



Global
Green Growth
Institute

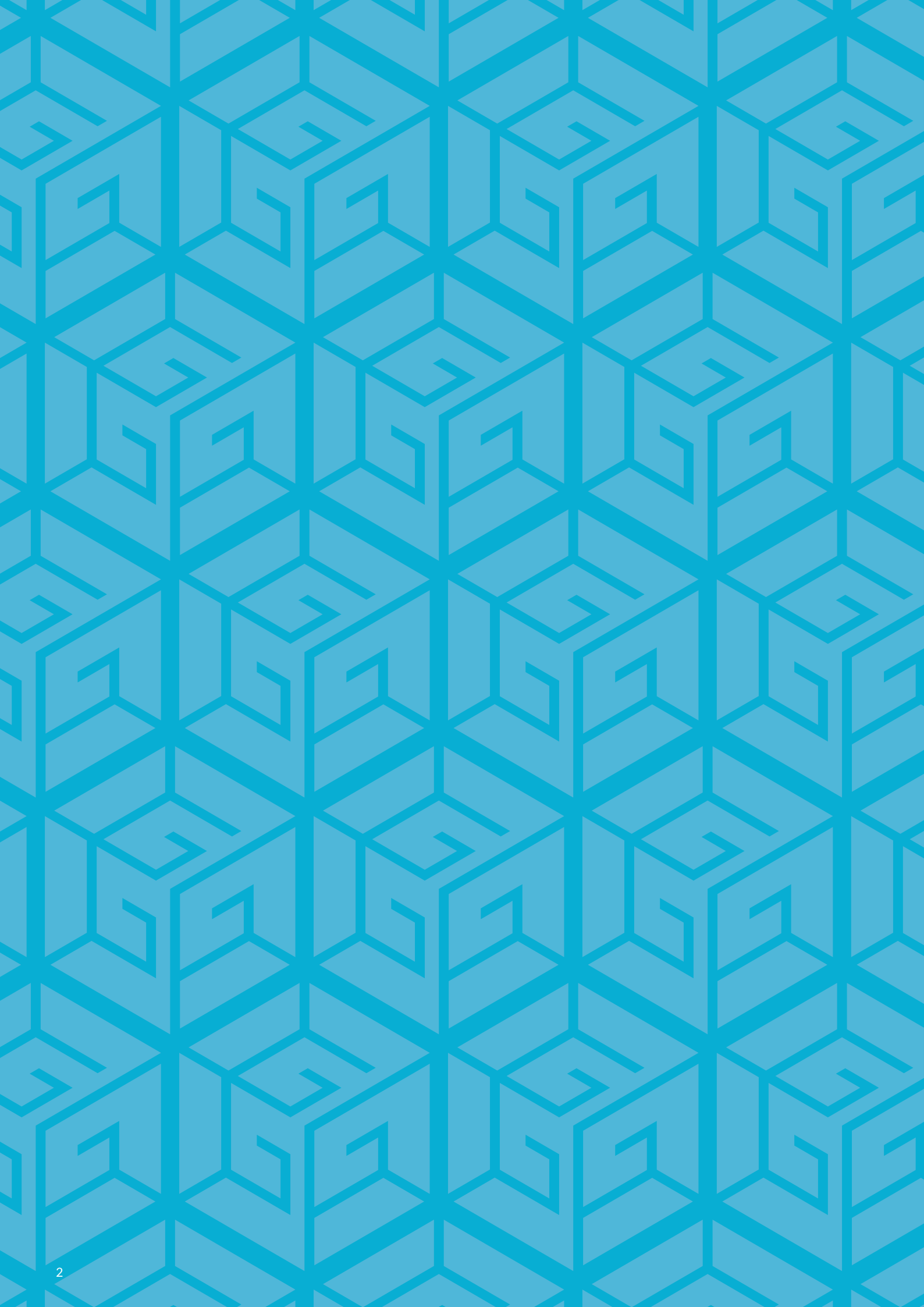
GGGI

Nepal Country Planning Framework 2017-2021



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Foreword

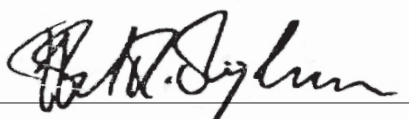
The Government of Nepal (GoN) recognizes the importance of securing a sustainable, equitable and prosperous future for the country and its people. With ambitious aims outlined in the 4th National Development Plan (2017-2019) Nepal's Nationally Determined Contribution (NDC) and Sustainable Development Goal (SDG) targets, the country has demonstrated its commitment to achieving low-carbon development and using its resources sustainably. The Global Green Growth Institute (GGGI) shares these values, and this Country Planning Framework (CPF) outlines the five-year program and joint commitment that GGGI and the GoN have pledged to achieve.

GGGI's engagement in Nepal began in 2015, and has developed into a strong partnership with a view toward sustainable and transformational green growth. To date, GGGI has developed a curriculum and implemented capacity building programs on green growth planning and implementation, as well as green growth and sustainable landscapes, with a focus on ecosystem services. The GoN has also undertaken a Green Growth Potential Assessment (GGPA) consultation process to better understand potential green growth paths and underperforming sectors in the country.

Building on the findings of the GGPA, the CPF aims to achieve economic development, social inclusion and environmental sustainability through the implementation of two programs. The Green Municipal Growth Program will advance localized green growth in Nepal's cities and municipalities, and the Electric Mobility Program will seek to create connected and healthy cities through sustainable mobility. Through these two programs, GGGI and the GoN will strive to support sustainable urbanization, mobilize green investments at the local level, provide citizens with access to sustainable transport services, tackle air pollution and improve overall public health. These two programs will advance Nepal's achievement of SDG 3 (good health and well-being), SDG 7 (affordable and clean energy), SDG 11 (sustainable cities and communities) and SDG 13 (climate action), as well as support the implementation of key targets within Nepal's NDC.

This CPF could not have been completed without the support of various line ministries, development partners and green growth stakeholders. We are grateful for their contribution and look forward to partnering with them for a greener, more sustainable and more inclusive future for Nepal. Affirming our joint partnership and commitment, the two parties present this CPF with optimism toward achieving Nepal's green growth ambitions and development goals.

Signed by two parties,



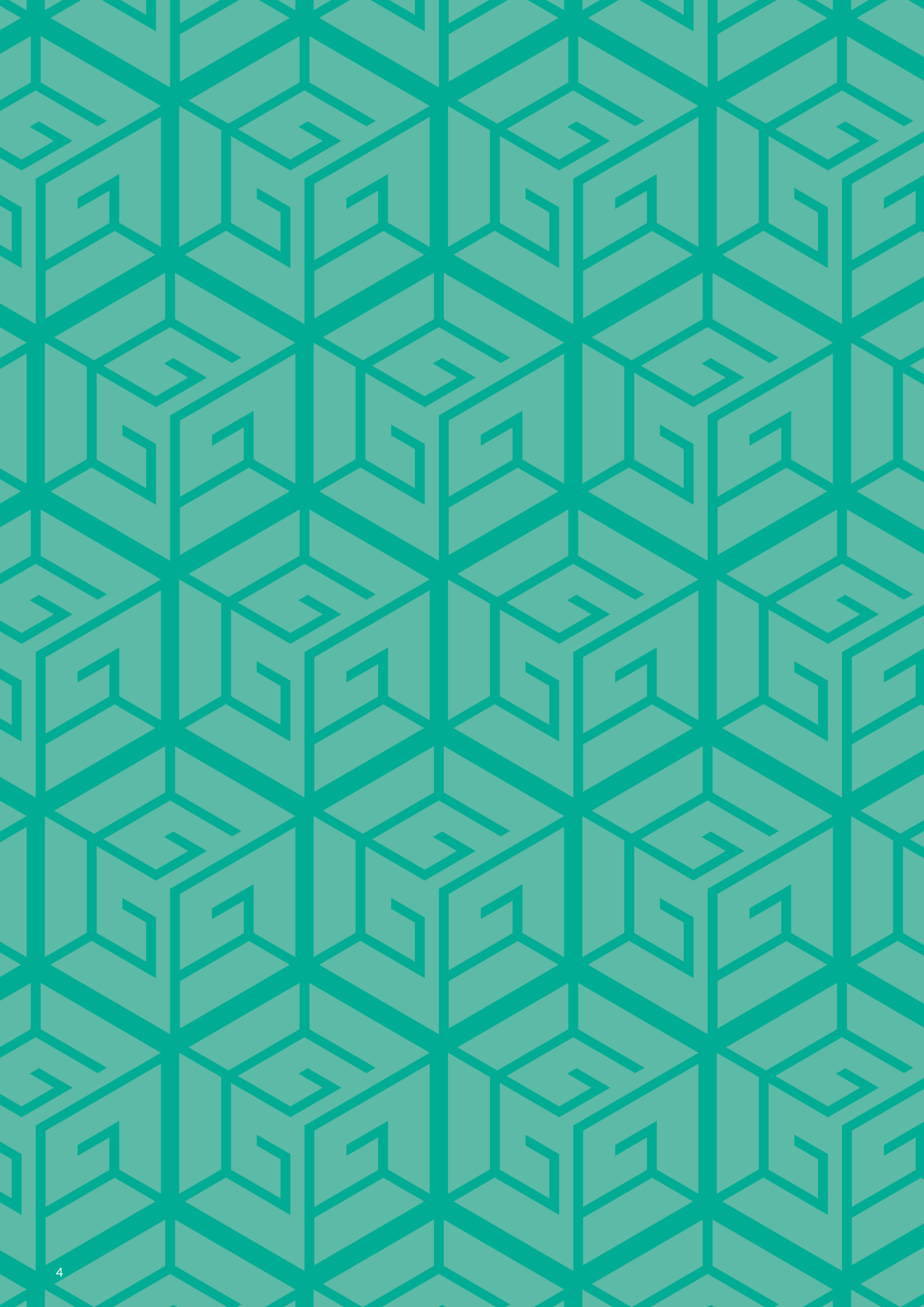
Dr. Frank Rijsberman
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January, 2018

