



CHALLENGES AND OPPORTUNITIES IN GREEN FINANCING WITHIN NEPAL'S FINANCIAL SECTOR

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ABSTRACT

Green finance and sustainable investment are essential for promoting environmental sustainability in Nepal's financial sector. While these efforts primarily aim to address environmental challenges, they also have the potential to indirectly support human rights by fostering ethical practices and improving working conditions within the sector, this article examines the critical role Nepal's financial sector can play in advancing environmental sustainability and human rights through integrating green finance and sustainable investment. It provides an overview of Nepal's financial landscape and the growth of sustainable finance globally and regionally. Strategies are proposed for financial institutions to build internal capacity, offer green financial products, improve disclosures and join relevant networks. Innovative instruments like green bonds, blended finance vehicles and sustainability-linked loans are explored. Opportunities for financing key sectors like renewable energy, eco-tourism and sustainable agriculture are highlighted. Importantly, the article calls for integrating human rights factors into green finance through mechanisms to link environmental and social risk, accountability and community participation. Multi-stakeholder collaboration is also examined as a way to mobilize green capital at scale. This article aims to explore the challenges and opportunities of integrating

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green finance within Nepal's financial sector, with a focus on achieving a balance between profitability and ecological sustainability. It also examines the potential implications of green finance on human rights, particularly in promoting ethical practices and enhancing the social responsibility of financial institutions.

Key Words: Environment, Sustainable Investment, Green Finance, Opportunities, Waste management.

INTRODUCTIONS

Nepal's financial sector plays a critical role in addressing environmental challenges, such as climate change, deforestation, and pollution, integrating green finance strategies. These strategies not only aim to mitigate environmental risks but also contribute to sustainable socioeconomic development, particularly benefiting marginalized communities. Environmental sustainability involves managing interactions with the natural environment in a way that prevents the depletion or degradation of natural resources, while also preserving the resilience and diversity of ecosystems. It is a process that continually improves resource use efficiency, management of waste, and socio-economic systems to ensure that the needs of the present are met without compromising the ability of future generations to meet their own needs¹. It also refers to the responsible use and management of natural resources and ecosystems to meet the needs of the present generation without compromising the ability of future generations to meet their own needs². Environmental sustainability includes aspects like reducing greenhouse gas emissions, preventing pollution, restoring degraded landscapes, protecting biodiversity and adapting to climate impacts. Environmentally sustainable development meets current needs while preserving the environment so it can also support future generations. In Nepal, some key environmental sustainability issues include reversing the loss of forest cover, expanding renewable energy access, tackling indoor and urban air pollution, managing plastic waste

¹ Robert K. Collin, *Environmental Sustainability: A Definition for Environmental Professionals* 1 (2014).

² A. Borthakur & K. Sinha, *E-Waste, Chemical Toxicity, and Legislation in India*, IGI Global (Jan. 26, 2024, 09:23 AM), <https://www.igi-global.com/dictionary/e-waste-chemical-toxicity-and-legislation-in-india/10076>.

responsibly, protecting endangered species, and building climate resilience particularly for climate vulnerable mountain communities and farmers.

Similarly, Human rights broadly encompass the universal rights inherent to all human beings regardless of race, class, gender or ethnicity. This includes the right to life, dignity and equality, as well as civil, political, economic, social and cultural rights. In Nepal, human rights challenges include long-standing discrimination against women, Dalits and indigenous groups, lack of accountability of security forces, child labor, and legal/institutional barriers to inclusion of LGBTQ persons. For environment-related human rights, access to clean water³ and air, sustainably managing community forests and indigenous land rights are critical. Climate change and environmental degradation disproportionately affect poor, marginalized and rural communities, undermining their fundamental human rights. Nepal is party to major international human rights conventions, and its new constitution guarantees the right to a clean environment⁴ alongside protections against discrimination. Translating these into practice requires strengthening institutions and mechanisms for accountability, grievance redressal, participation and transparency across Nepali society. Promoting environmentally sustainable and socially inclusive development in Nepal thus requires upholding human rights and environmental integrity in mutually reinforcing ways. As Nepal transitions into a lower middle-income economy, its financial sector faces the dual challenge of fostering economic growth while addressing pressing environmental issues. Innovative approaches like green finance and sustainable investment are increasingly seen as vital tools for achieving this balance. Green finance involves directing financial resources towards projects, sectors, and activities that produce environmentally sustainable outcomes. This includes investments in renewable energy, energy efficiency, pollution prevention, and conservation efforts such as sustainable water management and climate change adaptation. The primary objectives of green finance are to account for environmental externalities in financial decision-making and to mitigate risk perceptions associated with sustainable projects. Similarly, sustainable investment channels capital into assets and companies that integrate

³ Article 35 (4) of *Constitution of Nepal, 2072*.

⁴ Article 35 (4) of *Constitution of Nepal, 2072*.

environmental sustainability with social responsibility and sound governance. This involves practices such as screening investments based on environmental, social, and governance (ESG) criteria, engaging proactively as shareholders, and employing innovative green financial instruments. Both green finance and sustainable investment aim to balance financial returns with positive environmental impact, presenting a promising pathway for Nepal's financial sector to support the country's sustainability goals. However, while these approaches hold significant potential, they must be implemented with a careful consideration of human rights and social justice, particularly for Nepal's marginalized communities. Too often, top-down environmental interventions in Nepal have disregarded local contexts, resulting in the displacement of communities, loss of access to vital resources, and an unequal distribution of benefits. Thus, green finance and sustainable investment strategies must not only aim to address environmental challenges such as climate change, deforestation, and pollution but also ensure that the outcomes are socially just and inclusive.

