

TRAINING ON

Planning and Design of Smart Infrastructure for Biodiversity Protection



25–27 April 2022

Rhino Lodge, Sauraha, Nepal



Policy and Legislative Instruments on Nature Conservation with Implications for Linear Infrastructure Projects



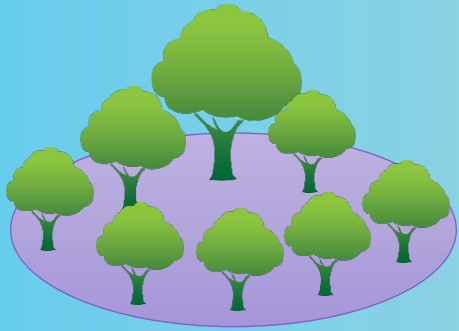
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Biodiversity in Nepal

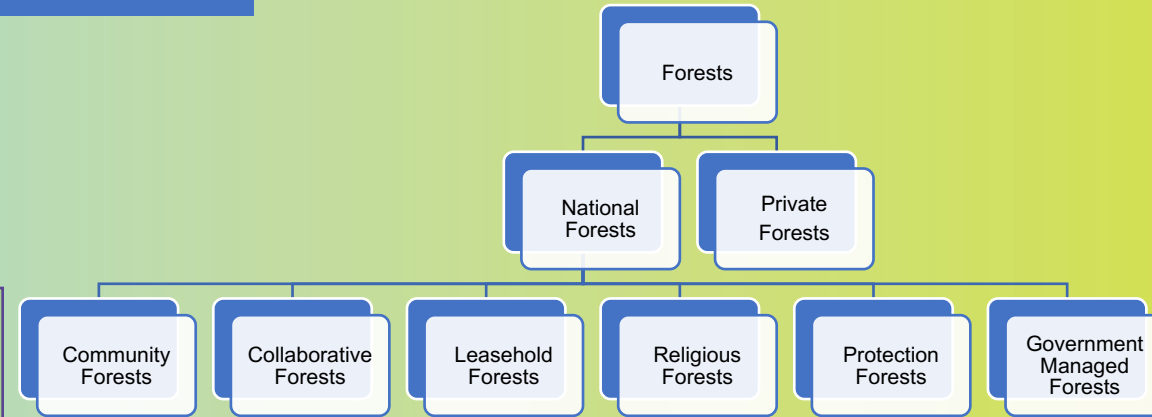
FLORA



**Forests
Area:
44.74%**

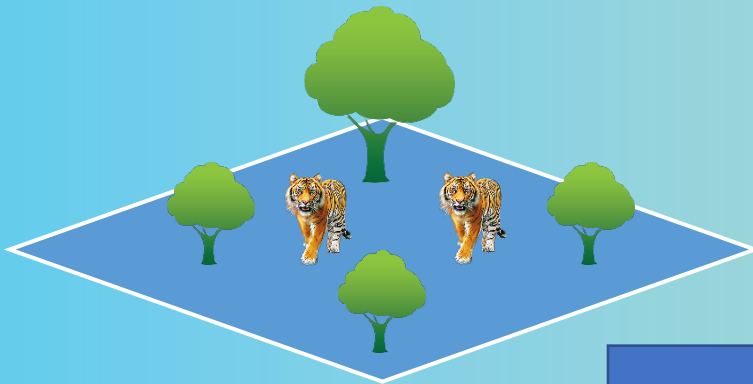
**Plant
Species:
13,067**

**Forest
Type: 35**



