

System of Environment Economic Account (SEEA)  
**Implementation on Land & Forest Account in Nepal**

***Land Accounting Case Study***

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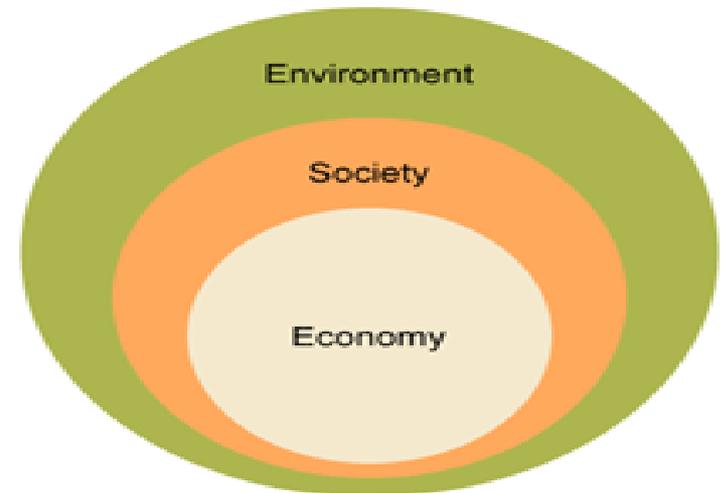
**Central Bureau of Statistics, Nepal**

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# Introduction

- Common view that the **Economy** exists within **Society**, which in turn exists within a supporting **Environment**
- Policy decisions related to these three 'pillars' of sustainable development should be integrated rather than taken independently



# Goals & priority of the nation

- Graduation from LDCs to DC by 2022
- Committed to meet the targets of SDG in 2030
- Sustainable development, green economy, climate change, biodiversity preservation, etc. are the priority agenda
- Followed the concept of **green development** by promoting **Green Economy**
- Making human activities and development process **environment friendly**
- Develop the **adaptive capacity** of the impact of climate change

# Current status

- 2/3 of the population of the country are dependent on agriculture
- 1/3 of the GDP from agriculture sector
- Urbanization is in rapid process
- Change in the land use category
- The forest sector increases from 39.6 to 44.7 percent (FRA 2015)
- Forest area increases in hilly region
- Shrub changes to forest
- Trend of out migration from rural hill area to urban Hill area and Terai (plain) area

# The major environmental problems of Nepal

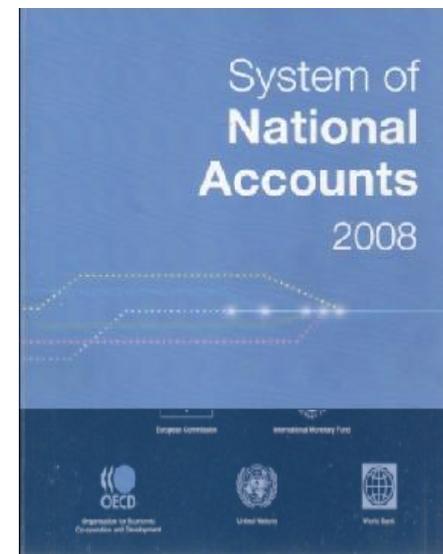
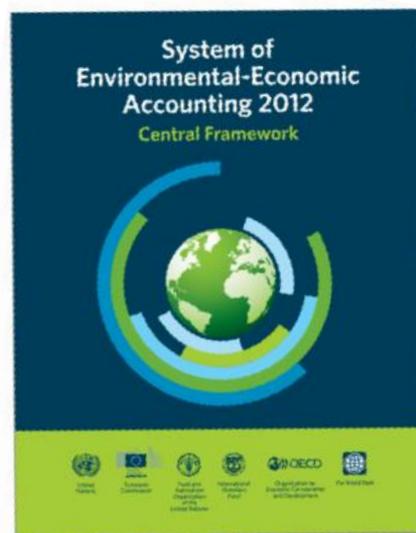
- Degradation of air quality
- Degradation of drinking water
- Degradation of natural resources
- Lack of solid waste management
- Degradation of surface water quality
- Diminishing of water resources
- Release of toxic pollutants
- Loss of biodiversity
- Impacts of climate change
- Improper land use

# System of Environment Economic Account (SEEA)

- The economy impacts on the environment and the environment impacts on the economy
- To understand these linkages we need to integrate environmental and economic information
- This is the explicit purpose of the SEEA



- An internationally agreed statistical framework to measure the environment and its interactions with economy
- The **SEEA Central Framework** was adopted as an international statistical standard by the UN Statistical Commission in 2012
- The SNA and SEEA: Systems of coherent information



# Needs of SEEA

- The SEEA is an important statistical framework for monitoring the SDGs
- Using the SEEA to calculate SDG indicators can result in higher quality indicators in terms of;
  1. Policy Relevance
  2. Methodological Soundness
  3. Practicality and Measurability
- SEEA enables coherent comparison of environment statistics with economic statistics
- Increasing environment concerns in general public, society, policy and decision makers, government etc.

