

FOOD AND AGRICULTURE ORGANIZATION (FAO)

TERMS OF REFERENCE

Hiring Services of Consultant/agency/firm for study on 'human wildlife conflict' for FAO Green Ag project districts of Mizoram



Green-Ag: Transforming Indian Agriculture for Global Environment Benefits and the Conservation of Critical Biodiversity and Forest Landscapes

**Prepared by
State Project Management Unit,
Green-Ag Project Aizawl,
Mizoram**

**GEF Project ID:GCP/IND/183/GEF
FAO Project symbol : 637244
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Recipient Country : India**

1. Background:

North East (NE) region in India is one of the most isolated regions in the country. It comprises eight states, including Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Tripura and Sikkim. With a total population of 45.5 million (2011), the region accounts for about 3.77% of India's total population and covers about 7.90% of its total geographical area. The economy of the NE region is still pre-dominantly agrarian with the share of agriculture in total State Domestic Product (SDP) above the national average.

Though the region has better than average Human Development Indices, poverty along with under-employment and unemployment is widespread in rural and urban areas leading to many social issues and according to some feeding the protracted problems of insurgency.

The name, Mizoram derived from Mi (people), Zo (high rise place such as hill) and Ram(land), thus, Mizoram means "Land of the hill people". As situated in the northeast, it is the southernmost landlocked state sharing borders with three of the seven states namely Tripura, Assam and Manipur. Mizoram also shares 404 kilometre border with Myanmar and 318 km with Bangladesh.

The Mizo Hills were formally declared as a part of British India in 1989, north and south hills were united into a Lushai Hill Districts and it was under the administrative control of the British India. On 25th April 1952, The Lushai Hills Autonomous District Council came into being followed by the abolition of chieftainship in the Mizo society. Like several other northeastern states of India, Mizoram was a part of Assam until 1972, when it was declared as a Union Territory. On 20th February 1987, it became the 23rd state of India, with Fifty-Third Amendment of Indian Constitution, 1986.

Mizoram is the fifth smallest state of India with 21,087 km² (8,142 sq mi). It extends from 21°56'N to 24°31'N, and 92°16'E to 93°26'E. The tropic of cancer runs through the state nearly at its middle. Situated on a mountainous area with heavy rainfall of approximately 2500mm annually, Mizoram is richly endowed by nature with varieties of flora and fauna.

Mizoram is anointing with a pleasant climate; moderately hot during summer and extreme cold is unusual during winter. The south-west monsoon reaches the state around May and may last upto September. (Courtesy: <https://forest.mizoram.gov.in/page/mizoram-forest-at-a-glance>)

The Green-Ag project aims to mainstream biodiversity, climate change, and sustainable land management objectives and practices into the Indian agricultural sector. The overall objective is to “*catalyse transformative change of India’s agricultural sector to support achievement of national and global environmental benefits and conservation of critical biodiversity and forest landscapes*”. The project seeks to harmonize priorities and investments between India’s agricultural and environmental sectors so that national and global environmental benefits can be fully realized without compromising India’s ability to provide and develop rural livelihoods and meet its food and nutrition security and social (particularly gender) goals. The project will support greater coherence between GoI policies, investments, and institutions concerned with conservation and agricultural production at landscape level so that they are mutually compatible and at the same time resilient to impacts of climate change.

The project will work in Dampa landscape that falls within two districts: Lunglei and Mamit, Mizoram covering two protected areas Dampa Tiger Reserve and Thorangtlang Wildlife Sanctuary. Dampa Tiger Reserve lies at the tri-junction of Bangladesh and the two Indian states of Mizoram and Tripura. It is the largest protected area in Mizoram occupying 4.68% of the state geographical area. However, these two protected areas are under threat from deforestation and forest degradation, land use conversion leading to loss of habitat for wild animals. As a consequence of habitat loss, the movement of wild animals become increased around farmland and agriculture land causing more conflicts between wild animals and human beings.

