	24.41 (4.46%)
		Loan	57.86 (14.70%)	70.16 (14.41%)	81.73 (17.62%)	93.58 (19.54%)	100.30 (18.33%)

Data Source: Aid Management Information System by Red Book, MoF

The largest providers of bilateral climate finance over the period are the UK (USD 83 million – 4% of the total), followed by the USA (USD 76 million – just under 4% of the total), and Germany (USD 48 million – 2.5% of the total)². Most of these funds were in the form of grants. During 2015–2020, the UK financing commitment for adaptation was £348 million. The largest portion of the UK’s climate financing was from Bilateral programmes (£162 million), followed by Global programmes (£134 million), and Multilateral Development Banks (£52 million).

Figure 2 Providers of climate finance commitment to Nepal



Source: OECD, 2022

² Source: PEA on climate financing, PIF. 2018

4.1.3 Funds received from the UNFCCC and other sources

Nepal used a variety of international, vertical, bilateral, and multilateral mechanisms to access climate finance. In 2010, the National Adaptation Programme of Action (NAPA) completed the first costing of Nepal's climate change financial needs. Nine of the most pressing adaptation needs were predicted to require USD 350 million, according to the programme. Since 2010, a total of USD 322.53 million has been accessed through the climate change windows, which include the Global Environment Facility (GEF), Adaptation Fund (AF), Green Climate Fund (GCF), and Climate Investment Funds (CIF).

Table 5: Funds received from UNFCCC sources

Fund	USD Million
Total	322.53 million
GEF	74.44 million
GCF	87.8 million
AF	9.5 million
CIF	150.79 million
- PPCR	74.14 million
- FIP	28.5 million
- SREP	48.15 million

Data Source: GEF, GCF, AF, CIF websites

Similarly, the Asian Infrastructure Investment Bank (AIIB), the Entrepreneurial Development Bank (FMO), and the European Investment Bank (EIB) have all put money into the green sector.

4.1.4 Private Sector Spending

There is no systematic record of domestic private-sector investments in climate change or green investments relevant activities in one place so far. The private investment in climate action is rather reactive guided by the promotion of conducive sectors policy environment by the government. Hence private investments are largely clustered in isolated programmes, voluntary initiatives, sector/projects, and incentives initiated by government and development partners, also often in partnership of both.

The private sector is mainly interested in investment in the following sectors i) renewable & alternative energy, such as hydropower of different scales, Off-Grid and Grid-connected solar, waste to energy, solar, wind, small & large scale biogas, etc; ii) Transport sector, including electric mobility of private and public transportation; iii,) Energy Efficiency Sector like Industrial energy efficiency measures, improved cooking stove, etc; and iv) sustainable nature-based tourism including airlines, hotels, trekking, mountaineering, adventure tourism, etc. The private sector initiatives have contributed to climate actions in delivering a sustainable impact. However, the occurrence of activities is confined to areas where they can receive subsidies or incentives.

Case 1: NMB Roof Top Solar Project

NMB bank received the long-term contractual arrangement for Built Operate & Transfer (BoT) for the energy the institution required for its operation. On Jan 2019 NMB signed a power purchase agreement (PPA) with Saraj Urja Nepal Private Company, an ESCO, for development of 50 KW of roof top hybrid (off & On-Grid) solar power plant. Saraj Urja invested the required capital and NMB bank will purchase all the energy produced by the power plant on agreed PPA rate for the period of 15 years. NMB will enjoy the reduced energy cost factored to lower PPA rate than national grid tariff. The excess energy will be sold to national grid on accessing the net-metering facility.

The information platform visualising an integrated portfolio of private participation in climate change or green investments is absent and needs further attention to organise the sources of investments.

In the energy sector, private firms are receiving technical as well as financial support from development partners to generate energy power. For biogas promotion, there was a biogas support program promoted by Nepal Biogas Promoter Association. The commercial biogas production to convert waste into energy shows considerable scope for development. For solar power, several institutions such as Renewable Energy Test Station (RETs), Association of Solar Thermal Energy Development (ASTED), Nepal Association of Solar Thermal Energy (NASTE), Renewable Energy Confederation Nepal, etc. are some of the private sectors involved in the green energy sector in Nepal. For Community electrification, till 2013, there were 78 private firms qualified for electrification purposes and similarly, 61 private firms have got survey licenses at that time.

Case 2: Carbon Neutral Airlines

In 2018, Yeti Airlines became the first airline in Nepal to successfully reduce and offset its total greenhouse gas emissions. The airline carried out carbon footprint assessment which identified 19,665 tonnes of CO₂ equivalent emission in 2018 from its entire operations, including flights, vehicles and other facility. Yeti Airlines was also able to offset its GHG emissions by procuring carbon credits, under the United Nations Framework Convention on Climate Change (UNFCCC) through 'Climate Neutral Now' platform. This equals to the amount of carbon sequester by approximately 325,165 trees growing over 10 years. As a part of emission reduction plan, Yeti Airlines aims to reduce emission through investment in its fleet for fuel efficient aircraft, flight operations, improving airport infrastructure and raising awareness.

The Renewal Energy Subsidy Policy, 2073 has provisioned an economic incentive to attract private sector investment for climate adaptation and mitigation measures. The incentive mechanism generally covers 40% of the total costs with the private sector assuming responsibility for 60% (30% credit and 30% equity) of required capital invested in cash and kind. The few subsidy initiatives that have been successful in mobilising private investment are summarised below:

- Under the Scaling-up Renewable Energy Program (SREP), the Government with the support of the World Bank has mobilized the USD 7.9 million on the Extended Bio-gas program attracting an estimated USD 12 million of private investment.
- Supported by ADB, the South Asian Sub-Regional economic cooperation (SASEC) power system expansion project has mobilised USD 11.5 Million grants and the USD 5 Million in credit lines to attract private sector investment in off- and on-grid renewable clean energy supply to realize 4.3 MW Mini-hydro and 500 KW solar/wind/hybrid project. The estimated private capital mobilisation is more than the USD10 Million considering an estimated cost of hydropower of USD 2 Million/ MW.
- Supported by DFID (now FCDO), the Nepal Renewable Energy Programme (NREP) with its budget of the USD 12.5 Million had a component that has attracted private capital.
- 2.8 MW Greenfield mini-grid subprojects and grid & capacity upgrade for an installed capacity of 1 MW ensuring sustainability.

There are several other initiatives to increase electricity generation from renewable energy mini-grids (Solar, Wind, Solar/Wind Hybrid, and Micro/ Mini Hydro) in selected areas by mobilising Energy Service Companies (ESCOs) to promote commercial financing and increase private sector participation. ESCOs are dedicated companies with know-how on climate-smart technology, products & services offering third party Investment Company on Energy Service (ESCO) business with assured performance.

There are many investors and companies engaged in the end-use of electricity such as the promotion of electric vehicles, e-cooking solutions, etc. There are entrepreneurs engaged in waste to energy solutions, waste management activities, and engaging with municipalities to scale up green action.

There are several potential opportunities for the private sector to engage in low carbon climate-resilient development. Favourable government policies such as VAT and tax exemptions, low-interest rates, financial incentives, and performance guarantees have created incentives for the private sector to invest.

4.2 Climate Finance Needs and Scenarios

The Government of Nepal has identified policy priorities to respond to climate change with a clear plan and roadmap for mitigating and adapting to climate change, including loss and damage and climate financing. The Environment Protection Act, National Climate Change Policy, Framework for Local Adaptation Plans of Action (LAPA Framework), Climate Change Budget Code, GESI and Climate Change Strategy and Action Plan, Long-Term Strategy for Achieving Net Zero Emissions (LTS), Nationally Determined Contributions (NDC), National Adaptation Plan (NAP), REDD+ strategy, and National Framework on Loss and Damage have all been endorsed by the Government of Nepal.

Nepal will require USD 25 billion for mitigation and USD 21 billion for adaptation between 2021-2030 while USD 47.4 billion for adaptation and USD 196.1 billion for mitigation are required between 2021 and 2050, according to the National Adaptation Plan, Nationally Determined Contributions, and the Long-Term Strategy. These are conditional on the availability of funds. The financial needs to meet the cost will be significantly higher if loss and damage are factored in.

Table 6: The financial requirements to meet the national policy targets

National targets		2021-2030 (USD Billion)	2031-2040 (USD Billion)	2041-2050 (USD Billion)
Second NDC		25		
Long Term Strategy for Net Zero Emission (LTS)	Reference scenario	4.2	7	17.5
	With Existing Measures	42.8	34.4	56.2
	With the Additional Measures	46.2	53.4	96.3
National Adaptation Plan (NAP)		21		26.4
Loss and Damage		1-2% of the GDP till 2021 and 13% of GDP loss projected by 2100		

Source: NAP, NDC and LTS (MoFE)

Based on the financing need, it is projected that the Government of Nepal can obtain USD 11.4 billion in funding from bilateral, multilateral, UNFCCC, international financial institutions, and Nepal's private sector over the next nine years to invest in green sectors, helping the country meet its mitigation and adaptation goals. There is a significant and continuous gap between the amount of climate finance Nepal requires and the amount it receives. There are, however, ways for the government to increase its domestic finance. If the direct climate-related initiatives, public financing, i.e., government support is projected to increase in the current trend, in 2030, public financing on climate-related initiatives would be roughly USD 8.6 billion. This means the fund will be worth a total of USD 20 billion. If domestic financing is doubled, it will be worth USD 17 billion. There will still be a shortfall of nearly USD 26 billion.

Table 7: Climate Finance for Nepal 2021-2030 (Needs vs. Pledges)

Target (USD in billions)	Pledges from IDPs (USD in billions)	GRID (USD in billions)	UNFCCC Window (USD in billions)	Potential from International Climate Window (USD in billions)	Nepal's Private Sector (USD in billions)	GoN (Projected) (USD in billions)	Gap (USD in billions)
46	5.167	4.191	0.53	1.31	0.22	8.6	25.982
	11.2 %	9.1%	1.2%	2.8%	0.5%	18.7%	56.5%

4.3 Future Opportunities for Green Financing in Nepal

At the international level, there is a growing alignment of the private sector toward the UNFCCC goals. The UN Global Compact and the Science-Based Targets initiative (SBTi) announced that 1,045 companies representing over USD 23 trillion in market capitalization (larger than the GDP of the USA) joined the 'Business Ambition 1.5 degrees celcius' campaign. Half of these companies have committed to 'Net-Zero' by 2050 using SBTi's framework. The Net Zero Asset Managers initiative announced 92 new signatories for a total of 220 investors managing USD 57 trillion in assets. More than 35 companies signed a legally non-binding declaration to accelerate the transition to 100% zero-emission cars and vans.

In addition, over 30 financial institutions managing over USD 8.7 trillion in assets and belonging to the UNFCCC's 'Race to Zero Campaign' pledged to "use best efforts" to eliminate commodity-driven deforestation risks in their investments and lending portfolios by 2025. Companies must meet four minimum criteria³ to participate. Ten global companies with combined annual revenue of USD 500 billion published a statement of purpose, promising to lay out "a shared roadmap for enhanced supply chain action" consistent with a 1.5 degrees celcius pathway by COP27. A total of USD 19.2 billion was pledged to halt and restore forest loss — USD 7.2 billion of this funding came from private investment.