THE IMPERATIVE FOR GREEN FINANCE IN NEPAL

Nepal's financial sector must prioritize green financing and sustainable investment to address the country's pressing environmental challenges. While issues such as climate change vulnerabilities, deforestation, pollution, and ecosystem degradation pose significant risks, the emphasis of this paper is on the financial strategies necessary to mitigate these threats. Green financing offers a pathway to mobilize capital for initiatives that not only protect the environment but also promote economic growth and resilience. Directing financial resources towards sustainable projects, Nepal can simultaneously address environmental risks and support socio-economic development.

Nepal's Climate Change Vulnerabilities

Nepal is highly vulnerable to climate change impacts due to its mountainous terrain, heavy reliance on agriculture, and high levels of poverty⁵. The rapid warming of the Himalayas, at twice the global average

⁵ Asian Development Bank, *Climate Risk Country Profile: Nepal* (Feb.2021) (Jan. 26, 2024, 09:23 AM), <https://www.adb.org/sites/default/files/publication/677231/climate-risk-country-profile-nepal.pdf>.

rate, presents significant challenges for Nepal's economy and infrastructure, which are deeply intertwined with its natural environment. Melting glaciers, altered precipitation patterns, and the increased frequency of floods and droughts are not just environmental issues—they represent critical risks to water resources, food and energy security, and ultimately, the stability of the financial sector. Integrating green finance strategies, Nepal's financial sector can play a pivotal role in mitigating these climate risks. This approach not only helps in adapting to and managing the effects of climate change but also ensures that financial investments are directed towards sustainable development pathways that protect both the environment and the well-being of Nepali citizens.

Climate change vulnerabilities include are:

- i. Melting glaciers and permafrost:** Increased temperatures are accelerating melting of ice reserves in the Hindu Kush Himalayas which provide critical water sources. Reduced snow cover also affects seasonal water flows. The glaciers in the Hindu Kush Himalayas have been melting at an alarming rate, with research indicating that they have shrunk by 40% since the Little Ice Age. Current projections suggest that up to 80% of their volume could be lost by the end of the century if global warming continues on its current trajectory⁶.
- ii. Erratic precipitation:** Nepal is seeing higher variability in monsoon rainfall patterns, frequent extreme rainfall events, and increased unpredictability in timing and geographic distribution of rainfall. This affects agricultural productivity and increases flood risks.

Variability in Monsoon Rainfall:

- a. Increased Intensity and Frequency:** Studies indicate that Nepal's climate is becoming warmer and wetter, leading to more intense precipitation events. For instance, extreme rainfall has been recorded, with instances of heavy downpours causing severe flooding and landslides, particularly during the monsoon season. In recent events, heavy rainfall has resulted in significant loss of life and displacement

⁶ *Glacier Melt in the Himalayas Endangers South Asia*, WELTHUNGERHILFE (Aug. 20, 2024, 10:00 AM), <https://www.welthungerhilfe.org/global-food-journal/rubrics/climate-resources/glacier-melt-in-the-himalayas-endangers-south-asia>.

of communities, highlighting the dangers posed by such erratic weather patterns⁷.

- b. Impact on Agriculture:** The unpredictability of rainfall affects agricultural productivity. Farmers, who rely on consistent rainfall for crop growth, face challenges due to the irregular distribution of rainfall. This situation can lead to crop failures in areas experiencing drought while simultaneously causing flooding in others, creating a mixed impact on food security and livelihoods⁸.
- iii. Increased frequency of droughts and floods:** Climate variability is causing more frequent episodes of droughts and floods, resulting in soil degradation, crop losses, livestock deaths and infrastructure damage.
- iv. Rising temperatures:** Higher temperatures raise crop water requirements, cause heat stress for people and wildlife, and increase energy demand for cooling needs.
- v. Retreating Himalayan rangelands:** Grasslands that mountain communities rely on for forage and grazing are under threat from changing climatic conditions, jeopardizing pastoralist livelihoods.
- vi. Threats to unique biodiversity:** Nepal's rare flora and fauna adapted to mountain ecosystems are endangered by habitat loss, invasive species, and inability to adapt to warming temperatures and changed precipitation patterns.

These climate change impacts result in food insecurity, water scarcity, infrastructure damage, human casualties and loss of livelihoods - exacerbating poverty and vulnerability.

A. Deforestation and Loss of Biodiversity

Nepal has seen significant deforestation from conversion of forests for agriculture, infrastructure, illegal logging and unsustainable harvesting of firewood. Though community forestry efforts have

⁷ KATHMANDU POST (Jan. 5, 2019, 08:00 AM), <https://kathmandupost.com/karnali-province/2019/01/05/with-erratic-rain-and-snowfall-humla-struggles-to-adapt-to-a-changing-climate>.

⁸ CLIMATE CHANGE POLICY AND PRACTICE IN NEPAL, (Aug. 20, 2019, 07:00 AM), https://www.climatenepal.org.np/sites/default/files/doc_resources/gpnpy6vdd7i_2.pdf.

helped regain tree cover, challenges persist. Deforestation and forest degradation release stored carbon, reduce carbon sequestration potential, increase erosion and damage watersheds. Nepal's rich biodiversity is also threatened by habitat loss, land use changes, invasive species, and poaching and illegal wildlife trade. Iconic species like rhinos, elephants, tigers, snow leopards and vultures are endangered. Wetlands throughout the Terai belt face pollution, drainage and encroachment pressures.