April, 2018



Abbreviations and Acronyms

CPF	Country Planning Framework
EFLGP	Environment Friendly Local Governance Program
GDP	Gross Domestic Product
GGGI	Global Green Growth Institute
GGPA	Green Growth Potential Assessment
GHG	Greenhouse Gas
GoN	Government of Nepal
HDI	Human Development Index
LDC	Least Developed Country
MtCO₂e	Mega Ton Carbon Dioxide Equivalent
NDC	Nationally Determined Contribution
NUDS	National Urban Development Strategy
PES	Payment for Ecosystem Service
SDG	Sustainable Development Goal
UNFCCC	United Nations Framework Convention on Climate Change

Executive Summary

Background

1. Nepal is a least developed country (LDC) with ambitions to graduate from the LDC group by 2022 and achieve middle-income-country status by 2030. The World Economic Forum's *Global Competitiveness Report 2015-2016* shows that Nepal's competitiveness has improved over the last decade.
2. However, ten years of political conflict, followed by two key events—the devastating earthquake of 2015 and a seven-month economic blockade at the Nepal-India border—have severely undermined economic growth. The country also faces many development challenges, including high rates of poverty and inequality, mass migration from rural to urban areas, vulnerability to climate change, and limited capacity of the government to provide public services.
3. Nepal's urbanization is both a growing challenge and opportunity. The total urban population of Nepal (18% in 2015) is growing at a rate of 3.5% per annum. This urbanization is relatively unplanned, with settlements often chasing the construction of roads, but in areas with low economic opportunity.
4. Further, frequent changes of leadership and the concomitant instability in governance is a substantial challenge. Many great plans exist, but the human and financial capacity to implement them continues to remain weak in Nepal.
6. The GoN's 2016 declaration of new municipalities means that roughly 5 million additional people have been made "urban" residents, despite living in rural agglomerations of villages that lack even the basic institutions and infrastructures of an urban area. The *National Urban Development Strategy 2016-2030* (NUDS) aims to establish economically prosperous, inclusive and climate-resilient cities that contribute to 70% of gross domestic product. At the same time, the Environment Friendly Local Governance Program (EFLGP) aims to establish environmental governance as a means to improve service provision at the household, village, municipality and district levels. Other sectors also have interesting agendas for green growth. However, while these initiatives are meant to develop strong green municipal economies, the GoN currently lacks the capacity, institutions and resources to undertake coordinated green city development.
7. Nepal has become increasingly participatory in key international development forums. Achievement of the Nationally Determined Contribution (NDC) and Sustainable Development Goal (SDG) targets is a major objective of the GoN, particularly in ensuring low greenhouse gas (GHG) emissions and sustainable use of its vast renewable natural resource base. Nepal is a low emitter of GHGs, emitting 0.027% of global emissions. Without setting an overall GHG emissions reduction target, Nepal's NDC defines a set of actions that will contribute to limiting global temperature rise to safe levels.

National Priorities

5. The Government of Nepal (GoN) recognizes the importance of finding solutions that can transform their many challenges into opportunities for growth. The success of this ambition will depend on the country's ability to leapfrog to a better development model and its effective implementation. The new federal constitution embodies a decentralized approach that will allow sub-national and national government bodies to share the responsibility for Nepal's development.

About the Country Planning Framework

8. This Country Planning Framework (CPF) was developed in close consultation with the GoN, development partners, private sector and civil society, and builds on the findings of the Nepal Green Growth Potential Assessment (GGPA) conducted in 2016. The CPF outlines two strategic outcomes that will guide interventions of the Global Green Growth Institute (GGGI) in Nepal in the period 2017-2021. At its core, this CPF responds to the GoN's need for moving from plans to action. To do so, GGGI will undertake a two-pronged approach through the two strategic

outcomes—both of which aim to simultaneously address climate change, economic growth and poverty reduction. Firstly, GGGI will work from the “bottom-up”, bringing local and national actors together to coordinate the implementation of the NUDS, EFLGP and other sector plans. Secondly, GGGI will assist the GoN in enhancing electric mobility to support the achievement of NDC targets related to transport, air quality and energy security. Geographically, GGGI will focus on smaller and newly-created municipalities.

Strategic Outcomes

9. GGGI’s overall aim in Nepal is to assist the country in achieving goals and targets set by the GoN. As recognized and recommended in the GGPA, policies are already in place and concrete action is now needed. This need is felt at both national and sub-national levels, but most critically at the local level. As a result of increasing decentralization, local-level political structures are being developed and municipalities are becoming fundamental units of development in the country. In addition, the GGPA revealed a need to focus on energy and air pollution at both national and local levels.

10. Strategic Outcome 1: Localized urban green growth accelerates economic development, social inclusion and environmental sustainability in Nepal’s cities and municipalities.

GGGI’s interventions aim to support the following government targets:

- Achieving an investment target of USD 9.4 billion in urban infrastructure by 2021;
- Providing basic services such as piped drinking water, solid waste collection, reticulated sewerage and on-site sanitation systems to all households by 2030;
- Protecting and sustainably managing freshwater sources, and promoting rainwater harvesting in all municipalities by 2030;
- Establishing 3R (reduce, reuse, recycle) practices and systems in all municipalities, and developing sanitary landfill sites accessible by all municipalities by 2030;
- Reducing the number of days of above “orange” Air Quality Index value in major cities to 120 by 2020 and to 18 by 2030.

11. In order to support the GoN in moving toward the goals and targets outlined above, GGGI will provide a range of services through 2021. Priority for this work will be accorded to smaller and newly-created municipalities. GGGI’s services under this strategic outcome include:

- Building the capacity of national and municipal institutions to understand green municipal development, assess opportunities, measure impact, formulate integrated green growth options and implement coordinated action on the ground;
- Developing local multi-sectoral plans for green municipal growth;
- Defining policy and planning recommendations, and formulating local bankable projects in possible sectors, including energy, transportation, waste, sanitation and resource efficiency;
- Pursuing financing of selected local-level projects;
- Assisting selected projects on the ground through business planning for basic urban services, communication, community outreach, and policy and regulatory support.

12. As such, GGGI will support the implementation of the NUDS and EFLGP, seizing the opportunity of the GoN’s decentralization agenda to introduce a cross-cutting and bottom-up approach to green growth mainstreaming and investment in Nepal.

13. GGGI’s work to meet this strategic outcome will primarily contribute to Nepal’s achievement of SDG 6 (clean water and sanitation) and SDG 11 (sustainable cities and communities). This strategic outcome aligns with GGGI’s global targets set out in the GGGI Strategic Plan 2015-2020 for reducing GHG emissions, increasing access to sustainable services for energy, sanitation and waste, and improving air quality.

14. Strategic Outcome 2: Create connected and healthy cities through sustainable mobility

GGGI's interventions aim to support the government's targets of:

- Reducing air pollution through improved monitoring of air pollutants, including from solid waste, vehicles and industry by 2025 (NDC).
- Decreasing its dependency on fossil fuels in the transport sector by 50% through effective mass public transport means while promoting energy efficient and electrical vehicles by 2050;
- Increasing the share of electric and hybrid vehicles to 20% of total vehicles in the country by 2020;
- Reducing 29 MtCO₂e of GHG emissions against the business-as-usual scenario by 2020, and 45.6 MtCO₂e by 2030;
- Increasing access to sustainable public transport for 4.4 million people by 2020, and 7.4 million people by 2030.

