Moving from Project level EIA to Sectoral EIA: Rationale and emerging tools

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What is Strategic Environment Assessment (SEA)…?

"SEA is a systematic process for evaluating the environmental consequences of proposed **policy, plan or programme** initiative in order to ensure they are fully included and appropriately addressed at the earliest appropriate stage of decision making on par with economic and social considerations" *(Sadler and Verheem, 1996).*

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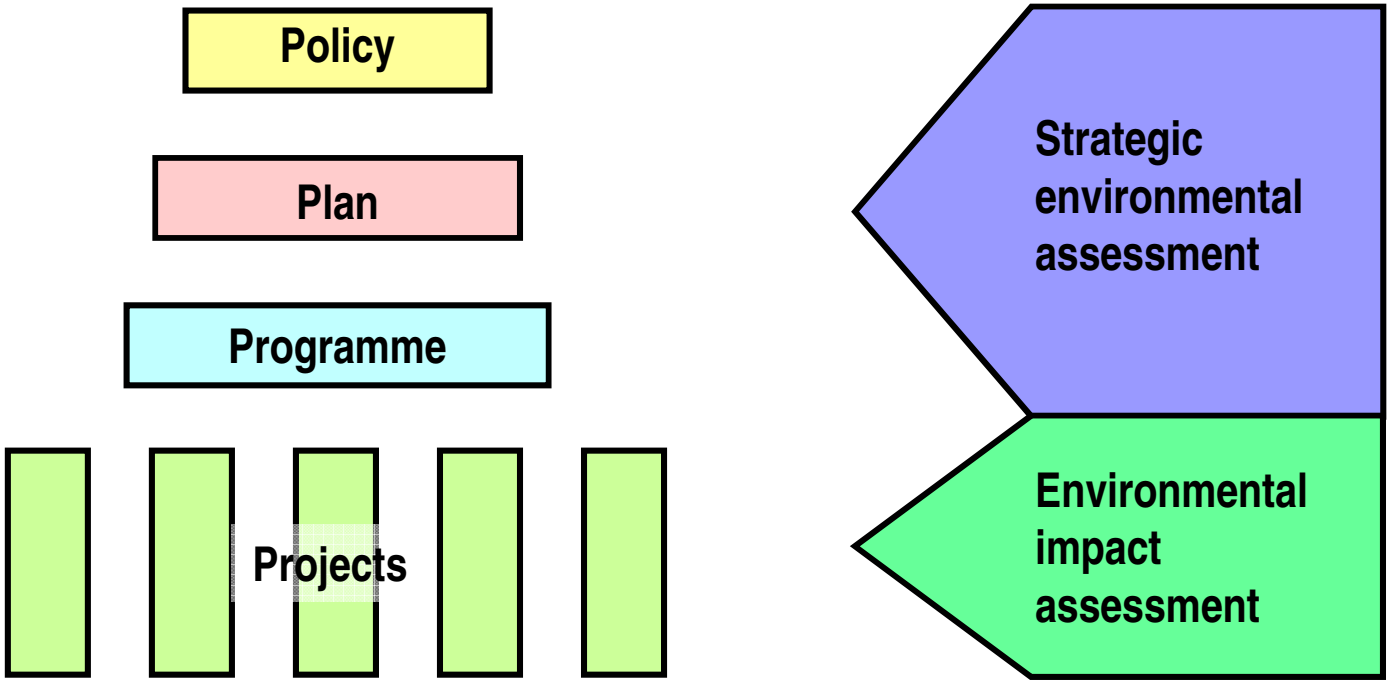
Strategic Environmental Assessment (SEA)

A participatory approach for upstreaming environmental and social issues to influence development planning, decision-making and implementation processes at the strategic level

