

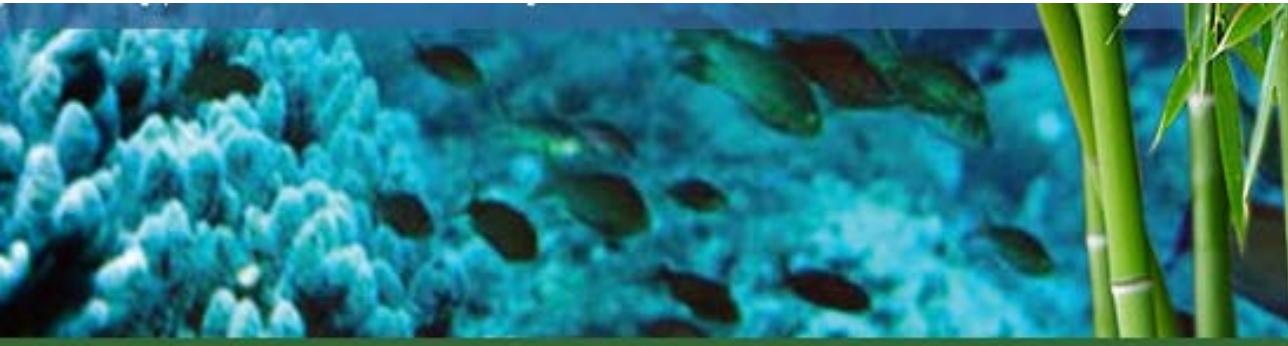
# Biodiversity: crucial to life on Earth

Food, Medicine, Fuel

Construction materials

Aesthetic, cultural, recreational, research values

Ecological balance and ecosystem services



# Indian Fauna

- ❖ 7.43% species of the world
- ❖ Ranks
  - 7<sup>th</sup> in Mammals
  - 9<sup>th</sup> in Birds
  - 5<sup>th</sup> in Reptiles
- ❖ 413 globally threatened species



# Indian Flora

- ❖ 45,968 + species
- ❖ Ranks 10<sup>th</sup> in world and 4<sup>th</sup> in Asia
- ❖ 17,527 Angiosperms
- ❖ 14,500 Gymnosperms
- ❖ 7,175 Algae
- ❖ 2,223 Lichens
- ❖ 1,200 Pteridophytes

## Amazing Biodiversity of Sikkim: A Glimpse!!



# ***Loss of Biodiversity across the Planet***

- **Climate Change**
- **Bio-security Risk**
- **Biotechnological inventions**
- **Invasive Alien species / Poaching / Hunting**
- **Over-exploitation, Pollution, extraction**
- **Natural Calamities**
- **Habitat Change / Loss / Fragmentation**

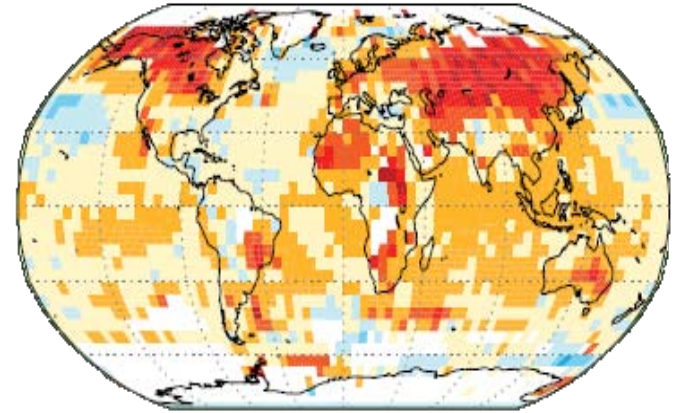




# Climate is Changing

IPPC report says by 2100

- Rise in temperature (2 - 4.5 °C)
- Change in Water Cycle
- Change in Monsoon Pattern
- Extreme weather
- Sea level rise by c. 88 cm
- **Impact on biodiversity**



Temperature rise, indicated by color (red=higher rate of increase). Earth's surface temperature has risen ~1.3° F since 1850.







# Bio-prospecting

- Search and examine biological resources for commercial use
- Advances in tech., pharma and agriculture have enhanced its role
- Major concern for biodiversity rich countries



# ABS

- CBD (Article 15), defines the principle on which countries could facilitate access to biological resources and the ways to share the benefits accrued from their use.
- It forms the basis for **Access** and **Benefit Sharing (ABS)** agreement.