**Eco-Region:
12**

**Ecosystem
Type: 118**

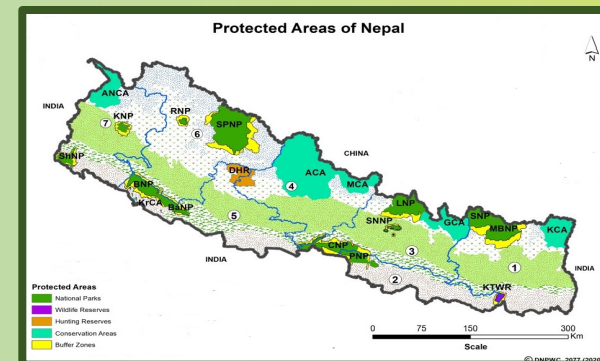


**Animal
Species:
17,097**

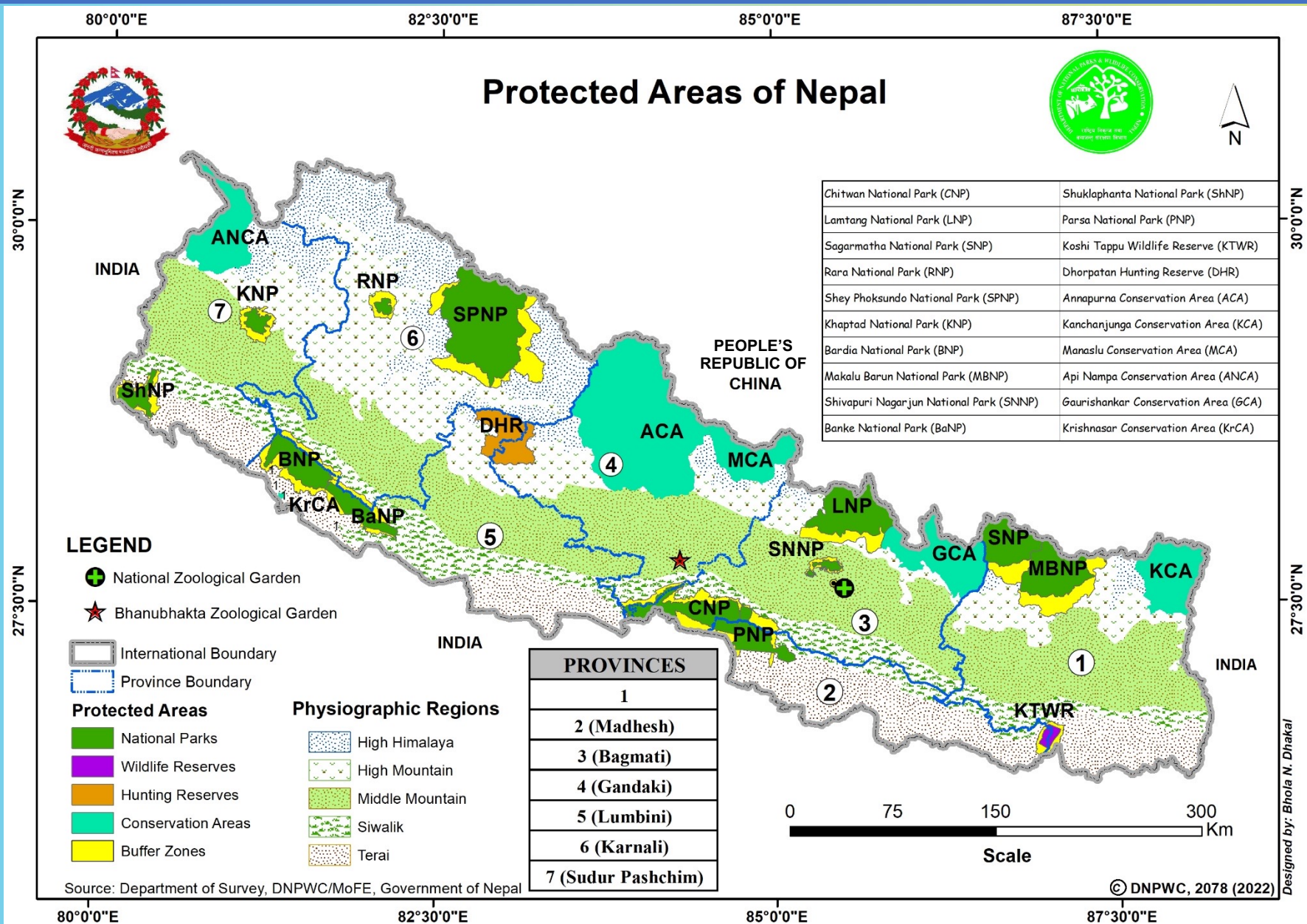
**Protected
Areas: 20**

**Protected
Area: 23.4%**

FAUNA



Protected Areas of Nepal



Regions	Cultural	Natural	Mixed	Total	%
Latin America and the Caribbean	100	38	8	146	12.65
Europe and North America	468	66	11	545	47.23
Asia and the Pacific	195	70	12	277	24.00
Arab States	80	5	3	88	7.63
Africa	54	39	5	98	8.49
Total	897	218	39	1154	100

World Heritage Sites Listed in UNESCO from Nepal (4)