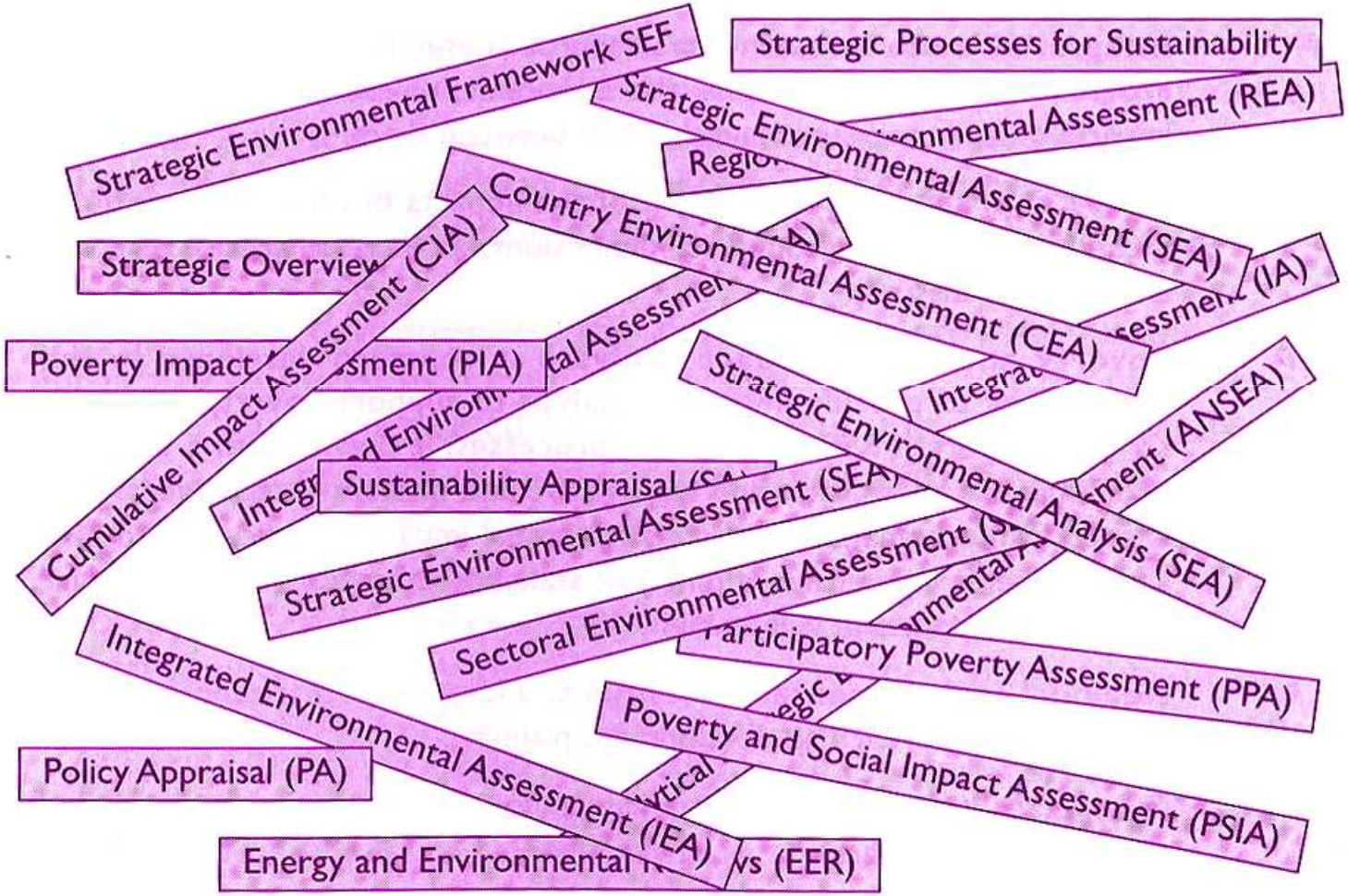
Mercier, 2004

SEA is for up-streaming environmental considerations into the decision-making hierarchy



(Source: OECD, 2006)

The SEA terminology…



Source: Adapted from Box 2.3 by Jon Hobbs (DFID)

Levels of decision-making using SEA

Policy	Road-map with defined objectives, set priorities, rules and mechanisms to implement objectives
Planning	Priorities, options and measures for resource allocation according to resource suitability and availability, following the orientation and implementation of relevant sectoral and global policies
Programme	Organized agenda with defined objectives to be achieved during programme implementation, with specification of activities and programmes investments, in the framework of relevant policies and plans

Limitations of traditional EIA

- EIA is not effective in assessing cumulative impacts of multiple economic investments
- EIA cannot influence macroeconomic and sectoral policies

SEA has emerged as a response to EIA limitations

Conceptual differences in understanding and emphasis

EIA	SEA
Applied to specific and relatively short-term projects.	Applied to policies, plans and programmes with a broad and long-term strategic perspective.
Takes place at a late stage of project planning.	Ideally, takes place at an early stage of planning.
Considers limited range of project alternatives.	Considers a broad range of alternative scenarios.
Usually prepared by the project proponent.	Conducted independent of project proponent.
Focus on obtaining project permissions, and rarely with feedback to policy, plan or programme consideration.	Focus on decision on policy, plan and programme implications for future lower-level decisions.

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Conceptual differences in understanding and emphasis

EIA	SEA
Well-defined, linear process.	Multi-stage, iterative process with feedback loops.
Preparation of an EIA document is mandatory.	May not be formally documented.
Emphasis laid on mitigating environmental and social impacts of a project.	Emphasis on meeting '*balanced environmental, social and economic objectives*' in policies, plans and programmes.
Assesses direct impacts and benefits.	Assesses cumulative impacts and identifies implications and issues for sustainable development

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Conceptual differences in understanding and emphasis

EIA	SEA
Is reactive to a development proposal.	Is proactive and informs development proposals.
Assesses the effect of a proposed development on the environment. Addresses a specific project.	Assesses the effect of the environment on development needs and opportunities. Addresses areas, regions or sectors of development.
Has a well-defined beginning and end.	Is a continuing process aimed at providing information at the right time.
Assesses direct impacts and benefits.	Assesses cumulative impacts and identifies implications and issues for sustainable development.

Source: CSIR (1996)

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Conceptual differences in understanding and emphasis

EIA	SEA
Focuses on the mitigation of impacts.	Focuses on maintaining a chosen level of environmental quality.
Has a narrow perspective and a high level of detail.	Has a wide perspective and a low level of detail to provide a vision and overall framework.
Focuses on project-specific impacts.	Creates a framework against which impacts and benefits can be measured.

Source: CSIR (1996)

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SEA benefits at a glance…

- **SEA can safeguard the environmental assets and opportunities upon which all people depend, particularly the poor, and so promote sustainable poverty reduction and development.**
- **SEA can improve decision-making related to policies, plans and programmes, and thus improve development outcomes by:**
  - ***supporting the integration of environment and development.***
  - ***providing environmental-based evidence to support informed decisions.***
  - ***improving the identification of new opportunities.***
  - ***preventing costly mistakes.***
  - ***building public engagement in decision making for improved governance.***
  - ***facilitating transboundary co-operation.***

What is a good quality SEA process?

- **A good-quality SEA process informs planners, decision-makers and the affected public on:**
  - ***Sustainability of strategic decisions***
  - ***Facilitates the search for the best alternatives***
  - ***Ensures a democratic decision-making process***
- **SEA thus enhances the credibility of decisions and leads to more cost and time effective environment assessments**

Why is SEA process needed?

- **EIA practice is constrained by certain *'limitations'* and *'weaknesses'***
  - ***EIA is generally applied relatively at a later stage in decision-making, often at a point when high-level questions about whether, where and what type of development should take place have been decided, often with little or no environmental analyses.***

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Why is SEA process needed?

- Project EIA's are not the best way to deal with certain types of cumulative impacts. For example: (a) a series of dams to harness hydropower; (b) a series of road upgradation projects.

