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HUMAN-WILDLIFE CONFLICT & COEXISTENCE
/ CASE STUDIES

PRESERVING AND NURTURING DEEPLY INTERCONNECTED CULTURAL RELATIONSHIPS TO FACILITATE COEXISTENCE

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INTRODUCTION

The Dibang Valley (*Chithu Huluni* in the Idu language), located in the northeastern Indian state of Arunachal Pradesh, is the ancestral homeland of the Idu Mishmi people. The Valley has mixed vegetation, including tropical and sub-tropical forest and bamboo, as well as temperate broad-leaved and conifer forests. The elevation rises from 100 m to above 5000 m across its 13000 km2 mountainous geography. The forests host diverse wildlife species, including tiger *Panthera tigris*, common leopard *Panthera pardus*, clouded leopard *Neofelis nebulosa*, wild dog *Cuon alpinus*, Mishmi takin *Budorcas taxicolor* and Himalayan musk deer *Moschus chryogaster*.

The Idu Mishmi are traditional animists for whom *"human dispositions of consciousness, intentionality, and mortality belong to all beings, including animals and spirits"*. According to Idu origin stories, tigers are their elder brothers. Consequently, harming or killing a tiger is the most serious taboo, one that invites grave danger to the "murderer".

DESPITE THE DANGERS OF SHARING SPACE WITH TIGERS, THIS PROFOUND BELIEF HAS FOSTERED THE LONGSTANDING COEXISTENCE BETWEEN THE IDU MISHMI AND TIGERS.

KEY INSIGHTS & LESSONS LEARNT
ON PAGE 10

DIBANG VALLEY

ARUNACHAL PRADESH, INDIA

Between 2013 and 2015, a team of researchers and local Idus conducted the first ever scientific camera trap study on tigers in the Dibang Valley. The study revealed a higher tiger population in the Dibang Valley than in many of the government-managed tiger reserves. This unique phenomenon was attributed not to park guards and a top-down management approach, but rather to the protective influence of the Idu culture. Shortly afterwards, a team of government scientists conducted camera trap surveys in Dibang Wildlife Sanctuary, a protected area located in the northern part of the Valley. The sanctuary was declared in 1998, apparently without local consent.

THE GOVERNMENT SCIENTISTS RECOMMENDED THE IMPLEMENTATION OF A TOP-DOWN TIGER RESERVE MODEL IN A SECTION OF THE SANCTUARY. THESE PROPOSED PLANS CARRY THE INHERENT RISK OF UNDERMINING AND DISRUPTING THE EXISTING HUMAN-ANIMAL RELATIONSHIPS.

This case study covers the historical background to these relationships between the Idu Mishmi people and tigers, exploring how external interventions - specifically, the implementation of a top-down tiger reserve model - may lead to unintended negative outcomes for both the Idu Mishmi and the tiger population, and it will examine ongoing efforts to maintain these intricate relationships.


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SETTING THE SCENE

The Idu Mishmi are one of the nearly 30 Indigenous groups in the northeast Indian state of Arunachal Pradesh. In Arunachal Pradesh, local communities have *de facto* ownership of the land and forests. Each Idu village possesses exclusive rights over its ancestral land. While the majority of the land is communally owned within the village, each family also holds its allocated forest land for farming and trapping. Stringent rules govern family and clan-owned land, and Idu individuals from other families/clans are not permitted to enter another family/clan's land unless permitted.

THE SIGNIFICANT CULTURAL RELATIONSHIP BETWEEN TIGERS AND IDU MISHMI STEMS FROM THE BELIEF THAT THE FIRST IDU AND THE TIGER SHARED THE SAME ANCESTRAL PARENTS AND WERE THEREFORE BROTHERS.

