Biodiversity is fundamental to sustain ecosystem processes, functions and the continued delivery of ecosystem services, which are the foundation of livelihood security, health and overall well-being of human societies.

Conservation of biodiversity, including wildlife, is essential for India, not only because the consequences of biodiversity loss and the resulting loss of ecosystem services have a far reaching impact on livelihoods and overall well-being of human communities, but also because of the cultural heritage where coexistence is the natural way of living.

This situation in India, however, is changing. Increasing human population and consequent demand for natural resources is leading to degradation and fragmentation of natural habitats, thus creating a situation where the humans and wildlife are competing for the same resources.

The shift from ‘co-existence’ to ‘conflict’ has the potential to undermine the existing and future conservation efforts, and also hinder achievement of both Sustainable Development Goals (SDGs) and Biodiversity Targets.
HUMAN WILDLIFE CONFLICT MITIGATION

Human-wildlife conflict brings economic losses to the tune of millions of rupees to the rural communities in India every year. The increasing frequency and intensity of crop damage and the emotional stigma attached, especially to cases of killing of humans and cattle, are making the communities less tolerant to wildlife.

Mitigation of human-wildlife conflict is thus becoming one of the key issues of concern for both wildlife managers and the scientific community.

Apart from the Government, there are a number of scientific institutions, NGOs and experts who are working towards finding solutions for mitigating human-wildlife conflict. As a result, there are cases where the joint efforts from these agencies have reduced the incidence or impact of human-wildlife conflict.

There is a need to create an enabling environment for wildlife managers as well as communities to address the conflict situation and strengthen their capacities in the most efficient and effective manner.

Management of Human wildlife conflict in India is an urgent and important issue. It is necessary to address the issue in a holistic manner, and co-create the mitigation solutions, with full engagement of all the relevant stakeholders.
The project aims at providing technical support at the National level and in Partner States for effective implementation of Human Wildlife Conflict mitigation measures.

The main objective of the project is that the rural population in project areas, where agreed guidelines and tools are applied to mitigate human wildlife conflicts, is better protected against Human Wildlife Conflict. The project takes the approach of harmonious coexistence, by ensuring that both – human and wildlife – are protected from conflicts. This approach follows the modern wildlife conservation principles to balance the needs of people with the conservation of nature.

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<thead>
<tr>
<th><strong>GENERAL PROJECT OVERVIEW</strong></th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>Indo-German Cooperation on HUMAN–WILDLIFE CONFLICT MITIGATION (HWC) IN INDIA</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Duration</strong></td>
</tr>
<tr>
<td><strong>Commissioned by</strong></td>
</tr>
<tr>
<td><strong>Implemented by</strong></td>
</tr>
<tr>
<td><strong>Implementation Partners</strong></td>
</tr>
<tr>
<td><strong>Resources committed by Germany</strong></td>
</tr>
</tbody>
</table>
The project is working in the following three pilot sites:

KODAGU FOREST CIRCLE
IN KARNATAKA

RAJAJI- HARIDWAR AND ADJOINING LANDSCAPE
IN UTTARAKHAND
GORUMARA WILDLIFE DIVISION AND ADJOINING LANDSCAPE IN WEST BENGAL
PROJECT APPROACH

- Harmonious coexistence, by ensuring that both – human and wildlife – are protected from conflicts. Balance between the needs of people with the conservation of nature.

- Primary focus on capacity development through technical support

- A Multi-level approach with mutual learning feedback loop (National, selected States, Pilot sites)

- Holistic approach in addressing Human Wildlife Conflicts (HWC) by considering the “thematic triangle” of driver-prevention-damage mitigation, across three output areas.

- Engaging key stakeholders throughout the implementation of project at all levels, with focus on human well-being of the most vulnerable sections of society (e.g. rural poor and women)

- Process orientation (methods, planning and systems) in implementing mitigation instruments
Project Structure: HWC Project

**HWC Output A:**
Development of strategy and action plan at National level and in selected States

- **WP 1.1** National Strategy and action plan on HWC
- **WP 1.2** National database and monitoring system on HWC
- **WP 1.3** State-level Strategy and Action Plans
- **WP 1.4** SOPs for key species and key Issues

**HWC Output B:**
Pilot application for newly developed instruments for the mitigation of human wildlife conflicts in UK, KA, and WB

- **WP 2.1** HWC mitigation toolkit for UK, KA and WB
- **WP 2.2** Pilot Implementation of selected mitigation instruments in KA
- **WP 2.3** Pilot Implementation of selected mitigation instruments in UK
- **WP 2.4** Pilot Implementation of selected mitigation instruments in WB

**HWC Output C:**
Strengthening institutional and individual capacities for mitigating human wildlife conflicts

- **WP 3.1** Web-based National knowledge platform
- **WP 3.2** Strengthening Training institutions on HWC training delivery
- **WP 3.3** Implementation of Modular trainings for key sector and stakeholders
OUTPUT A: DEVELOPMENT OF STRATEGY AND ACTION PLAN AT NATIONAL LEVEL AND IN SELECTED STATES

National strategy and action plan to reduce human wildlife conflicts are operationalized for the implementation of pilot measures in selected states.

