Content Module 5

Strengthening Community Engagement for Effective and Sustainable Mitigation of Human-Wildlife Conflict

A Holistic Approach to Human-Wildlife Conflict (HWC) Mitigation in India

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1. About this Module

1.1 Learning outcomes

After completing this module, the participants will be able to:

- appreciate the significance of community participation in the planning, development and implementation of human-wildlife conflict (HWC) mitigation measures,

- appraise the socio-economic and psychological aspects of HWC,

- appraise cultural and traditional practices and their usefulness in mitigating HWC in specific areas,

- appraise the roles of multiple stakeholders in HWC mitigation at the national, state and local levels,

- demonstrate the methodology of stakeholder analysis vis-à-vis HWC conflict mitigation,

- outline stakeholder-specific engagement strategies for their respective areas of action,

- delineate the role of village-level institutions and the institution-building process for effective management of HWC,

- outline the key steps and methods to ensure that HWC mitigation measures are gender-inclusive,

- demonstrate stakeholder-specific engagement methods and

- demonstrate methods for engaging local communities, including Primary Response Teams, in the monitoring and maintenance of HWC mitigation tools and practices.

1.2 Summary

The module elaborates on the interlinkages among biodiversity and wildlife conservation; livelihood needs taking a holistic approach to HWC mitigation. It appraises the participants of HWC issues from socio-economic, psychological, ecological and cultural angles. It introduces the concept of stakeholder analysis vis-à-vis HWC conflict mitigation and equips participants with the tools, methods and knowledge necessary to conduct stakeholder analysis at a micro level and eventually link it with the larger district-, state- and national-level planning and management activities for HWC. It highlights the significance of engaging with all key stakeholders and vulnerable sections of society (women and marginalised communities) and facilitates the participants to delineate the roles of various stakeholder groups, especially village-level institutions, their capacity development needs and stakeholder-specific engagement methods.

1.3   Key messages from this module

- The ecosystem services arising out of biodiversity, including wildlife, strongly influence the constituents of well-being, including livelihoods, personal security, health and good social relations within a community. From an economic perspective, ecosystems are of great importance as they provide a wide range of goods and services. Rural communities everywhere have very high dependences on ecosystem services for their livelihood needs.

- Ecosystem services are crucial for farming communities too. In India, a large percentage of the people depend on agriculture for their livelihood. The majority of these people are small and marginal farmers, with a large part of the farm work undertaken by women. The consequences of loss biodiversity and wildlife, therefore, are often the harshest for the rural poor, especially the rural women. They are unable to access or afford substitutes for lost ecosystem services.

- It is important that the stakeholder mapping and analysis exercise is done at the state and each division level to map, identify and analyse each stakeholder, so that an effective strategy for stakeholder engagement can be formulated. In addition, it may also be required to conduct an in-depth stakeholder analysis for any specific HWC mitigation measures, if the mitigation measures are focused on a specific area/ a new issue has been brought in.

- In order to consider potential strategies for engaging different stakeholders in the long-term HWC mitigation plan, the officers will need to identify some practical ways of integrating selected stakeholders in the planning and implementation of the mitigation, and deciding carefully on the most apt engagement strategy for each stakeholder category. Stakeholder engagement is a dialogue and trust building process. It leads to the empowerment of marginalised groups.

- Engaging with stakeholders does not merely refer to how they can be a part of the HWC mitigation plan or what role they will play in the implementation of the plan. "Different types of stakeholders need be engaged in different ways in the various stages of the project, from gathering and giving information, to consultation, dialogue, working together, and even partnership."

- The first step would be to standardise the methodology and benchmarks for vulnerability mapping in the country to better understand the vulnerabilities and resilience to HWC. A step-wise implementation of measures to reduce vulnerability to HWC and enhance resilience, should then be planned in each division.

- Measures that may encourage people to work towards harmonious co-existence include participatory planning, awareness and communication to change the threat perceptions, integrating HWC mitigation into poverty alleviation programs and community-based natural resource management, and other site-appropriate stakeholder engagement measures, such as *ex gratia* for economic loss from damage to crops due to wild animals, or personal injury or risk from encounters with wild animals, is meant to increase community tolerance towards wildlife.

- A significant measure to reduce the vulnerability of humans has been *ex gratia* for losses, but little evidence exists to support the claims that these schemes have an impact on people's attitudes or the impact on the conservation of wildlife. Moral hazard, optimisation and leveraging of compensation schemes are a challenge.

- Guidelines and mechanisms, such as joint patrolling by different departments, and zoonotic disease surveillance, being developed in each division (linked to HWC-MAP) to enhance cooperation between SFDs, medical and health department, local hospitals and police, etc., is expected to ensure that crowd management and medical emergencies are addressed in the most efficient manner during HWC-related emergencies, subsequently reducing the vulnerability of the local communities.

- The long-term impacts of assessment of crop compensation amount are complex. While payment of inadequate compensation to farmers will lead to resentment among humans, leading to adverse impact on wildlife conversation due to retaliatory killings. Payment of compensation is equally challenging as it might also lead to laxity in crop protection by the farmers, and inhibit possible innovations for crop guarding. Use of economic tools such as crop and livestock insurance are being promoted in India on high priority. Crop damage due to wild animals has already been brought as an additional risk cover by the Ministry of Agriculture and Farmers Welfare under its flagship scheme Pradhan Mantri Fasal Bima Yojana (PMFBY), which can be used as an important HWC mitigation instrument. Efforts ae also being made to bring it under the main list of the scheme.

- Farmers should be facilitated, via agriculture department and associated institutions, for adopting sustainable, climate-smart and wildlife-smart agricultural practices and to reduce crop losses. Experiences and success story sharing across states will facilitate further improvements in the system. Changes in cropping pattern, use of nonpalatable crops etc., are one of the most effective measures, which can be implemented together with collaborative efforts can be made to promote market-based arrangements for alternate crops, wherever feasible. Community Primary Response Teams (PRTs) may be engaged to facilitate this process in their respective villages/ areas of operations.

- The formation and empowering of the PRTs by panchayats in an inclusive manner, with participation of youth and women, will institutionalise a dedicated cadre of village/ward level HWC mitigation primary response teams. Training the PRT members will gear the team towards preparedness for handling the HWC issues in their area as first responders and acting as the key source of information in the village.

- traditional knowledge, cultural beliefs and values can play a significant role in our efforts to conserve wildlife and habitats. There is an urgent need to document the existing traditional knowledge about HWC mitigation by conducting interviews of knowledgeable elderly members of different communities, starting with conflict-prone areas. Engaging with universities and providing scholarships to doctoral students will go a long way in capturing this wealth of knowledge before it is lost.

- Communities, response teams and key relevant departments and agencies are to be made sensitive to wildlife values and animal welfare issues, and make efforts to minimise the risk to wildlife

- In HWC hotspots—especially in villages—waste management and safe storage of food should be given a stronger focus. The role of local institutions and members of the local community, food vendors, shopkeepers in the vegetable markets in rural areas and hospitality enterprises in urban areas is critical in ensuring that waste is managed sustainably to mitigate HWC is critical.

- Human attitudes, experiences, and vulnerabilities to HWC are shaped strongly by gender and other socio-economic factors. Women suffer a disproportionate burden of both direct and indirect impacts of HWC in terms of decreased food security, changes in workload, and increased physical, psychological, and economic hardship. Therefore, any form of HWC mitigation needs to consider factors such as gender, age, and socio-economic situation as a prerequisite.

2. Wildlife, Ecosystem Services and Livelihood Dependence

The ecosystem services arising out of biodiversity, including wildlife, strongly influence the constituents of well-being, including livelihoods, personal security, health and good social relations within a community. From an economic perspective, ecosystems are of great importance as they provide a wide range of goods and services. Rural communities everywhere have very high dependences on ecosystem services for their livelihood needs. Among the people dependent on forests for their livelihoods, a large proportion is of indigenous and tribal people who are almost fully dependent on forests for their livelihoods. It is the women of tribal communities who are primarily engaged in the collection and processing of forest products.

Ecosystem services are crucial for farming communities too. In India, a large percentage of the people depend on agriculture for their livelihood. The majority of these people are small and marginal farmers, with a large part of the farm work undertaken by women. The consequences of loss biodiversity and wildlife, therefore, are often the harshest for the rural poor, especially the rural women. They are unable to access or afford substitutes for lost ecosystem services.

3. Stakeholder Mapping and Analysis for effective HWC Mitigation

3.1 Overview, purpose and key terms:

This section is a comprehensive guide for conducting stakeholder analysis that will help in the formulation and implementation of inclusive State HWC Mitigation Strategy and Action Plans and HWC Management Action Plans at the division level and to develop effective solutions specific to local situations. This toolkit was developed through a thorough review of the literature on HWC and stakeholder analysis in development practice. The toolkit is designed to help the forest department, other government/ non-government institutions, officials and their stakeholder mapping teams follow an objective and systematic process for collecting and analysing data about stakeholders in the HWC mitigation process.

3.2   What is stakeholder analysis?

'Stakeholder' is a term commonly used to identify or describe those actors (individuals, groups or organisations) with a stake or an interest in an issue. Stakeholders may be positively or negatively affected by a plan or measure. Stakeholders have the power and resources to influence the plan implementation or the success of a mitigation measure in some way.

Stakeholder analysis is a methodology for identifying and analysing the critical stakeholders in the implementation of a plan or measure and planning for their participation. It helps determine whose interests should be taken into account when developing and/or implementing a plan or a measure.

3.3   Why Conduct stakeholder analysis?

Stakeholder analysis for HWC mitigation can yield a wealth of information that can be used for the following:

- Analysing the role of local institutions and other government departments in the long-term biodiversity conservation strategy of a region
- Developing participatory action plans to increase support for biodiversity conservation and HWC mitigation across districts (landscape approach)
- Building collaborative action research teams that include all stakeholders
- Guiding a participatory, consensus-building process (by sharing the information and plans with the stakeholders and encouraging discussion)
- Identifying groups whose capacities need to be built to enable participation
- Achieving the goals and targets under the National Human-Wildlife Conflict Mitigation Strategy and Action Plan of India

Box 1: Questions that a stakeholder analysis seeks to answer

Who are the key stakeholders (Key, primary, secondary) in the division/ state/ specific plan to be implemented?

What are the interests of these stakeholders?

How will they be affected (positively/negatively) by the division/state-level HWC Mitigation plan/ a specific HWC mitigation measure?

Which stakeholders are most important for the success of the plan/measure?

How will various stakeholder groups participate throughout the implementation cycle of the plan/measure and also its revision process?

Whose capacities need to be built to enable them to participate?

3.4 Steps involved in stakeholder analysis and engagement for HWC mitigation plans and measures:

It is important that the stakeholder mapping and analysis exercise is done at the state and each division level to map, identify and analyse each stakeholder, so that an effective strategy for stakeholder engagement can be formulated. In addition, it may also be required to conduct an in-depth stakeholder analysis for any specific HWC mitigation measures, if the mitigation measures are focused on a specific area/ a new issue has been brought in.

Table 1: Key steps involved in analysing and engaging with key stakeholders on HWC Mitigation

Steps	Process Details	Methods Involved
Step 1 Planning	• Define the problem/specific issue to address • Define the purpose of the analysis. • Identify uses for the results of the analysis. • Establish a task force in the division or under the Division Level Coordination Committee (DLCC) to conduct SA. • Competency development of the task force • Develop a plan and timeline based on the local field conditions.	• Existing information in the documents and reports; • Discussions with experts, field staff
Step 2 Identifying stakeholders	• List all the stakeholders and categorise them as primary, secondary and tertiary; external and internal; and state, private and civil society • Use a Venn diagram or onion diagram to represent all the stakeholders. • Develop a preliminary SA matrix.	• Existing information in the documents, reports; • Workshop for cross-sector and multi-disciplinary experts and key local community representatives to brainstorm; Interviews with some key stakeholders; • Diagrams to depict stakeholder relationships
Step 3 Developing or adapting the methods and tools to be used for data collection	• Adapt/select the most appropriate methods for data collection. • Adapt tools to gather information from stakeholders. • Develop/adapt questionnaires, a stakeholder matrix and an interview protocol.	• Discussions with the field staff and local experts to identify the correct method and to adapt the tools
Step 4: Data collection	• Collect information in the field. • Fill questionnaire to understand stakeholders' interest, involvement and influence in relation to HWC management.	• Conducting interviews; focus groups; surveys
Step 5: Stakeholder mapping	• A table or matrix, or diagram is used to organise and classify the stakeholder data by mapping interest and influence on the vertical and horizontal axes (also known as the power versus interest axis)	• Discussions/brainstorming by the stakeholder mapping expert/team
Step 6: Formulation of a strategy and action plan for stakeholder engagement	• Identify practical ways to integrate the selected stakeholders in mitigation measures in line with the strategic priorities of the HWC-NAP, state plan and division-level HWC-MAP. • Establish partnerships with key stakeholders for communication, information sharing and joint implementation in the field.	• Participatory data collection; Consultation meetings with key stakeholders; MoUs; Joint declarations • Implementer's Toolkit can be referred to for relevant tools on this.