In the South Asian region, a low-carbon growth path for countries goes beyond environmental benefits and opens enormous opportunities for climate investments, positioning companies for the markets of tomorrow. Just for infrastructure, the world will require about USD 90 trillion over the next 15 years—most of it in developing and middle-income countries. Across South Asia alone, from now to 2030, over USD 410 billion will need to be invested in renewable energy; another USD 670 billion in greening the vehicle fleet; and more than USD 1.5 trillion to ensure the future building stock is green and resilient (IFC, 2021).

However, there is a need to unlock trillions of private sector financing for climate-smart investment opportunities in key sectors of interest to businesses in Nepal and other South Asian countries. Nepal among other countries in the region is taking the lead in fulfilling their Paris Agreement commitments. Creating markets for climate-resilient infrastructure, climate-smart agriculture, renewable energy, sustainable transport, industrial energy efficiency, and green and resilient buildings, among others, can present a significant opportunity. This sizeable opportunity associated with the countries' ambitious targets cannot be achieved by the public sector alone. A strong and engaged private sector is often better placed to implement and execute projects; what they need are a market opportunity and a risk-adjusted return.

3 <https://unfccc.int/climate-action/race-to-zero-campaign#eq-3>

4.3.1 International development partners' commitments

The international development partners and the Government of Nepal jointly agreed to adopt the Green, Resilient and Inclusive Development (GRID) initiatives. The Kathmandu Declaration was signed by the Secretary of Finance on 23rd September 2021, paving the way for a Green, Resilient, and Inclusive Development (GRID) in Nepal through Strategic Action Plan (SAP). The GRID-SAP aims to harness the natural capital to create jobs and ensure food and water security by focusing on agriculture, sustainable forest management, eco-tourism, and water resource management. An increased focus will be placed on renewable energy, urban development, and transportation to build infrastructure that is eco-friendly and disaster resilient. Disaster risk management and social protection systems will be prioritized in the wake of the COVID-19 pandemic and because of increased instances of landslides and floods. Nepal's GRID Initiative will build on the Nationally Determined Contribution (NDC), its commitment to the Paris Agreement, and Nepal's 15th Development Plan. Nepal is on its course to establish a long-term strategic GRID platform and start a GRID committee in a joint partnership with the Ministry of Finance leading it along with private sectors and development partners to align investments and support the creation of green jobs as per the GRID objectives.

To achieve this, the GRID platform will be involved in the identification of new investments and political actions to deliver on Nepal's GRID vision. International Development Partners have currently pledged USD 3.2 billion, with up to USD 4.2 billion expected in new commitments in finances for GRID-related sectors (Table 8 below). Adopting the GRID model in Nepal will support the post-pandemic economic recovery and create new sustainable jobs in clean energy, agriculture, tourism, etc. in the short to medium term. Over the long term, GRID will ensure a sustainable, resilient, and more inclusive development while helping Nepal obtain zero carbon status before 2050. The Government of Nepal, International Development Partners, and the country's private sector must collaborate to ensure that GRID-SAP will achieve its objectives.

Table 8: IDPs commitments on GRID

Development Partner Name	Natural resources (USD Million)	Infrastructure & urban (USD Million)	Reducing vulnerability (USD Million)	Private Sector (USD Million)	Total New Commitment for Green Recovery (USD Million)
ADB	200	865	142	0	1207
EU	60	62	55	15	192
FCDO	0	67	67	85	218
FINLAND	5	11	0	0	16
GERMANY	15	26	0	0	40
SDC	9	0	0	12	21
UN	0	0	10	0	10
USAID	56	15	102	17	190
WB	358	1237	432	270	2296
New commitments from FY 21 onwards in GRID Sectors	702	2282	808	399	4191

Source: World Bank, 2021

4.3.2 Potentials within the climate financing windows

Nepal has already submitted its NAP, LTS and NDC, but their successful implementation depends heavily on the availability of adequate levels of climate financing. It is recognised that Nepal has very restrictive fiscal space to inject further economic stimulus into its already compromised economy.

There are some good opportunities for scaling climate financing from the UNFCCC sources. At COP 26, the Glasgow Climate Pact notes with concern that the current provision of climate finance for adaptation remains insufficient to respond to worsening climate change impacts in developing country Parties and urges developed country Parties to at least double their collective provision of climate finance for adaptation to developing country Parties from 2019 levels by 2025. The Pact also emphasizes the need to mobilize climate finance from all sources to reach the level needed to achieve the goals of the Paris Agreement, including significantly increasing support for developing country Parties, beyond USD 100 billion per year. The Least Developed Countries (LDCs) have demanded that an agreement has to be reached in establishing a dedicated financial facility for addressing Loss and Damage (L&D) issues. Considering the cost of losses and damages due to climate extreme events and climate induced disasters, the size of climate financing should grow bigger in the future.

Table 9: Potentials within UNFCCC financial windows⁴

Funding	Balance as of now (21 Dec 2021)	At present	Scope	2022-2030		
				Maximum	Moderate	Minimum
Green Climate Fund (GCF)	\$ 6.7 b	\$87.7 m (2015-2021)	Not ceiling based but a competitive process	\$ 800 m	\$ 500 m	\$ 300 m
SCCF	\$ 52.44 m	\$ 3.2 m Just once	Ceiling based	\$ 10 m	\$ 6 m	\$ 4 m
GEF	\$ 5.8 b	\$ 6-7m Per cycle of 4 years	Ceiling based	\$ 14 m	\$ 10 m	\$ 8 m
LDCF	\$ 831.77 m	\$ 50 m 2001-2021	Ceiling based	\$ 20 m	\$ 10 m	\$ 6 m
AF	\$ 600.54 m	\$ 10 m Just once	Ceiling based	\$ 20 m	\$ 10 m	\$ 6 m
USD				864 m	536 m	334 m

Source: GCF, SCCF, GEF, LDCF and AF websites

In the best-case scenario, the government will be able to access USD 864 million through the UNFCCC funding windows over the next nine years if it takes the necessary measures and receives payments on time. It has access to USD 536 million and 334 million in the moderate and low case scenarios, respectively.

There are also opportunities inside the international climate windows, where Nepal can assess roughly USD 1.75 billion in the next 9 years, with resources of USD 1.2 billion in the moderate case and around USD 729 million in the low case scenarios (Annex A).

4.3.3 Opportunities for private sector investment in climate change

The IFC estimates a USD 3.4 trillion climate investment opportunity for South Asia in key sectors between 2018 and 2030, assuming that each country will fully meet its NDC commitments and relevant sectoral targets, and policy objectives as stated (IFC, 2017). According to the International Energy Agency, the annual clean energy investment worldwide will need USD 4 trillion. UAE and US along with support from 30 Governments officially launched USD 4 billion for Agriculture Innovation Mission for Climate for the next 5 years.

⁴ The figure mentioned in this table from 2022-2030 is estimation based on the trend of climate financing in Nepal in the past and therefore not the real values.

The IFC estimates a climate-smart investment opportunity of more than USD 46 billion in Nepal between 2018 and 2030 with an investment opportunity of USD 22.5 billion in hydropower in Nepal between this period, reflecting an installed capacity of 12,000 MW, with an additional USD 2.1 billion investment opportunity in other forms of renewable energy (USD 707 million from biomass and converting waste to energy, USD 1.3 billion from solar, and USD 100 million from small hydro)⁵.

Nepal's forestry sector has the potential to play an important role in enhancing livelihoods, well-being, and social equity, while significantly reducing environmental risks and ecological scarcities, which directly contribute to the green economy. Small and medium forest-based enterprises could generate more than USD 8.7 billion and 1.38 million workdays through 400,000 sustainable full-time equivalent green jobs (Subedi et.al, 2014).

There are international financial institutions that have already committed or started to invest in the green sector in Nepal. A total of USD 1.3 billion has already been committed to Nepal. This may increase in the future depending on future efforts by the government in attracting international climate financing institutions.

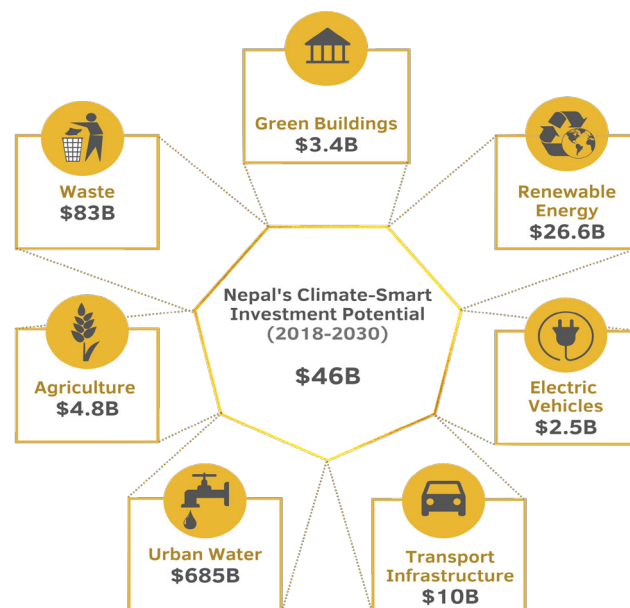
4.3.4 Domestic private sector funding potentials

The private sector in Nepal plays an important role in helping the government meet its mitigation and adaptation targets. Although the trends of private sector investment in Nepal are not encouraging, there are huge potentials in the future.

In 2022, the Central Bank of Nepal recently updated the 2018 Guidelines on Environmental & Social Risk Management (ESRM) for Banks and Financial Institutions (B/FIs) with an updated checklist⁶ on climate risks to projects those banks and financial institutions need to complete before issuing loans. The objective is to establish the Environmental & Social Risk Management Framework as the standard process for proactive evaluation and integration of environmental and social issues into the credit risk assessment process of B/FIs.

MSMEs currently constitute more than one-third of NMB Bank's total loan portfolio (approximately 4,800 borrowers) and the bank is working towards increasing its MSME base. NMB is also already one of the leading finance providers for local renewable energy providers in Nepal. Its renewable energy portfolio consists primarily of hydro projects (over 90 percent of its renewable energy portfolio) and total committed limits for renewable energy stand at approximately 17 percent of its total loan outstanding book.⁷ More information is provided in Annex A.

Figure 3 Climate Smart Investment Potential in Nepal for 2018-2030



Source: IFC, 2017

⁵ IFC. 2017. Climate Investment Opportunities in South Asia: An IFC Analysis. © International Finance Corporation.

⁶ Final-ESRM-with-cover.pdf (nrb.org.np)

⁷ <https://opecfund.org/media-center/press-releases/2021/the-opec-fund-boosts-renewable-energy-and-access-to-finance-in-nepal>

4.3.5 Non-traditional funds and philanthropies

The international climate financing framework has been complemented in recent years by several non-government funds and private sector investment groups. There is however the need to have a systematic database on mapping the non-traditional funds. Nepal needs to initiate discussion, dialogue, and negotiation with these available sources of funds to meet the climate action target. The list of non-traditional funds and philanthropies that Nepal has the potential to access but is not limited to such as Jeff Bezos Earth Fund, Bloomberg Philanthropies. More information is provided in Annex A.

5. CHALLENGES TO ACCESSING AND DIVERSIFYING CLIMATE AND GREEN FINANCING IN NEPAL

This chapter provides an analysis of the key issues and barriers related to accessing climate and green finance in Nepal and accelerating private sector and foreign direct investment. Chapter 6 provides a way forward on what can be done to overcome some of these challenges in a structured manner, especially to facilitate private sector investment, with the Ministry of Finance and Ministry of Forests and Environment in the driving seat.