B. Pollution: Air, Water, Waste

Both outdoor and indoor air pollution remain major public health concerns, especially in cities like Kathmandu. Vehicular emissions, brick kilns, industries, waste burning and road dust contribute to poor urban air quality. Indoor air pollution mainly from cook stoves and heating using biomass exacerbates respiratory diseases. Water pollution from agricultural runoff, industrial effluents and municipal sewage into Nepal's rivers threatens safe drinking water and aquatic ecosystems. Solid waste ending up in landfills, rivers, and forests due to lack of segregation and inadequate waste management poses huge environmental challenges. Plastic waste is ubiquitous across high altitude trekking routes, mountains, forests and water bodies. These multifaceted pollution issues degrade environmental quality and impair public health.

C. Amplifying Development Challenges

The environmental issues highlighted above amplify existing socioeconomic development challenges like poverty, inequality, food insecurity, safe water access, public health risks and gender disparities faced by Nepali communities. Climate change impacts like declining agricultural yields undermine rural livelihoods and employment opportunities. Deforestation exacerbates shortages of fodder, fuelwood and other forest resources that low-income households depend on. Water scarcity and pollution, crop losses due to extreme weather events, and climate change related diseases impair health and food security. Disasters like floods and landslides cause human casualties and asset losses pushing vulnerable households into debt traps and

poverty cycles. Women, indigenous groups and economically marginalized communities are the worst affected. Hence, environmental sustainability is closely interlinked with livelihood security, poverty reduction and social inclusion.

THE ROLE OF GREEN FINANCE

Green finance through public and private funding sources can help address Nepal's environmental issues in a way that also tackles associated development challenges and reduces poverty and inequality. Green financing is to increase level of financial flows (from banking, micro-credit, insurance and investment) from the public, private and not-for-profit sectors to sustainable development priorities⁹. Government budgetary allocations, dedicated climate funds, donor/philanthropic grants, bank lending, credit schemes, insurance products, bonds, private equity/venture capital and remittances can be leveraged for green investments.

Examples of relevant areas for green finance include

- i. Reforestation, forest conservation, landscape restoration¹⁰
- ii. Renewable energy (solar, wind, hydro, biomass)¹¹
- iii. Energy efficiency in buildings, lighting, appliances, equipment¹²
- iv. Clean cooking technologies like biogas, improved cook stoves¹³
- v. Organic agriculture, climate-smart practices¹⁴
- vi. Sustainable tourism supporting local livelihoods¹⁵
- vii. Eco-friendly infrastructure and green buildings¹⁶

⁹ United Nations Environment Programme, Green Financing (Jan. 5, 2024, 09:00 AM), <https://www.unep.org/regions/asia-and-pacific/regional-initiatives/supporting-resource-efficiency/green-financing>.

¹⁰ GREEN FIN. PLATFORM (Aug. 20, 2024, 08:00 AM), <https://www.greenfinanceplatform.org/sectors/forestry>.

¹¹ New Model for Conservation Finance to Accelerate Reforestation Efforts in the Amazon, WORLD BANK (Aug. 12, 2024, 7:45 AM), <https://www.worldbank.org/en/news/feature/2024/08/12/new-model-for-conservation-finance-to-accelerate-reforestation-efforts-in-the-amazon>.

¹² Forests & Land Use, GREEN CLIMATE FUND (Aug. 20, 2024, 08:00 AM), <https://www.greenclimate.fund/results/forests-land-use>.

¹³ How Climate Finance Can Work for Communities with Standing Forests, FOREST TRENDS (Aug. 20, 2024, 8:09AM), <https://www.forest-trends.org/blog/how-climate-finance-can-work-for-communities-with-standing-forests>.

¹⁴ Innovative Financial Mechanisms for Forests Conservation: Sovereign Sustainability-Linked Bonds, UN-REDD (Aug. 20, 2024, 8:46AM), <https://www.un-redd.org/post/innovative-financial-mechanisms-forests-conservation-sovereign-sustainability-linked-bonds>.

¹⁵ *Ibid.*

¹⁶ *Supra* Note No. 12.

- viii. Sustainable water management, watershed protection¹⁷
- ix. Biodiversity conservation, nature-based solutions¹⁸
- x. Sustainable waste management and circular approaches¹⁹
- xi. Air pollution control, clean transport
- xii. Climate-resilient development for vulnerable groups
- xiii. Carbon trading/offset mechanisms²⁰

Directing capital flows through banking, investment, insurance and capital markets towards such interventions can promote an ecologically balanced and socially inclusive green economy in Nepal.

Commitments under International Accords

Nepal is signatory to major international environmental accords that require mobilizing significant green finance, including:

- i. The Paris Agreement under the UN Framework Convention on Climate Change²¹** commits countries to undertake climate change mitigation and adaptation finance flows, especially for least developed nations like Nepal.
- ii. Convention on Biological Diversity (CBD)** obligates parties to fund protection of ecosystems, natural habitats and indigenous biodiversity²².
- iii. Sustainable Development Goals (SDGs)** envisage mobilizing financing from private and public sources towards objectives like renewable energy, sustainable agriculture, clean water access, resilient infrastructure, and sustainable production which are highly relevant for Nepal. Nepal has developed the SDGs Status and Roadmap 2016-2030²³.

