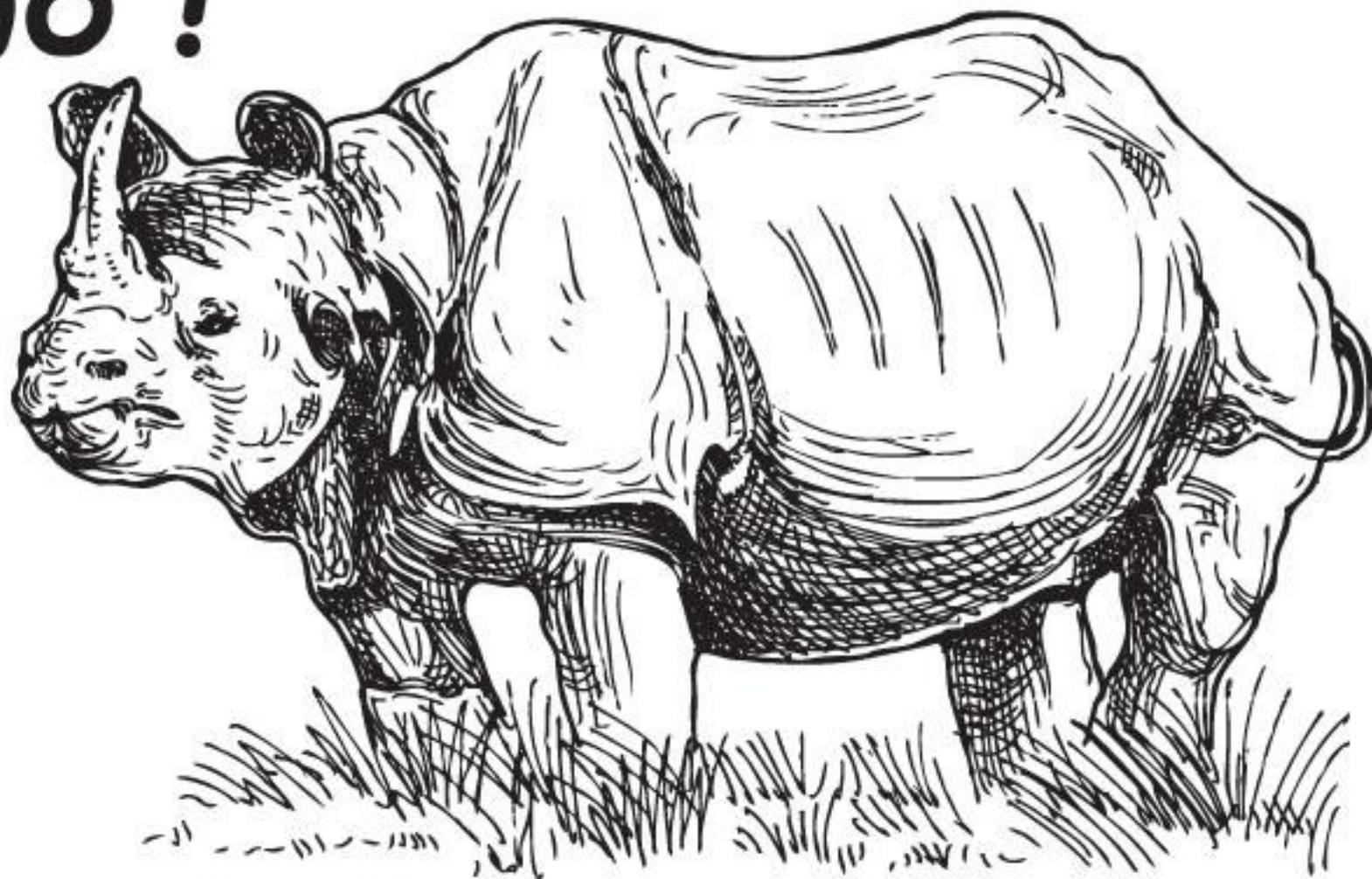


# Rhino!



*Our Recognition; Our Pride*

8<sup>th</sup> ANNUAL  
**WORLD RHINO DAY**



**5**  
RHINO SPECIES  
FOREVER!

**22 SEPTEMBER 2017**

[worldrhinoday.org](http://worldrhinoday.org) | [facebook.com/worldrhinoday](https://facebook.com/worldrhinoday) | [#worldrhinoday](https://twitter.com/worldrhinoday)



RHINO CONSERVATION (Educational Toolkit)

# गैडा संरक्षण

(शैक्षिक पुस्तिका)

**RHINO CONSERVATION** (Educational Toolkit)



सुमन मट्टराई  
दीपा पौडेल



"Conserve Wildlife for

SWC Regd. No. 129

tion of Mankind"

# SOCIETY FOR WILDLIFE RESEARCH & CONSERVATION

Institute of Forestry (IoF), Pokhara Campus, Pokhara

साउन २०७५

JULY/AUG. 2018

आइतबार SUNDAY	सोमबार MONDAY	मङ्गलबार TUESDAY	बुधबार WEDNESDAY	बिहीबार THURSDAY	शुक्रबार FRIDAY	शनिबार SATURDAY
	१	२	३	४	५	
६	७	८	९	१०	११	१२
१३	१४	१५	१६	१७	१८	१९
२०	२१	२२	२३	२४	२५	२६
२७	२८	२९	३०	३१		

9846037087

9850000000

**STATION**  
— THE FOOD CLUB —

Niva Galli, Chipledhunga

**IOF Cafeteria**

Proprietor: Bishnu Gurung

मंसिर २०७५

AUG./SEP 2018

आइतबार SUNDAY	सोमबार MONDAY	मङ्गलबार TUESDAY	बुधबार WEDNESDAY	बिहीबार THURSDAY	शुक्रबार FRIDAY	शनिबार SATURDAY
३१					१	२
	३	४	५	६	७	८
१०	११	१२	१३	१४	१५	१६
१७	१८	१९	२०	२१	२२	२३
२४	२५	२६	२७	२८	२९	३०



© Rhinos Photos, The Rufford Foundation, www.rufford.com

असोज २०७५

SEP./OCT. 2018

आइतबार SUNDAY	सोमबार MONDAY	मङ्गलबार TUESDAY	बुधबार WEDNESDAY	बिहीबार THURSDAY	शुक्रबार FRIDAY	शनिबार SATURDAY
	१	२	३	४	५	६
७	८	९	१०	११	१२	१३
१४	१५	१६	१७	१८	१९	२०
२१	२२	२३	२४	२५	२६	२७
२८	२९	३०	३१			

Rhino!



Our Recognition Our Pride

Rufford

Institute of Forestry

CGO  
Rajendra Shrestha

Rhino!



Our Recognition Our Pride

Rufford  
Trust



000  
Rhino Conservation  
Trust

# Proposal Development (Rhino Conservation Project Sharing)

**S Bhattarai, BH Wagle, D Paudel**

The  
**Rufford**  
Foundation  
www.rufford.org



  
**Asian Rhino  
Project**

**Date: March 10<sup>th</sup>, 2017**



# Proposal

- Document of activities aimed at **solving a certain problem.**
- Document proposing a research project, generally in the sciences or academia, and generally constitutes a **request for sponsorship of that research.**
- For success,
  - Document should provide a **logical presentation** of a research idea.
  - **Cost and potential impact** of the proposed research, and the **soundness** of the **proposed plan** for carrying it out.

**Title**

# Proposal content

**Abstract**



# Proposal Content

## Title

- Short as much as possible
- Catchy but not vague
- Not conjunction/double sentence (i.e. which, that, because)
- Something new with attractive words/message
- Mark (?, :, ;)

# Proposal Content

## Title

- 1. Rhino outside the protected area: Evaluation of Habitat and People Perception for Long Term Conservation**
- 2. Rhino movement outside the protected area: Habitat Suitability and People Perception for Long Term Conservation**
- 3. Occurrence of Rhino beyond Protected area: Habitat Suitability and People Perception for Long Term Conservation**
- 4. Rhino population beyond (outside) the protected area: habitat monitoring, local perception evaluation and knowledge deliberation for sustaining increased population**

# Proposal Content

## Abstract

- Short as much as possible (100, 200, 250 or <300 words)
- Simple language and words (technical term preferable but not necessary of scientific name)
- Clear message (not necessary of citation, not many data figure besides zest)
- Cover all (objective, method, output/impact)

# Proposal Content

## Abstract

<100 words

Rhino is nationally protected, globally threatened with extinction, vulnerable and highly sensitive species. Once widely distributed its population dropped less than 100-individuals in 1966 and confined in small pockets inside Chitwan National Park. Regained population in 2000 again downed by 32% in 2005 and now revived with 605 individuals in 2015. Recent count (2015) has found rhinos outside the park/bufferzone which comes under the less priority of current conservation program. Similarly, increased population in new areas can bring many conservation issues; conflicts, local perception/understanding, habitat suitability/availability, which has raised question mark in sustaining increased population. Hence project became crucial.

# Proposal Content

## 1. Background

## 1. Origin of Work

- How is this concept emerged or realized?
- Does this concept have enough supporting evidence?
- What others have done so far, what is the gap among them?

# Proposal Content

## 1. Background

## 2. Objective

- **General objective (somewhere optional)**
  - Understand habitat suitability and people perception for long term conservation rhino in outside the protected area.
- **Specific objective (Should be answered)**
  - Appraise habitat suitability of rhino outside the protected area
  - Assess people understanding towards increased population of rhino
  - Organize community outreach activities as instant action to disseminate importance of rhino

# Proposal Content

## 1. Background

## 3. Contribution of Work

- What contribution will your project/research make; targeted species, habitat, ecosystem, associated species, stakeholders?
- It should be objective wise;
  - 1. habitat condition will be appraised which support as evidence to develop habitat management plan.
  - 2. people understanding/conception will be assessed which help to appropriate action to encourage local stakeholders.
  - 3. Instant action will disseminate the importance of rhino that helps to motivate target groups

# Proposal Content

## 2. Project Activity

## 1. Project Site

- Globally Importance (UNESCO-Heritage site, Ramsar Site, IBA, AREA)
- Significance of project site to concerned species
- Significance of project site to other species
- Does developed project contribute to enhancement of the site as per its importance?

