



Government of Nepal
National Planning Commission
Central Bureau of Statistics

Environment/Climate Change Statistics

Experience of Nepal

Sushil Kumar Sharma

Director

Central Bureau of Statistics Nepal

Climate Change Issues in Nepal

- Nepal contributes only around 0.027 percent to total global emissions, although it is one of the countries most vulnerable to the impacts of climate change
- Nepal submits its second nationally determined contribution (NDC) document to UN outlining its targets for the next decade to reduce emissions and support vulnerable communities to adapt to the impacts of climate change
- The government strongly believes that these targets can be achieved as they have been set after consultation with various ministries, stakeholders and experts

Current status

- Separate Environment Statistics Section in CBS
- Regular publication of Environment Statistics (Censuses, Surveys, admin data)
- National Climate Change Impact Survey Report, Waste management Baseline Survey Report
- Second Nationally Determined Contribution (NDC) Report (Ministry)
- National Communication Report (Ministry)
- Community questionnaire is added in population census where one of the thematic area is environment/disaster

National Climate Change Impact Survey 2016

A Statistical Report



Government of Nepal
National Planning Commission Secretariat
Central Bureau of Statistics

Both of these publications inform corresponding indicators in the Global Set

WASTE MANAGEMENT BASELINE SURVEY OF NEPAL 2020



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

National consultation on the draft Global Set of Climate Change Statistics and Indicators

Formation of technical committee leading by CBS including from Ministry of Forest and Environment & other stakeholders

- *Meetings conducted and discussed about how we can contribute*

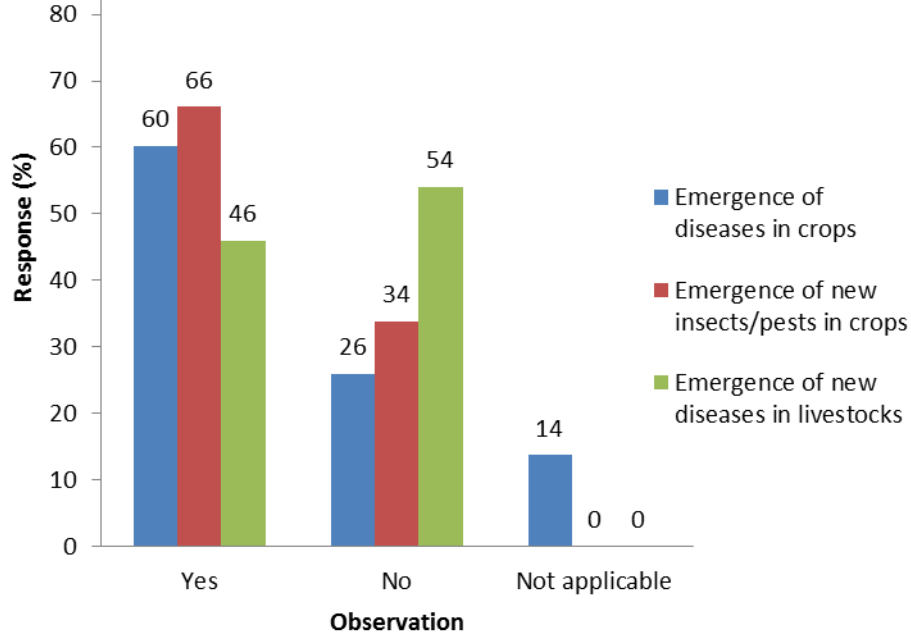
Consultation workshop with stakeholders

- The discussions were made to develop indicators which can respond to main climate change policy questions in an internationally comparable way
- As provisioned in UNSD framework agreed to keep these as five areas to be consistent with the UNSD framework.
- Basically, indicators in Agriculture, Forestry and Other Land Use (AFOLU), Energy, and Waste sectors were discussed in priority on the basis of relevancy of Nepal
- Consensus was made to omit some indicators from global set, which are not relevant in the context of Nepal for example, issues related with ocean and other statistics which were beyond the scope of national assessment