15. The demand for vehicles has grown by 14% per year during 1990-2015. Much of this growth is fueled by demand for motorcycles, which in 2014 accounted for just under 80% of all vehicles registered in Nepal. In addition, the number of buses on the roads in Nepal has risen to more than 35,000 in 2015. Growth across all modes of transport is driven by population growth, increasing urbanization and rising income. Since the 2000s, air pollution in Nepali cities, particularly Kathmandu, has worsened considerably and is estimated to have led to 17,000 premature deaths in Kathmandu. Air pollution is driven to a large extent by the significant rise in the number of vehicles on the roads and the poor quality of these vehicles.

16. In order to address these challenges, GGGI will provide a range of services through 2021. These include:

- Promoting the concept of low-carbon development and zero-emission transport, and supporting NDC implementation amongst national government;
- Building consensus and collaboration amongst government bodies for NDC implementation in the transport sector;
- Building the capacity of national government to assess opportunities for NDC implementation, identify options for project ideation and conceptualization, including for financing, and implement action on the ground within the transport sector;

- Developing an NDC implementation plan for electric mobility;
- Developing an investment plan for electric mobility that identifies funding gaps and connects priorities for action with viable financing sources;
- Developing pilot initiatives to implement priority projects within the transport sector, especially with a focus on electric mobility in metropolitan cities.

17. As such, GGGI will support the GoN in providing its citizens with access to sustainable transport services, decrease Nepal's dependency on fossil fuels, tackle air pollution and improve overall public health.

18. GGGI's work to meet this strategic outcome will primarily contribute to Nepal's achievement of SDG 3 (good health and well-being), SDG 7 (affordable and clean energy), SDG 11 (sustainable cities and communities) and SDG 13 (climate action). This strategic outcome aligns with GGGI's global targets set out in the *GGGI Strategic Plan 2015-2020* for reducing GHG emissions, increasing access to sustainable transport and improving air quality.



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1. Introduction to the Country Planning Framework

19. The Country Planning Framework (CPF) lays out the Global Green Growth Institute (GGGI)'s green growth objectives and interventions that aim to support Nepal in the 2017-2021 period. The CPF objectives are derived from the *GGGI Strategic Plan 2015-2020*, reflect GGGI's comparative advantage, and are in alignment with national goals and priorities of economic growth, poverty reduction, social inclusion and environmental sustainability.
20. The CPF formulation was undertaken by GGGI's country team in close dialogue with government counterparts and other stakeholders. The document is co-owned and endorsed by the Government of Nepal (GoN), demonstrating commitment among both parties to collaborate on mutual goals.
21. The CPF is aligned to GGGI's corporate values, demonstrating:
 - **Transformational outcomes** – GGGI takes a long-term outlook and aims for catalytic CPF outcomes that can trigger transformational change. The achievement of these outcomes is enhanced through partnership and synergy with other development actors;
 - **Boldness** – GGGI responds to challenges with impatient optimism. CPF outcomes seek to design and scale up creative new solutions and continually learn and adapt to evolving local contexts;
 - **Excellence** – The CPF process is underpinned by technical rigor, demonstrating thought leadership and drive toward continuous improvement;
 - **Inclusiveness** – GGGI respects and prioritizes diversity, information sharing among a broad set of stakeholders and equal opportunity in its collaboration and interventions. CPFs are designed to respond to national poverty reduction and social inclusion challenges;
 - **Integrity** – GGGI upholds high standards for transparency and accountability. CPF analysis balances the findings of analytical reports and data with stakeholder feedback.
22. In drafting the Nepal CPF, GGGI has consulted extensively with green growth stakeholders from across government, financial institutions, civil society and private sector. Consultations were held via bilateral meetings, roundtables and workshops hosted jointly by GGGI and its key government counterparts at the Ministry of Population and Environment.
23. The CPF aligns with national development policies and strategies, including the *14th National Development Plan (2017-2019)* and the Environment Friendly Local Governance Framework, as well as international commitments under the Sustainable Development Goals (SDGs) and Nepal's Nationally Determined Contribution (NDC) to the United Nations Framework Convention on Climate Change (UNFCCC). The CPF builds on the findings of the Green Growth Potential Assessment (GGPA) that GGGI undertook for Nepal in 2016.
24. GGGI's ability to achieve the long-term outcomes of the CPF will depend on resource mobilization and the anticipated cooperation and support of the GoN and other relevant stakeholders.

Box 1. About GGGI

GGGI was founded to support and promote a model of economic growth known as “green growth”, which targets key aspects of economic performance such as poverty reduction, job creation, social inclusion and environmental sustainability.

GGGI envisions a resilient world achieved through strong, inclusive and sustainable green growth, and is dedicated to supporting the transition of GGGI partner countries toward a green growth model. In pursuit of these goals, GGGI works with developing and emerging countries to design and deliver programs and services that demonstrate new pathways to pro-poor economic growth.

GGGI supports stakeholders through two complementary and integrated work streams—Green Growth Planning & Implementation and Investment & Policy Solutions —that deliver comprehensive products and services designed to assist in developing, financing and mainstreaming green growth into national economic development plans.

GGGI’s interventions emphasize change in four priority areas considered to be essential to transforming countries’ economies including energy, water, sustainable landscapes and green cities.

Headquartered in Seoul, Republic of Korea, GGGI also has representation in a number of partner countries.



2. Nepal's Green Growth Context

25. Nepal is a landlocked country, situated between China and India, with a land area of 143,351 km² and a population of nearly 28 million, growing at an annual rate of 1.2% per year. Elevation across Nepal's north-south distance of about 120 km varies from about 60m in the south to the highest point on earth, Mt. Everest at its peak of 8,848m. The country is inhabited by over 120 ethnic groups that speak over 100 languages. The past two decades have been a politically, socially and economically turbulent period for Nepal. Due to the extremely diverse set of political actors in Nepal that has led to frequent changes of leadership, stable governance is a substantial challenge. However, the new federal constitution, approved in 2015, provides a foundation for the GoN to take a more decentralized approach that will allow sub-national and national government bodies to share the responsibility for Nepal's development. Nepal faces many development challenges, including high rates of poverty and inequality, mass migration from rural to urban areas, vulnerability to climate change, and limited capacity of the government to deliver public services across often rugged and inhospitable terrain.

2.1 Macroeconomic and Fiscal Context

26. Nepal is a least developed country (LDC) with ambitions to graduate from the LDC group by 2022 and achieve middle-income-country status by 2030. The World Economic Forum's *Global Competitiveness Report 2015-2016* shows that Nepal's competitiveness improved over the last decade in the areas of education, infrastructure, macroeconomic environment and institutions. However, the long period of conflict, followed by two key events—the devastating earthquake of 2015 and a seven-month economic blockade at the Nepal-India border—have severely undermined economic growth.

27. Nepal's economy is starting to rebound following this slowdown. Shortages of fuel and other essential goods due to the trade disruption eased to 3.2% in January 2017. The budget was in surplus for the fourth year in a row and net public debt declined to 22% of gross domestic product (GDP), down from 34% of GDP in 2011/2012. Private sector credit growth surged to a seven-year high of 31% (year-on-year) in January 2017.

The current account surplus reached 6.3% of GDP in 2015/2016 on account of lower imports from the trade disruption.¹

28. The service sector is the largest contributor to GDP, increasing from 37% in 2010 to 51% in 2014, followed by agriculture, which fell from 42% to 35% in the same period, and the manufacturing sector, which fell from 9% to 7%. While not the largest contributor to GDP, the agriculture sector is critical to overall economic growth and the labor market. However, stagnant growth of this sector—predicted to be 0.77% in the 2015/2016 fiscal year—is stalling Nepal's overall economic development. Nearly 70% of the population depends on agriculture as a source of income, but the extremely low labor productivity of this sector has made sectoral growth difficult. Yet, growth is critical for generating employment, reducing Nepal's agricultural trade deficit, enhancing food security and providing impetus to the manufacturing sector.²

29. Both the service and manufacturing sectors have performed poorly in recent years, but the potential for growth is huge. It is uncertain how effectively the service sector can continue to grow without corresponding growth in the primary sectors, such as agriculture and manufacturing. Tourism and hospitality are important drivers of growth in Nepal, but after the 2015 earthquake and the economic blockade, tourism has only partially rebounded. This has severely affected the livelihoods of many people, particularly in certain remote and rural areas where tourism was the primary source of employment and income.