Project is supporting the Ministry of Environment, Forest and Climate Change (MoEFCC) in developing a National HWC Strategy and Action Plan, and supporting the Partner States of Karnataka, Uttarakhand and West Bengal in developing State HWC Strategy and Action Plans using a participatory approach to ensure that the National and the State level plans are aligned.

Support to development and implementation of HWC Management Action Plans at the division level further facilitate operationalization of the National and State level strategies on the field.

Project is supporting development of Standard Operating Procedures for 10 key species and 3 issues on Human Wildlife Conflict Mitigation. The Key contribution of the Project is to field-test these plans and procedures in a participatory manner engaging all key relevant sectors and stakeholders.

Primary aim of a National database in India is to facilitate information management and strengthening our understanding on the drivers of HWC and effectiveness of the mitigation measures. This is to support evidence-based decision-making for HWC mitigation. The database will be hosted on a web-based platform supporting visualization of HWC hotspots and other information.
**Harmonious coexistence:** ensuring that both – human and wildlife are protected from conflicts, the balance between the needs of people with conservation of nature is maintained.

**Effectiveness Vs Wildlife friendliness scale:** Working towards development, assessment, customization, and evaluation of site-specific HWC mitigation instruments that are effective & wildlife-friendly


**Holistic approach in addressing Human Wildlife Conflicts:** considering the “thematic triangle” of driver-prevention-damage mitigation, across three output areas.
- Addressing the drivers of Human Wildlife Conflict Mitigation
- Strengthening the measures for effective prevention of HWC incidents
- Reduction of damage to people and wildlife, via crop alteration and compensation options, damage assessment methodologies, insurance options, value chain analysis etc.

**Effective participation of stakeholders and horizontal and vertical linkages**
- Capacity development of key stakeholders
- Effective communication, collaboration and partnership between forest department and other key sectors and stakeholders
- Strengthening science-management linkages via-a-vis HWC mitigation research
- Effective communication between field officers and policymakers within forest sector
GUIDING ELEMENTS

- Addressing the drivers
- Harmonious co-existence
- Capacity development
- Science-management linkages
- Cross-sector cooperation
- Participatory
- Multilingual
- Non-prescriptive
- Field testing
- Harmonious co-existence
- Effective prevention
- Occupational health and safety
SPECIES AND ISSUES FOR SOPs
Elephant | Leopard | Blue Bull | Wild Boar | Black Buck | Rhesus Macaque | Crocodile | Sloth Bear | Indian Gaur | Snakes
Medical emergencies | Media engagement | Crowd management
OUTPUT B: PILOT APPLICATION FOR NEWLY DEVELOPED INSTRUMENTS FOR THE MITIGATION OF HUMAN WILDLIFE CONFLICT IN KARNATAKA, UTTARAKHAND, AND WEST BENGAL

Instruments for the mitigation of human wildlife conflicts

CONTEXT
Project is facilitating pilot application of newly developed instruments for the mitigation of human wildlife conflicts in three Partner states viz., Karnataka, Uttarakhand and West Bengal.

APPROACH
Elements of a holistic approach, aiming at harmonious-co-existence, are being pilot tested as 'Human Wildlife Conflict Mitigation Instruments' at Kodagu landscape in Karnataka, Rajaji-Haridwar landscape in Uttarakhand, and Gorumara landscape in West Bengal.

The mitigation instruments integrate the experiences of the field managers, experts, scientists, decision-makers and community in implementing the mitigation measures. In doing so, innovations that plug the gaps in the existing instruments are introduced in a targeted manner and all key stakeholders are engaged.

To institutionalize the process, and to provide a practical decision-making support for managers and experts, as well as community based institutions for mitigating HWC, Project is supporting the development of HWC Mitigation Toolkit. The toolkit will contain operational plans for implementing prioritized HWC mitigation measures. These prioritized mitigation measures would be based on a systematic assessment process taking into account the technical, legal, and financial feasibility, as well as social acceptance and wildlife-friendliness of the measures apart from looking at their long-term sustainability.
ELEMENTS OF A HOLISTIC APPROACH BEING PILOT TESTED AS HWC MITIGATION INSTRUMENTS AT KODAGU, RAJAJI–HARIDWAR AND GORUMARA LANDSCAPES