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Why is SEA process needed?

- **SEA has the potential to become a *'vector'* for moving from traditional to sustainability-based planning approach.**
- **Conventionally, the emphasis has been on *'tackling'* the environment symptoms or effects of development in the *'downstream'* part of the decision cycle.**
- **In contrast, SEA approach focuses on the *'sources'* or *'causes'* of environmental deterioration and addresses the *'upstream'* part of the decision cycle, in the economic, fiscal and trade policies that guide the overall course of development.**

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Why is SEA process needed?

- Thus, SEA provides a means of incorporating environmental objectives and considerations in economic decisions.
- SEA should be the environment strategy for *'mainstreaming'* i.e. integrating environment across sectors and *'upstreaming'* i.e. focusing on policy.

The status of SEA around the world

- Currently, SEA systems are in place in more than 25 countries *(Australia, France, Poland, Austria, Germany, Slovak Republic, Belgium, Hong Kong, South Africa, Canada, Hungary, Sweden, Czech Republic, Italy, United Kingdom, Denmark, Netherlands, United States, Finland, New Zealand and California)*
- Increasing number of developing countries are gaining experience of SEA as a result of regional and sectoral EA procedures *(e.g. OECD, the World Bank)*
- The legal and institutional basis of SEA systems are fast evolving.

SEA in Asia

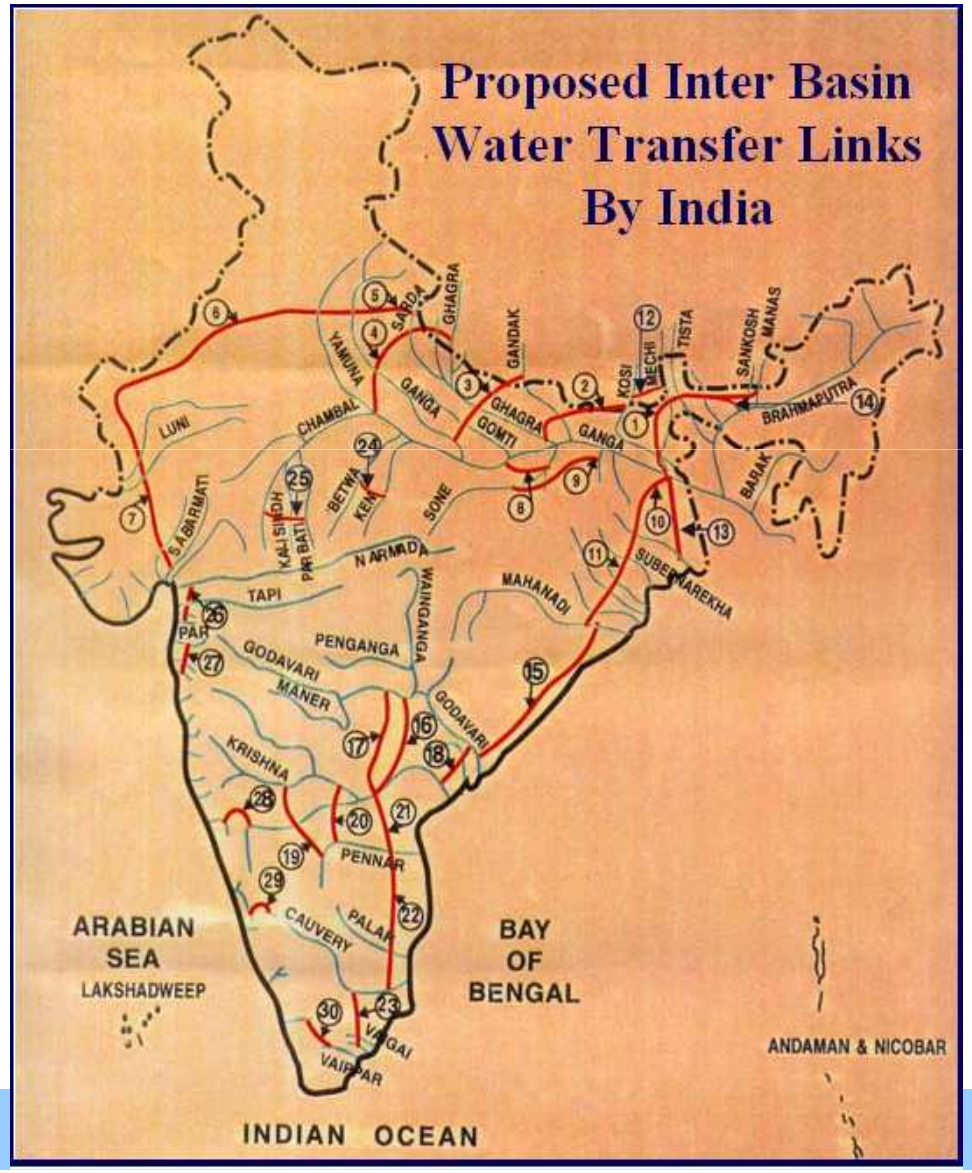
Countries in South and Southeast Asia have the infrastructure in place to make SEA work.