Steps	Process Details	Methods Involved
Step 7: Participatory implementation	• Organise awareness and communication measures as prioritised for each stakeholder • Organise regular multi-stakeholder meetings via a forum (Landscape level HWC Mitigation Forum, and District level Coordination Committee (DLCC). • Conduct joint training programmes for key departments. • Conduct joint training programmes of the response teams in close cooperation with local panchayats. • Hold regular discussions on ways and means of enhancing the efficiency and effectiveness of rapid response teams and their coordination with the primary response teams. • Provide a dialogue platform to address key issues relating to the landscape. • Evaluate the effectiveness of the mitigation measures and plan for new mitigation measures through the instruments mentioned above. • The forest department maintains anchoring points to engage the local community and citizens in collecting information and data on HWC and its mitigation.	• Multi-stakeholder platforms are one way of institutionalising collaboration with stakeholders.

Please note that the steps listed in Table 1 do not need to be strictly sequential and/or compartmentalised. There will be some activities that go on simultaneously. For instance, Step 2, identifying stakeholders, does overlap with Step 5, stakeholder mapping. The techniques mentioned in stakeholder mapping can be used right at the beginning, when we are trying to identify different stakeholders. Similarly, Step 6 describes stakeholder engagement in detail, but one might begin working on the roles, mandates and forms of engagement of different stakeholders alongside stakeholder mapping. And some data collection (Step 4) might take place in the process of identifying stakeholders (Step 2). Furthermore, participatory data collection itself is one of the key measures for community engagement.

Step 1: Planning stakeholder analysis

The planning process should be led by the CWLW or DFO for state/division-level stakeholder analysis, respectively. Before initiating SA, it should be ensured that there is consensus within the department regarding the need for SA, its purpose and the intended use of the results. These should be clearly stated for discussion within the department and for future reference.

The planning process should include the following steps:

i) Define the purpose of the SA

In the context of HWC, the purpose and use of Stakeholder Analysis is:

- To identify actors who can positively influence the implementation of the plan/ measure and also those who may be negatively affected

- to develop a shared understanding of the holistic approach, ensuring a harmonious coexistence that can be implemented in the area of influence.

- to use a participatory approach to address the HWC problem.

- to understand the mandates of various government and non-government institutions.

- to develop a deeper understanding of the needs and concerns of stakeholders.

- to establish strong communication channels with stakeholders and a feedback mechanism.

- to build confidence in the community by finding effective ways to protect their lives and livelihoods.

- to build stakeholder consensus for a participatory action plan for HWC mitigation.

ii) Identify a team to conduct stakeholder mapping and facilitate its capacity development

An expert/ small team can be formed, consisting of officers and external experts to work as interviewers and analysts for the stakeholder analysis.

Possible composition of the team for conducting stakeholder analysis:

- DFO of the division

- RFOs and field staff members of key conflict hotspots in the division

- An expert with experience and expertise in planning and conducting stakeholder analysis in a participatory manner

- An expert with knowledge of animal behaviour of the key species-in-conflict in the area

- An expert to bring information and knowledge on the key actors in the area, social context and politics related to the issue

- An expert to bring information and knowledge on the local community's interests, including farmers, planters and women's groups. This could be a panchayat representative or someone nominated by the local panchayat on their behalf.

- Experts from the key relevant line departments and district administration. Experts in this category can be added as there is clarity on the key stakeholders.

Having such a composition would make the process participatory from the beginning and help prevent biases that can occur when a single person or institution carries out an analysis. Having members with differing points of view can also help interpret the qualitative and, at times, ambiguous data that emerge.

It is essential that members of the stakeholder mapping team have some experience as interviewers and are able to elicit answers to the stated questions without imposing their personal biases. If they have no previous experience, a day or two of training may be required (such as practice interviewing through role-playing.

The stakeholder mapping team members also should be able to review and accurately synthesise qualitative information. In addition, all group members should read these stakeholder analysis guidelines, receive training on the procedure of stakeholder analysis and understand the reason for undertaking the analysis.

iii) Develop a plan and timeline

It is essential to establish a timeline for the process. The timeline should include all the steps in the process and sufficient time should be allocated for setting up interviews and rescheduling them in case of cancellations.

Step 2: Identifying the stakeholders

Once the stakeholder mapping team has been established and it has established its schedules and processes, the major function of the stakeholder mapping team is to identify stakeholders. However, identifying the stakeholders is a process that takes time. It is an iterative process and needs to be repeated before every revision cycle of the division/state plans or even as interim measure. The stakeholder mapping team would have to review existing information and carry out the preliminary identification of stakeholders with the help of experts.

Categorisation of stakeholders

'Stakeholder' is a term commonly used to identify or describe those actors (individuals, groups or organisations) with a stake or an interest in an issue. Stakeholders may be positively or negatively affected by a plan or measure. Stakeholders have the power and resources to influence the plan implementation or the success of a mitigation measure in some way.

The participation and support of stakeholders is crucial for achieving project goals. Stakeholders can be classified as -

• Primary Stakeholders

• Secondary Stakeholders

• Key Stakeholders

Primary stakeholders are people or groups that stand to be directly affected, either positively or negatively, by a plan or measure.

Secondary stakeholders are people or groups who are indirectly affected, either positively or negatively, by a plan or measure.

Key stakeholders are those who can significantly influence decision-making by virtue of their abilities, knowledge, connections and scope of influence. They influence the collaboration process that can lead to achieving objectives. They have considerable influence on the participation of other role players, allowing either full or partial inclusion or excluding totally. Key stakeholders have powerful

connections, i.e., they have numerous relationships with other role players, both institution-bound and personal. Without the explicit consent of key stakeholders, the plan/measure cannot be implemented effectively. Thus, they can be called veto players. They can build the momentum and the space for the intervention to develop, but they can also block it. They control key decisions within the plan implementation, can facilitate the implementation of the plan/measure and can encourage others to take action.

Stakeholders can also be classified on the basis of other important categories—state-level, local-level, private sector, and civil society. The objective of this classification is to ensure that no stakeholder gets left out in the analysis.

Figure 1 provides an indicative overview of the type of stakeholders as key, primary and secondary, in the categories of government, private sector and civil society.
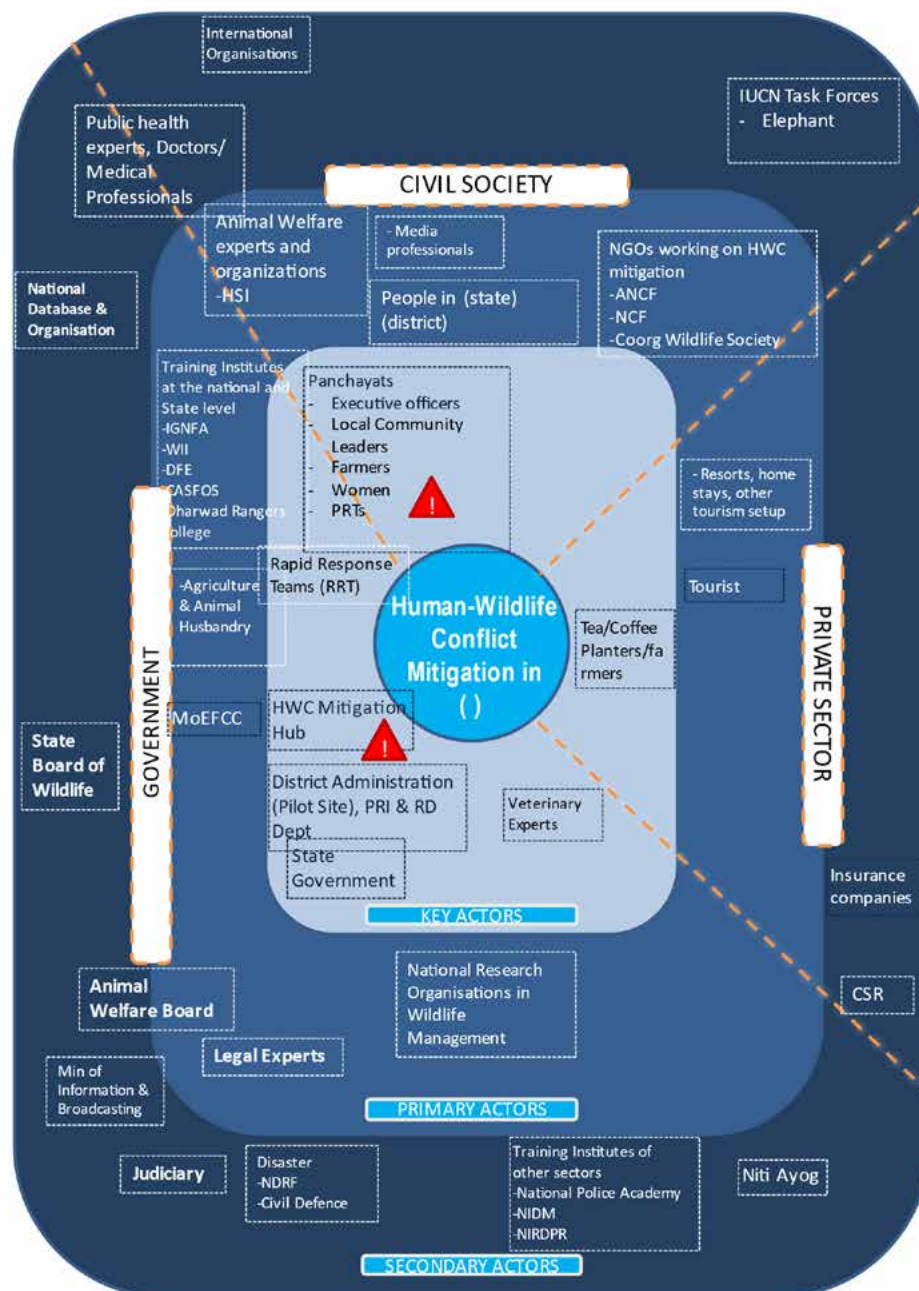
Figure 1: An indicative stakeholder Map for mapping stakeholders of human-wildlife conflict mitigation

Process of identifying stakeholders

Identifying the stakeholders is an iterative process. It continues as the stakeholder mapping team carries out the other steps in the stakeholder analysis i.e., interaction and consultation with stakeholders, development of an initial stakeholder analysis table and finalization of the analysis table. The initial list of stakeholders will be revised as the analysis deepens and eventually on the basis of interviews with stakeholders. The list may shrink or grow as the project evolves.

Box 2: Key Questions for Stakeholder Identification

- Who is adversely impacted by HWC?

- Who are the targeted beneficiaries of the HWC mitigation plan?

- Who might be impacted adversely by the plan?

- Will the plan impact (positively or negatively) any vulnerable groups?

- Who are the HWC mitigation plan's main supporters and opponents?

- Who is responsible for carrying out the planned activities?

- Who can contribute financial and technical resources?

- Whose behaviour has to change for the intervention to succeed?

The tasks of identification of stakeholders and describing their interests are performed simultaneously. The stakeholder mapping team should begin by brainstorming among themselves and involve experts (academicians and knowledgeable persons from government or non-government departments working in the region) in brainstorming workshops. The Key Questions for Stakeholder Identification mentioned in box 2 can act as a guide during these sessions. Additionally, the stakeholder mapping team can go through existing documents (reports of key organisations, institutional reports and publications, etc.) to understand the relevance of various institutions and experts to HWC in the region and identify the stakeholders.

Information about the stakeholders' position, interests and ability to influence should be used to categorise stakeholders and prepare an initial **stakeholder analysis matrix** in the template provided in table 2. Special care must be taken at this stage to ensure that the exercise is wide in its scope and that no marginal groups are inadvertently excluded.

Once the majority of the stakeholders are identified, the stakeholder mapping team should develop a contact list with the stakeholders' names, addresses and phone numbers. They should work out a plan to contact the stakeholders for conduct interviews and plan detailed stakeholder mapping.

Snowball sampling

Snowball sampling is a method that is commonly used for identifying stakeholders. Here, initial contact persons are asked for recommendations of other persons who might be relevant to the study and who are a part of their social networks. The initial contact persons will be able to assist the stakeholder mapping team in locating other stakeholders. However, one must be aware that snowball sampling may not lead us to all the important stakeholders. Certain key stakeholders might not be referenced because of prejudices and social differences that exist in a community or even due to a lack of awareness. Thus, this method needs to be complemented with other approaches.

Develop Stakeholder matrix

A preliminary stakeholder matrix can be prepared during the process of stakeholder identification. Table 2 provides an example of such a matrix. Wherever possible, one should describe the mandate of each stakeholder or stakeholder category. The potential role that each stakeholder can play in the HWC mitigation process should also be listed. The position of the stakeholder, as a marginalised community with no power to influence decision-making or as a key stakeholder with the ability to influence the actions of others should also be listed.

The stakeholder matrix can be prepared with the help of experts and from data collected from preliminary interviews.

Table 2: Template for preliminary Stakeholder Analysis Matrix for HWC Mitigation

S. No.	Stakeholders/ Stakeholder Categories	Overall Mandate[1]	Potential Role in initiative/ programme/ mitigation measure	The interest of the stakeholder in HWC mitigation (0-10)	Power of the stakeholder to influence results of interventions (0-10)	Marginalised Stakeholders[2] (Yes/No)	Key Stakeholders (Yes/No)
1							
2							
3							
4							

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1   Mandate is the authority to do something or take action. It could be official authority or based on social norms. "The mandate refers to the nature and limits of each stakeholder's stake in the resource (e.g., livelihoods, profit, lifestyles, cultural values, spiritual values, etc.), and the basis of that stake (e.g., customary rights, ownership, administrative or legal responsibilities, intellectual rights, social obligation, etc.)."

