



सत्यमेव जयते

# **Bio-resources Valuation for Access and Benefit Sharing: Emerging Issues**

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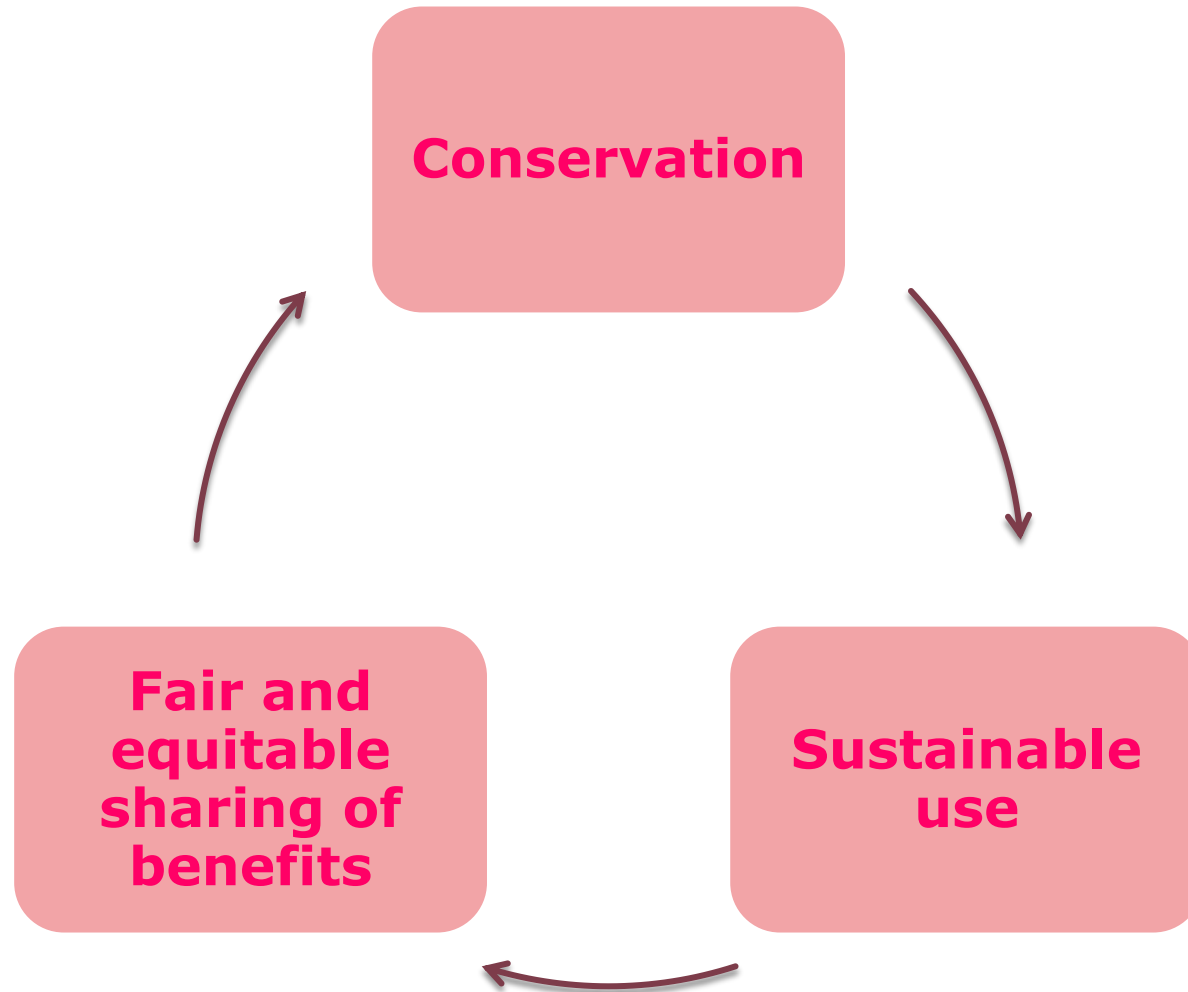


# Access and Benefit Sharing (ABS)

- **Indiscriminate exploitation of** biodiversity .....
- Increasing **demand** for the bio-resources and **biopiracy**
- **Convention on Biological Diversity** (1992)
- 193 countries as parties
- Further legally binding **Nagoya Protocol** (2010) on ABS
- CBD → **indigenous and local communities role** in conserving the biological diversity and in protecting the traditional knowledge associated with the genetic resources.
- **India** is one of the leading countries advocating for its early enforcement.