Climate Change Impacts on Crops, and Livestock

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Area	Topic	Indicator	Statistics	Code	Preliminary Tier	Themes	National Data Sources	Relevance	Methodological Soundness	Data Availability				
								Yes/No	Reference/Link	yes/no / Partially	Reference/Link	Yes/No	Reference/Link	
IMPACTS				2										
	<i>Agricultural production impacted by climate change</i>			201										
	20	Crop loss due to climate extremes		2010	3	Agriculture	Ministry of	yes	Planning Commission	yes	Climate Change Impact Survey 2016	yes	Report on Climate Change Impact Survey 2016	
		Crop yield		2011	1	Agriculture	Ministry of	yes	Planning Commission	yes	Climate Change Impact Survey 2016	yes	Report on Climate Change Impact Survey 2016	
	21	Impact of climate change on livestock productivity		2020	3	Agriculture	Ministry of	yes	Planning Commission	yes	Climate Change Impact Survey 2016	yes	Report on Climate Change Impact Survey 2016	
		Livestock yield		2021	1	Agriculture	Ministry of	yes	Planning Commission	yes	Climate Change Impact Survey 2016	yes	Report on Climate Change Impact Survey 2016	

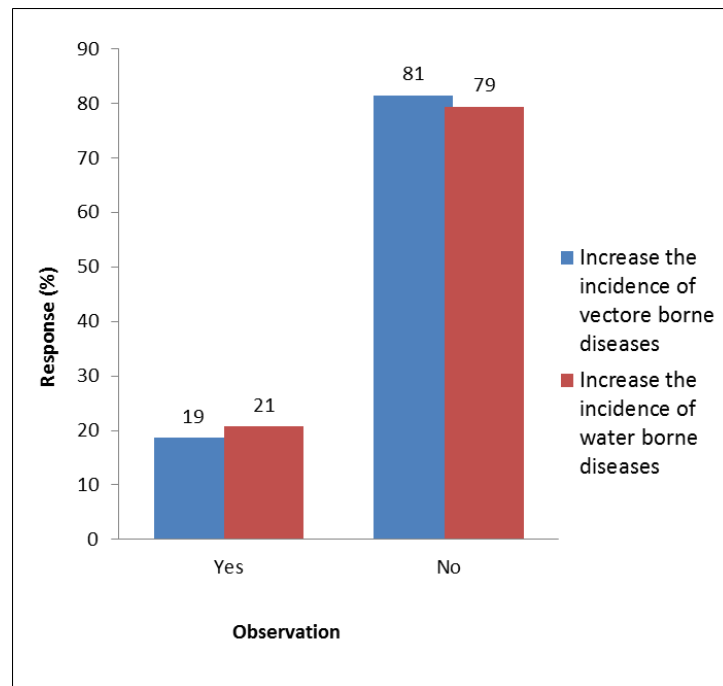
Climate change impact on crops and livestock in last 25 years



Climate Change Impacts on Human Health

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Area	Topic	Indicator	Statistics	Code	Preliminary Tier	Themes	National Data Sources	Relevance	Methodological Soundness	Data Availability	Yes/No / Partially	Reference/ Link	Yes/No	Reference/ Link
		34	Climate refugees, migrant and displaced persons by climate change	2150	3	Disasters	Disaster preparedness							
			Number of people whose destroyed dwellings were attributed to climate change	2151	2	Disasters	Ministry of Environment							
			<i>Climate change and human health</i>	216										
		35	Increase of cases of climate-related diseases	2160	3	Health		yes	Planning Commission	yes	Climate Change Impact Survey 2016	yes	Report on Climate Change Impact Survey 2016	
			Incidence of climate-related airborne diseases and conditions	2161	2	Health	Ministry of Health	yes	Planning Commission	yes	Climate Change Impact Survey 2016	yes	Report on Climate Change Impact Survey 2016	
			Incidence of climate-related water-related diseases and conditions	2162	2	Health	Ministry of Health	yes	Planning Commission	yes	Climate Change Impact Survey 2016	yes	Report on Climate Change Impact Survey 2016	
			Incidence of climate-related vector-borne diseases (UN-EPA)	2163	2	Health	Ministry of Health	yes	Planning Commission	yes	Climate Change Impact Survey 2016	yes	Report on Climate Change Impact Survey 2016	
		36	Increase in heat and cold related illnesses	2170	3	Health	Ministry of Health	yes	Planning Commission	yes	Climate Change Impact Survey 2016	yes	Report on Climate Change Impact Survey 2016	
			[incidence/mortality from] Heat and cold related illnesses	2171	3	Health	Ministry of Health	yes	Planning Commission	yes	Climate Change Impact Survey 2016	yes	Report on Climate Change Impact Survey 2016	

