



THE
Economics of
ECOSYSTEMS
& biodiversity
India Initiative



Ravindra Singh
Indo-German Biodiversity Programme, GIZ



TEEB India Initiative (TII)

Implementing Agency:

Ministry of Environment, Forest and Climate Change, Government of India

Objective:

Make the economic values of biodiversity and ecosystem services explicit to enable consideration and mainstreaming in developmental planning and decision making.

Expected Results:

Action at policy making levels, business decision levels and awareness of citizens.



Policy context – National Biodiversity Targets



Awareness raising on biodiversity values and steps for its conservation and sustainable use



Integrating biodiversity values into national and state planning processes, development programmes and poverty alleviation strategies



Enumerating and safeguarding ecosystem services, especially those related to water, human health, livelihoods and well-being

TII Scope

- Application of the **ecological and economic knowledge** to support valuation of ecosystem services
- Understanding **tradeoffs** in a densely populated large country
- Providing **policy specific recommendations** at national, state and local levels to foster sustainable development
- Identify information and tools for improved **biodiversity-related business practices**
- Raising **public awareness of the contribution of biodiversity** towards human well-being



TII focus: Three Priority Ecosystems

Forests



Inland Wetlands



Coastal & marine ecosystems





TII Governance Structure

Project Steering Committee (PSC)

- Headed by Secretary, MoEFCC



Scientific and Technical Advisory Group (STAG)

- 19 members, Headed by Dr Kirit Parikh
- Composition: 4 senior officers from MoEFCC, 7 economists, 4 ecologists, 1 member each from Finance Ministry, Planning Commission, CSO and GIZ



Lead Authors – Forests
(1 economist, 1 ecologist)



Lead Authors – Inland wetlands
(1 economist, 1 ecologist)



Lead Authors – Coastal & marine ecosystems
(1 economist, 1 ecologist)

Site specific case study teams

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Phasing



CBD CoP 11

- Status and trends
- Threats
- State of art in recognition of BES values
- Policy contexts for BES economics

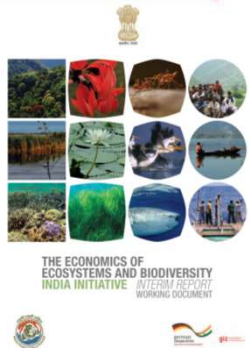
Scoping

Pilot projects

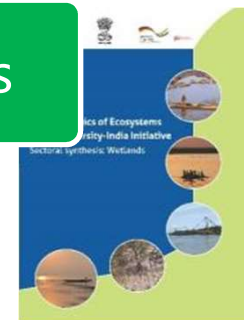
- Identification of tradeoffs
- Economic assessments
- Recommendations

- Recommendations for applying economic approaches
- Recommendations for improved sectoral programming