Examples

- **Nepal (development of forest plans)**
- **Pakistan (development of water and drainage programmes)**
- **Sri Lanka (development of city and tourism plans)**
- **Cambodia, Thailand, Vietnam, Laos (development of Mekong river basin development plan)**

Prospects of SEA applications in India

River linking project



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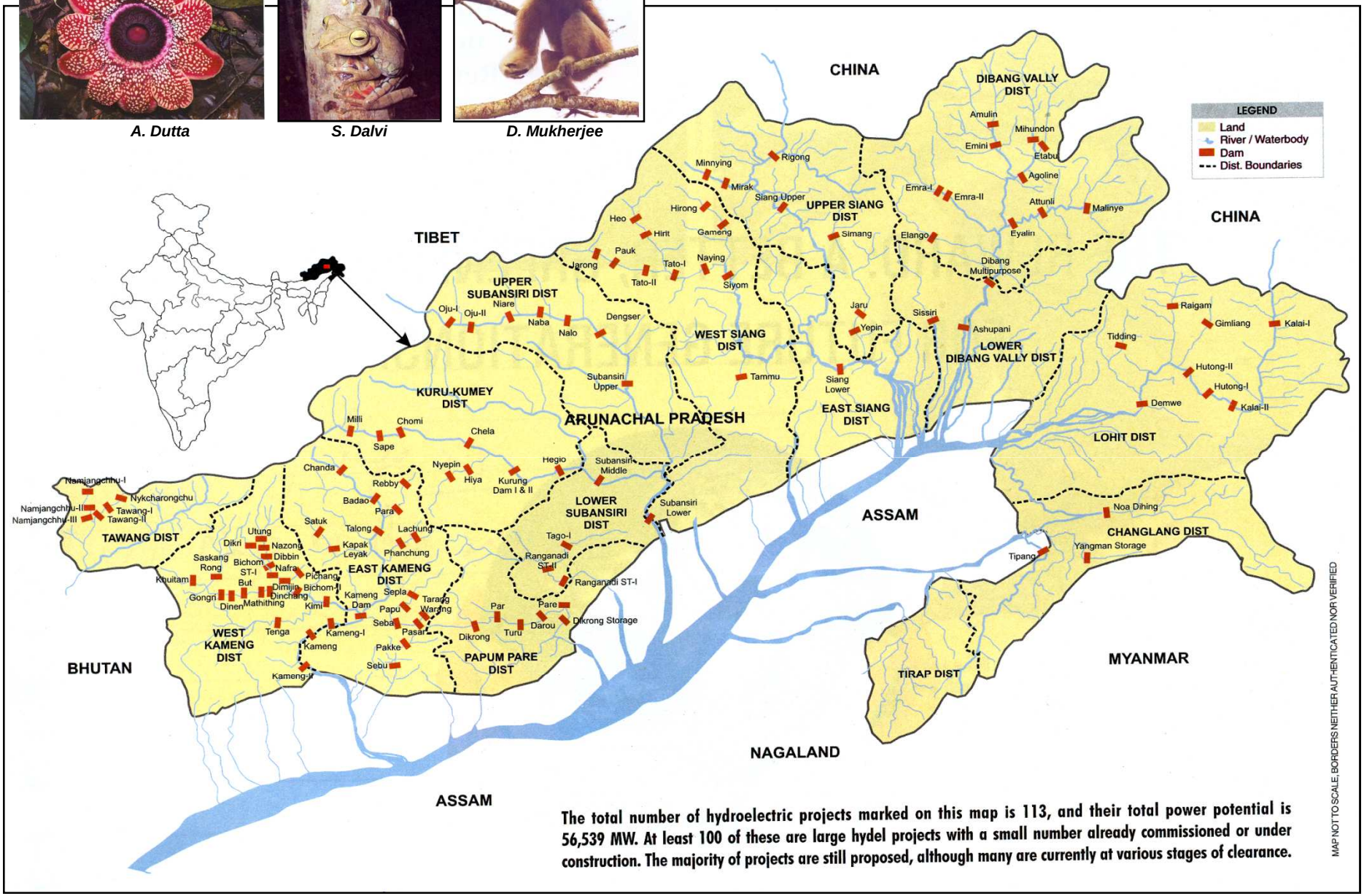
A. Dutta