2.2 Environmental Sustainability

30. With almost 45% of its territory covered in forest and scrubland, Nepal has well-managed and largely intact forest resources. As of 2016, forest cover was increasing. The quality of Nepal's water, soil and air, on the other hand, has been assessed as critically low.

1 International Monetary Fund, Article IV consultation with Nepal, 2017.

2 Ministry of Agricultural Development, GoN, *Agriculture Development Strategy 2015 to 2035 - Part: 1* (Kathmandu, 2015).

31. Stress on water resources is building and is estimated to be in the range of medium-to-high level of stress. A higher level of water stress has been estimated in the Central Region, where the majority of the population resides. In addition, water quality monitoring practices are relatively weak in Nepal, with the available data pointing toward pollution from untreated wastewater and solid waste. The rivers in Kathmandu Valley have been classified by the Asian Development Bank as biologically dead.³ Although there are some forms of informal waste recycling practices in urban areas of the country, there are no formal municipal solid waste recycling systems in Nepal.⁴ In rural areas, soil erosion is a frequent phenomenon due to poor agricultural management and the country's mountainous topography, coupled with high rainfall intensity.
32. Nepal's urban population is roughly 42% of the total in 2017, and growing at a rate of 3.5% per annum. This urbanization is taking place in an unplanned and haphazard way. High rates of construction, poor energy management, and a growing fleet of old and poorly-regulated vehicles have caused an increase in airborne fine particulate matter to critical levels. Exposure levels in some cities in Nepal significantly exceed the World Health Organization standards.
33. On the policy front, environmental impact assessments were made mandatory for all public and private projects following the introduction of the *Environmental Protection Act* and the *Environment Protection Rules* in 1997. Provisions of environmental protection have been included in many of the sectoral acts such as the *National Parks and Wildfire Conservation Act of 1973*, *Water Resources Act and Water Resources Rules of 1993*, *Forest Act of 1993*, *Electricity Act and Electricity Rules of 1993*, *Tourism Act of 1978*, and *Local Self-Governance Act of 1999 and Local Self-Governance Rules of 2000*.
34. A growing challenge in effective implementation of environmental impact assessments has been the lack of skilled experts and resources in different phases of assessments, which include environmental monitoring, information dissemination, database management, and the incorporation of recommendations into design and contract documents.⁵

2.3 Poverty Reduction and Social Inclusion

35. Improvements in education and basic infrastructure in Nepal have contributed to reducing poverty. The country's poverty rate fell from 41.8% to 30.9% between 1996 and 2004, and further to 25.2% by 2011.⁶ The national poverty line has more than doubled as a result, from NPR 7,696 (USD 75) per capita per year in 2004 to NPR 19,261 (USD 185) in 2011. Nevertheless, important challenges remain in reducing poverty.
36. Firstly, the variation in poverty levels between Nepal's regions, and between rural and urban areas, is significant. For example, the incidence of poverty in the Western Development Region is about 46%, compared with 21.4% in the Eastern Development Region. Similarly, major urban centers like Kathmandu and Pokhara record poverty levels at around 9%, but in rural areas poverty stands at about 42%.⁷ Urban areas, more generally, suffer from severely underdeveloped economies, and lack the basic economic conditions necessary to generate employment and growth. The GoN's creation of 217 new municipalities has increased the urban population to 42%.⁸ However, these municipal settlements will need substantial support if they are to develop sustainably.
37. Secondly, extreme climate events and other disaster events have impaired the country's ability to make further progress. Nepal is the fourth most vulnerable country to climate change in the world, and as a result the poorest sections of the population, especially those that depend on climate-sensitive sectors such as agriculture, are disproportionately affected.⁹

3 Asian Development Bank, *Country Environment Note: Nepal* (Mandaluyong City, 2014), <https://www.adb.org/sites/default/files/institutional-document/154702/country-environment-note-nepal.pdf>.

4 Asian Development Bank, *Solid Waste Management in Nepal: Current Status and Policy Recommendations* (Mandaluyong City, 2013), <http://www.adb.org/sites/default/files/publication/30366/solid-waste-management-nepal.pdf>.

5 Ramesh Prasad Bhatt and Sanjay Nath Khanal, "Environmental Impact Assessment System in Nepal: An Overview of Policy, Legal Instruments and Process," *Kathmandu University Journal of Science, Engineering and Technology* 5, no. 2 (September 2009): 160-170.

6 For a discussion on Nepal's overall performance on the Millennium Development Goals see, National Planning Commission, GoN, *Sustainable Development Goals 2016-2030: National (Preliminary) Report* (Kathmandu, 2015).

7 Asian Development Bank, "Country Partnership Strategy: Nepal 2013-2017," October 2013, <http://www.adb.org/sites/default/files/institutional-document/34001/files/cps-nep-2013-2017.pdf>.

8 An administrative area is declared a municipality if it has a certain population size and can generate a certain minimum annual income, among others. The areas declared as municipalities may not have any characteristic of urbanization, but are declared to guide development and avoid the haphazard development of the past. Residents already have a higher expectation. Both new challenges and opportunities have emerged in the new municipalities.

9 Maplecroft, "Climate Change Vulnerability Index," <https://maplecroft.com/about/news/ccvi.html>.



38. Yet, several other indicators of Nepal's social development have shown improvement in recent years. Nepal's net primary school enrollment has risen to become 20% higher than the low-income-country average, and even 10% higher than the middle-income-country average. This indicates a growing stock of potential human resources and greater social inclusion.¹⁰ Healthy life expectancy¹¹ provides a comprehensive picture of the life expectancy of a nation's population, and according to the World Health Organization, Nepal's healthy life expectancy of 61.1 years is better than the low-income-country average of 53.3 years, and even the middle-income-country average of 59.7 years.

39. In Nepal, gender inequality—one of the three dimensions of the Human Development Index (HDI)—is a major barrier to development. Discrimination against women and girls in health, education, political representation and labor markets has severe negative repercussions for development of their capabilities and their freedom of choice.¹² Although Nepal's score of 0.49 on the HDI's gender inequality scale seems low when compared to the low-income-country average of 0.59, it is clear that Nepal has space to improve. In 2015, Nepal's gender gap score was 0.658, ranked 110 out of 145 countries. Nonetheless, since 2006, Nepal's progress in reducing the gender gap has been noted as the second-most improved country in the world on educational attainment, and third-most improved globally on the overall Gender Inequality Index, and on health and survival.¹³


10 United Nations, "Net Enrolment Rate in Primary Education," http://www.un.org/esa/sustdev/natlinfo/indicators/methodology_sheets/education/net_enrolment.pdf.

11 Healthy life expectancy is a form of health expectancy that applies disability weights to health states to compute the equivalent number of years of life expected to be lived in full health. World Health Organization, "Healthy life expectancy at birth," http://www.who.int/gho/mortality_burden_disease/life_tables/hale_text/en/.

12 The Gender Inequality Index measures gender inequalities in three important aspects of human development—reproductive health, empowerment and participation in the labor force. United Nations Development Programme, "Human Development Reports: Gender Inequality Index," <http://hdr.undp.org/en/content/gender-inequality-index-gii>.

13 World Economic Forum, *The Global Gender Gap Report 2015* (Geneva, 2015), <https://www.weforum.org/reports/global-gender-gap-report-2015>.

Table 1. Nepal at a glance

 Indicators		Year
Population	28,982,771	2016
Land area (sq. km)	143,350	2016
GDP per capita, PPP ^a (World Bank)	2,467.8	2016
World Bank income group classification	Low-Income	2017
Proportion of population below national poverty line (United Nations)	25.2%	2010
Proportion of population below international poverty line of USD 1.90 per day (United Nations)	15%	2010
Unemployment total (% of total labor force) (World Bank)	3.2%	2016
Inflation (consumer prices annual %) (World Bank)	7.9%	2015
Total government revenue (% of GDP) (International Monetary Fund)	23.3%	2015/2016
Total government expenditure (% of GDP) (International Monetary Fund)	22.0%	2015/2016
Gross government debt (% of GDP) (International Monetary Fund)	27.3%	2015/2016
Foreign direct investment, net inflows (% of GDP)	0.2%	2015
Informal economy employment rate (International Labour Organization)	91.4%	2008
Human Development Index (United Nations Development Programme)	0.558 (144 th)	2015
Gender Inequality Index (United Nations Development Programme)	0.497 (115 th)	2015
CO ₂ e emissions (metric tons per capita) (World Bank)	0.2	2013
Forest area (% of land area) ^b	40.36%	2015
Designated forest area ^c	6.99%	2016
Agricultural land (% of land area)	28.7%	2014
Agriculture, value added (% of GDP)	33%	2016
Terrestrial and marine protected areas (% of total territorial area)	22.9%	2014
Renewable energy consumption (% of total final consumption) (World Bank)	84.38%	2014
Energy use (kg of oil equivalent per capita)	413	2014
Fossil fuel energy consumption (% of total)	15.8%	2014
Renewable internal freshwater resources per capita (cubic meters)	6,998	2104
Renewable internal freshwater resources, total (cubic meters)	198 billion	2014
Annual freshwater withdrawals, total (% of internal resources)	5%	2014
Urbanization rate (Central Intelligence Agency, 2016)	3.18%	2010-2015 est.
Urban population (% of total)	19%	2016
Environmental Performance Index (Yale University)	50.21	2016
Global Competitiveness Index Ranking (World Economic Forum)	98/138	2016-2017
Gini coefficient (World Bank)	32.8	2010
Sanitation facilities (% of population with access)	56%	2015
ND-GAIN Adaptation Index Ranking (University of Notre Dame)	120/181	2015

Notes:

a. Purchasing power parity.

b. Forest area in this context refers to forest cover or standing forests.

c. Designated forest area refers to government areas designated as forests.