The critical barriers to the access and mobilisation of increased levels of climate finance (in particular private capital) have been analysed under five key headings, regarding the priority sectors in Nepal⁸. Each section also includes a summary of the main sector-specific barriers that have been identified through interviews with key stakeholders.

Table 10: Barriers and Enablers analysis dimension in the sectors

Barriers and Enablers Dimension:	Selected Green/Climate Finance Sector Covered:
Policy and Regulatory Institutions and Governance Finance and Economics Technology and Markets Information and capacity	Clean Energy Agriculture Forestry Sustainable Tourism

5.1 Policy and Regulatory

There are numerous policy uncertainties and inconsistencies related to mobilising the private sector and Foreign Direct Investments (FDI)

Over the last ten years, the Government of Nepal has established policy and institutional structures to effectively promote climate finance in Nepal. Nepal has made commitments to ensure finance follows consistent with a pathway toward low greenhouse gas emissions and climate-resilient pathways. Nepal has committed to remain cumulatively 'net zero carbon' from 2022-2045 and become carbon negative after that and has also committed to ensuring a climate-resilient society by 2050.

The Foreign Investment and Technology Transfer Act (2019) is a guiding law for international investors in Nepal. However, it doesn't provide a clear framework to mobilise international funds to support climate or green private sector projects. The FDI regulatory regime permits equity participation for foreign investment, however, FITTA 2019 does not provide the required clarity on other crucial instruments, such as grants, loans, and guarantees. In addition, the act mentions that the shareholding of the company must have a foreign source in its share capital to qualify as an FDI company (FITTA Section 2. J). with any other form than equity for any national private sector companies interested in climate/green financing.

In addition, the Foreign Investment and Technology Transfer Act 2019 (FITTA) has replaced the Foreign Investment and Technology Transfer Act 1992 and has changed the Foreign Direct Investment (FDI) threshold from NPR 5 million to NPR 50 million. This change in policy provision has

⁸ This structure is loosely based on the methodology used in previous work carried out in other countries as part of the Climate Finance Accelerator and Climate Finance Pathfinder

limited the foreign investment in service sectors like software companies and small businesses, such as restaurants, coffee shops, and hotels. However, the investment floor threshold can be insufficient for large investment sectors like manufacturing industries, hydropower, mining, and so on. The Federation of Nepalese Chambers of Commerce and Industries (FNCCI), the country's apex private sector body, has argued that the investment limitation of NPR 50 million is not practical for small companies that are planning to startup businesses.

Box 1: Sector-specific policy and regulatory barriers

- **Clean energy**

The Rural Renewable Energy Policy, 2006 and respective Subsidy Policy 2016, Nepal Energy Strategy 2013, and many others have been formulated in the clean energy sector, but there are many inconsistencies. For example, the first NDC document targets to expand its energy mix focusing on renewables by 20% whereas the recent policy- paper 'Work Plan on National Energy Crisis Alleviation and Energy Development Decade, 2016' limits this target to 10%. Additionally, hedging regulations lack clarity and discourage the private sector from investing. Notably, the Public Procurement Act (PPA) has limitations on foreign currency.

The second nationally determined contribution has targeted to increase sales of all private passenger electric vehicles by 25% and 20% of all four-wheelers public passenger electric vehicles in 2025. Also, it has targeted to increase the sales of e-vehicles to cover 90% of all private passenger vehicles and 60% of all four-wheeler public passenger vehicles. However, the budget speech of the fiscal year 2020/21 has excised duties on e-vehicles of 30-80% depending on their capacity and levied customs duty of 60%. Due to this, there was a short fall in the sales of e vehicles in the year 2021. Later on, the budget speech of the fiscal year 2021/22 has backtracked to scrap the controversial tax hikes on e-vehicle imports. The inconsistency and instability of the policy provision in the e- vehicle promotion have raised issues on achieving the targets set by the government as well as discourages the private sector investment in this sector.

- **Agriculture**

GoN policies consider the agriculture sector as a priority, without preference in the promotion of low and high emitting technologies. However, the private sector faces challenges regarding land pooling and setting up industrial areas, in addition to the existence of a ceiling cost of land to be owned by industries. Also, the GoN has provided incentives for machinery like diesel pumps, tractors, power tillers, and chemical fertilisers, thereby making it difficult for low carbon technologies like solar pumping and electric power tillers to compete.

- **Forestry**

Due to the overlapping jurisdictions between forest, environmental and local government legislations, the private sector needs to face so many bureaucratic hurdles. Despite the Forest Act having allocated legal areas for private sector investment in forest production and conservation, the procedures for cutting, selling, and transporting forest products, particularly timber are considered very burdensome. Similarly tenuous is registering private forestry: according to the law, registered private forests should inform the concerned authority in writing with details of species they intend to sell in advance. Clarity on rights to harvest and processing of timber from private land, and contradictory provisions that arise from multiple agencies and procedures are critical barriers to investment. Additionally, there are unclear bases for applying and collecting royalties, prices, and taxes on forest products, including charging royalties on NTFPs and VAT on timber grown on private land (Subedi et.al 2014).

- **Sustainable tourism**

The private sector in the tourism industry faces a lack of policies in planning and zoning for tourism development. There are also no specific regulations on climate-resilient urban settlements, including those related to tourism, and businesses built around cultural heritage and archaeological areas require lengthy and costly approvals and permits to operate. Also, there are high tariffs on electricity usage for hotels and resorts, which heavily impact profitability.

5.2 Institutions and Governance

The implementation of policies is challenging

Nepal has recognised the need for adopting a 'whole of government/society approach' to address climate issues, and the Ministry of Finance has taken a leading role in coordinating climate finance actions. However, the response from crucial players has largely been lacking or not been systematic, thereby implementation has been challenging.

There are also challenges of delays in the decision-making process in most of the phases of project development and implementation for example in assessment, approval, and processing. These complexities and delays not only increase the cost but also discourage the investors. There are sector-specific challenges of policy implementation which are outlined in Box 2.

Box 2: Sector-specific policy implementation barriers

- **Clean energy**

The process of licensing, environmental impact assessment, survey, and project approval from protected areas and concerned government entities (municipality/ward office) add to the cost of the PPA process. The lack of incentives and subsidy policies for non-electric energy projects like biogas and clean cooking demotivate the private investor.

One of the issues in policy compliance is the sudden changes in the provisions and regulations by the government. The private sector has already invested huge finance to advance the project to the stage of maturity so that PPA can be signed. However, NEA has suddenly issued a new policy of auction-based competitively priced PPA for the solar project by ending the fixed-rate regime of the last three years⁹ jeopardizing the viability of the project. An official of the Power Company has pointed out that “the inconsistent and unstable alteration of policies discourage the private sector to invest in Nepal as their investment remains at high risk of loss with uncertainty with the changing policy provision”.

There are also severe delays in implementation and other bureaucratic hurdles, which increase the cost of the project and make it less viable. For example, due to the lack of a one-stop service centre, hydropower developers need to go through lengthy and time-consuming permitting processes. Also, a former foreign entrepreneur from hospitality industry (hotel) in Nepal said that the application procedure is redundant as an investor has to fill the document online and again has to submit the physical copy of the original documents.

- **Agriculture**

During implementation, the private sector faces challenges regarding land pooling and setting up industrial areas, in addition to the existence of a ceiling cost of land to be owned by industries.

- **Forestry**

In the forestry sector, there are also complex procedures and high transaction costs in harvesting and utilisation of forest products from private land. Forest-based enterprises often encounter problems in both the purchase of raw materials and the selling of final products, as they are geographically scattered and very often operate very small-scale businesses.

- **Sustainable Tourism**

The lengthy and time-consuming procedures to sell foreign entrepreneur shares in Nepal is disappointing compared with the other countries. For example, in Nepal, it would take 3 years to sell foreign investor shares whilst in some Asian countries it would take 30 minutes. Tourism-related businesses also face barriers in accessing international finance to promote their businesses. A foreign entrepreneur operating an eco-tourism business in Nepal shared his bitter experience of repatriation. He is trying to take away his business shares from Nepal since 2015 and has not succeeded yet.

Limited institutional capacity to access, mobilise and absorb financing

Access to direct international climate finance is becoming increasingly difficult. With a lengthy process, numerous requirements, and a slew of compliance measures and standards in place to favour international organizations, the process of gaining access is complicated and time-consuming. In addition, the global community and country governments must also specify how they will ensure this finance reaches those who need it most. This will mean committing more finance for locally-led adaptation ensuring local people and organizations who are often disproportionately vulnerable to climate impacts have a say in investment decisions and can access the funding and other resources they need to build resilience.

Like many other UNFCCC Non-Annex I signatory developing countries, Nepal continues to apply for and await bureaucratic approval of financing from the various traditional and narrowly defined ODA multilateral climate funding sources. The Global Commission on Adaptation Background Paper, (Motsumi, Barnett, Schalteck, 2019) states that “there is an observable gap that inhibits the flow of multilateral climate funds towards their intended impacts.” This “missing middle” is caused by the recipient country’s lack of institutional capacity in the existing national climate finance architecture that inhibits the flow of mobilised and facilitated multilateral climate finance, and thus ultimately hinders the flow of finance towards its intended purpose and beneficiaries. Moreover, with much greater demands anticipated for strategic

⁹ <https://kathmandupost.com/national/2022/01/25/electricity-authority-decides-to-buy-solar-power-through-competitive-bidding-citing-falling-prices>

financing and climate action from international and regional consortia (e.g. LDC Group, Group 77, and China, SAARC), Nepal will be hard-pressed to uniquely stand out from other countries to leverage vital climate finance.

Political uncertainties and hostile owner and labor relationships

Political instability remains one of the prevailing barriers which brought uncertainties and discourages private sector investment as well as one of the major challenges for private sector investments. Specific challenges related to this include events occurrences of such as strikes and closures, which prove costly to tourism businesses as well as damaging to the image of the country.

Case 3: Surya Nepal Garments

Surya Nepal Garments was established in 2004 and had an investment of about NPR 700 million. The factory had 608 direct employees and 1000 plus indirect employment created in its operational supply chain. In 2011, the wage negotiation among workers and management led to unfortunate consequences which led to the shut down of the factory. It resulted in NPR 300 million in annual tax losses, 1500+ of direct and indirect job losses. Likewise, during 2006-2011 period, 40 factories in the Sunsari-Morang Industrial Corridor were shut down due to political instability, energy crisis, labour problems and inability to compete in the international market.

Inadequate coordination between government and the stakeholders

The apex body for climate change coordination i.e. the Environment and Climate Change Council needs to be functional, thereby encouraging stakeholder participation in the strategic policy arena. The government also has replaced the Multi-stakeholder Climate Change Coordination Committee, which was more multi-stakeholder led, with the Inter-ministerial Climate Change Coordination Committee, often constraining the involvement of stakeholders in the decision-making process. Currently, there are no mechanisms for the private sector and other stakeholders to be engaged.

5.3 Finance and economics

Poor access of vulnerable communities and households on climate funds

Although Nepal has gained global recognition of its legal provision which mandates 80% of the finance coming from the international sources are spent for the implementation of climate actions at the local level, the access of poor and vulnerable households is poor. The decision making at the community level is still controlled by the elites and the powerful individuals often ignoring the needs of the vulnerable and making investment decisions on their own interest.

