

Progressive trends in SEA capacity development in India

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SEA

Presentation outline

Regulatory framework for SEA

Awareness and commitment for SEA

SEA education and professional training

Advice on SEA procedure and practice

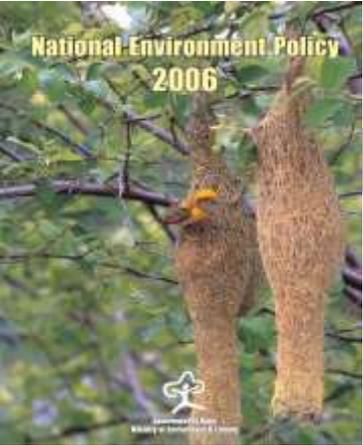
Monitoring implementation of SEA

Professional exchange on SEA



Better performance
(numbers and quality of SEAs)

**Regulatory
framework for SEA
& decision making**



“Encourage regional and cumulative environmental impact assessments to ensure that environmental concerns are identified and addressed at the planning stage itself”.



“Move towards cumulative and strategic EIA”.

Regulatory framework for SEA lacking
Voluntary SEAs have informed decisions
Promoted for donor funded projects

- ◆ **Increasing recognition of SEA in:**
 - realizing good governance
 - supporting informed and balanced decision-making, reinforced accountability and public trust building and confidence
 - saving time and the expenses of fixing the consequences of poor decisions
- ◆ **‘SEA like’ tools are being increasingly promoted for planning developments in select sectors (river basin, transport, energy)**

SEA experience

Sector	Objectives of SEA	Reference
Mumbai Urban Transport	Identify strategic alternatives for urban transport based on environmental and social criteria	MMRDA (2001); World Bank (2002)
River Basin Management	Develop basin wide sustainable investment plans and management framework.	Modak (2003)
Irrigation scheme	Appraisal and oversight of project level EIA for steering the environmental decisions	Rajvanshi and Mathur (2005)
India Eco-development Project in PAs	Serve as a 'sounding board' for impacts of investment proposals on biodiversity conservation within PAs and sustainability analysis of IEP.	Rajvanshi (2007)
Gujarat Highways Project	Assess the performance of highways in Gujarat to prioritise selection of highway sections for widening and strengthening	Kjørven and Lindjhem (2002)
Hydropower development	Assess the cumulative impacts of Hydropower schemes on Alaknanda and Bhagirathi basins, in Uttarakhand State.	Rajvanshi <i>et al.</i> (2012)

❖ Outputs of sectoral, regional and policy related 'SEA like' instruments is beginning to positively influence environmental decisions

Strategic Environmental Assessment

Final Report

December 21st 2010



Sustainable City Planning in Pune

RAMBOLL
Ramboll Natura AB



CEE
Centre for Environment Education

Assessment of Cumulative Impacts of Hydroelectric Projects on Aquatic and Terrestrial Biodiversity in Alaknanda and Bhagirathi Basins, Uttarakhand

Cumulative Environmental Impact Assessment

Volume-I
Report

Macro-Level Environmental Impact Assessment Study Report of Bellary District, Karnataka (As per the Directive of Hon'ble Supreme Court of India)

