

ADB

# GREENING TRANSPORTATION PROJECTS

Organized by the  
Environment Thematic Group,  
Transport Sector Group, and  
the Wildlife Institute of India

Join us in a global dialogue with leading experts from the field of green linear infrastructure for integrating principles of green growth, and concepts of smart planning into designing and planning of linear developments.

## BACKGROUND

Transportation infrastructure projects invariably involve considerable land diversion and long-term investments. These projects also have the potential to cause severe impacts to the environment and wildlife. To counter these adverse effects of development, it is imperative to have capacity to address the negative impacts of linear infrastructure projects and also to harmonize conservation with development goals for sustainable development.

## WHAT IS THE GOAL?

- To broaden and deepen understanding of principles of green growth, and concepts of smart planning into transport infrastructure development.
- Build capacity to promote ecologically friendly and sustainable road and rail development projects.
- This training programme also aims to build capacity for conserving and managing natural capital during planning and implementation of transportation projects.

## WHO IS IT FOR?

This training is oriented towards building capacity of individuals and organizations working in the implementation of Green Linear Infrastructure projects in the transportation sector.

Attendees of the training will leave with an understanding of:

1. Impact of linear infrastructure on animals and context specific mitigation measures.
2. Importance of natural capital and ecosystem services in the planning and implementation of transportation projects.
3. Promoting sustainable development and conservation in connected habitats.
4. Green infrastructure principles for combining conservation and smart development goals.





Photo: Sandesh Guru

**ASIAN DEVELOPMENT BANK**  
in partnership with the  
**WILDLIFE INSTITUTE OF INDIA**  
presents a Webinar Series to foster  
a global dialogue in the field of green  
linear infrastructure for integrating  
principles of green growth, and  
concepts of smart design and  
planning, into linear developments.

**Why Connectivity Matters? and How to Develop Models of Connectivity for Different Species?**



**INDRANIL MONDAL**  
Project Scientist,  
Wildlife Institute of India

**Ecological Considerations in Planning and Mitigation Measures and Capacity Building Needs for Effective Conservation Alongside Linear Infrastructure**



**FRASER SHILLING**  
Director,  
Road Ecology Center  
Institute of Transportation Studies,  
University of California, Davis



**V.B. MATHUR**  
Chairperson,  
National Biodiversity Authority,  
India

**Natural Capital Conservation Amidst Development and the Role of Governance in Planning Conservation Friendly and Sustainable Transportation Projects**



**ELIZABETH FAIRBANK**  
Corridors & Crossings Program Officer,  
Center for Large Landscape Conservation,  
Bozeman, MT, USA



**ASHA RAJVANSHI**  
Former Head,  
Environmental Impact Assessment Cell,  
Wildlife Institute of India,  
Dehradun – Uttarakhand, India

**Lessons from the Field: Success Stories of Mitigation Measures in Maintaining and Enhancing Connectivity and Concluding Session: Summing up of the Webinar Series with Key Takeaways**



**ROB AMENT**  
Senior Conservationist,  
Center for Large  
Landscape Conservation,  
Bozeman, MT, USA



**TONY CLEVENGER**  
Senior Research Scientist,  
Western Transportation  
Institute, Montana State  
University, Bozeman, MT, USA



**BILAL HABIB**  
Scientist-E & Head of Animal  
Ecology & Conservation Biology,  
Wildlife Institute of India



**V.B. MATHUR**  
Chairperson,  
National Biodiversity  
Authority, India



**DHANANJAI MOHAN**  
Director,  
Wildlife Institute of India





**25**  
NOVEMBER  
2021

### Why Connectivity Matters? and How to Develop Models of Connectivity for Different Species?

This webinar explores the concept of landscape connectivity and answers the following -

- How fragmentation caused by human activities disrupts animal movements and habitats, threatens biodiversity and climate change adaptation.
- How infrastructure development is in direct conflict with conservation and that the need of the hour is to create a balance - for conservation and development to go hand in hand, complementing—rather than conflicting with—each other.
- Implications of maintaining connectivity in developing nations.
- Science behind connectivity modeling and identifying important areas of animal movement across landscapes.
- Developing different models of connectivity specific to species (e.g., width of a corridor).

**16**  
DECEMBER  
2021

### Ecological Considerations in Planning and Mitigation Measures and Capacity Building Needs for Effective Conservation Alongside Linear Infrastructure

It is more important than ever to balance environmental conservation with the rapid development of linear infrastructure. This resultant 'Green linear infrastructure' can be understood simply as a 'design and develop with nature' concept (Examples from India and other countries).

