

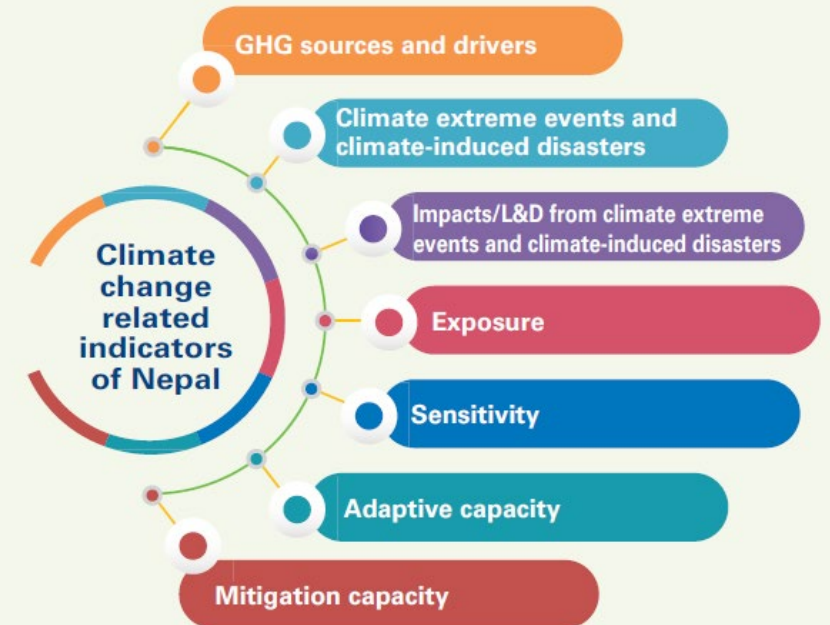
Climate Change Related Indicators of Nepal, 2022

Sushil Kumar Sharma
Director
National Statistics Office, Nepal



Government of Nepal
National Planning Commission
Central Bureau of Statistics
Thapathali, Kathmandu

CLIMATE CHANGE RELATED INDICATORS OF NEPAL



August, 2022

Climate Change Related Indicators of Nepal

Contents

Chapter 1: Introduction

Chapter 2: Framework for identification of climate change Indicators

Chapter 3: Climate change indicators of Nepal

Chapter 4: Conclusion and way forward

References

Annex : Data

Introduction

- Climate change impacts become highly visible affecting different aspects of human society and ecosystem across the globe
- Nepal experienced direct impacts of climate change and is one of the most vulnerable countries in the world
- Nepal government devised a number of policy instruments on climate change with the objective of providing policy guidance to various levels and thematic areas towards developing a resilient society by reducing the risk of climate change impacts.
- Effective implementation of such instruments is a challenge due to various limitations including lack of availability of integrated and reliable data

Introduction

- Climate change is one of the pressing issue of our time
- Our economic activities are a critical driver of climate change
- Climate change indicators are needed to understanding the relationship between economy and climate change
- Help to adopt and mitigate climate change impacts
- Help to promote accountability by forming the basis for policy targets & by informing how well policies are performing