The proposed studies on wildlife conflict in the Dampa Landscape will help in understanding the impact of wild animals on their farm based livelihood activities of the fringe communities in the project landscape. These studies will be conducted in the fringe villages of Dampa Tiger Reserves, Mamit district and Thorangtlang Wildlife Sanctuary, Lunglei district. The names of Project Villages are listed in Annexure I.

2. Objective of the Assignment:

1. This study will be conducted at village level covering atleast 40% from the total household in a village. In addition, secondary data from State Wildlife Division, Aizawl should be collected for comparison with the survey data.
2. The number of villages covered should be at least 40% from the total project villages. The selected villages for field survey are given in Annexure II.
3. The study should be completed within a period of three months *wef* the date of contract agreement.
4. The study will be carried out under the direct supervision of the State technical Coordinator, Green-Ag Project, SPMU, Aizawl.

The final report should be submitted to the State Project Management Unit, Aizawl.

3. Scope of Work:

Key activities and deliverables under the present assignment are detailed below. In general, the agency/consultant is expected to carry out the assigned tasks in a professional manner within the ambit of the aspects detailed out in the Results Framework of the Project Documents. In specific, the agency/consultant is required, among other things to do the following:

- Design, prepare and test necessary questionnaires/schedules and other materials in consultation with SPMU and NPMU.
- The agency, among other socio-economic and development indicators, must be able to determine the Baseline Indicator Values within the framework of the Project documents.
- Other baseline indicators that may be of use for the project can also be suggested and incorporated in the project report.

For all the Key Activities and Deliverables mentioned above, the Agency/Consultant has to consult with SPMU.

4. Area of Work:

The consultant/ agency must submit separate proposal for conducting baseline survey in the Mizoram state. The agency must mention specifically about the villages they are willing to conduct the survey (list is enclosed).

5. Approach:

The agency must clearly outline the schedule of work, key staff deployment, methodology, results and discussions etc in its proposal and submit the same as desired.

6. Deliverables, timelines and payment:

The activities to be undertaken and the outputs to be delivered by the agency/consultant shall include the following:

Expected Deliverables

1. This study will provide information on wildlife conflict between - wildlife and human, wildlife and agriculture farm, wildlife and livestock.
2. Identify the key wild animals that build threats/conflicts.
3. Identify the crops, livestock mainly attack by wildlife.
4. Number of incidence occurs in acropping season.
5. Number of reports submitted against wildlife conflicts to higher authority/concerned department.
6. Identify the number of compensation claimed, amount received and issues faced by the communities in claiming compensation.
7. Communities' perception on controlling and reducing wildlife conflicts.
8. Analysed the impact of wildlife conflict on socio-economic of the village communities.
9. Provide recommendations and suggestions based on the findings to minimize and control wildlife conflicts at village level.
10. Loss of habitat and loss of diversity leading to wildlife conflict
11. Land conversion and land encroachment for agriculture and developmental activity leading to conflict
12. Climate change impact on wildlife conflict
13. Major community-based intervention for reducing/ monitoring conflict
14. Best practices in reducing/ managing wildlife conflict
15. Forest degradation and relation to wildlife conflict
16. While addressing the deliverable outputs, the consultant should keep in mind the following points and strictly adhered to the point mentioned for Mizoram state pertaining to human wildlife conflict.
 - a. Reduced threats to protected areas from agriculture and local livelihoods related activities (such as from hunting)
 - b. Sustainable agricultural land management lead to reduced threats to biodiversity from agrochemicals
 - c. Reduced human wildlife and natural resources conflicts: Increased community awareness and engagement leads to reduced incidences of wildlife poaching and retaliation against wildlife for crop depredation and no encroachment into protected areas