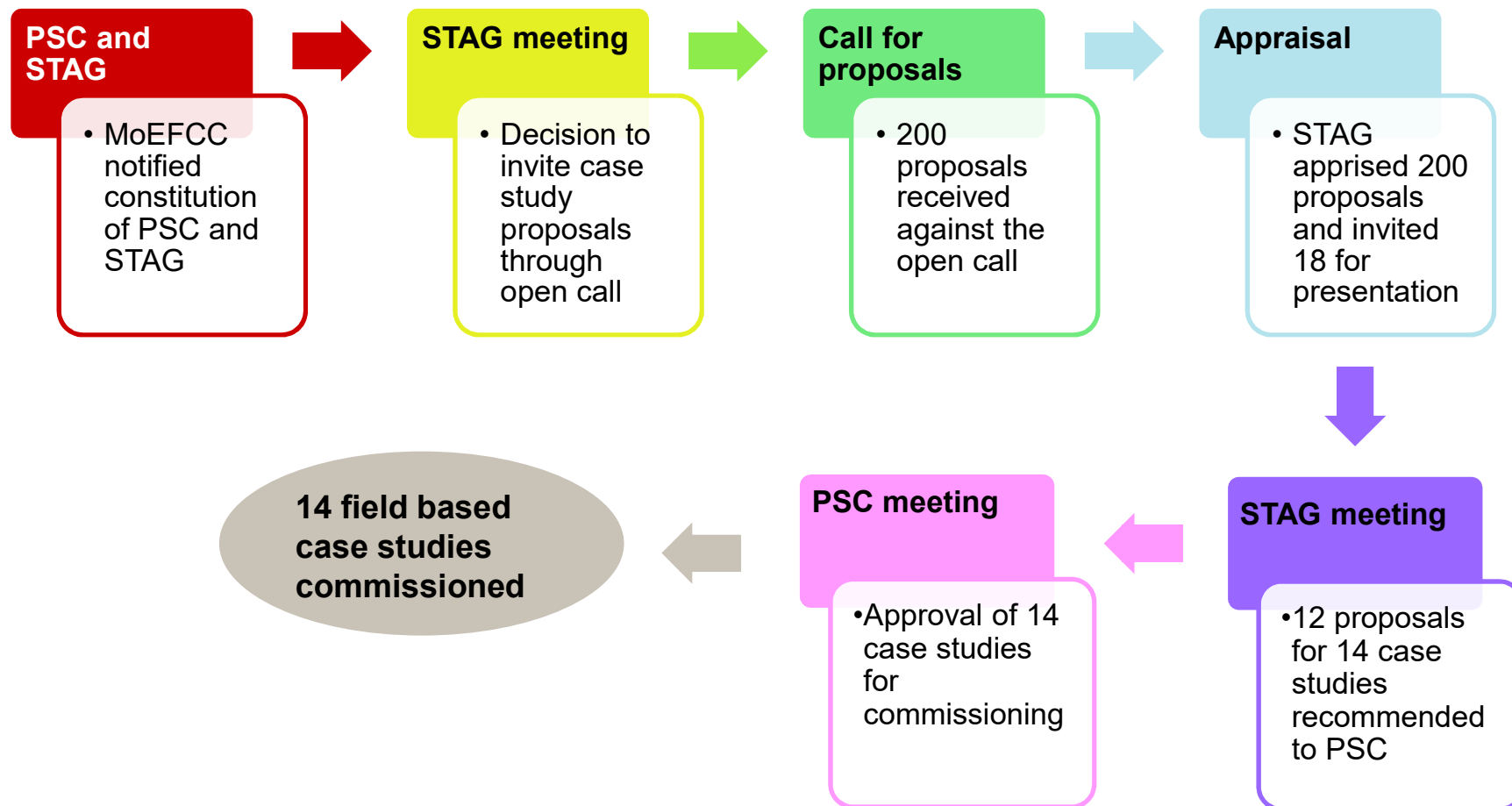
Synthesis



CBD CoP 12



TII Process – Pre commissioning of case studies



The 14 case studies

- Western Ghats – India's Green Gold
- Economic values of Vultures
- Human-Elephant Conflicts