There has been limited access to climate and green financing

Accessing international climate financing through specialised diversified agencies remains the primary focus in Nepal since there is limited ability for national agencies to systematically access private or non-traditional financing. In addition, the complexities and compliances of the climate funds made it even more difficult for national agencies to access these global funds. Currently, in Nepal, there is no flexibility in systems or provisions in place to strategically identify and leverage the multitude of international and under-utilised climate financing windows that are far less bureaucratic in their eligibility requirements and processing timelines compared to global funds. In addition, limitations on institutional capacity have resulted in delays in leveraging resources and has limited diversification of projects that are funded. Most of the

climate change projects in Nepal have been implemented through international climate change funds, arguably because such projects are viewed as niche investments requiring special technical expertise, knowledge of targeted funding modalities, and the ability to access funds under a confusing and ever-evolving global climate finance architecture.

Climate investments in Nepal face a relatively high cost of capital

This challenge is very much in line with other similar countries and a common issue in green and climate investments. This signals the country as investment risks, which leads to the decision of non-investment, if the real or perceived risk is too high, or to a high-risk premium being applied to the cost of finance.

The high cost of capital is often due to several reasons, including:

- Political risk: according to the World Bank's 'Worldwide Governance Indicators' for 2020, Nepal is in the bottom quintile in all indicators (voice and accountability; political stability and absence of terrorism; government effectiveness; regulatory quality; and rule of law)¹⁰.
- Commercial risk: according to the World Bank's 'Ease of Doing Business' index, Nepal ranks 94, where 1 has the most user-friendly regulations¹¹.
- Limited to no existence of government-backed guarantees to back the funder in case of default.
- Low creditworthiness of government as project proponent: Nepal has not yet obtained a sovereign credit rating
- New or untested business models: this is particularly the case in green and climate investments.

There are market and commercial risks related to climate projects

Private sector players face project-specific challenges to design and implement climate/green projects. Projects need to be sufficiently robust with appropriate structuring, favourable internal rates of return and should be an attractive investment option. Some of the capacity issues will be mentioned in the section on 'Information and Capacity', but there are severe financial issues that hinder profitability, including the following.

- Revenue volatility: Climate projects are linked to climate vulnerabilities. This challenge further exacerbates revenue uncertainty and the same risk is real for a wider range of climate interventions. For the private sector to be able to participate, the market should be able to provide risk management products for all the sectors i.e., weather-index-based insurance, crop loss insurance for the agriculture sector, etc. Business confidence is weakened in the absence of innovative financial instruments for risk mitigation.
- Foreign Exchange (FOREX) risk: Nepal has not been able to provide convincing and rational solutions to manage foreign currency exposure like hedging, which can provide an option for risk management. Also, the approval process for repatriation of foreign currency is embroiled in a cumbersome process to convert the currency and obtain approval, discouraging even more foreign investors.
- Access to finance: The private sector faces issues related to accessing finance for climate-related projects. The prominent issues are limited debt availability, debt tenors that are inadequate, especially for infrastructure investment, and very limited availability of equity. Domestic private financing is challenged by collateral-based funding where lenders are backed by assets against the probability of default payments and tightly regulated by the central banks.

¹⁰ <http://info.worldbank.org/governance/wgi/Home/Reports>

¹¹ <https://data.worldbank.org/indicator/IC.BUS.EASE.XQ>

There are associated fiduciary risks in terms of bilateral and multilateral projects

Fiduciary risks are often one of the barriers to climate financing in Nepal. It is the risk of not utilizing funds for their intended purposes, not achieving value for money, and/or not properly accounting for the revenues and expenditures. Any circumstance or situation that prevents from managing the funds in an economic, efficient, effective, and equitable manner invites fiduciary risks. Fiduciary risks can be caused by varieties of factors, including a weak control system, inadequate organizational capacities, and staff incompetence.

Although the Government of Nepal has taken various measures to improve the public financial management system such as strengthening transparency, and ensuring downward accountability, there are loopholes in terms of meeting the required standards. This has resulted in development agencies using on-budge and off treasury modalities to avoid risks and uncertainties contrary to the government's persistent push to adopt a one-door policy and recognition of the national system.

Box 3: Sector-specific finance and economics challenges

- **Clean energy**

Project developers, particularly hydropower ones, face problems of financial viability due to social, environmental, and economic costs added to project costs. Hydropower developers need to undergo a long PPA process with the Nepal Electricity Authority (NEA), the authorised government entity for the generation, transmission, and expansion of electricity supply in Nepal. The PPA process includes application (that requires the submission of 9 documents), temporary registration, committee formation for evaluation, document review/study, technical study and evaluation, connection agreement, PPA draft work, guarantee management, and power purchase rate negotiation.

- **Agriculture**

The private sector often lacks access to FDI given most climate-smart technologies are considered to be too expensive. The low purchasing power/capacity of end-users of technologies and products most likely hinders investment in adaptation options in this sector. Due to incentives and subsidies, grants, and aid provided to the domestic private sector, foreign companies cannot compete in the market. In addition, changes in climatic conditions like drought and flooding, hinder productivity and affect the commercialisation of agro-based products.

- **Forestry**

Forest-related businesses, particularly commercial forest (production), are very limited. Forest sector financing, especially in production and conservation, is limited or does not exist in practice. Also given the novelty of some of these concepts, the capacity of Banks and Financial Institutions (BFIs) and Insurance Companies to assess financing risks and design appropriate products is also low.

- **Sustainable tourism**

Economic governance issues, such as the poor implementation of public investment, macroeconomic problems concerning the balance of payments, poor monitoring and enforcement of regulations around business standards and practices, and rent-seeking among others, affect the sector. There is no enabling environment and real commitments for foreign entrepreneurship in Nepal, and businesses face challenges in accessing international finance to promote their products.

5.4 Technology and markets

There are specific barriers to private sector investment. Some of the main barriers faced by the private sector are indicated below, which discourage investment, and therefore impact the growth of sustainable value chains, and the overall flow of capital to Nepal.

- Private financing is challenged by collateral-based funding, where the lending is backed by assets against the probability of repayment defaults. Also, the lending portfolios are tightly regulated by the central bank with reporting and monitoring the performances of the portfolios maintained by limited and conservative financial products and services.
- The need to use internal resources in expediting access to available international climate finance stands as prominent discouragement for the private sector to invest and access finance from multilateral sources and funds, such as investment needed for developing proposals, and institutional preparedness with mandated policies, manuals, guidelines, etc.
- The private sector's primary interest is in business scale-up in terms of capacity, revenue, and business life. Many climate interventions are more interested in, for example, cost-saving energy efficiency interventions which are less aligned with the business growth perspectives of the private sector.
- There is a mismatch of expectations in requirements between accessing climate funds and outcome expectations of the private sector. In accessing funds, private sector players are required to follow stringent processes, so require the strong institutional capacity to meet the eligibility criteria that is appropriate to the type, size of the fund, and type of instrument. In addition, climate funds have regular Monitoring Reporting & Verification (MRV) requirements, expect maintaining quality Standard Operating Procedure (SOP)s, and the outcome in terms of fund size is perceived inadequate by the private sector. All these processes need extra efforts to meet the regulatory and fiduciary requirements of the funds, whereas the private sector needs to build adequate competency for their presence on the global stage.

Box 4: Sector-specific technology and markets challenges

- **Clean energy**

Renewable energy investment is hindered by various technical, financial, and market-related barriers. In the renewable energy sector, private sector players are promoted as suppliers/vendors or service providers, rather than real investors. Rural communities are dependent on multiple sources of subsidies besides those provided by the Alternative Energy Promotion Centre (AEPCC), a GoN entity for regulating and promoting renewable and alternative energy, thus reducing the opportunity for private sector investment. There are challenges in extending the market opportunity as most of the hydropower projects are in rural and isolated geographical areas and need the high cost for transmission of power to the city areas and abroad. Currently, many hydropower projects are under construction and in the pipeline phase which will generate surplus energy in the next five years. In addition, the domestic market is too small to consume surplus energy and due to the lack of technology for transmission and absorption of the generated surplus energy, much of the energy generated often remains unused. The technologies themselves have high upfront costs.

- **Agriculture**

The private sector raises concerns around the inability of technological progress due to fuel subsidies to the sector. For example, subsidies provided to diesel-powered water pumps for irrigation discourages the use of solar-based irrigation pump. Also, due to poor rural connectivity, the market is downsized and hinders the promotion of agribusinesses in wider areas. High and increasing migration to the Gulf region and other countries for high-risk and low-paid jobs instead of opting for agriculture jobs in Nepal is an indicative measure of how unattractive this sector is. Similarly, the market price of agriculture products is highly unpredictable due to unplanned domestic production and excess supply (free access) of cheap/highly subsidized agricultural goods from neighbouring countries. Market prediction is also a major challenge for Nepalese growers.

- **Forestry**

Regulations discourage the growth of the private forestry sector, given they are charged 13% VAT for selling and distributing forest products (for example non timber forest products) and services in addition to various taxes and levies that the local government imposes on the export of such products. Similarly, a 200% tax is imposed on timber export which is also heavily discouraging for private investment. Moreover, the land revenue tax has been inhibiting private forestry development; and the cap on land ownership (6.67 hectares in Terai, 3.56 hectares in Hill region, Land Act 1964) bars commercial-scale private/leasehold forestry development. The scattered and small-scale nature of private forest land and problems in guaranteeing carbon stock in private forestry for a longer period lead to technical complications in accounting for private forestry for carbon credit benefits. Complexity and confusion in business registration for forestry sector players are creating barriers to extending forest resource-dependent markets. Tariff and non-tariff barriers in trade especially hurdle in transportation, multiple taxations, and confusion created due to multiple agencies issuing the certificate of origin.

- **Sustainable tourism**

Poor infrastructure, including poor coverage and low quality of roads, and unreliable domestic air services, increase the costs and reduce the value captured from tourists. Poor availability of services such as electricity and sanitation means it is costly to provide adequate facilities and levels of services, especially in more remote parts of the country (Jones 2013). There is also a low capacity of the infrastructure that allows for high and luxury tourism in Nepal. For example, there is no VIP entrance on arrival at the airport or to reach the destination for foreign tourists. Cartelisation of domestic tourism also provides a high barrier to entry to foreign companies. Poor ranking on the Travel & Tourism competitiveness index of the World Economic Forum (102 in 2021) has made tourists rethink visiting the country.

5.5 Information and capacity

Lack of clarity on financial needs on mitigation and adaptation

One of the greatest challenges facing Nepal and other recipient countries of donor funding is to demonstrate: (a) how much funding is needed to address priority risks associated with climate change and to achieve GHG reduction targets; (b) how received funds have achieved a measurable reduction in risk/vulnerability (or in the case of mitigation financing, a reduction in GHGs). This is a key element of the monitoring, reporting, and verification mechanism established under the Paris Agreement.

Challenges to developing bankable projects

Project developers, including public sector ones such as municipalities, cannot often develop proposals that are attractive to financiers, particularly commercial ones who would in theory be able to provide a larger amount of finance. They often lack financial structuring expertise, the ability to clearly explain the project rationale and the value addition, including in social and environmental impacts, have inexperienced teams, and have low ability to ‘pitch’ to investors.

Limited capacity to appraise climate projects

Banks and other financial institutions in many low and middle-income countries, including in Nepal, struggle to appraise climate and green projects. Critical reasons include insufficient personnel and limited knowledge of the risks and opportunities from climate-relevant technologies. These issues often result in financiers opting for more traditional and tried investments, also given the credit caps they usually have.