# Proposal Content

## 2. Project Activity

## 2. Field Work

- More the better
- Depend on project objective (season wise)
- Depend on resources availability (time, money and labour)
- Keep more budget on field (DSA/Acomodation)

# Proposal Content

## 2. Project Activity

## 3. Activity & Time Schedule

- What activity and when?
- Should be sequential ?
- Based on resources, purpose of need, ecological behavior etc.
  - **Habitat Suitability:** preliminary survey (**1<sup>st</sup> month**), record investigation, vegetation survey, waterhole survey, direct observation, habitat mapping, expert consultation etc.
  - **Perception:** Key Informant Interview, household survey, focus group discussion, interaction etc.
  - **Community outreach:** School teaching, woman education, youth mobilization, poster, booklet and other extension material

# Proposal Content

## 3. Method

### 1. Method to be used (how?)

- Preliminary survey > whole-parts (major-minor)
- Record investigation > report
- Vegetation survey > grid, plot, count
- Waterhole survey> count and measurement
- Direct observation> threats, species occupancy
- Habitat mapping > GIS based on vegetation/waterhole survey
- Expert consultation etc.> Meeting
- Key Informant Interview> office/hh/farm visit
- Household survey >caste/wellbeing/occupation/education
- Focus group discussion> crosscheck (group)
- Stakeholder Interaction etc.> different level (local to national)

- School teaching
- Woman education
- Youth mobilization
- (most sensitive group)**
- Poster,
- Booklet/Article
- Other extension material
- (with conservation message in local/scientific language)**

# Proposal Content

## 3. Method

## 2. Reasoning (Why these Method?)

- Reason behind using these methods/activities (other's experience)
- Other results and their effectiveness
- What other's literature says?
- Technical/Scientific results need accurate and precise method that should be adopted by renowned people.
- Follow the peer reviewed articles while justifying the method. (Keep citation accordingly)

# Proposal Content

## 4. Conservation benefits

## 1. Conservation Output

- **Habitat condition explored**
- **Comprehensive report prepared**
- **Local perception assessed**
- **Importance of rhino conservation disseminated**
- **Perception positively changed**
- **Article (local/scientific) published**
- **Stakeholders attention captured**

# Proposal Content

## 4. Conservation benefits

## 2. Conservation Importance

- Species categorization (IUCN, CITES, National). (with trend is better)
- Associated Species and their status (IUCN, CITES, National) also
- Associated Habitat and their national/regional/global status (UNESCO, RAMSAR, IBA, AREA)

# Proposal Content

## 4. Conservation benefits

## 3. Value Addition (Continuity)

- Conservation outputs and its continuity
- Potential future benefits
- Chance of project replication (self, community and other individuals/institution)
- Other similar areas where the project can be replicated if better results come.

# Proposal Content

## 5. Monitoring

### 1. Short term

- Major: it tracks project in right direction as per objective
  - Time schedule wise deliverables
  - People participation
  - Change in people's perception
  - Analysis of feedback
  - Regular reporting and sharing
  - Publication
  - Exploration of habitat condition
  - Scientific articles (citation)
  - Comprehensive report
  - Development of new project based on finding

**Internal:** (self/team member ), **External:** Supervisor/referee/people & other, **Jointly:** both

# Proposal Content

## 5. Monitoring

2. Long term

- Change in people's behaviour
- Trend of their participation
- Number of activities initiated by local people
- Change in forest and waterhole condition
- Intensity of human-rhino conflict
- Locally adopted mitigation measures
- Intensity of rhino movement and population status in the area
- Citation of article
- Utilization of extension material in future
- Regular update as follow up after project completion

# Proposal Content

## 5. Monitoring

## 4. Dissemination/Scaling Up

- Publication (booklet, poster, pamphlets, brochure)
- Scientific articles
- Comprehensive report
- Regular Update
- Social Media
- Radio
- Local Paper
- Public hearing
- Notice dispatch in public area

# Proposal Content

## 6. Team Spirit

## 1. Team Description

- Single person may not perfect to all objective/method
- Team building good but not always compulsion
- Experts can be hired when/wherever necessary
  - Biodiversity related (biologist/naturalist/academician)
  - GIS and mapping
  - Social science (human wildlife coexistence related)
  - Local friendly
  - Training experts

# Proposal Content

## 6. Team Spirit

## 2. Skill

Single person may not have all skill to undertake method but team leader (applicant) have skill to handle the project.

- Resource Inventory
- Habitat Analyzing (biologist/naturalist/academician)
- GIS and mapping
- Social science (human wildlife coexistence related)
- Linguistic
- Training facilitation
- Reporting
- Author
- Other relevant experience so that funding agency can believe

# Proposal Content

## 6. Team Spirit

## 3. Equipment

- Required Equipment increasing efficiency and cost optimization
  - GPS
  - Camera
  - Multi media
  - Computer/printer
  - Communicating
  - Field gear

# Proposal Content

## 6. Team Spirit

## 4. Link

- Media (Local/National/International, Digital, paper, audio)
- Local Stakeholder (School, conservation institution, CBOs, NGOs, Clubs, User Group, Government)
- National / International stakeholder : Species (IUCN/CITES, rhino- IRF, save the rhino international, Asian rhino project etc) / habitat focused (RAMSAR/UNSECO/AREAs)
- Academia / researchers / naturalist / conservationist

# Proposal Content

## 7. Budget

### 1. Budget Justification

- The most important part so think 100 times.....
- The more detail, the better
  - Field activities (food, accommodation)
  - Consumable (Transportation (local), Communication, Stationery, Beverage/snacks, Battery etc)
  - Activities (No salary but resource person fee)
  - Discourage equipment expenses (no purchase, hire if necessary)
  - Encourage extension material production
  - Detail:
    1. food: 150 man days @ 10 \$ =1500\$
    2. Accommodation: 120 man days @ 10 \$=1200\$
    3. Transportation: Distant 10 person @ 10 \$ for 2 times= 200\$  
Local 200 liter fuel @ 1\$= 200\$
  - Reduce your budget in equipment hire and purchase. If need to purchase, mentioned its further use

# Proposal Content

## 7. Budget

## 2. Additional Funding

- Show clearly if you have additional funding sources (either kind or monetary), either secured or expected too.
- Please ensure no double funding for one proposal if not mentioned in proposal.
- If you need more funding to cover more area, you can elaborate request with details.
- Co-funding (either monetary or kind or equipment support) increases chance to get funding.
- Open to all

# Proposal Content

## 8. Reference

### 1. Literature

- Recent and updated
- Peer reviewed article (the most important technical/scientific)
- Government / World Bank / UN or renowned institution (authorized) publication
- If new species with limited literature, use information gained from discussion with renowned experts as personal communication
- Media (renowned) based also works if issue is instant

# Proposal Content

## 8. Reference

## 2. Citation

- Citation is utmost in case data (figure), ranking, specific findings
- Higher the citation means strong backstopping or evidence based but should be real and accurate
- Direct citation keeps high value than indirect citation
  - (Wagle et al 2017 than Wagle et al 2017 in Bhattarai 2017)
- Don't hesitate to keep renowned expert view as personal communication

# Proposal Content

## 8. Reference

## 2. Listing

- There are many ways of listing/writing reference depending on publication institution
- Banko Janakari
- APF and so on
- But some funding agencies may not ask reference.

# Proposal Content

## 9. Risk/Assumption

## 2. Risk and minimization

- Foreseen or unforeseen obstacle/constraint
  - Blockade and fuel scarcity
  - Inflation (Pound sterling: 156 downed to 130 and Euro:135 downed to 113)
  - Local people discard the proposal for implementing
  - Weather unfavorable in high altitudinal zone
- Assumption
  - Following condition will not occur
  - Community will feel ownership and involve actively
  - If occur, organize interaction program to strengthen strategy in the direct consultation with funding agency.

Good Luck

**In current Context, wildlife Biology based;**

# Research Area & Proposal Development

**S Bhattarai, BH Wagle, D Paudel**

The  
**Rufford**  
Foundation  
[www.rufford.org](http://www.rufford.org)



**Date: May 29<sup>th</sup>, 2017**

  
**Asian Rhino  
Project**



# Research

- **Gathering of data, information, and facts for the advancement of knowledge** (Shuttleworth and Martyn 2008).
- Process of steps of **collecting** and **analyzing** information to increase our understanding of a topic/issue
  - Steps: pose a **question**, **collect data to answer** the question, and **present an answer** to question (Creswell 2008)
- Studious **inquiry/examination**; especially **investigation** or **experimentation** aimed at the **discovery and interpretation of facts**, **revision of accepted theories** or **laws in the light of new facts**, or **practical application of such new** or **revised theories or laws**.

# Research Type

- There are **many kind of research**, which are classified according to their **distinct features**.
- The researchers have their **own dilemma** in **judging and explaining** the type of research.
- However, it **can be classified** according to Purpose, Process/approach, Outcome and logic of the research

# Research Type

Basis of classification	Types
<b>Purpose of research</b> (The reason <b>why</b> it was conducted )	<ul style="list-style-type: none"><li>•Exploratory research</li><li>•Descriptive research</li><li>•Analytical research</li><li>•Predictive research</li></ul>
<b>Process/Approach of research</b> (The way in which the <b>data</b> were <b>collected</b> and <b>analysed</b> )	<ul style="list-style-type: none"><li>•Quantitative and Qualitative</li><li>•Inferential, Experimental and Simulation</li></ul>
<b>Outcome of the research</b> (Whether the expected outcome is the <b>solution to a particular problem</b> or a more general <b>contribution to knowledge</b> )	<ul style="list-style-type: none"><li>•Applied research</li><li>•Basic research</li></ul>
<b>(Logic of the research)</b> (Whether the research logic moves from the <b>general to the specific</b> or <b>vice versa</b> )	<ul style="list-style-type: none"><li>•Deductive research</li><li>•Inductive research</li></ul>

# Research

## Basic Step

1. Identify the research problem
2. Literature review
3. Formulation of objectives/researchable question/hypothesis
4. Research design including sampling design
5. Data collection using different methods
6. Choosing the method of data analysis
7. Interpreting the results as answer to research question.
8. Report writing and presentation

**But, we are looking for rationale issue for research**

# Research Dynamism & Conservation Approach

**Single, Ignorance,  
Restriction**

**Participatory,  
Access to resources**

**User Ownership**

**Species**

**Ecosystem**

**Landscape**

**Privatization**

**Centralization**

**Decentralization**

**Federal System??**

**Whatever it is, but confine  
yourself in priority area.**

# Research Area

1. IUCN
2. CITES
3. National category/status
4. Key stone / indicator
5. Ex-situ
6. Risky (herpeto)
7. Less explored

## 2. Species

## 3. Community

1. Human-Wildlife Conflict
2. Livelihood
3. Ecotourism
4. Youth/Children
5. Tribal society

**If not new,  
present  
differently**

## 1. Habitat

## Research Area

**(Wildlife Biology)**

## 4. POLICY

1. Shifting paradigm
2. Wildlife farming
3. Ex-situ conservation
4. Translocation
5. Inter/national whim

1. Ramsar sites
2. Heritage
3. Protected Area (PA)
4. High Mountain
5. Outside the PA
6. IBA
7. Vulture Restaurant
8. Urban Area

## 5. Landscape

1. Corridor
2. Genetic
3. Movement
4. Human Dimension
5. Construction

**Need; something  
new/innovative**

# Research Area (Experience)



4064 PROJECTS IN 156 COUNTRIES

HOME PROJECTS ▾ ABOUT US ▾

## Roshan Kumar Thakur

*Using Bee as Eco-Deterrent for Crop Raiding Elephant Testing Effectiveness, Efficiency as a Tool for Human Elephant Conflict (HEC) Mitigation in Central Nepal*

Mitigation of Human Elephant Conflict (HEC) has been a challenging issue for elephant conservation. Various deterring methods viz. electric fence, chili bombs, firecrackers, crop raiding deterrence groups, chili and tobacco cultivation, honey bee fence method

Town/Region	Ayodhyapuri, Subamapur
Country	Nepal
Continent	Indian Sub-continent
Categories	Conflict, Elephants, Mammals
Date	19 Apr 2017

## Pavan Paudel

*Honey Bee Fence as a Biological Control Method to Mitigate Human-Elephant Conflict in Rautahat District of Nepal*

Town/Region	Rautahat
-------------	----------

## Kalpana Bisht

*Understanding and Analysis of Blue bull Conservation and its Conflicts with Local Communities in the Western Terai Arc Landscape of Nepal*

