



सत्यमेव जयते

# ACCESS AND BENEFIT SHARING AND VALUATION OF BIO-RESOURCES

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# Bio-resources: Base of an Economy

- 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



# Types of Genetic or Bio-resources

Genetic or Bio-resources

IN – SITU  
Eco-system and  
Natural Habitation

EX – SITU  
Botanical Garden,  
Commercial /  
University Collection



- Bio-resources are free gifts of nature (public good)
- Biological resources may become commercial products if they have economic use
- They are part of Barter → Modern Global economy



- Bio-resources are the base for several industries contributing to the national economy and human well-being (pharmaceuticals, agro-processing, cotton textiles, fisheries, cosmetics, bio-technology etc.)
- Human securities depend on bio-resources (Food, health, employment and livelihoods)
- However, biodiversity and bio-resources are under threat
- Biodiversity management policies need to be strengthened and implemented



# Bio-resources Market - Challenges

- Large part of the world's biodiversity is in poorer countries (megabiodiverse countries)
- Huge quantities of bio-resources are being collected; but not properly priced.
- Local communities are involved (hard work and unique knowledge), but have limited direct benefits of collection and/or use.
- User groups are diverse (regional, national, MNCs)



# Bio-resources Market – Challenges .....

- Domestic and international bio-resources markets are imperfect
- Bio-resources are being overextracted in the absence of effective implementation of sustainable use measures.
- Institutional and legal efforts are in place, but awareness is limited.
- Bio-resources transaction happen in India at the collection point that are traditional in fashion with limited knowledge and information about provider/sellers and buyers





# Bio-resources Market – Challenges .....

- Price determination is often ineffective and/or unusual  
Not like any other manufactured commodity  
(where the cost of production plays a significant role)
- Prices of bio-resources are generally inaccurate
- There is limited understanding that the value is always greater than the price
- There are constraints in bargaining (public/state goods)
- Local communities are exploited due to negligible/low price paid by those who source the resources.