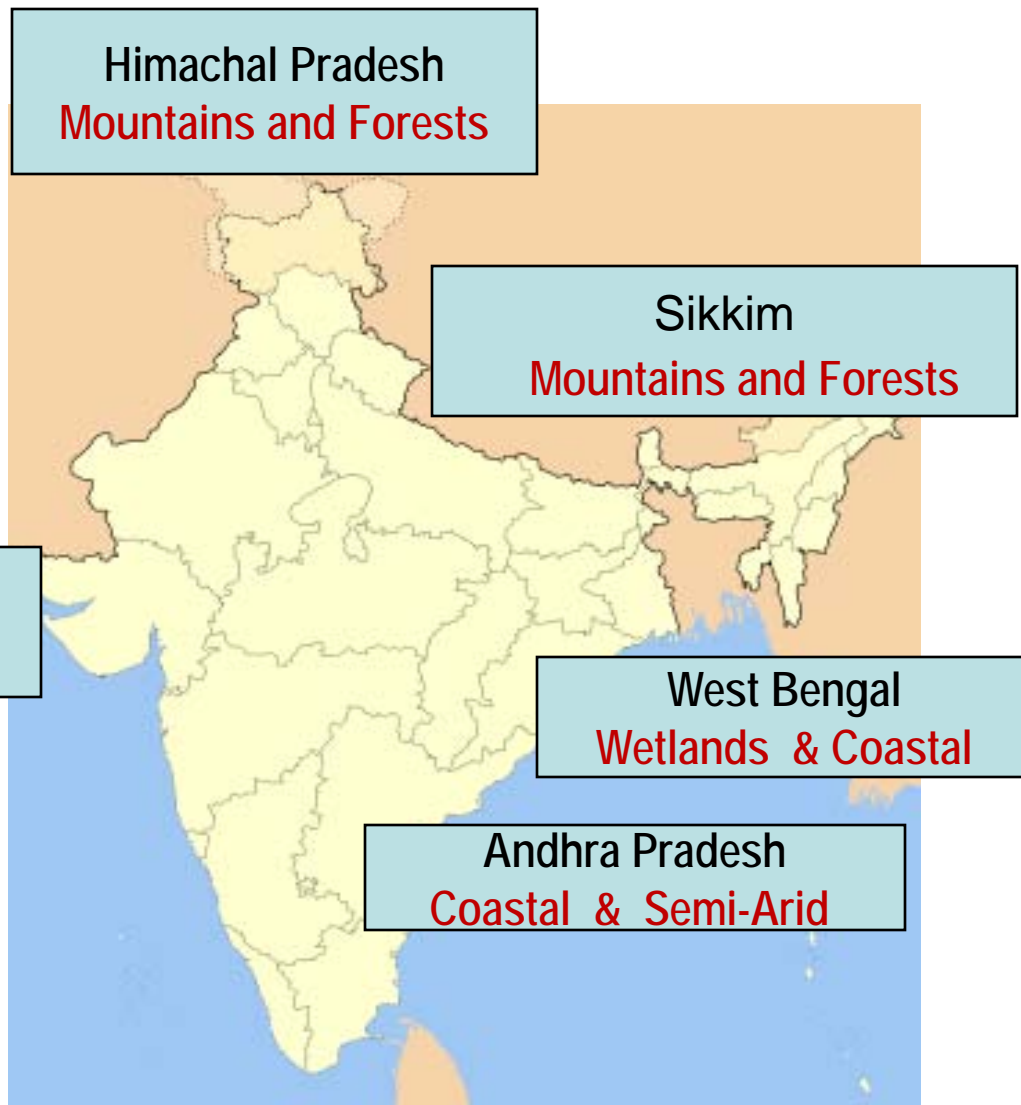


# GEF & GoI Project Implementation states

**Five pilot sites  
in India  
representing  
three major  
ecosystems  
were selected**

## Executing Organizations

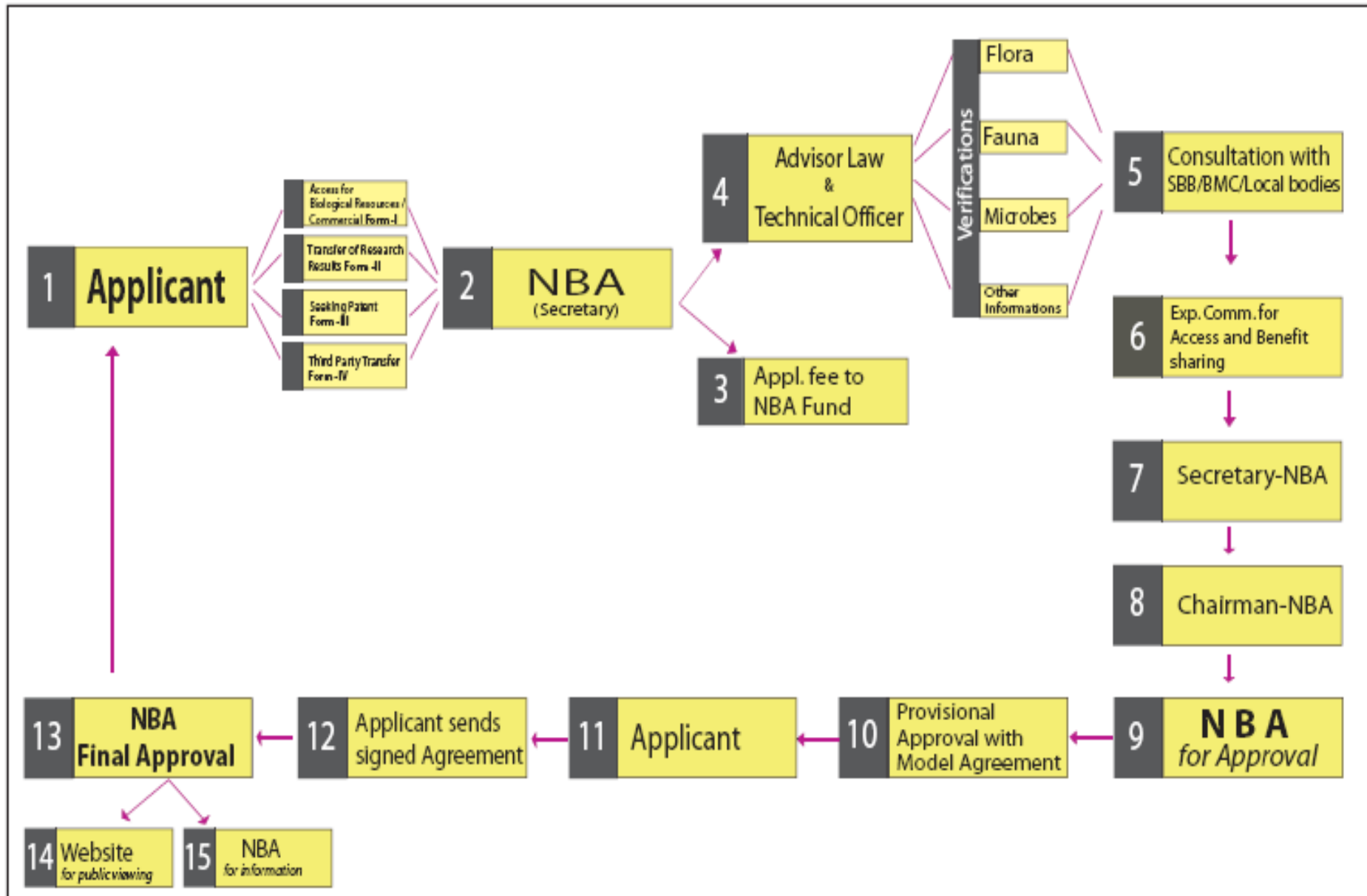
- MoEFCC
- NBA
- SBBs
- UNEP- Div of Environmental Law and Conventions
- UN University – Institute of Advanced Studies



# Access and Benefit Sharing (ABS) & Traditional Knowledge (TK)

Category	Form
<b>Access</b> to Biological resources and associated Traditional Knowledge (TK).	Form I
<b>Transferring results</b> of research to foreign nationals, companies, NRI's for commercial purposes.	Form II
Seeking <b>Intellectual Property Right (IPR)</b>	Form III
Third Party transfer of the accessed biological resources and associated <b>Traditional Knowledge</b> .	Form IV

# Access and Benefit Sharing (ABS) Mechanism





# General legal process for Access & Benefit Sharing (ABS) from Genetic Resources and Traditional Knowledge © ICIMOD, GIZ



The area is rich in trees, bushes, herbs, and wildlife (genetic resources)



This company is looking to see if there may be useful resources



The company decides to apply to the government for a licence to use the biological resources (bioprospecting)



They go to the ministry responsible for these decisions (competent authority)



They submit the application to the government (competent authority) and discuss it with them



Yes/No



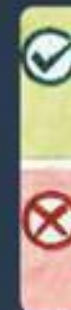
If access is denied they want to know why; they can seek assistance from the court



The application is approved, but there is still work to do



The company informs the community, and asks for their permission (prior informed consent, PIC); the community decides if it is good for them



Yes/No



The company studies the plants and wildlife (genetic resources) in detail and asks the community what they know about them (traditional knowledge)



They may look at the likely impact of the proposal on the area (environmental impact assessment)





They prepare a detailed proposal with a research and resource use plan



The proposal is complete, now the company goes to the designated authority ...