The Government of Nepal protects the country's endangered flora and fauna through legislation and there are 39 various animals in the protected lists. Blue bull is an

Town/Region	Banke National Park, Bardia National Park, Chitwan National Park, Parsa Wildlife Reserve, Shuklaphanta National Park
Country	Nepal

# Research Area (Experience)



**Rhino Movement outside the Protected Area** Habitat Suitability and People Perception for Long Term Conservation

Suman Bhattarai



Conserving the **Critically Endangered Chinese Pangolin** (*Manis pentadactyla*) in Sindhupalchok, Nepal

Sandhya Sharma

Nepal

Education - Indian Sub-continent - Mammals - Trade  
[Read more >](#)



Temporal and Spatial Fluctuations in Occurrence of the **Vulnerable Sarus Crane** (*Grus antigone antigone*) and their Conservation in the Western Nepal

Seejan Gyawali

Nepal

Birds - Education - Indian Sub-continent  
[Read more >](#)



Population Ecology and Harvesting Sustainability of **Threatened Medicinal Plants** *Neopicrorhiza scrophulariiflora* and *Meconopsis napaulensis* in Nepal Himalaya

Mukti Ram Poudeyal

Nepal

Indian Sub-continent - Plants  
[Read more >](#)

# Research Area (Experience)



Adopting Anti-poaching Approaches for the Conservation of **Himalayan Musk Deer** (Moschus chrysogaster) in Langtang National Park, Nepal

Mitra Pandey

Nepal

Indian Sub-continent - Mammals  
[Read more >](#)



Conservation of **Endangered Snow Leopard** in Western Bhutan

Kinley Tenzin

Bhutan

Carnivores - Conflict - Indian Sub-continent - Mammals  
[Read more >](#)



Developing Radio Programs for Mass Media Awareness about **Endangered Snow Leopard** in the Eastern Himalayas of Nepal

Ganesh Puri

Nepal

Carnivores - Communities - Indian Sub-continent - Mammals  
[Read more >](#)

**Prasun Ghimire**

**Mapping Conflict Hotspots to Reduce Human-Wildlife Conflict in Bardia National Park and its Adjoining Khata Forest Corridor, Nepal**

Nepal, despite being a developing country, the achievement it has made in the field of biodiversity conservation is praise worthy. Nepal has already celebrated 1000 Days of zero poaching of rhino. Population of mega species like Tiger, Elephant, Rhino and Leopard is increasing. The increase in wildlife population has been possible with the

Town/Region	Bardia National Park
Country	Nepal
Continent	Indian Sub-continent
Categories	Carnivores, Conflict, Elephants, Mammals
Date	10 Apr 2017

# Research Area (Experience)

Indian Sub-continent *900 projects*



Diversity and Distribution of Butterfly in **Suryabinayak Municipality** and People's Perception towards Butterfly Conservation

Sanej Suwal

Nepal

Biodiversity - Indian Sub-continent - Invertebrates  
[Read more >](#)

Butterfly new, highly ignored creature

## Suman Ghimire

Survey and Participatory Conservation Initiative for Accipitridae Vultures in **Salyan District, Nepal**

Town/Region  
Country

Salyan  
Nepal

## Deepa Paudel

**Farmland Based Important Bird Areas (Ibas): Are They Safe from Current Using Practices of Chemical Pesticides?**

Lowland, main agricultural site of Nepal, is important habitat of globally threatened birds. Due to regular irrigation facility with crop production, birds prefer these lands and their

Town/Region  
Country  
Continent  
Categories

Chitwan, Jagdishpur, Lumbini  
Nepal  
Indian Sub-continent  
Birds, Habitats

# Research Area (Experience)



**Human-Tiger Conflict** in Bardia National Park, Nepal

Babu Bhattarai

Nepal

Conflict - Habitats - Indian Sub-continent - People  
[Read more >](#)

**Whim; Mission of  
Tiger doubling 2022**



Community Outreach Programmes to Lessen **Human-Tiger Conflict** in Bardia National Park

Babu Bhattarai

Nepal

Conflict - Indian Sub-continent - Mammals - People  
[Read more >](#)



Assessing Level of Illegal Hunting of Prey Species in Northern Part of National Park, Nepal: **Implication for Carnivore Conservation**

Babu Bhattarai

Nepal

Hunting - Indian Sub-continent - Mammals  
[Read more >](#)



**Conflict and Conservation** Sharing the Costs and Benefits of Tiger (*Panthera tigris tigris*) Conservation in Communities Adjacent to Wildlife Reserves in Nepal

# Research Area (Experience)



**Human - Snow Leopard Conflict Mitigation Project, Nepal**

Bishnu Prasad Devkota

Nepal

Conflict - Indian Sub-continent - People

[Read more >](#)



**Human-Snow Leopard Conflict Mitigation Project-II Nepal**

Bishnu Prasad Devkota

Nepal

Conflict - Indian Sub-continent - Mammals - People

[Read more >](#)



**Snow Leopard Conservation People's Perception on the Verge of Rural Livelihood**

Bishnu Prasad Devkota

Nepal

Conflict - Indian Sub-continent - Mammals - People

[Read more >](#)



**Himalayan Grassland Ecosystems: Understanding the Impacts of Intensifying Pastoralism on Key Plant-Herbivore Relationships**

Buddi Sagar Poudel

Something new

# Research Area (Experience)



Understanding Populations of **Most Endangered Ganges River Dolphins** (*Platanista gangetica*) in Nepal and Initiating **Local Efforts to Conserve** Remaining Population

[Shambhu Paudel](#)

Nepal

Cetaceans - Indian Sub-continent

[Read more >](#)



Examining **Ecological Factors** Influencing **Distribution, Abundance** and **Surfacing Behaviours** of **Endangered Dolphins** in **Major River Systems** of Nepal

[Shambhu Paudel](#)

Nepal

Cetaceans - Indian Sub-continent - Mammals

[Read more >](#)

Managing **Human-Affected Rivers for Fisheries** and **Endangered River Dolphin** Conservation in Nepal

[Shambhu Paudel](#)

Nepal

Cetaceans - Indian Sub-continent - Mammals

[Read more >](#)

# Research Area (Experience)



Awareness Creating and Knowledge Imparting Project for the Conservation of Internationally Valued, Nationally Endangered and Globally Threatened Species 'Rhinoceros unicornis'.

Suman Bhattarai

Nepal

Indian Sub-continent - Mammals  
[Read more >](#)



Rhino Conservation through Livelihood Enhancement, Poor's Education and Awareness Creation by Mobilizing Youth and Community Based Organization

Suman Bhattarai

Nepal

Communities - Education - Habitats - Indian Sub-continent - Mammals  
[Read more >](#)



Conservation Based Networking and Library Establishment Project to Strengthen Rhino Conservation Program

Suman Bhattarai

Nepal

Communities - Conflict - Education - Habitats - Indian Sub-continent - Mammals  
[Read more >](#)



Rhino Movement outside the Protected Area: Habitat Suitability and People Perception for Long Term Conservation

# Research Area (Experience)

Results for applications submitted by Oct 2016

Country	Grantee	Organisation	Project title	Duration	Programme
Bhutan	Tshering DORJI	Ministry of Agriculture and Forest	Habitat modeling, ecology and conservation threats of hornbills in Royal Manas National Park, Bhutan	1 year	Research Grant Programme
Bhutan	Lha TSHERING	Royal Government of Bhutan	Distribution and dietary analysis of Himalayan black bear ( <i>Ursus thibetanus</i> ) in Phrumshingla National Park, Bhutan	2 years	Research Grant Programme
Indonesia	Mega Sari APRINIARTI	Bogor Agricultural University	The beetle pollinator of snake fruit in Sumatra, Indonesia	1 year	Research Grant Programme
Indonesia	Iyan ROBIANSYAH	Indonesian Institute of Sciences	Inventory and conservation of inselberg flora in Purwakarta, West Java, Indonesia	1 year	Research Grant Programme
Indonesia	Elena YUSTI	Natural Aceh Research Institution	Composition and diversity of bats (fruit eating bats and insect eating bats) in the agricultural areas and lowland forest of Seulawah Mountain Region, Aceh Besar, Aceh, Indonesia	4 months	Research Grant Programme
Indonesia	Widiastuti KARIM	Udayana University	Phylogenetic diversity and susceptibility to thermal stress of coral's photosynthetic dinoflagellate symbiont ( <i>Symbiodinium</i> sp.) from Bali's endemic coral <i>Acropora suharsonoi</i>	1 year	Research Grant Programme
Malaysia	Vijaya Kumar SUBBIAH	Universiti Malaysia Sabah	Distribution and genetic diversity of the Asian horseshoe crab populations in Sabah, North Borneo	2 years	Research Grant Programme
Mongolia	Gantulga BAYANDUNOL	Mongolian Academy of Sciences	Population status and breeding ecology of the globally threatened Relict Gulls ( <i>Larus relictus</i> ) in Mongolia	1.5 years	Research Grant Programme
Nepal	Prabin BHUSAL	Forest Action Nepal	Availability of tree cavities in Sal forest of Chitwan National Park and community forests in Nepal	1 year	Research Grant Programme
Nepal	Sabita GURUNG	Small Mammals Conservation and Research Foundation	Assessment of diet composition, prey abundance and conservation threats of Barn owl along the urban-rural gradient in Kathmandu Valley.	1 year	Research Grant Programme



**Musk Deer, Latrine and Conservation in Nysneang valley Annapurna Conservation Area, Nepal**

**Nar Bahadur Chhetri**

Nepal

Indian Sub-continent - Mammals  
[Read more >](#)



**Sloth Bear Conservation Project**

**Narayan Prasad Gautam**

Nepal

Indian Sub-continent - Mammals  
[Read more >](#)



**Population Assessment and Conservation of Wild Yak (Bos mutus) in Upper Humla, Nepal**

**Naresh Kusi**

Nepal

Indian Sub-continent - Mammals  
[Read more >](#)



**Establishing the First Population Estimate for Wild Yaks in Nepal and Strengthening Efforts for their Conservation Following the Rediscovery**

# Research Area (Experience)



**Community Outreach and Conservation Education Programme for the Conservation of Assamese Macaques in Langtang National Park, Nepal**

**Ganga Ram Regmi**

**Nepal**

**Education - Indian Sub-continent - Primates**

[Read more >](#)



**Mapping Crop-Raiding Hotspots and Predicting Actual Crop-Raiding Risk Using a Spatial (GIS) Model for Alleviating People-Primate Conflict in Nepal**

**Ganga Ram Regmi**

**Nepal**

**Conflict - Indian Sub-continent - Primates**

[Read more >](#)



**Mitigating Human-Assamese Monkey Conflict in Upper Mai Valley, East Nepal**

Highly Ignored Species but the most problematic creature to poor

# Research Area (Experience)

Study on **snake diversity** and their distribution in **urban forest**

Local understanding and their response **towards increased population of rhino** in Bufferzone of Chitwan National Park, Chitwan, Nepal

*Impacts of **Hydro-Electric Development Projects** on Critical Habitats for Montane Birds* **-Virat Jolli**

Impact of **river diversion/dam** to aquatic ecosystem / fishes / crocodile / otter