- ‘Early Warning and Rapid Response’ System
- Competency-based trainings for Rapid Response Teams
- Awareness and Communication measures for local communities
- Cross-sector and multi-stakeholder forum for HWC Mitigation
- Landscape Level HWC mitigation Planning: Studies and dialogue on possible measures for strengthening the corridor between the pilot site with adjoining landscape
- Inter-State/International dialogue to understand the issues better and seek cooperation for mitigation of HWC
- Reducing the impact of HWC on local communities

MULTI-STAKEHOLDER ENGAGEMENT IN DEVELOPING MANAGEMENT ACTION PLAN IN EACH PILOT DIVISION, IN LINE WITH THE NATIONAL WILDLIFE ACTION PLAN
The National Wildlife Action Plan (NWAP) 2017-35 mandates each territorial division to develop and implement a Human Wildlife Conflict Management Action Plan (HWC-MAP), for systematically addressing human wildlife conflict mitigation. HWC-MAP will facilitate bottom-up feedback to the State and National level strategies and action plan on good practices in HWC mitigation. This integration of field knowledge and experiences in the National and state level plans will ensure that the approach taken by the National and State Governments is reflected in the local level planning and implementation.

Since all operation planning related to wildlife management is done at the division level, it is critical to integrate HWC mitigation into the same plans.

However, since most of the large wildlife species-in-conflict use large areas at the landscape level, it is important that the plans take into consideration factors related to conflict at the landscape level. The HWC-MAP also provides anchoring points and instruments for cooperative planning and implementation between different forest divisions in the same landscape.

This plan provides the divisional forest officer with guidance to implement HWC mitigation measures using a holistic approach, and to facilitate higher efficiency and effectiveness of HWC mitigation measures being implemented in respective landscape/s.
OUTPUT C: STRENGTHENING INSTITUTIONAL AND INDIVIDUAL CAPACITIES FOR MITIGATING HUMAN WILDLIFE CONFLICTS

CONTEXT
Project measures focus on facilitating system level capacity development, strengthening institutional capacities and individual competences for mitigating human wildlife conflicts. The project also facilitates in implementation of training courses for key stakeholders, in partnership with the key National and State-level training institutions. At the institutional level, the project is facilitating key training institutions - for forest and other relevant sectors - at national and state levels, in integrating relevant knowledge and information as well as conceptual innovation for the mitigation of human wildlife conflicts into their existing curricula, supporting them in designing new curriculum on HWC, providing exposure to participatory training methods and training systems such as monitoring and evaluation of the training courses, support in development of training materials and methods suitable for delivering HWC mitigation trainings, as well as training of the trainers.

APPROACH
The Project has worked on a competencies framework indicating the professional competencies required for human wildlife conflict mitigation in India. This competency framework is being used to conduct Training Needs Assessment, subsequently guiding the way to develop curriculum and training materials for trainings on human wildlife conflict mitigation in India. Innovative and participatory training methods are used to deliver the training material.
GUIDING ELEMENTS

- Holistic approach to capacity development
- Effectiveness
- Capacity needs assessment
- Inclusion of all key stakeholders
- Competence-based participatory curriculum development
- Innovative learning mechanism
- Sustainability of training measures
- Particpatory Training Methods
- Training approach
- Address the key competencies of the participants
- Nationally standardized yet locally customized curriculum and training material
- Training institutions engaged in entire planning and implementation from the beginning
- Streamlining the curriculum and training materials into the training management system at the partner institutes
- Training of trainers at the partner training institutes
- eLearning courses to reduce dependence of training institutes on external experts
- Facilitating a network of training institutions: cross-sector knowledge exchange, supporting visits of faculty and experts to other states/institutes
Participation of local communities (esp. rural poor and women) in implementing HWC mitigation measures

Mainstreaming HWC mitigation into key sectors

Necessary knowledge, skills, and attributes for effective and participatory Human Wildlife Conflict Mitigation

Enhanced effectiveness and sustainability in training delivery on HWC

Support to key training Institutions

Competence development of key stakeholders; Strengthening cross sector networks

Addressing competence development of wildlife managers

A CAPACITY DEVELOPMENT SYSTEM FOR EFFECTIVE AND PARTICIPATORY HUMAN WILDLIFE CONFLICT MITIGATION IN INDIA

A CAPACITY DEVELOPMENT SYSTEM FOR EFFECTIVE AND PARTICIPATORY HUMAN WILDLIFE CONFLICT MITIGATION IN INDIA

Participation of local communities (esp. rural poor and women) in implementing HWC mitigation measures
Indo-German Technical Cooperation Project
Human Wildlife Conflict Mitigation (HWC) in India

Commissioned by: German Federal Ministry for Economic Cooperation and Development (BMZ)

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Published by Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
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Designed Aspire Design, New Delhi
Photos GIZ/ Dr Neeraj Khera

GIZ is responsible for contents of this publication