Indian Council of Forestry Research and Education
(An Autonomous Body of Ministry of Environment and Forests, Government of India)
P.O. New Forest, Dehradun
Uttarakhand-248006
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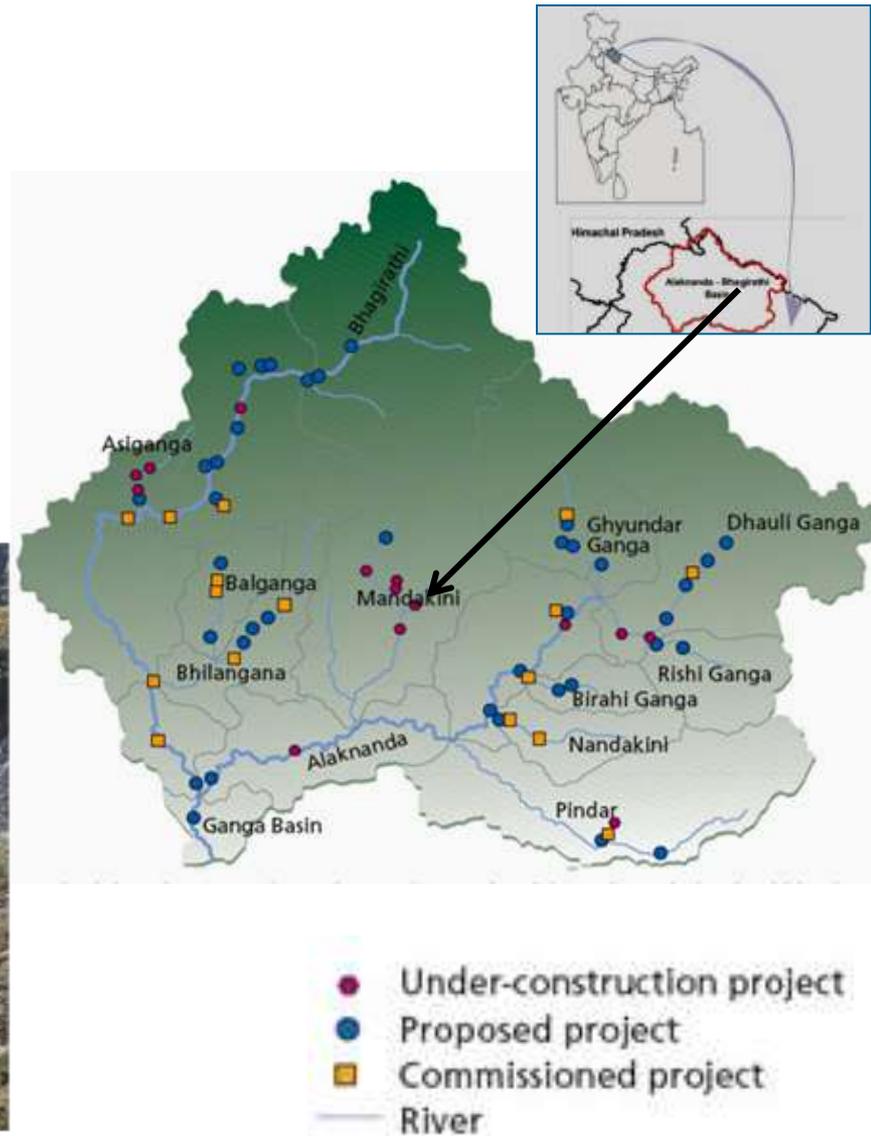
November 2011



Bhagirathi basin - 32 hydropower projects



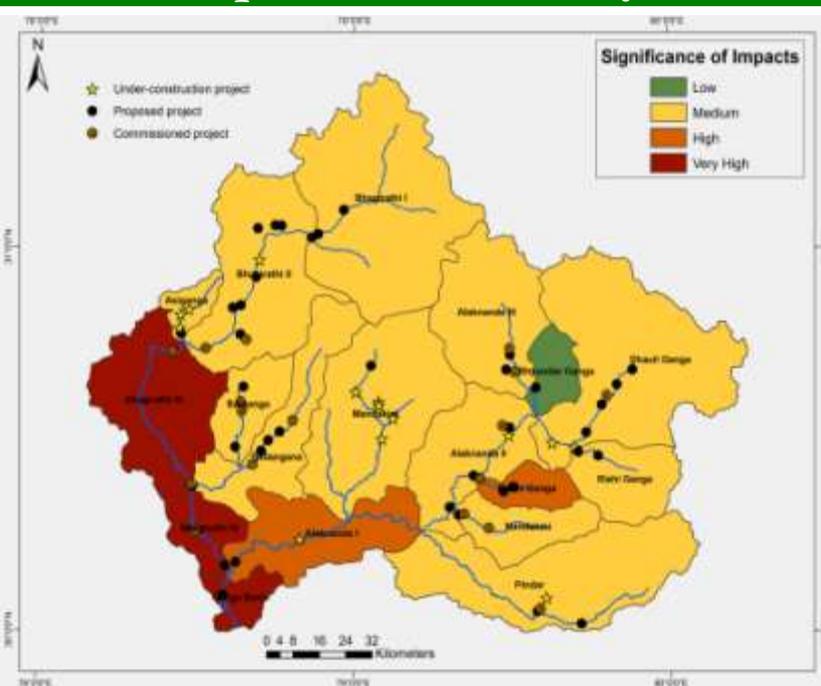
Alaknanda basin - 38 Hydropower Projects