# CBD Objectives



## ABS ...

- **Innovative approach** and an **incentive mechanism** in biodiversity Conservation and Sustainable Use.
- Provides a **formal guidance** for the way in which biological or genetic resources are **accessed**, and the way **benefits are shared** between people or countries using the resources (users), and the people or countries that provide them (providers).
- Philosophy proposes that providers of bio-resources are entitled to receive **fair benefits** from the users.
- Balances the **rights** of the **users** of BR with the rights of the **providers**



# ABS:

- Manage biodiversity as a **community asset**, and support biodiversity-based businesses in an effective and sustainable manner
- Based on **prior informed consent (PIC)** being granted by a provider to a user, and negotiations between both parties that result in **mutually agreed terms (MAT)**.
- The negotiation between a provider and a user of resources should be based on the **true/actual value of the resources**.



## ABS Process in India

- India: Party to the CBD and as one of the mega-diverse countries
- India enacted the **Biological Diversity Act in 2002**, and notified the **Rules** thereunder in **2004**.
- The objectives of the Act are similar to those of the CBD (**ABS** key)
- **NBA, SBBs, BMCs**
- ABS agreements under the Act are: **Four categories**
- More than **100 agreements** have been signed so far



## ABS: UNEP GEF MoEF Project

- “Strengthening the Implementation of the Biological Diversity Act and Rules with focus on its Access and Benefit Sharing provisions”
- Implemented in **5 states** in India (**Andhra Pradesh, West Bengal, Sikkim, Himachal Pradesh and Gujarat**)
- **Developing standardized economic valuation methods for valuing bio-resources from selected ecosystems (Forests, wetlands and Agriculture)** is the one of the objectives
- BRs are used as an **unavoidable input factor** for manufacturing **various value added products, having a huge market potential.**



## Timber and Non-timber Forest Products





## Wetland / Marine Species and Products

### Fish



### Seaweeds



## Agriculture Resources and Products

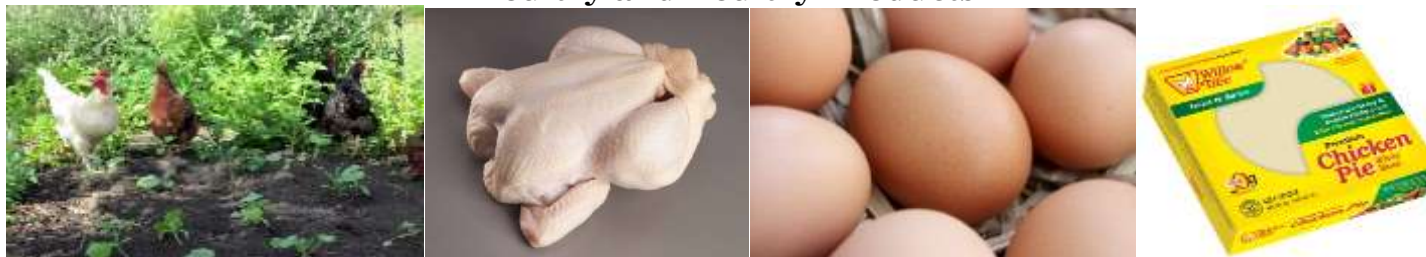
### Wheat and Wheat Products



### Milk and Milk Products



### Poultry and Poultry Products



# Valuation of Bio-resources

- Bio-resources / Biological resources means: plants, animals and micro-organisms or parts thereof, their genetic material and by-products (excluding value added products) with actual or potential use or value, but does not include human genetic material (The Biological Diversity Act, 2002)
- Bio-resources: **a subset of biodiversity.**

Biodiversity is a '**stock**' and bio-resources are '**flow**' (**renewability**)