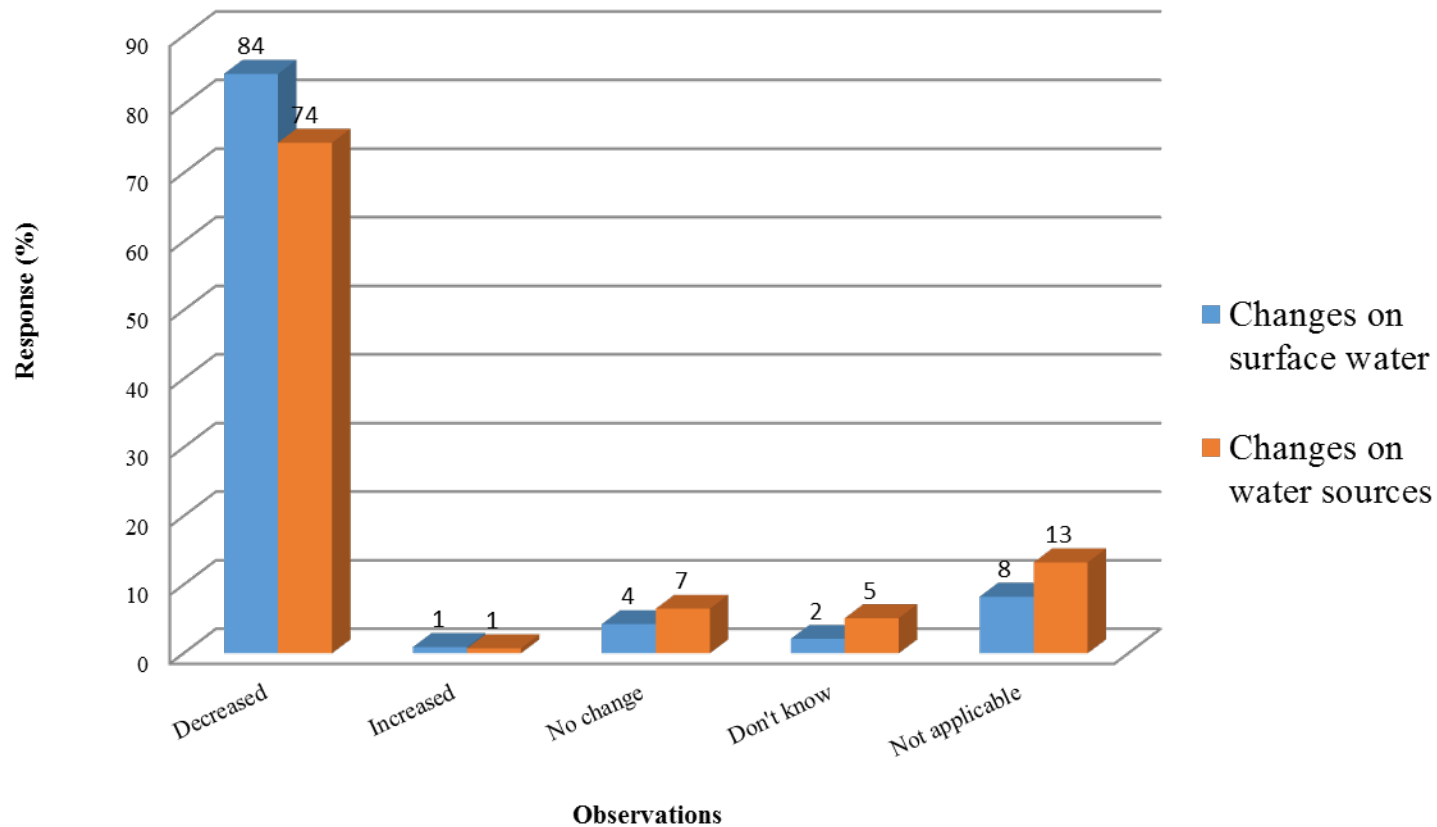
Climate change impacts on human health in last 25 years