3. National Priorities and Commitments

3.1. The Political Economy of Green Growth

40. Over the past five years, the GoN has demonstrated its desire to move forward with green growth. This is evidenced by a suite of environmentally-focused policies and regulations, setting ambitious goals and targets for Nepal.
41. But despite having sectoral policies and regular periodic plans in place, the current development path of Nepal has failed to create sustained growth across its three key economic sectors—agriculture, services and industry—with an average annual growth rate of only 3.6% in the last decade. At the same time, lack of employment opportunities has resulted in an increased outflow of human capital. Furthermore, the accessibility and quality of ecosystem services have continued to shrink for the poor who are dependent on the natural resources for their livelihood.
42. Given these dynamics, the GoN must now transform its conventional growth approach to one that minimizes negative environmental and social externalities, and leverages those that could present additional economic growth opportunities—namely, growth that can benefit both the poor and marginalized groups, and develop and leverage Nepal's natural resource base.
43. Within this context, there is increasing pressure for improved environmental management and green growth from both civil society and the public. A number of civil society associations and networks are advocating for more sustainable and greener approaches, especially on issues like air pollution, water quality, forestry management and waste. At the same time, prolonged exposure of the public to the impacts of environmental mismanagement is leading to heightened awareness and political pressure. Air quality in the country's larger cities, especially Kathmandu, is particularly low and has become politicized. Moreover, with urbanization and population growth, access to drinking water in many cities has become fraught with shortages and frequent supply cuts. These issues are driving a sense of the need for change.

3.2. National Development Plan

44. The apex development plan, designed to guide overall socio-economic development across Nepal, is prepared by the National Planning Commission every three years. The current *14th National Development Plan (2017-2019)* was launched in 2017. The overarching goal of the plan is to achieve socio-economic transformation and poverty reduction through productive employment, equitable distribution and high economic growth. The plan identifies 17 targets to be achieved over the planning period 2017-2019 (see Table 2), and formulates five key strategies in order to achieve the targets:
- Increase productivity by transforming the agricultural sector and expanding small and medium industries and tourism;
 - Develop the infrastructure for energy, transport (air and road) and communications;
 - Improve human development and sustainable reform by focusing on social development and social security;
 - Conserve and promote skilled and responsible public entities, transparent and public welfare systems, and human rights for public good governance;
 - Increase the capacity of institutions and the use of advanced technology for gender empowerment, inclusive development and environmental conservation.

Table 2. Main economic, social and physical targets of the 14th National Development Plan (2017-2019)

Indicators	Baseline in 2072/2073 (2015/2016)	Target for 2075/2076 (2018/2019)
Average annual economic growth rate (%)	0.77	7.2
Average annual growth rate of agriculture sector (%)	1.33	4.70
Average annual growth rate of non-agriculture sector (%)	0.63	8.40
Inflation rate (%)	9.5	7.5
Gross per person income (in thousand NPR)	80.90	105.70
Population under poverty line (%)	21.60	17.00
Human Development Index	0.54	0.57
Gender Empowerment Index	0.56	0.58
Life expectancy (years)	71	72
Population with access to water supply service (%)	83.60	90.00
Enrollment at the secondary level (%)	37.70	45
Literacy rate (15-24 years)(%)	88.60	91
Village Development Committees accessed by road	2,739	3,072
Electricity production (megawatt)	829	2,279
Population with access to electricity (%)	74	87
Irrigation (in ten thousand hectares)	13.96	15.20
Population with access to internet service (%)	46.40	65

3.3 Urban and Local Development Priorities

45. The Environment Friendly Local Governance Program (EFLGP), implemented by the Ministry of Federal Affairs and Local Government, aims to, “establish environmental governance and create a sustainable environment-friendly society at the household, village, municipality and district levels.”¹⁴ EFLGP is specifically targeted to address issues related to drinking water and sanitation, renewable energy, soil conservation, biodiversity and greenery and many other issues at the different levels—household, village, municipality and district.

46. To promote urban development in Nepal, the GoN, through the Ministry of Urban Development, has formulated a *National Urban Development Strategy 2016-2030* (NUDS). The implementation of NUDS is intended to complement Nepal’s effort to graduate from the LDC group and achieve middle-income-country status. The NUDS emphasizes that urban centers should be sustainable, inclusive, resilient, green and efficient. The NUDS also emphasizes the promotion of local and regional economic competitiveness based on local and regional comparative advantages, and the alleviation of urban poverty.¹⁵

¹⁴ Ministry of Federal Affairs and Local Development, GoN, *Environment Friendly Local Governance Framework* (Kathmandu, 2013).

¹⁵ Ministry of Urban Development, GoN, *National Urban Development Strategy 2017* (Kathmandu, 2017).



3.4 International Commitments

47. Nepal's success in implementing the Millennium Development Goals has helped to spur action in adopting and seeking to implement the SDGs. Even before the SDGs were endorsed and adopted internationally, the GoN had prepared a report detailing the current status of the proposed SDGs in Nepal and their targets, the enabling policy environment, and existing institutions for their operationalization.¹⁶ However, implementation of the SDGs in Nepal has been challenged by the vast destruction following the 2015 earthquake and the ongoing political instability. Challenges also lie in collecting the information required to develop even the baseline values for many indicators.

48. Nepal's NDC reflects national and sectoral plans, actions and policies to, "reduce climate hazards and build resilience, help climate vulnerable communities cope with climate change impacts, and reduce impacts of climate change on its people, property and natural resources." These are meant to also address issues in

different agro-ecological and socio-economic contexts that help people and communities build resilience and adapt to climate change.¹⁷

49. The NDC does not set an overall greenhouse gas (GHG) emissions reduction target but includes a list of sectoral and cross-cutting actions that will contribute to economic growth and contain the increase in global average temperature to below 2°C. Air pollution and GHG emissions mitigation from the transport sector through implementation of clean transport services is a priority area in Nepal's NDC.

¹⁶ National Planning Commission, GoN, *Sustainable Development Goals 2016-2030: National (Preliminary) Report* (Kathmandu, 2015).

¹⁷ Ministry of Population and Environment, GoN, "Intended Nationally Determined Contributions (INDC)," communicated to the UNFCCC Secretariat in February 2016. The submitted INDC has been ratified by the parliament of Nepal.

4. GGGI's Engagement in Nepal

4.1 GGGI's Achievements to Date

50. GGGI's engagement in Nepal began in early 2015 in its work to formulate a program in close consultation with the Ministry of Population and Environment, National Planning Commission, Ministry of Finance and other key line ministries. In 2016, the delivery phase of the program began as part of GGGI's LDC Expansion effort to set the stage for long-term strategic engagement and green growth implementation in Nepal. In the process, GGGI has shared and incorporated lessons learned and best practices from its other country programs through its international knowledge networks. Key achievements include the following:

51. Implementation of green growth capacity building in Nepal – A preliminary assessment on the level of awareness and knowledge of green growth, as well as the technical and managerial capacity to implement green growth policies resulted in the joint GGGI-GoN program titled, "Aligning Green Growth and Structural Transformation", which was completed in November 2016. This assessment helped develop a tailored curriculum that was utilized to build capacity of government institutions and municipalities in Nepal. As a result, GGGI has enhanced knowledge of key counterparts on green growth. The capacity building program related green growth approaches to sector plans, policies and programs; and offered various approaches and techniques for green growth financing and implementation, as well as provided tools to mainstream green growth in planning, implementation and evaluation of government and municipal growth and development strategies. Under this CPF, the curriculum developed will be disseminated to government officials involved in implementing green growth, laying the foundation for future green growth efforts in Nepal.