Box 5: Sector-specific information and capacity challenges

- **Clean energy**

The institutional capacity of the domestic private sector in large hydropower projects is weak and needs funding and support from foreign development partners. The capacity and enabling environment to absorb foreign development investment (FDI) is limited. In addition, there is a huge gap in research and information on the energy sector and if available, it is scattered. The size cap of renewable energy generation limits the capacity of the mini, micro, and medium-scale energy developers. Policies define micro-hydro of less than 1000 KW installed capacity as those eligible for subsidy. This definition bars the developers from harnessing the full energy potential of the rivers/streams. Similarly, a size cap exists for other options like wind power, bio-energy, and solar as well. Information on energy audits and demand is not reliable.

- **Agriculture**

Huge uncertainties exist in the agriculture sector both in production and marketing due to extreme events and disasters. Lack of information and appropriate technology on weather forecast systems has created huge losses and damage to agricultural products, thus demotivating investment from the private sector. The lack of a national data registry, research, and coordination are derailing the investment in this sector.

- **Forestry**

Access by the private sector to suitable leasehold forest land for industrial and commercial purposes is challenging. In Nepal, limited awareness of the market and business scenarios that directly affect product demand means that entrepreneurs often operate without adequate knowledge of market requirements. With limited business capacity, the private sector often struggles to compete. Due to a lack of capacity for research and development regarding the promotion of forest resource-based technology and markets, the private sector faces difficulties to compete in the domestic as well as global markets.

- **Sustainable tourism**

Human resource constraints, such as low levels of education and literacy, and deficiencies in vocational education and skills training, present challenges to businesses looking to provide higher quality services and constrains poorer people from benefiting from tourist flows in both rural and urban areas. A lack of leadership in the sector further constrains its development, with few decisive actions being taken to articulate a vision, signal intentions to domestic and international investors, or prioritize between the many activities and destinations. Besides the limited investment in sustainable tourism, data on future climate impacts in urban areas is low and inaccessible.

6. INVESTMENT STRATEGY AND ACTION PLAN

This section contains an overview of the proposed way forward to overcome the challenges identified in the previous chapter, taking into account the context and opportunities that Nepal can use to its advantage.

Investment strategy

Nepal aims to graduate from its status of a least developed country (LDC) by 2026 and aims to reach middle-income country status by 2030, whilst at the same time addressing its systemic vulnerabilities, further exacerbated by the COVID-19 pandemic and the growing geo-political conflicts such as Ukraine crisis and its implication on the economies worldwide. For this reason, Nepal will need to accelerate its efforts in a targeted manner to transform its challenges into opportunities to adequately mobilise the resources needed to implement its development efforts and to coherently achieve its climate action targets.

This approach requires urgent strategic and diplomatic engagement and investments at scale in human, physical, natural, and social capital to address these weaknesses, promote growth, and fund transformational actions in key systems that do not jeopardise sustainability and economic productivity. Given this transformation is likely not going to be even, a range of social and labour market policies are also needed to compensate losers, safeguard the vulnerable, and deliver a just transition to a green economy.

As Nepal faces this historic opportunity to establish a better way forward, it will need to make significant reforms to open markets, fairly mobilise domestic resources, deploy private sector solutions at scale, and put in place the investments needed for a transition to a more sustainable and inclusive development trajectory. As the needs are vast, there must be complementary and strong involvement from the public, private sector, and the international community.

The objective of this strategy is to increase the access and mobilisation of climate finance for greening the development of Nepal to close the financing needs gap.

Nepal will require USD 25 billion for mitigation and USD 21 billion for adaptation between 2021-2030 while USD 47.4 billion for adaptation and USD 196.1 billion for mitigation is required between 2021 and 2050, according to the National Adaptation Plan, and the Long-Term Strategy for Net Zero emissions. These are conditional on the availability of funds. The financial needs to meet the cost will be significantly higher if loss and damage are factored in.

Action Plan

The GRID initiatives are very well aligned to deliver Nepal's climate ambition both on adaptation and mitigation front as articulated in Nationally Determined Contribution (NDC), Long Term Strategy (LTS) for Net Zero Emissions, and National Adaptation Plans (NAPs) which has ultimate aims to promote the green growth opportunities in the context of the post-COVID-19 development priorities. At COP26 in Glasgow, UK the Minister of Ministry of Forests and Environment, made three key important announcements on Nepal's commitment to climate ambition to i) Remain cumulatively 'net zero carbon' from 2022-2045 and become carbon negative after that; ii) Halt deforestation and increase forest cover to 45% by 2030 and iii) Ensure all vulnerable people are protected from climate change by 2030. In addition, the senior official of the Government of Nepal communicated bilaterally to various donors and investors on the financing needs to deliver Nepal's climate action plan.

The investment strategy and action plan are well inserted in Nepal's policy landscape. Of particular relevance are the following: The Environment Protection Act, National Climate Change Policy, Framework for Local Adaptation Plans of Action (LAPA Framework), Climate Change Budget Code, GESI and Climate Change Strategy and Action Plan, Long-Term Strategy for Achieving Net Zero Emissions (LTS), Nationally Determined Contributions (NDC), National Adaptation Plan (NAP), REDD+ strategy, and National Framework on Loss and Damage have all been formulated by the Government of Nepal.

The implementation timeline broadly ranges from short term to medium term and long term. The scope of this timeline is generally based on the urgency of the government and the priorities it wants to set based on resources, time, and need.

The institutional structure and role and responsibilities for the implementation of the strategy and action plan will be led by the Ministry of Finance, Ministry of Forests and Environment, National Planning Commission, and sectoral ministries including the provincial and local governments. The private sector, development agencies, civil society, and others play an important role in implementation.

Pillars

6.1 Policy and Regulatory

6.1.1 Reform policies to avoid inconsistencies and duplications

To stimulate the private sector participation with resources in climate action, both adaptation and mitigation, perceived and real investment risks must be addressed. This can be done by reforming relevant policies and avoiding duplications. In addition, the Involvement of the private sector is eminent in policy development processes

Actions

- Carry out a comprehensive policy assessment to identify policy overlaps and inconsistencies e.g. study of FDI thresholds in the IT sector; also light manufacturing/SMEs and others; including reviewing the multiple levels of compliance once specialised funds are approved
- Carry out consultations and discussions to reform policies to avoid policy inconsistencies and duplications in FDI and sectors
- Introduce changes in FITTR Rule 9 (which requires investors to inject 70% of the investment amount before the commercial operation) and introduce suitable timelines for bringing in investment
- Create a task force to assess how legislative provisions (e.g., IEA, Section 37, and PPPIA Section 46) can be enforced effectively
- Develop a clear policy reforms implementation plan, particularly focussed on avoiding specific targets and timeline
- Develop a task force to revisit and reform the incentives provided in fossil fuels

Timeframe: Urgent and immediate (Short term 1-3 years)

6.1.2 Create policy incentives to accelerate access and mobilisation of green finance

The GoN has a significant role to play in accessing and enabling the implementation of innovative climate finance solutions by providing a conducive regulatory environment for the

private sector to unleash its potential. This can be done by developing regulatory mechanisms that can incentivize the private sector, development agencies, and FDIs.

Actions

- Identify and recognise the roles and responsibilities of development agencies, private sector, including foreign investors in climate and green financing
- Develop and promote public finance instruments like blended finance, credit enhancement, and other targeted risk reduction or revenue-boosting strategies to strengthen financial incentives (or de-risk investments)
- Identify and promote financial incentives such as tax breaks, foreign exchanges, investor default insurance, and risk-sharing arrangements that might help to address a market failure and encourage private sector adaptation investments.
- Develop SOPs and implementation arrangements for the regulation of FDI

Timeframe: Short to medium term (Short term 1-5 years)

6.1.3 Strengthen the integration of climate and green agenda and priorities in planning, budgeting, and financing

Domestic resources can be better targeted to mobilise climate action through a bottom-up climate planning approach so that all levels of governments systematically initiate climate change-related activities annually and periodically. The capacity of all tiers of government needs to be enhanced to integrate priority climate risk-informed development plans at the sectors and all levels. The sectoral agencies are required to fully integrated climate concerns with resource estimation to achieve climate targets through their policies, strategies, and plans.

Actions

The Government of Nepal needs to structure climate finance in terms of:

- Integrating climate change into planning and budgeting in all relevant sectors and levels of the governments
- Integrating climate change in the Mid-Term Expenditure Framework (MTEF) and Public Finance Management (PFM)
- Mobilising resources to manage and target finance in support of realizing the country's strategic and climate goals
- Tracking progress and reporting expenditures. This includes improving the resource allocation, fund mobilisation, and access procedures within the national system to harness and maximise available resources from domestic and international sources of climate finance including engaging the domestic private sector in meeting the national commitments

Timeframe: Short to long term (1-10 years)

6.1.4 Continue to further update standards

In 2022, the Central Bank of Nepal updated the 2018 Guidelines on Environmental & Social Risk Management (ESRM) for Banks and Financial Institutions with an updated checklist on climate risks to projects that banks and financial institutions need to complete before issuing loans. The objective of this update is to establish the Environmental & Social Risk Management Framework as the standard process for proactive evaluation and integration of environmental and social issues into the credit risk assessment process of B/FIs.

Actions

- Continue to update the standards based on international best practices and contextual needs
- Set up and refine monitoring and reporting systems

Timeframe: Medium-term (5 years)

6.2 Institutions and Governance

6.2.1 Institutional strengthening

Nepal lacks a dedicated institution to manage climate financing. As a result, it is necessary to reform, reorganize, and expand the systems, as well as the institutional scope and responsibility of the existing mechanisms, for it to operate as a national body for managing climate finance in Nepal. The recommendation is to either strengthen the mandate of the existing Climate Finance Unit or to create a climate finance division based on international and national goals and investment scales.

Actions

- Option a) Expand the Climate Finance Unit (CFU) and Climate Change Management Division (CCMD's) mandate and skills in terms of negotiating and obtaining international climate funds, as well as cooperating with international stakeholders to acquire access to vital resources and expertise
- Option b) Upgrade the climate finance unit to a climate finance division: An Organization and Management (O&M) survey will be necessary to identify the mandate, governance structure, and resourcing requirements, as well as to gain cabinet approval
- Activate functional coordination mechanism for climate finance implementation: the Ministry of Finance need to establish a Government and Civil Society Coordination Mechanism for Climate Finance, which will provide strategic guidance on the mobilization of climate finance allocations for responding to climate change
- Organize training and orientation targeted to potential national entities that can act as implementation entities for the global funds e.g. GCF, AF

Timeframe: Urgent and immediate (Short term 1-3 years)

6.2.2 Enhance coordination of the implementation of the public investment strategy

The multi-stakeholder platform will provide the proper incentives for Nepal's climate financing portfolio to be well-coordinated and harmonised. Furthermore, this regular engagement will aid in the development of climate finance policies and strategies, as well as improve donor coordination, strengthen national capacity, and facilitate the exchange of information and knowledge among the parties concerned. There is also a need to build capacity within the government agencies. Specific assistance is required to assist the government in a) including climate priorities in all relevant sectoral ministries' periodic and annual plans (for example, agriculture and livestock development, water and energy, forests and environment, tourism, infrastructure, and so on); b) making all development investments climate-proof; c) allocating sufficient resources to demonstrate that the GoN is serious about achieving the climate targets set, and d) and taking a proactive approach to achieving the climate targets set, including scaling up Locally Led Adaptation (LLA).