Climate Change and Natural Resources: Water and Biodiversity

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Area	Topic	Indicator	Statistics	Code	Preliminary Tier	Themes	National Data Sources	Relevance	Methodological Soundness	Data Availability				
								Yes/No	Reference/Link	yes/no / Partially	Reference/Link	Yes/No	Reference/Link	
				Freshwater abstraction, supply and use		209								
	28		Freshwater abstracted as proportion of renewable freshwater	2090	1	Water reso	Meteorol	yes	Planning Commission	yes	Climate Change Impact Survey 2016	yes	Report on Climate Change Impact Survey 2016	
			Freshwater abstracted (FDES 2.6.2.a)	2091	1	Water reso	Meteorol	yes	Planning Commission	yes	Climate Change Impact Survey 2016	yes	Report on Climate Change Impact Survey 2016	
			Renewable freshwater resources (FDES 2.6.1.c)	2092	1	Water reso	Meteorol	yes	Planning Commission	yes	Climate Change Impact Survey 2016	yes	Report on Climate Change Impact Survey 2016	

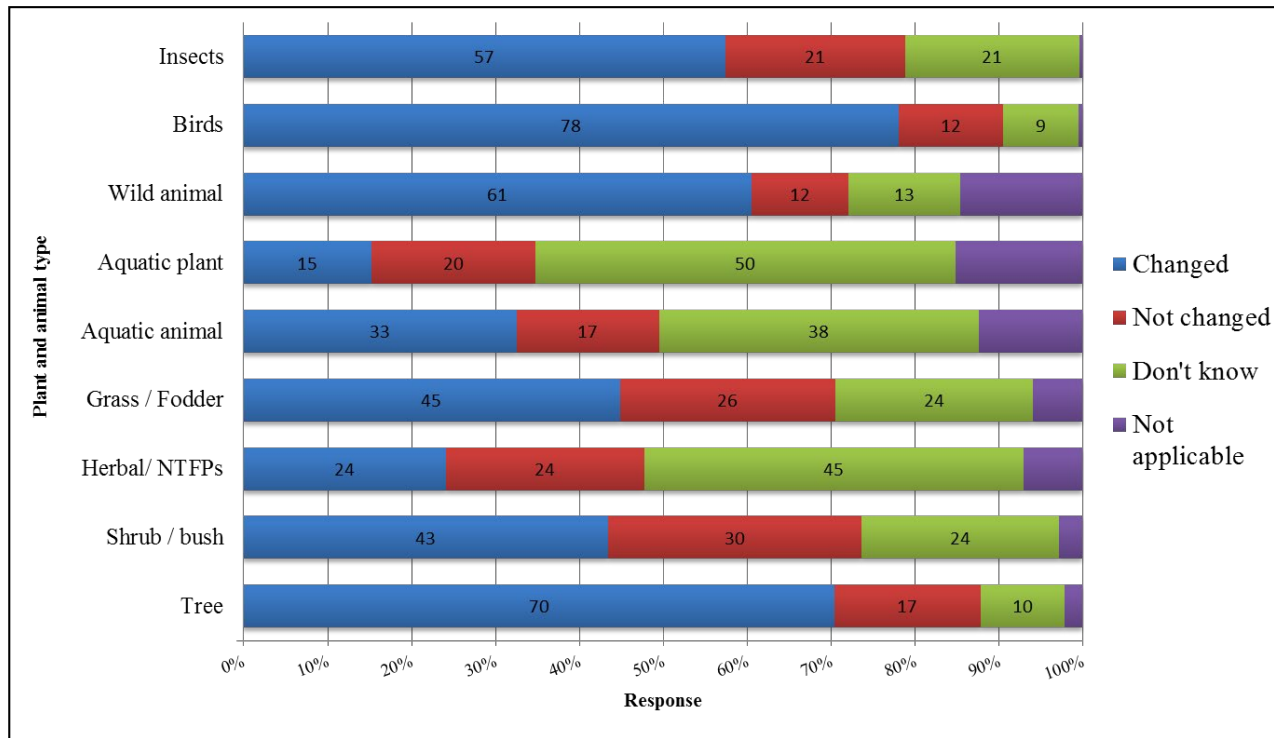
Observed changes on water resources in last 25 years



Climate Change and Natural Resources: Water and Biodiversity...