- d. Improved livestock management reduces wildlife -livestock competition and reduces disease spread from domestic animals to wildlife. Human-wildlife conflict is a serious problem in India. This includes both humans interfering with wildlife habitat, poaching, and wildlife harming farm production. There are a great number of tools that have been developed to help farmers alleviate conflicts with wildlife. These tools, including innovative production models, can help to increase profits and improve wildlife habitat. The project will capture these lessons, tailor them for the unique situation of each location, and help to build farmer capacity required to implement production approaches that lower the rate and impact of human/wildlife conflict. The issue of human wildlife conflict mitigation will be mainstreamed into the community based natural resources management plans, as well as in the promotion of appropriate crops on the farm (those that are less attractive to wildlife).
- e. The Project on Human Wildlife Conflict being implemented by GIZ is very relevant for this project. The project will look to co- finance with GIZ to enhance the project interventions and outcomes on Human wildlife conflict to enhance conservation efforts in the Green Landscape
- f. Human-Wildlife Conflict: Across India, crop raiding by wild animals and increasing encounters between humans and carnivores is a serious and growing concern. Crop raiding by wild boar, monkeys and deer species inflict heavy economic and social damages. Human-wildlife conflict in India can be very intense, particularly when it involves large carnivores such as tiger, leopards, and wild dogs (dhole). In Madhya Pradesh, villages, in the lower Chambal valley reported crop damage by wild animals, including nilgai (*Boselaphus tragocamelus*), Blackbuck (*Antelope cervicpara*), wild boar (*Sus scrofa*), Indian gazelle (*Gazella gazella*), Indian porcupine (*Hystrix indica*) and Sambar (*Rusa unicolor*). In Odisha, the government's focus on biodiversity conservation has had some positive impacts – such as conservation of elephants. However, this has also contributed to increased human wildlife conflict – in some areas, where wild elephants cause regular damage to crops and villagers' properties and assets. Here, between the years 1990-2000 at least 219 cases were recorded where people were killed by wild animals in the area (including by tigers). In Uttarakhand, settlement relocation from protected area into a landscape that has been used by elephants to move for foraging has caused human wildlife conflict – especially where farmers have started growing sugar canes, which are very attractive to the elephants. In addition, fruit tree plantations also attract monkeys and other wildlife. A study by the Wildlife Institute of India in 2010 recorded that 88% of the total villagers reported crop raiding by wild animals, many livestock losses by tiger and leopard attacks as well.
- g. The project will also develop other advocacy and awareness raising materials aimed at multiple stakeholders- and these may be linked to addressing key threats or overcoming key barriers to promoting Green Landscape planning or plan implementation. At the State level, some potential issues that the project could cover include options to mitigate human wildlife conflict in a sustainable and cost-effective way. In some States, particularly Odisha and Madhya Pradesh, policy options to promote sustainable energy alternatives to firewood from natural forests could be of strong relevance. State specific issues' analyses will also be supported – such as options to promote environment friendly sand/soil mining (such as in Madhya

Pradesh); documentation of successful initiatives on sustainable *jhum* in other parts of Northeast India as well as agrobiodiversity value of traditional *jhum* plots in Mizoram; policy options to address *Akhand Shikaar* in Odisha; study on linkages between indigenous technical knowledge and biodiversity in Odisha; and environmentally/GIB friendly locust control measures in Rajasthan.

Deliverables	Description	Timing (from contract signing date)	Payment
Secondary data collection	Secondary data/information collected from State Wildlife Division completed.	Within the first week	30% of the agreed cost
Field survey/Data collection	Field survey completed and analysis of results.	First two months	
First Draft Report Submission	Draft report submitted which will be review and examine by Green-Ag Project Team.	Two weeks before end of contract agreement.	30% of the agreed cost
Final Report Submission	Final report submitted and approved by Green-Ag Project Team.	Last Week	20% of the agreed cost
End of contract	The finding maybe presented before expert in the field and on successful presentation contract will end	Date will be fixed from SPMU	20% of the agreed cost

*Note: The total duration of the consultancy would be **three months** from the date of signing of the contract. Reports submitted to SPMU, Aizawl should be in electronic (on CD/DVD) and colour hardcopy formats (05 copies draft, 15 copies final versions). This should include all data, manuals etc.*

7. Reporting and ownership:

- The draft reports should be submitted to the State Project Director, SPMU, Aizawl for review and feedback and recommendations. The final report should have the revisions, suggestions and recommendations incorporated.
- All primary data collected in printed and electronic form should be submitted to the SPMU along with the final report.