# Linkages Between Biodiversity and Bio-resources

Biodiversity

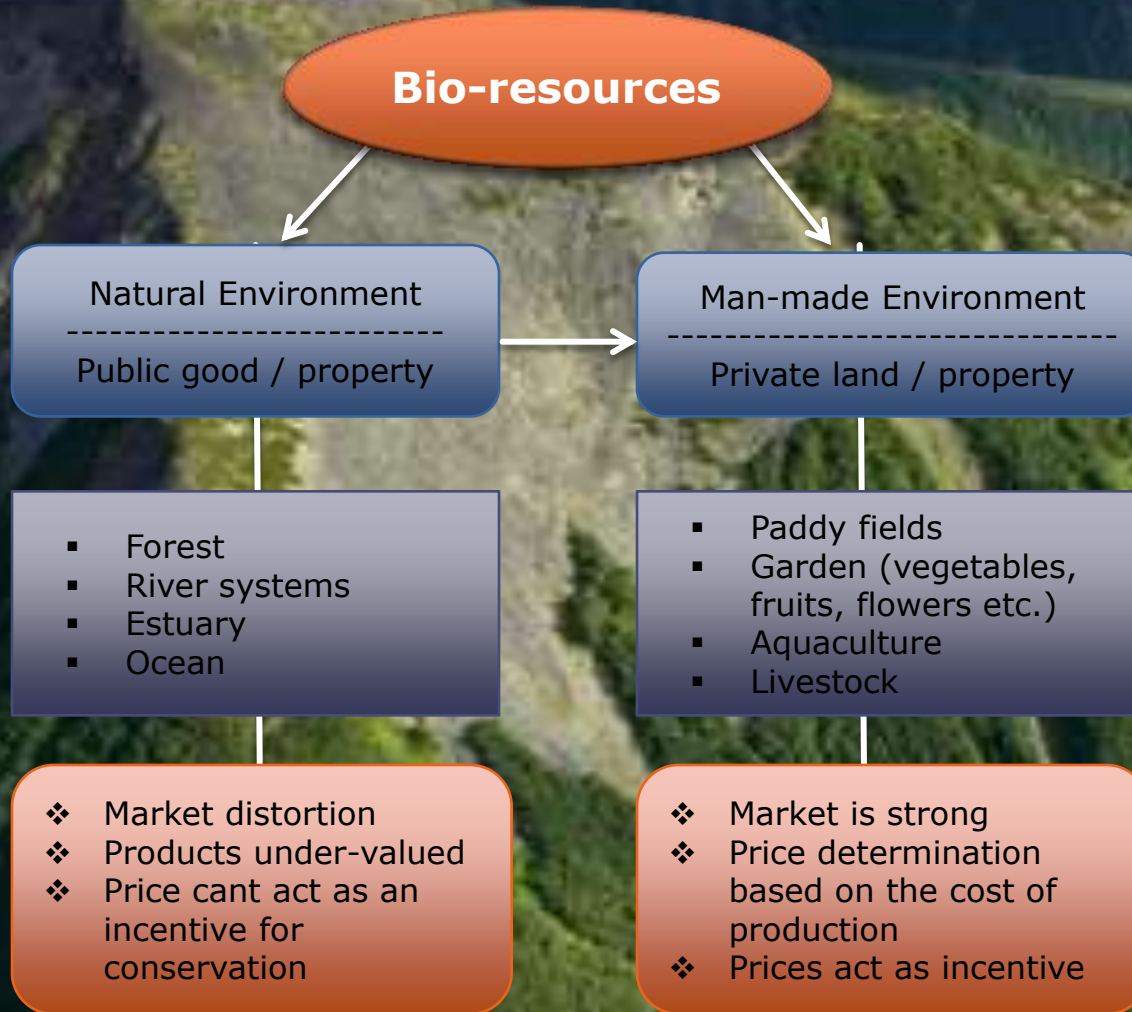
Bio-resources

Forests  
Water body  
Paddy fields  
Garden

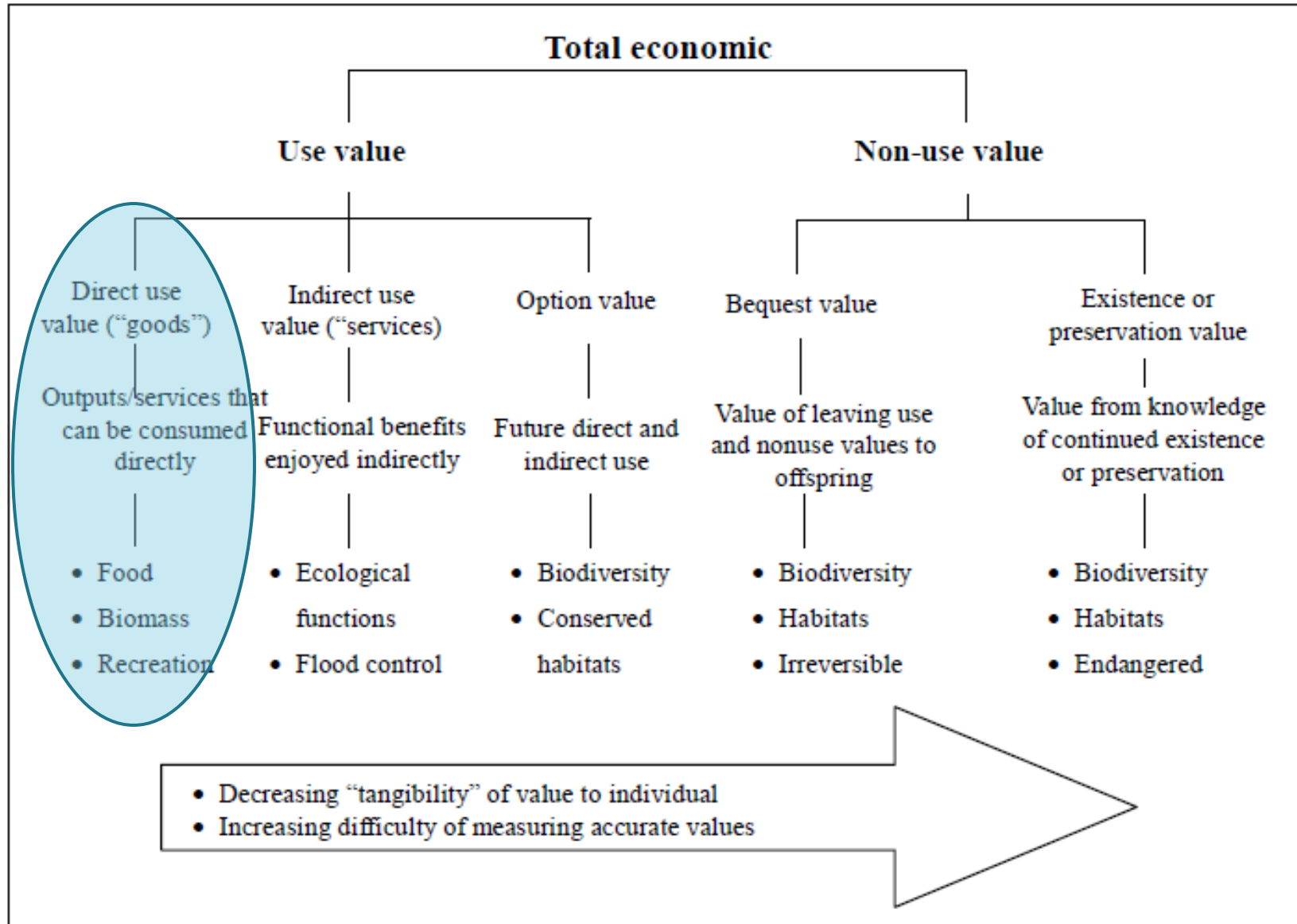
Medicinal plants  
Honey  
Timber  
Fish  
Fruits  
Grains  
Seeds



# Bio-resources: Property Rights



# Valuation of Biodiversity and Ecosystems



**Fig. 1** Total Economic Value of Coastal Resources



## Paradox in Valuation

- Most of the ecosystem/Biodiversity values: **not captured by market**
- **Total Economic Value** (TEV) Approach (**Goods + Services**)
- Methodology development: valuing the non-marketed services of the ecosystem has progressed
  
- **Goods Value**: Based on their current exchange rate or price (**quantity of goods X price**) at their collection point
  
- **Services Value**: **Based on actual valuation with the help of an appropriate methodology** (Replacement costs, Damage cost avoided, Production function, Hedonic price, Travel cost and Contingent valuation).



## Why the Real Value Estimation of Bio-resources is Significant?

- **Basic raw-material/input factor** in manufacturing many products.
- Also involved in **research and development** (which lead to the innovation of new consumer products)
- Most of our ecosystems (forests, rivers, estuaries, oceans, etc) are **common properties**.
- Goods from these sources experience **market failure or distortion**
- Current **market price at their collection point does not represent their real or true value or but only an exchange rate (arbitrarily assessed or fixed)**.





- Due to the market imperfections: ecosystem goods 'under-priced'.
- The providers (**local communities**) are being exploited (obtaining only a meagre price), by the traders and companies, who make substantial profits from the business.
- **Valuation of biodiversity goods is helpful towards determining the real value of bio-resources, and operationalizing the ABS**





Thank You

