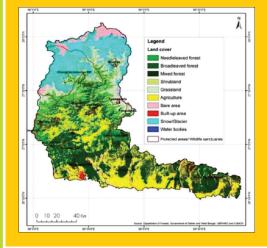


Khangchendzonga Landscape Conservation and Development Initiative (KLCDI), India: *a programme in action*

The Khangchendzonga Landscape (KL) represents a highly complex and diversified system in terms of biological, cultural and physical attributes leading to richness of bio-physical and life support values ranging well beyond its physical boundaries shared by Bhutan, India and Nepal (26°21'40.49" and 28°7'51.25" latitude and 87°30'30.67" to 90°24'31.18" longitude), covering total area 25,085.8 Km², sharing 56% by India, 23% by Bhutan, and 21% by Nepal. The Khangchendzonga Landscape as a whole offers life support systems to over 7.2 million people (87% in India, 11% in Nepal and 2% in Bhutan). The Indian part of KL covers total area 14,061.7 Km² along the altitudinal gradient, ranging from 40 m in Jalpaiguri district to 8586 m asl of Mt Khangchendzonga in Sikkim. The KL-India comprises the state of Sikkim, and northern part of West Bengal (district Darjeeling and Jalpaiguri with Alipurduar) along 26°29'13.56" to 28°7'51.6" latitudes and 87°59'1.32" to 89°53'42.96" longitudes. The average temperature varies from 2°C to 19°C in Darjeeling, 7°C to 27 °C in Gangtok and 11°C to 32°C in Jalpaiguri. A significant amount of snow ice and glacier ranges (11 major high peaks mountain) offers sustained downstream, the Teesta basin, and supporting immensely rich diversity of floral and faunal elements.

The KL, India has 6,325,457 human population (3,243,393 male and 3,086,853 female), with a very low human density of 1,294 persons per Km². Multiple land use patterns provides wider biodiversity patterns, i.e. needle leaved forest, broad-leaved forest, mixed forest, shrub land, grassland and agricultural land with high frequency of lakes/ponds (wetlands - 431 in Sikkim and 775 in Northern West Bengal) linking with strong socio-economic and cultural fabric. As a part of global biodiversity hotspot, KL-India comprises rich floral diversity (more than 5500 species), and the faunal taxa (over 1500 in record) are equally diverse. With an aim of conserving and governing the rich biological diversity, KL-India has 17 protected areas (PAs), which comprises of 1 Biosphere Reserve, 4 National Parks and 12 Wildlife Sanctuaries, covering almost 34.21% of the total geographical area of landscape.







The KL India has National Environment Policy (NEP), 2006 deals with the environmental regulations like protection, restoration and conservation with respect to better livelihoods and also with the back-up of National Action Plan on Climate Change (NAPCC), targets a mission for sustaining and safeguarding the Himalayan ecosystems and glaciers, suggesting broader climate change adaptation strategy towards sustaining and managing the Himalayan ecosystems. However, both the state governments regulate state level policies and management plans. For example, a potentially viable Sikkim Biodiversity Action Plan-2012 is in place for Sikkim state.



Conservation and Development Strategy (CDS)

- Analyzing existing status of the KL India (i.e., bio-physical, socio-economic and cultural, management practices, institutional mechanisms, and policy dimensions)
- Assessing threats, gap areas and identifying priority actions under the most challenging circumstances
- Developing guidelines and specific strategies for conserving, maintaining, and promoting
 (i) biodiversity, (ii) cultural values, and (iii) eco-friendly sustainable and equitable livelihood development options.









VISION: Natural and cultural heritage of Khangchendzonga Landscape are continue celebrated by the communities living in the landscape through equitable access and conservation of resources

GOAL: Conserve natural and cultural heritage of Khangchendzonga Landscape with equitable access and benefits for well being of people with enhanced resilience to climate change through sustainable development

Outcome Conservation and Development Strategy Assess and prioritize ecosystems, ecosystem functions and valuate ecosystem services 1. Natural and agro ecosystem b) Assess biodiversity and agrobiodiversity functions and services through participatory approach assessed and c) Strengthen and improve ecosystem management through policy review and multi-stakeholder dialogue prioritized 2. Socio-economic Diversify livelihood options, enhance on-farm and off-farm productivity a) status of local b) Ensure equitable and fair opportunities for resource use and decision-making communities, with Strengthen market access through value chain approach for agricultural produce c) focus on marginal Promote community-based sustainable and equitable tourism d) people, improved Gender equality and women empowerment e) 3. Effective Strengthen community participation in natural resource management a) natural resource b) Improvement of knowledge on conservation and management of soil and water resources management Mitigation of human-wildlife conflicts (HWCs) c) systems are d) Curbing illegal trade in wildlife produce and grazing in place and functional Improve access and benefit sharing (ABS) through mechanism like National Biological Diversity Act e) 4. Status of trends Establish monitoring mechanisms in key sites, through participatory approach a) of ecosystems Long-term monitoring of biodiversity, ecosystems and climate change b) and human Long-term monitoring of socio-economic, socio-ecological and socio-cultural changes at local and c) environment transboundary levels understood