# How to succeed?



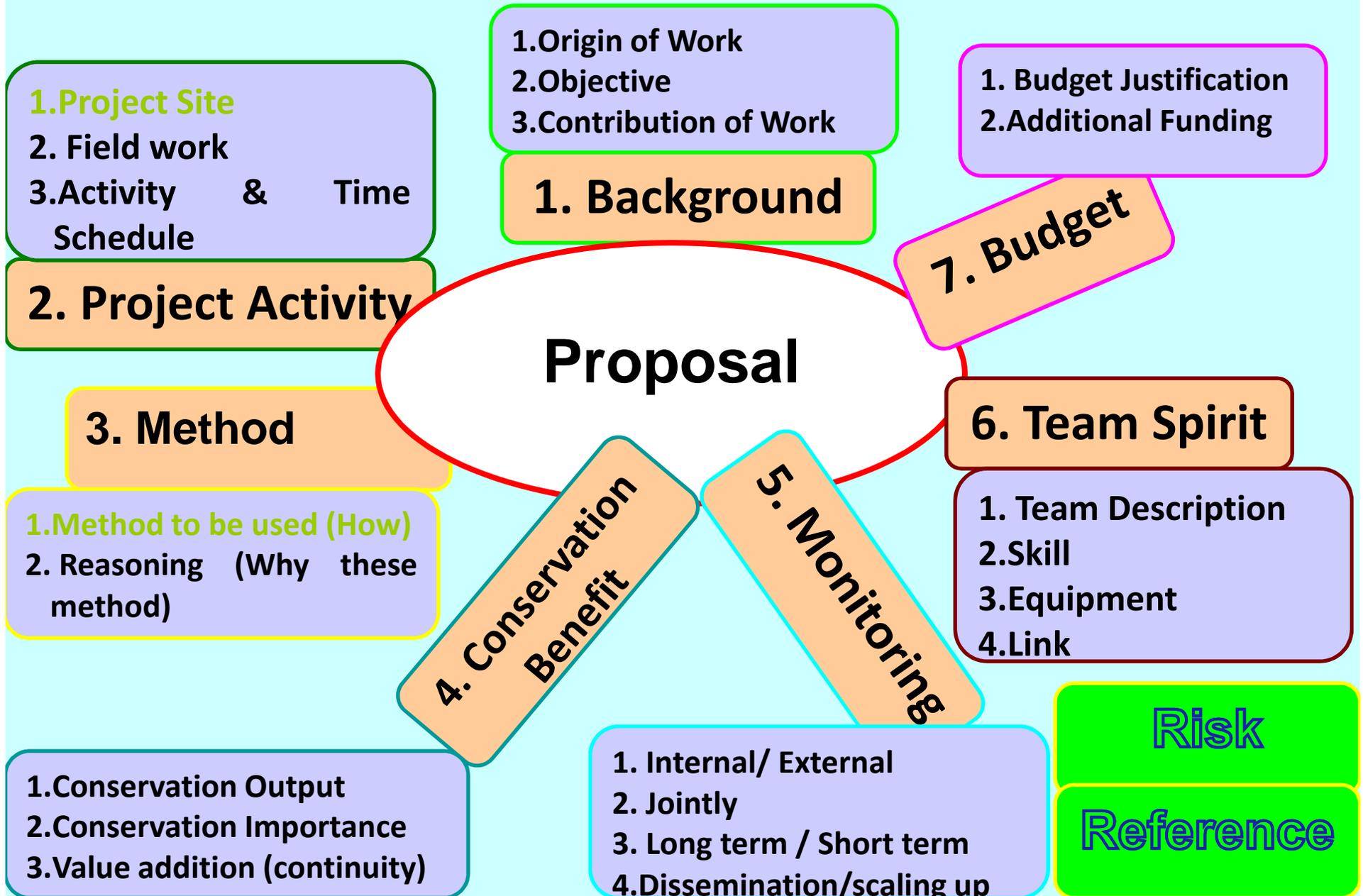
# Proposal

- Document of activities aimed at **solving a certain problem.**
- Document proposing a research project, generally in the sciences or academia, and generally constitutes a **request for sponsorship of that research.**
- For success,
  - Document should provide a **logical presentation** of a research idea.
  - **Cost and potential impact** of the proposed research, and the **soundness** of the **proposed plan** for carrying it out.

Title

# Proposal content

Abstract



# Proposal Content

## Title

- Short as much as possible
- Catchy but not vague
- Not conjunction/double sentence (i.e. which, that, because)
- Something new with attractive words/message
- Mark (?, :, ;)

# Proposal Content

## Title

- 1. Rhino outside the protected area: Evaluation of Habitat and People Perception for Long Term Conservation**
- 2. Rhino movement outside the protected area: Habitat Suitability and People Perception for Long Term Conservation**
- 3. Occurrence of Rhino beyond the Protected area: Habitat Suitability and People Perception for Long Term Conservation**
- 4. Rhino population beyond (outside) the protected area: habitat monitoring, local perception evaluation and knowledge deliberation for sustaining increased population**

# Proposal Content

## Abstract

- Short as much as possible (100, 200, 250 or <300 words)
- Simple language and words (technical term preferable but not necessary of scientific name)
- Clear message (not necessary of citation, not many data figure besides zest)
- Cover all (objective, method, output/impact)

# Proposal Content

## Abstract

<100 words

Rhino is nationally protected, globally threatened with extinction, vulnerable and highly sensitive species. Once widely distributed its population dropped less than 100-individuals in 1966 and confined in small pockets inside Chitwan National Park. Regained population in 2000 again downed by 32% in 2005 and now revived with 605 individuals in 2015. Recent count (2015) has found rhinos outside the park/bufferzone which comes under the less priority of current conservation program. Similarly, increased population in new areas can bring many conservation issues; conflicts, local perception/understanding, habitat suitability/availability, which has raised question mark in sustaining increased population. Hence project became crucial.

# Proposal Content

## 1. Background

## 1. Origin of Work

- How is this concept emerged or realized?
- Does this concept have enough supporting evidence?
- What others have done so far, what is the gap among them?

# Proposal Content

## 1. Background

## 2. Objective

- **General objective (somewhere optional)**
  - Understand habitat suitability and people perception for long term conservation of rhino outside the protected area.
- **Specific objective (Should be answered)**
  - Appraise habitat suitability of rhino outside the protected area
  - Assess people understanding towards increased population of rhino
  - Organize community outreach activities as instant action to disseminate importance of rhino

# Proposal Content

## 1. Background

## 3. Contribution of Work

- What contribution will your project/research make; targeted species, habitat, ecosystem, associated species, stakeholders?
- It should be objective wise;
  - 1. habitat condition will be appraised which support as evidence to develop habitat management plan.
  - 2. people understanding/conception will be assessed which help to design appropriate action to encourage local stakeholders.
  - 3. instant action will disseminate the importance of rhino that helps to motivate target groups

# Proposal Content

## 2. Project Activity

## 1. Project Site

- Globally Importance (UNESCO-Heritage site, Ramsar Site, IBA, AREA, Corridor; forest/waterways, specific zones; hotspots)
- Significance of project site to concerned species
- Significance of project site to other (associated) species
- Does developed project contribute to enhancement of the site as per its importance?

# Proposal Content

## 2. Project Activity

## 2. Field Work

- More the better
- Depend on project objective (season wise)
- Depend on resources availability (time, money and labour)
- Keep more budget on field (DSA/Acomodation)

# Proposal Content

## 2. Project Activity

## 3. Activity & Time Schedule

- What activity and when?
- Should be sequential ?
- Based on resources, purpose of need, ecological behavior etc.
  - **Habitat Suitability:** preliminary survey (**1<sup>st</sup> month**), record investigation, vegetation survey, waterhole survey, direct observation, habitat mapping, expert consultation etc.
  - **Perception:** Key Informant Interview, household survey, focus group discussion, interaction etc.
  - **Community outreach:** School teaching, women education, youth mobilization, poster, booklet and other extension material

# Proposal Content

## 3. Method

### 1. Method to be used (how?)

- Preliminary survey > whole-parts (major-minor)
- Record investigation > report
- Vegetation survey > grid, plot, count
- Waterhole survey> count and measurement
- Direct observation> threats, species occupancy
- Habitat mapping > GIS based on vegetation/waterhole survey
- Expert consultation> Meeting
- Key Informant Interview> office/hh/farm visit
- Household survey > caste/wellbeing/occupation/education
- Focus group discussion> crosscheck (group)
- Stakeholder Interaction > different level (local to national)

- School teaching
- Woman education
- Youth mobilization
- (most sensitive group)**
- Poster,
- Booklet/Article
- Other extension material
- (with conservation message in local/scientific language)**

# Proposal Content

## 3. Method

## 2. Reasoning (Why these Method?)

- Reason behind using these methods/activities (other's experience)
- Other results and their effectiveness
- What other's literature says?
- Technical/Scientific results need accurate and precise method that should be adopted by renowned people.
- Follow the peer reviewed articles while justifying the method. (Keep citation accordingly)

# Proposal Content

## 4. Conservation benefits

## 1. Conservation Output

- **Habitat condition explored**
- **Comprehensive report prepared**
- **Local perception assessed**
- **Importance of rhino conservation disseminated**
- **Perception positively changed**
- **Article (local/scientific) published**
- **Stakeholders attention captured**

# Proposal Content

## 4. Conservation benefits

## 2. Conservation Importance

- Species categorization (IUCN, CITES, National). (with trend is better)
- Associated Species and their status (IUCN, CITES, National) also
- Associated Habitat and their national/regional/global status (UNESCO, RAMSAR, IBA, AREA, Corridor, specific zone, hotspots)

# Proposal Content

## 4. Conservation benefits

## 3. Value Addition (Continuity)

- Conservation outputs and its continuity
- Potential future benefits
- Chance of project replication (self, community and other individuals/institution)
- Other similar areas where the project can be replicated if better results come.

# Proposal Content

## 5. Monitoring

### 1. Short term

- Major: it tracks project in right direction as per objective
  - Time schedule wise deliverables
  - People participation
  - Change in people's perception
  - Analysis of feedback
  - Regular reporting and sharing
  - Publication
  - Exploration of habitat condition
  - Scientific articles (citation)
  - Comprehensive report
  - Development of new project based on finding

**Internal:** (self/team member ), **External:** Supervisor/referee/people & other, **Jointly:** both

# Proposal Content

## 5. Monitoring

2. Long term

- Change in people's behaviour
- Trend of their participation
- Number of activities initiated by local people
- Change in forest and waterhole condition
- Intensity of human-rhino conflict
- Locally adopted mitigation measures
- Intensity of rhino movement and population status in the area
- Citation of article
- Utilization of extension material in future
- Regular update as follow up after project completion

# Proposal Content

## 5. Monitoring

## 4. Dissemination/Scaling Up

- Publication (booklet, poster, pamphlets, brochure)
- Scientific articles
- Comprehensive report
- Regular Update
- Social Media
- Radio
- Local Paper
- Public hearing
- Notice dispatch in public area

# Proposal Content

## 6. Team Spirit

## 1. Team Description

- Single person may not perfect to all objective/method
- Team building good but not always compulsion
- Experts can be hired when/wherever necessary
  - Biodiversity related (biologist/naturalist/academician)
  - GIS and mapping
  - Social science (human wildlife coexistence related)
  - Local friendly
  - Training experts

# Proposal Content

## 6. Team Spirit

## 2. Skill

Single person may not have all skill to undertake method but team leader (applicant) have skill to handle the project.