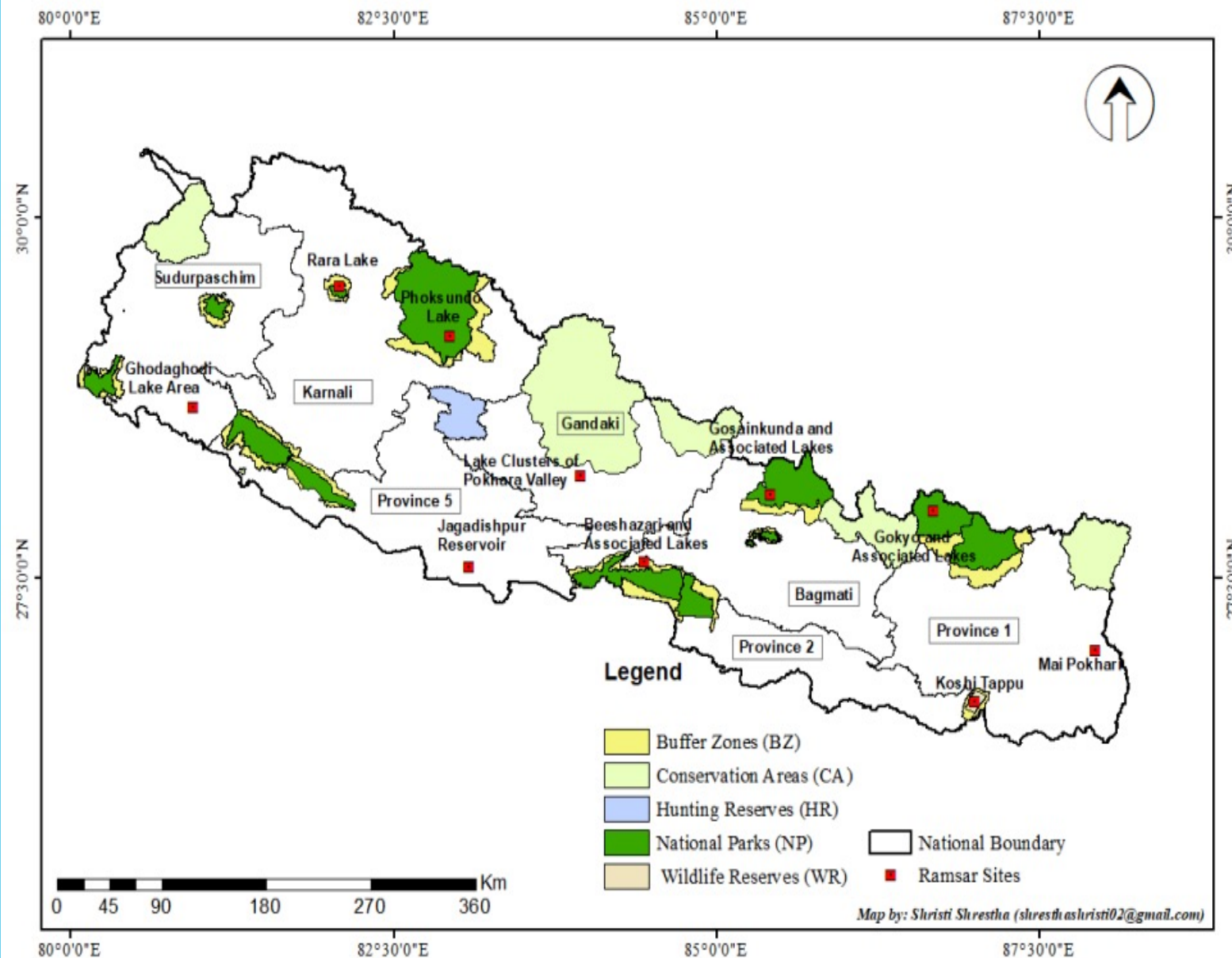
Cultural Sites (2)

- Kathmandu Valley
- Lumbini

Natural Sites (2)

- Chitwan National Park
- Sagarmatha National Park

Ramsar Sites in Nepal



- Total Ramsar Sites: 10
- Total Area: 60,561 hectares
- Provinces Covered: 6 except Madhesh Province
 - Mai Pokhari
 - Koshi Tappu
 - Gokyo
 - Gosaikunda
 - Beeshajari
 - Lake Cluster of Pokhara
 - Jagadishpur
 - Rara
 - Phoksundo
 - Ghodaghodi

International Commitments

Nepal is a party to more than 165 agreements and signatory to more than 27 agreements (MoLJPA)

Multilateral Environment Agreements	Ratification	Party status
United Nations Framework Convention on Climate Change	02 May 1994	Ratification
Kyoto Protocol	16 Sep 2005	Accession
Paris Agreement	05 Oct 2016	Ratification
Convention on Biological Diversity	23 Nov 1993	Ratification
Nagoya Protocol on Access to Benefit Sharing	28 Dec 2018	Accession
Cartagena Protocol on Biosafety	02 Mar 2001	Ratification
United Nations Convention to Combat Desertification	15 Oct 1996	Ratification
Convention on International Trade in Endangered Species of Wild Fauna and Flora	16 Sep 1975	Accession
World Heritage Convention	17 Dec 1975	Ratification

International Commitments

Multilateral Environment Agreements	Ratification	Party status
Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal	15 Oct 1996	Accession
Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade	09 Feb 2007	Accession
Stockholm Convention on Persistent Organic Pollutants	06 Mar 2007	Ratification
United Nations Convention on the Law of the Sea	02 Nov 1998	Ratification
Ramsar Convention Wetlands of International Importance especially as Waterfowl Habitat	17 Dec 1987	Accession
Vienna Convention for the Protection of the Ozone Layer	06 Jul 1994	Accession
Montreal Protocol on Substances that Deplete the Ozone Layer	06 Jul 1994	Accession