# SDG 15



- Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss

# Why Land and Forest account

- There are 33 accounts in SEEA
- As a pilot work, it is preferred land & forest account in Nepal
- Both are more interrelated
- CBS, Ministry of Agriculture Development, Survey Department, Urban Development and Building Department, ICIMOD, WECS, Forest Research and Survey Department etc. are the major data sources of land and forest account
- Data sharing mechanism should be developed

# Land Account

- Land is a unique environmental asset that delineates the space in which economic activities and environmental processes take place
- Land account describes areas and their change in terms of **use** and **cover**
- Land accounts can be prepared in both physical (eg. hectares) and monetary terms
- Used for land planning, agriculture and forestry
- Risks and vulnerability assessments
- Environmental issues such as nature/biodiversity conservation, water, soil, climate change

# Forest Account

- Summarizing information on the forest/timber resource as well as on the multiple aspect of forests
- Forest is the important natural asset of Nepal
- Forests contribute to livelihood of rural population
- Tourism and hydropower generation depend on the sustainable management of forest resources
- Forest provides recreation and cultural activities for human welfare
- Forest will play a key role in Nepal's commitment to low carbon growth
- Contribution of forestry sector to national GDP remains underestimated

# Technical support from UNESCAP

- UNESCAP Identified need and interest of CBS to implement SEEA in Nepal and conducting climate change survey
- Focussed on opportunities for establishing land cover & timber accounts and provided basic training on land accounts
- MOU with CBS and UNESCAP to support the implementation of the SEEA as a pilot project to develop Land & Forest Account

# Technical support from UNESCAP

- Aimed at strengthening the production and use of economic and environmental indicators derived from the SNA 2008 and the SEEA 2012
- The ongoing activities build the capacity of the National Statistical System in Nepal to produce policy-relevant indicators for the management of land and forest resources in a sustainable manner through the compilation of land and forest accounts in accordance with SEEA 2012

# **The development of the compilation of land and forest account**

# Formation of task force team

- Deputy Director General , CBS, Coordinator
- Directors, Environment Statistics Section, CBS, Members
- Representative from Planning Commission , Member
- Representative from Ministry of Agriculture Development, Member
- Representative from Forest Research and Survey Department, Member
- Representative from ICIMOD, Member
- Statistics Officer, Environment Statistics Section, CBS, Member Secretary

***\*Provision to invite the experts and the representative from other stakeholder in the meeting***

# Terms of the reference for task force team

- To support for providing data of the land and forest account which is developing by CBS
- To compile and check the consistency, reliability and timeliness of the data and provide the feedback
- To coordinate and facilitate for the development and publication of land and forest account

# Stakeholder's Workshop

- Conducted the national level stakeholder's workshop to identify information needs for policy analysis and planning, discuss data requirements, data availability, and memoranda of understanding
- Director General of CBS and other higher officers, task force members , other representatives from stakeholders were participated and contributed their valuable suggestions and feedback
- Micheal Bordt and Teerapong Praphotjanaporn from UNESCAP had given the presentations of SEEA land and forest account