2   Marginalised stakeholders could be women, indigenous peoples, ethnic minorities, youth or other impoverished or disenfranchised groups. Marginalised stakeholders lack the recognition or capacity to participate in collaborative efforts on an equal basis, and a particular effort must be made to ensure and enable their participation.

Step 3: Decide on the Methods and tools for engaging with stakeholders

After preparing the list of stakeholders and the preliminary stakeholder matrix, the stakeholder mapping team should begin systematic data collection to understand the issue of HWC from different perspectives: the goals, interests and problems of different stakeholders; their ability to influence; their potential; and interrelations among different stakeholders. The stakeholder mapping team could employ one or two additional trained researchers for data collection.

The following methods may be adopted for this task:

- Structured or semi-structured interviews (using questionnaires)
- Focus group discussions
- Participatory rural appraisal (social and resource mapping, Venn diagrams of institutions, causal diagramming, seasonal calendars, daily activity charts, timelines)

Box 3: Different Methods and Tools for Data Collection

- Literature reviews
- Brainstorming
- Interviews with stakeholders
- Focus group discussions
- Stakeholder diagrams to categorise and depict stakeholder relationships (for example, onion diagrams)
- Interview questionnaires
- Interview protocols
- Stakeholder tables or matrices
- Reference charts

The choice of methods would depend on the time and resources available. *Structured interviews* require more time but yield relatively more accurate data. *Focus groups* (a kind of group interview) can deliver much information in a relatively short time and help gain insights into people's shared understanding of a particular issue. *Participatory methods* are useful for a rapid appraisal of an issue. The visual format in which data are collected through participatory methods is particularly helpful when dealing with populations with low literacy or rural population. Using more than one method is advantageous in the triangulation (verification) of data and in getting different perspectives.

Understanding Stakeholder Interests

"You don't have to—and in fact shouldn't—guess what stakeholder interests are. Ask them what's important to them. If there are stakeholders that aren't willing to be involved, try to talk to them anyway. If that isn't possible, try to find out their concerns from others who are likely to know. Most stakeholders will be more than willing to tell you how they feel about a potential or ongoing effort, what their concerns are, and what needs to be done or changed to address those concerns."[3]

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3   https://ctb.ku.edu/en/table-of-contents/participation/encouraging-involvement/identify-stakeholders/main

The interview method

Interviews are discussions, usually one-on-one, between an interviewer and an individual, meant to gather information on a specific issue. Interviews can be conducted in-person or over the phone and can be in-depth, semi-structured or structured. **An in-depth interview** is a less formal and the least structured method of data collection, in which the wording and questions are not predetermined. In-depth interviews can yield a wealth of information about the problem and the social context. However, for the purpose of stakeholder analysis for HWC mitigation planning, semi-structured or structured interviews would be more useful. In **semi-structured interviews**, the interviewer uses a questionnaire but has more freedom to modify the wording and order of questions. It also allows new ideas to be brought up during the interview as a result of what the interviewee says. However, in **structured interviews**, the interviewer follows the order of questions as per the questionnaire. If needed, the interviewer can provide an explanation to clarify the question and ask the respondents to explain if they provide a vague answer.

Maintaining consistency, accuracy and objectivity is essential while interviewing. The stakeholder mapping team should follow a protocol during the interview process. This protocol should be established in advance and discussed by the interviewing group.

Interviews can be helpful in collecting information from various primary and secondary stakeholders such as government officials, politicians, business owners, media persons, leaders of local institutions and officials of NGOs.

Box 4: Suggestive Interview Protocol

- Two-person teams should conduct interviews. Preferably, the interviewers should represent different organisations or be from different backgrounds. They should understand and be experienced with participatory interviewing.

- At the beginning of the interview, the interviewers should introduce themselves and explain their purpose (emphasising that they are trying to learn).

- Both interviewers can take notes, but only one should lead the interview.

- If the respondent does not wish to answer a particular question, the interviewer should move on.

- The questions should be mixed with informal discussions.

- The interview should be terminated at the stakeholder's request, even if questions remain.

- Responses and observations should be recorded/noted fully.

- The interviewers should type their notes and the initial analysis without delay.

Some key questions to be asked

- How does HWC impact the stakeholder?

- How is the stakeholder going to be affected by the proposed HWC mitigation plan?

- How can the stakeholder help with HWC mitigation?

- Who are mainly negatively impacted by HWC?

- Which stakeholders have the power to influence others?

- What is the extent and intensity of the HWC in the region?

- Is the impact of the HWC bearable?

- What is the nature of the livelihoods of the people in the region?

- What methods and techniques are currently used by the people to mitigate conflict? What other suitable methods can be adopted?

- What is the knowledge possessed by the stakeholder about wild animals? What are the stakeholder's attitudes towards and perceptions of wild animals?

Free and Informed Prior Consent: A critical aspect of initiating any stakeholder engagement exercise is to obtain Free and Informed Prior Consent (FPIC). This process involves explaining the aims and objectives of the programme to the stakeholders or interviewees. FPIC also involves protecting the participants' identities and ensuring the protection of the respondents from any adverse consequences of their responses. The consent may be recorded verbally or in writing as per local conditions.

The focus group discussion (FGD)

Focus groups are dynamic group discussions used to collect information. Focus groups involve gathering people from similar backgrounds or experiences together to discuss a specific topic of interest. Usually, questions are asked about people's perceptions, attitudes, beliefs, opinions or ideas. The questioning flows from the general to the specific. A small, uniform group of informants (8–12) is guided by a facilitator or moderator to talk freely and spontaneously about the p issue. It is loosely structured, and discussions with other participants are also encouraged. The moderator facilitates but does not dominate the discussion. A note-taker must record information about the place where FGD is held, the number and description of participants, major issues covered, etc. The discussion can be tape-recorded and, later, transcribed.

FGDs can yield much information in a short span. They should be conducted to understand the problems and issues of rural communities in the case of HWC.

Participatory rural appraisal (PRA)

A participatory rural appraisal is an approach and a set of methods for learning about rural life and the conditions from, with and by rural people (Chambers 1994). It enhances the implementer's understanding of the rural reality for planning and development of projects. It also leads to a greater degree of ownership and responsibility among the economically marginalised people, resulting in better results and the social acceptance of the programme. It leads to the empowerment of people and develops their decision-making skills. In-depth interviews and FGDs are also PRA tools. Commonly used visual PRA tools include social and resource mapping, Venn diagrams of institutions, causal diagramming, seasonal calendars, daily activity charts and timelines.

Social and resource mapping

The focus here is on the depiction of habitation patterns and the nature of housing and social infrastructure: roads, drainage systems, schools, drinking water facilities, etc. It depicts what the local people believe to be relevant and essential to them. The resource map depicts the natural resources—land, water sources, flora and fauna, etc. In some instances, though, a map could be a rich combination of the two. These maps have been used to depict various aspects related to the natural resource management of a region.

This is an excellent participatory method for understanding the HWC hotspots, wild animal movement patterns, risks related to the onset of any zoonotic disease, and needs of the community and identifying the more vulnerable localities and people. It can be useful in identifying the areas where physical barriers may need to be constructed or where patrolling by the community should be done.

Venn diagrams of institutions

A Venn diagram (or chapati diagram) helps understand local people's perceptions about local institutions, individuals, programmes, the power structure and decision-making processes. It helps analyse various institutions, individuals, and groups in and outside the locality and their influence on the local people. A Venn diagram shows the relative importance of various institutions in the village, relationships and linkages among them, weaknesses with respect to decision-making processes, development of the village by institutions, duplication of efforts and identification of gaps between institutions, objectives of farmers, needs felt by farmers and concentration of power within a village.

When to Use in the HWC Context	Semi-structured Interview	Focus Group	PRA—Visual Tools
Most suitable for which stakeholder category?	Government officials, politicians, business owners, media persons, leaders of local institutions, officials of NGOs	Local community	Local community
Who can conduct it?	Any individual with some basic knowledge and training in interviewing skills	An individual with training in social research methods	An individual with training in social research methods and PRA
Mode	In-person, in the respondent's office or village or through a telephonic interview	In-person, in the field setting, in a comfortable location	In-person, in the field
Number (sample)	Two or three interviews from every stakeholder category to get a proper representation	Two or three FGDs per village to get a representation of each hamlet, marginalised stakeholder categories such as women and lower caste groups. Usually, FGDs are conducted till the data saturation point is reached.	One social map per village, one institutional Venn diagram per village
Time taken	An interview may take 30–60 minutes.	It could take 60–90 minutes to conduct one FGD.	2–3 hours
Important points	Take appointments for interviewing. Be prepared to reschedule if appointments get cancelled.	Select the date and time when more people are likely to be present. Appropriate dates and time should be discussed with the Panchayat leaders before initiating the process.	Select the date and time when more people are likely to be present. Before initiating the process, appropriate dates and time should be discussed with the Panchayat leaders.

Step 4: Data collection

The stakeholder mapping team could use a combination of the abovementioned methods for data collection. The group could do this by themselves or engage a team of researchers to assist them.

Time estimate (may vary with field conditions)

If the task force has three or four researchers assisting it in data collection, it may require 1–3 days to conduct FDGs, key stakeholder interviews and PRA activities in each village . Since semi-structured interviews must be conducted with one or two individuals from each stakeholder category, it would take 10–20 days, depending upon the number of stakeholder categories.

Sampling

It is important to have a representative sample such that no stakeholder group is left out. The number of interviews and FGDs to be conducted would depend on the availability of time and resources.

When conducting interviews and FGDs with a rural community, the stakeholder mapping team should try to include all the caste groups in the village. If there are different hamlets in the village, then all the hamlets should be covered. At least one FGD should be conducted with the women of each hamlet. Efforts should be made to include women from female-headed households in either individual interviews or FGDs.

For effective focus group discussions or PRA activities with the community, it is best to select a date and time when more people will likely be present. Appropriate dates can be discussed with the Panchayat leaders before initiating the process.

For interviews with different stakeholders, such as government departments, the private sector and CSOs, it would be good to include at least two persons from each category. If there is a paucity of time, then an FGD can be conducted with different persons from one stakeholder category. For instance, there could be an FGD with government officials from various departments/ministries–Rural Development, Railways, Road & Transport, PWD, etc. Another FDG could be with CSOs and research organisations, and one could be with local community leaders and members of community-based organisations.

Data collection could take 3–4 weeks or even more because interviews and FGDs have to be conducted at the convenience of the stakeholders. It may take some time to schedule interviews with government officials or local political leaders.

Note-taking is crucial during interviews, FGDs and PRA activities. The stakeholders' responses should be accurately noted as the idea is to know their perspectives. The names of the participants and the date and time of the interview should also be noted.

Step 5: Develop the final Stakeholder matrix

Transferring the interview responses and the data collected through FGDs and PRA activities into the stakeholder matrix, onion diagram and power-interest matrix is the most crucial step of stakeholder analysis. This step involves taking detailed and often lengthy answers from the interviews and arranging them into a more concise and systematised format. Mapping the stakeholders enables the stakeholder mapping team to develop clear comparisons among the different stakeholders and present this information concisely to the decision makers (the forest department), who will use it to work out what strategies to adopt to engage with different stakeholder groups, such that the project will have a successful outcome.

Accurately transcribing interview and FGD responses to the stakeholder table requires that the stakeholder mapping team use all sources of data including the completed questionnaires for each stakeholder, the analysis of the FDGs and PRA activities, the initial stakeholder table and onion diagram, and the reference chart used to define all the stakeholders. It is useful to have those stakeholder mapping team members who served as interviewers participate in this process because they can generally recall the context within which certain stakeholders' statements were made. However, group members should analyse the exact responses written in each stakeholder's questionnaire , and should not rely on their memory.

Three different tools used for stakeholder mapping are presented in the following: (1) the onion diagram (2) the stakeholder analysis matrix, and (3) the power-interest matrix.

Stakeholder map: Onion /Rectangle diagram

Onion diagrams are a way of representing stakeholder relationships specific to a project, issue or problem. Onion diagrams can serve as decision-making instruments for dealing with respective stakeholders, identifying communication tools and deciding participation levels.

The centre of the onion is defined by the issue or problem by which these stakeholders are interested, associated with and affected. The first circle is for the key stakeholders, the second is for the primary and the third is for the secondary stakeholders.

Onion diagrams are effective tools for representing multiple dimensions. For instance, it is possible to classify stakeholders into different stakeholder groups: civil society, state, and private sector. An onion diagram can a to depict internal, external and public stakeholders. If it is cumbersome to add too much information in one diagram, a separate diagram can be made for this purpose.

Onion diagrams also help us understand interrelations and networks. Lines can be used to indicate the relationships between the stakeholders. A single line is used to show some relationships between stakeholders. A double line is used to establish a strong relationship or a contract governing the relationship. A dashed line is used when relationships are weak, and a question mark is added if the relation is unknown. An explosive symbol thunderclap clap can be used to indicate relationships that have known conflicts (GIZ).