¹⁷ Forests & Land Use, GREEN CLIMATE FUND (Aug. 20, 2024, 07:00 AM), <https://www.greenclimate.fund/results/forests-land-use>.

¹⁸ How Climate Finance Can Work for Communities with Standing Forests, FOREST TRENDS (Aug. 20, 2024, 8:09 AM), <https://www.forest-trends.org/blog/how-climate-finance-can-work-for-communities-with-standing-forests>.

¹⁹ *Supra* Note No.15.

²⁰ *Supra* Note No. 17.

²¹ The Government of Nepal (GoN) ratified the Paris Agreement in 2016

²² Nepal became signatory to the Convention on Biological Diversity in June 1992 (ratified November 1993).

²³ Sustainable Development Knowledge Platform, Nepal (Aug. 20, 2024, 08:00 AM), <https://sustainabledevelopment.un.org/memberstates/nepal>.

These global agreements underscore that green finance must be urgently scaled up in Nepal through national policies, regulations, dedicated funds and mainstreaming within the financial sector. Nepal's high vulnerability to climate change, deforestation pressures, worsening pollution and environmental degradation threaten ecological sustainability and amplify socioeconomic development challenges. Channeling investment into climate-resilient, low-carbon solutions that protect the environment while creating livelihood opportunities and supporting marginalized communities is vital. Green finance instruments applied creatively can address sustainability issues at scale while fostering inclusive growth. The imperatives are clear - Nepal needs to transition towards a green economy powered by sustainable finance.

CURRENT STATUS OF SUSTAINABLE FINANCE IN NEPAL

Sustainable finance refers to financial services and investments that integrate environmental, social and governance (ESG) factors to promote sustainable development²⁴. It involves incorporating sustainability considerations across the financial system to redirect capital flows towards green, inclusive and low-carbon economic activities. The typical financial sector aims to maximize financial risk-adjusted returns, often with short-term outlooks. However, huge environmental and social costs can be imposed which are not accounted for in financial metrics - like pollution, greenhouse gas emissions, climate change impacts, waste generation, labor exploitation, inequities and other adverse impacts. As of 2023, Nepal's sustainable finance market remains nascent, with green loans comprising less than 5% of total bank lending. However, there's growing interest, with several banks piloting green credit lines for renewable energy and energy efficiency projects²⁵. Sustainable finance seeks to internalize these environmental/social externalities and focus on long-term value creation. It entails:

- i. Managing ESG risks across lending, investment, insurance underwriting and trading activities to mitigate potential adverse sustainability impacts:

²⁴ Overview of Sustainable Finance, EUROPEAN COMMISSION (Aug. 20, 2024, 08:00 AM), https://finance.ec.europa.eu/sustainable-finance/overview-sustainable-finance_en.

²⁵ Exploring Nepal's Green Finance Environment, NEPAL ECONOMIC FORUM (Aug. 20, 2024, 08:00 AM), <https://nepaleconomicforum.org/exploring-nepals-green-finance-environment/>.

Financial institutions must integrate ESG considerations across their lending, investment, insurance underwriting, and trading activities. This involves assessing potential adverse sustainability impacts and adjusting risk management frameworks accordingly. For example, banks are starting to include ESG criteria in their credit rating processes and lending decisions, with a significant portion of their loan portfolios now reflecting ESG considerations.²⁶

- ii. Seeking ESG Opportunities: Institutions are encouraged to actively seek out ESG opportunities that can enhance positive impacts on the real economy. This includes investing in sustainable projects and engaging with companies to improve their ESG practices. Performing so, financial institutions can contribute to broader sustainability goals while also achieving financial returns²⁷.
- iii. Developing Green Financial Instruments: There is a growing emphasis on creating dedicated green financial instruments such as green bonds, sustainability-linked loans, and impact funds. These instruments are designed to finance projects that have positive environmental impacts, thereby attracting investors who are focused on sustainability²⁸.
- iv. Enhancing transparency through sustainability reporting and disclosures: Transparency in sustainability reporting and disclosures is essential for building trust with stakeholders. Financial institutions are increasingly required to provide clear and comprehensive ESG disclosures, which help investors and clients understand the sustainability impacts of their financial activities²⁹.
- v. Aligning business practices with ethical conduct, good corporate governance and stakeholder engagement

This helps mobilize capital towards sustainable sectors like renewable energy, green buildings, eco-tourism, organic agriculture, and

²⁶ *ESG Risks in Banks*, KPMG (Aug. 20, 2024, 08:00 AM), <https://assets.kpmg.com/content/dam/kpmg/kw/pdf/insights/2021/05/ESG-risks-in-banks-kw.pdf>.

²⁷ *ESG Risk in Banking and Financial Institutions*, LINKEDIN, (Aug. 20, 2024, 08:00 AM), <https://www.linkedin.com/pulse/esg-risk-banking-financial-institutions-best>.

²⁸ *ESG Investing for Insurance Portfolios*, SLC MANAGEMENT (Aug. 20, 2024, 08:00 AM), <https://www.slcmanagement.com/us/en/insights/all-insights/esg-investing-for-insurance-portfolios/>.

