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BUILDING A FOUNDATION FOR LINEAR INFRASTRUCTURE SAFEGUARDS IN ASIA

USAID launched an assessment of the capacity of Asian countries to develop wildlife-friendly linear infrastructure (LI), focused on roads, railways, and electric power lines. This 14-month project sought to understand the challenges and barriers that slow the adoption and implementation of safeguards that protect Asia’s diverse wildlife species and their critical habitats from the region’s rapidly expanding LI. Additionally, the program developed training materials and delivered a series of capacity-building workshops.

STATEMENT OF PROBLEM

Asia is home to some of the world’s most diverse and complex ecosystems, which provide natural capital, underpin economic vitality, and increase resilience to climate change. Yet, much of Asia’s rich natural heritage is threatened by the rapid expansion of LI. Without proper safeguards, ongoing and anticipated expansion of LI will further fragment vital habitats, threaten biodiversity, and increase wildlife mortality.

PROGRAM OBJECTIVE

The aim of the program was to lay the groundwork for capacity-building and develop knowledge to jump start the wider adoption and implementation of measures that avoid and mitigate environmental impacts through better planning, design, construction, and monitoring of LI across Asia.

Photo Credit: Milind Pariwakam, Wildlife Conservation Trust

PROGRAM OUTCOMES

View the Final Report, Annexes, and Training Modules at: largelandscapes.org/LISA-project

FINAL REPORT

The final report explains the challenges Asia is facing from rapidly expanding LI, related to conserving biodiversity, landscape integrity, and ecological connectivity. It then discusses economic tools for use by decision-makers in evaluating wildlife-friendly linear infrastructure (WFLI), followed by an assessment of Asia's existing capacity to deploy wildlife safeguards. The report concludes by offering a path forward, which includes key findings and recommendations to improve the implementation of wildlife-friendly LI in Asia.

ANNEX 1: SPATIAL ANALYSES OF LINEAR INFRASTRUCTURE THREATS TO BIODIVERSITY IN ASIA

This annex identifies Asia's most biodiverse landscapes across the 28-country study area and examines where proposed LI projects are slated to intersect with these landscapes. It also reviews LI studies from Asia that conducted exemplary evaluations of future LI impacts to biodiversity. Finally, it describes six landscape-level evaluations of future LI projects and their potential impacts on key Asian species and landscapes.

ANNEX 2: CASE STUDIES OF WILDLIFE-FRIENDLY LINEAR INFRASTRUCTURE AND THEIR COMPARATIVE ANALYSIS

This annex reviews eight case studies from seven Asian countries and demonstrates the processes, principles, and practices that differentiate LI projects that were successful in implementing wildlife-WFLI safeguards from those that were not.

ANNEX 3: EXISTING CAPACITY AND CONSTRAINTS TO UNDERTAKE WILDLIFE-FRIENDLY LINEAR INFRASTRUCTURE IN ASIA

This annex summarizes developing Asia's existing capacity to provide WFLI safeguards, including laws, regulations, best practices, workforce training, guidelines, and other forms of expertise and information, and contains recommendations for future capacity building.

ANNEX 4: THE IMPACTS OF LINEAR INFRASTRUCTURE ON BIODIVERSITY AND HABITATS IN ASIA

This annex reviews published literature to determine what is currently known about the impacts of LI on Asian wildlife and their habitats, and the effectiveness of mitigation measures. It also contains recommendations for how to address shortcomings in available data.

TRAINING MODULES

Six Training Modules were conducted virtually and recorded for future use.

MODULE 1: Linear Infrastructure and Biodiversity in Asia

MODULE 2: Economic Tools for Evaluation

MODULE 3: Capacity Building for Wildlife Safeguards in Asia

MODULE 4: Wildlife Safeguards for Linear Infrastructure Practitioners

MODULE 5: Wildlife Crossing Structures: Planning, Design, and Evaluation

MODULE 6: Engineering Considerations in the Design of Wildlife Crossings

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