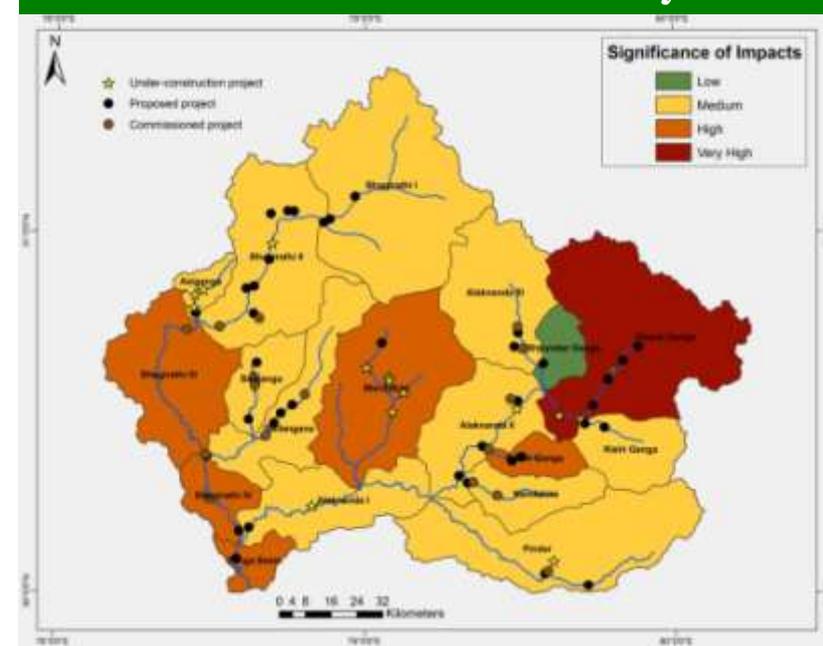
Scenario Assessment

Scenario 1: What happens if **ALL** (70) projects come up ?

Aquatic Biodiversity



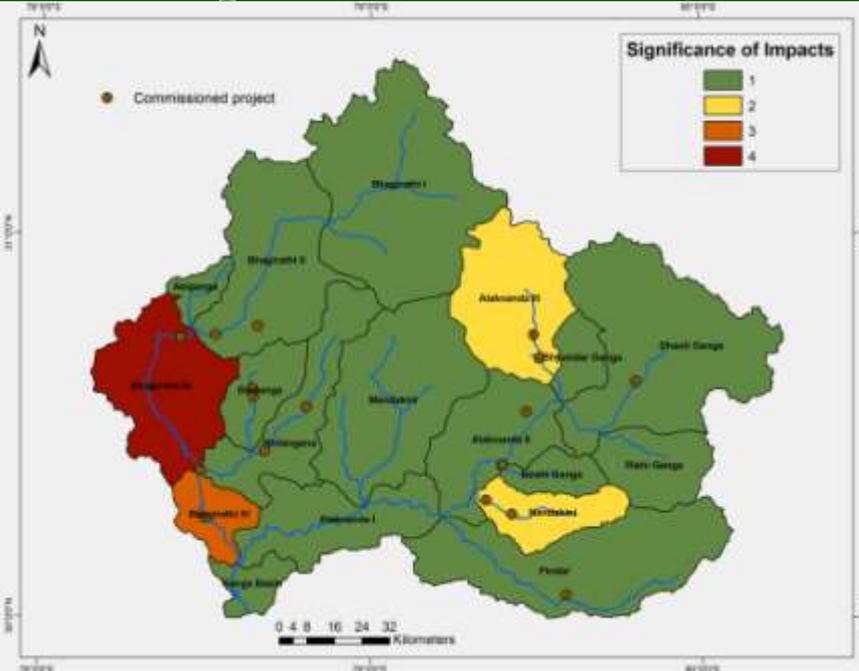
Terrestrial Biodiversity



Scenario 2

What if we have only the **existing projects**?
(17nos.)