²⁹ *ESG Risk Management for Banking*, BLOOMBERG LAW (Aug. 20, 2024, 08:00 AM), <https://pro.bloomberglaw.com/insights/esg/esg-risk-management-for-banking/>.

forest conservation and pollution control. It also catalyzes improved ESG performance across companies seeking financing. Hence, sustainable finance is imperative for financial institutions to manage risks, meet societal expectations, comply with regulations, and support sustainable development. Adopting sustainable finance is also imperative for Nepal to meet its immense environmental challenges and development needs sustainably. Channeling even a fraction of these vast financial resources into green, resilient solutions can transform Nepal's economy. Sustainable financial systems also help mitigate climate change and natural capital risks facing the sector. Thus, regulators are encouraging adoption of sustainable finance globally, which is now mainstreaming in countries ranging from China to Canada to Europe. Sustainable finance is still in nascent stages in Nepal but gaining attention. However, stakeholders are increasingly realizing its value and necessity

Key Gaps and Barriers

Some key gaps hindering mainstreaming of sustainable finance in Nepal include:

- i. Lack of legal definitions, taxonomies, standards and disclosure requirements on green finance and ESG integration³⁰
- ii. Limited technical knowledge within financial institutions on material ESG issues and their integration across functions³¹
- iii. Near non-existent sustainability reporting by financial sector entities³²
- iv. Lack of high quality ESG data, ratings and analytics for the Nepal market³³

³⁰ Green Finance Policy Paper, UNDP (2022), (Aug. 20, 2024, 08:00 AM), https://www.undp.org/sites/g/files/zskgke326/files/2022-05/UNDP-NP-GF-PolicyPaper-2022_0.pdf.

³¹ Many financial institutions in Nepal lack the necessary technical expertise to understand and integrate material ESG issues into their operations. This knowledge gap restricts effective ESG risk management and opportunity identification across various functions. Capitalizing on Green Finance Report, OPML (Aug. 20, 2024, 08:00 AM), <https://www.opml.co.uk/files/Publications/a1594-strengthening-the-disaster-risk-response-in-nepal/capitalising-green-finance-report.pdf>.

³² Making Green Financing Benefit the People Who Need It in Nepal, UNDP (Aug. 20, 2024, 08:00 AM), <https://www.undp.org/nepal/speeches/making-green-financing-benefit-people-need-nepal>.

³³ Capitalizing on Green Finance Report, OPML (Aug. 20, 2024, 08:00 AM), <https://www.opml.co.uk/files/Publications/a1594-strengthening-the-disaster-risk-response-in-nepal/capitalising-green-finance-report.pdf>.

- v. Limited channels for community grievance redressal against financial institutions³⁴
- vi. Low levels of collaborative industry action and networks on sustainability
- vii. Limited financing available for high ESG impact sectors like sustainable agriculture, clean energy access etc.
- viii. Lack of dedicated green financial instruments
- ix. Nascent impact investing ecosystem³⁵

Overall, Nepal's sustainable finance segment faces weak regulatory pull and industry push at present. Nonetheless, frontrunner FIs, regulators and international development agencies are supporting key initiatives on ESG reporting, risk management, disclosure and capacity building. These early efforts must now translate into concerted policy and industry-wide action to mainstream sustainability. Despite limitations, Nepal's financial sector stakeholders are increasingly aligning with global sustainable finance movement. The demonstrated appetite for developing supportive frameworks, building capacity, enhancing transparency and introducing innovative partnerships and instruments needs to be catalyzed through collaborative efforts between regulators, banks, investors and companies. This would help channel capital meaningfully towards Nepal's green growth opportunities across renewable energy, eco-tourism, sustainable agriculture, forestry, green buildings and MSME finance. It will mitigate natural capital losses and climate change risks to the financial sector while mobilizing resources for climate resilience of vulnerable communities.

CATALYZING SUSTAINABLE FINANCE IN NEPAL: THE REGULATOR'S PIVOTAL ROLE

Financial sector regulators in Nepal have a crucial opportunity to pave the way for mainstreaming sustainability. Providing the right frameworks, incentives and capacity building, regulators can stimulate rapid transformation across banking, investment and insurance. Let us explore key levers at their disposal:

³⁴ Green Finance Policy Paper, UNDP (2022), (Aug. 20, 2024, 09:00 AM), https://www.undp.org/sites/g/files/zskgke326/files/2022-05/UNDP-NP-GF-PolicyPaper-2022_0.pdf.

³⁵ *Ibid.*

- i. **Issue Guidance on Integrating ESG:** The central bank and securities regulator should make ESG risk analysis mandatory in lending and investment policies of financial institutions. Preferential incentives for green assets compared to conventional assets will boost sustainable finance³⁶.
- ii. **Enforce ESG Disclosure:** Mandating climate/ESG reporting for large companies and banks under a ‘**Comply or Explain**’ approach will greatly enhance transparency. Regulators can adapt international standards like TCFD recommendations to the Nepali context.
- iii. **Develop Green Taxonomies:** Classifying which economic activities and financial assets qualify as ‘green’ or ‘sustainable’ will curb greenwashing. Sector-specific taxonomies for energy, buildings, manufacturing etc. will support important measurement and disclosure.
- iv. **Promote Innovative Instruments:** Providing guidelines, tax incentives and credit enhancements for new instruments like green bonds, sustainability-linked loans and social bonds can mobilize sustainability focused capital at scale.
- v. **Evaluate Climate Risks:** Conducting climate scenario analysis and stress testing for financial stability will help regulators identify required policy adjustments. For instance, findings may inform differentiated capital reserve requirements for high carbon sectors.
- vi. **Build Capacity:** Specialized training programs, global certifications and knowledge exchange platforms will enable regulators and financial sector players to adopt latest sustainability advancements.
- vii. **Lead Multi-stakeholder Action:** Proactive coordination between government, private sector, civil society and experts is vital for coherent strategies on pressing issues like pollution, climate adaptation gaps and biodiversity conservation.