Another challenge is to improve the financial governance of climate financing. PFM reforms should be initiated to integrate climate change within the finance and budgeting process. Involves the adoption of effective use of classification (budget codes), linking Chart of Accounts with strategies/policies (such as NAPs), consolidation of entire government accounts (all spheres of government), and linking grant formula/revenue sharing formula to climate change and disaster risks, among other things.

Actions

- Improve the capacity of government service delivery: The following reforms are needed:
 - Introduce an electronic system for processing and decision making that will save time and resources
 - Establish a unit for listening to grievances and misconducts and also create a transparent mechanism of reporting or publishing the actions taken
 - Develop a task force to study the barriers created by labour unions and staff in the companies or firms and ways to avoid these in the future.
- Form a joint government and development agency Platform on Climate Financing: This will provide the right incentives for a well-coordinated and harmonised response to Nepal's climate financing portfolio. Also, this regular interaction will help to shape policy and strategies on climate financing; improve donor coordination; build national capacity, and help to exchange information and knowledge among agencies involved.
- Support in implementation of budget coding and other tools to track, monitor, and inform the decision on climate change commitments and expenditure
- Provide capacity-building support, including training and orientation on
 - Integrating climate change priorities in the annual planning and budgeting process;
 - Climate proofing development investments: developing necessary standards and compliance measures
 - Effective targeting at the local level and ensuring that 80% of finance reaches the implementation at the local level
 - Monitoring, evaluation, and reporting
- Support in improving/reforming the PFM system, mostly related to transparency, accountability, and fiduciary risks.

Timeframe: Urgent and immediate (Short term 1-3 years)

Box 6: Sector-specific actions for institutional and governance reform

- **Clean energy**

Though the GoN had formulated various policies, plans, and provisions for clean energy investment, to attract foreign investors, this sector demands a dedicated agency and policies for the repatriation of foreign direct investment. The regulations to establish and standardise PPAs into 30-year ones are needed. There is an urgent need for the clarification of jurisdiction among the government entities. For hydropower development, there is the need for clarity on the Peaking Run of River (PRoR) and Run of River (RoR) for projects operating in the same river basin. The provision of benefit sharing for Environmental and Social Risk Management (ESRM) compliance is necessary to support the incremental costs of the project caused by the need for ESRM.

- **Agriculture**

The exemption on the land ceiling for agro-based businesses is expected to improve and increase the investment in this sector. A policy on subsidies and incentives to protect domestic agricultural products so that they can remain competitive in price and quality with imported agriculture products is needed.

- **Forestry**

Easy access to certification for SMEs will help exporters become competitive in the global markets. Some of the private sector players require a clear definition of policy provisions for the agriculture and forestry sectors. Concrete plans and policies for private forestry would facilitate the promotion of forest-based businesses. It will also be necessary to revise and update the policies and plans to allow foreign direct investment as well as uplifting businesses from the small scale to the large industrial level. Obtaining harvesting, collection, and transportation permits need to be made more straightforward. Allowing forest products, especially NTFPs, to be sold as agriculture products would help remove some of the hurdles producers face.

- **Sustainable tourism**

A clear, consistent, and permanent policy on tourism is needed to attract private investment in this sector. An acceptable and harmonised tourism promotion framework with acceptable policies and plans needs to be in place. Besides, the development of inter-sectoral linkages with state and non-state actors is required to improve the enabling environment for private sector investment. The formulation of strategies and amendments should be as per the demand of the sector business rather than changing policies and strategies.

6.3 Finance & Economics

6.3.1 Increase Access and Diversify sources of finance

Nepal should diversify sources of finance and consider the use of innovative financing mechanisms to provide capital for climate action. The following options should be prioritised and explored further in a structured manner.

6.3.1.1 Enhance access to climate finance

The volume of climate finance needs to be matched with Nepal's climate ambition by: (a) improving existing capacities to access regional and international climate change finance, including through improved public-private coordination; (b) by allocating a certain percentage of domestic resources to climate change; (c) ensuring that climate finance reaches to the most vulnerable as per the 80% policy provisions to support in locally-led adaptation, and (d) lobbying for simplification of the process of the global funds.

6.3.1.2 Maximise domestic sources

GoN can collect resources from non-traditional sources of finance such as levies from polluting companies, or proceeds from carbon markets. At present, GoN has collected nearly NPR 10 billion in the last 10 years as levies from petroleum products. This figure could increase if

the GoN could track and bring all sectors in the front line to collect pollution tax. Once these resources are collected, they can be directed toward the programs and projects for climate actions such as meeting the mitigation and adaptation targets.

6.3.1.3 Make use of the GRID international development partners

The GRID platform will be involved in the identification of new investments and political actions to deliver on Nepal's GRID vision. International Development Partners have currently pledged USD 3.2 billion, with up to USD 4.2 billion expected in new commitments in finances for GRID-related sectors. Adopting the GRID model in Nepal will support the post-pandemic economic recovery and create new sustainable jobs in clean energy, agriculture, tourism, etc. in the short to medium term. Over the long term, GRID will ensure a sustainable, resilient, and more inclusive development while helping Nepal obtain zero carbon status before 2050. The Government of Nepal, International Development Partners, and the country's private sector must collaborate to ensure that GRID-SAP will achieve its objectives.

6.3.1.4 Engage with philanthropic and impact investors

It will be important to engage with the multitude of philanthropic and impact investors that are operating in the climate space, firstly by understanding their investment requirements.

6.3.1.5 Take advantage of initiatives coalescing large private sector

There are strong financing opportunities originating from the following initiatives:

- The 1,045 companies representing over USD 23 trillion in market capitalization (larger than the GDP of the USA) joined the 'Business Ambition 1.5 degrees celcius' campaign. The many companies that have committed to 'Net-Zero' by 2050 using UN Global Compact and the Science-Based Targets initiative (SBTi).
- The over 30 financial institutions managing over USD 8.7 trillion in assets and belonging to the UNFCCC's 'Race to Zero Campaign' that pledged to "use best efforts" to eliminate commodity-driven deforestation risks in their investments and lending portfolios by 2025.

6.3.1.6 Leverage the role of the domestic private and financial sectors

The private sector in Nepal plays an important role in helping the government meet its mitigation and adaptation targets. Although the trend of private sector investment in Nepal is not encouraging, there is huge potential in the future.

Actions

- Increase levies and taxes from polluting companies (but being careful about understanding the impacts on society - it cannot be done unless there is a good alternative)
- Revise the regulatory measures to mobilize the pollution tax for mitigation and adaptation activities mostly at the local level and simultaneously strengthen disclosures and transparency to build citizen and investor confidence
- Map funding requirements by funding source – including philanthropies and other unexplored sources. A good example of how to best do this is available here: <https://climatefinancepathfinder.global/wp-content/uploads/2020/11/Climate-Finance-Pathfinder-Ethiopia-Final.pdf> (page 19)
- Roll out climate financing strategy and action plans: i) build capacity of national institutions; ii) diversify donors; iii) help in the accreditation of national entities; iv) develop bankable projects; v) organize investments summits
- Liaise with GRID secretariat and steering committee for mobilizing GRID financing for climate and green investment priorities
- Develop dedicated (governmental) funds on climate and green financing

- Assess the feasibility in Nepal - considering: the depth of financial markets, development objectives, fiscal space, etc

Timeframe: Short to long term (1-10 years)

6.3.2 Develop innovative financial instruments to maximise access to green and climate finance

Nepal has very limited fiscal space to be able to meet its development commitments and targets, hence public expenditure is constrained. Similarly, private financing is also limited by several issues identified earlier. As such, a broader solution needs to be sought to unlock climate and green finance for Nepal.

Blended finance is growing as the most attractive innovative financing tool to maximise access to climate finance. Blended finance is a structuring mechanism that strategically uses public and/or philanthropic capital to catalyse additional private capital and increase private investment, has emerged as a promising solution to help deliver the goals of the Paris Agreement and achieve the Sustainable Development Goals (Choi and Seiger, 2022). There are innovative climate finance solutions like leverage, blending, combined financing, and alternative source of financing that a private sector can exercise to make the venture economically rewarding. Each solution of a range of the instrument to unlock the market potential of raising capital to implement climate projects.

Actions

- Provide training on financial instruments and deepening of the financial sector, such as the Green Finance Institute, Green Investment Bank
- Assess ways to ensure adequate and fair reciprocity of risk and return as a prerequisite for private sector participation
- Explore the potential for different options, including national and international green bonds, Assets-Backed Securities (ABS), intrinsic value-based project financing, weather-based insurance, etc.
- Explore the potential of other instruments and blended finance structures, especially through lessons learned and demonstration projects from other countries and funds for example
- Assess ones that are being piloted against feasibility, barriers and needs for scaling up, and the potential of becoming a common financial product

Timeframe: Medium term (5 years)

Box 7: Sector-specific finance and economics actions

- **Clean energy**

The clean energy sector has great potential to attract foreign investment, but barriers to risk management and enabling the environment need to be addressed to ensure an adequate investment return. Access to innovative financing tools like equity funds, blended financing, and other concessional sources of funding is necessary. Support to access funds such as the Green Climate Fund is necessary and partnering with CBO/cluster will be needed especially for projects with a high socio-economic impact. The domestic private sector expects provision for accessible and affordable hedging instruments.

- **Agriculture**

There should be some intervention to motivate the private sector to enter the agribusiness sectors. The GoN should capacitate investors and insurance providers for risk assessments to provide loans and insurance. The provision of dedicated concessional credit lines from domestic as well as international financial institutions will be necessary.

- **Forestry**

Provision of incentives and subsidies to the domestic products to make them competitive with imported products will be necessary. In addition, it is important to support the farmers and private forest owners with creating solid business plans and providing access to finance by making the sector more bankable. Provision of insurances with reasonable premiums is often also by private investors.

- **Sustainable tourism**

It is necessary to consider sustainable tourism is a more lucrative sector and to do so innovation and more holistic thinking are necessary. The GoN should expedite the promotion of green tourism financing as well as focus on the green tourism economy. Also, there is space for the development of high-value tourism products.

6.4 Technology and Markets

6.4.1 Help develop value chains and promote funding in priority sectors

The private sector in particular banks and other financial institutions are key stakeholders that can play an important role in financing climate-related businesses and products in Nepal. The country relies on international donors, but private sector investment is also needed, with some participants proposing Public-Private Partnership (PPP) as an alternative.

Actions

- Involve the private sector in sectoral policy development mostly in committees and consultation process
- Embed investment within the broader framework of Corporate Social Responsibility that ensures allocation of a certain portion of their profit for philanthropy and CSR activities to meet the climate and green objectives
- Share lessons learned and case studies from other countries and share them widely

Timeframe: Medium- long term (5-10 years)

Box 8: Sector-specific technology and markets actions

- **Clean energy**

To encourage private investment in the energy sector, technical and financial support to the project owners for project preparation is necessary. Besides, the GoN should bring subsidies and incentives to promote renewable energy technology. A national consensus on carbon benefit sharing among source and destination countries for export-based projects is needed. The GoN should clearly define the energy business as an electric and non-electric energy project as well as provide the enabling environment to upscale the portfolio.

