











Regional Workshop For South, Southeast and East Asia on Capacity Building For National Biodiversity Strategies and Action Plans

## 14-18 January 2008, Singapore

Karma C. Nyedrup

National Environment Commission Bhutan

National Environment Commission



# Organization of Bhutan Biodiversity Action Plan (BAP)











 The Biodiversity Conservation Action Plan for Bhutan is organized into an Introduction and Five Chapters.

 Chapters One and Two represent an inventory of what Bhutan has at present in terms of biodiversity and efforts to conserve it

 The last three chapters, Chapters 3, 4 and 5, represent the Action Plan



# **Overview of Biological Diversity in Bhutan**

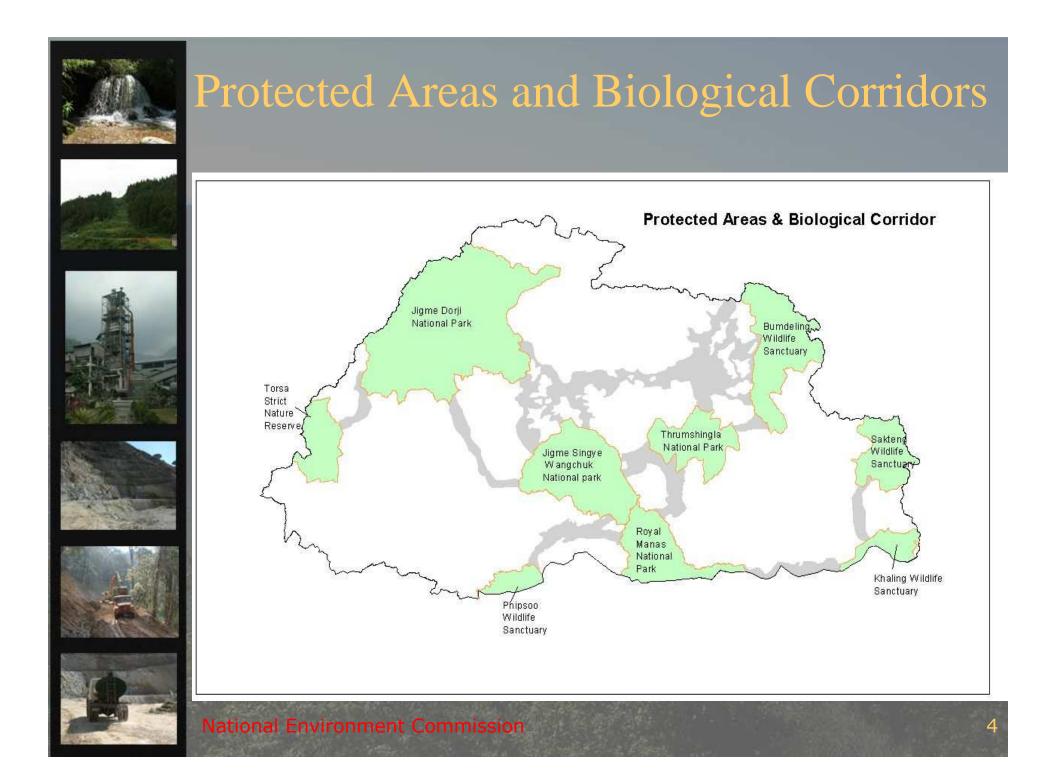








- Bhutan's richness in biological diversity is found at the ecosystem, species and genetic levels.
- Forests cover about 72.5 percent
- 26.23 percent of Bhutan is under the Protected Area Management System.
- 9 percent has been declared as Biological Corridors
- Diversity at the species level, inventories undergoing completion have indicated that there are more than 5,500 species of vascular plants, more than 770 species of avifauna and more than 165 species of mammals, with many species being endemic to Bhutan





# Development of BAP I



- BAP I started from November 1996 completed in June 1997
- Core team and task force
- Ministry of Agriculture, National Environment Commission, NGOs, NITM, MTI, MOEH, PC, MOF,
- TOR for taskforce members and focal persons
- National workshop, regional workshops
- Final workshop
- Objective of the workshop consultation with various stakeholders, gather information, create awareness, build consensus,
- Participants were divided into forestry, livestock/pastoral, arable-agricultural/horticulture, wetlands/freshwater, pasture/grazing and wildlife