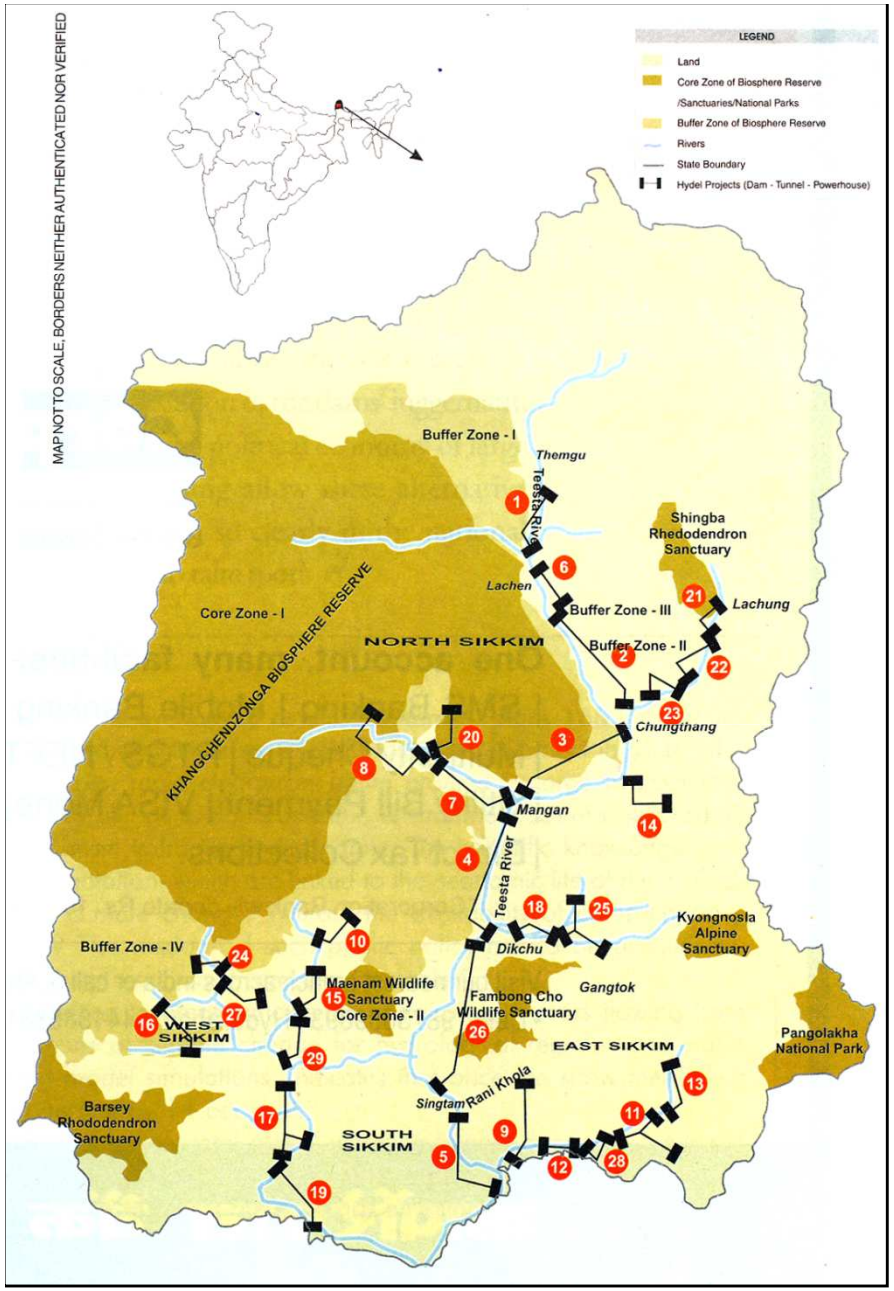
S. Dalvi

D. Mukherjee



The total number of hydroelectric projects marked on this map is 113, and their total power potential is 56,539 MW. At least 100 of these are large hydel projects with a small number already commissioned or under construction. The majority of projects are still proposed, although many are currently at various stages of clearance.

MAP NOT TO SCALE, BORDERS NEITHER AUTHENTICATED NOR VERIFIED



HYDEL PROJECTS IN SIKKIM*

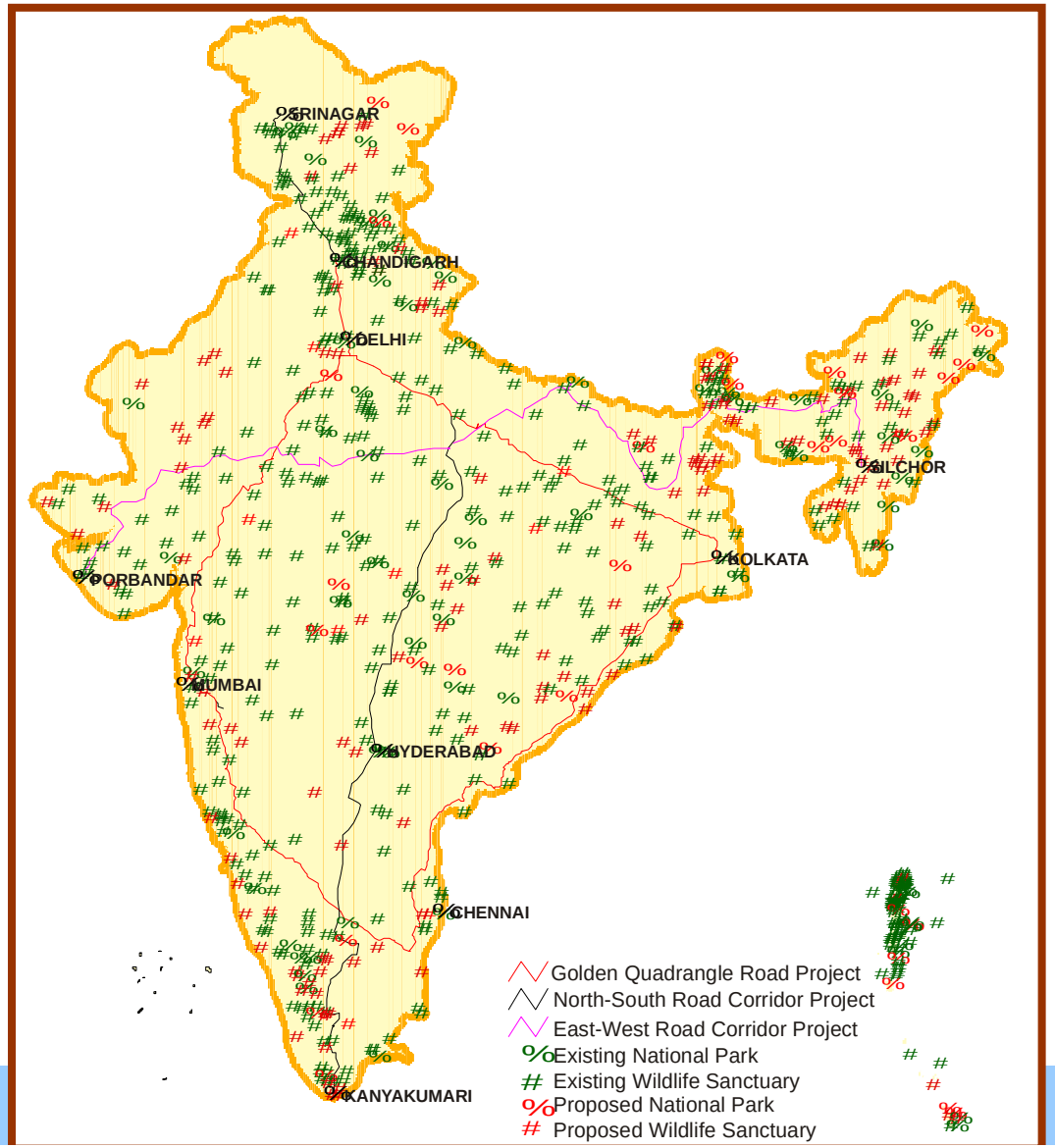
NAME	CAPACITY	NAME	CAPACITY
1) Teesta Stage-I HEP	280 MW	16) Rangit-II HEP	60 MW
2) Teesta stage-II HEP	330 MW	17) Rangit-IV HEP	120MW
3) Teesta stage-III HEP	1200 MW	18) Dikchu HEP	96 MW
4) Teesta stage-IV HEP	495 MW	19) Jorethang Loop HEP	96 MW
5) Teesta stage-VI HEP	500 MW	20) Lingzo HEP	120MW
6) Lachen HEP	210 MW	21) Thangchi HEP	40 MW
7) Panan HEP	300 MW	22) Bhimkyong HEP	99 MW
8) Rangyong HEP	117MW	23) Bop HEP	90 MW
9) Rongni Chu HEP .	96 MW	24) Ting Ting HEP	70 MW
10) Satla Mangder HEP	71 MW	25) Ratey chu-bakcha chu HEP	40 MW
1 1) Chuzochen HEP	99 MW	26) Teesta stage-V	510MW
12) Bhasmey HEP	32 MW	27) Tashiding HEP	60 MW
13) Rolep HEP	36 MW	28) Suntaley Tar HEP	30 MW
14) Chakung Chu HEP	50 MW	29) Rangit-III HEP	60 MW
15) Roland HEP	40 MW		