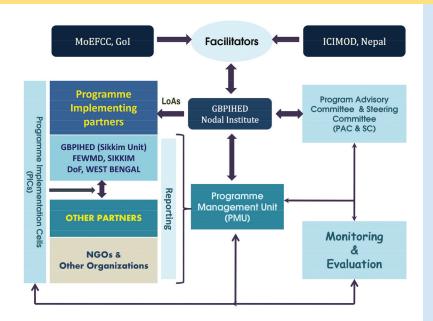






Implementation Plan of KLCDI - India

Implement plan focuses conservation and development initiative for sustainable biodiversity and natural resource management in Khangchendzonga Landscape-India. In this regard, International Center for Integrated Mountain Development (ICIMOD), Nepal has initiated the landscape programme i.e. "Khangchendzonga Landscape Conservation and Development Initiative (KLCDI)" and the Ministry of Environment, Forests and Climate Change (MoEFCC), Government of India (GoI), after thorough consultation with concerned ministries and organizations agreed to the concept of the proposal. The MoEFCC (GoI) designated the G.B. Pant Institute of Himalayan Environment & Development (GBPIHED) as lead Institute for the Indian part. Along with the major support of national partner organizations i.e. the Forest Environment and Wildlife Management Department (FEWMD), Government of Sikkim and the Directorate of Forests (DoF), Government of West Bengal, GBPIHED Sikkim unit spearheads the KLCDI through coordinating various skillful and potential resources (NGOs, GOs, etc.) in KL-India.



Process....

The implementation plan for KL India is the based on contents/inputs of: (i) two documents [Feasibility Assessment Report and Conservation and Development Strategy]; (ii) a series of stakeholders' consultations with diverse community groups including some satellite consultations, and (iii) various level of national consultations and brainstorming sessions and the interactions with the experts/organizations during the preparatory phase of KLCDI, India.

Addendum phase of KLCDI-India

As a bridging phase between preparatory and implementation period, and to create willingness among the stakeholders about KLCDI-India, the phase focuses to generate baseline data on ecosystem and socio-economic for developing participatory natural resource management plans(PNRMPs) for three identified pilot sites, out of six proposed major representative sites along the Khangchendzonga Landscape of Indian part.

Ecosystem
Assessment

Participatory
Natural
Resource
Managememt
Plan
(PNRMP)

SocioEconomic
Assessment
[Household survey
& Participatory Rural
Appraisal (PRA)

Pilot sites

Bandapani-Jaldapara site: Located in Alipurduar and Jalpaiguri districts (foot hills) encompasses distinct features as: a) complex socio-cultural assemblage-Nepali, Bengali and Tribal/Adibasi representing tropical zone; b) transboundary area connected with Bhutan; c) corridor connectivity between PAs, i.e. Buxa Tiger Reserve and Jaldapara National Park and Gorumara National Park; and d) enclosed major issues, i.e. Human Wildlife Conflicts (HWCs), tea plantations and socio-economic issues, illegal-trade/poaching/grazing, dolomite extraction/siltation and transboundary trouble, etc.

Barsey-Singalila Site: Target site covers major part of west district of Sikkim connected with Darjeeling district and having distinct features, such as: a) complex ecological, cultural and social assemblage (Nepali and Tribal); representing subtropical, temperate and alpine/sub-alpine zones; b) transboundary area connected with Nepal; c) close connectivity among PAs, i.e. Barsey Rhododendron Sanctuary, and Singalila Nation Park; and d) included major issues i.e. HWCs, socio-economic issues, tourism, illegal-trade/poaching/grazing, transboundary troubles, etc.

Dzongu-North Sikkim Site: This area completely falls under north district of Sikkim having diverse features, such as: a) complex ecological, cultural and social assemblage- Tribals (Lepcha and Bhutia); representing sub-tropical to alpine/sub-alpine zones; b) important pastureland areas; c) sharing transition zone of Khangchendzonga Biosphere Reserve and d) dealing major issues i.e. HWCs, socio-economic issues, tourism, illegal-trade/poaching/grazing, declining cultural entity, etc.

On-going activities (KLCDI, India- Addendum phase)

- Pilot site identification and boundary delineation
- Team building and coordination
- Generate baseline information on ecosystems and socio-economic
- Develop Participatory Natural Resource Management Plans
- · Capacity building of stakeholders
- Stakeholders' consultation(s) and interactions
- Develop dissemination materials

Guiding Agency: Ministry of Environment, Forests & Climate Change, Govt of India **Funding Agency:** International Centre for Integrated Mountain Development, Nepal

Lead Agency: GB Pant Institute of Himalayan Environment & Development, India

National Partners: Forest Environment and Wildlife Management Department (FEWMD), Govt of Sikkim, and Directorate of Forests, Govt of West Bengal

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