Aquatic Biodiversity



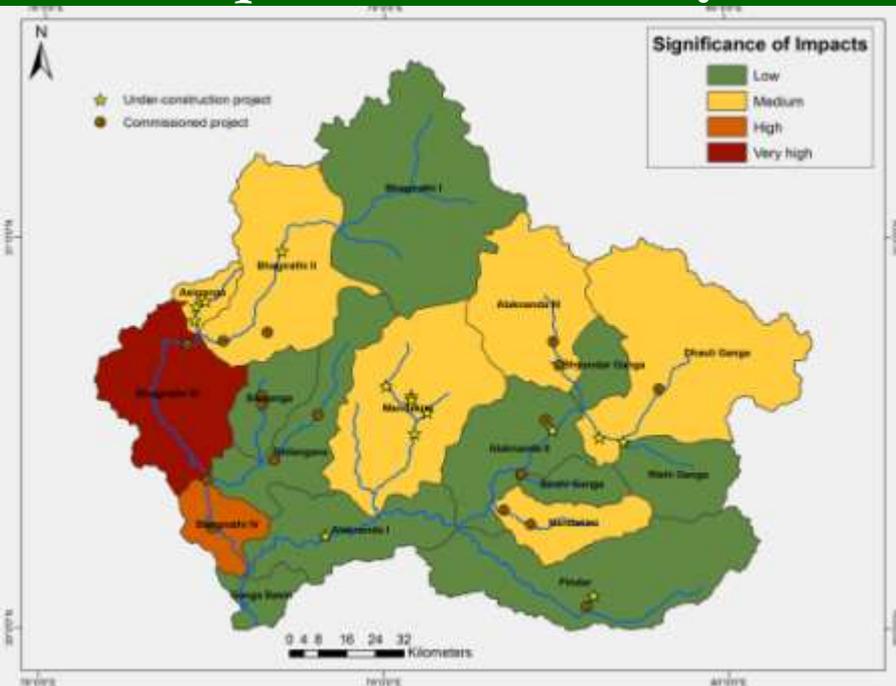
Terrestrial Biodiversity



Scenario 3

Impacts of commissioned projects and those under construction (31 projects)