Overall, a coordinated regulatory push encompassing frameworks, incentives, reporting, definitions, risk assessments, capacity and leadership

³⁶ ESG Risk Management: EBA Proposes Requirements for Financial Institutions, DELOITTE (Aug. 20, 2024, 09:30 AM), <https://www2.deloitte.com/gr/en/pages/risk/articles/esg-risk-management—eba-proposes-requirements-for-financial-ins.html>.

can stimulate Nepal's banks, insurers and investors to embed sustainability within their operations and channel capital towards inclusive green development. Financial regulators have an indispensable role in catalyzing this transformation.

STRATEGIES FOR FINANCIAL INSTITUTIONS

Banks, insurers, asset managers and other financial institutions play a pivotal role in embracing sustainable finance to manage ESG risks and harness green opportunities. This requires a multi-pronged strategy encompassing capacity building to identify and integrate material ESG factors across lending, underwriting and investment activities. Providing specialized training and assigning internal sustainability teams raises awareness and skills. Incorporating ESG considerations into risk frameworks, product development and stakeholder engagement helps drive impact. Offering tailored green financial instruments - be it loans, bonds, insurance or funds - helps meet demand while influencing real economy outcomes. Adopting science-based greenhouse gas reduction targets and third-party ESG performance certifications indicates serious commitment. Sustainability reporting, implementing responsible investment policies and joining industry networks like the Principles for Responsible Banking and Net Zero Asset Owner Alliance provides disclosure, shapes best practices and sends market signals. Overall, financial institutions must make concerted efforts to embed sustainability through organizational capacity, strategy, risk management, instruments, disclosure and partnerships. This transforms their role from passive intermediaries to active change agents promoting sustainable development. Banks, insurers, and other financial institutions are indeed part of commercial law. Commercial law encompasses a wide range of legal principles and regulations that govern various commercial activities, including those conducted by financial institutions³⁷. Financial institutions operate within a legal framework that encompasses commercial laws related to banking, finance, securities, contracts, and corporate governance. These laws establish the rights, obligations, and responsibilities of financial institutions in their interactions

³⁷ Newal Chaudhary, *Commercial Law with Special Reference to Foreign Direct Investment in Nepal* (A Research-based Reference Book, 1st ed., Mission Legal Service Pvt. Ltd. 2023).

with clients, investors, regulators, and other stakeholders. For example, financial institutions must comply with banking and finance laws, such as the Nepal Rastra Bank Act, 2002, which regulates the operations of banks and provides guidelines for their lending practices, risk management, and other activities. Additionally, financial institutions are subject to securities laws, such as the Securities Act, 2007, when issuing securities or engaging in investment activities.

INNOVATIVE INSTRUMENTS AND APPROACHES FOR GREENING NEPAL'S FINANCIAL SECTOR

Beyond traditional financial products, Nepal's banks, investors and other institutions can deploy innovative instruments and approaches to accelerate green finance:

- i. Green Bonds:** Issuing green bonds that raise capital specifically for climate-friendly projects like renewable energy, sustainable agriculture, and forest conservation and pollution control could be a game changer. Nepal can learn from pioneering developing country issues like those by the **National Bank of Fiji**³⁸ and **Bank Negara Malaysia**³⁹. Green bond frameworks, external reviews and reporting requirements help attract responsible investors.
- ii. Sustainability-Linked Instruments:** Loans, bonds and insurance products with inbuilt sustainability-linked features can also catalyze positive change. For example, interest rates on sustainability-linked loans are adjusted based on the borrower meeting predetermined ESG targets. Climate-resilient infrastructure projects stand to benefit. Sustainability-linked bonds raise capital for general corporate purposes but get cheaper if issuers achieve specified sustainability goals.
- iii. Thematic Bonds:** Other thematic bonds focused on social objectives (affordable housing, access to healthcare/education), blue economy

³⁸ National Bank of Fiji: Fiji's approach to green bonds has demonstrated how such instruments can finance renewable energy and climate adaptation projects, providing a model for Nepal to emulate.

³⁹ Malaysia's green bond framework includes perfect guidelines and standards that ensure transparency and accountability, attracting responsible investors. Nepal can adopt similar frameworks to enhance investor confidence and facilitate the growth of its green bond market. News, FARSIGHT NEPAL (Aug. 20, 2024, 08:00 AM), <https://farsightnepal.com/news/227>.

(marine/watershed conservation) or gender outcomes (women entrepreneurship/empowerment) can mobilize resources for Nepal's development priorities. Such instruments allow more targeted and transparent fundraising compared to general purpose bonds. Impact reporting provides accountability.

