

Mainstreaming biodiversity and ecosystem services in impact assessment for transitioning to green economy

Level: This two day course is an intermediate level course designed to cater to the needs of early and mid career professionals, who have five or more years of experience of teaching, conducting and reviewing EIA. This course, focused on the concept of ecosystem services and economic valuation for mainstreaming biodiversity, is very relevant for conservation community, business groups, decision-makers, government officials, donor agencies, economists, impact assessment practitioners and researchers interested in encouraging good assessments and sound decisions for promoting both, economic sustainability and conservation of biodiversity.

Prerequisites for participants: Participants offering to take the course are required to have basic understanding of ecological concepts and principles of environmental economics. Familiarity with generic EIA framework, experience of project evaluation and economic planning will be useful though not a must for taking the course.

Language of delivery: English

Duration (1 or 2 days): 2 days

Name and contact details of each trainer:

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Summary of the purpose(s), content and anticipated learning outcomes of the course.

Although it is widely recognised that biodiversity is at the heart of delivering sustainable development, the ongoing economic crisis that the world is facing today is an unmistakable reflection of the failure to establish the interdependence between biodiversity, ecosystem functioning, ecosystem services, economic, and

institutional changes. Therefore, economic benefits and biodiversity conservation are often seen as distinct objectives by economists who remind us of the need for technological developments for achieving real economic growth while the conservation community reminds us of the finiteness of biodiversity resources available to provide the inputs for economic activity.

Mr. Pavan Sukhdev, lead author of the study -The Economics of Ecosystems and Biodiversity, through his remark *"we are trying to navigate uncharted and turbulent waters with an old and defective economic compass and this is affecting our ability to forge a sustainable economy in harmony with nature"* aptly portends the need for synchronising economic development with conservation and sustainable management of biodiversity.

This course aims to focus on how impacts assessment can help to protect ecosystems from development and how to invest in managing ecosystems for development.

For business community, the course will help make the transition to a 'green' economy. For investors, the course will reaffirm the faith that greening is a new engine for growth. For decision maker, it will help make informed choices about development models that combine biodiversity conservation, profitability and sustainability. For EA professionals, it will help explore mainstreaming tools biodiversity and ecosystem services. For those in the government, the course will highlight the need for making reforms in environmental governance for green and sustainable development.

This two-day course is an intermediate level course that would be relevant for mid career EA professionals, researchers, business groups, decision-makers, government officials, donor agencies and economists.

Detailed description of the course structure and content.

The course will cover the following main elements:

- i. Relevance of mainstreaming ecosystem goods and services in impact assessment for achieving human well- being
- ii. Importance of integrating economic and ecological valuation approaches
- iii. Revisiting the EA framework for integrating economic evaluation approaches for assessing impacts of economic development on biodiversity, ecosystem services and livelihoods
- iv. Introduction to a range of economic valuation tools and techniques and their applicability in valuing biodiversity
- v. Reviewing available and potential ecological solutions for countering economic crisis
- vi. Review of a range of mitigation approaches including offsets, CDMs and other market based and regulatory options for encouraging green development planning.

Detailed description of the course structure and content

Day 1	Relevance of valuing ecosystem goods and services for mainstreaming human well- being in impact assessment
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	<p><i>General introduction and consensus building</i></p> <ul style="list-style-type: none"> • What types of economic values do ecosystems provide • The connect between biodiversity and economic well being: Review of Millennium Development Goals • Why is it important to value the contributions of ecosystems to society's wellbeing and for building resilience to counter climate change impacts • Why do we need economic currency to value biodiversity? • Why value biodiversity in impact assessment?
	<p>Adapting EA framework for integrating ecosystem services and livelihoods and the economic evaluation approaches for</p>
	<p><i>The session will focus on the following specific topics:</i></p> <ul style="list-style-type: none"> • Entry points for incorporating ecosystem services approach into assessment framework • 'How to' approaches for integrating economic valuation in different stages of EIA framework • Introduction to a range of economic evaluation tools and techniques relevant in the context of impact assessment
Day 2	<p>Ecological and economic approaches for integrating biodiversity in the hierarchy of different mitigation options</p>
	<p><i>The session will review a range of ecological solutions for countering economic crisis</i></p> <ul style="list-style-type: none"> • Review of offsets, nature engineering principles and CDMs for their relevance to encouraging green developments • Case studies of successful integration of economic and ecological valuation tools • Presentation of case studies demonstrating use of economic incentive approaches for mitigation planning.
	<p>Learning by doing: Practical and interactive exercises planned for participatory learning</p>
	<p><i>Two sessions are planned for involving the participants in the following:</i></p> <ul style="list-style-type: none"> • Building consensus for arriving at development decisions for an energy project proposed in a protected area using ecosystem services approach for assessing impacts • Designing an offset scheme for a win-win outcome for conservation and development • The trainers have designed a role-play exercise for understanding the dynamics of decision making