- The reports will be accepted subject to the approval by the Executive Committee, FAO.
- FAO, Aizawl will be the absolute owner of the software/hardware and will have exclusive copyright. The agency shall not replicate or reproduce or use any software (or part thereof) developed or datasets used for this assignment without prior consent of the owner.

8. Data, Services and Facilities to be provided by the client:

- Make available all project documents, Results Framework, present Data base of Project etc.
- Facilitate cooperation by concerned district / block authority, line department & project staff during the course of field survey and preparation of the reports.
- The State Technical Coordinator, SPMU will act as a link among the SPMU, the agency and other relevant stakeholders.
- The Agency will be responsible for all costs related to its assigned staff, including salary, allowance, field accommodation, travel, transport and logistic support.
- SPMU will review of the stages of the consultancy to ensure that the project/assignment is accomplished within the scheduled and agreed time period.

9. Qualifications of the Agency/ Firm and Key Personnel:

- The agency/firm should have prior and adequate experience in designing, schedules, questionnaire developing and preparation of such types of Reports for World Bank/Externally Aided projects/similar projects.
- Any University/Institution/Consultancy firm/Consultant who have experience of working in the relevant field for the last five years and handled the task with high standard of quality.

10. List of Key Professional Positions whose CV and experience would be evaluated:

The Agency is expected to provide a team of experts with relevant technical and professional qualifications including experience in conducting surveys, preparation of reports and on timely delivery of reports.

Position	Key Qualification / Experience
Team Leader	Post Graduate Environmental or any relevant work with a minimum of five (5) years of experience in relevant field
Supervisors	He/she must be a graduate and have at least five (5) years of experience in supervising a team of field surveyors/investigators deployed for the purpose of field visit, data analysis, compilation etc for final report
Field surveyors/ Investigators	He/she should be a graduate and have at least five (5) years of experience in conducting field surveys for the purpose of field visit, data analysis, compilation etc for final report

Note: Notwithstanding the qualifications to deliver the tasks listed above, the agency shall remain fully responsible to deliver the described project output.

11. Reporting format for studies:

1. Introduction
 - Background and importance of the study
2. Methodology
 - Data sources
 - Data collection
 - Data analysis
3. Current situation of wildlife conflict trading in Mizoram
 - Policy and regulation related to wildlife
 - Formal responsibilities and institutions involved in wildlife conservation
 - Key persons or group involved in wildlife conflict
 - Key issues and challenges
4. Major Findings
 - Wildlife conflict in Mizoram, why and how it occurred?
 - Key wild animals in wildlife conflict
 - Frequency of occurrence
 - Impact of wildlife conflict on socio-economic status of village communities
 - Perception of the Villagers in relation to conflict of wild animals with human, livelihood, lost of life and loss of economics in the last ten years
5. Recommendation
6. Conclusion :

12. All findings, and all related documents will be the property of the FAO, SPMU, Aizawl, and publication of the abstract or whole in other platform will amount to infringement of the property of the FAO and is strictly prohibited without prior permission

13. How to Apply:

The agency/Consultant has to submit proposals to the office of the undersigned within 14 days from the date of publication of advertisement through registered post/courier addressed to
“The State Project Director, State Project Management Unit, Green Ag, FAO India, SAMETI Building, Agriculture Department, Tuikual South, 796001, Aizawl”

Appendix 1

Format for Expression of Interest (EoI)