Sustainable Development Goals



GLOBAL

- Target: 169
- Indicators: 244

Excluding Goal 14

- Target: 159
- Indicators: 234

NEPAL

- Target: 159
- Indicators: 245

IFC Environment and Social Performance Standards

ADB

1 Risk Management



2 Labor



3 Resource Efficiency



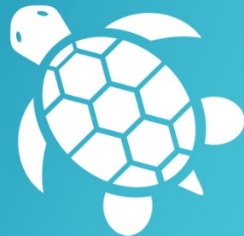
4 Community



5 Land Resettlement



6 Biodiversity



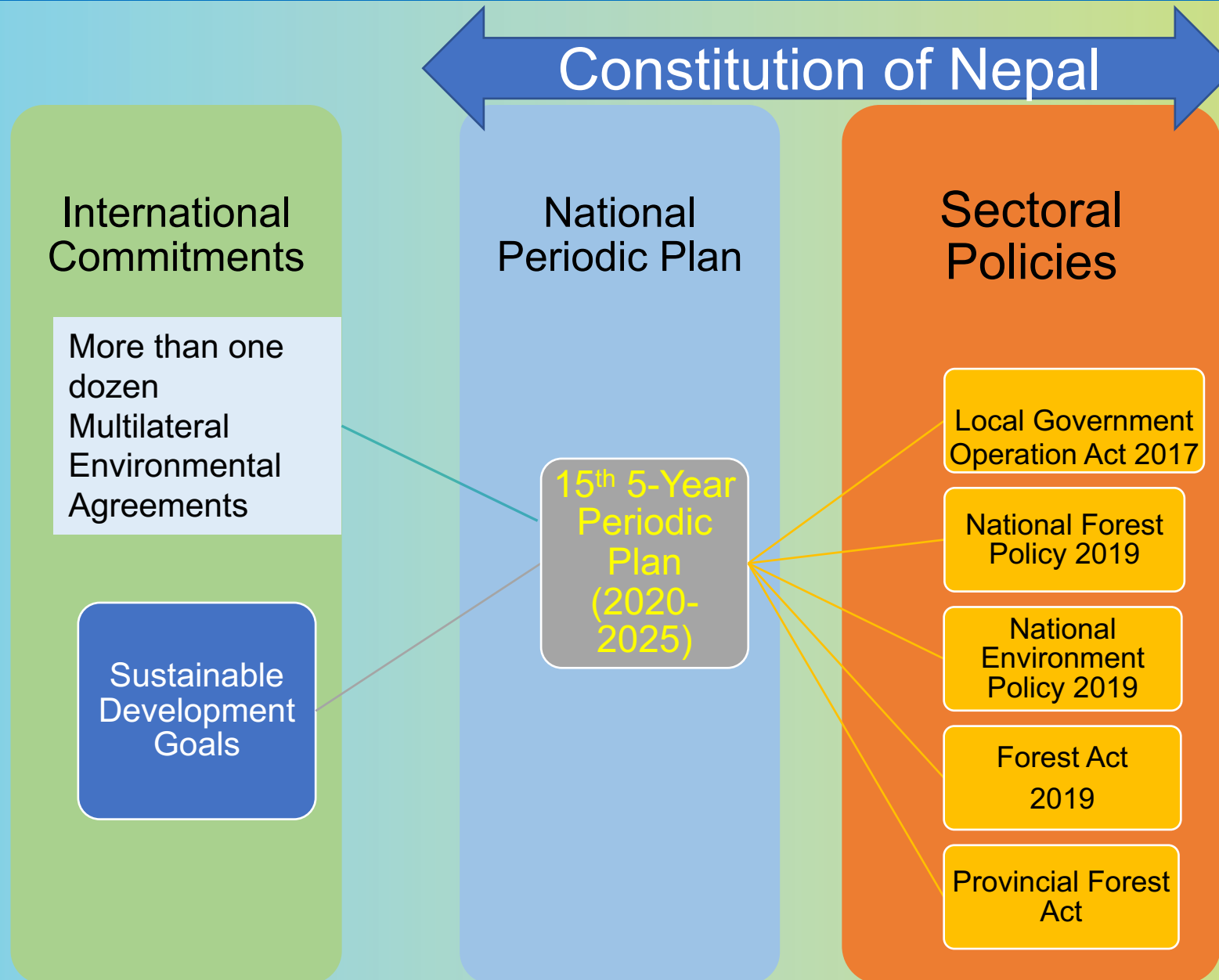
7 Indigenous People



8 Cultural Heritage



Key Policy Instruments



Policy and Legislative Instruments

1970-
1990

- RAMSAR Convention 1971; World Heritage Convention 1972
- CITES Convention, 1973
- National Parks and Wildlife Conservation Act, 1973
- National Conservation Strategy, 1988
- Master Plan for the Forestry Sector, 1989-2010