- Resource Inventory
- Habitat Analyzing (biologist/naturalist/academician)
- GIS and mapping
- Social science (human wildlife coexistence related)
- Linguistic
- Training facilitation
- Reporting
- Author
- Other relevant experience so that funding agency can believe

# Proposal Content

## 6. Team Spirit

## 3. Equipment

- Required Equipment increasing efficiency and cost optimization
  - GPS
  - Camera
  - Multi media
  - Computer/printer
  - Communicating
  - Field gear

# Proposal Content

## 6. Team Spirit

## 4. Link

- Media (Local/National/International, Digital, paper, audio)
- Local Stakeholder (School, conservation institution, CBOs, NGOs, Clubs, User Group, Government)
- National / International stakeholder : Species (IUCN/CITES, rhino- IRF, save the rhino international, Asian rhino project etc) / habitat focused (RAMSAR/UNSECO/AREAs)
- Academia / researchers / naturalist / conservationist

# Proposal Content

## 7. Budget

### 1. Budget Justification

- The most important part so think 100 times.....
- The more detail, the better
  - Field activities (food, accommodation)
  - Consumable (Transportation (local), Communication, Stationery, Beverage/snacks, Battery etc)
  - Activities (No salary but resource person fee)
  - Discourage equipment expenses (no purchase, hire if necessary)
  - Encourage extension material production
  - Detail: 1. food: 150 man days @ 10 \$ =1500\$  
2. Accommodation: 120 man days @ 10 \$=1200\$  
3. Transportation: Distant 10 person @ 10 \$ for 2 times= 200\$  
Local 200 liter fuel @ 1\$= 200\$
  - Reduce your budget in equipment hire and purchase. If need to purchase, mentioned its further use

# Proposal Content

## 7. Budget

## 2. Additional Funding

- Show clearly if you have additional funding sources (either kind or monetary), either secured or expected too.
- Please ensure no double funding for one proposal if not mentioned in proposal.
- If you need more funding to cover more area, you can elaborate request with details.
- Co-funding (either monetary or kind or equipment support) increases chance to get funding.
- Open to all

# Proposal Content

## 8. Reference

### 1. Literature

- Recent and updated
- Peer reviewed article (the most important technical/scientific)
- Government / World Bank / UN or renowned institution (authorized) publication
- If new species with limited literature, use information gained from discussion with renowned experts as personal communication
- Media (renowned) based also works if issue is instant

# Proposal Content

## 8. Reference

## 2. Citation

- Citation is utmost in case data (figure), ranking, specific findings
- Higher the citation means strong backstopping or evidence based but should be real and accurate
- Direct citation keeps high value than indirect citation
  - (Wagle et al 2017 than Wagle et al 2017 in Bhattarai 2017)
- Don't hesitate to keep renowned expert view as personal communication

# Proposal Content

## 8. Reference

## 2. Listing

- There are many ways of listing/writing reference depending on publication institution
- Banko Janakari
- APF and so on
- But some funding agencies may not ask reference.

# Proposal Content

## 9. Risk/Assumption

## 2. Risk and minimization

- Foreseen or unforeseen obstacle/constraint
  - Blockade and fuel scarcity
  - Inflation (Pound sterling: 156 downed to 130 and Euro:135 downed to 113)
  - Local people discard the proposal for implementing
  - Weather unfavorable in high altitudinal zone
- Assumption
  - Following condition will not occur
  - Community will feel ownership and involve actively
  - If occur, organize interaction program to strengthen strategy in the direct consultation with funding agency.

Good Luck

गैंडा ; हाम्रो पहिचान, हाम्रो गौरव

Rhino! Our Recognition, Our Pride



यसका गुण हरु के के हुन् त ?

✓ सुन्न सकने क्षमता = धैरै

✓ हेर्न सकने क्षमता = थोरै

✓ आक्रामक

आयु : करिव ७० वर्ष

एक सिंगे गैंडा कहाँ कहाँ पाइन्छ त ?



Photo; Downloaded from Internet

हाल नेपाल मा कति वटा गैंडा पाइन्छ ?  
थाहा छ ?

सन् २०१५ मा गरिएको गणना अनुसार नेपाल मा  
६४५ ओटा गैंडा पाइन्छ ।



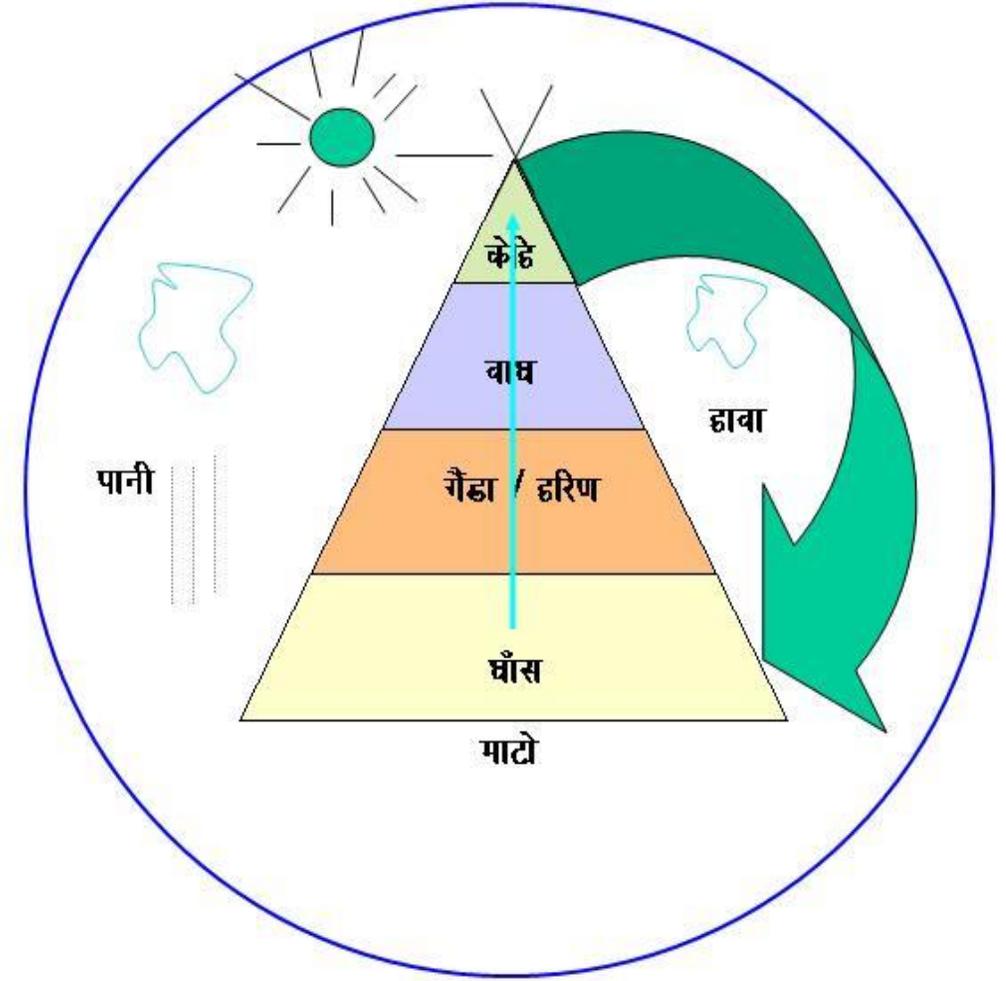
Photo: Downloaded from Internet

# नेपालमा गैंडाको संख्या



स्रोत: राष्ट्रिय निकुञ्ज तथा वन्यजन्तु विभाग, नेपाल

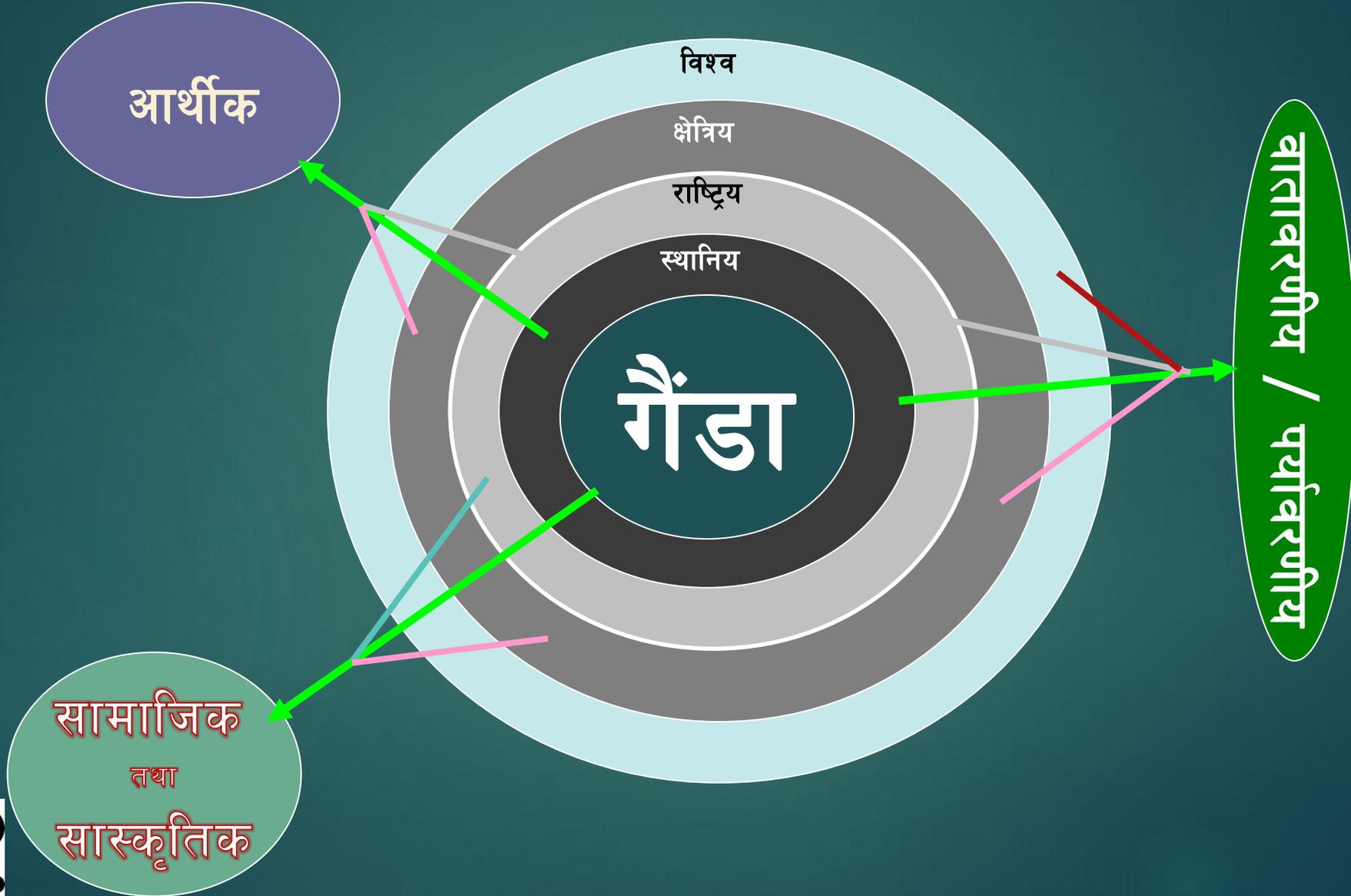
# आखिर गैंडा को संख्या बढेर फाईदा के ?