This analysis can be carried out using round pieces of paper/stickers of different colours, with the names of stakeholders written on them. Stickers of different colours can be used to identify different stakeholder categories. These should be pasted on the onion diagram on a flipchart.
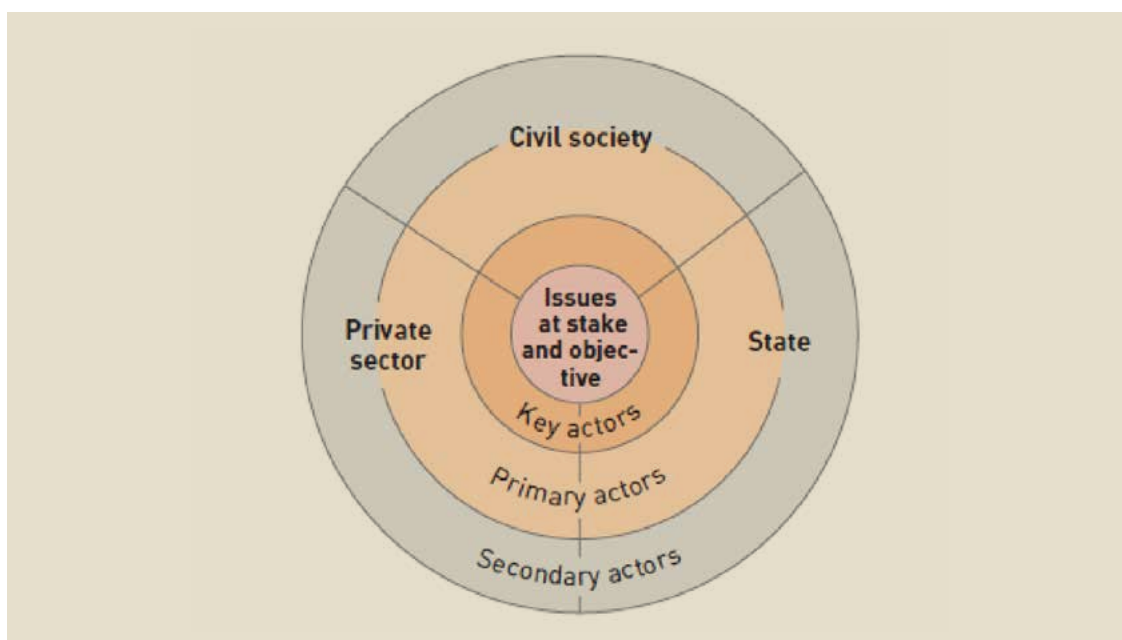
A modified visual presentation of the onion diagram is to format it as a rectangular box, which is easy to edit over a Word format (Figure 1 in this document).

After preparing the onion diagram, the stakeholder mapping team should identify and list ways of dealing with respective stakeholders, identify communication tools and deciding participation levels. This information can be added to the preliminary stakeholder matrix.

Stakeholder analysis matrix

A stakeholder matrix is an effective tool for analysing data, and also useful for decision making. The preliminary stakeholder matrix that was prepared during the process of stakeholder identification (Table 2) needs to be worked upon in detail. The detailed information obtained from the interviews and FGDs should enable the stakeholder mapping team to describe the mandate of each stakeholder in a comprehensive manner. The potential role that stakeholder can play in the HWC mitigation process, i.e., how they should be engaged in the long term, should also be described. The position of the stakeholder and their power, influence or vulnerability should be mentioned. The strategy and methods to communicate with them and the areas where building capacity is necessary should also be included in the table.

Table 4: Template for Stakeholder Analysis Matrix for HWC Mitigation

S. No.	Stake-holders/ Stake-holder Categories	Overall Man-date[4]	Size (ap-prox. No. of organisa-tions or individuals)	Geographi-cal area of influence (Global/ National/ State/Local)	Potential Role in initiative/ pro-gramme/ mitigation measure	The inter-est of the stakehold-er in HWC mitigation (0-10)	Power of the stake-holder to influence results of interven-tions (0-10)	Margin-alised Stake-holders[5] (Yes/No)	Key Stake-hold-ers (Yes/ No)
1									
2									
3									
4									

Power–interest matrix

Another method of analysing the data collected is to represent the stakeholder position, interest and ability to influence in a two-dimensional matrix. The matrix depicts interest on the vertical axis and influence/power on the horizontal axis. The analysis of power and interest divides stakeholders into four groups. This power–interest matrix (Mendelow's matrix) provides a quick categorisation and analysis of which stakeholders will be influenced the most or the least by the proposed intervention and whether they can significantly impact the process.
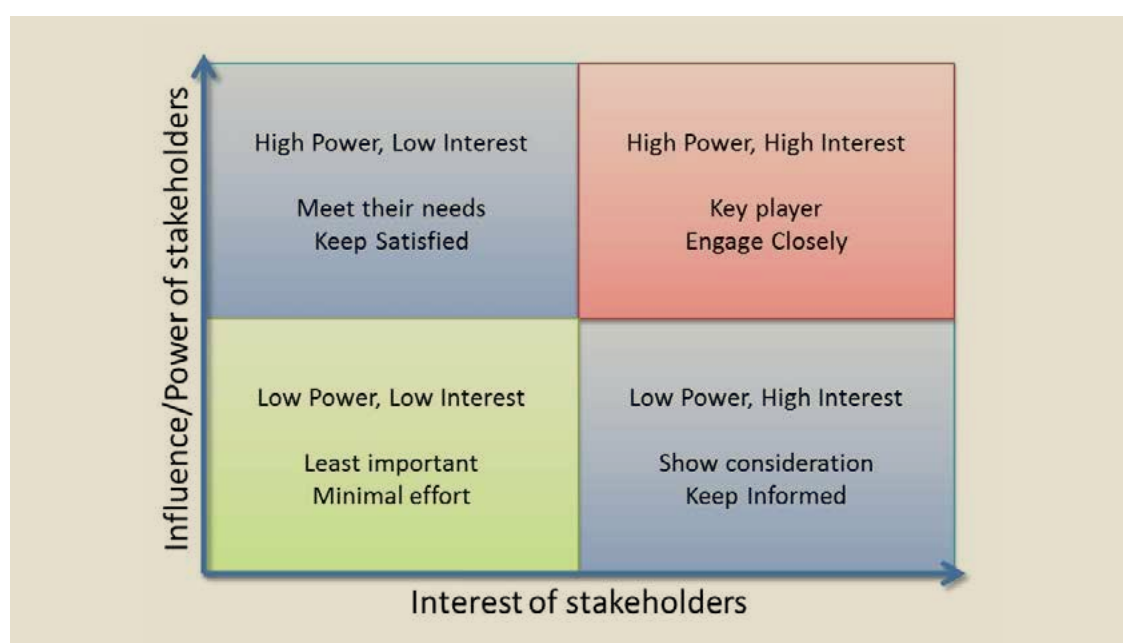
For carrying out this analysis, the stakeholder names should be written down on pieces of paper/ stickers first. These should be pasted, as per the analysis, on the matrix, which should be marked on a flipchart. Usually, the key stakeholders come in the top right quadrant because they are likely to influence the success or failure of the project. The stakeholder mapping team should discuss the level of interest and influence of stakeholders and accordingly place them on the matrix. The relationships among different stakeholders should also be taken into consideration when placing them in the matrix.

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4   Mandate is the authority to do something or take action. It could be official authority or based on social norms. "The mandate refers to the nature and limits of each stakeholder's stake in the resource (e.g., livelihoods, profit, lifestyles, cultural values, spiritual values, etc.), and the basis of that stake (e.g., customary rights, ownership, administrative or legal responsibilities, intellectual rights, social obligation, etc.)."

5   Marginalised stakeholders could be women, indigenous peoples, ethnic minorities, youth or other impoverished or disenfranchised groups. Marginalised stakeholders lack the recognition or capacity to participate in collaborative efforts on an equal basis, and a par-ticular effort must be made to ensure and enable their participation

Step 6: Stakeholder engagement

In order to consider potential strategies for engaging different stakeholders in the long-term HWC mitigation plan, the stakeholder mapping team will need to identify some practical ways of integrating selected stakeholders in the planning and implementation of the mitigation. The stakeholder mapping team will have to decide carefully on the most apt engagement strategy for each stakeholder category. Stakeholder engagement is a dialogue and trust building process. It leads to the empowerment of marginalised groups.

Engaging with stakeholders does not merely refer to how they can be a part of the HWC mitigation plan or what role they will play in the implementation of the plan. "Different types of stakeholders need be engaged in different ways in the various stages of the project, from gathering and giving information, to consultation, dialogue, working together, and even partnership."

For example, key stakeholders such as the panchayat leaders need to be engaged closely. They should be consulted and involved in decision-making before the mitigation plan is finalised. This is important because the panchayat leaders will be closely involved in the formation of community-level primary response teams, mobilising villagers to support in HWC related emergencies, crowd management, monitoring and maintenance of HWC mitigation measures, contributing to early warning and rapid response systems, and facilitating *ex gratia*.

The stakeholder analysis process in itself may be conducted to be participatory in nature. Engagement begins right from the start of stakeholder identification. It is a continuous process. It involves identifying the issues and needs of stakeholders, listening to their views, involving them in processes of development planning and decision-making (identifying action points), sharing information with them and further engagement and interaction for understanding issues as they evolve with time.

Some suggestions for engaging different stakeholders in the context of HWC are discussed in the sections ahead.

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4. Measures for reducing the vulnerability of humans to HWC

4.1 Overall measures
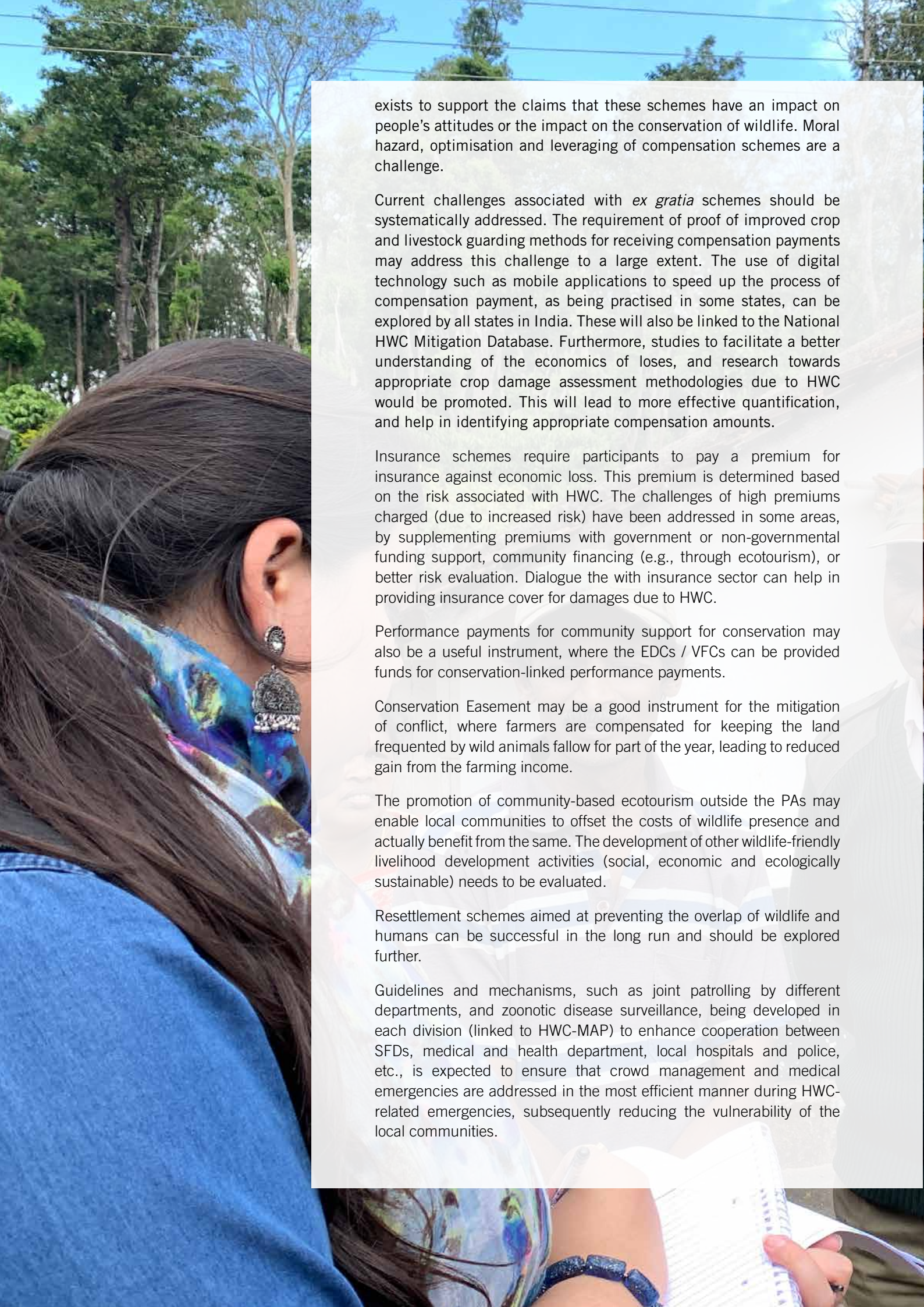
Humans living in areas frequented by wild animals are familiar with their habits and behaviour and are accustomed to the presence of wild animals in the area. Although they are aware of how to react to the situations, many a times, things go beyond

control and marginal farmers face losses due to HWC. Moreover, due to the dispersal of wild animals in new areas, people are not familiar with wild animals and are less tolerant of the damage caused in conflict.