1990-
2000

- Constitution of Nepal, 1990
- Nepal Environment Policy and Action Plan, 1993
- Rio Conventions 1992- UNCBD, UNCCD, UNFCCC
- Environment Protection Act, 1996 and Regulations, 1997
- Forest Act, 1993

2000-
2015

- Interim Constitution of Nepal, 2007
- Plant Protection Act, 2007; Solid Waste Management Act, 2011 and Regulations, 2013
- National Biodiversity Strategy and Action Plan (2014-2020)
- National Wetland Policy 2013

2015-
2022

- Constitution of Nepal 2015
- National Wetland Policy 2013; Land Use Policy, 2015
- Local Government Operation Act 2017; CITES Act 2017; National REDD+ Strategy 2018
- National Ramsar Strategy and Action Plan 2018; National Policy on Disaster Risk Reduction, 2018
- National Environment Policy 2019; National Forest Policy, 2019
- National Climate Change Policy 2019, National Water Resources Policy, 2020
- Environment Protection Act 2019 and Regulations 2020
- Forest Act 2019; Provincial Forest Act; National Water Supply and Sanitation Sector Policy, 2014
- Second NDC, 2020
- Long Term Strategy, 2021

Article 30: Right to Clean Environment

- Every citizen shall have the right to live in a clean and healthy environment;
- The victim shall have the right to obtain compensation, in accordance with law, for any damage caused by environmental pollution or degradation.

Article 51 (g): Policies relating to Protection, Promotion and Use of Natural Resources

- To protect, promote, and make environmental friendly and sustainable use of, natural resources available in the country;
- To conserve, promote, and make sustainable use of, forests, wildlife, birds, vegetation and bio-diversity, by mitigating possible risks to environment from industrial and physical development, while raising awareness of public-in-general about environment cleanliness.

Schedule 5-9: Distribution of State Power

- Biodiversity agenda: rights of all three tiers of governments

15th Five-year Periodic Plan

ADB

	GDP Contribution	Density (Trees/ha)	Timber Production (million Cubic feet)	Revenue from Forestry (in billion NRs.)
Base Year (2019/20)	1.77%	430	19.4	3
Target at 2023/24	2.1%	450	30.0	6

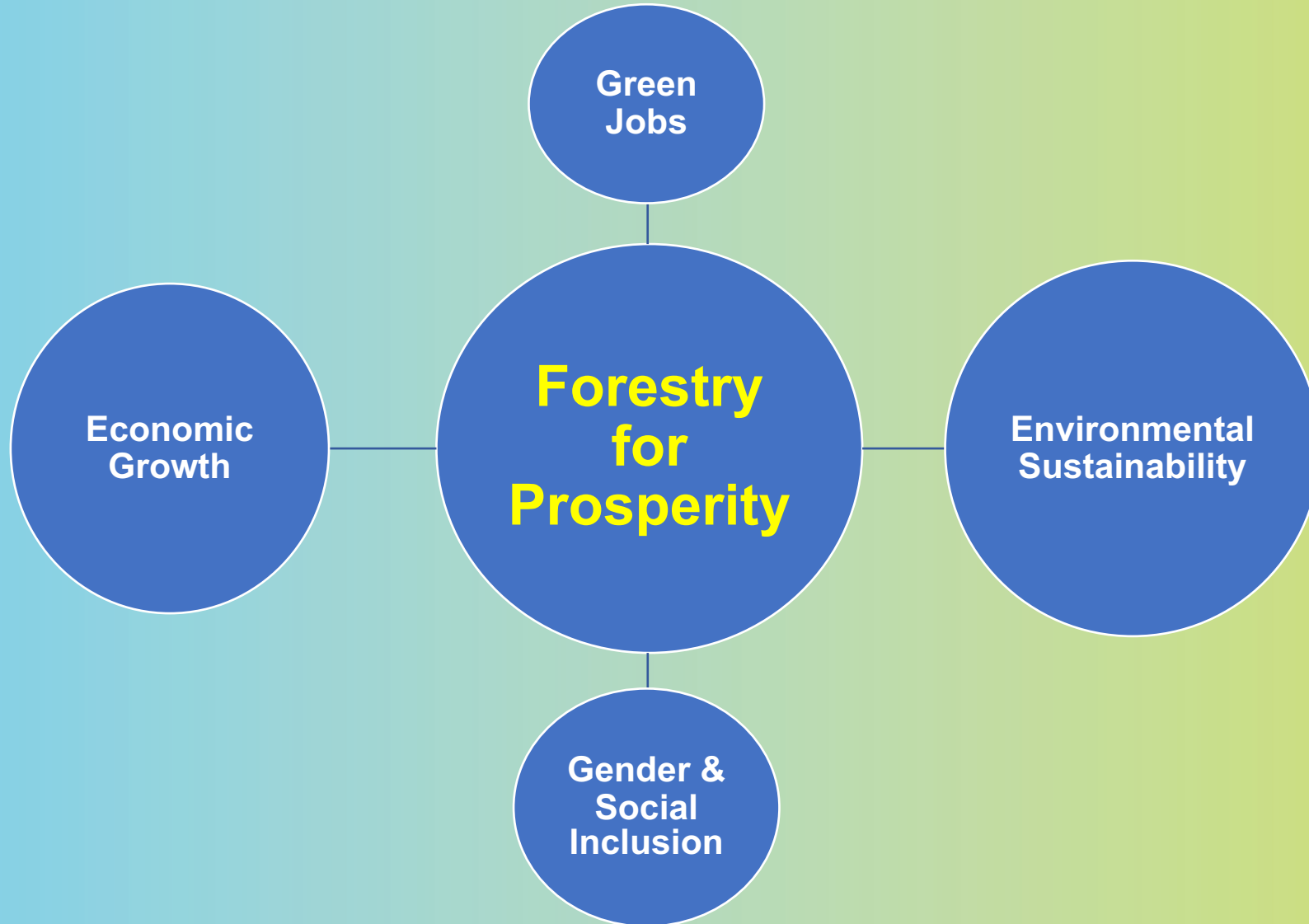
Contribute to prosperity and happiness through sustainable forest management and entrepreneurship development