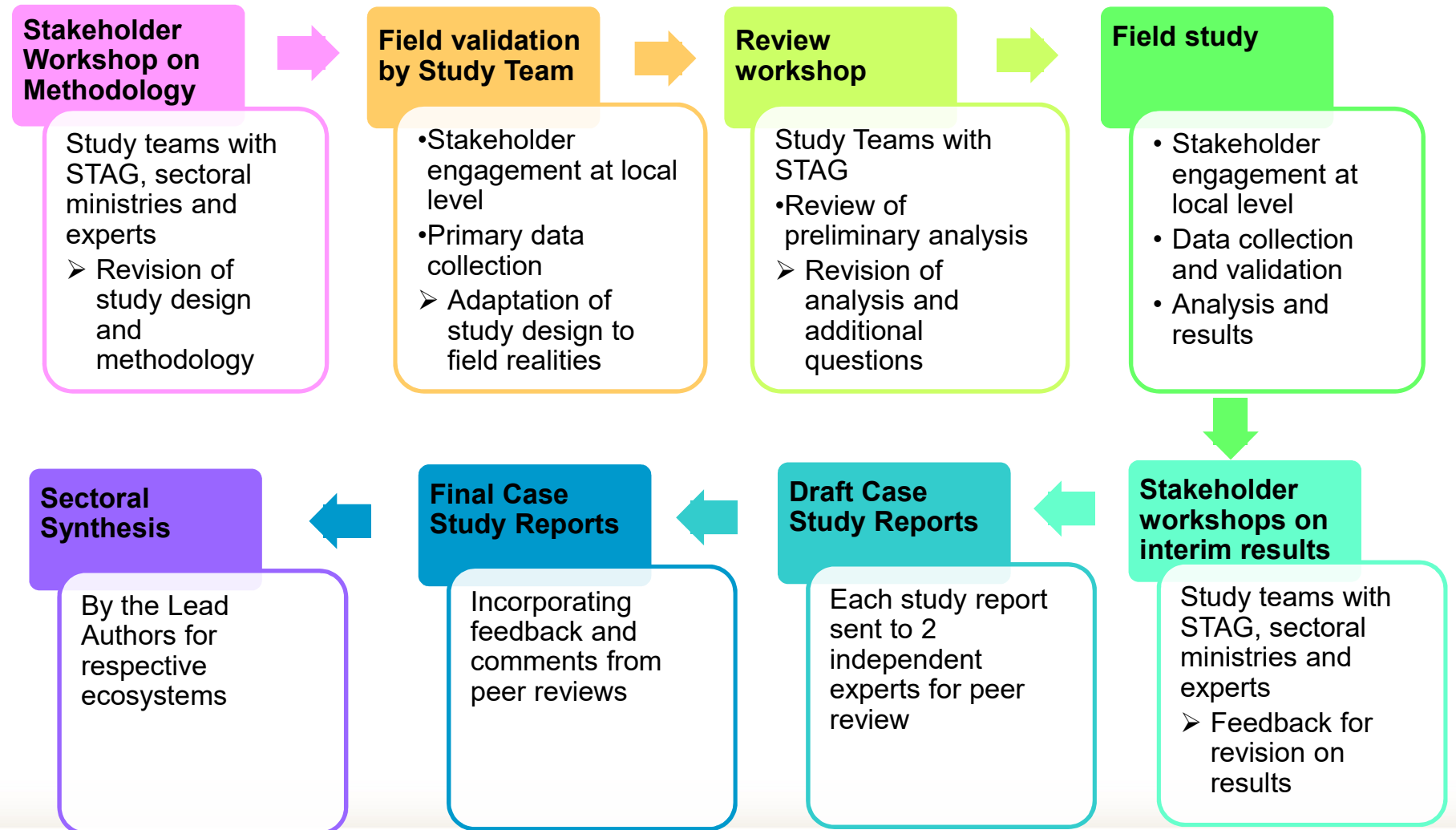
- Wise Use of Loktak Lake
- Restoring Kanwar Jheel, Bihar
- Chilika Lake, Odisha
- Restoring Ousteri Lake
- Managing Wular Lake, J&K
- Little Rann of Kachchh, Gujarat
- Ecosystem Services of Ken River