The first step would be to standardise the methodology and benchmarks for vulnerability mapping in the country to better understand the vulnerabilities and resilience to HWC. A step-wise implementation of measures to reduce vulnerability to HWC and enhance resilience, should then be planned in each division.

Measures that may encourage people to work towards harmonious co-existence include participatory planning, awareness and communication to change the threat perceptions, integrating HWC mitigation into poverty alleviation programs and community-based natural resource management, and other site-appropriate stakeholder engagement measures, such as *ex gratia* for economic loss from damage to crops due to wild animals, or personal injury or risk from encounters with wild animals, is meant to increase community tolerance towards wildlife.

A significant measure to reduce the vulnerability of humans has been *ex gratia* for losses, but little evidence

exists to support the claims that these schemes have an impact on people's attitudes or the impact on the conservation of wildlife. Moral hazard, optimisation and leveraging of compensation schemes are a challenge.

Current challenges associated with *ex gratia* schemes should be systematically addressed. The requirement of proof of improved crop and livestock guarding methods for receiving compensation payments may address this challenge to a large extent. The use of digital technology such as mobile applications to speed up the process of compensation payment, as being practised in some states, can be explored by all states in India. These will also be linked to the National HWC Mitigation Database. Furthermore, studies to facilitate a better understanding of the economics of loses, and research towards appropriate crop damage assessment methodologies due to HWC would be promoted. This will lead to more effective quantification, and help in identifying appropriate compensation amounts.

Insurance schemes require participants to pay a premium for insurance against economic loss. This premium is determined based on the risk associated with HWC. The challenges of high premiums charged (due to increased risk) have been addressed in some areas, by supplementing premiums with government or non-governmental funding support, community financing (e.g., through ecotourism), or better risk evaluation. Dialogue the with insurance sector can help in providing insurance cover for damages due to HWC.

Performance payments for community support for conservation may also be a useful instrument, where the EDCs / VFCs can be provided funds for conservation-linked performance payments.

Conservation Easement may be a good instrument for the mitigation of conflict, where farmers are compensated for keeping the land frequented by wild animals fallow for part of the year, leading to reduced gain from the farming income.

The promotion of community-based ecotourism outside the PAs may enable local communities to offset the costs of wildlife presence and actually benefit from the same. The development of other wildlife-friendly livelihood development activities (social, economic and ecologically sustainable) needs to be evaluated.

Resettlement schemes aimed at preventing the overlap of wildlife and humans can be successful in the long run and should be explored further.

Guidelines and mechanisms, such as joint patrolling by different departments, and zoonotic disease surveillance, being developed in each division (linked to HWC-MAP) to enhance cooperation between SFDs, medical and health department, local hospitals and police, etc., is expected to ensure that crowd management and medical emergencies are addressed in the most efficient manner during HWC-related emergencies, subsequently reducing the vulnerability of the local communities.

4.2 Measures for addressing the situation of loss of human life

The dimensions of human death are many folds. It's not simple to fathom the loss of human life to the family of the victim. The primary assumption behind *ex gratia* is that

the loss of life of any individual cannot be compensated. Therefore, any amount paid to the family of the victim is a mere consolation or a kind of solatium.

The following measures should be implemented to effectively address the situation:

- Part of the *ex gratia* payment is to be made immediately to the victim's family/heirs and the balance payment may be made at the earliest.

- The payments to the victim's family are made into their bank accounts.

- In the HWC hotspots in some states, a revolving fund is established, at the division-level, to ensure the availability of funds for providing immediate relief to the victim/family.

- Efficient victim care and rehabilitation is significant in reducing the vulnerability of humans affected by HWC. Operating procedures and other instruments (State-level Coordination Committees, District-level Coordination Committees, Landscape-level HWC Mitigation Forum, national HWC Mitigation Forum, etc.) should be used for enhancing cooperation with police, health department, local hospitals, district and local administration, disaster management departments, National Disaster Response Force (NDRF) and State Disaster Response Forces (SDRFs), civil defence institutions and volunteers, and paramilitary forces during emergency situations, especially for crowd management and medical emergencies.

- Financial and logistic support by the SFDs during victim care and rehabilitation will be strengthened.

- Setting up of foundations in the territorial divisions for extending sustainable support to the victim is an extremely useful measure. Kodagu Foundation set-up by the Karnataka Forest department in and excellent example in this direction.

4.3 Measures for addressing the health and overall well-being of the affected humans

- In the case of injury, as a result of an encounter with the wild animals, the victim is immediately hospitalised and *ex gratia* is paid, as per the state government norms.

- Professional counselling through qualified psychiatrists/ health workers is a very useful activity to assess the effects of such traumatic incidents. The SFDs and other government agencies/ institutions organise counselling sessions for such victims and support them in coming out of this psychological impact.

4.4 Measures for addressing the situation of property damage

Ex gratia for property damage does not generally consider the cost of repairing and the costs of temporary fixes that are needed prior to repairs. People with low incomes are affected more as their houses are of low value and damages do not consider the fact that the main cost is actually labour that the family provides in reconstruction and not the cost of materials themselves.

Property insurance should be the ultimate goal. Awareness and adoption of options regarding property insurance should be given priority.

Mobile application-based system facilitates in effectively evaluating the loss of property and makes *ex gratia* payment to the property owner more efficient and faster.

Wild animals may enter urban areas and semi-urban areas close to the forest, which may create panic among residents. SFDs may coordinate with the respective resident welfare associations for *ex gratia* payment in the event of loss of property and human injury

4.5 Measures for addressing the situation of crop damage and livestock injury/loss

The long-term impacts of assessment of crop compensation amount are complex. While payment of inadequate compensation to farmers will lead to resentment among humans, leading to adverse impact on wildlife conversation due to retaliatory killings. Payment of compensation is equally challenging as it might also lead to laxity in crop protection by the farmers, and inhibit possible innovations for crop guarding.

Use of economic tools such as crop and livestock insurance are being promoted in India on high priority. Crop damage due to wild animals has already been brought as an additional risk cover by the Ministry of Agriculture and Farmers Welfare under its flagship scheme *Pradhan Mantri Fasal Bima Yojana* (PMFBY), which can be used as an important HWC mitigation instrument. Efforts ae also being made to bring it under the main list of the scheme.

Farmers should be facilitated, via agriculture department and associated institutions, for adopting sustainable, climate-smart and wildlife-smart agricultural practices and to reduce crop losses. Experiences and success story sharing across states will facilitate further improvements in the system.

Changes in cropping pattern, use of nonpalatable crops etc., are one of the most effective measures, which can be implemented together with collaborative efforts can be made to promote market-based arrangements for alternate crops, wherever feasible. Community Primary Response Teams (PRTs) may be engaged to facilitate this process in their respective villages/ areas of operations.

However, as the wild animals-in-conflict will get used to the new crops, the system will need to reinvest itself with crop-diversification and continuous site-specific studies to find out further appropriate crops that are non-palatable to the wild-animals on that site. For this, a strong collaboration of state forest department and agricultural institutions will be essential.

Similarly, affordable livestock protection measures (e.g., herding or stall feeding) need to be defined and promoted. Only where these measures (alternate crops, crop and livestock protection) fail, despite sincere implementation, *ex gratia* for crop and livestock loss would be used as the last resort to reduce vulnerability of affected humans in accordance with the established procedure and rules of the respective state governments.
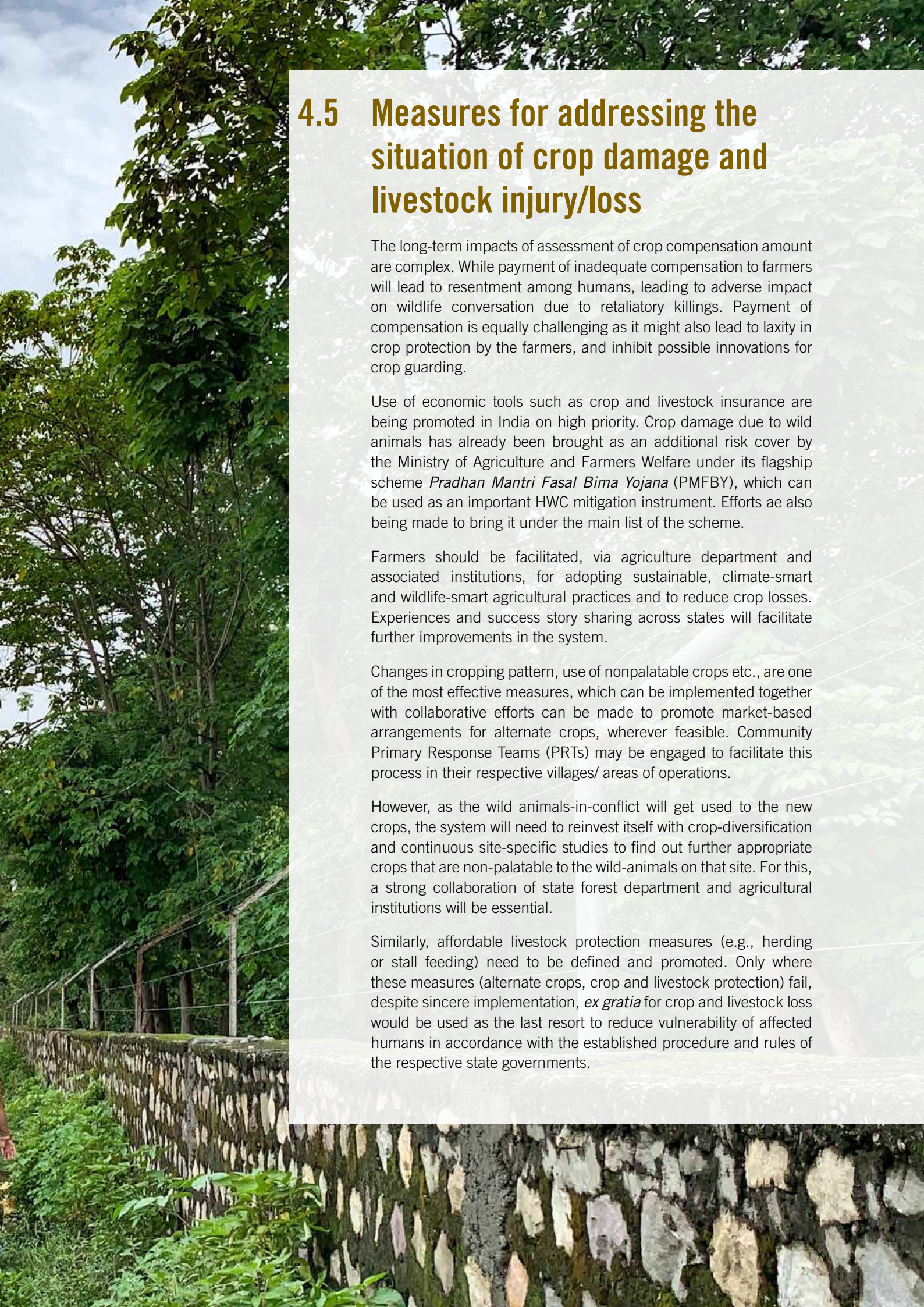
4.6   Measures for addressing the situation of lost livelihood opportunities

HWC may deprive humans of their jobs, or reduce their ability to raise income, and thus diminish their capacity to make a living. *Ex gratia* is an important coping mechanism, but specific measures may be required to ensure long-term sustainability of livelihoods at the HWC hotspots.

Following measures need to be planned and implemented, with cross-sector cooperation:

- Systematic assessments of the extent and scale of lost livelihood opportunities and other indirect impacts, due to HWC, may be conducted

- Development of skills for alternative non-land/ nonfarming-based income generation opportunities

- Creation of self-help groups (SHG) for facilitating small businesses that adopt alternative non-land / nonfarming-based livelihoods.

Indicative topics for training assignment:

- An HWC vulnerability mapping exercise is conducted to identify key issues and benchmarks

- Identifying sustainable, climate-smart and wildlife-smart agricultural practices for a given area

- Identifying the interventions to facilitate their respective states in adopting digital technology, such as mobile applications to speed up the process of compensation payment

- Identify community-based eco-tourism measures as instruments for reducing the vulnerability of humans in HWC hotspots

4.7 Measures to reduce Livelihood dependence of humans on protected areas, corridors, forests and other natural habitats

While sustainable use of natural resources generally does not pose a significant ecological problem, over-extraction due to the rising demands of a growing human population and insufficient regulation mechanisms causes degradation of such wildlife habitats. A degraded and disturbed wildlife habitat, in turn, decreases the carrying capacity for wildlife species, which may lead to wildlife searching for food outside of their natural habitat, resulting in HWC, in some instances. Reducing the anthropogenic pressure on natural habitats, particularly in HWC hotspots, is important for the safety of humans and the welfare of wildlife. However, a fair balance needs to be provided, particularly for groups and individuals lacking alternative resources.

The economic losses sustained by communities due to HWC need to be compensated, not only by the *ex gratia* received from the government, but also by increased livelihood opportunities, through the poverty alleviation schemes and alternate income generation initiatives. HWC-safe livelihoods[6], developed through education and skill improvement, will open better employment opportunities. Furthermore, value addition to existing produce (farm or forest-based) will improve incomes, without increasing extraction. The Animal Husbandry department would need to formulate and implement special plans for improved stall-fed farm animal stock and practices, especially in the HWC hotspots.

