

THE THIMPHU RECOMMENDATIONS ON SMART GREEN INFRASTRUCTURE IN TIGER CONSERVATION LANDSCAPES

Thimphu, Bhutan

May 30-31, 2011

On May 30-31, 2011, in Thimphu, Bhutan, representatives from diverse ministries, civil society, and the private sector in Bhutan, national experts from other Tiger Range Countries (TRCs) and international experts met to discuss how to ensure tiger conservation amid accelerating development pressures in tiger conservation landscapes (TCLs). The outcome of 'Smart Green Infrastructure in Tiger Conservation Landscapes: A Practitioner's Workshop', which was jointly organized by the Royal Government of Bhutan and the Global Tiger Initiative, is a set of recommendations for planning and implementing Smart Green Infrastructure (SGI) tools with application to land-use planning, hydroelectric power, roads and ecotourism development that can potentially impact TCLs. These recommendations may have wide applicability in TRCs.

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Recommendations on Land-Use Planning

Recommendations at the policy level

- **Develop TCL Master Plans** encompassing core habitats, buffer zones, corridors and the wider production landscape to ensure inviolability of core habitats and compatible land use in the remaining landscape under available national or sub-national land-use policies or relevant physical/spatial planning acts.
- **Adopt comprehensive national physical/spatial planning legislation** wherever enabling land-use planning legislation is absent to ensure hierarchical land-use planning covering economic, social, environment and natural resource conservation, as well as infrastructure and urban and rural development.
- **Include SGI principles in environmental compliance legislation** through the development of tools and guidelines.
- **Finance the incremental cost of SGI** through the design and adoption of innovative business models building on the notion of Corporate Environmental Responsibility and offset banking, including include economic and ecosystem valuation methodologies to support SGI.

Recommendations at the TCL level

- **Adopt core principles of SGI**, i.e. that tiger range areas are inviolate and that infrastructure in the remainder of the landscape incorporates engineering solutions for biodiversity.
- **Prepare an annual State of the TCL Report** based on a transparent monitoring framework using the best available science to report on changes in tiger habitat. This Report will also build awareness of SGI principles and hold stakeholders accountable for their actions to implement these principles.
- **Share responsibility for ensuring SGI across public agencies, the private sector, and civil society.** Conserving tiger landscapes is not the sole responsibility of forest and wildlife departments, but a shared responsibility. Human capital and technical capacity to design,

implement and supervise SGI must be built within infrastructure, planning and financial institutions. All sectors must contribute the resources necessary for this.

- **Identify and map critical biological/ecological corridors** linking TCLs and linking tiger habitats within TCLs. Their management must be mainstreamed in both land-use planning and TCL master plans to ensure tiger mobility while allowing for sustainable livelihoods and smart green infrastructure.
- TRCs, including Bhutan, are undergoing an intensive pace of urbanization. Cities are expanding and mushrooming in an unregulated manner. It is critical to **regulate unplanned urban sprawl** through a strict compliance with land use planning and zoning and to contain the ecological footprint of cities, particularly those in the contiguities of TCLs and other sensitive and high-value ecosystems.

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Recommendations on Hydropower Development

Recommendations

- **Develop an overall hydropower development strategy** that takes into account sensitive environmental areas, including core tiger breeding zones. Such a strategy should build on Strategic Environmental Assessment of the hydropower sector and make upfront choices of what, when and where projects should be developed.
- **Define, delineate and designate No-Go Areas for core tiger habitats** as soon as possible.
- **A framework for establishing baselines environmental status and regular monitoring processes** should be established and implemented.
- **Institutional arrangements should be established** involving national and sub-national entities, and between sectors for planning specific projects, managing social and environmental risks and promoting adaptive management during the implementation of the project.
- **Accelerate skill enhancement and human resource capacity building** in order to enable the development and implementation of SGI in the hydropower sector.
- **Promote the principle of the developer meeting the full environmental and social costs of the project**, including paying for the value of ecosystem services provided to the project and making contributions to environmental offsets as appropriate to the project and country.
- **Use independent panels** on dam safety/construction and social-environmental issues which are accountable to the government to ensure expert monitoring and establish common ground between developers and government.
- **Promote the use of voluntary, industry-adopted corporate toolkits** among developers for defining good practices and a framework for sustainability assessments.
- **Highlight the right of Least Developed Countries (LDCs) to compensation for foregone opportunity costs of non-development in No-Go Areas in favor of Global Public Good values.**

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Recommendations on Roads

Objectives

To manage road construction, operation and maintenance to support viable populations of tigers in each landscape in which roads and their ancillary infrastructure intersect. By 2022, a demographically stable meta-population of tigers in Bhutan to co-exist compatibly with rural livelihoods.

Building the process

Capacity-building, institutional coordination and financial resources (from partnerships, public purse, etc.) to construct, operate and maintain roads in TCLs, and supervise implementation of Environmentally-Friendly Road Construction (EFRC).

Recommendations

- **Use and enhance existing in-park road guidelines*** throughout TCLs to apply minimum standards to all road construction, maintenance and operation in TCLs. (Lead responsibility: Department of Forests and Park Services)
- **Develop monitoring tools/indicators for supervising implementation of guidelines in EIA process.** This should include developing the unit cost of environmental specifications, including supervision and monitoring. These tools would apply to both contractors in their EMPs and agencies that supervise road operation and maintenance following the construction phase. (Lead responsibility: Department of Roads with Department of Quality and Standards).
- **Distill lessons learned** from pilot approaches in the on-going national highway project.
- **Develop bidding documents that capture the unit cost of environmental mitigation and monitoring** as part of the submitted bid (estimate/km). (Lead responsibility: Ministry of Finance).
- **Clearly map and instill mitigation measures with principles of avoidance and SGI to existing and proposed infrastructure** in TCLs to maintain tiger populations. This needs to link with Master Plans for TCLs and be integrated into the National Road Plan.

*Guidelines already exist for roads in protected areas.

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Recommendations on Sustainable Tourism

Objective

To promote sustainable tourism in TCLs, recognizing that controlled and managed tourism can help support and protect globally significant biodiversity, tigers and their habitat.

Priority recommendations

- **Develop guidelines to regulate tourism in and around TCLs.**
- **Include a tourism and visitor management component** in all TCL Master Plans.
- **Acknowledge that conservation comes first**, and that sustainable tourism is a tool to help fund TCLs, not a panacea for protection.
- **Develop tourism as a complementary rather than an alternative livelihood for rural communities** in and around TCLs.
- **Maximize the use of smart green technologies in all tourism facilities** (e.g. buildings, water supply, waste management, renewable energy, etc.).
- **Recognize that commercial viability is vital** for the sustainability of private sector and other partners who manage tourism operations.
- **Enforce legal regulations and zoning** to control ad hoc private sector development in and around TCLs.

Building the process

- **Capacity-building, institutional coordination and financial resources** for SGI to facilitate sustainable tourism in and around TCLs.
 - **Build community and host capacity to engage in responsible tourism**, to reap livelihood benefits, and to manage financial flows in and around TCLs.
 - **Forge partnerships among TCL tourism stakeholders** to ensure coordination and responsible stewardship.
 - **Develop interpretation and guide standards** for each TCL to enrich visitor experience and create awareness of conservation issues.
 - **Develop products and amenities to match the range of target market segments** (high-end to budget, including domestic) in and around TCLs.
 - **Be careful not to raise tourism and conservation expectations** at a community and national level that cannot be met.
 - **Develop indicators to monitor and evaluate visitor impacts in TCLs.**
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