*All of these are large hydel projects. These include projects which are already commissioned, under construction and proposed.


http://www.aquabirds.com/wildlife.asp

Prospects of SEA applications in India

Development of road infrastructure



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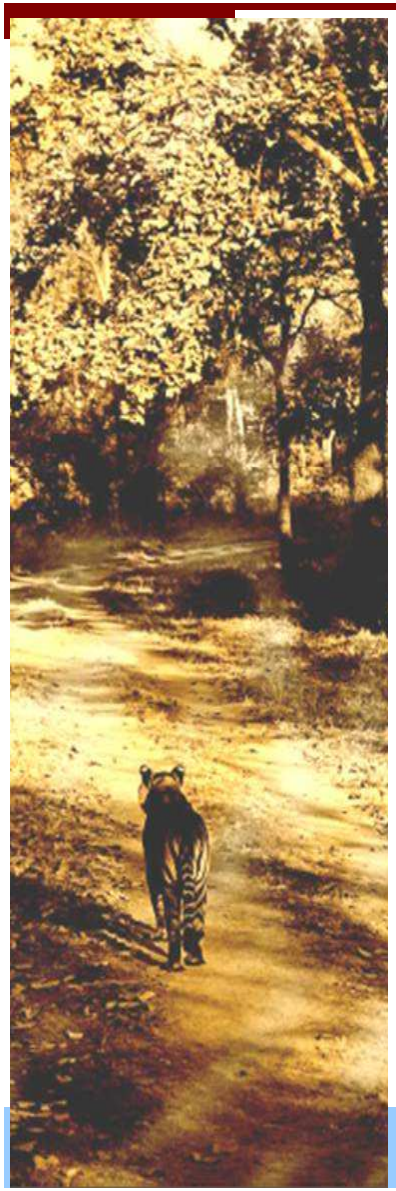
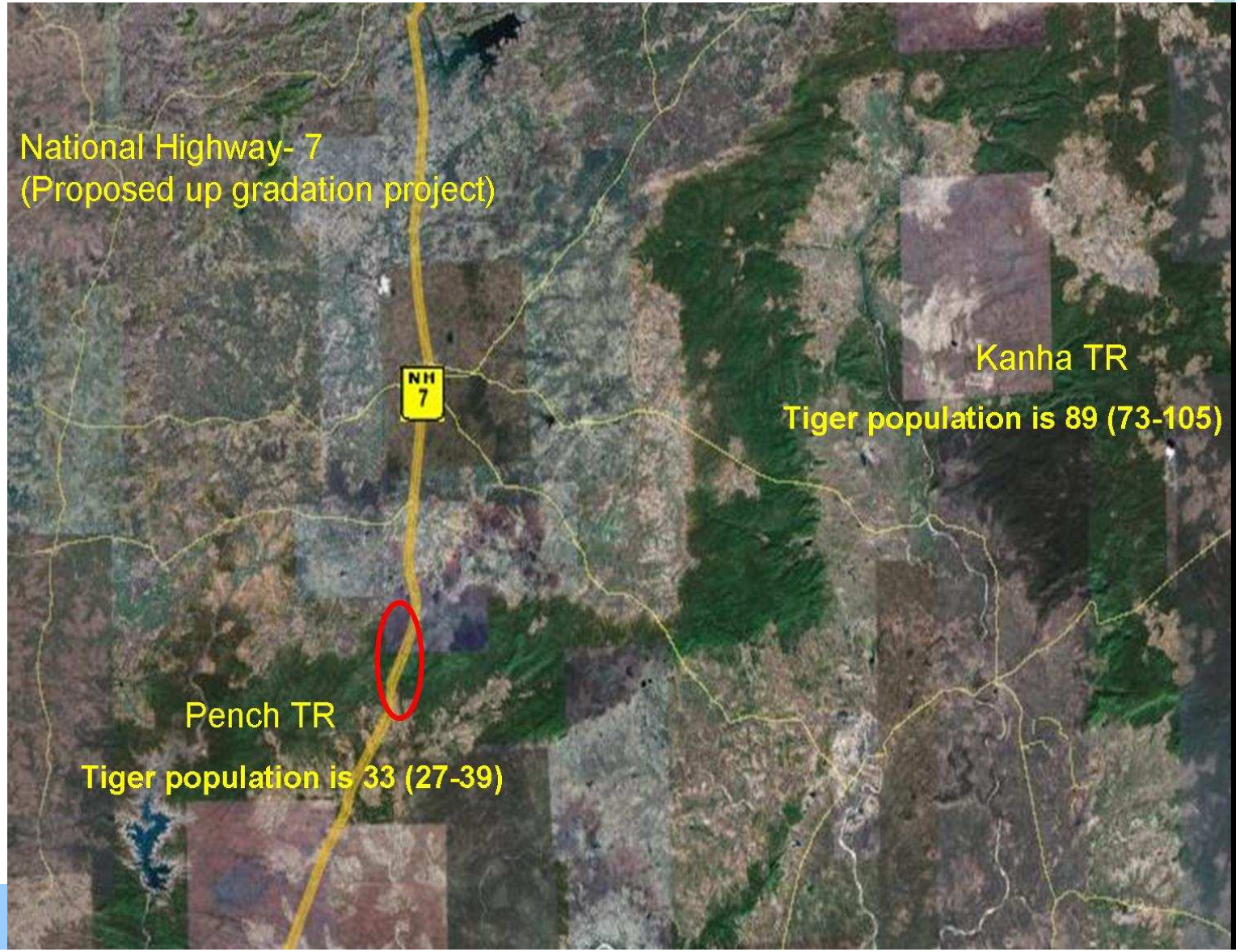
North-South Road Corridor Development