# Stakeholder's Workshop

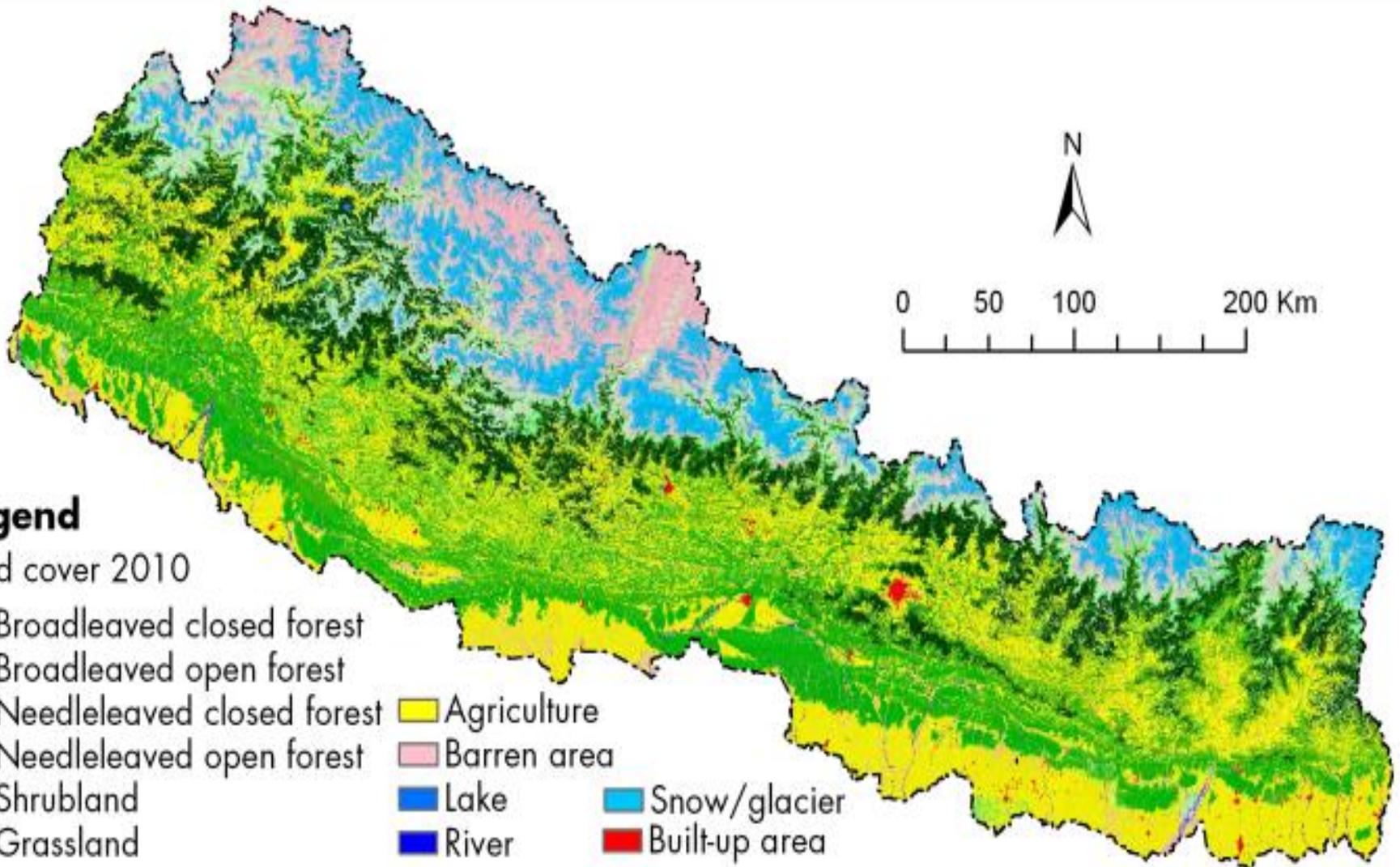
- CBS presented why land and forest accounts? Results of the Diagnostic tool and how to develop and the roles of other stakeholders for the development of land and forest account
- Ministry of Agriculture Development, Forest Research and Survey Department and ICIMOD provided an overview of data availability for land and forest accounts
- Task Force members expressed readiness to collaborate

# Progress on the compilation

- Developed the workplan (calender)
- Source of the Land Cover data is ICIMOD
- Data available on the time periods 1990, 2000 and 2010
- Discussed on the taskforce meeting about the available data
- Compared and agreed on land cover types across the different times periods ([8 categories](#))

## Progress on the compilation cont...

- Analysis of the preliminary account and continue discussion on the issues can be taken from the comments from the UNESCAP experts



**Legend**

Land cover 2010

- |                            |             |               |
|----------------------------|-------------|---------------|
| Broadleaved closed forest  | Agriculture | Snow/glacier  |
| Broadleaved open forest    | Barren area | Built-up area |
| Needleleaved closed forest | Lake        |               |
| Needleleaved open forest   | River       |               |
| Shrubland                  |             |               |
| Grassland                  |             |               |

*Source :- ICIMOD*

# Draft Land cover change matrix

# Challenges and Issues

- The methodology used by ICIMOD and Ministry of Forest(MoF) is same for the data generation
- Slightly difference in area of forest (MoF & ICIMOD)
- It may be the boundry difference
- Issues of shrub land (MoF is added to the forest but ICIMOD has separete category
- Data quality issues like in snow/glacier (it may due to seasonal variation)

# Challenges and Issues

- To distinguish between managed expansion/regression and natural expansion/regression for the development of Physical Account for land cover
- National Land Use project of Ministry of Land Reform and Management is collecting data of land use in 11 categories

# What next

- It should be clarify and solve the issues by task force meeting and technical workshop
- Consensus should be build among the different stakeholders
- Finalize the land cover change matrix and physical account for land cover
- Work on forest account

**Thank you**

**Your comments and queries are highly  
appreciated !!!**