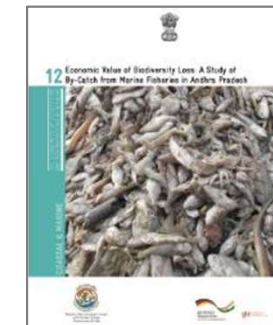
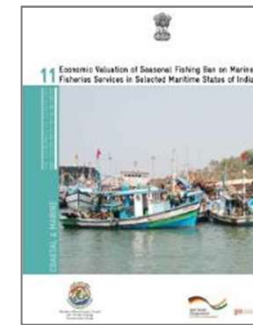
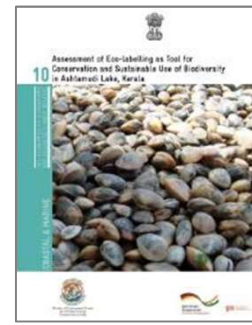
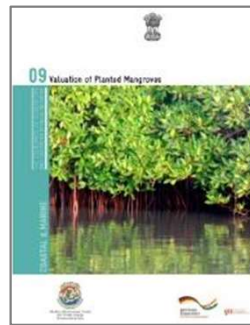
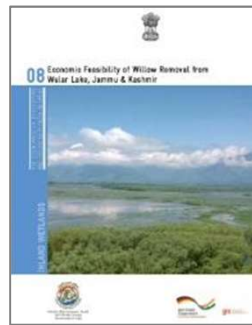
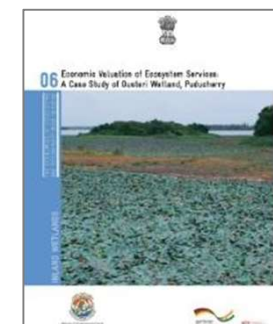
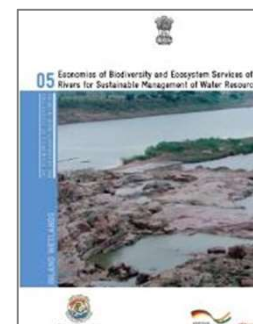
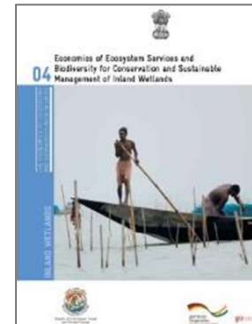
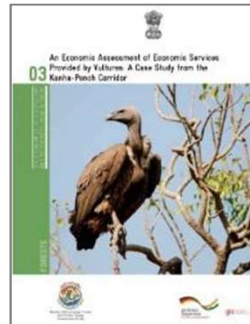
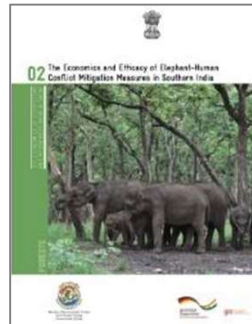
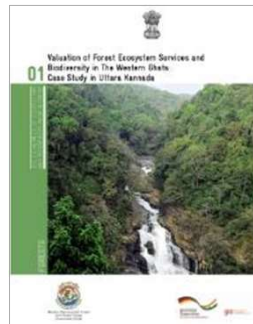


- Eco-labelling of Clam Fisheries in Ashtamudi Lake
- Managing Bycatch – Economic Value of Biodiversity Loss
- Seasonal Fishing Ban
- Mangroves – Green Coastal Infrastructure, Gujarat