Alternate fuel sources such as Liquified Petroleum Gas (LPG) or kerosene, or fuel-efficient stoves, will reduce or minimise fuelwood extraction. At the same time, these also address reducing exposure of rural women and young children to kitchen smoke, which is one of the biggest causes of poor health and mortality in rural women.

The Joint Forest Management Programme (JFM) in India, initiated in 1990, has influenced the agrarian economy towards sustainable management of resources. The community institutions created in fringe-forest villages such as Village Forest Committees (VFCs), Eco Development Committees (EDCs) and watershed committees will be engaged in efforts to mitigate HWC.

The forest-dweller groups and local communities participating in JFM, having customary rights for use of natural resources as an integral part of their cultural identity, need special attention and protection. Community-based institutions, government institutions, private sector, etc., involved in community development (Education, Tribal, Rural, Agriculture and Animal Husbandry, MGNREGA, Health, Small-Scale and Cottage Industries, Micro-finance agencies, etc.) are to be engaged cohesively by the forest departments to bring about synergies that benefit socio-economic development of forest-dependent communities, in a manner that minimizes their dependence of forests, by simultaneously providing both better livelihood and resource alternatives.

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6   "HWC-safe livelihoods" are livelihoods that are not negatively impacted by presence of wild animals in the landscape

5. Measures to strengthen community engagement in addressing HWC

A significant priority for each state and division is to systematically map and analyse key stakeholders for HWC and ensure their effective participation in HWC mitigation measures, ideally through Community PRTs. This is a crucial step for commencing any inclusive approach. A multi-stakeholder approach is encouraged for the successful implementation of the plans. Importantly, forming and empowering the Community PRTs by panchayats in an inclusive manner, with the participation of youth and women, will institutionalise a dedicated cadre of village/ward-level response teams. Strengthening the community-level PRTs with inclusion of statutory volunteers from existing institutional structures to address critical issues such as crowd management and medical emergencies will be explored. Details of stakeholder mapping and analysis are provided in section xx
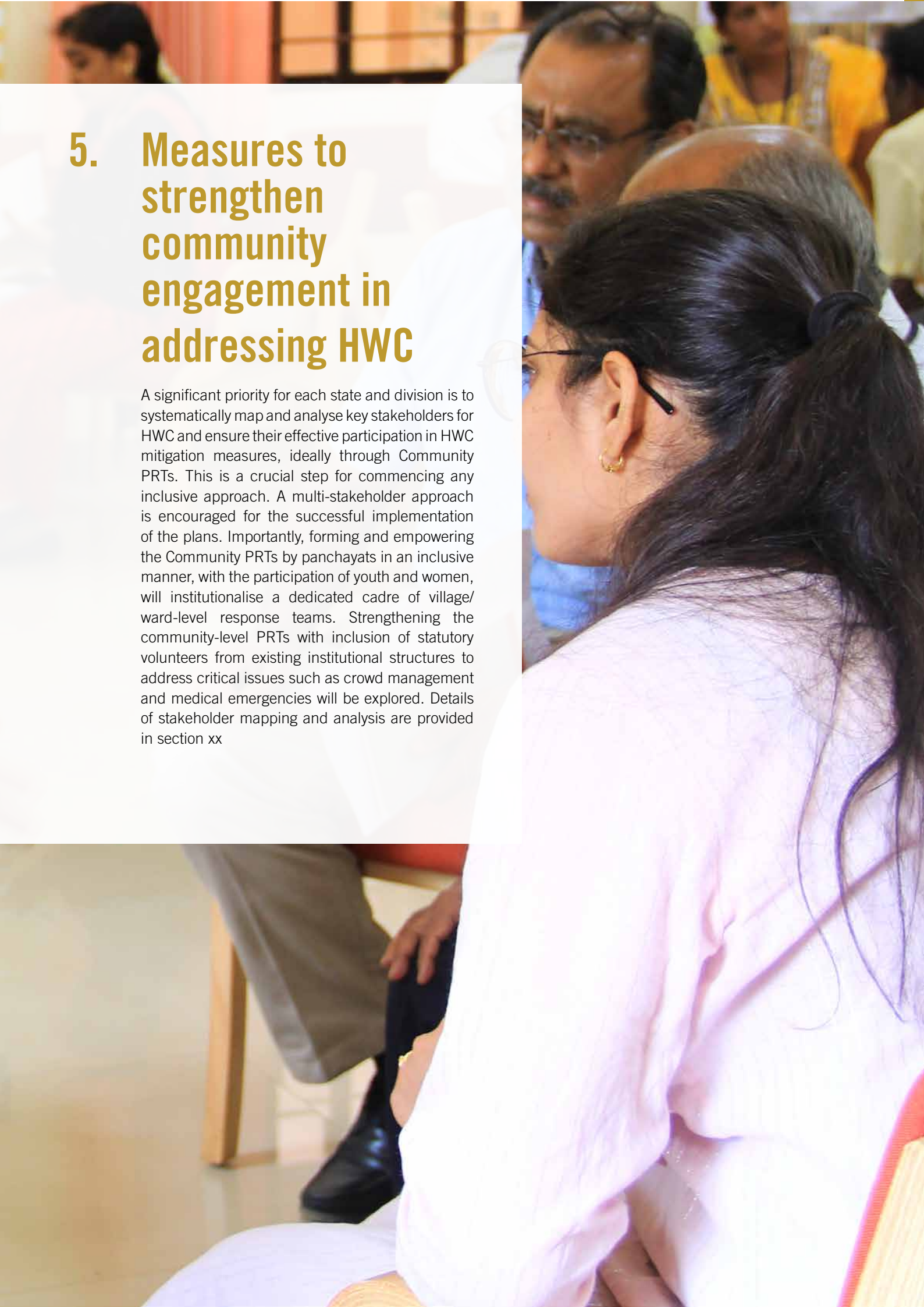
5.1 Establishment and Capacity development of community-level Primary Response teams for HWC Mitigation

Local communities are at the direct helm of HWC. They bear the direct brunt of loss of livestock, human lives and other economic losses, as a direct or indirect result of conflict with wild animals. Therefore, there is a need to involve the local community members/village elders of the panchayats through a participatory approach and develop a community-based emergency response systems from within the affected village/ward. The formation and empowerment of community-level Primary Response Teams (Community PRT) in village/ wards or village/ ward clusters at HWC hotspots has been detailed in the National HWC Mitigation Strategy and Action Plan of India (2021-26) through a dedicated Supplementary Framework on Establishment and Capacity development of HWC Mitigation Response Teams.

> The formation and empowering of the PRTs by panchayats in an inclusive manner, with participation of youth and women, will institutionalise a dedicated cadre of village/ward level HWC mitigation primary response teams. Training the PRT members will gear the team towards preparedness for handling the HWC issues in their area as first responders and acting as the key source of information in the village.

The establishment and capacity development of community Primary Response Teams are expected to improve the first response mechanism, support the efforts of the division and range RRTs and can especially play a crucial role towards the crowd management in HWC situations.

Several examples of efficient first response, within the golden hours, and successful law and order situation/crowd management by the specialised community-based statutory voluntary organisations such as Civil Defence and Home Guards[7] exists.

Recommended composition of community PRTs:

- Two panchayat/ward members (at least 1 woman representative)
- Two youth (18-24 years of age)
- Two representatives from either local Joint Forest Management (JFM) Committees, self-help groups (SHGs), Biodiversity Management Committees (BMCs), Village Forest Committees (VFCs), Eco-Development Committees (EDCs), or other community-based organisations such as civil defence and home guards
- One representative from a local educational institution (to facilitate long-term awareness, sensitisation and training measures)
- Two members representing a local NGO, private sector such as tea/coffee estates, farmers, companies, army units, etc., depending on the specific situation of the area.

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7   According to the Civil Defence Act, 1968, civil defence is defined as any measure "not amounting to actual combat, that protects persons, property and places in India from hostile attack". The objectives of Civil Defence are to save the life, to minimize loss of property, to maintain continuity of production and to keep high up the morale of humans. Civil Defence measures are designed to deal with immediate emergency conditions, protect the public and restore vital services and facilities that have been destroyed or damaged by disaster. This is also applicable to HWC related emergency situations.
'Home Guards' is a voluntary force, to serve as an auxiliary Force to the Police in maintenance of internal security situations, help the community in any kind of emergency such as an air-raid, fire, cyclone, earthquake, epidemic, etc., help in maintenance of essential services, promote communal harmony and assist the administration in protecting weaker sections, participate in socio-economic and welfare activities and perform Civil Defence duties. The Ministry of Home Affairs, Government of India formulates the policy in respect of role, raising, training, equipping, establishment and other important matters of Home Guards Organisation

Sub-teams:

Suggested sub-teams within the Community PRT for specialised tasks, in case of emergency situations due to HWC:

- Control Room Service, to coordinate and steer the communication and response during an emergency situation
- First Response Team, to take lead at the onset of emergency
- Casualty Service, to take lead during medical emergencies
- Crowd Management Team, to take lead during crowd situations

The above sub-teams will undergo specialised trainings delivered by specialised agencies, to effectively implement their specific tasks, apart from the regular trainings provided to Community PRT as outlined in table 3 at the end of this document.

Recommended Selection Guidelines for PRT members:

- Proficient in local language and having knowledge about the community
- Physically fit (required for foot patrolling and crowd control)
- Ability to work in a team
- Desirable: existing member of village-level/ward-level committees
- Desirable: Local resident from the village/town
- Passion for wildlife and nature conservation
- Basic understanding of wildlife behaviour
- Basic understanding of first aid (training will be provided by the SFD with support from the local/ state educational/ training institutions)
- Good rapport with local community and understanding of mob management.
- Certified competencies relevant to the tasks in their respective sub-teams this selection guideline is only for the members for the sub-teams in 2.5.2)

Intended and expected Role of community PRTs:

- To regularly monitor the community-based mitigation measures installed in the area
- To manage/maintain selected mitigation measures, such as barriers, as agreed with the Range RRTs
- To create awareness among local communities on HWC mitigation, and ensure that they do not undertake any activities that might lead to a conflict situation
- Facilitating sessions on HWC-related topics in regular panchayat/ward meetings, for sharing information on wildlife biology, nature and ecological needs of the wild animals, their behaviour, Dos and Don'ts for human safety. In such sessions, the RRT members can also be involved, along with wildlife, agriculture and rural development experts, from time to time
- To facilitate capacity development of local community on alternative livelihood, by engaging SHGs and other groups
- To maintain the small equipment provided to the PRTs, and inform the Range RRT, in case a replacement is required
- To document the operations, and report to panchayat
- To act as first responders in the event of HWC, and manage the situation till the other response teams arrives
- To facilitate the Range RRT in managing crowd during driving/capture operations
- To facilitate knowledge sharing with the local communities regarding the HWC mobile app

- To provide information to local communities on state government schemes and programmes on HWC mitigation

- To provide information to SFD on first signs of forest fire

- To support the SFD in conducting HWC risk analysis, and development and implementation of division-level HWC-MAP

- To support SFD in identifying locations for invasive species removal

Training of the Panchayat and community PRT members would gear the team towards preparedness for handling the HWC issues in their area as first responders, and additionally will act as the key source of information to the RRTs and forest department. The training of the Community PRT members will aim to strengthen a common understanding of HWC issues and mitigation measures, in line with the species-specific Guidelines and HWC-MAP of the division. The training will gear the Community PRTs on preparedness for handling HWC issues in their area as first responders, medical first response, control room procedures, law and order management, crowd / mob management and to act as the key source of information in the village/location.

The PRT training will address technical competencies, competencies for promoting harmonious co-existence, and competencies for effectiveness and efficiency of the PRT members, along with role clarity and process-clarity.

At the end of each Community PRT training, a brief two-hour dialogue between the panchayat representatives and the PRT members is recommended. This will bring all panchayat-level stakeholders on one platform, thus strengthening the collective ownership of PRTs.

It is expected that the training, implemented using the participatory and inclusive approach, should enable the Community PRT members to assist panchayats and work together with RRTs to enhance the overall efficiency and effectiveness of the mitigation measures.

Community PRT trainings, will preferably be implemented by the state/ district training institutions of Home Guards, Civil Defence, Police, rural development and Panchayati raj / agriculture, with resource persons drawn from Home Guards, Civil Defence, SFDs/ forest training institutions conducting trainings for the RRTs.

It is critical that the curriculum, training approach and institutional networking is aligned for the trainings of RRTs and PRTs, and this can be achieved at the platforms such as district-level Coordination Committee (DLCC), state-level Coordination Committee (SLCC) or the landscape-level forum.

There will be specialised trainings for the members of the sub-groups in section 2.5.2, implemented by specialized agencies. These members will be certified to be able to implement the tasks that are outlined for the sub-teams.

