Food and Agriculture Organization of the United Nations

SUSTAINABLE DEVELOPMENT GOALS

ADDRESSING THE HUMAN-WILDLIFE CONFLICT TO IMPROVE PEOPLE'S LIVELIHOODS

FAO assists Member Countries to prevent and reduce human-wildlife conflicts by approaching it as an interrelated social and technical issue, in order to improve food security, livelihoods and health of rural populations, and help them sustainably manage their natural resources.

WHAT IS HUMAN-WILDLIFE CONFLICT?

Human-wildlife conflict is defined as struggles that emerge when the presence or behaviour of wildlife poses actual or perceived, direct and recurring threat to human interests or needs, leading to disagreements between groups of people and negative impacts on people and /or wildlife.

DIRECT CAUSES

- AGRICULTURAL EXPANSION
- URBANIZATION
- INFRASTRUCTURE DEVELOPMENT
- CLIMATE CHANGE
- WILDLIFE POPULATIONS GROWTH AND RANGE EXPANSION

Human-wildlife conflict occurs in areas where wildlife and human populations overlap, including in the borders of protected areas, and are detrimental to both humans and wildlife. The causes of human-wildlife conflict are varied and site-specific.

TYPES OF CONFLICTS AND INVOLVED ANIMALS

DESTRUCTION OF CROPS	ATTACKS ON LIVESTOCK	HUMAN DEATH AND INJURIES	ROAD ACCIDENTS	TRANSMISSION OF ZOONOTIC DISEASES
ELEPHANTS	**LIONS**	**CROCODILES**	**DEERS**	**PRIMATES**
PRIMATES WILD BOARS BIRDS HIPPOPOTAMUSES RODENTS	WOLVES LEOPARDS LYNXES HYENAS JAGUARS	TIGERS BEARS ELEPHANTS LIONS HIPPOPOTAMUSES	ANTELOPES MOOSES ELKS COYOTES WILD BOARS	RODENTS WILD BOARS BIRDS FOXES JACKALS

CASES IN POINT

SOUTHERN ZIMBABWE

LOSS PER HOUSEHOLD: USD 800

Between October 2014 and October 2016, an annual economic loss of agro-based communities of Mutema-Musikavanhu was about USD 800 per household due to crops raiding and livestock predation.

INDIA

DEATHS: 1 713 people / 373 elephants

From 2015 to 2018 more than 1 713 people and 373 elephants died due to human-elephant conflict.

UNITED STATES

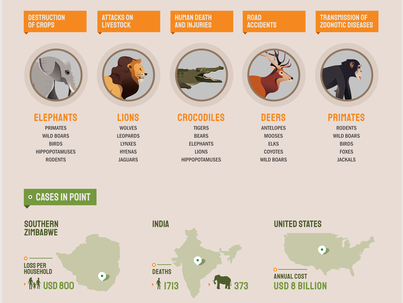
ANNUAL COST: USD 8 BILLION

From 1 to 2 million of large animals are hit every year on highways, resulting in about 200 human deaths and close to 30 000 injuries, with an annual cost of over USD 8 billion.

Human-wildlife conflict involves a huge variety of species and occur in a diversity of situations, inflicting direct and indirect, tangible and intangible consequences.

Effective management of human-wildlife conflict is crucial for ensuring food security, strengthening conservation efforts, promoting rural development and achieving the Sustainable Development Goals.

KEY MANAGEMENT APPROACHES



1. **INCREASING BENEFITS OF WILDLIFE** — Tourism, recreation, revenue-sharing
2. **LIVESTOCK AND CULTIVATION** — Cropping cycle, guarding, protection collars, vaccination
3. **BEHAVIOUR MODIFICATION** — People relocation, education, awareness, trainings
4. **LAND USE PLANNING** — Unpalatable crops, habitat modification, prey and ecosystem management
5. **NON-LETHAL CONTROL** — Translocation, disease management, fertility control
6. **ECONOMIC** — Compensation, insurance, alternative income
7. **PHYSICAL SEPARATION** — Fences, zoning, deterrents, repellents
8. **GOVERNANCE** — Laws, policy, stakeholder engagement, participatory planning

LOCAL SOLUTIONS

Human-wildlife conflict management strategies must be tailored to fit the particular social, political and cultural characteristics of the communities being affected.

INTERCONNECTED BEEHIVES IN KENYA

From **2012** to **2015**, after deploying **131** interconnected beehives around **10 trial farms** next to **Tsavo East National Park**, out of **253 elephants** that entered the farming area, **80%** of them were kept out of the areas protected by the beehive fences.

JAGUAR ECOTOURISM IN BRAZIL

In **2015**, in the **Brazilian Pantanal**, the benefits accrued from jaguar ecotourism represented an annual revenue **56 times higher** than the annual livestock depredation caused within cattle ranches.

Successful management of human-wildlife conflict requires an interdisciplinary set of approaches and an in-depth understanding of its social, political and cultural root causes, and must take into account the particular values structure of the communities being affected.

GOOD PRACTICE GUIDANCE TO REDUCE AND PREVENT HUMAN-WILDLIFE CONFLICT

1. TAKE INTO ACCOUNT SOCIAL, POLITICAL AND CULTURAL ROOT CAUSES
2. FORMULATE CASE-SPECIFIC POLICIES AND STRATEGIES
3. DEVELOP AN INTEGRATED LAND-USE PLANNING SYSTEM
4. EMPOWER AFFECTED LOCAL COMMUNITIES FROM THE START
5. BUILD EFFECTIVE EARLY-WARNING SYSTEMS
6. SET UP RIGOROUS DATA COLLECTION SYSTEMS
7. CREATE ROBUST MONITORING AND REPORTING FRAMEWORKS
8. ESTABLISH MULTI-SECTORAL PARTNERSHIPS FROM THE OUTSET

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