- **Agriculture**

Agro-based businesses often depend on the weather. A robust agro-meteorological information and technology system is necessary to minimise the losses from climatic disasters like rain, floods, and droughts. A link with insurance providers to agriculture products is also needed. Technical support may also include training on climate-smart agriculture practices and developing the value chain. Priority should be promoting domestic products and discouraging the flooding of imported ones.

- **Forestry**

New technologies such as seasoning softwood to increase its life and product utilisation to optimum use are needed. It will be necessary to focus plantations in the fallow lands based on the soil, terrain, and weather conditions are needed. Domestic forest-based products are not able to compete with neighbouring third world countries with their products and quality, so there is the need to upscale to more innovative technologies and promote the specific species and sectors based on niche markets rather than focusing on a wide range of products. Besides, prioritising the domestic market would add value for the promotion of private investment in this sector. Switching to eco-friendly tourism-based products by promoting the optimum use of local resources will be a good approach, for example, promoting natural resource-based handicraft businesses along with the conservation of the resources. Standardising the technology for the processing and manufacturing of the products will need support to increase market development. Further strengthening the value chains through embedded exchange visits, market fairs, and by building partnerships with all stakeholders will also be needed.

- **Sustainable tourism**

The country could facilitate and invite the private sector for investment to attract the growing middle-level tourist from neighboring countries such as India and China along with domestic tourists. There is the possibility of tourism promotion in terms of religious pilgrimage, nature-based, and high-value tourism. Besides, there should be an innovative and technology-based intervention in branding, marketing the tourism promotional activities in the global market. Development of infrastructure and other services for luxury tourism is essential to upgrade the market for high-investing tourists. For example, several areas are suitable for development as mountaineering destinations, and high-value services can be established around existing products.

6.5 Information & Capacity

6.5.1 Establish and functionalise the Monitoring, Reporting, and Verification (MRV) System

Although the government has an aid management platform, it will be useful to have a National Registry (database), particularly on climate change which contains information on all donors and development agencies involved in climate change in Nepal. It can also reflect all projects, programmes, and publications related to climate change.

Another need is to establish an MRV system for reporting, performance evaluation, and monitoring mechanisms of climate change investment projects and activities which will help to track the climate finance allocation and expenditure and place it on the right track to achieve climate action targets within the time frame. In particular, an integrated database is needed to link all of the sectors and levels of government. These mechanisms would help to address the need for more data and more baseline indicators to track the impact of climate change on livelihoods and jobs. These indicators would allow policymakers to link public investment

decisions to climate-related vulnerabilities across sectors. This will help to track the achievement of NDCs, NAPs, and other climate action commitments that Nepal will need to report.

Actions

- Map the need and feasibility of the MRV system
- Establish MRV system aligned with other existing national systems including the BUR, NDC, NAP, Adaptation communications
- Build registries and platforms: Learn from other countries that have already carried out similar work, such as Cambodia - <https://ncsd.moe.gov.kh/dcc/data-portal>

Timeframe: Short to medium term (1-5 years)

6.5.2 Build capacity of private sector players in the value chain

Capacity needs to be provided to several stakeholders, to facilitate the development of bankable projects and the promotion of the value chain for sustainable products in priority sectors. To get to market and make them investable, potential projects with private investment potential require in-depth project preparation support, which includes assessing value at risk and return on investment, mapping project cash flow, identifying funding gaps, identifying potential investors, and assisting with project structuring and procurement. In addition to supporting some of the project proponents in their path towards financing, by collating resources on finance sources and also providing capacity building to improve their 'pitching' techniques.

Actions

- Provide dedicated capacity building to project developers through a project preparation facility
- Share knowledge of project pipelines regularly with potential investors
- Set up a process similar to the Climate Finance Accelerator, which provides capacity building to project proponents that are at a later stage of development, to make their propositions more bankable, and then connects them to financiers. See here: <https://www.gov.uk/government/publications/climate-finance-accelerator>

Timeframe: Medium to long term (5-10 years)

Box 9: Sector-specific information and capacity actions

- **Clean energy**

The information and data management system (hydrology and meteorology) should be robust for technical assessments of projects expansion and enhancement of energy transmission capacity of the national grid. There is the necessity of capacity building and risk assessment of bilateral financial institutions on off-grid energy projects. Provisions for self-sustaining cluster/group/community-based organisations approach for adoption of Mini/Micro-hydro, solar, and wind technology are needed. The capacity of the entrepreneurs needs to be built to enable the promotion and production of energy efficiency products and the absorption of the energy capacity at the domestic level.

- **Agriculture**

As such, connecting farmers in remote and rural areas with all information available in real-time is crucial. Categorising and allocating agricultural pocket areas with enhanced technical, financial, and human resource capacities with suitable product identification will support the promotion of agro-based businesses to small-scale entrepreneurs. Provision of early warning systems with authentic information to farmers will help save cultivated land and therefore products to market. Technical support to entrepreneurs for the business proposal development in line with the risk-sharing facilities and products is needed.

- **Forestry**

Research on timber, non-timber forest products (NTFP) on their quality, value, and product nature is essential to innovate and develop new and adaptable technologies. It is also necessary to capacitate community forest users group members and private forest owners on the protection and marketing of forest-based products.

- **Sustainable tourism**

An establishment of a Public-Private Dialogue (PPD) forum can inform the relevant actors of this sector to bring up the issues and try to overcome them with innovative solutions. Also, capacity development of the front-line staff in this sector will add value to fill the gap in human resources. Research and development of opportunities and constraints of investment in this sector are expected to strengthen the economy and business development of sustainable tourism in Nepal.

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ANNEXES

Annex A: Potential windows to access climate finance

Table 1: Potential of International climate windows

Funding	Balance as of now (21 Dec 2021)	At present	Scope	2022-2030		
				Maximum	Moderate	Minimum
Enhanced Adaptation for Smallholder Agriculture Program (ASHA)	Not fixed	\$ 25 m	IFAD program	\$ 100 m	\$ 60 m	\$ 40 m
Climate Investment Fund (CIF)	\$ 1.3 b as of 2018	\$ 225 m 9 projects	Donor coalitions	\$ 300 m	\$ 200 m	\$ 120 m
Forest Carbon Partnership Facility (FCPF)	Parts of the WB	\$ 52 m 3 projects	Need to enlarge the scale	\$ 150 m	\$ 100 m	\$ 50 m
Global Climate Change Alliance (GCCA+)	Not fixed, EU Program	\$ 41 m 3 projects including EDB	Need to enlarge the scale	\$ 300 m	\$ 200 m	\$ 100 m
Global Climate Partnership Fund (GCPF)	Not fixed, German Program			\$ 100 m	\$ 70 m	\$ 50 m
Global Green Growth Institute (GGGI)	Not fixed	Leverage EUR 299 m Under NAMA	Not a donor itself, but facilitates	\$ 400 m	\$ 300 m	\$ 200 m
UK International Climate Finance (ICF)	UKAID window	GBP 23 m 3 projects	Donor interest is required to use this window	\$ 350 m	\$ 250 m	\$ 150 m
International Climate Initiatives (IKI)	Not fixed, small and medium grants	\$ 7 m 8 projects	Very competitive For NGOs and CSOs	\$ 30 m	\$ 20 m	\$ 10 m
SDG Fund	Not fixed, small grants	\$ 1 m	Use the forum to attract donors	\$ 3 m	\$ 2 m	\$ 1 m
Nordic Climate Fund (NCF)	Not fixed, small grants	\$ 4 m 8 projects	For NGOs and CSOs	\$ 10 m	\$ 6 m	\$ 4 m
UN REDD	Not fixed		Not donor itself, but facilitates	\$ 10 m	\$ 6 m	\$ 4 m
NAMA Facility	Not fixed	None	Competitive call	\$ 20 m	\$ 10 m	\$ 6 m
Total				1.953 billion	1.314 billion	735 million

Table 2: Climate finance pledges by international financial institutions for Nepal**Climate finance pledged by IDPs for Nepal post-2020**

DPs	Project	Amount in USD million	Duration	Status	Remarks
International Bank for Reconstruction and Development (IBRD)	Dedicated Grant Mechanisms for Indigenous people and communities	4.5	2021	Approved	This project will be additional to the earlier signed FIP project
Various multinational companies	LEAF Collation	30	2021-2025	LOI signed	Protecting forest to lower emission by accelerating forest
CDC group		25		Approved	Loan to GBIME bank of Nepal to Loan facility to bolster Nepal's priority sectors of hydropower and renewable energy, and increase lending to businesses across the infrastructure, construction, manufacturing, agriculture, and tourism sectors
Nepal Investis is launched by CDC, FMO and SDC	to accelerate investment in Nepal	USD 40 mln first close. The final close is targeted at USD 75 mln.		In operation	It will support the promotion of entrepreneurs and private, innovative activities in Nepal
Emerging Market Climate Action Fund (EMCAF)	European Investment Bank (EIB) and Allianz Global Investors (Allianz GI)	€500m (\$565m)	2021 onwards		Support projects like onshore wind farms and solar photovoltaic plants or small and medium-sized hydropower plants. Also, support energy efficiency projects in housing or industry, or projects bringing environmental or resource efficiency benefits. Africa, Asia, Latin America, and the Middle East.
CDC group	UK investors	100			Interested to invest in Nepal in the green sectors given the favorable investment environment
Asian Infrastructure Investment Bank (AIIB)	Nepal Urban Governance and Infrastructure Project	150	2019-2026	Proposed	
AIIB	Tamakoshi V Hydroelectric Project (TV-HEP)	112	2018-	proposed loan	
AIIB	Nepal: Urban Infrastructure Investment Project	76	2017-2023	Proposed loan	
Abu Dhabi Fund For Development (ADFD)		10	2020 onwards	loan	Support a total of 20 biogas digesters which will serve as demonstration units to 270 municipalities.

DPs	Project	Amount in USD million	Duration	Status	Remarks
OPEC Fund for International Development	MSMEs and renewable energy projects	15	2020 onwards	loan	Support the NMB Bank Limited in Nepal to finance MSMEs and renewable energy projects. The loan represents the OPEC Fund's first financial institution transaction in the country.
The Foreign, Commonwealth, and Development Office-backed Private Infrastructure Development Group (PIDG)	Green projects	£210m (\$283.5 m)	2022 onwards	To be decided	New investment to back green projects in developing countries such as Vietnam, Burkina Faso, Pakistan, Nepal, and Chad. (Announcement made by UK prime minister in COP 26)
Sichuan Provincial Investment Group Co. Ltd, Chengdu Xingcheng Investment Group Co. Ltd and Sichuan Qing Yuan Engineering Consulting Co. Ltd along with Butwal Power Company	Marsyangdi Cascade projects Lower Manang Marsyangdi HP (139.2 MW) Manang Marsyangdi HP (135 MW) Upper Marsyangdi-2 HP(327 MW)	1200			IBN board meeting has approved this project and survey work is ongoing
Satluj Jalvidhyut Nigam, India	Lower Arun HP (679 MW)	1300			MoU signed
The consortium of Power China corporation Hydroelectricity Investment and Development Company ltd Nepal	Tamor HP (756 MW)	1217			Under survey work
Power China corporation	Madi multipurpose HP(156 MW) in Rolpa	39			MoU signed
Total		5167			