TII Process – Implementation of case studies





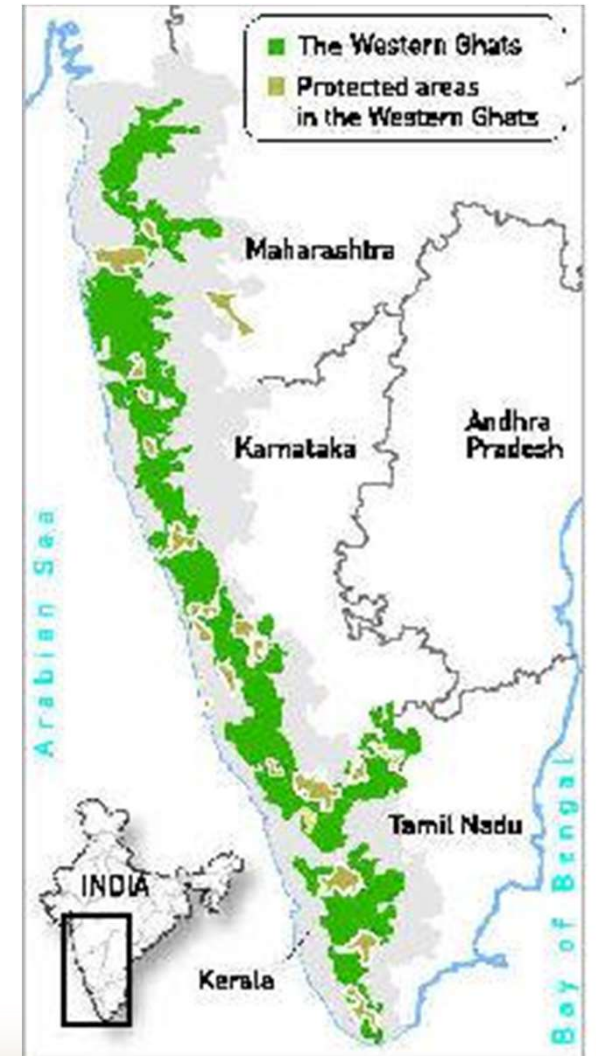
Results of Pilot Projects some examples

Some key results

Natural capital worth

- Just 5 ES (timber, fuelwood, NTFP, carbon, recreation) value from 10 sq. Km. of Western Ghats forest are worth over **US\$ 387,000**
- One third of rural household incomes dependent on forest

Failure to recognize the ES values would lead to distorted policies with detrimental environmental and human consequences.



Some key results

Business case for ecological restoration



The cost-benefit ratio of Chilika Lake restoration has been **1:15**



Benefits from restored mangroves fully cover plantation costs within **15 years.**

Some key results

From Ecosystem Services to livelihood benefits

Communities hunting water birds in Chilika Lake have shifted to eco-tourism. This transition has increased their incomes over 2.5 times.



Clam fishers in Ashtamudi Lake earn 5 times more by eco-labelling through sustainable fishing practices.

Some key results

High cost of biodiversity loss!

Considering ES values can help address tradeoffs

- US\$ 40 million lost each year in terms of social cost of bycatch and juvenile species loss in Andhra Pradesh marine fisheries
- Regulations, education and incentives to change fishing practices needed.

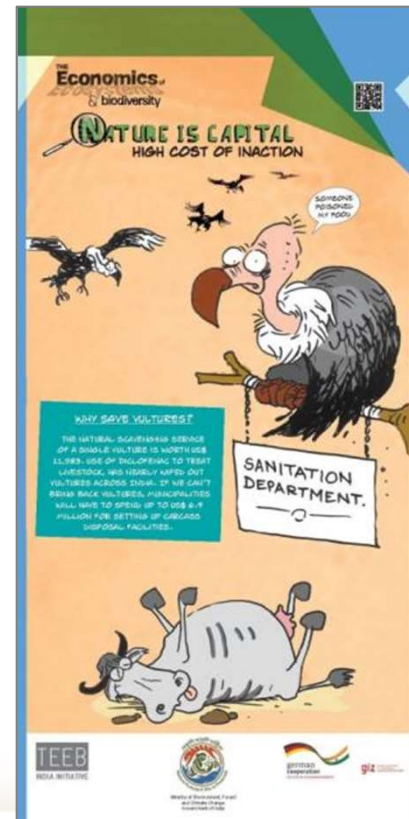
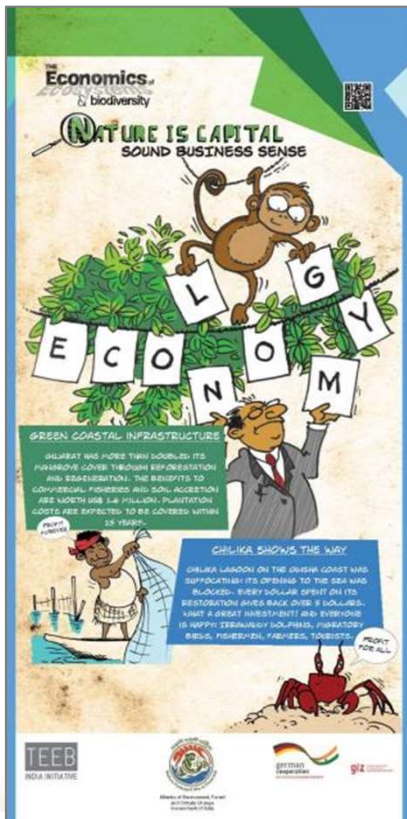