52. Strengthened capacity in adopting payment for ecosystem service (PES) schemes – To strengthen government and non-government actors' capacity to implement green growth, GGGI has been developing capacity and providing training on green growth and land use, and focusing on PES schemes. Better understanding of PES has

strengthened the GoN's effort to maintain forests and enhance sustainable forest management. PES is a potential policy intervention to accelerate the GoN's plan to implement its NDC and achieve green growth.

53. Carried out a GGPA – In 2016, GGGI in consultation with the Ministry of Population and Environment began the GGPA consultation process. It assessed key indicators and potential green growth paths and underperforming resources/sectors for Nepal. The GGPA is a diagnostic tool developed by GGGI to help countries set their national green growth agendas aided by a data-driven approach. The idea is to identify areas where a country is underperforming in terms of green growth as these areas present the most promising opportunities for high-impact green growth interventions. The results and recommendations from this GGPA process has not only contributed to the GoN's long-term strategic policy and planning process, but has also helped GGGI focus its strategic interventions in Nepal and develop this CPF.

4.2 GGGI's Comparative Advantage in Nepal

54. GGGI defines green growth as, "a development approach that seeks to deliver economic growth that is both environmentally sustainable and socially inclusive." Accordingly, GGGI's theory of change is rooted in the economic and political realities that guide developing countries' responses to climate change, environment, poverty reduction and social inclusion. GGGI supports governments in identifying opportunities to leverage synergies within national and international environmental and social agendas that will lead to more responsible and sustainable economic growth— green growth.

55. To fully support government in the pathway toward green growth, GGGI's work brings together many of the environmental and social objectives of other international organizations, and the economic growth and poverty reduction objectives of development banks and investors. This innovative approach allows GGGI to provide more holistic, results-oriented technical assistance to governments, and distinguishes GGGI from more traditional development partners.
56. A key feature of GGGI's approach is its emphasis on sustainable long-term results, which require a fundamental shift toward not only integrated planning and greener investment, but also stronger governance and implementation. For this reason, GGGI aims to strengthen the institutional capacity of governments to better understand the value of green growth, and implement their green growth objectives in an inclusive, effective and efficient manner.
57. The process by which GGGI designs its interventions is based on its unique value chain model. The value chain presents a systematic process by which green growth planning and implementation takes place. This process includes four types of activities:
- Diagnosis and assessment of green growth challenges and potential;
 - Green growth policy and strategic planning;
 - Institutional capacity building and green growth knowledge sharing;
 - Green investment services to support tangible results.
58. As sustainable, transformational green growth requires attention to the entire value chain, GGGI's work encompasses the full scope of green growth interventions to help developing countries achieve the best possible green growth outcomes.
59. GGGI takes seriously its mandate to connect local and national objectives with the global climate change and sustainable development agendas. GGGI's strategic advice aims to mainstream global objectives into national policy wherever possible. Utilizing various knowledge sharing mechanisms and platforms, GGGI facilitates application of these global agendas through exchange of best practices among country programs, the development community and technical experts from around the world.
60. With the GoN's emphasis on urban development and transport, the priority sectors of Nepal match well with GGGI's four thematic areas of specialization—water, energy, sustainable landscapes and green city development. To promote green growth in Nepal, the CPF aims to focus on the municipal level and pilot green municipal development. This approach will provide impetus for localized development that is based on harnessing locally available renewable resources, raising their productivities and improving the livelihoods of the people across all sections of society without deteriorating the resource base, thus making climate resilient green growth possible. The CPF also supports electric mobility in Nepal, advancing a shift toward cleaner and more sustainable transport. To deliver on these areas of work, GGGI is collaborating closely with the Ministry of Population and Environment and other stakeholders. The GGGI Nepal office is embedded within the national government, allowing GGGI to provide trusted advice and focused technical assistance.



5. Theory of Change

61. The GGPA of Nepal was carried out by GGGI to assess potential green growth sectors in the country. The first step involved identifying issues that stakeholders in the country are prioritizing. The stakeholders include officials from relevant government ministries, international organizations, non-governmental organizations and the private sector.

62. The priority issues identified include the following:

- Increasing renewables and reducing electricity losses as well as energy intensity;
- Improving agricultural productivity while ensuring soil health and water quality;
- Enhancing technological readiness;
- Strengthening the country's adaptive capacity toward the impacts of climate change.

63. Based on these issues, the GGPA identified forestry and land use, agriculture, energy and air pollution, and water as four key sectors where green growth interventions could be designed and implemented. This aligns with the areas for investment identified in the NUDS (2015), which include, among others, agriculture, non-timber forest products and tourism (environmental services).

64. The current CPF brings together these sectors through a bottom-up approach that focus on localized green growth in municipalities. As recognized and recommended in the GGPA, policies are already in place and concrete action is now needed. This need is felt at both national and sub-national levels, but most critically at the local level. As a result of increasing decentralization, local-level political structures are being developed and municipalities are becoming the fundamental units of development in the country.

65. In this context, GGGI will firstly focus on strengthening local action for green growth. Secondly, GGGI will zoom in on the specific challenges of sustainable mobility and air quality.

5.1 Strategic Outcome 1: Localized urban green growth accelerates economic development, social inclusion and environmental sustainability in Nepal's cities and municipalities

66. GGGI's interventions aim to support the following government targets:

- Achieving an investment target of USD 9.4 billion in urban infrastructure by 2021;
- Providing basic services such as piped drinking water, solid waste collection, reticulated sewerage and on-site sanitation systems to all households by 2030;
- Protecting and sustainably managing freshwater sources, and promoting rainwater harvesting in all municipalities by 2030;
- Establishing 3R (reduce, reuse, recycle) practices and systems in all municipalities, and developing sanitary landfill sites accessible by all municipalities by 2030;
- Reducing the number of days of above "orange" Air Quality Index value in major cities to 120 by 2020 and to 18 by 2030.

5.1.1 Context

67. Growth of municipalities and urbanization: The urban population is estimated to be growing at a rate of 3.5% per year. With the declaration of 217 new municipalities over the course of 2014-2015, about five million additional people became urban residents. This raised Nepal's urban population from 18% to 42% of the total almost overnight. A primary reason for this declaration was to speed up development in rural areas through the provision of infrastructure and services, and to create jobs. Nevertheless, despite reclassification, many of these new "municipalities" are essentially villages, lacking basic services. As of 2017, newly reclassified municipalities continue to be declared by federal government.

68. Largely unplanned and unsustainable urban development: Beyond newly reclassified municipalities, most established urban areas lack sufficient infrastructure, services and systems. Indeed, access to piped water decreased from 68% to 58% during 2003-2010. Due to water shortages in Kathmandu, communities have resorted to pumping groundwater to meet their daily needs. Most solid waste is dumped along riverbanks, in open pits and temporary open piles. Sanitation is scarce in many municipalities, and access to paved roads is limited.

69. Construction of local political and administrative structures: Following changes to Nepal's constitution in 2015, through which the state became a federal polity, efforts are underway to construct local and regional political and administrative structures. The first local government elections since 1997 were held in mid-2017. Policies of decentralization are beginning to be implemented, although most municipalities receive over 70% of their budget through grants from the federal government. Overall, the federal government recognizes the primacy of the municipality as a fundamental development unit for the country and is seeking ways to advance that agenda. In addition, there is considerable initiative and ambition at the local level, following elections, which need to be sustained.

70. National efforts to plan and guide municipalities: The federal government has released a range of policies aimed at guiding and strengthening urban development and municipal governance. These include the NUDS to guide overall urban development and seek balanced urbanization across the territory. Similarly, the *Environment Friendly Local Governance Framework (2013)*, *National Solid Waste Management Act (2011)*, *National Sustainable Transport Policy (2015)*, *National Urban Policy (2007)* and *National Land Use Policy (2012)* all seek to support the improved provision of basic services and resource management in municipalities. However, most of these policies are only partially implemented at the local level, or not at all.

5.1.2 Barriers

71. The trends and conditions outlined above produce a confluence of opportunities and potential for green growth at the local level. However, to realize these opportunities, significant challenges need to be addressed, as follows:

72. Municipalities lack local planning mechanisms – Of the 217 municipalities in Nepal, 159 are newly reclassified. Many of these struggle with an absence of established planning processes and limited capacity. All municipalities are expected to operate according to five-year development plans, although even in more established municipalities, such plans are seldom implemented due to shortage of funds. Moreover, existing statutory land-use plans are outdated. These conditions have led to informal settlement, improper land use, sub-standard construction and unsustainable resource management. In a number of smaller municipalities, natural and cultural resources are severely compromised by poorly-managed development.