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Area	Topic	Indicator	Statistics	Code	Tier	Preliminary	Themes	National Data Sources	Relevance	Methodological Soundness	Data Availability			
									Yes/No	Reference/Link	Yes/No / Partial	Reference/Link	Yes/No	Reference/Link
			<i>Distribution and status of species</i>											
	51		Proportion of population maintained within a species	2420	3		Species	Ministry of	yes	Planning Commission	yes	Climate Change Impact Survey 2016	yes	Report on Climate Change Impact Survey 2016
			Species population (FDES 1.2.2.c.4)	2421	2		Species	Ministry of	yes	Planning Commission	yes	Climate Change Impact Survey 2016	yes	Report on Climate Change Impact Survey 2016
	52		Red list index (SDG 15.5.1)	2430	2		Species	Ministry of						
			Number of red list species (FDES 1.2.2.c.1)	2431	2		Species	Ministry of						
	53		Species habitat index	2440	2		Species	Ministry of	yes	Planning Commission	yes	Climate Change Impact Survey 2016	yes	Report on Climate Change Impact Survey 2016
			Area of ecosystems (FDES 1.2.2.a.1)	2441	2		Species	Ministry of	yes	Planning Commission	yes	Climate Change Impact Survey 2016	yes	Report on Climate Change Impact Survey 2016
			Known flora and fauna species (FDES 1.2.2.c.1)	2442	2		Species	Ministry of	yes	Planning Commission	yes	Climate Change Impact Survey 2016	yes	Report on Climate Change Impact Survey 2016

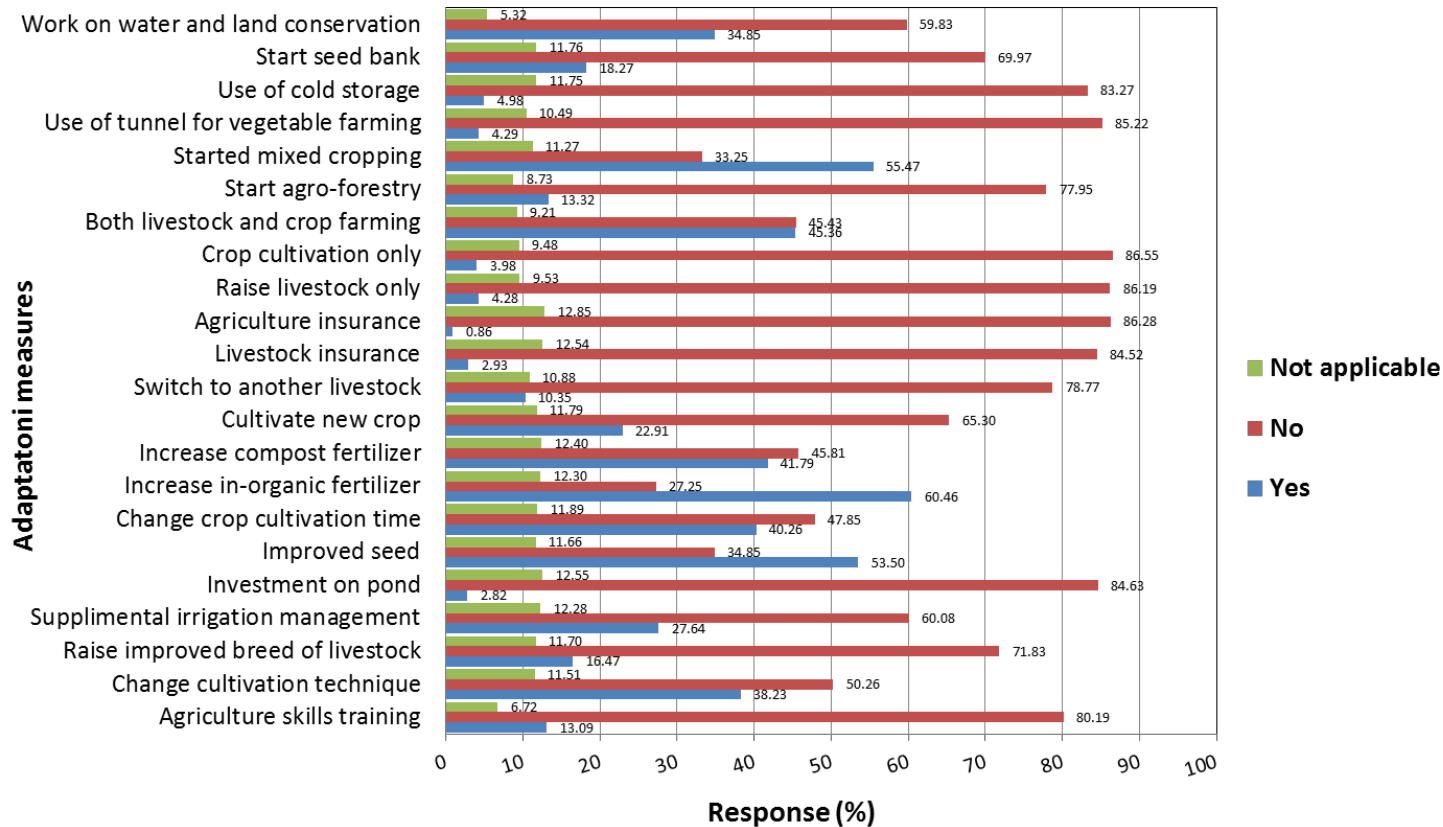
Changes in the status of animal and plant species in last 25 years