... and submits the detailed proposal



Yes/No



The proposal is accepted with mutually agreed terms (MAT)



They collect samples of plants and animals and document everything including traditional knowledge



They send the samples and information to a laboratory ...



... where they are studied in different ways, and plans drawn up for products that can be made from them



The company describes the new products, what they will cost and how much profit there may be



The product is made and sold, the company makes money



A part of the profit goes to the government [competent authority], which shares it with the local community



The community discusses the best way to use the benefits. The money should be used to help conserve the biological resources for the future, as well as to give the community options for development



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**MINISTRY OF ENVIRONMENT, FORESTS AND  
CLIMATE CHANGE (National Biodiversity Authority)  
NOTIFICATION New Delhi, the 21st November, 2014**

G.S.R 827.—In exercise of the powers conferred by section 64 read with sub-section (1) of section 18 and sub-section (4) of section 21 of the Biological Diversity Act, 2002 (18 of 2003), hereinafter referred to as the Act, and in pursuance of the Nagoya Protocol on access to genetic resources and the fair and equitable sharing of benefits arising from their utilization to the Convention on Biological Diversity dated the 29th October, 2010, the National Biodiversity Authority hereby makes the following regulations, namely.—

**Guidelines on Access to Biological Resources and Associated  
Knowledge and Benefits Sharing Regulations, 2014**



Application Forms / Procedure	Application Fee	Guidelines for filling up of Forms
<u>FORM I (see rule 14)</u>  If the applicant is a Trader/ Manufacturer / Company, he shall submit the Form – I along with <u>Form – A.</u>	Rs.10,000/-	<u>Form I &amp; (Format of Authorisation Letter)</u>  See Regulation 2 of the ABS Regulations, 2014
FORM II (see Rule 17)	Rs.5,000/-	Form II
FORM III (See rule 18)	Rs.500/-	Form III
FORM IV (See rule 19)	Rs.10,000/-	Form IV
FORM V (See rule-23(1))	---	
FORM VI (See rule 23(6))	---	
FORM VII FORM OF NOTICE (See rule 24 (1))	---	
FORM B - Conducting of non-commercial research or research for emergency purpose outside India by Indian Researchers/Government Institutions using the biological resources	---	See Regulation 13 of the ABS Regulations, 2014
Proforma for Collaborative Research Projects as per section 5, Biological Diversity Act, 2002	---	
Procedure for Closing of Applications Received Under the Biological Diversity Act 2002	---	

FORM A  
(See regulation 2)

Information to be furnished for use of biological resources by the applicant  
Self-disclosure

**Application  
Fee: Rs.  
10,000/-**

Common Name of the biological resource proposed to be used: _____				
Scientific Name : _____				
Plants or animals or parts thereof traded : _____				
Specific purpose of access: _____				
Locations / source from where procured*	Quantity in Kgs	Rate per unit	State Biodiversity Board	Prospective Buyers/Users (if known)

\*List of local body/BMCs, if already identified shall be attached.

**Undertaking**

1. I have read and understood the terms and conditions of ABS guidelines and I undertake to abide by relevant legal provisions applicable to biological resource.
2. I undertake to obtain the approval of the NBA/ SBB before making any change in the stated purpose.
3. I undertake to furnish/ share the relevant records with the NBA/ SBB, as and when required.
4. I further declare that the Information provided in the form is true and correct and I shall be liable for any incorrect/ wrong information and wilful suppression of the facts.

Signature

Name of the trader/ company/manufacturer/ Authorized Representative  
Complete Address of the trader/ company/ manufacturer along with phone number  
and email address

Place  
Date

### 3. Mode of benefit sharing for access to biological resources, for commercial utilization or for bio-survey and bio-utilization for commercial utilization

(1) Where **Applicant/ Trader/ Manufacturer** has

- not entered into any prior benefit sharing negotiation with persons such as JFMC / Forest dweller/ Tribal cultivator/ Gram Sabha, and
- purchases any biological resources directly from these persons,

the **Benefit Sharing** obligations on

- the **Trader** shall be in the range of 1.0 to 3.0% of the purchase price of the biological resources and
- the **Manufacturer** shall be in the range of 3.0 to 5.0% of the purchase price of the biological resources



## **4. Option of Benefit Sharing on Sale Price of the Biological Resources Accessed for Commercial Utilization under Regulation 2**