Aquatic Biodiversity

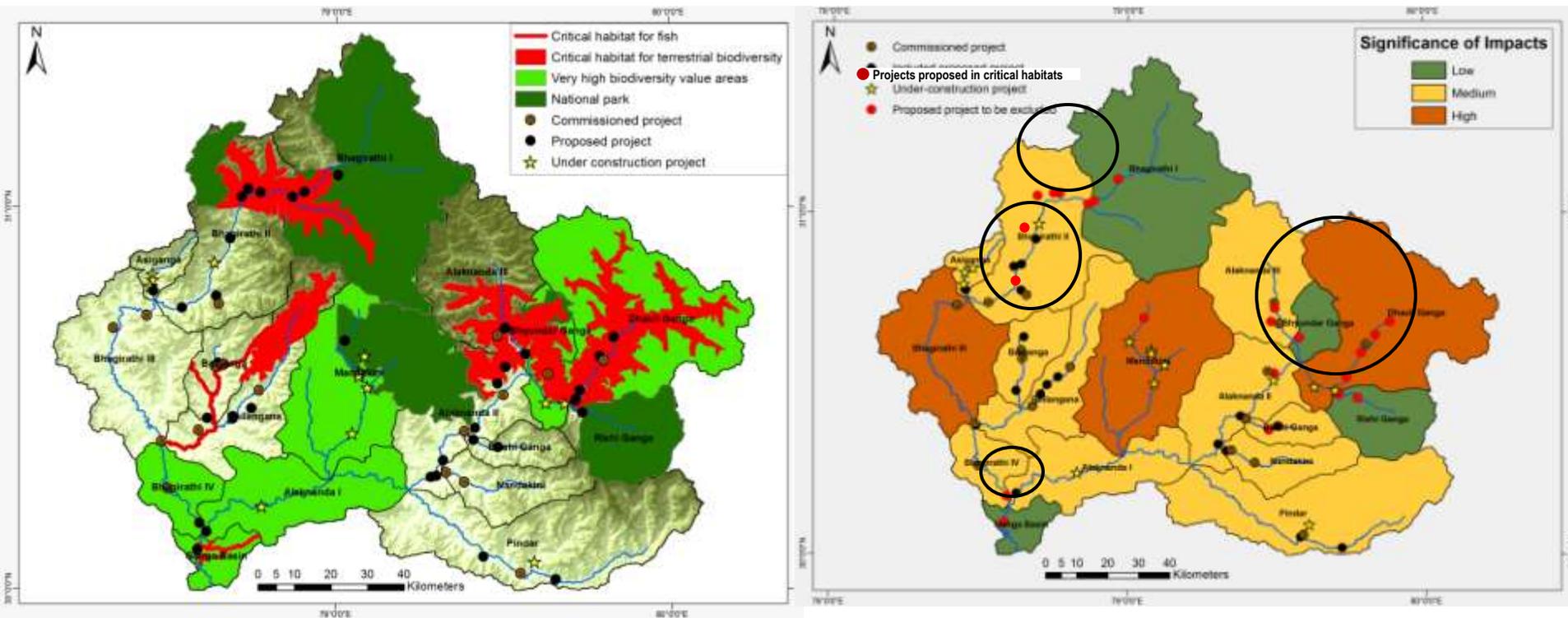


Terrestrial Biodiversity



Scenario 4

What is the incremental impacts of future projects?



Impacts on terrestrial and aquatic biodiversity values of critically important habitats is likely to be most significant

Options for Decision-making

Only conservation

- Existing projects have already affected the future conservation prospects
- Decline in Mahseer population in upstream of Bhagirathi River due to Tehri Dam

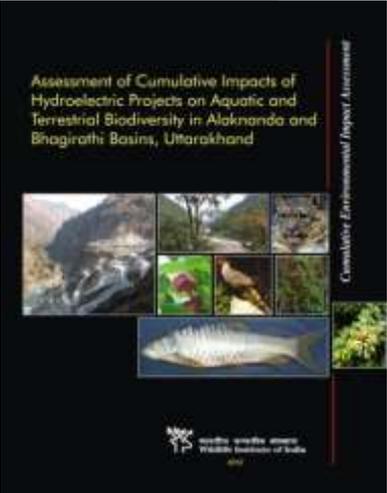
Only development

- 47% river stretch would be affected
- 87% fish species would be affected
- 1700 ha forest loss
- Loss of critical habitats for RET

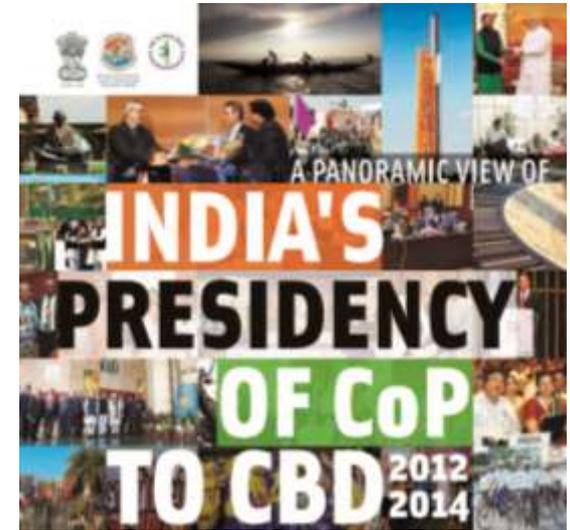
Regulating future development

- 37% reduction in river length affected
- 21.71% decrease in the total forest land required (9494.68 ha)
- 27% reduction in planned power generation capacity

S.No.	Projects to be excluded	Sub-basin	Capacity (MW)	Aquatic	Terrestrial
1	Bal ganga II	Bal ganga	7.00	√	
2	Jhala kosi		12.50	√	
3	Bharatpur	Bhagirathi II	381.00		√
4	Jalandrigad		24.00		√
5	Sivapuri		11.50		√
6	Kanwar		12.50		√
7	Kotli	Bhagirathi IV	195.00	√	√
8	Karmoli		140.00		√
9	Jadhganga				√
10	Rambara				√
11	Kotlibhel IB			√	
12	Alaknanda				√
13	Khirao ganga				√
14	Urgam II				√
15	Lata tapovan				√
16	Malari jhelam				√
17	Jhelam tamak		126.00		√
18	Tamak lata		250.00		√
19	Bhyundar ganga	Bhyundar ganga	24.30		√
20	Rishi ganga I	Rishi ganga	70.00		√
21	Rishi ganga II		35.00		√
22	Birahi ganga I	Birahi ganga	24.00	√	√
23	Gohana Tal		50.00	√	√
24	Kotlibhel II		Ganga	530.00	√