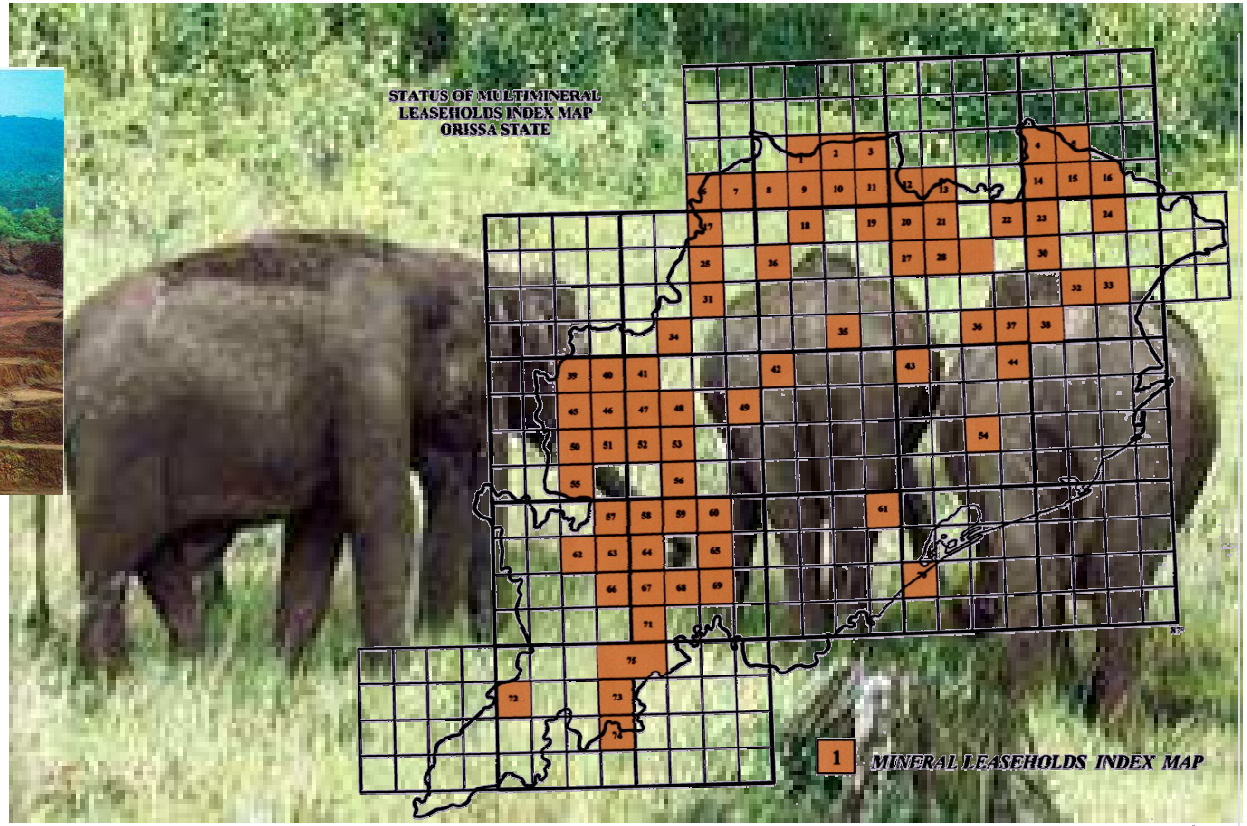
North-South Road Corridor Development through Pench Tiger Reserve, Madhya Pradesh





Prospects of SEA applications in India

SEA for regional conservation planning in response to multiple operation of extractive industries in wildlife habitats of significant conservation values



SEA: Constraints and Opportunities…

Constraints	Opportunities
Little interest by many government agencies in subjecting policy and planning proposals to assessment; reinforced by 'fear' of losing control, power and influence by opening up such processes.	SEA is transparent, participatory process that helps to realize good governance; promotes inter-institutional linkages; supports informed and balanced decision-making
Limited appreciation of the potential utility of upstreaming assessment	Provides opportunities to enhance understanding of a wide range of issues

Source: Clayton & Sadler, 2005

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SEA: Constraints and Opportunities…

Constraints	Opportunities
Lack of resources for 'perceived non-essential' studies.	Investment upfront in an SEA can save time and expenses for 'fixing' the consequences of poor decisions.
Concern that SEA will increase the time frame for decision-making or delay development.	When applied appropriately and early, the SEA process can be integrated within the decision-making process.
Lack of practitioners with expertise in SEA	International guidance & training can help.