# फाईदाहरु ....



# फाईदाहरु ....



# संरक्षणका अवसर

राष्ट्रीय स्तर

स्थानिय स्तर



के समस्याहरु छदै छैनन त ?

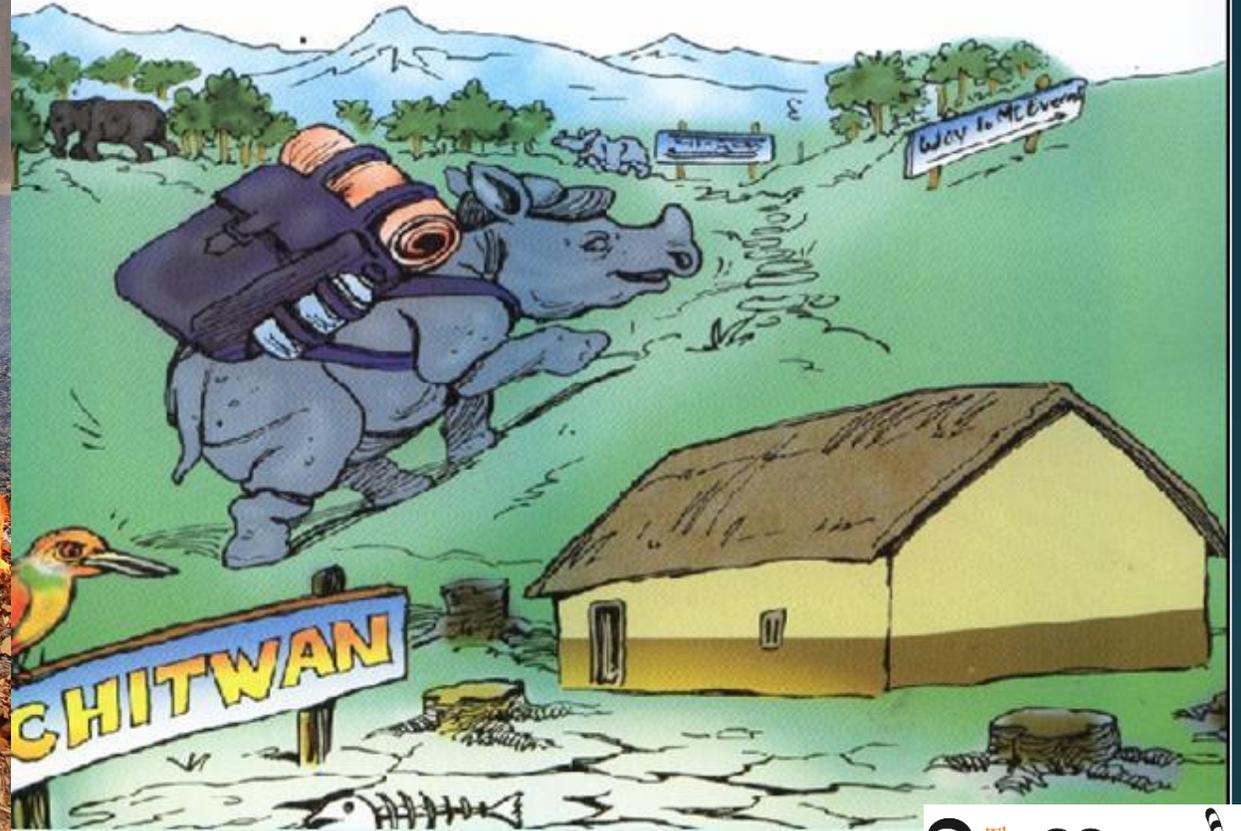
# प्राकृतिक



# प्राकृतिक



वरुने घर नाश भएता यो गैडा जाने कहाँ ?





कृत्रिम समस्या.....

चोरिशिकार



2009/08/02 10:31



गरिवी

विषादी तथा भूमि परिवर्तन



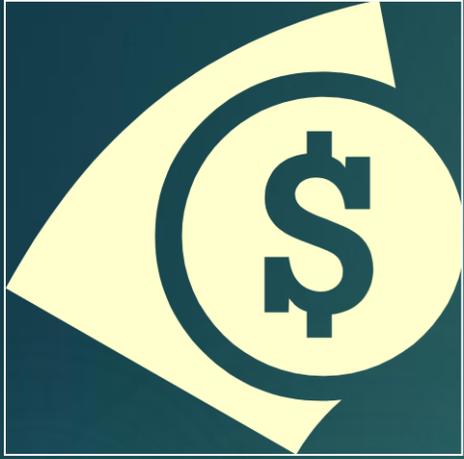
समस्या..

क्रमश...



समस्या..

क्रमश...



स्रोत तथा साधनको कमि /  
स्रोत परिचालनमा अदुदर्सिता

अनुगमन तथा मुल्याङ्कनमा कमी



अनुसन्धात्मक तथा विश्लेषणमा कमजोरी

असन्तोषजनक राहत तथा क्षतिपूर्ती



अब यी समस्याहरु पो कसरि  
समाधान गर्ने होला ??



# अवसरका लागि पहल



क्रमश...



क्रमश...



संरक्षण शिक्षा

संरक्षणको महत्व प्रचार प्रसार



# अवसरका लागि पहल



# अवसरका लागि पहल

क्रमश..



संरक्षण अभियान



संरक्षण सुचना पार्टी



संरक्षण सामग्री प्रकासन तथा वितरण

# विनास विरुद्ध संरक्षण



मिचाहा प्रजाति



मिचाहा प्रजाति मार्फत जैविक मल



वन फडानी



वृक्षारोपण



# विनास विरुद्ध संरक्षण

क्रमश :



विषादी खोलामा



हात मार्फत माछा मार्ने काम



मदिराको शिशाहरु वनमा



मदिराको शिशाहरुबाट चर्पी निमार्ण



# संरक्षणको भावना आफ्नो सन्ततीको माया जस्तै



माया गरौं





बिश्व सम्पदा

# चितवन राष्ट्रिय निकुञ्ज



## शून्य चोरी शिकारका



## दिनहरू

२०७३ माघ १४ गते





धन्यवाद  
Thank you !!!!



# Rhino movement outside the protected area: Habitat Suitability and People Perception for Long Term Conservation

Project Status: Incomplete (ongoing)

**Suman Bhattarai**  
**Santosh Paudel**

**Date: January 29<sup>th</sup>, 2018**



*Photo Credit: Suman, IRF, savingrhinos.org, save the rhino international*



# Introduction

## African



Black (*Diceros bicornis*)



White (*Ceratotherium simum*)

## One Horn Greater Asian Rhino



*Rhinoceros unicornis*

## Asian

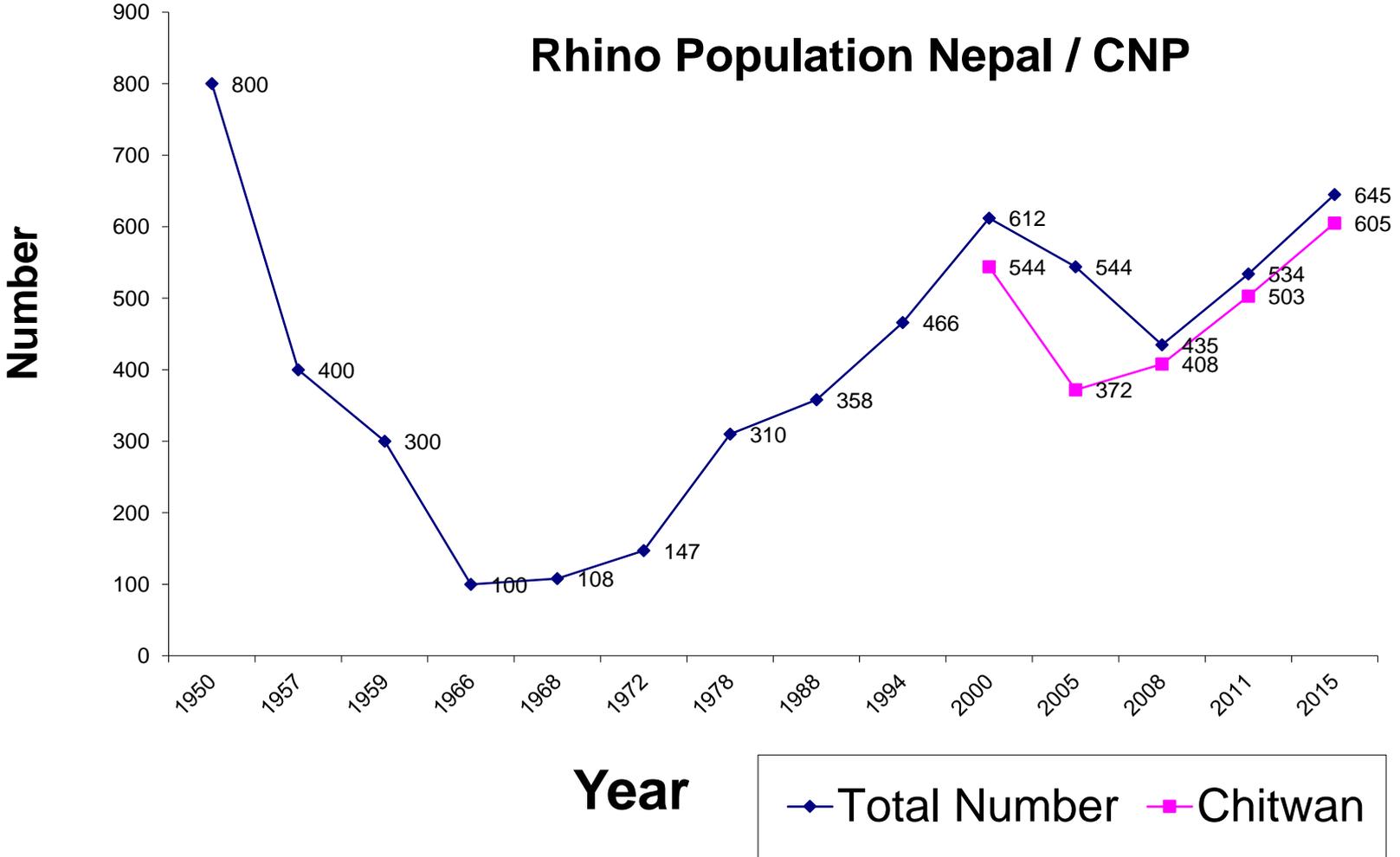


Javan (*Rhinoceros sondaicus*)



Sumatran (*Dicerorhinus sumatrensis*)

# Introduction



(HMGN, 2006; DNPWC 2009, 2015).