Support to environment-friendly infrastructure development

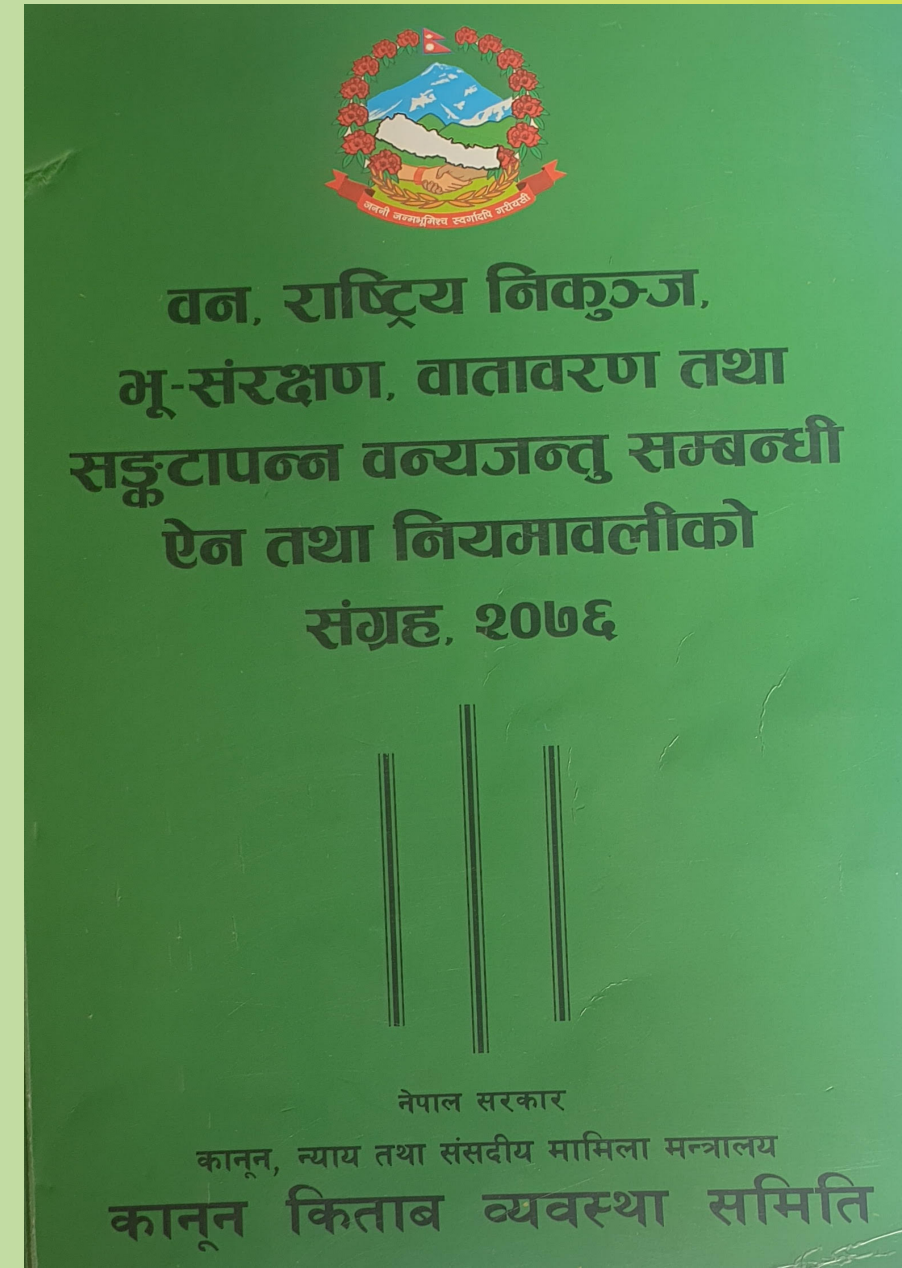
Increase production and contribute to economy