73. Municipalities lack capacity and guidance for green growth – While national-level policy for green growth exists, municipalities receive limited guidance, opportunity or funding for implementation. As a result, translation of national directives to the local level remains scarce. This is compounded by a general lack of planning capacity at the local level and a lack of understanding of possible project interventions available. Thus, an ad-hoc, regulation-centered approach to development dominates at the local level.

74. Financing for the local level is weak and investors struggle to connect – Municipalities receive around 70% of their budget through grants from federal government, and the remaining 30% through local taxes. Nonetheless, local budgets are severely constrained. Fiscal autonomy is limited, and investment in basic services in many municipalities remains virtually non-existent. New mechanisms for strengthened financial health are needed. To address the local level infrastructure deficit, an estimated USD 700 million per year through to 2022 is required. The total infrastructure deficit in Nepal is estimated at USD 12.5 billion.

75. National government prioritizes economic growth in cities – Despite a suite of policies favoring sustainable urban development, the federal government's priority is on the economic growth required to lift Nepal out of LDC status. Under this vision, the principle role of municipalities is economic, with municipal economies expected to drive the national economy forward.



5.1.3 GGGI's Response

76. In order to support the GoN in overcoming the challenges outlined above, and with the intention of moving toward the goals and targets the GoN has set, GGGI will provide a range of services through 2021. Priority for this work will be accorded to smaller and newly-created municipalities. GGGI's services under this strategic outcome include:

- Building the capacity of national and municipal institutions to understand green municipal development, assess opportunities, measure impact, formulate integrated green growth options and implement coordinated action on the ground;
- Developing local multi-sectoral plans for green municipal growth;
- Defining policy and planning recommendations, and formulating local bankable projects in possible sectors, including energy, transportation, waste, sanitation and resource efficiency;
- Pursuing financing of selected local-level projects;
- Assisting selected projects on the ground through business planning for basic urban services, communication, community outreach, and policy and regulatory support.

5.1.4 Results

77. The intermediate outcome of GGGI's efforts will be:

- Improved planning for green municipal development;
- Increased investment and implementation in green municipal projects;
- Increased capacity for green municipal development across local and national governments and other stakeholders;
- Greater commitment to green municipal growth amongst local and federal government.

78. As such, GGGI's work will support the implementation of the NUDS and EFLGP. This will lead to concrete action for green municipal development, and support the acceleration of economic growth, environmental sustainability and social inclusion, as follows:

79. Impact on economic growth – Municipalities will be better-managed and more effective at optimizing their resources, and be supported by healthier citizens. This will lead to improved levels of production, greater urban competitiveness, and strengthened capacity for trade and commerce, including services. In turn, higher economic performance will support overall growth goals set by the GoN.

80. Impact on environmental sustainability – Municipalities and federal government will increasingly recognize the need for green local development, and the critical importance of well-managed natural resources. This will be especially effective if economic sectors such as tourism can be linked to improvements in municipal management, such as sanitation, air pollution and solid waste. Overall, by integrating environmental sustainability into planning processes, and laying out green municipal development plans for municipalities, local ecosystems and other natural resources will benefit. Resources at the local level will be more efficiently used, and the capacity of government to include environmental principles during decision-making will be enhanced.

81. Impact on poverty reduction and social inclusion – Improved economic performance will help to support livelihoods and job creation, and thus, reduce poverty. Improvements in the overall quality of life in municipalities, including through more sustainable resource use, improved provision of basic services and reduced infrastructure deficit, will support healthier and more prosperous citizens.

82. GGGI's interventions under Strategic Outcome 1 will support the GoN's goal to graduate from the LDC group by 2022. GGGI's work will build on the activities of key development partners active in the area of localized urban green growth (see Table 3), and will primarily contribute to Nepal's achievement of SDG 6 (clean water and sanitation) and SDG 11 (sustainable cities and communities). This strategic outcome aligns with GGGI's global targets set out in the **GGGI Strategic Plan 2015-2020** for reducing GHG emissions, increasing access to sustainable services for energy, sanitation and waste, and improving air quality.

Table 3. Key development partners active in the area of localized urban green growth

Development partner	Program	Type of support (loan, grant, technical assistance, other)
Swiss Agency for Development and Cooperation	Local Governance and Community Development Program	Grant
Korea International Cooperation Agency	The Inclusive Rural Development Project in Nawalparasi	Grant
UK AID / Department for International Development	Rural Access Programme Phase III	Grant
Government of Finland	Rural Village Water Resource Management Project Phase II	Grant

5.2 Strategic Outcome 2: Create connected and healthy cities through sustainable mobility

83. GGGI's interventions aim to support the government's targets of:

- Reducing air pollution through improved monitoring of air pollutants, including from solid waste, vehicles and industry by 2025 (NDC);
- Decreasing its dependency on fossil fuels in the transport sector by 50% through effective mass public transport means while promoting energy efficient and electrical vehicles by 2050;
- Increasing the share of electric and hybrid vehicles to 20% of total vehicles in the country by 2020;
- Reducing 29 MtCO₂e of GHG emissions against the business-as-usual scenario by 2020, and 45.6 MtCO₂e by 2030;
- Increasing access to sustainable public transport for 4.4 million people by 2020, and 7.4 million people by 2030.

5.2.1 Context

84. Growth of the transport sector and motorization:

Demand for vehicles has grown by 14% per year during 1990-2015, with much of this concentrated in and around the Kathmandu Valley region. This growth is mainly fueled by demand for motorcycles, which in 2014 accounted for just under 80% of total vehicles—up from 55% of total vehicles in 1991.¹⁸ In addition, the number of buses on the roads in Nepal has risen from almost 4,000 in 1990, to more than 35,000 in 2015. Growth across all modes is driven by population growth, increasing urbanization and rising income. Sustained levels of population growth in Kathmandu, and the increasing prominence of the city's economy mean that demand for mobility in the capital will remain high for the foreseeable future. In 2015, the federal government released its *National Sustainable Transport Policy* in an effort to address and sustainably manage this priority sector.

85. Increases in GHG emissions and air pollution: Since the 2000s, air pollution in Nepali cities, particularly Kathmandu, has worsened considerably. Levels of particulate matter in the air around Kathmandu are now similar to those of Delhi and Beijing. A 2007 study found that air pollution led to approximately 17,000 premature deaths in Kathmandu.¹⁹

Air pollution is driven by the significant rise in the number of vehicles on the roads and the poor quality of these vehicles, as well as from brick kilns and industry around the city, suspended dust from construction debris (linked to the 2015 earthquakes), and road works. Until early 2017, the widespread use of diesel back-up generators contributed approximately 40% of total particulate matter in Kathmandu's air. However, recent improvements in the supply and transmission of electricity across the capital have resulted in a significant decline in diesel generator use. Within this context, efforts to meet targets set for reducing GHG emissions and improving the sustainability of transport are critical.

5.2.2 Barriers

86. Government struggles to connect NDC commitments with transport policy instruments:

The NDC sets targets for clean and sustainable transportation, and provides ideas on financing, but offers only limited guidance on crucial next steps for the sector. Creating concrete transport programs and projects by which to achieve specific NDC targets will be critical for success. The federal government has made some progress in this regard. But without adequate data, it is difficult to identify the best policy levers to pull to achieve set targets. Operationalizing policy, plans, programs and projects is also challenging due to measurement, reporting and verification requirements, and the political and economic sensitivity of much of what is required.

87. Government lacks specific and long-term NDC implementation plans for the transport sector:

The GoN has not prepared an NDC implementation plan for the transport sector. As such, there is no broad road map by which to move ahead with implementation, and no consensus built around what needs to be done. Institutional strengthening, coordination and capacity development are needed, as well as immediate support from organizations with environmental expertise to prepare an implementation plan. In addition, for successful implementation in the transport sector, specific targets need to be elaborated into strategy, and priority areas and initiatives within the sector need to be defined. As noted, there is insufficient transport data, which restricts an understanding of the mitigation potential achievable through different interventions in the sector. However, even without sectoral plans in place, and in the absence of data, priority interventions can and need to be made.

18 Ministry of Physical Infrastructure and Transport, 2014.

19 D. Giri et al., "Estimation of number of deaths associated with exposure to excess ambient PM₁₀ air pollution," *International Journal of Environmental Science and Technology* 4, no. 2 (Spring 2007): 183–188.

88. Government lacks financing for specific NDC interventions related to transport: Beyond policy and planning, implementation of the NDC within the transport sector is challenged by a lack of financing. Estimations of the cost and benefit of implementation need to be made. And while funds are available at international levels, the GoN lacks the capacity to connect with these. More locally, engagement by the domestic private sector is limited, and as a result, transport gains that could be made are not fully captured. Creating and capturing value through NDC implementation in the transport sector, and connecting this value with business and investment opportunities is sorely needed. Part of the reason that the GoN struggles to produce investment-ready projects lies in capacity shortages for project preparation, and for the design of tools and mechanisms that create an enabling environment for transport investment, as well as a lack of proactive scoping for financing options.