❖ SEA has been promoted as a decision support tool during India's presidency to CoP of CBD



❖ SEA has been identified as one of the key areas for cooperation between India and Federal Agency for Nature Conservation (BfN) of Germany within the frame of the CBD COP 11

Indo German collaborative project

‘Land-use Planning and Strategic Environmental Assessment (SEA) within the frame of the Indian CBD COP 11 Presidency’

Key Objectives

Raise awareness and human capacities in India for better application of integrated planning instruments, in particular SEA, in the context of land use/spatial and socio-economic development planning to contribute to more environment compatible planning.

Present the concept of SEA, share merits of its application and inform about its potential to add value to decision-making

Two year project: October 2012 to Nov. 2014

Project outputs

- Development of training resources
- Delivery of training
- Organise information side events
- Organise an Indo-German exchange with BfN experts

Training Manuals



STRATEGIC ENVIRONMENTAL ASSESSMENT

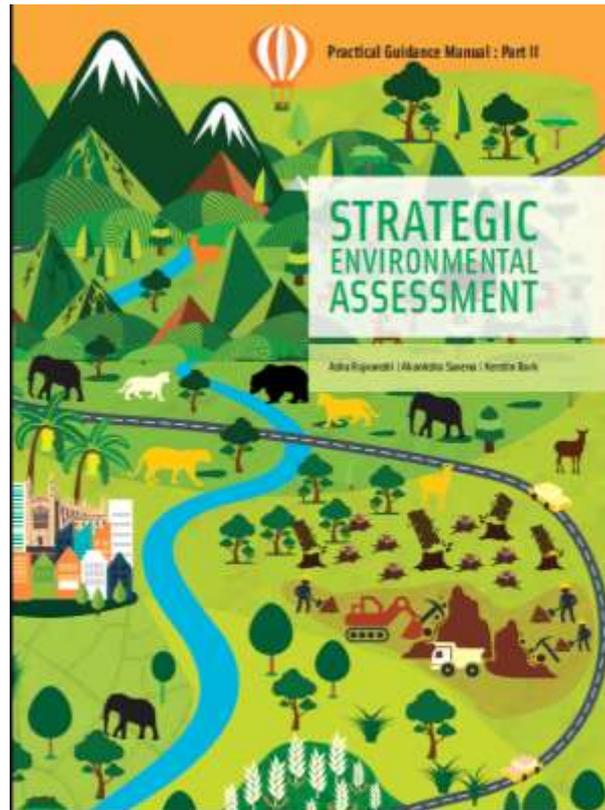
A guidance tool for mainstreaming
sustainability and biodiversity in
development planning

Asha Rajwanti
With contributions from Akanksha Seneta



2015

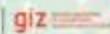
PART - I



Practical Guidance Manual : Part II

STRATEGIC ENVIRONMENTAL ASSESSMENT

Asha Rajwanti | Akanksha Seneta | Kerstin Bork



2015

PART - II

SEA education and professional training



- ❖ India already has a formal model of planning to drive spatial and economic development (Planning Commission of India, now called NITI Aayog)
- ❖ International experience of SEA is being utilized
- ❖ SEA is already an academic discipline within Impact Assessment in technical universities (School of Planning and Architecture, CEPT)

SEA professional training





Training of trainers:

Focus

- Introduction to SEA approach
- Practical exposure to SEA using a case study
- Development of curriculum for SEA
- Future capacity building initiatives

FEEDBACK

The Sunderland case was extremely well-designed to initiate a beginner to understand SEA

Course module was very well planned, time-bound, innovative in practice and good learning activity

'At no point of time the case example gives one a sense of its fictitious nature'