Landscape level biodiversity conservation

National Forest Policy 2019



- Section 13: Management of Wetlands
- Section 15-17: Forest Conservation Area
- Section 42: Use of Forest Land for Other Purpose
- Section 43: Use of Forest Land for Mineral Exploration
- Section 44: Management of Payment of Environmental Services
- Section 45: Forest Development Fund
- Section 50: Penalty



Forest Clearance Working Procedure 2019

- Section 4: Environment Assessment report to be prepared for projects that need forest area
- Section 7: Council of Ministers can decide on providing forest land to projects
- Section 8: Land for Land
- Section 9: Compensation of forest land use by money
- Section 13: Money to be deposited in Forest Development Fund
- Section 17: Compensatory Plantation (1:10)
- Section 19: Monitoring by the Ministry of Forests and Environment



National Parks and Wildlife Conservation Act 1973

- Amended for five times (fifth amendment in 2017)
- Section 2: Six categories of protected areas
- Section 5: Prohibited works inside National Parks and Reserves
- Section 6: Operation of services including hotel, public transport inside National Parks and Reserves
- Section 26: Penalty
- Schedule 1: Protected Wildlife (26 mammals, 9 birds and 3 reptiles)



Working Policy for Constructing Physical Infrastructure inside Protected areas 2009

- Approved by Council of Ministers on April 2009
- Mainly focus on hydropower projects
- Working Policy 1: Only for National Pride Projects
- Working Policy 2-4: Monthly water discharge at least 10% outside park and reserve and at least 50% inside park and reserve
- Working Policy 5: No construction is allowed inside park and reserve, but community-based hydropower projects with less than 1 MW capacity is allowed. In such a case, at least 50% water discharge should be ensured
- Working Policy 9: Compensatory plantation of 1:25
- Working Policy 12: Monitoring mechanism

नेपालमा संरक्षित क्षेत्र व्यवस्थापन र वन्यजन्तु संरक्षण सम्बन्धी नीति तथा कार्यनीति, निर्देशिका, मापदण्ड, कार्यविधि, दिग्दर्शन, रणनीति तथा विविध प्रकाशनको सँगालो



नेपाल सरकार
वन तथा वातावरण मन्त्रालय
राष्ट्रिय निकुञ्ज तथा वन्यजन्तु संरक्षण विभाग
२०७५ असार



Wildlife-friendly Infrastructure Construction Guidelines 2022

Definition of Wildlife-friendly Infrastructure

- Underpass: Viaduct, Bridge, Flyover, Culvert or similar nature of infrastructure
- Overpass: Village Road Bridge, Eco-bridge, Canopy Bridge or similar nature of infrastructure
- Other: Ramp, Guiding Fence, Guiding Wall, Avian Deflector or similar nature of infrastructure

Definition of Highly Sensitive Area

- National Park
- Wildlife Reserve
- Biological Corridor
- Ramsar Sites

Definition of Sensitive Area

- Environment Protection Area
- Conservation Area
- Forest Conservation Area
- Buffer Zone
- Ecotone



Underpass



Overpass

Wildlife-friendly Infrastructure Construction Guidelines 2022

Standard of Wildlife-friendly Infrastructure

1. Underpass

SN	Classification of Wildlife	Type of Underpass	Minimum Size of Underpass			
			Less than 20 m Length		20 m or >20 m Length	
			Width (M)	Width (M)	Width (M)	Width (M)
1	Small Wildlife Species	Culvert	2	2	3	2.5
2	Medium Wildlife Species	Culvert or Bridge	6	3	8	3
3	Big wildlife Species	Bridge	10	4	15	4.5
4	Very Big Wildlife Species	Bridge	12	6.5	15	6.5

2. Overpass

- For Wild Elephant and Rhino: Slope not more than 20 degree and width at least 20 m
- Species other than Wild Elephant and Rhino: Slope not more than 30 degree and width at least 10 m
- Canopy Bridge: At least 5 m high from the infrastructure