A wide network of individuals and organisations, from the government to the civil sector, play a significant role in collaborating, planning and constructing linear infrastructures. These roads, railways, transmission lines and canals, and such, are a significant cause of fragmentation and biodiversity loss around the world.

It makes the Capacity Building efforts of these key stakeholders absolutely crucial- to develop strategies that can help reverse this trend of biodiversity loss, in a coordinated manner.

**13**  
JANUARY  
2022

### Natural Capital Conservation Amidst Development and The Role of Governance in Planning Conservation Friendly and Sustainable Transportation Projects

Nature is our life-support system and connectivity is essential for the preservation of biological diversity. Healthy habitats are crucial to the health and well-being of all species on Earth, and we must ensure to build green linear infrastructure while simultaneously protecting, improving, and restoring habitats - To make sure that people and animals continue to benefit from the products and services that nature provides.

The aim of this session is to showcase the importance of linking research to end users by bridging the roles of academics, policymakers, and society. To demonstrate that to develop successful, sustainable green infrastructure, it is imperative to have partnerships that protect ecological connectivity, meet the needs of local communities, and conserve vital environmental resources, natural capital, and wildlife populations. All of which can only be achieved by the direct involvement and partnership with stakeholders from the policy and government sector.

**10**  
FEBRUARY  
2022

### Lessons from the Field: Success Stories of Mitigation Measures in Maintaining and Enhancing Connectivity and Concluding Session: Summing up of the Webinar Series with Key Takeaways

#### Lessons from the field: Success stories of mitigation measures in maintaining and enhancing connectivity.

Established best practices, recommendations, and principles with real life successful examples of mitigation measures by wildlife biologists.

#### Concluding Session:

Summing up of the Webinar Series - Expert comments with key takeaways at this concluding session by a panel of speakers.





WEBINAR SERIES 1

# Why Connectivity Matters *and* How to Develop Models of Connectivity for Different Species?

25 Nov 2021

4:00-5:00 pm Philippines (GMT+8)  
1:30-2:30 pm India (GMT+5:30)

This webinar explores the concept of landscape connectivity and how fragmentation caused by human activities disrupts animal movements and habitats, and threatens biodiversity and climate change adaptation.

## MODERATOR



ISAO ENDO

Environment Specialist,  
Environment Thematic Group, Sustainable  
Development and Climate Change Department,  
Asian Development Bank

4-4:05 p.m.

Opening Remarks and Inauguration



KARMA YANGZOM

Principal Environment Specialist,  
Safeguards Division,  
Sustainable Development and  
Climate Change Department,  
Asian Development Bank

4:30-4:35 p.m.

Questions and Answers

4:35-4:55 p.m.

Open Discussion with Participants

- Challenges and opportunities in implementing Green Linear Infrastructure projects
- Identifying capacity building needs

4:05-4:10 p.m.

Background and Objectives



BILAL HABIB

Scientist-E & Head of Animal  
Ecology & Conservation Biology,  
Wildlife Institute of India

4:55-5 p.m.

Closing Remarks



V.B. MATHUR

Chairperson,  
National Biodiversity Authority,  
India

4:10-4:30 p.m.

Why Connectivity Matters  
and Developing Models



INDRANIL MONDAL

Project Scientist,  
Wildlife Institute of India







WEBINAR SERIES 2

Ecological Considerations  
in Planning and Mitigation  
Measures *and* Capacity  
Building Needs for Effective  
Conservation Alongside  
Linear Infrastructure

16 Dec 2021

11 a.m.-12 p.m. Philippines (GMT+8)  
8:30-9:30 a.m. India (GMT+5:30)

Roads, railways, transmission lines and canals can cause significant habitat fragmentation and biodiversity loss. It is more important than ever to balance environmental conservation by designing and developing with nature. This webinar tackle issues on capacity building and needs of key stakeholders towards green linear infrastructure developments.

Registration **HERE**

11-11:05 a.m.

Introduction to Webinar II

**MODERATOR**



**KARMA YANGZOM**

Principal Environment Specialist,  
Safeguards Division,  
Sustainable Development and  
Climate Change Department,  
Asian Development Bank

11:05-11:45 a.m.

Planning Mitigation Measures and  
Capacity Building Needs for Green  
Linear Infrastructure



**V.B. MATHUR**

Chairperson,  
National Biodiversity Authority,  
India



**FRASER SHILLING**

Director,  
Road Ecology Center  
Institute of Transportation Studies,  
University of California, Davis

11:45 a.m.-12 p.m.