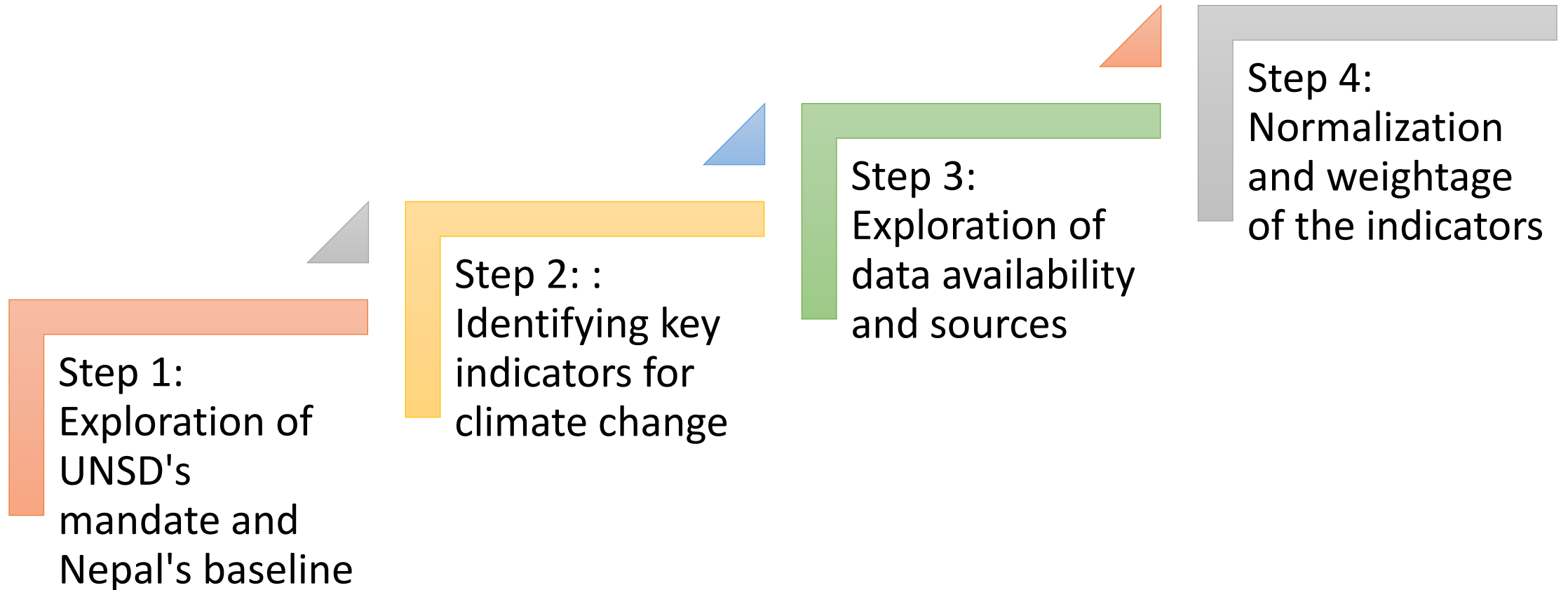
Global Set of Climate Change Statistics and Indicators

- It will assist countries embarking on the development of climate change statistics programmes by providing the scope and coverage as to what may be considered relevant to climate change
- The most commonly applied indicators (Tier 1) from those that are less applied (Tier 2) and those that require substantial methodological development to become operational (Tier 3)
- The five policy areas of the Intergovernmental Panel on Climate Change (**Drivers, Impacts, Vulnerability , Mitigation, Adaptation**)
- CBS has provided inputs to UNSD on global set of indicators in expert forum(online meeting)

Background

- CBS has been collaborating with United Nation's Statistical Division to provide input on the global set of climate change statistics and indicators
- Building on this global set of indicators, CBS is working to contextualize national level indicators
- The technical committee was formed within the chairmanship of Deputy Director general (DDG) of then CBS. Various consultation with the Technical committee and wider stakeholder were done during the process.

Process for identification of climate change indicators



Areas of climate change indicators

National set of climate change indicators has been divided into seven different areas according to the availability of data, and set of indicators developed by other stakeholders

1. GHG sources or drivers
2. Climate change indicators: extreme events and climate-induced disasters
3. Impact/L&D from climate extreme events and climate induced disasters
4. Exposure
5. Sensitivity
6. Adaptive capacity
7. Mitigation capacity

SN	Area	Sub Area	No. of indicators
1	GHG sources or drivers	4	23
2	Climate change indicators: extreme events and climate-induced disasters	1	25
3	Impact/L&D of climate extreme events and climate induced disasters	7	39
4	Exposure	6	26
5	Sensitivity	5	34
6	Adaptive capacity	8	84
7	Mitigation capacity	3	29
	Total	32	260

Out of 260 indicator, data of 150 indicator are available and while remaining 110 are meant to be generated by the relevant stakeholders.

Annex: Data (1)

- Code
- Indicators
- Source
- Data
- Remarks

E. Sensitivity

Code	Indicators	Source	Data
E.1	Food insufficiency in agriculture holdings (%)	CBS, 2011	64.01
E.6	Average size of land holding (Ha.)	CBS, 2011	0.68
E.22	Rate of Glacial retreat (mm/year)	WWF, 2005	10-15
E.30	Differently able population (No.)	CBS, 2011	1.69
E.33	Population of children (0-15) (No.)	CBS, 2011	10,219,675
E.34	Poverty Incidence (%)	NPC, 2021	17.4