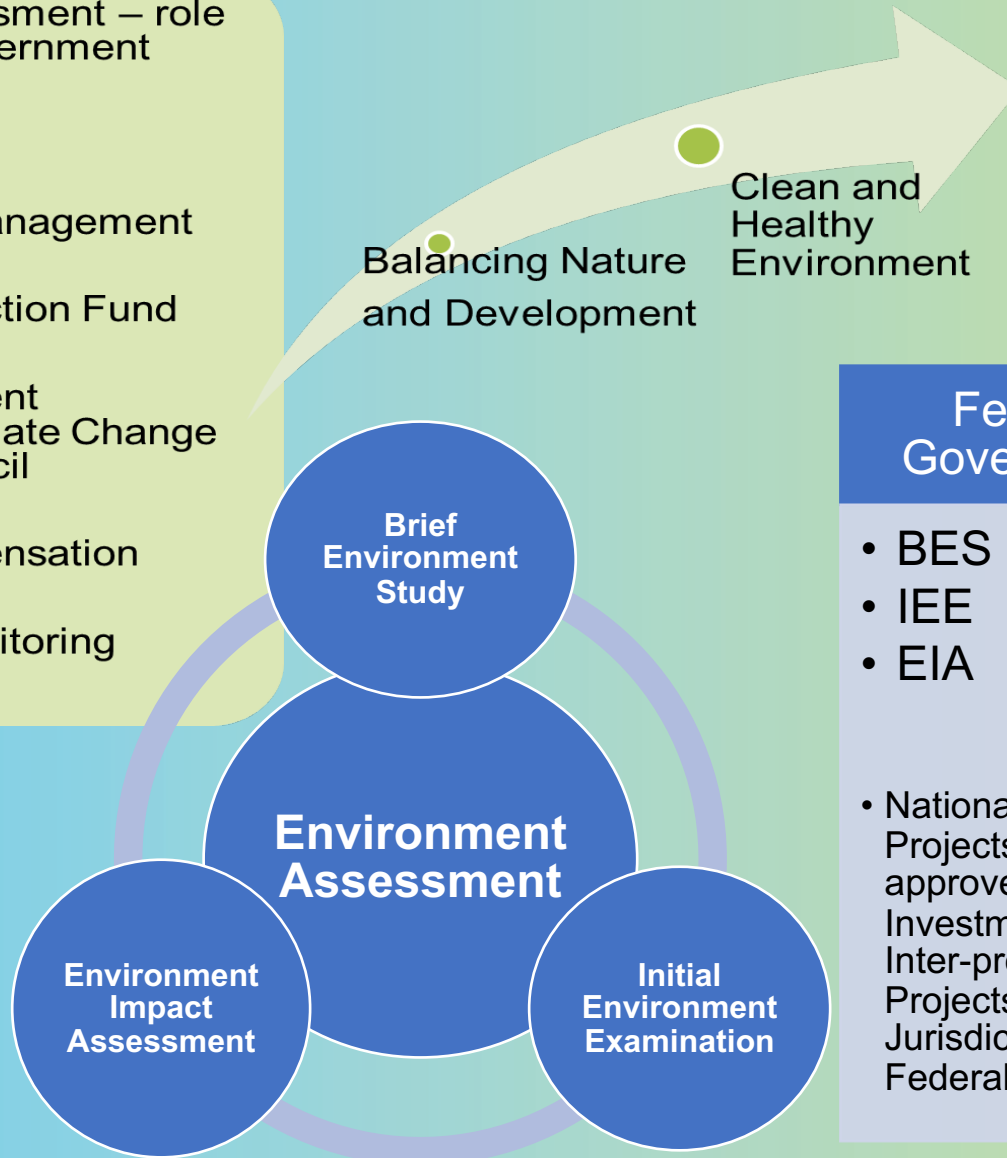
3. Other Structure

- Ramp construction in irrigation canal
- Pipeline should be underground
- Avian diverter, reflector, insulator in wires of Transmission Lines

Environment Protection Act 2019

(Promulgation: 2019)

- Environment Assessment – role of three tiers of government
- Pollution Control
- Climate Change Management
- Environment Protection Fund
- National Environment Protection and Climate Change Management Council
- Penalty and Compensation
- Inspection and Monitoring



Federal Government

- BES
- IEE
- EIA

- National Pride Projects, Projects approved by Investment Board, Inter-provincial Projects, Jurisdiction of Federal Govt.

Provincial Government

- BES
- IEE
- EIA

- Projects within jurisdiction of the Provincial Government

Local Government

- BES
- IEE

- Projects within jurisdiction of the Local Government

- Section 11 (4) (e) of the Act has given responsibilities to the local government for conservation, management, utilization, monitoring and regulation of community forests, urban forests, leasehold forests, collaborative forests, and management of forest user groups at local level without contradicting with the federal and provincial acts.

THANK YOU

ADB



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