Economic losses from transformation of a multifunctional Kanwar Jheel to agriculture outweigh benefits by over 7 times

Use of TII results



Awareness raising through interesting posters



Use of TII results



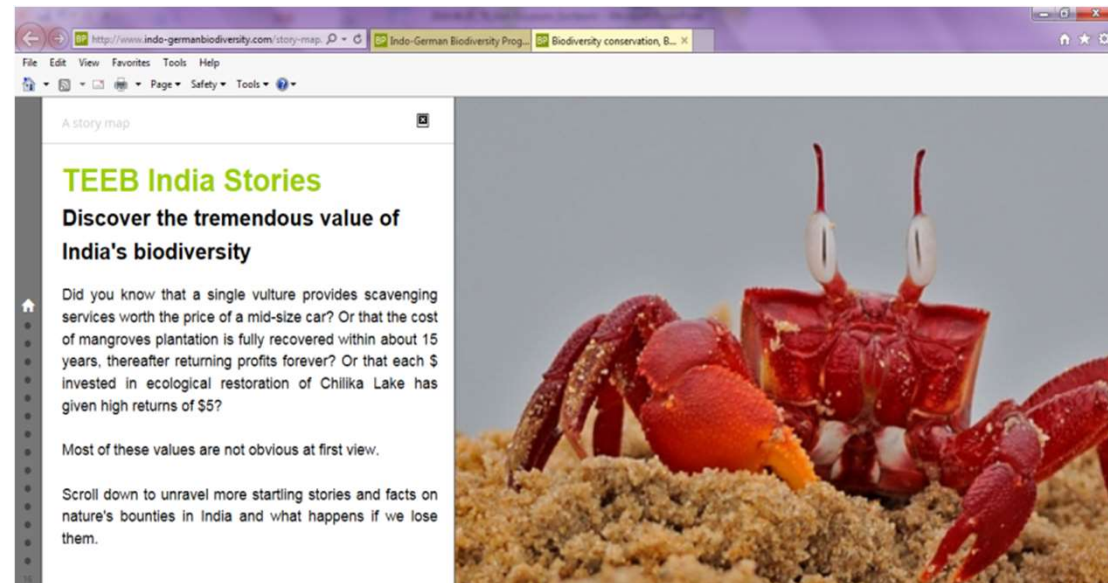
Awareness raising through short films



Use of TII results

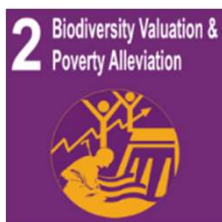


Making scientific findings and recommendations accessible and simple



<http://www.indo-germanbiodiversity.com/story-map.html>

Use of TII results



Contributing to policy and decision making processes

- **Resource allocation for conservation: The State Government of Odisha allocated \$4.6 million to Chilika Development Authority for Lake management**
- **In the Wetlands (Conservation and Management) Rules 2017, Central Government commits to “mainstreaming full range of wetland biodiversity and ecosystem services values in developmental planning and decision making for various sectors”**
- **The “National Policy on Marine Fisheries 2017” has set “mainstreaming biodiversity conservation in production processes” at the core of the new policy**
- **Ban on multi-dose vials (30 ml) of Diclofenac for human use. Only single unit dose of (3 ml) permitted**



Thank You

Ravindra Singh
Indo-German Biodiversity Programme, GIZ India
A-2/18, Safdarjung Enclave, New Delhi 110029
Email ravindra.singh@giz.de
<http://www.indo-germanbiodiversity.com/>