- iv. **Blended Finance:** Blended finance vehicles that use development funds, philanthropic capital and guarantees to de-risk and crowd-in commercial finance into high-impact green sectors can unlock capital at scale. With the right structure, blended finance can make investments commercially viable across nascent areas like distributed renewable energy, electric mobility, agroecology, ecotourism, ecosystem restoration and social infrastructure.
- v. **Carbon Pricing & Offsetting:** Putting a price on carbon emissions through carbon taxes, cap-and-trade schemes or internal shadow carbon pricing helps reflect environmental externalities and steer investments to low-carbon alternatives. Voluntary carbon offset markets also enable carbon-neutrality. Though at early stages in Nepal, sculpted carbon pricing mechanisms can accelerate decarbonization of energy, transport, construction and manufacturing sectors.
- vi. **Fintech and Big Data:** Nepal's financial institutions lack quality ESG data, analytics and tools to effectively integrate material sustainability factors into decisions. Targeted fintech solutions leveraging big data, machine learning, blockchain, Internet of Things sensors, drones, mobile applications and cloud computing can overcome this barrier. Creative approaches can expand ESG data collection, monitoring, reporting and predictive capabilities.
- vii. **Impact Management:** Adopting evidence-based techniques like IRIS+ system, HPSO framework and SDG impact standards to measure, manage and improve sustainability outcomes will enhance accountability. Both qualitative stories and quantitative indicators are important. This helps ensure green finance actually delivers durable environmental and social impacts.

Key Sectors to Finance Nepal's Sustainability Transition

Alongside innovative approaches, Nepal's financial institutions must align lending and investment portfolios with key sectors that enable environmental sustainability and inclusive growth.

- i. Renewable Energy:** Nepal's immense hydropower potential needs billions in investment to expand clean electricity access vital for households and industries. Solar, wind and biomass projects can provide distributed clean energy across rural areas. Pooled green bonds and risk mitigation can attract institutional investors.
- ii. Eco-Tourism:** Nepal's nature, heritage and culture make it a prime eco-tourism destination if developed responsibly. Sustainable tourism infrastructure like eco-lodges, homestays, low-emission transport options combined with skills training and ensuring local benefits can secure livelihoods and ecosystems⁴⁰.
- iii. Sustainable Agriculture:** Agroecological practices, climate-smart farming, soil health management and reducing chemical input reliance can enhance productivity, farmer incomes and food security. Financing crop diversification, organic solutions, local seed banks and farmer cooperatives helps transform agriculture.
- iv. Forestry:** Reducing deforestation and forest degradation requires financing community forestry, landscape restoration, ecotourism and REDD+ projects that create local stakeholder benefits. Voluntary carbon markets also encourage forest conservation.
- v. Sustainable Infrastructure:** Green buildings, renewable energy systems, eco-industrial zones, mass transit, solid waste management and eco-friendly urban development require green financing to build sustainable cities and decarbonize infrastructure sectors.

Overall, aligning Nepal's growing financial sector with key green development priorities across energy, tourism, agriculture, forestry and infrastructure is vital to balance profitability with sustainability. Blending

⁴⁰ Ecotourism in Nepal, HIMALAYAN MENTOR (Aug. 20, 2024, 07:30 AM), <https://www.himalayanmentor.com/ecotourism-in-nepal.html>.

commercial financing with public and philanthropic capital can unlock transformative opportunities.

INTEGRATING HUMAN RIGHTS FACTORS INTO GREEN FINANCE

While Nepal's environmental challenges require urgent climate financing, social considerations cannot take a backseat. Financial institutions have an obligation to respect human rights alongside ecological sustainability. However, prevailing sustainable finance practices often overlook potential adverse impacts on communities, focusing narrowly on environmental risk management. This lopsided view ignores linkages between environmental degradation and social outcomes. Climate change exacerbates poverty, hunger, malnutrition, health risks and gender inequality. Deforestation erodes indigenous communities' livelihoods and ethnic minorities' access to forest resources. Unplanned hydropower dams displace villagers while riverside pollution threatens water security. Nepal's marginalized social groups - women, dalits, indigenous groups, rural communities - bear the brunt of these environmental issues. They also have least access to decision-making over natural resources and development pathways. Financial institutions must integrate environmental and social risk analyses at par through human rights due diligence. This involves assessing actual and potential adverse impacts on communities and vulnerable groups from activities that they fund. Conducting **human rights impact assessments (HRIAs)** should become integral to green finance project financing decisions. HRIAs evaluate risks of human rights infringements across civil, political, economic, social and cultural rights based on the Universal Declaration of Human Rights. Sample questions can assess whether projects limit community access to resources, disregard cultural practices, impair health or endanger life, involve land grabs or forced evictions, pose threats to indigenous territories, undermine labor rights, etc. International standards like the UN Guiding Principles on Business and Human Rights provide HRIA frameworks businesses and financial institutions. For example, hydro project funding must evaluate impacts on downstream water access for women or small farmers. The Equator Principles have also mainstreamed social risk management in project financing.

Community participation, consent and transparency are critical. Projects with environmental and social risks often create ‘paper’ consultations without meaningful participation of affected groups. Financial institutions must require community engagement from project inception through implementation, monitoring and evaluation. Free, prior and informed consent of indigenous communities is essential if activities encroach on their territories, resources and cultural heritage. Communication in local languages and accommodating marginalized groups in consultations is vital. Grievance redressal and accountability are indispensable. An independent mechanism for communities and individuals to register grievances and obtain resolution protects rights. Channels via text, call, in-person and online help increase accessibility. Response systems must cover projects across the lifecycle including construction, operation and decommissioning. External oversight committees with civil society and human rights commission representation can enhance independence and accountability. Integrity pacts, equitable sharing of project benefits, and transparency in contracts/payments help curb abuses. Disclosure through sustainability reporting and participating in independent ESG rating assessments pressures financial institutions to improve.