A disagreement occurred between these two brothers, leading to the Idu brother killing the tiger. According to the Idu Mishmi beliefs, the deceased brother was rebirthed as a tiger and sent to the mountains. However, the act of killing resulted in an ancestral curse affecting both the Idu and the tiger. It warned that if they killed each other again, the entire lineage would suffer the consequences. This belief has established the framework within which people and tigers in the region live. However, if threats to human life or property posed by tigers become too grave and the decision has to be made to remove a tiger, a lengthy, costly,

and challenging ritual is performed to purify, protect, and cleanse the individual responsible for killing the tiger. This is because the spirit of the deceased tiger is considered dangerous and vengeful. This deep human-animal-spirit relationship within the Idu Mishmi community restricts tiger killings. Therefore, tigers have not been eliminated from the region, despite the economic and psycho-emotional costs associated with coexisting with them, and widespread local knowledge of the high value of tiger parts in illegal markets. This stands in contrast to other areas where illegal trade is prevalent, and no such cultural protections exist.

Moving onto the research, the initial scientific camera trap study by the Idu-led team in 2013-2015 had found many more wildlife species in the Idu-owned forests than inside the sanctuary. Out of the 12 tigers captured on the camera traps, eight were found in the Idu-owned forests.

THE COMMUNITY-OWNED FORESTS, DESPITE LACKING GUARDS, GOVERNMENT FUNDING, FORMAL TIGER MANAGEMENT PLANS OR TOURISM, HOSTED MORE WILDLIFE THAN THE SANCTUARY. IT BECAME APPARENT THAT THE TIGERS KNEW HOW TO LIVE WITH PEOPLE AND THE PEOPLE WITH TIGERS.

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Concerning tiger diet, the presence of the semi-domesticated mithun *Bos frontalis* provided an important atypical prey source for tigers. Weighing up to 800 kg, mithuns are much bigger than the typical barking deer *Muntiacus muntjak*, which constitutes the majority of their natural prey. Retaliatory killings for mithun depredation were minimised due to cultural prohibitions.

IDU SHAMANS, SERVING AS THE SPIRITUAL AUTHORITY WITHIN THE COMMUNITY, WERE BELIEVED TO POSSESS THE ABILITY TO SHAPE-SHIFT INTO TIGERS, AND TIGERS ARE AN IMPORTANT SOURCE OF POWER FOR THE SHAMANS.

Statistical population models predicted that 25-50 individuals (2 percent of the global tiger population at the time) could be found in the Dibang Valley - a remarkable revelation considering that most scientists doubted the possibility of tigers existing in such unprotected landscapes. In this context, coexistence was not merely an external imposition, it was an ingrained way of life. These findings reiterated to the researchers that tigers were well-protected through Indigenous systems and did not need external interventions for protection. The region already boasted an abundance of tigers and their prey, supported by deeply interconnected relationships with people.

PROBLEM ANALYSIS

In 2018, a government-backed research institute published a report stating that the Dibang Wildlife Sanctuary held the highest population of living tigers in India. There were reports that the Sanctuary might be declared a tiger reserve. This sparked concerns that such a designation might result in the exclusion of the Idu Mishmi people from their ancestral lands, while still expecting them to live alongside tigers.

INSTEAD OF THE IDU MISHMI CULTURE MEDIATING THE IMPACTS BETWEEN THE IDU MISHMI AND TIGERS, THE ROLE WOULD BE ASSUMED BY THE FOREST DEPARTMENT.

Additionally, similarly to other regions of India, compensation programmes may be initiated to manage "conflict". This shift in dynamic risked eroding the complex yet mutually dependent relationship between the Idu Mishmi and tigers.

Furthermore, the Idu Mishmi represent a cultural minority, with a small population of fewer than 14 000 people speaking their own distinct language – a language recognized as endangered by UNESCO.

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SOCIAL AND RELIGIOUS CHANGE IS STARTING TO INFLUENCE THE TRADITIONAL IDU MISHMI ANIMIST BELIEF SYSTEM, RESULTING IN SHIFTS IN THEIR UNDERSTANDING OF LIFE, LANDSCAPES, AND TIGERS.

Similar to Indigenous youth globally, the Idu Mishmi youth are losing their language and the traditional knowledge. Additionally, Idu shamans, traditionally custodians of the culture, are no longer undergoing self-initiation, contributing to a gradual decline in the community's pride in being Idu.

In response to the rapidly changing landscape, in 2020, a group of local Idu individuals established a rights-based bio-cultural conservation and research programme (hereafter, "programme"), led by the Idu people themselves, with support from non-local scientists.