An overview of the curriculum for the panchayats and community PRTs is provided in Table xx

Table 5: *Curriculum Framework for Panchayats and community-level Primary Response Teams (Community PRTs)*

Team	Required Competencies based on job profile	Learning Outcomes	Training Content	Training methods, instruments, and Material	Training Programme Cycle	Time (Days)
Community PRT	**Has knowledge and skills on wildlife:** including behaviour and biology of key wildlife species-in-conflict in the area; Legal and policy regime for HWC mitigation; Proficiency in the use of relevant equipment; Documentation	**At the end of the training programme cycle, the participants will be able to*:** (*all participants will be assessed for these learning outcomes at the end of the training) • Outline the concepts and issues in wildlife management and HWC mitigation and key drivers, pressures and prevention measures using a landscape approach • Differentiate between different conflict scenarios based on landscape, location, species involved • Analyse the effectiveness and wildlife-friendliness of existing and potential HWC mitigation measures, and contribute to a systematic plan for HWC mitigation in the area • Demonstrate leadership, communication, decision-making and crisis-management skills, consensus-building skills in a simulated situation on HWC • Demonstrate information analysis for effective communication to Range RRT, using specific communication tools • Appreciate the need for their continuous self-efforts for getting future ready vis-à-vis HWC mitigation • Appreciate their specific roles in mitigating HWC in their respective areas	Ecosystem services arising out of biodiversity and wildlife; Livelihood security and wildlife; HWC in overall development context and its linkages with SDGs and development schemes; Drivers, Pressures, State, Impact and Response on HWC taking a landscape approach; Need for holistic approach to HWC mitigation • Ecology and behaviour of key wildlife species-in-conflict – elephant, leopard, wild boar, tiger, crocodile, rhesus macaque, bonnet macaque, sloth bear, blackbuck, nilgai, snakes; Overview of mitigation measures (short-term and long-term); invasive species and their management; Forest fire management; Occupational safety and health; First aid, Use of GPS in HWC management; Documentation process and formats	Expert inputs and discussion, Knowledge café, Self-study assignments followed by Quiz, Thematic Champions, Case studies, Practice Café Facilitator's Guide; Learning Journal; Background reading material (Modules); additional exercise material (handouts)	**Training 1:** Basics of wildlife behaviour & measures to avoid accidental encounters with wildlife	0.5
					Training 2: Preventing zoonotic and other emerging diseases: Taking a One Health approach to HWC Mitigation	0.5
	Has skills to promote harmonious coexistence: Communicates effectively with members of forest department and other response teams for effective planning and implementation of mitigation measures; Exhibits leadership and problem-solving skills, Maintains self-awareness, self-control and empathy in crisis situations		• Diagnosing the problem and communicating; Participatory and inclusive implementation of mitigation plans and measures; Communication skills; Leadership skills, Incidence reporting, Meditative techniques for strengthening self-awareness and empathy • Approach, methods and tools for enhancing engagement with Range RRTs	Expert inputs, Reflection sessions, Role Plays, Simulations, Mock drills, Real-life joint drills with participants of forest department and other departments, Case studies, Action Café *Simulation scenarios, Case studies*	**Training 3:** Mitigating human-wildlife conflict effectively: maintenance of the mitigation measures and structures (Basic)	1
	Work effectiveness: Commitment and integrity; Adaptive decision-making as per the SOP and dynamic situation in field; Result orientation; Accountability; Planning and coordination skills; Ability to manage resources efficiently; Ability to manage crisis situations effectively		• Developing and maintaining decision-making system within Community PRT and with Range RRT; Different situations of HWC to be addressed by Community PRTs and development of plans towards these situations; Resource management plans with gender-inclusive approach, Crisis-management plans		**Training 4:** Adopting HWC-safe livelihoods for reducing the vulnerability to Human-Wildlife Conflicts	1
	Competencies for innovation and learning: Pattern recognition; Innovation; Desire for further knowledge; Change orientation; Critical thinking		• Techniques for conceptual analysis and problem analysis; Brainstorming on critical elements of new/ existing plans and Guidelines for continuous innovation, common field situations and how to address these		**Training 5:** Emergency Response Plan for HWC-related emergencies in the district: Role of Community-PRTs	1

5.2 Enabling the people in working on their risk perception, improving their tolerance and enabling co-existence with wildlife in the same landscape

Risk or threat perception by humans is influenced by several factors, including cultural values, histories and ideologies, knowledge of animal behaviour, novelty of risk and several other factors. Awareness and information on animal behaviour, how to safeguard oneself, and an appreciation of the landscape will encourage behaviours among humans that will change their risk perception, reduce exposure of humans to wild animals, and thus reduce the conflict. The enhanced awareness among community members will also facilitate their engagement in community-level emergency response and other mitigation measures. Community can also support in information management on animal movement, and support during emergency situations, through helplines.

Information and knowledge about the ecosystem services provided by wildlife, animal behaviour, and the impact wildlife and humans have on each other, if included in all trainings and awareness programmes related to HWC mitigation, will facilitate in creation of a positive perception among the local community to further discuss the critical issues of HWC mitigation.

Media is a key stakeholder that can play a significant role in taking the desired message on HWC mitigation to the local community. Constructive dialogue between wildlife managers and media professionals, agreement on guidelines, and identification of anchoring points for engaging media as partners in HWC mitigation, should be a priority in all HWC hotspots.

Civil society institutions working with the local community need to be engaged as partners, to facilitate achievement of goals set by this plan. A 'Stakeholder mapping team on HWC Mitigation Communication' is established for implementing the communication strategy at the national-level, in line with the HWC-NAP, which can be utilised for bringing cooperation form he civil society organisations.

5.3 Measures to use traditional knowledge strengthen community engagement in generating required data and information consolidation

"Traditional ecological knowledge (TEK) is a cumulative body of knowledge, practice, and belief, evolving by adaptive processes and handed down through generations by cultural transmission and about the relationship of living beings (including humans) with one another and with their environment." TEK exists in the form of local knowledge of animals, plants, soils and the landscape; land and resource management systems; social institutions and customary laws.

Many examples existing on the application of the traditional knowledge into resource management such as to achieve global/national conservation goals, local biodiversity management, sustainable resource use, disaster risk reduction, and climate change adaptation. The use of TEK can enhance the effectiveness and efficiency of conservation measures, especially the issue of HWC where people's perceptions play a major role.

Wildlife conservation is increasingly approached through socio-ecological lenses, where communities are fully involved and local development is integrated in conservation action. The present-day forest-dependent people have partially inherited from the traditional knowledge of their ancestors and continue to develop modern knowledge through more contemporary local innovations and practices, which has become the part and parcel of their culture. In this context, local beliefs and practices based on traditional knowledge are a crucial source of information for the development of sustainable and effective HWC mitigation measures

These traditional knowledge, cultural beliefs and values can play a significant role in our efforts to conserve wildlife and habitats. There is an urgent need to document the existing traditional knowledge about HWC mitigation by conducting interviews of knowledgeable elderly members of different communities, starting with conflict-prone areas. Engaging with universities and providing scholarships to doctoral students will go a long way in capturing this wealth of knowledge before it is lost.

Documentation of the traditional knowledge has been provided a high priority in India, through the national HWC Mitigation Strategy and Action Plan (Box 5: Prioritising the documentation and use of traditional knowledge for HWC mitigation in the national HWC Mitigation strategy and Action Plan of India).

Box 5: Prioritising the documentation and use of traditional knowledge for HWC mitigation in the national HWC Mitigation strategy and Action Plan of India

HWC-NAP of India (2021-26)

Strategic Goal 14: States, agencies and other stakeholders systematically share information, experiences and knowledge, to co-create long-term solutions for HWC mitigation

The Goal 14 states "……A significant section of knowledge on HWC mitigation would also come from the traditional and local knowledge available in different communities in India. Some of these may have the potential to be adopted as such, or combined with new knowledge and technologies. Inclusion of such knowledge into mitigation measures and plans will be highly encouraged…."

Following is one of the Desired Results & Achievements:

Traditional and local knowledge is being used to innovate and further contextualise HWC mitigation measures

Following is a National Indicator relevant to the inclusion of local communities with traditional knowledge:

Number of representatives from civil society and community-based institutions at the national, state and landscape-level landscape level HWC Mitigation Fora and Working Groups (P)

National Human–Wildlife Conflict Mitigation Strategy and Action Plan of India

2021-26

Traditional societies use both non-destructive and destructive practices for HWC management. Efforts need to be made to enhance the effectiveness of non- harmful and wildlife friendly HWC mitigation practices.

Use of sustainable ecotourism or wildlife-based ecotourism that is safe for both humans and wild animals can be an effective instrument to reduce the vulnerability of the local communities to HWC, and to effectively seek their participation in HWC mitigation.

5.4 Measures for strengthening community engagement in reducing vulnerability of wild animals-in-conflict

Animal welfare and ethical considerations are to be integrated into the planning and implementation of all HWC mitigation measures.

Training of staff from key departments and agencies, especially the HWC mitigation response teams at division, range and community-level, is to be conducted jointly with other response teams and key relevant departments, to develop a common understanding of the safety and health issues of animals as well as human beings in such situations.

The SFDs have prioritised to regularly conduct awareness programmes for the local community in cooperation with institutions such as panchayats and animal welfare institutions, on integrating animal welfare and ethical considerations into community-based HWC mitigation efforts and responses to wildlife.

The local community is to be trained and made aware about animal welfare and ethical considerations are to be taken into account in all prevention measures, including barriers and deterrents, fabrications and use of capture-, handling- and transport equipment.

Communities, response teams and key relevant departments and agencies are to be made sensitive to wildlife values and animal welfare issues, and make efforts to minimise the risk to wildlife.

5.5 Measures for developing long-term relationship between forest department and local community

Engaging the community in HWC knowledge fairs/events such as Van Mahotsav and Wildlife Week.

Knowledge fairs and other events help create linkages between community practitioners and policy makers at the local, national and global scales. These events can be used to create strategic opportunities for dialogue. These events can be helpful in:

- spreading knowledge about best practices in HWC mitigation and poverty reduction.
- providing community leaders an opportunity to share experiences and give feedback on different aspects of HWC mitigation in the region.
- creating an open and inclusive space for women and other marginalised groups for sharing their experiences.
- creating linkages and establishing lasting relationships between community leaders and policy makers by enabling participation in policy discussions.
- creating opportunities for community representation in decision-making processes/stakeholder mapping teams/multi-stakeholder platforms.
- creating a favourable environment for acceptance of new ideas, methods and techniques by community and other key stakeholders.
- identifying areas of research relevant to particular regions.
- recognising and rewarding different stakeholders for good practices in line with HWC mitigation.

Supporting the HWC Mitigation and Emergency Helplines

The local community can be enabled and facilitated to contribute to effective functioning of the HWC mitigation helpline in the divisions.

Engaging with local schools and colleges:

Information and knowledge about the ecosystem services provided by wildlife, wildlife behaviour and the impacts wildlife and people have on each other needs to be integrated into school and university curricula, together with a systematic plan to strengthen the capacities of the teachers for implementing courses and activities on HWC mitigation effectively so that they lead to the desired learning outcomes.

The National Green Corps (NGC) can play an important role in institutionalising knowledge. The media are another key sector that can play a key role in taking the message on HWC to the public. Even though there has been a shift to issue-oriented media coverage over the last decade, the media have largely been addressing HWC only when an incident occurs. Constructive dialogue between wildlife managers and the media, agreement on guidelines and identification of anchoring points for engaging the media as partners in HWC mitigation will be a priority. Conservation NGOs and other civil society institutions working with the local community will be engaged as partners to facilitate the achievement of this goal. The Stakeholder mapping team on HWC Mitigation Communication has been established at the national level for implementing the communication strategy at the national level.

5.6 Food waste management

Food waste, such as unwanted and rotten fruits and vegetables, kitchen waste and grain crops, as well as poorly secured food stores often lure some species of wild animal into human-use areas. Wild herbivores may only occasionally use such food waste, but they might also become completely reliant on this food, depending on their health and age and on the availability of food in the natural habitat.

Rhesus macaques, elephants, bears and other generalists can become habitual visitors to food waste dumps in certain locations, and leopards are widely known to visit dumpsites to prey on stray dogs and rodents feeding there. This increases conflict and interactions between wild and domestic animals and can therefore facilitate the spread of zoonotic diseases and pathogens between wild animals, livestock, other domestic animals and sometimes humans. For this reason, waste management practices in areas close to wildlife habitats will be addressed on priority.

In HWC hotspots—especially in villages—safe storage should be given a stronger focus. The role of local institutions and members of the local community, food vendors, shopkeepers in the vegetable markets in rural areas and hospitality enterprises in urban areas is critical in ensuring that waste is managed sustainably to mitigate HWC is critical.

Urban and rural development departments and Panchayat Raj institutions should be engaged via multi-stakeholder fora at the national, state and local levels, to ensure that sensitisation about and providing technical support for waste management practices are given top priority in HWC hotspots. States should earmark resources for this purpose and monitor the efficacy of the efforts, as well as encourage the urban/rural local bodies to integrate HWC concerns into their proposals for Central assistance.

5.7 Engaging with the opinion formers

Those falling in the top left quadrant have high power levels but low interest levels, for instance the local and national media, the local political leaders, other influential farmers, presidents of associations of farmers, tourism associations, local universities, institutions and individuals working on HWC mitigation. This group is may or may not be involved or affected by the issue but can influence opinions either for or against it. They can also be called tertiary stakeholders. It may be useful to keep these stakeholders engaged through appropriate information sharing.

The media can be used to create a positive public image of the cooperation among different stakeholders towards a sustainable HWC mitigation plan by the forest department. Thus, a media strategy is very important. Being proactive in developing contacts with the media and providing stories, especially joint ones about cooperation among ministries and local institutions, can enhance the image of all the ministries involved and the actions taken towards HWC mitigation.