The training course will consist of a series of presentations by experienced instructors with practical experience in the subject area. The training sessions will include formal presentations, participatory learning sessions, group exercises and case study presentations. The feedbacks on all past courses have highlighted role-plays as major attraction and as the most effective learning tools. These role-plays have also been incorporated in the proposed course plan with an objective of simulating real life situations for better understanding of the role of impact assessment professionals and the varied and complex dimensions of environmental decision-making.

Description of the materials participants will receive during the course.

1. Copy of the "Best practice guidance for biodiversity-inclusive impact assessment: A manual for practitioners and reviewers" CBBIA-IAIA publication, co-authored by two of the trainers
2. A CD containing power point presentations from course instructors
3. Other learning resources and relevant best practice guidance tools
4. IAIA's best practice principles for integrating biodiversity and impact assessment.
5. The trainers are also arranging to obtain copies of the most recent training resource manual: The use of economic instruments for environmental and natural resource management, published by UNEP that will be very useful for the participants of the course.

Provisions for pre-conference and post-conference communication with participants.

Trainers will register for and attend the full conference to allow for maximum face-to-face interactions immediately following the course delivery

1. The trainers will provide follow up support to all participants through emails, postings on biodiversity list server/ discussion forum of IAIA and by posting information on the website of the organization that represent the affiliation of the trainers.
2. Depending on the level of sustained interest of the participants to remain networked for supporting future initiatives of capacity building and other collaborative efforts, an electronic notice board will be maintained where all participants can post and receive messages on current and future events, availability of recent training resources and lessons learnt from new initiatives of EIA practices.

The evidence of continued communication with participants of the past courses is reflected in successful collaborations with their representative organisations/ or consortiums for conduct of training courses and workshops subsequently.

Qualifications of the trainer(s)

Dr. Asha Rajvanshi has a doctorate in Environmental Science and is a member of the faculty of the Wildlife Institute of India (WII) for last 23 years. She heads the EIA Cell of the Institute. In her capacity as an EIA practitioner, she has led several EIA studies to assess the impacts of development projects in key sectors. As a trainer, she has been actively involved in national and global capacity building initiatives. She has effectively contributed to the development of learning resources and guidance manuals for mainstreaming biodiversity in impact assessment. These are becoming increasingly popular as tools for professionalizing EIA in south Asia. Asha's professional experience is also being sought in advisory support to Govt. of India and other professional bodies. She is serving as a member of various advisory committees of Government of India dealing with environmental appraisal of developmental projects. She is also a member of the Environment Committee, Indian Road Congress and member of Technical Committee National Registration Board of the Quality Council of India for registration of EIA consultants. Asha is a member of the International Association for Impact Assessment, USA and is currently the Co-chair of its Biodiversity Section. Asha co-presented IAIA's pre-conference training courses in Boston (USA), Stavanger (Norway), Seoul (Korea), Perth (Australia) and Accra (Ghana).

Dr. Vinod.B. Mathur

Dr. Vinod Mathur holds a Masters' degree in Forestry and a doctorate in Wildlife Ecology from the University of Oxford. As a faculty member of the Wildlife Institute of India, he has been actively involved in conducting training and research in the field of natural resource conservation for the last 23 years. He has also worked as a FAO International Training and Protected Area Planning Consultant in Sri Lanka. He has been responsible for the planning, organization and conduct of training programs for various target groups. Dr. Mathur also has vast experience of conducting environmental assessments and developing mitigation plans for safeguarding critical biodiversity resources. He is also a member of the Environmental Appraisal Committee (EAC) of the Government of India for the mining projects. He is a member of the IUCN World Commission on Protected Areas (WCPA) and the IUCN Commission on Ecosystem Management (CEM). Dr. Mathur is an IAIA member and is actively involved in the CBBIA project of IAIA. As an initiative of CBBIA project of IAIA, Dr. Mathur presented the IAIA's pre conference training courses jointly with Dr. Asha Rajvanshi in Boston (USA), Stavanger (Norway), Seoul (Korea), Perth (Australia) and Accra (Ghana).