THE PRIMARY GOAL OF THE PROGRAMME WAS NOT ONLY TO GAIN A DEEPER UNDERSTANDING OF THE SITUATION, BUT ALSO ADDRESS CHALLENGES AT THE GRASSROOT LEVEL, ROOTED IN LOCAL CULTURE, KNOWLEDGE, PRIORITIES, AND REALITIES. THIS APPROACH, WHILE STILL EMBRACING WESTERN SCIENCE, EMPHASIZED A FAIRER, RIGHTS-BASED APPROACH.

PROCESS FOR INITIATING RESEARCH AND CONSERVATION ACTIVITIES

Generally speaking, at the outset of any research or conservation activity, the project team holds a series of meetings with clans, apex bodies and other land rightsholders. During this session they articulate the objectives of their undertaking and the rationale behind it, following the Free, Prior and Informed Consent (FPIC) process. There is often a team member within the programme team from the Idu clan where the research will be conducted who helps the team with the initial engagement. Once it is decided what the villages/clans wishes to do and what will happen with any research data, a letter or resolution is written from the point of view of the village. The Indian Constitution recognises these village councils (*Gram Sabhas*) as legal entities. The letter is dispatched to both the District Administration and the Forest Department, formally declaring the intention to do specific research or a conservation activity on their ancestral land. Such a letter is only issued when there is unanimous agreement within all rightsholders.

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Upon dispatching the letter, the process of data collection begins. The team is trained in various scientific and local research methods.

THE IDU LANDOWNERS ARE INVOLVED IN ALL COMPONENTS OF THE RESEARCH.

For example, when conducting a camera trapping study to research terrestrial wildlife in community forest, the Idu landowners and elders take the team into the forest to place the cameras. The team then collects and analyzes the data, after which a large village council meeting is held. The ownership of the data rests with the community, and dissemination beyond the village boundaries requires their consent. As the programme works across numerous Idu villages and clans, a collective assembly of clans is sometimes convened to present research results. This initial meeting starts the process of multiple meetings and subsequent discussions to determine the course of actions, based on the findings, and local interests and priorities.


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ACTIVITIES

THE RIGHTS-BASED BIOCULTURAL CONSERVATION AND RESEARCH PROGRAMME IS FIRMLY ROOTED WITHIN THE IDU MISHMI LOCAL CULTURE. WHETHER IT IS SCIENTIFIC RESEARCH, CONSERVATION ACTIVITIES, OR SCHOOL EDUCATION PROGRAMMES, ALL ASPECTS ADHERE TO THE TRADITIONAL IDU PROTOCOLS AND WORLDVIEW.

Nowadays, the programme team continues to conduct research using camera traps to document terrestrial wildlife in the area, gaining further insights into how the wildlife, including tigers, respond to the evolving threats as the landscape changes.

Beyond wildlife research, the team has also worked with the Idu Mishmi apex body to establish a shaman programme in 2021.

THIS INITIATIVE AIMS TO RECRUIT AND TRAIN A NEW GENERATION OF SHAMANS, ENSURING THE CONTINUITY OF IDU CULTURE AND SUSTAINABLE RELATIONSHIPS BETWEEN NONHUMAN LIFE, LAND AND THE IDU MISHMI CONTINUES TO BE MEDIATED.


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Additionally, efforts are made to balance the non-local curriculum taught in local schools through a new storytelling-based curriculum around Idu folktales and embodied Indigenous knowledge. In this initiative, called Taju Taye in Idu, or Ancestral storytelling, team members organise monthly activity-based storytelling sessions in local schools.

Regarding the mithun, the programme has observed a higher mortality rate among this species, extending well beyond what could be attributed to tiger predation. To examine this issue, the programme is conducting a longitudinal study of reasons for mithun mortality. A bimonthly mithun census is being undertaken, examining aspects such as recruitment, population size, and factors contributing to deaths. It was found that diseases brought in by cattle, accidents due to infrastructure building and domestic dogs are some leading causes of mithun mortality, in addition to depredation by tigers and wild dogs. This study holds particular significance for the livelihoods of the Idu people in the region.

OUTCOMES

In response to the results of camera trap studies and the diverse wildlife living on their community land, four Idu clans have united to declare their ancestral land as a community conserved area (CCA). This land is being conserved through a rights-based approach, low-impact tourism, and employment opportunities to benefit both conservation efforts and local livelihoods of clan's people.