5.2.3 GGGI's Response

89. In order to support the GoN in overcoming the challenges outlined above, and with the intention of moving toward the goals and targets the GoN has set, GGGI will provide

a range of services through 2021. GGGI's services under this strategic outcome include:

- Promoting the concept of low-carbon development and zero-emission transport, and supporting NDC implementation amongst national government;
- Building consensus and collaboration amongst government bodies for NDC implementation in the transport sector;
- Building the capacity of national government to assess opportunities for NDC implementation, identify options for project ideation and conceptualization, including for financing, and implement action on the ground within the transport sector;
- Developing an NDC implementation plan for electric mobility;
- Developing an investment plan for electric mobility that identifies funding gaps and connects priorities for action with viable financing sources;
- Developing pilot initiatives to implement priority projects within the transport sector, especially with a focus on electric mobility in metropolitan cities.



5.2.4 Results

90. These activities will demonstrate concrete action for NDC implementation. They will improve the capacity of government to pursue low-carbon development, support sustainable transport commitments, reduce GHG emissions and support overall progress in achieving commitments made under the NDC. Intermediate outcomes will be:

- Improved understanding of policy instruments for sectoral NDC implementation;
- Improved understanding of financing and investment options for electric mobility;
- Increased investment in viable electric vehicle initiatives, and greater public support for electric buses.

91. This will allow Nepal to create connected and healthy cities through sustainable mobility, improve access to transport services, and reduce GHG emissions and air pollution, which will support the acceleration of economic growth, environmental sustainability and social inclusion, as follows:

- **Impact on economic growth** – Improvements in electric mobility, particularly in terms of public transportation, will support labor mobility, improve

productivity through reduced commute times, and improve accessibility to services and jobs. It will also support economic development by reducing fuel dependency in Nepal and fostering energy diversification.

- **Impact on environmental sustainability** – Reduced GHG emissions will have benefits globally, by mitigating climate change, and more specifically, improve air quality in Nepali cities.
- **Impact on poverty reduction and social inclusion** – Improved and sustainable mobility will support livelihoods and job creation, poverty reduction, and healthier and more prosperous citizens.

92. GGGI's work to meet Strategic Outcome 2 will build on the activities of key development partners active in the area of sustainable mobility (see Table 4), and will primarily contribute to Nepal's achievement of SDG 3 (good health and well-being), SDG 7 (affordable and clean energy), SDG 11 (sustainable cities and communities) and SDG 13 (climate action). This strategic outcome aligns with GGGI's global targets set out in the *GGGI Strategic Plan 2015-2020* for reducing GHG emissions, increasing access to sustainable transport and improving air quality.

Table 4. Key development partners active in the area of sustainable mobility

Development partner	Program	Type of support (loan, grant, technical assistance, other)
Japan International Cooperation Agency	Project on Urban Transport Improvement for Kathmandu Valley	Grant
Asian Development Bank	Kathmandu Sustainable Urban Transport Project	Technical Assistance
KfW Development Bank	Town Development Fund Project (Phase II)	Grant
SNV Netherlands Development Organisation	(Improving) Functionality of Water Supply Services in Nepal	Grant
Asian Development Bank	Capacity Strengthening For Sustainable Road Transport	Grant

5.3. Cross-Cutting Capacity Development

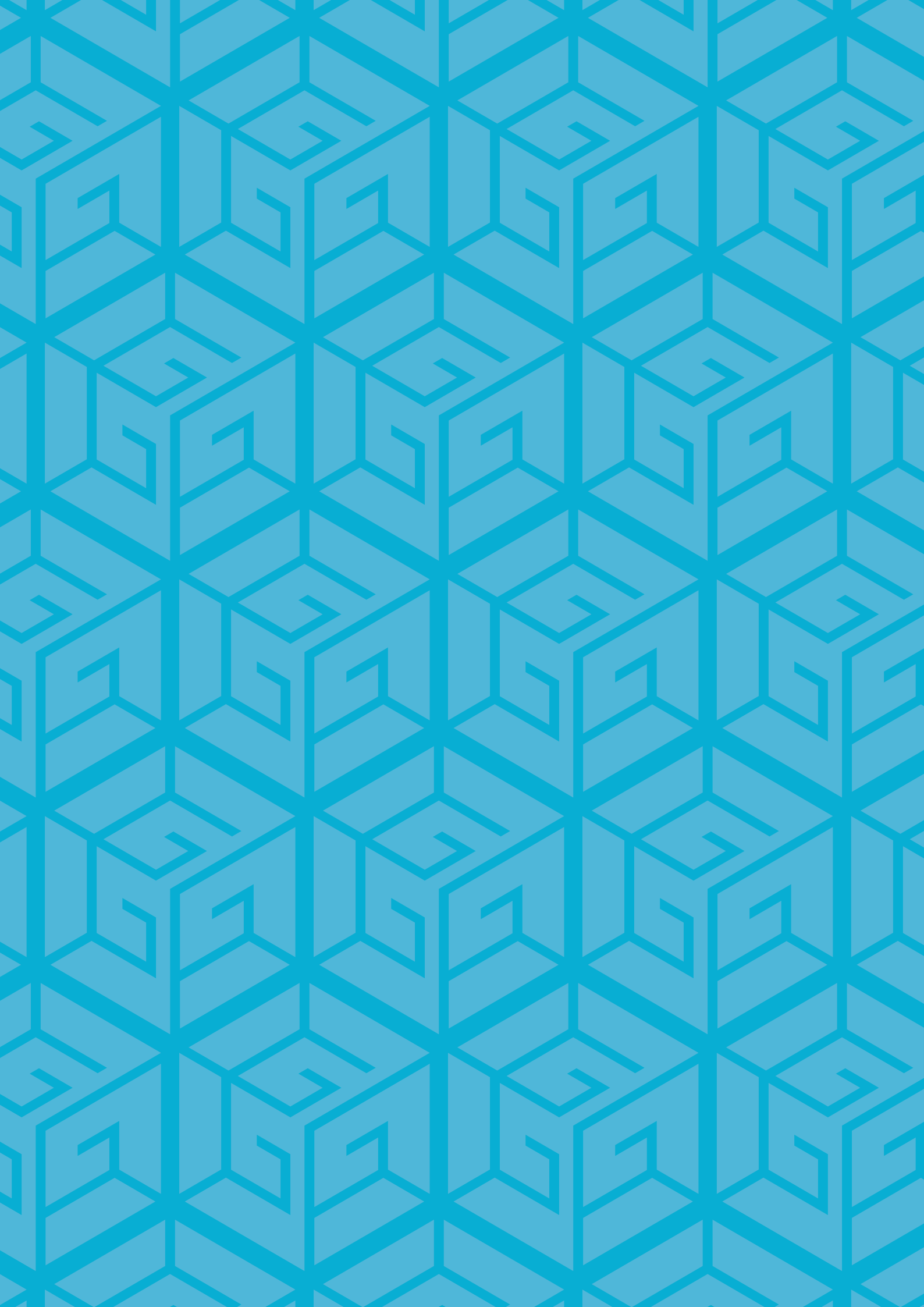
93. To successfully meet the CPF outcomes, enhanced capacity of national and municipal institutions in green municipal development will be key. GGGI will build on its initial work in Nepal in 2016, which has resulted in a tailored curriculum on green growth planning and implementation that has been used to build the capacity of government institutions and municipalities.

94. Under this CPF, the curriculum will be disseminated to government officials involved in planning and implementing green municipalities and green cities. GGGI will provide training and on-the-job coaching to formulate integrated green growth options and implement coordinated action on the ground.

95. GGGI will also build the capacity of national government to assess opportunities for NDC implementation in the transport sector, as well as for project ideation and conceptualization, financing, and

action on the ground within the transport sector. To do this, GGGI will utilize its set of in-house green cities tools and best practices, and leverage GGGI's global community of practice for green cities and sustainable transport, cutting across more than 15 countries. The GGGI partner country community offers Nepal extensive opportunities for knowledge exchanges and South-South learning.

96. This strong focus on capacity development will allow GGGI to make a stronger impact overall, by enabling better policies and governance, improving execution of urban and transport policies, and strengthening negotiating position with investors. The strong knowledge component of this five-year program will allow GGGI to incrementally hand over responsibilities for the stated outcomes to government counterparts, making results sustainable and scalable, and putting GGGI in a position where it can successfully wrap up the CPF in the medium term and move on to new ambitions.





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