National Environment Commission



# Revision of BAP I











In November 2001 revised the BAP I completed in March 2002

- The revision of BAP II was update the original BAP I in light of achievements
- Taskforce, core group and focal persons
- Five consultation workshops
- Participants agreed on main areas needed for revision
- Final draft handed to consultant
- Revision of BAP II initiated



## Achievements











1998 Establishment of the National Biodiversity Centre.

The NBC has a mission to oversee and ensure the implementation of the Biodiversity Action Plan and to promote the effective conservation, sustainable utilization and ensure equitable sharing of benefits arising from the conservation and the sustainable utilization of the nation's rich biological resources.

• Strengthening of the Nature Conservation Division

In Situ Conservation Efforts Establishment of Protected Areas as onthe-ground entities and completion of management plans

1999 Biological Corridors – Linking Protected Areas, Declared as a "gift to the earth from the people of Bhutan

**Integrated Conservation and Development Programme** 

- The Integrated Conservation and Development Programme (ICDP) is a tool to reduce the impacts on biodiversity of the PA resources use by local communities, make resource use more sustainable, reduce resource use in the core areas of the PAs while at the same time serving to improve the living conditions of the local population.
- **Ex Situ Conservation Efforts Royal Botanic Garden** 
  - 1999 The Royal Botanic Garden was established



## Achievements cont.











#### **Ex Situ Conservation Efforts**

- 2001 The National Gene Bank
- Strengthening Human Resource Development
- Strengthening the Biodiversity Information Base
- The National Herbarium
- New Policies and Laws to Strengthen Biodiversity Conservation
  - Cooperatives Act
  - Environment Assessment Act
  - Farm Road Construction Guidelines
  - Forest and Nature Conservation Rules
  - Land Swapping Policy
  - Livestock Act
  - National Ecotourism Policy and Strategy
  - National Environment Protection Act
  - National Environmental Education Strategy
  - National Environmental Strategy The Middle Path;
  - Pesticides Act; and
  - Seeds Act.









# Threats to Biodiversity

#### Livelihood

- Land Conversion
- Overexploitation causing habitat degradation and direct attrition or loss of plant and animal species;
- Competition/ Replacement by domestic and/or exotic species and varieties
- Brown sector activities, such as construction of roads, hydropower facilities, industries, urban infrastructure, mining, etc.

#### Threats at Local Level

- Poaching of endangered species of plants and animals with high commercial values
- Human/wildlife conflicts
- Illegal exploitation of timber, non-timber forest products and fishing
- Overgrazing by livestock
- Forest fires

#### Threats at Regional Level

- Economic development projects
- Increasing population pressure
- Inadequate return of benefits to local people
- Inadequate environmental awareness
- Threats at Institutional Level
- Conflicting policies
  - Weak law enforcement of existing legislation

# Opportunities









### • Middle Path

#### Ecological Opportunities

- The richness in biodiversity and its relatively intact current status represent a major opportunity for successful conservation
- Internationally endangered species are strongly represented by Bhutan's fauna and flora. There are now 24 internationally protected wild animal species found in Bhutan, and 64 species that may be nationally endangered.

### • Economic Opportunities

- Ecotourism and nature based tourism
- Non-timber forest products
- Bioprospecting
- Carbon trading
- Hydropower
- Integrated Conservation and Development Program in Conservation Areas
  - Phobjikha



# Conclusion











## A Buddhist Perspective on Environment and Conservation

- Buddhism, the state religion of Bhutan, teaches respect for all life forms
- The crux of the Buddha's teaching is "*Tendrel Gi Choe*" or the interdependence among all life forms
- In the continuous cycle of birth and death, there is not a single being that has not been, at one point of time or another, our mother.
- Therefore, the Buddha taught respect for all life forms in the manner that we respect our mother
- Buddhism is all about the growth of the human mind so that it can achieve the highest level of wisdom.