THE CCA IS AN EXAMPLE OF COMBINING ANCESTRAL TRADITIONS WITH NEWER REALITIES AND APPROACHES – A LAND WHERE PEOPLE, ANIMALS, SPIRITS AND THEIR INTERRELATIONS WILL COEXIST LIKE THEY ALWAYS HAVE.

A new ethno-primatological research project focusing on Hoolock gibbon ecology, behaviour and conservation needs has been launched within the CCA. Gibbons, like tigers, are considered human-kin and are not hunted. This initiative blends scientific techniques with Idu beliefs around gibbons. Finally, based on the team's findings, other clans have adopted measures to ban outsider hunting and use of their community forests.

The programme's research on mithun elevated mortality rates were found to be attributable to various developmental activities in the area, leading to a reduction in their foraging areas and an upsurge in disease transmission due to heightened human presence. In some areas, tiger populations are decreasing, but there is a surge in feral dog numbers, contributing to predation on the mithun. These findings will guide future interventions that will be co-developed with mithun owners.

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LESSONS LEARNT

01 | IMPORTANCE OF HETEROGENEITY

The programme recognises unique characteristics of every Idu Mishmi clan or village, avoiding the assumption that all villages will respond similarly. While scaling an activity directly from one village to another may not be possible, the programme emphasizes scalability of the engagement process. This approach accommodates the region's heterogeneity, ensuring that the implemented activities are tailored to be most suitable for each community.

02 | RECOGNITION OF RIGHTS

Without glamorizing or patronizing Indigenous knowledge and the precarity of Indigenous/rural life, the team recognizes the inherent rights of local communities. They make concerted efforts to *decolonise* Western science, striving for fairness and justice in their approach.

03 | LEGITIMATE ASPIRATIONS OF COMMUNITIES

The programme is responding to aspirations of a rapidly changing Indigenous People in a complex world that is the legacy of colonialism and capitalist extraction. Therefore, the programme works to help the communities achieve their aspirations while ensuring that biodiversity coexists with Idu Mishmi culture as per the traditional principles.

04 | PATIENCE IS PARAMOUNT

The programme recognises that genuine engagement is a time-intense, painful and emotional process, and may encounter setbacks. Despite the challenges, this approach far outweighs rapid assessments that may lead to top-down actions and short-term band-aid solutions. When the engagement is done correctly, the outcomes are sustained, but it requires ongoing support. The community-driven decision-making process can span months of thoughtful and, often, tense discussions.

05 | CONSCIOUS LONG-TERM PARTNERSHIPS

The programme maintains long-term dedicated relationships with donors, who are aware of their positionality. By fostering close collaboration, the project seeks to reshape the traditional power relations between donors and grantees, promoting a more egalitarian and collaborative approach.

06 | LOCAL DECISION-MAKING

If disruptions to the Idu culture-land-nonhuman relations are observed, the programme tackles them from a combined cultural and scientific perspective. All the decision-making is entirely in the hands of the Idu Mishmi team and the Idu rightsholders.

FURTHER INFORMATION

- Tribal Tigers
- Elopa and Etugu villagers declare ancestral land as community conserved area
- Protecting land and life: Dibang Valley's first community conserved area
- Relations of blood: hunting taboos and wildlife conservation in the Idu Mishmi of Northeast India. Journal of Ethnobiology. 2020
- Does polymorphism make the Asiatic golden cat the most adaptable predator in the Eastern Himalayas? Ecology. 2019

DISCLAIMERS

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ABOUT THE CASE STUDIES

The **Food and Agriculture Organisation of the United Nations** (FAO) and the **IUCN SSC Human-Wildlife Conflict & Coexistence Specialist Group** (HWCCSG) have jointly developed a set of case studies with the aim of covering the process projects have taken to manage various aspects of a human-wildlife conflict & coexistence situation. This case study is one of many that will be used to illustrate key components of the **IUCN SSC Guidelines on Human-Wildlife Conflict & Coexistence**. The published case studies can be found in the **Human-Wildlife Conflict & Coexistence Library**.

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