When the Biological Resources are accessed for **commercial utilization** or the **bio-survey** and **bio-utilization** leads to **commercial utilization**, the applicant shall have the option to pay the Benefit Share ranging from **0.1 to 0.5 %** at the following graded percentages **of annual gross ex-factory sale** of product which shall be worked out based on the annual gross ex-factory sale minus government taxes as given below:-

<b>Annual Gross ex-factory sale of product</b>	<b>Benefit sharing component</b>
Up to Rs. 1,00,00,000	0.1 %
Rs. 1,00,00,001 up to 3,00,00,000	0.2 %
Above Rs. 3,00,00,000	0.5 %

## 5. Collection / Levy of fees

Collection of fees, if levied by BMC for accessing or collecting any Biological Resource for **commercial purposes** from areas falling within its territorial jurisdiction under sub-section (3) of section 41 of the Act, **shall be in addition** to the benefit sharing payable to the NBA/SBB under these regulations

### 13. Conducting of non-commercial research or research for emergency purposes outside India by Indian researchers/ Government institutions

- (1) Any Indian researcher/ Government institution who intends to carry/send biological resources outside India to undertake basic research other than collaborative research shall **apply to the NBA in Form 'B'**
- (2) Any Government Institution which intend to send biological resources to carry out **certain urgent studies to avert emergencies** like epidemics, etc., shall apply in **Form 'B'**
- (3) **NBA shall**, on being satisfied with the application under sub-regulation (1) or sub-regulation (2), **accord its approval within a period of 45 days** from the date of receipt of the application.
- (4) On receipt of approval of NBA under sub-regulation (3), applicant shall deposit voucher specimens in the designated national repositories **before** carrying / sending the biological resources outside India and a copy of proof of such deposits shall be endorsed to NBA.

**17. Certain activities or persons exempted from approval of NBA or SBB. —**  
**The following activities or persons shall not require approval of the NBA or SBB, namely:--**

- (a) **Indian citizens** or entities accessing biological resources and / or associated knowledge, occurring in or obtained from India, for the purposes of research or bio-survey and bio-utilization for research in India;
- (b) **collaborative research projects**, involving transfer or exchange of biological resources or related information, if such collaborative research projects have been approved by the concerned Ministry or Dept of the State or Central Govt and conform to policy guidelines issued by Central Govt for such collaborative research projects;
- (c) **local people and communities of area**, including growers and cultivators of biological resources, vaidas and hakims, practising indigenous medicine, except for obtaining intellectual property rights;
- (d) **accessing biological resources for conventional breeding** or traditional practices in use in any agriculture, horticulture, poultry, dairy farming, animal husbandry or bee keeping, in India;
- (e) **publication of research papers or dissemination of knowledge**, in any seminar or workshop, if such publication is in conformity with guidelines issued by Central Govt from time to time;
- (f) **accessing value added products**, which are products containing portions or extracts of plants and animals in unrecognizable and physically inseparable form; and
- (g) biological resources, **normally traded as commodities** notified by the Central Government under section 40 of the Act



# Expected Outcomes

- Enhanced understanding of economic values of biological diversity for improved policy making and implementation of the B D Act with regard to ABS
- Decision making on access to bioresources for commercial utilization, mode of agreement for benefit sharing and other related ABS issues .
- Better and informed access to bioresources under the provisions of the Act with equitable benefit sharing

# Expected Outcomes (Contd...)

- Enhanced implementation of ABS provisions of the Biological Diversity Act
- Better understanding of ABS mechanisms at international level through information sharing and bi-lateral or multi-lateral consultations
- Improved understanding of ABS provisions in the B D Act for implementation by the NBA, SBBs and in a few BMCs in each State
- Strengthening of SBBs and BMCs through awareness programmes
- Active participation of stakeholders

# *Biodiversity is Life; Biodiversity is our Life*

## **SIKKIM SBB TEAM:**

**Chair: Mr. Pawan Chamling HCM**

**Exec. Chair: Prin. Secretary cum PCCF**

**Member Secretary: Mr. Y. P. Gurung IFS**

**AD cum SPC: Mrs. Usha Lachungpa**

**JD SBB: Mr. Monee Ram Rai SFS**

**ACF SBB: Ms. Shewani Pradhan SFS**

**ACF (T) cum Jt. PC: Ms. Peggyla Venchungpa**

**Tech Expert: Dr. Bharat Pradhan SBFP**

**Finance Asst.: Mr. Pempa Bhutia**

**Computer Asst.: Ms Bishnu Kumari Sharma**

**Peon: Deo Kumari Khati**