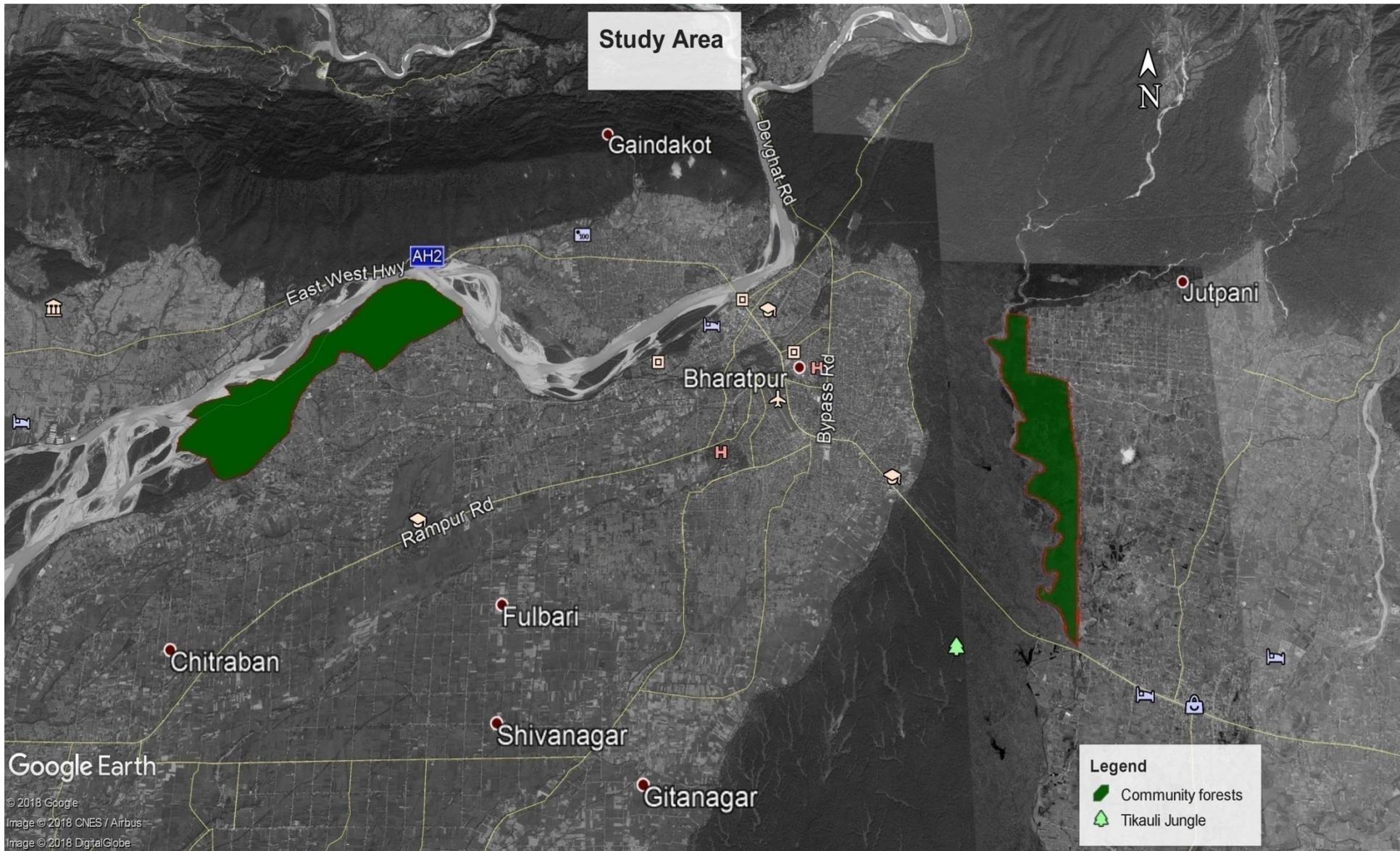
# Introduction

- Rhinos, Appendix-1 ([CITES 2005](#)), vulnerable ([IUCN 2008](#)) and nationally protected (NPWC/Act 2029) species, are restricted in few pockets with fluctuated numbers ([DNPWC 2009 & 2015](#)). CNP and its surrounding area support about 24% of its global population and more than 93% of Nepal ([DNPWC 2014 & 2015](#)).
- Last count 2015 found population increase and their movement outside the protected area. Slow recovery was also seen in 2000 but within 5 years population downed unbelievably. The major issue is to sustain population by ensuring safe habitat and raising public participation.
- Increased population brings not only positive but also negative aspects which are directly related with coexistence of people and rhino.

# Introduction

- Rhino habitat inside park is decreasing (Pant et.al 2015, Bhattarai & Paudel 2012, Kafle et.al 2009, HMGN 2006, CNP 2012, 2014, 2015). Grassland has reduced tremendously (Talukdar et. al 2008). So, it is requisite to understand critical issues (HMGN 2006, GoN 2014, Pant et.al 2015) outside the protected area.
- To respond these issues for sustaining increased population, project came into sight.
  - Appraise habitat suitability of rhino outside the protected area
  - Assess people understanding towards increased population of rhino
  - Organize community outreach activities as instant action to disseminate importance of rhino

# Study Area



# Material and Method

- **Habitat Suitability**
  - **Key information interview / preliminary survey:** for verification of rhino presence (Community Forests and their adjoining areas)
  - **Vegetation study**
    - The area will be divided into 1X1 km<sup>2</sup> grid, from the center of grid 2 plots in the distant of 250 m nested plot will be laid out for the vegetation study; trees, shrubs and grass/herbs.
    - **Direct observation** (presence evidence and disturbance will be documented during vegetation study)
    - **Maximum entropy modeling** of species geographic distributions (MaxEnt) for predicting probability of occurrence of rhinos. Variables; distances to Sal forest, grass lands, riverine forest, water bodies, agriculture with settlement will be used as predictors.

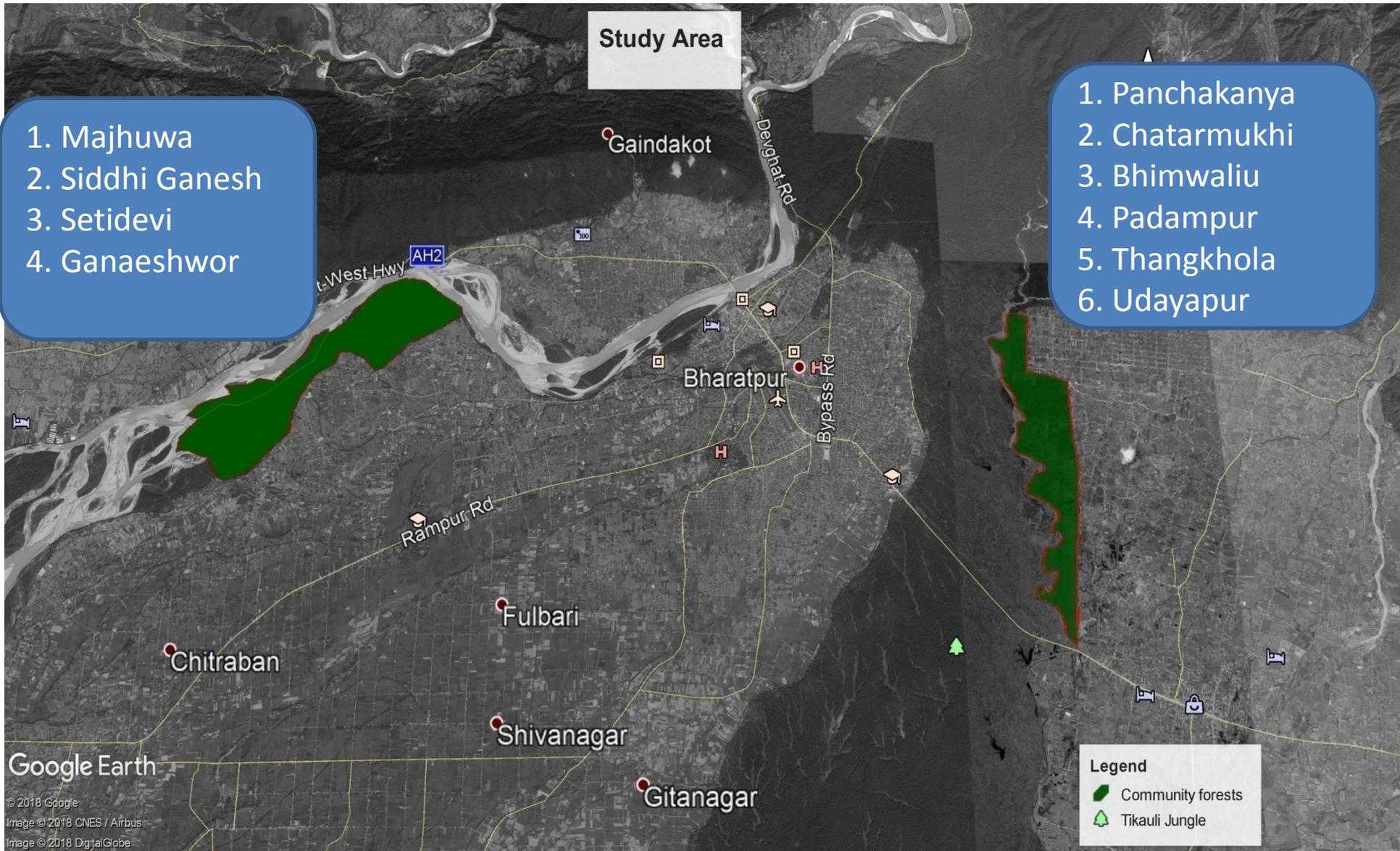
# Material and Method

- **People Perception**
  - Key Informant Interview (15 people)
  - Questionnaire Survey (400 respondents)
  - Focus Group Discussion (10 groups)
  - Expert Consultation
- **Community Outreach**
  - Extension Material Production and Distribution
  - School Teaching
  - Community Education

# Result

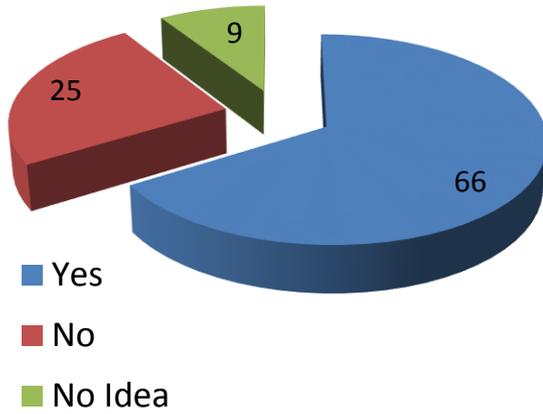
1. Majhuwa
2. Siddhi Ganesh
3. Setidevi
4. Ganaeshwor