Source: Clayton & Sadler, 2005

In conclusion…

- **SEA offers good opportunities to integrate social, economic and environmental considerations in decision-making and to make the latter more transparent, accountable and effective.**
- **For developing countries, SEA can support the:**
  - ***Concept of 'good governance'***
  - ***Give visibility to more strategic, pro-active planning and decision-making***
  - ***Demonstrate commitment to environmentally sustainable development***

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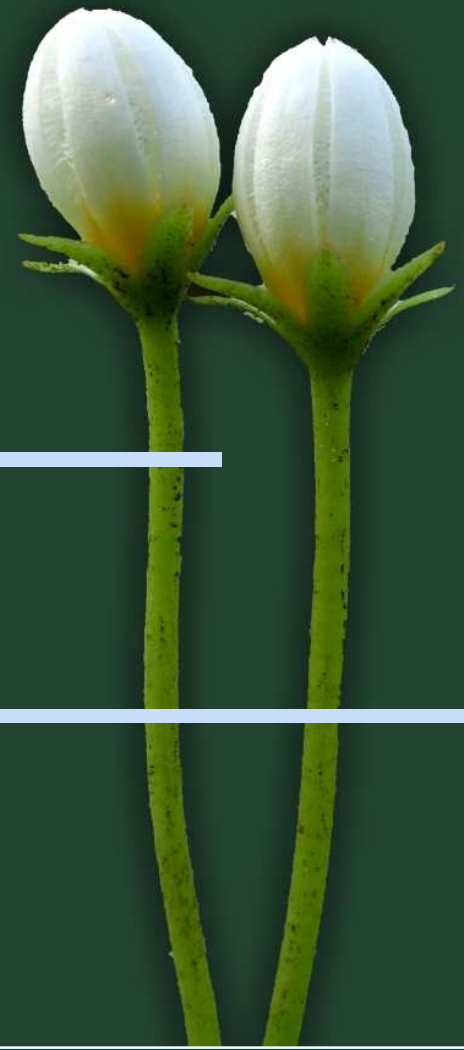
In conclusion…

- For environment ministry, SEA can enhance its role and pro-active influence on sector ministries responsible for development and poverty reduction.
- For development ministries, the introduction of SEA can enhance inter-sector coordination and policy and planning integration.



thank you…

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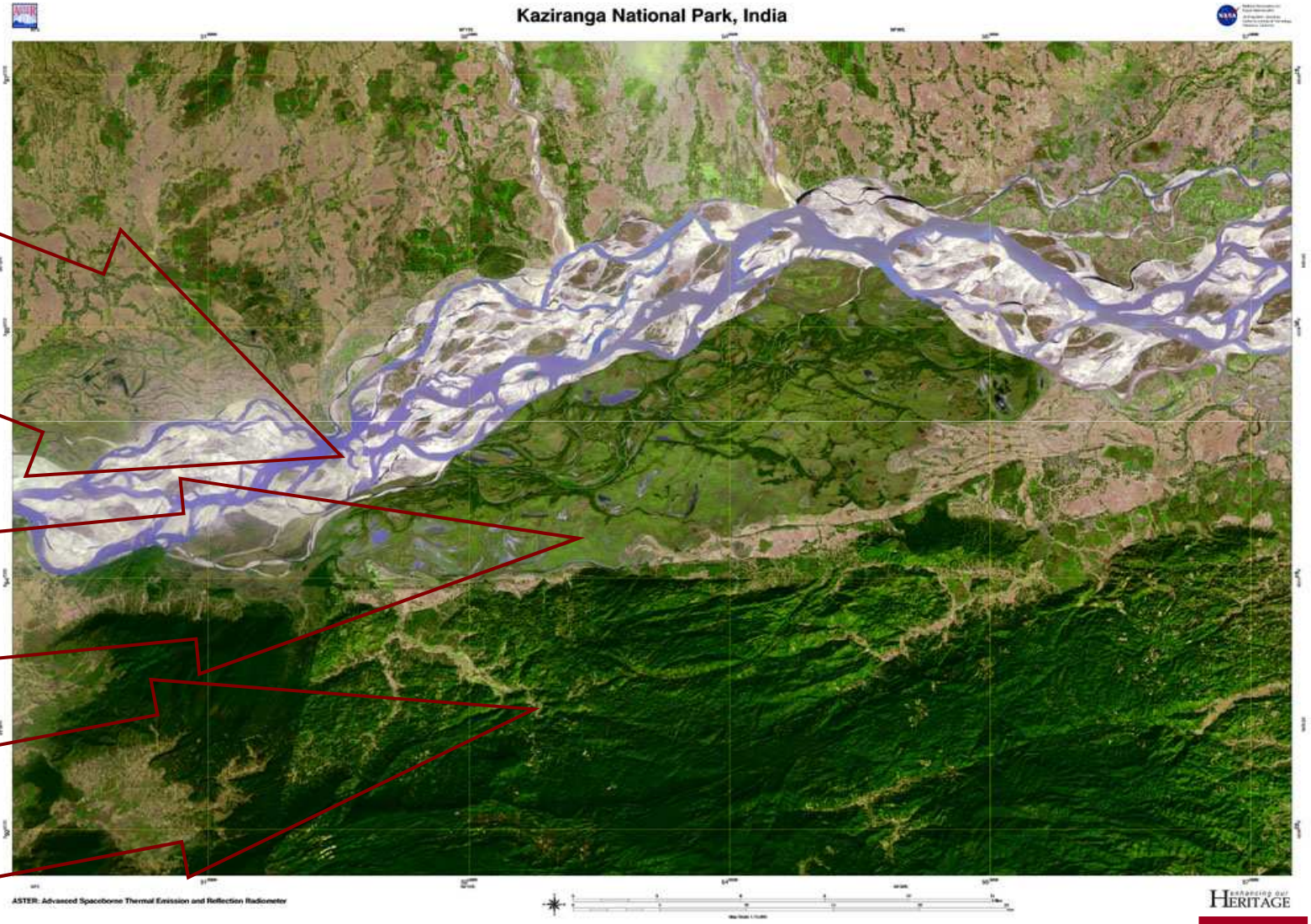
Wildlife Institute of India

Kaziranga Landscape



Brahmaputra River & Island

Kaziranga National Park

Karbi Anglong Hills

Generic EIA Framework