'The case provides an excellent template for trainers to redesign new case examples'

'A very well-organized and content-rich workshop, where the application of SEA was experienced in a much better way'

'I am most comfortable in using the word 'SEA' in my teaching now'

'The Sunderland case study makes an ideal story and a ready-made teaching material'

A handwritten feedback table on a piece of paper. The table has four columns representing different levels of satisfaction, each with a smiley face icon: a happy face (labeled 'happy'), a slightly sad face (labeled 'rather happy'), a neutral face (labeled 'rather unhappy'), and a sad face (labeled 'unhappy'). The rows represent different criteria: 'Criteria', 'Myself', 'The Group', 'The Trainer Team', 'Content', and 'Applicability'. Each cell in the table contains several checkmarks, mostly in red ink, indicating positive feedback. The 'Criteria' row has checkmarks in the 'happy' and 'rather happy' columns. 'Myself' has checkmarks in 'happy' and 'rather happy'. 'The Group' has checkmarks in 'happy' and 'rather happy'. 'The Trainer Team' has checkmarks in 'happy' and 'rather happy'. 'Content' has checkmarks in 'happy' and 'rather happy'. 'Applicability' has checkmarks in 'happy' and 'rather happy'. There are also some numbers written in the rightmost column, possibly indicating counts or scores.



First Stakeholder Workshop
on
Strategic Environmental Assessment (SEA)
November 10 – 12 2014, New Delhi



**Training for other
Stakeholders and EIA
consultants:**

Focus

- Benefits of moving from EIA to SEA
- Theoretical insight
- Practical guidance using a case study
- Practical exposure to SEA
- Prepare the road map for SEA uptake

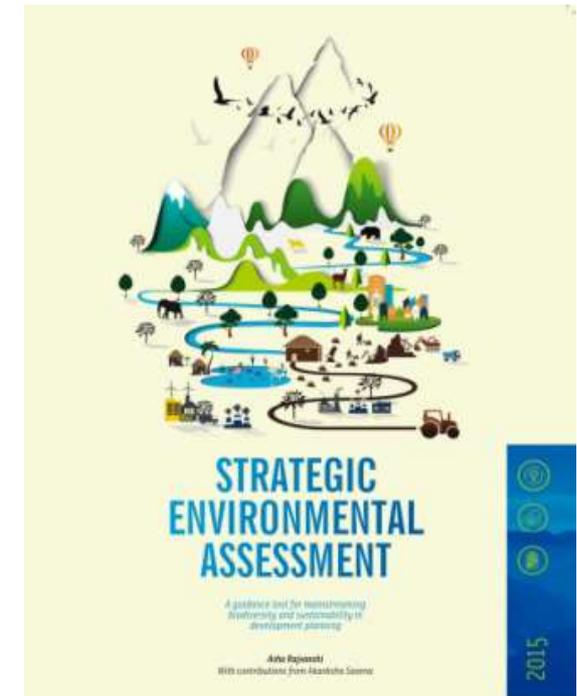
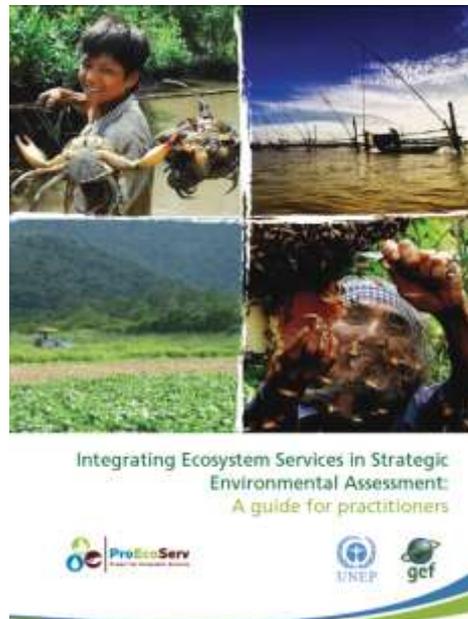
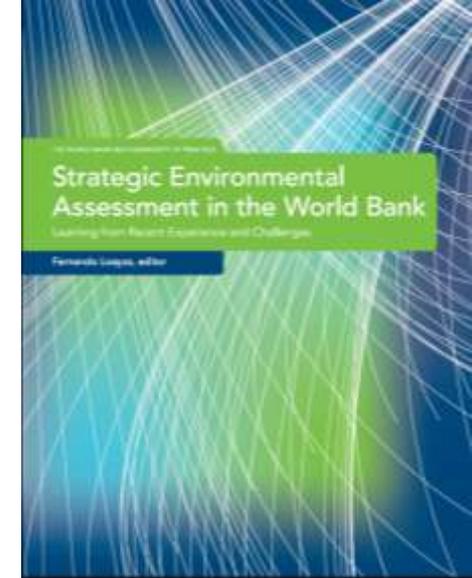
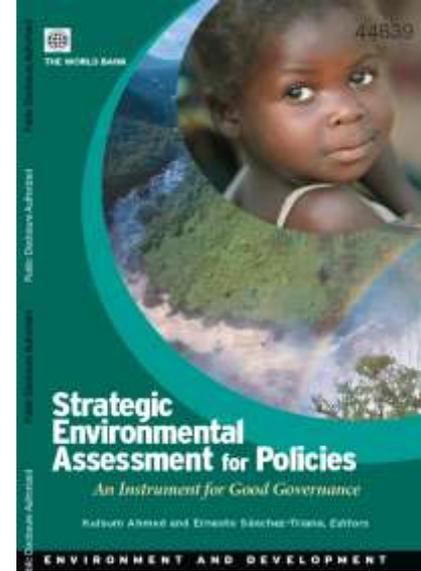