1. Panchakanya
2. Chatarmukhi
3. Bhimwaliu
4. Padampur
5. Thangkhola
6. Udayapur

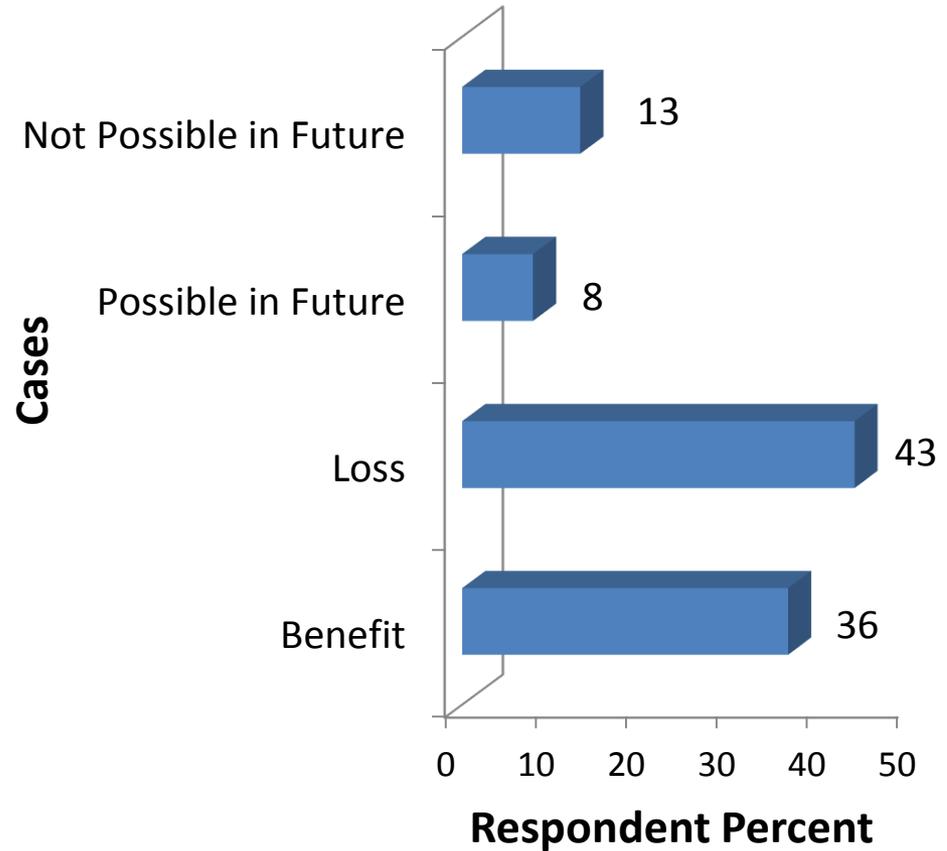


# Result

## Belief in Rhino Population Increase

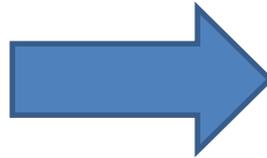
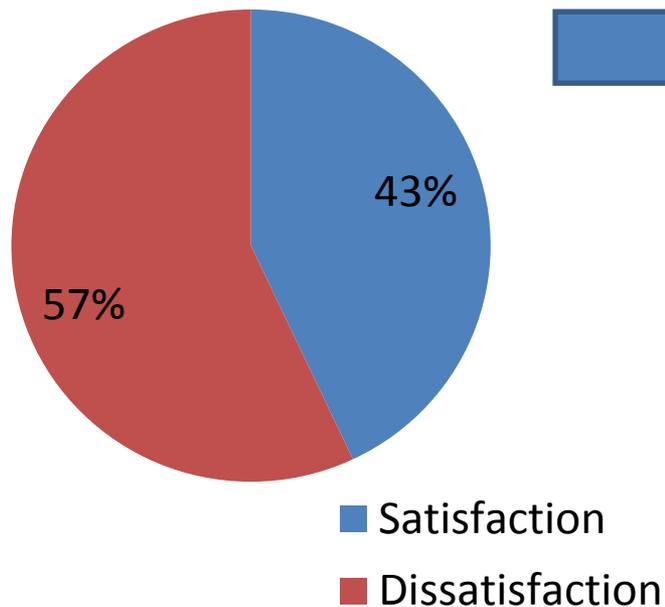


## Possible benefits

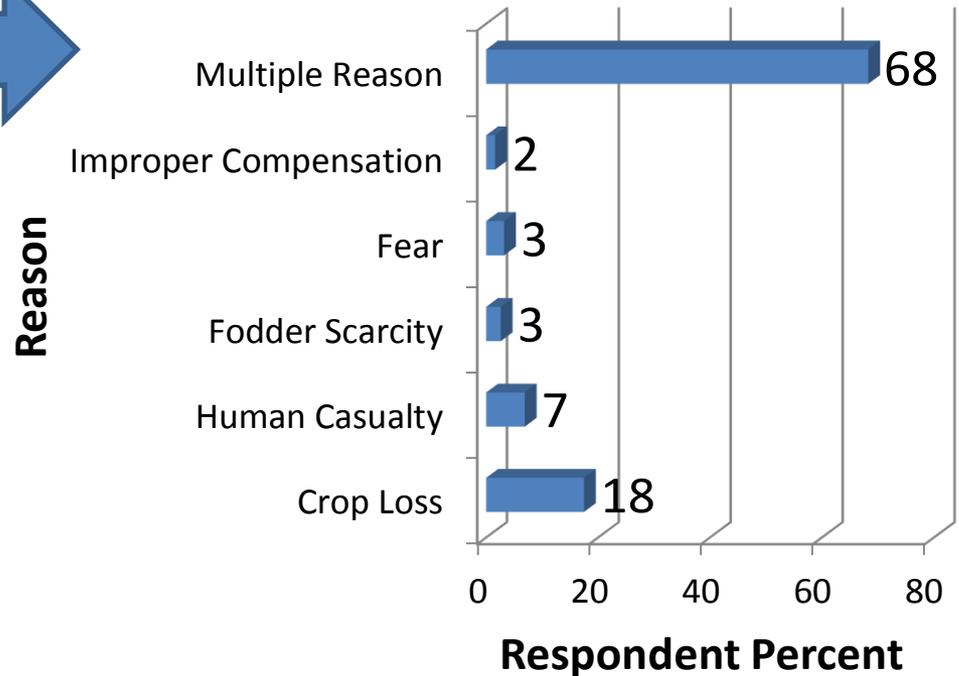


# Result

## Satisfaction to Rhino Population Increase



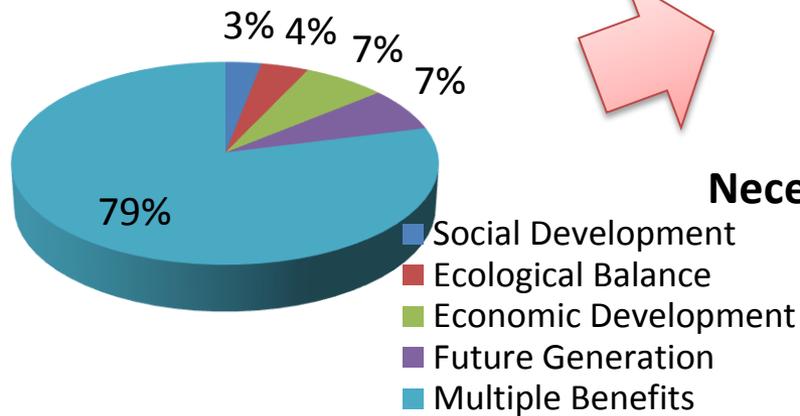
## Reason to Dissatisfaction



Almost all of the people dissatisfied were either farmers or those living near the forest.

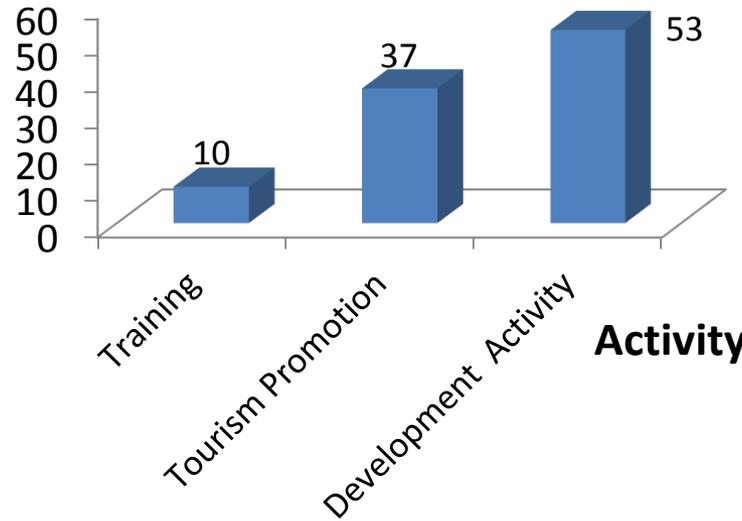
# Result

## Possible Benefits form Rhino Presence

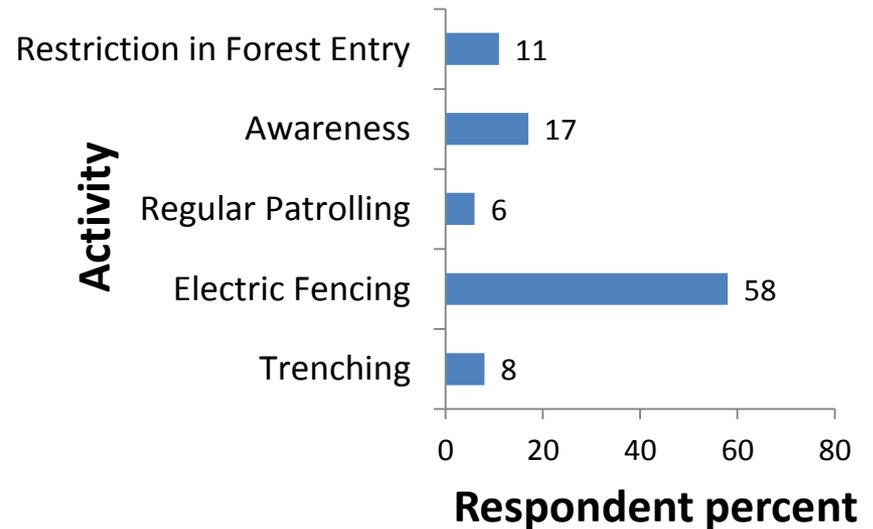


Respondent percent

## Necessary for generating benefits

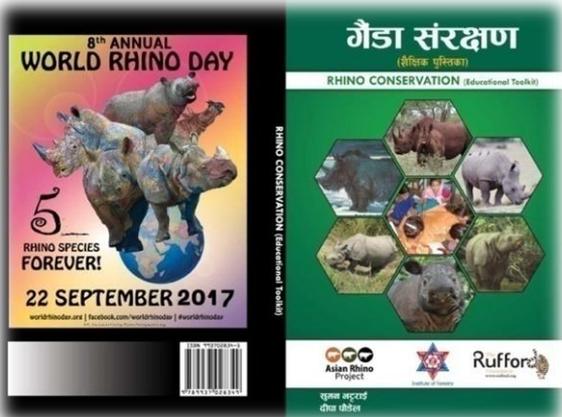


## Necessary conflict mitigation action for generating benefits



# Result

## Community Outreach: Extension Material



Educational Toolkit Production



Poster



Distribution to Schools, Colleges, Parks & Community Forest User Groups



Promotional T-shirt

# Result

## Community Outreach: School teaching and Community Education



Project Sharing



Community Education



School Teaching

# Achievement & Future Prospect

- ❑ Majority of respondents agreed that rhino population has increased in their localities whereas they are sensitive toward chances of conflicts.
- ❑ The electric fencing with regular operative mechanism is seemed to be the most demanded and effective mitigation measures to reduce conflicts.
- ❑ Majority of respondents are not looking rhinos as benefits in present scenario but they have understanding that the presence of rhino in locality can be opportunity and source of income in future.
- ❑ Awareness program with extension material distribution has played crucial role in generating positive consensus among students and communities.

**Future Prospect; Appraise habitat suitability of rhino outside the protected area**

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