Adaptation Measures

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Area	Topic	Indicator	Statistics	Code	Tier	Themes	National Data Sources	Relevance	Methodological Soundness	Data Availability				
								Yes/No	Reference/Link	Yes/No/Partial	Reference/Link	Yes/No	Reference/Link	
		124	Proportion of agricultural area under productive and sustainable agriculture	5260	2	Agriculture	NSO/Ministry	yes	Planning Commission	yes	Climate Change Impact Survey 2016	yes	Report on Climate Change Impact Survey 2016	
			Risk mitigation mechanisms (Subindicator of SDG 2.4.1)	5261	2	Agriculture	NSO/Ministry	yes	Planning Commission	yes	Climate Change Impact Survey 2016	yes	Report on Climate Change Impact Survey 2016	
			Variation in water availability (Water use, Subindicator of SDG 2.4.1)	5270	2	Agriculture	NSO/Ministry	yes	Planning Commission	yes	Climate Change Impact Survey 2016	yes	Report on Climate Change Impact Survey 2016	
			Use of agro-biodiversity-supportive practices (Subindicator of SDG 2.4.1)	5280	2	Agriculture	NSO/Ministry	yes	Planning Commission	yes	Climate Change Impact Survey 2016	yes	Report on Climate Change Impact Survey 2016	
		125	Progress towards sustainable forest management (SDG 15.2.1)	5360	2	Forests	Forestry department							

Adaptation measures (farm based) adopted in last 25 years



Environment statistics on population census, 2021

- First time introduce community questionnaire in population census
- Each questionnaire filled in every ward(lowest administrative unit) of Nepal, 6743 wards in Nepal
- One of the module is environment/disaster /hazard
- Milestone for the base line data for disaster mapping and other special environment related surveys