Code	E.8	E.9	E.10	E.10	E.10	E.10
District	Female-headed hhs (No.)	Percentage of forest-dependent households (No.)	Pine forests (Km2)	Upper mixed hardwood (Km2)	Degraded area (Km2)	Semi-degraded area (Km2)
Source	CBS, 2011	MoFE, 2021i	MoFE, 2021i	MoFE, 2021i	MoFE, 2021i	MoFE, 2021i
Achham	29.50	98.28	262.24	88.44	20257.03	9532.72
Arghakhachi	42.53	93.45	97.25	0	12712.26	5982.24
Baglung	41.94	88.54	115.79	369.98	16245.37	7644.88
Baitadi	20.98	97.88	365.57	71.07	16961.07	7981.68

Code	D.28	E.29	D.29	D.30	D.31	D.32
District	Mortality from vector borne diseases (No.)	Malnutrition (No.)	Malnourished children (under 5) (No.)	Differently able population (No.)	Aged group population (60+ years) (No.)	Population of female (No.)
Source	MoFE, 2021d	MoFE, 2021d	MoFE, 2021e	CBS, 2011	CBS, 2011	CBS, 2021
Panchthar	586	2054	85	197,632	16918	87386
Bardahat Susta West	480	1992	197		18744	197439
Parbat	93	977	17	228,102	16967	69575
Parsa	805	5861	380	224,506	39663	314478
Pyuthan	156	3581	60	208,567	17988	127385
Ramechhap	102	2181	19	242,444	23581	89842
Rasuwa	21	334	23	552,583	4463	22695

Annex: Data (2)

- Code
- Indicators
- Source
- Data
- Remarks

F. Adaptive Capacity

Code	Indicators	Source	Data	Remarks
F.1	Existence of policies and plans to address climate change issues at federal level (No.)		25	<ul style="list-style-type: none"> • The Future for Climate Finance in Nepal, • National Adaptation Programme of Action, • Climate Public Expenditure and Institutional Review, • Economic Impact Assessment of Climate Change in Key Sectors in Nepal, • Climate Change Financing Framework, Green Climate Fund Handbook for Nepal, • National Natural Resources and Fiscal Commission Act, • Intergovernmental Fiscal Management Act, • SDGs Status and Roadmap: 2016-2030, • Agriculture Sector • Climate Change Budget Coding Guideline, • Needs Assessment, costing, and financing strategy for SDGs, • District Level Climate Public Expenditure and Institutional Review, • National Climate Change Policy (Second), • International Development Cooperation Policy, • 15th Five Year Development Plan, • National Framework for Local Adaptation Plans for Action (Second), • Environment Protection Act, • Environment Protection Rules, • Nationally Determined Contributions, • GESI strategy and Action Plan, • Climate Resilient Planning and Budgeting Guideline, • Vulnerability and Risk Assessment and identifying adaptation options: Summary for policymaker, • National Adaptation Plan, • Long Term Strategy for Reduced Emission, • National level Loss and Damage Assessment Framework
F.3	Provincial governments with dedicated climate change programmes (No.)		7	
F.4	Number of units dedicated to environment management/climate change in government structures (No.)		9	(MoEWRI, MoUD, MoALD, MoPIT, NPC, MoFE, MoF, MoFAGA)
F.6	Climate change related projects implemented at the local level (No.)		6	BCRN, NCCSP2, ASHA, DCRL, CAFs Karnali, EBA

Major sources of data

- Governmental Organization and the data of the such organizations which are official statistics

Examples: MoFE, MoHA, MoALD, MoF, MoEWRI, MoHP, FRTC, DNPWC, DoED, CBS, DHM, DoTM, DFRS, DoFSC, NDRRMA, DWRI, DoED, DoTM, DoR, NPC, NEA, AEPC, ICIMOD, UNEP

The major outputs of this process

- Understanding climate change drivers and root causes (GHG emissions);
- Understanding climate change impacts in the major sectors, across ecological regions and geography, including loss and damage (both economic and non-economic loss and damage);
- Understanding climate change risk and vulnerability in major sectors including cross-cutting sectors, seven provinces covering different geographic regions types;
- Understanding the adaptation and mitigation capacity and potentials.

Usefulness of Indicators

- Communication and awareness-raising purposes
- Integrating climate change indicators in development sectors
- Establishing a monitoring and reporting framework for the implementation of NDC, LTS, NAP, and TNC
- Assisting science-based decision-making process.

The indicators proposed and used in this document are not all-inclusive or exhaustive. As a result, these indicators will be updated based on what has been learning and implementation.

THANK YOU