Q&A and Open Discussion







WEBINAR SERIES 3

Natural Capital  
Conservation Amidst  
Development *and*  
the Role of Governance  
in Planning Conservation  
Friendly and Sustainable  
Transportation Projects

13 Jan 2022

11 a.m.-12 p.m. Philippines (GMT+8)

8:30-9:30 a.m. India (GMT+5:30)

Nature is our life-support system and connectivity is essential in preserving biodiversity. This webinar showcases importance of linking research to end users by bridging the roles of academics, policymakers, and society in green linear infrastructure developments.

11-11:05 a.m.

Introduction to Webinar III

MODERATOR



KARMA YANGZOM

Principal Environment Specialist,  
Safeguards Division,  
Sustainable Development and  
Climate Change Department,  
Asian Development Bank

11:05-11:45 a.m.

Natural Capital Conservation and  
Governance in Planning Sustainable  
Transportation Projects



ELIZABETH FAIRBANK

Corridors & Crossings Program Officer,  
Center for Large Landscape Conservation,  
Bozeman, MT, USA



ASHA RAJVANSHI

Former Head,  
Environmental Impact Assessment Cell,  
Wildlife Institute of India,  
Dehradun – Uttarakhand, India

11:45 am-12:00 pm

Q&A and Open Discussion

Registration **HERE**







## WEBINAR SERIES 4

**Lessons from the Field -  
Success Stories of Mitigation  
Measures in Maintaining and  
Enhancing Connectivity and  
Concluding Session -Summing  
up of the Webinar Series with  
Key Takeaways**

**10 Feb 2022**

11 a.m.-12:30 p.m. Philippines (GMT+8)

8:30-10 a.m. India (GMT+5:30)

This webinar shares established best practices, recommendations, and principles with real life successful examples of mitigation measures by wildlife biologists. The series concludes with key takeaways from panel of experts on the field of green linear infrastructure.

An enriching dialogue among stakeholders on how to build capacity for conserving and managing natural capital during planning and implementation of transportation projects. We learn about the real-life examples and case studies that showcase the positive effects of green linear infrastructure on biodiversity. We also get a glimpse into the science and work that goes behind building the world's largest mitigation measures in India. Our experts bring forth the administrative capacity constraints in planning green transportation project as it remains one of the biggest challenges for avoiding and mitigating potential impacts of road, rail and other transport infrastructure. Finally, the way forward - to enable mainstreaming of conservation issues and biodiversity concerns into the decision-making process of transportation projects. The objective is to build capacity for a range of stakeholders in harmonizing conservation and development, and retrofitting and investing in nature-based infrastructure development.

## MODERATOR



**MALVIKA ONIAL**

Scientist D, Animal Ecology  
& Conservation Biology and  
Associate Nodal Officer,  
Environmental Impact  
Assessment Cell, Wildlife  
Institute of India

**11-11:05 a.m. Opening Remarks**



**JAMIE LEATHER**

Chief of Transport Sector Group,  
Sustainable Development and  
Climate Change Department,  
Asian Development Bank

**11:05 a.m.-12:05 p.m.**

**Success Stories of Mitigation Measures  
in Greening Transportations Projects**

**Status of Linear Infrastructure  
Safeguard Capacity in Asia** (15 mins)



**ROB AMENT**

Senior Conservationist,  
Center for Large  
Landscape Conservation,  
Bozeman, MT, USA

**Implementation Challenges:  
Learnings and Experiences** (10 mins)



**DHANANJAI  
MOHAN**

Director,  
Wildlife Institute of India

**Case Studies and Key Learning:  
Canada and Nepal Projects** (15 mins)



**TONY CLEVENGER**

Senior Research Scientist,  
Western Transportation  
Institute, Montana State  
University, Bozeman, MT,  
USA

**Miles to go: Key Take-aways  
from Green Linear Infrastructure  
Development Initiatives:  
The Asian Experience** (10 mins)



**V.B. MATHUR**

Chairperson,  
National Biodiversity  
Authority, India

**World's Largest Mitigation Measures in India** (10 mins)



**BILAL HABIB**

Scientist-E & Head of Animal Ecology  
and Conservation Biology,  
Wildlife Institute of India

**12:05-12:25 p.m.**

**Interactive Session: Ask the Panel of Experts**

**12:25-12:30 p.m.**

**Summary of the Series and Closing Remarks**



**BILAL HABIB**

Scientist-E & Head of Animal Ecology  
and Conservation Biology,  
Wildlife Institute of India

**Registration HERE**