Recent activities

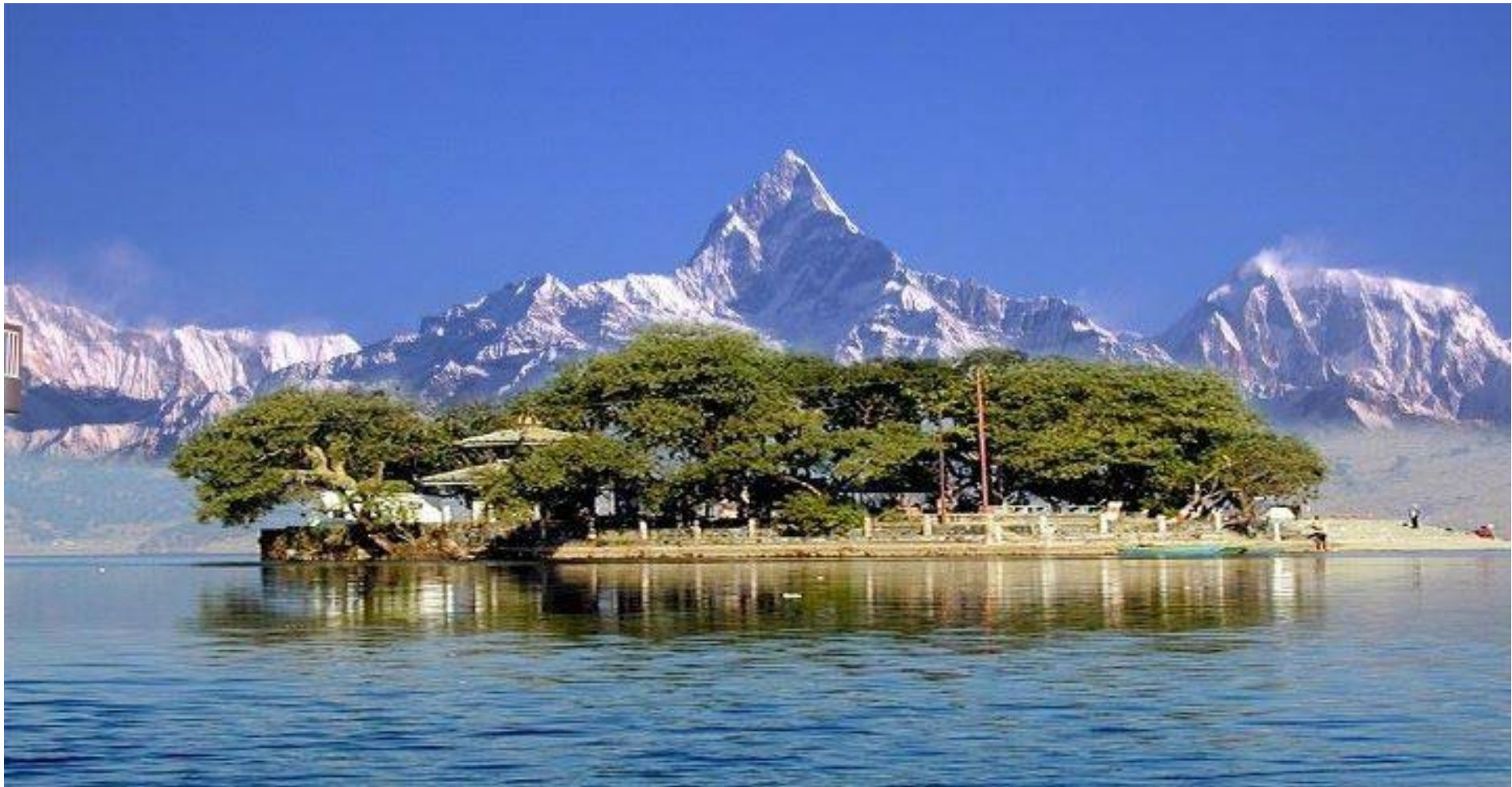
- Shared the prefilled Global Consultation parts and discussed with the national focal point reporting to UNFCCC
- Conducted technical committee meeting and working on to develop the proposed Nepal specific climate change indicators
- [Climate change indicators Nepal draft.docx](#)
- Preliminary work is starting for the national climate change impact survey (second round)

Issues and challenges

- Data gaps
- Administrative data is not reporting on time
- Capacity development
- Coordination/collaboration
- Prevailing statistical laws and regulations have not been updated/amended
- Data sharing policy
- Weak statistical infrastructure
- Covid-19 Pandemic (First wave, second wave,)

Expectations & way forward

- Plans to use the Global Set as the framework for the Nepal-specific climate change indicators.
- Needs special surveys and censuses
- Improved institutional arrangements and structures
- Bilateral and international cooperation for knowledge and technology
- Strengthen data capturing mechanism in province and local governments
- Strengthen Environment Section/GIS of CBS
- Technical & financial support for the National Climate Change Impact Survey (second round)



Thank you !!!
Your comments and queries are highly appreciated !!!