History of the course

The trainers have been actively involved in capacity building initiatives of IAIA both at the global and regional level and have the experience of conducting five pre-meeting training programmes for IAIA in a row (2005 - 2009). All five courses have received excellent overall course rating. The summary of the past five courses conducted for IAIA is presented below:

Training courses conducted for International Association for Impact Assessment (IAIA):

Year	Title of the course & year	Place of delivery	Target group	Trainers	Feedback & overall course rating
2009	Re-tooling impact assessment for incorporating ecological and economic valuation approaches for mainstreaming biodiversity	IAIA'09 at Accra, Ghana	EIA professionals, Govt. Officials, academia, trainers, consultants, planners, EA reviewers, decision-makers, environmental NGOs and donor agencies <i>No. of attendees: 09</i>	Dr. Asha Rajvanshi Dr. Vinod Mathur	Excellent
2008	Ecological and economic evaluation approaches for mainstreaming biodiversity in EIA	IAIA'08 at Perth, Australia	Professionals involved in biodiversity conservation, EIA, business and development planning and project finance <i>No. of attendees: 14</i>	Dr. Asha Rajvanshi Dr. Vinod Mathur	Excellent

2007	Mitigation of Impacts on Biodiversity: Best Practices in Key Sectors	IAIA07 at Seoul, Korea	Professionals involved in biodiversity conservation, EIA, business and development planning and project finance <i>No. of attendees: 17</i>	Dr. Asha Rajvanshi Dr. Vinod Mathur Dr. Jo Treweek Dr. Kerry ten Kate	Excellent
2006	Mainstreaming Biodiversity in EIA and SEA for Improved Environmental Decision Making	IAIA06 at Norway	EIA professionals, researchers, trainers, consultants, planners, EA reviewers and decision-makers <i>No. of attendees: 23</i>	Dr. Asha Rajvanshi Dr. Vinod Mathur Dr. Jo Treweek	Excellent
2005	Mainstreaming Biodiversity in Impact Assessment for Improved Environmental Decision Making	IAIA05 at Boston, Massachusetts, USA	EIA professionals, researchers, trainers, consultants, planners, EA reviewers and decision-makers <i>No. of attendees: 24</i>	Dr. Asha Rajvanshi Dr. Vinod Mathur Dr. Jo Treweek	Excellent

Experience of the trainers at the national level

In the home country (India), the two trainers (Asha and Vinod) have been conducting a one week modular course on EIA as part of the 9-month Post-Graduate Diploma Course in Wildlife Management at the Wildlife Institute of India for forest officers, wildlife and protected area managers and EIA consultants from India and the region. These courses are specially aimed at building capacity in the region for conducting biodiversity inclusive impact assessment. This is the only course of its kind that is being currently offered in the country. 15 such courses have been conducted with the benefits having been extended to over 300 participants from India and over 70 participants from 14 countries. These courses have received excellent feedback and have been recognized as a major effort of building capacity for conducting biodiversity inclusive impact assessment.

More recently, the popularity of the training course conducted at the Wildlife Institute of India has led to the recognition of the Institute as a lead training centre for imparting EIA training to EIA professionals in all forestry institutions at the national level. There is an overwhelming response for all EIA training programmes conducted by the trainers. This is amply reflected from several requests from different agencies and organisations for conducting the courses, large number of registered participants at the courses and the excellent feedback received for all of these courses.

History of a comparable course

Through the previous pre-meeting courses at IAIA'08 and IAIA'09, the trainers have succeeded in building a strong consensus about the need and the merit of promoting ecological-economic integrated framework approach. These courses were very well received and one of the obvious outcomes was the demand for continued training support on the above theme for adopting the ecological-economic EA framework approach for incorporating biodiversity conservation concerns in development decisions. The proposed course is therefore not radically different in its underlying focus on promoting ecosystem services and economic evaluation approaches in impact assessment. It is an attempt to retain the essentials of the earlier course and to build upon significantly on the contents of the previous courses to make them more relevant to the conference theme. The course is strongly rooted in its objective of building capacity for responding to economic development challenges and fostering environmental stewardship to provide quantifiable returns both, economically as well as environmentally for transitioning towards a green economy.