COURSE FEEDBACK

Categories	Poor 1	Average 2	Good 3	Very good 4	Excellent 5
<i>Contents of training</i>				10	6
<i>Style of working (interactive, group work)</i>				5	11
<i>Trainer team</i>				2	14
<i>Extent to which you feel able to apply the SEA concepts and approach</i>			3	11	2
<i>Organisation, venue, logistics</i>				5	11



Advise on SEA procedure and practice





Contents lists available at SciVerse ScienceDirect

Environmental Impact Assessment Review

journal homepage: www.elsevier.com/locate/eiar



Special Issue on Ecosystem services in EIA and SEA, Davide Geneletti (Guest Editor)

Linking ecosystem services to strategic environmental assessment in development policies

Pushpam Kumar¹, Sitki Ersin Esen^{*}, Makiko Yashiro

Ecosystem Services Economics Unit of Division of Environmental Policy Implementation (DEPI), United Nations Environment Programme (UNEP), P.O. Box 30522, Nairobi 00100, Kenya

Journal of Environmental Assessment Policy and Management
Vol. 7, No. 2 (June 2005) pp. 299–325
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STRENGTHENING BIODIVERSITY CONSERVATION THROUGH COMMUNITY-ORIENTED DEVELOPMENT PROJECTS: ENVIRONMENTAL REVIEW OF THE INDIA ECODEVELOPMENT PROJECT

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ELSEVIER



Disappearing rivers — The limits of environmental assessment for hydropower in India

Alexander Erlewein  

Received 17 January 2013, Revised 30 June 2013, Accepted 2 July 2013, Available online 2 August 2013

GENERAL ARTICLE

Are EIA studies sufficient for projected hydropower development in the Indian Himalayan region?

*Devendra Kumar Agrawal**, *Mahendra S. Lodhi*** and *Shradha Panwar*

Professional Exchange on SEA

Exchange of SEA Experience in South Asia



IGEP dialogue in New Delhi (Oct. 2014) on
Is India ready for SEA and exchange of
Indian and German experiences of
integrated planning instruments as SEA



The side event on 'SEA for increasing planning, efficiency and reducing conflict of interest in and around Coastal and Marine Protected Areas' COPI2, Pyeongchang, Republic of Korea.

Key challenges

- Knowledge transfer
- Regulatory requirement?
- Short term economic benefits override environmental considerations
- Inadequate technical capacity for conducting SEAs
- Changes in policy and governance framework

Opportunities for uptake of SEA in India

- Strong support from international experience including from the region
- SEA is becoming a part of the training curriculums
- Potential of SEA is being increasingly realised from practice

Thank you for your attention