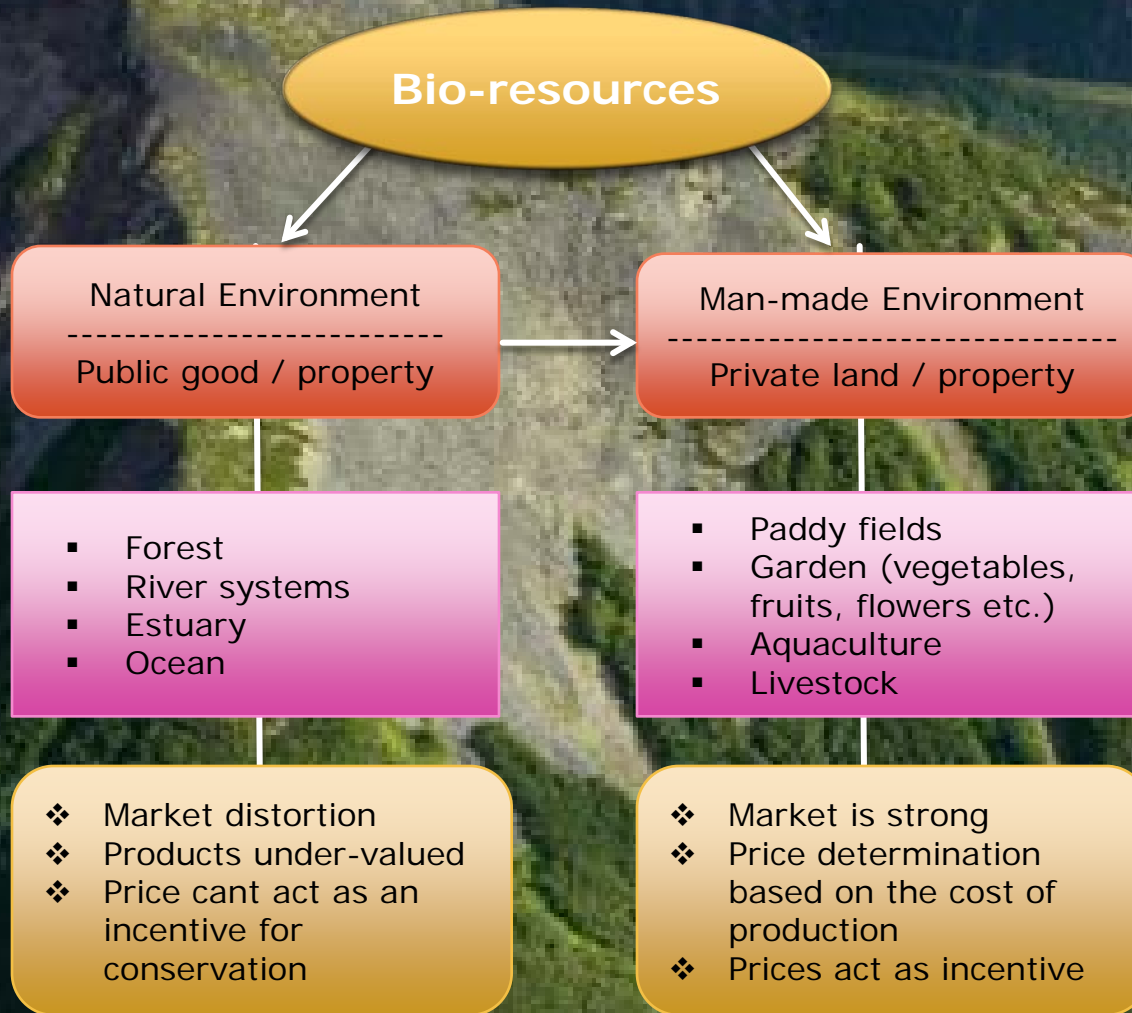


# But ...

- Local communities may have huge stake in these resources (conservation, management and sustainable use)
- They need to be supported to promote these objective through innovative actions
- Access and Benefit Sharing (ABS) is an emerging option under the guidelines of Convention of Biological Diversity (CBD) and the Biological Diversity Act of India (2002).



# Bio-resources: Property Rights



# ABS: An Incentive Option

- Earlier bio-resources extraction and use were limited (environmentally sustainable)
- Since the provides and users are not divergent, benefit sharing was not a serious concern
- Population growth, rapid development , globalization and emergence of MNCs changed the scenario
- Bio-resources are extensively extracted and used for divergent purposes
- ABS: A guidance for the way biological resources are accessed and benefits are shared between providers and users



# The Actors

## Providers

- States have sovereign rights over its natural resources (CBD, 1993)
- Responsible and facilitates accessing bio-resources in sustainable manner
- Provides for agreed terms: Prior Informed Consent (PIC) and Mutually Agreed Terms (MAT) came into the picture
- Indigenous and local communities have strong stake (TK in ABS)

## Users

- Seek access to bio-resources for a wider range of purposes (research and industrial products development), but within an agreed framework
- Responsible for sharing the benefits derived from bio-resources with the providers.



● Article 15 of the CBD set out rules for govern ABS

Under this Governments have two responsibilities:

1. Creating an enabling environment to access bio-resources in an environmentally sound manner
2. Ensure the benefits from the use are shared fairly and equitably
3. Providers of resources receive fair benefits from their users



# CBD - Article 15

- Benefit sharing can be:
  - Monetary (Royalties when a resources are used for manufacturing commercial product)
  - Non-Monetary (Development of research skills and knowledge)
- A number of actors are involved in bio-resources prospecting (local communities → MNC's).
- Access and benefit sharing should be based on:
  - Prior Informed Consent (PIC) being granted by provider to a user
  - Negotiation between both parties to develop Mutually Agreed Terms (MAT) to ensure fair and equitable sharing the benefit



# Valuation of Bio-resources for ABS

- Total Economic Value of biodiversity and ecosystem consists of use value and non-use values
- Use value (direct or indirect uses) be in trade and commerce or for cultural and spiritual purpose
- Non-use value due to inherent nature and to maintain flora and fauna and ecological balances
- In ABS Perspective the use value of tangible and visible bio-resources is significant





# Valuation of Bio-resources for ABS .....

- Currently benefit sharing arrangements are not in a systematic manner (Uncertainties)
- Identifying a fixed percentage of gross sales of commercial product as a minimum requirement.
- Does not fully reflect the economic potential of the resources.
- Economic valuation of bio-resources will help in determining and realizing realistic estimates of benefits amount should be shared.



# Valuation of Bio-resources for ABS .....

- Different actors are involved in the production process where bio-resources are the basic raw-materials
- Actors include 'direct actors' such as local communities (who share the knowledge and resources) and researchers, institutions and government
- Actors are the different factors of production in the development of final product
- Income derived from the commercial use of bio-resources should be distributed as 'returns' to various factors of production



# ABS in Context

- For developing countries who grant access to resources in exchange for a share of monetary and non-monetary benefit could:
  1. Reduce poverty
  2. Achieve environmentally sustainable economic development
  3. Promote ethics and equity in managing their bio-resources.



# Therefore:

- ABS is a universally accepted option under CBD (Nagoya Protocol)
- Financial incentive is the criteria
- Negotiation between a provider and a user can be based on the true value of the resource
- True value should be identified with the help of appropriate valuation methods such as value chain analysis



# In Light of the Above .....

- There is a need to understand and value bio-resources appropriately





- The National Biodiversity Authority is currently working on the same.





Thank You



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