Table 3: Example of private sector/financial institution investments in Nepal

Name of private sector/financial institution	Areas of work (green sectors e.g. hydro, clean, Agri, forestry)	Investments in the past	Investment potentials /interest (USD equivalent)
NMB Bank	Large hydro, Micro-hydro		NPR 1.5 billion ~USD 12.5 million (Source of Fund: 'Energy Bond' with a tenure of 15 years, issued on 2021)
NMB Bank	Micro and Small Social Enterprises		USD 12 million loans from the Swiss Investment Fund for Emerging Markets (SIFEM) were signed in December 2021
NMB Bank	Infrastructure, tourism, hydro power, agriculture		USD 15 million three-year loans from CDC issued in 2019
NMB Bank	Green projects and MSMEs		USD 25.4 million loans from IFC provided in 2020. This is IFC's first climate focused lending to a financial institution in Nepal, incorporating the internationally recognized green loan principles.
NMB Bank	micro-, small- and medium-sized enterprises (MSMEs) and renewable energy projects		USD15 million loans from OPEC Fund for International Development (OPEC Fund) in May 2021
Global IME Bank	Green Finance, Clean Energy		USD 25 Million loans were provided by CDC in Dec 2021
B02 (Business Oxygen)-First domestic private equity firm		USD 7 million in 2015 (Source IFC) USD 7.3 million in 2017 (Source: IFC, PPCR, FCDO)	
Dolma Impact Fund	SMEs, renewable energy, technology	USD 40 Million closed in May 2021	USD 10 million (source IFC) The target fund is USD 75 million
Muktinath Darshan Private Ltd.	Muktinath Cable car (86.65km)		USD 30 million – survey work underway
Total			USD 220.9 million

Non-traditional funds or Philanthropic Funds

- i. Jeff Bezos Earth Fund – established in 2020 by the multi-billionaire founder of Amazon, the USD 10 billion funds support climate action through the use of technologies that reduce greenhouse gas emissions.
- ii. Bloomberg Philanthropies was founded by the U.S. entrepreneur and former Mayor of New York, Mike Bloomberg. The climate-related focus of the environment program of Bloomberg Philanthropies is currently on:
 - Clean energy (including the global phase-out of coal, e.g. through the “Beyond Coal Campaign”);
 - America’s Pledge (i.e. the “We are still in” campaign aimed at fulfilling the commitments of the U.S. under the Paris Agreement);
 - Sustainable cities (e.g. the C40 Cities Climate Leadership Group with more than 90 cities as members);
 - 50 Reefs (a program to identify and protect resilient reefs from climate-induced extermination).
- iii. John D. and Catherine T. MacArthur Foundation are one of the largest U.S. Foundations that aims to build a more just and peaceful world. Making progress on limiting global climate change and its adverse impacts is one of the priority areas of the Foundation. The MacArthur Foundation is headquartered in Chicago with offices in India.
- iv. Minor Foundation for Major Challenges was founded in 2000, on the initiative of designer Peter Opsvik. The Minor Foundation is a Norwegian trust fund that finances communication projects to mitigate anthropogenic climate change.
- v. Belt and Road Initiatives: BRI is a transcontinental long-term policy and investment program which aims at infrastructure development and acceleration of the economic integration of countries along the route of the historic Silk Road. Nepal could use available resources for energy and infrastructure-related projects.
- vi. Climate Bonds Initiatives: the Climate Bonds Initiative is an international organisation working solely to mobilise the largest capital market of all, the \$100 trillion bond market, for climate change solutions.
- vii. Green Investment Group: the Green Investment Group is a leading green developer and investor, with a mission to accelerate the green transition. Since 2012, GIG has committed over 20 GBP billion to over 150 projects globally under net-zero GHGs commitments.
- viii. INGKA Group: Ingka Group, a retailer that runs the majority of IKEA stores, has allocated an additional €4 billion (US\$4.8 billion) to invest in solar and wind plants. It has already invested €2.5 billion in the past ten years on clean energy projects globally. Ingka announced the next step towards 100% renewable energy across the firm’s value chain to support renewable energy projects.
- ix. Climate Works Foundation: Provides grants in the sector of forest and land use, transport, finance, power sector, Industry. Since 2008 have provided over 1.3 billion USD grants to more than 600 grantees in over 40 countries.
- x. Transformative action plan (ICLEI Local Governments for Sustainability): Local Governments for Sustainability is a global network of more than 2500 local and regional governments committed to sustainable urban development. Active in 125+ countries, working in sustainability policy and driving local action for low emission, nature-based, equitable, resilient, and circular development. South Asian cities in Bangladesh and India have been receiving support.
- xi. Japanese Bank for International Cooperation (JBIC): JBIC is a Japanese financial institution that conducts lending, investment, and guarantee operations while complementing the private sector financial institutions. JBIC supports a range of business areas including energy and natural resources, manufacturing and other industries, environment, infrastructure, business performance of the GREEN operations, etc.

Annex B: Methodological Notes

Review, analysis, and synthesis of existing evidence

This study was focused on the review and analysis of Nepal's investment priorities to deliver climate and green development ambition to provide credible options to attract donors and investors. The analysis maps out the potential funding opportunities and reasons for the low uptake of vertical funds for the implementation to deliver the climate ambitions in Nepal. This will further analyse broader development interventions that have significant climate co-benefits and capacity constraints towards accessing these opportunities. It will focus on the collection and analysis of information to address the key research questions critical to the assignment, as set out below.

Mapping of resource requirements and committed

- NDC targets?
- NAP targets?
- LTS?
- Loss and Damage framework?
- GRID initiatives?

Mapping of Funding opportunities:

What are the current sources of finance, both vertical and horizontal including several development interventions that are likely to have significant climate co-benefits?

At the international level

- What are various international sources of climate financing which Nepal can benefit from? Including the fund flow from India and China.
 - Direct funding from UNFCCC processes e.g. Green Climate Fund, Adaptation Fund, Global Environment Facility, etc.
 - Multilateral funding - Climate Invest Funds, Lowering Emissions by Accelerating Forest finance (LEAF), International Finance Corporation (IFC), European Investment Bank (EIB), etc
 - Concessional finance e.g. CDC sovereign wealth funds etc.(including where possible India and China)
 - Private green finance institutions
 - Development Partners investments

At the domestic level. Analysis of investment plans and identification of additional resource requirements and sources of finance. This will be based on:

- Government Investment – Review of current and future funding for climate resilience. GRID relevant sector plans from government sources. Analysis of likely local, provincial, and federal government funding needs for implementation of resilience actions. Identification of areas where public finance is likely to be constrained by budget availability and implementation capacity.
- Private Sector Investment – Identification of private sector demand for investment and potential private-sector sources of investment in green sectors. This should include domestic and foreign investment.
- Development Partner investment – Updating and adding detail to current donor portfolio analysis including value, period, loan, grant, and sector focus to provide a development partner 'IDPG portfolio-wide analysis of the available resources to match against Nepal's needs for green recovery'. This should include analysis of eligibility as climate finance according to OECD DAC rules and ensure a balance of mitigation and adaptation support.

The political economy of the constraints and barriers in accessing and mobilizing climate financing.

From the economic, sectoral, and existing policy analysis identify the key policy barriers inhibiting green, resilient, and inclusive development and develop a matrix of actions that could accelerate longer-term sustainable and climate-resilient growth including broader development funds that may have a climate co-benefit.

- How much of the funding was accessed so far in the implementation of adaptation and mitigation targets?
- Why is it not accessed in full capacity?
- What are the current policy and institutional challenges, opportunities, trade-offs, and transitions to financing green and resilient development? Particularly looking at the non-use of vertical funds.

Better accessing and managing climate financing

- How can we deal with the current and future challenges and trade-offs in terms of funding gaps?
- What needs to be done to get the money?

The strategy that is credible to show to the investors to invest in Nepal

- What needs to be done to make the enabling environment for attracting the private sector and international funding? What are the policy and institutional reforms needed to excel better access?
- What are concrete next steps for MoF, MoFE, and NPC to consider?
- What capacity should the government have and what are the areas of support?

Process and Methodological tools

- Literature review: The literature review was carried out to set out the context of opportunities and barriers for the climate financing landscape in Nepal. On climate financing in Nepal, this study has built on a previous study and analysis of Nepal's climate financing situation, including a political economy analysis and a paper on the state of climate financing in Nepal. On green investment, the relevant priorities and opportunities were reviewed for investment through GRID to understand the convergence of climate ambition Nepal has in the post COVID19.
- Stakeholder consultation: The consultation with national governments, development finance institutions, bilateral donors, multilateral development partners, private sector, regional development partners/financiers, and vertical fund managers including funds under the UNFCCC mechanism was carried out to better understand commitments to finance in Nepal. The one-to-one interviews, and meetings with regional, and global stakeholders to understand the role, plans, and responsibilities of various agencies, as well as their interest and capacity in mobilising finances to address climate change, were held during the COP26 events together with MoF, NPC, and MoFE.
- Validation meeting/workshop: Once we have developed an analysis and draft findings, we will hold consultation discussions to validate and refine these. We will consult and take inputs from MoF as well as from the GRID Steering committee and Private Sector Advisory Group. We will also consult other stakeholders within the constraints of time.

Annex C: List of People and Institutions Consulted

1. Business Development Professional and Tourism Consultant, Four Season Travel, and Tours
2. Capacity Development Officer, FMO
3. Chairman, CDC
4. Chairman and Managing Director, Pashupati Renewables
5. Chief Executive Officer, Climate Investment Fund
6. Chief Executive Officer, Butwal Power Company.
7. Chief Executive Officer, Off- grid Solar Expert, Gham Power Nepal
8. Chief Executive Officer, Saral Urja Nepal Pvt Ltd
9. Chief Representative at FMO Singapore Regional Office, FMO
10. Consultant- Finance Management and Control, Office of Investment Board in Nepal
11. Country Manager, Clean Cooking Alliance, Nepal
12. Country Representative, CDC
13. Deputy Executive Director, Alternative Energy Promotion Centre
14. Deputy General Secretary, Federation of Forest-based Industry and Trade
15. Director, Shreenagar Agro
16. Economic Officer, US Embassy
17. Founder and Chief Executive Officer, Wind Power Nepal
18. FS (Com & Eco) & SA to Ambassador, Embassy of India
19. Head of Business Development at National Fund for Environment and Climate Change (FONERWA), Rwanda Green Fund
20. Head, Sustainable Banking, NMB Bank
21. Head, Adaptation Fund
22. Joint Secretary, Ministry of Forests and Environment
23. Manager - Renewable Energy and Handling Bank Unit, NMB Bank
24. Manager, One to Watch
25. Manager, Sustainable Banking, Nabil Bank
26. Natural Resources Management and Global Climate Change Programs Specialist, USAID
27. Owner, Pavillion Hotel
28. Owner, Tiger Mountain Nepal
29. Program Director, Asia Network for Sustainable Agriculture and Bioresources
30. Programme Manager, European Union Delegation office in Kathmandu
31. Project Manager, Invest for Impact Nepal, Nepal invests
32. Relationship Manager, Nepal Investment Bank Limited
33. Research and Development Manager, Thee Go
34. Secretary, Ministry of Finance
35. Secretary (Board of Directors), Nepal Energy Foundation
36. Secretary, National Planning Commission
37. Secretary to the Board at GCF, Green Climate Fund
38. Secretary, Ministry of Forests and Environment
39. Senior Conservation Officer, Nepal Trust for Nature Conservation
40. Team Leader, Climate resilience and Inclusion Team, British Embassy Kathmandu
41. Team Leader, Nepal Renewable Energy Programme
42. Urban Development and Technical Appraisal Specialist, Town Development Fund
43. Vice President, Butwal Power Company

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