Ultimately, financiers should prioritize projects and sectors that directly advance socioeconomic outcomes alongside environment. For example, funding renewable energy for health clinics in remote villages or clean drinking water and sanitation systems in schools furthers both ecological and human development. Preferential green financing for ecotourism community homestays, smallholder organic farming, microenterprises producing biodegradable products and other local livelihoods empowers marginalized groups. Partnerships with civil society organizations can provide grassroots insights to avoid unintended harm and meaningfully engage communities in development. International protocols like the UN Declaration on the Rights of Indigenous Peoples set standards. Emerging tools like environmental human rights screening bring structure to identifying intersections between human rights obligations and environmental impacts.

Addressing historical discrimination and inequities should underpin green investment choices. Financiers must assess if projects sustain or

disrupt existing patterns of marginalization. Remedial measures like quotas, dedicated funding allocations and preferential terms for women entrepreneurs, microenterprises and clean cooking technologies for rural households promote inclusion in green economy opportunities. Nepal's financial institutions must advance an integrated 'do no harm' approach that carefully evaluates environmental and social risks, catalyzes participation, upholds human rights and directs finance equitably towards just sustainability transitions. This balancing act is challenging but vital. Financiers cannot cherry pick 'easy' green investments while ignoring complex socio-environmental dynamics and power imbalances on the ground. Integrating human rights provides a moral compass and socially conscious lens to ensure green finance delivers on its transformational potential equitably and ethically. The rewards are well worth the effort.

FORGING MULTI-STAKEHOLDER PARTNERSHIPS TO UNLOCK GREEN FINANCE

Mobilizing Nepal's vast green finance potential requires coordinated efforts between government, regulators, financial institutions, companies, institutional investors, municipalities, civil society, academia, development partners and communities. Multi-stakeholder partnerships can channel expertise, funding and capabilities to unlock capital at scale towards priority environmental and development objectives.

A. Engaging Institutional Investors

Insurers, pension funds, mutual funds and sovereign wealth funds are uniquely positioned to integrate ESG factors and steer portfolio companies towards sustainability as active shareholders. Their large assets under management, long-term outlooks and diversified holdings allow system-level impact. Regulators can formulate stewardship codes and ESG integration mandates while industry associations provide training and showcase best practices. For example, convening Nepal's insurance companies to commit to net-zero underwriting portfolios would be transformative.

B. Partnerships with Local Government

Nepal's municipalities are at the frontlines of climate change impacts, pollution and sustainable development needs. Collaborations between

banks, impact investors and city authorities can develop dedicated financing facilities for local climate adaptation and resilience projects prioritized through community participation. Platforms for crowdfunding, credit enhancement and aggregated bond issuances can also fund municipal sustainability infrastructure.

C. Engaging International Actors

Bilateral partnerships between regulators, Development Agency assistance for knowledge sharing platforms, Regional Development Banks co-financing green bonds, UN convening power for principles-based industry networks and Impact investor expertise in blended finance vehicles can provide catalytic capital and capacity building. These complementary international collaborations are vital to introduce global best practices.

D. Academia and Civil Society

Engaging leading academic institutes to conduct sustainability research, offer certifications and provide policy inputs leverages their expertise. Civil society partnerships strengthen community engagement, bring grassroots insights and deliver last-mile impact. Advisory committees and stakeholder councils with balanced representation help ensure accountability and transparency.

E. Peer Learning

Platforms for regulators and financial sector players to share first-hand experiences, innovations and challenges with regional and global peers fosters rapid learning. For instance, the Sustainable Banking Network of emerging market central banks has accelerated ESG adoption. Forming communities of practice helps adapt global standards for local contexts.

F. Corporate Sustainability

Partnerships with industries, especially high-impact sectors like energy, construction, manufacturing and agriculture, to adopt science-based climate targets and conduct human rights due diligence improves real economy outcomes. Sector-specific sustainable finance

platforms are productive. Investor engagement with portfolio companies encourages continuous ESG improvements. Networks for knowledge exchange, convening diverse stakeholders, leveraging comparative strengths, channeling public and private capital, and collaborative governance are instrumental for Nepal to reap the benefits of sustainable finance. The end goal should be climate resilient communities, empowered local enterprises and restored ecosystems powered by green finance.

CONCLUSION

Green finance and sustainable investment in Nepal must integrate analysis of social risks, gender impacts and human rights accountability across planning, implementation and monitoring of supported activities. Adopting rights-based approaches that address historical inequities and center community agency can ensure interventions represent bottom-up inclusive, green development-not just technocratic mitigation of environmental issues. In sum, Nepal's financial sector has an immense opportunity to channel investments in a way that addresses the country's sustainability challenges while respecting rights and promoting inclusive development. Mobilizing green finance and pursuing sustainable investment to protect ecosystems while supporting livelihoods and resilience of marginalized groups can put Nepal on a transformative environmentally sustainable and socially just development trajectory. Integrating ESG factors into capital allocation and developing supportive regulations, guidelines, capacity building and innovative instruments, Nepal's financial institutions can balance profit with purpose to serve both people and planet. The recommendations provide practical entry points for regulators and financial sector players to overcome barriers and capitalize on emerging opportunities. The imperatives are clear- addressing Nepal's sustainability challenges requires harnessing the power of green finance and sustainable investment. The financial sector must leverage its unique position to channel capital towards environmental sustainability and respect for human rights to leave no one behind. The time is ripe for collective action towards this transition that will define Nepal's path to prosperity.

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