1.	Name of the organization	
2.	Address of registered office	
3.	Address of local/district office	
4.	Contact details	
5.	Name of Contact person	
6.	Designation	
7.	Telephone	
8.	Fax	
9.	Email	
10.	Website	
11.	Registration details (number and date) of the Organisation	
12.	Income tax registration and PAN no. Details of the Organisation	
13.	Number of years of experience (in the State)	
14.	Number of offices (in the State) with address	
15.	Number of employees with professional field experiences	
16.	Full time, Professional manpower	Men _____ ; Women _____
17.	Full time, Non- professional manpower	Men _____ ; Women _____
18.	Please provide the following: <ul style="list-style-type: none"> • Copy of the Registration Certificate • Copies of certifications/testimonies, if any, of past work done by the Agency • Impact Studies or evaluation of the AGENCY's work in the recent past by an external AGENCY, if any • Number of Newspaper reports of the work of the AGENCY in the recent past, if any • Details of qualification, experiences and key competencies of professional and non-professional staff of the AGENCY. • Audit Report for the past 3(three) years 	
19.	(a) List of major projects carried out by the organization in the past three years, including in the North East region (in the State and nearby State) <ol style="list-style-type: none"> 1. Geographic location of projects (State) 2. Project awarded by 3. Total funding received/utilized for each project 4. Key objectives of the projects 5. Duration of the project and key activities undertaken (b) Mention in brief about experience of working MIS/ Baseline survey projects.	
20.	Submit a write up on the Agency, its evolution, founding philosophy, values, beliefs, vision, mission, approaches and strategies, activities, major achievements and plans for	

	future.			
21.	Please indicate the willingness of the Agency to undertake Services in the following villages			

Appendix II

Sl. No.	District	RD Block	Name of Village
1	Mamit	West Phaileng	West Phaileng
2	Mamit	West Phaileng	New West Phaileng
3	Mamit	West Phaileng	Teirei (Hruaitluang)
4	Mamit	West Phaileng	Khawhnai
5	Mamit	West Phaileng	Tuirum
6	Mamit	West Phaileng	Damparengpui
7	Mamit	Zawlnuam	Tuipuibari 1
8	Mamit	West Phaileng	Rajivnagar 1
9	Mamit	West Phaileng	Chhippui/Kawnmawi
10	Mamit	West Phaileng	Lallen
11	Mamit	West Phaileng	Parvatui
12	Mamit	West Phaileng	Phuldungsei
13	Mamit	West Phaileng	West Phulpui
14	Mamit	West Phaileng	Pukzing
15	Mamit	West Phaileng	Hnahva
16	Mamit	West Phaileng	Silsuri
17	Mamit	West Phaileng	PukzingVengthar
18	Mamit	West Phaileng	Hruiduk
19	Mamit	West Phaileng	Zopui
20	Mamit	West Bunghmun	Marpara S
21	Mamit	Reiek	South Sabual
22	Mamit	West Phaileng	Marpara N
23	Mamit	West Phaileng	Saithah
24	Lunglei	West Bunghmun	Dengsur
25	Lunglei	West Bunghmun	Laisawral
26	Lunglei	West Bunghmun	Sesawm
27	Lunglei	West Bunghmun	Tleu
28	Lunglei	West Bunghmun	West Bunghmun
29	Lunglei	West Bunghmun	Thenhlum
30	Lunglei	West Bunghmun	Changpui
31	Lunglei	West Bunghmun	Buarpui
32	Lunglei	West Bunghmun	Khawlek
33	Lunglei	West Bunghmun	Kawlhawk
34	Lunglei	West Bunghmun	W Bungtlang
35	Lunglei	West Bunghmun	New Khawlek
36	Lunglei	West Bunghmun	South Khawlek

Appendix III

Please write in about two to three pages on how the work will be carried out (for evaluation)

Shortlisting Criteria:

1. Experience of working in the relevant field
 - Number of years
 - Relevance of the field dealing with
 - Type of project implemented
2. Proven track records of designing schedule, survey method and data analysis and report preparation.
3. Quality of the plan proposed with milestones for the assignment of SPMU
4. Number of full time professionals/academic background for the assignment.
5. Total Annual turnover for the last three years.
6. Detail of research/survey conducted for the last 5 years.

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