Refer to the 'Guidelines for Cooperation between the Forest and Media sector in India: Towards effective communication on HWC Mitigation'

https://indo-germanbiodiversity.com/pdf/publication/publication25-04-2023-1682407333.pdf

5.8 Sustaining community engagement through village level institutions and multi-stakeholder platforms/anchoring points

The community can be engaged through the participation of Panchayat representatives in DLCC, landscape-level forum, etc. Joint work planning of new mitigation measures and monitoring etc., between forest department and Panchayats can also facilitate long-term trust building.

5.9 Collection of data on HWC incidents and animal tracking, driving

The community can facilitate responses in crisis situations, especially crowd management during mitigation operations, through the early warning system, monitoring the effectiveness and wildlife-friendliness of HWC mitigation measures.

The community can specifically facilitate animal tracking, and provide evidence of animal presence to the Rapid Response Teams, driving away the animals-in-conflict using wildlife-friendly measures.

6. Gender-inclusive approach to HWC Mitigation

Human attitudes, experiences, and vulnerabilities to HWC are shaped strongly by gender and other socio-economic factors. Women suffer a disproportionate burden of both direct and indirect impacts of HWC in terms of decreased food security, changes in workload, and increased physical, psychological, and economic hardship. Therefore, any form of HWC mitigation needs to consider factors such as gender, age, and socio-economic situation as a prerequisite.

6.1 Overview and gender impact analysis

Ensuring gender equality and women's rights, with due respect to human rights within the specific sector under consideration, should be a conscious step taken at every stage of planning, implementation and monitoring of the programme. Vulnerabilities of children should be given due consideration, as stress, fear and childhood trauma can strongly impact how they grow up as adults. Their rights to a safe environment and right to play, which are a critical component in their well-being and development, should be given importance.

Box 6: Key Steps and Methods to Ensure that HWC Mitigation Measures Are Gender-Inclusive

- While collecting data, one or two FGDs should be conducted with women's groups.

- Collection of gender-disaggregated data

- Conducting meetings at times that are convenient for women

- Encouraging women to share their views in group interviews

- Training and building the capacity of women to create awareness

- Incorporating women's ideas and knowledge

Gender refers to the 'socially constructed roles, behaviours, activities and attributes that a given society considers appropriate for different sexes.[8] The attitudes, experiences and vulnerabilities to HWC are shaped strongly by gender and other socio-economic factors.

A number of research studies and experiences underscore that women and marginal communities were less likely to support compensation than men and more likely to prefer that the local community takes leadership in HWC issues. This shows that their perspectives vary because of their experiences. Hence, addressing gender differences while working towards solution for HWC is very important.

Any HWC mitigation approach and measure should necessarily consider key factors and cross-cutting issues such as gender, age, and socio-economic level. Strengthening gender equality and women's rights with due respect to human rights within the specific sector under consideration should be a conscious step at every stage of planning, implementation and monitoring of the programme.

It is clear that gender issues always have to be examined in the specific context in which they occur because they depend greatly on culture and society.

The impacts of HWC on gender also vary according to geographical location to an extent. For example, in hilly regions, women are more directly impacted than men due to HWC. On the other hand, in the plains, men are impacted more directly than women as they are involved more in household chores. But in some cases, such as in villages, where men have migrated in search of employment, women bear the workload of farming and household chores, which makes them more vulnerable to HWC. It is also important to identify and assess the indirect effects, such as financial losses, increased workloads, fear for life and stress. The health of the affected family deteriorates slowly due to these effects.

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8   see http://www.who.int/gender/whatisgender/en/

6.2 Needs and priorities in relation to resource use and management

> **Box 7: Indigenous and Rural Women's Position in Relation to Ecosystems and Natural Resource Management**
>
> - Women have extensive knowledge of the nutritional and medicinal properties of plants and roots, which are of central importance.
>
> - Indigenous women in India have a major role in organic agriculture. They make a significant contribution to reducing emissions of GHGs, which has implications for the sequestration of carbon dioxide (CO_2) in the soil.
>
> - Adivasi/indigenous* women face multiple stigmas and forms of discrimination just for being 'indigenous women' due to the caste system. *Indigenous peoples and local communities– human groups defined by the International Labour Organization (ILO) Convention 169 by characteristics related to their identity, territory, culture, tradition and knowledge.
>
> - All factors—identity, territory, culture, tradition and knowledge—are important considerations for the progress of women and men.
>
> - The introduction of mainstream development programmes in Adivasi areas has resulted in the loss of land, obliteration of women's unique knowledge and a decline in the social position of women.
>
> *Source: Expert Consultation and Round Table Workshop on Gender and Adaptation to Climate and Socio-Cultural Change, Presentation Report from UNWOMENIncorporating women's ideas and knowledge*

It is a well-established fact that gender inequalities limit productivity and efficiency. Failure to recognise the differential roles of men and women is costly, and it results in misguided projects and programmes, foregone agricultural output and incomes, and food and nutritional insecurity. More importantly, the inclusion of vulnerable communities and populations to ensure that they are aware and are making informed choices is mandatory for the success of this programme. These factors are clear indicators of the need to find sustainable and holistic mitigation measures for the problem of HWC.

Though women are often the primary users of forested areas in Indian rural communities and the main cultivators of many farming households, there has been insufficient attention to the particular issues faced by women.

They contribute little to decision-making because they do not participate in discussions with the government authorities owing to cultural reasons.

There is also a large volume of traditional knowledge related to dealing with crop and livestock loss that women have and many practices that they are familiar with, but there have been few attempts to mainstream their knowledge to find the solution.

Some studies recommend that HWC mitigation measures be designed on the basis of gendered risk perceptions and be implemented with the participation of the local population, irrespective of their gender, and that particular attention be paid to gendered uses of the landscape.

Disparities and inequalities in terms of human rights; reproductive and sexual rights; access to land rights; access to sanitation, a clean environment, water and basic resources; domestic abuse; sexual discrimination; labour, wage and income generation activities all contribute to the vulnerabilities of women within Indian society. Moreover, in India (not only in rural areas), the added pressures of discrimination between girls and boys and a lack of access to education and literacy puts women at a disadvantage from the very beginning. Early marriages (child marriages), dowry and the caste system are not specific only to rural India, but the extent to which these prevail varies from region to region.

6.3   Gender perceptions in planning

The trend of migration to urban areas has added a new dimension to the rural discrepancies that exist in India. It fuels and drives inequalities at times. Migration of labour and the absence of a male member in the household due to work opportunities available in bigger cities have added to the responsibilities of women. Apart from this, they face the drudgery of work, which includes household responsibilities, looking after the family and children, and increased effort in the fields (weeding, watering, planting, sowing, harvesting, etc.). The lack of participation of women at the local government levels (Panchayati Raj Institutes) also contributes to women's voices go unheard.

What adds to the burden of women's roles is not just the added labour and daily chores but also a lack of access to proper information (be it related to health, agriculture, education, climate change, adaptation, forestry or infrastructure), a lack of resources (lack of decision-making power, energy, fuel, money, credit, markets, etc.) and the immense environment of poverty that surrounds rural India.

Environmental degradation can increase both women's workloads and their vulnerability as their access to scarce resources decreases. Long-term gradual climate change, for instance, will affect agricultural and ecological systems. It may be difficult to disentangle the effects of increasing natural hazards, local environmental degradation and long-term climate change. Nonetheless, it is clear that there will be a complex patchwork of alterations, which are difficult to predict accurately and will challenge the ability of people to cope with them and the capacity of governments to adapt to them. Crop and livestock responses will vary according to species, cultivar, pest and so on. A whole range of climate change-specific adaptations in cultivation and husbandry are possible (IPCC 2001), and while the relationships between drought and human vulnerability are complex, there is evidence that the impacts of drought are gendered.

There should be a participatory approach among both the states and the relevant stakeholders to ensure that gender equality is considered important in ensuring the qualitative impacts of this project. There needs to be a conscious effort to ensure that women and men both work together to find solutions to mitigate the impacts of HWC. It would be interesting to see the linkages and interplay between the states and the Centre in terms of mainstreaming gender within the sector, which may not be an important consideration at this stage. Several studies have been conducted in India in which researchers have tried to investigate the differential roles and opinions of men and women with respect to HWC issues. However, past experiences and high-level international dialogues do reveal that the differences are not solely confined to the Indian way of thinking.

In their activities, stakeholders, be they public, private or civil society actors, do not differentiate between females and males in target groups. This is true regarding both keeping track of whether their activities address men or women and creating particular instruments that address the specific needs of one of the groups. This definitely puts the required emphasis and responsibility on gender mainstreaming within the project, which would ensure stakeholder and partner cooperation.

6.4 Key elements to be factored in HWC mitigation strategies and instruments

- An understanding of human rights, gender equality and indigenous community rights within the framework of wildlife management, especially for HWC.

- Facilitating the development of the capacities of the state forest department, panchayats and local committees in forest management and wildlife conflict management. State forest departments, in particular will need to develop **HWC rescue teams** and work on how to engage with individuals (both men and women) and community-based institutions such as panchayats, forest management committees and local NGOs working with women.

- Facilitating sharing of information.

- Facilitating state and local level understanding of impacts of HWC on socio-economic aspects of communities.

- Participatory planning and implementation of HWC mitigation options with the full consent of local communities—A rights-based approach to be incorporated and developed.

- Recognition and protection of traditional knowledge associated with HWC and of its use in co-creating solutions for modern-day HWC conflicts.

- In all evaluations of existing policies and the development of new guidelines, a gender lens should be applied. This will ensure that the policies under review and development are gender sensitive. The gender focus will be brought in by evaluating the level of participation of women in the policy development process, by evidence of efforts in identifying gender-sensitive HWC mitigation options, etc.

- Providing concrete examples of policies that reflect good practices related to gender mainstreaming.

- Dialogues to provide opportunities for sharing and discussions around gender-related impacts achieved through gender-sensitive policing.

- It will be necessary to look at the composition of stakeholder platforms and local rescue teams in the form of gender disaggregated data. The programme could make an attempt to bring more women to the forefront by providing training in the necessary skills (e.g., tranquillisation techniques, use of geographical positioning system (GPS), negotiation and facilitation skills for the local forest officers to become part of the rescue teams) so as to include women in these key project implementation bodies and support groups.

6.5 Way forward: Overall recommendations and approaches to be adopted for integrating gender in HWC mitigation in India

Implementing the gender equality approach in HWC mitigation means that the different roles, responsibilities, needs, interests and vision, as well as the quality of participation of women and men, are analysed and understood. Using the gender perspective does, furthermore, mean going beyond the simple recognition of the inequalities and implies working towards building more equitable relations between women and men. In all of the foregoing, a systematic gender strategy or gender action plan could be developed for the programme to address the key issues that should be undertaken to ensure inclusive development.

Include gender aspects at different levels.

Anchoring gender issues in policies and programmes of governments, ministries, agricultural extension services, national and state level plans, reviews and policies is a prerequisite to overcoming gender inequality. However, more importantly, stakeholder discussions, dialogues and partnership models focus on inclusion, gendered diversity and ethical approaches.

- Strategic partnerships between women's organisations, NGOs and government institutions help improve community involvement. This may be only at the local level, but it is important for the three-tier institutional structures to consider the issues at the local and district levels so that a full understanding of the local/regional situation is gained. Working with entire rural communities (i.e., not only women) and raising the men's awareness of the benefits of gender equality for HWC mitigation helps overcome resistance to the social change that a gender-equitable extension might entail.

- Developing gender-sensitive approaches in capacity development.

- Introducing gender-sensitive extension approaches; considering women's time constraints in the planning of training programmes; providing training content that is relevant to women; introducing gender-disaggregated indicators to monitor extension-impact; sensitising extension agents to gender-related issues; and promoting the employment of women are all approaches the programme could look into.

- Gender sensitisation and designing instruments related to the needs of women, collecting the relevant gender-disaggregated data and analysing the same, which would ensure that appropriate gender-sensitive messages are sent, are essential for the success of this project.

Key issues and questions to be considered when implementing HWC mitigation measures

- What are the differential impacts of HWC on men and women in different settings in India? How can these findings help develop a framework for further discussions and dialogues and inclusion of women in the discussion forum?

- How do existing policies, programmes and socio-economic norms affect the degree of participation of women in finding solutions to HWC?

- What are some good examples of women's initiatives in the existing state/region or programme boundary? (Good practices/learning and cross-learning)

- How does the HWC affect men and women differently? How can effective mitigation strategies be used to reduce gender inequalities?

- Are gender issues considered when setting national priorities related to credit, financial inclusion and business models? Are both men and women included in the decision-making processes?

- Introduction of time-saving technologies wherever possible and to check their effects on women's and men's lives. Are there gender differences in access to services provided by the different components of the programme?

- Collecting sex-disaggregated data: What is the number of female-headed households in rural areas in a specific district/state or region? How does HWC impact such households? What is the impact due to migration?

Engendering policy and ensuring inclusive and ethical planning

Given the diversity of the ecological system and the resulting wide varieties of livelihoods that depend on ecosystems and natural resources, and given the differential attitudes and impacts of HWC on men and women, it is important that national and state-level efforts and planning are engendered.

- An environmental and social impact to understand the level of engagement, roles and responsibilities of communities. This will also include adverse effects on human health or the quality of life or the cultural values of local communities
- Establishing and maintaining a database on the status of HWC, including the following
  - HWC vulnerability and impacts, segregated for men and women
  - Extent of actual damage in terms of financial, social and emotional loss
  - Capacity gaps at the individual level, segregated for men, women and youth, with regard to the traditional knowledge of possible solutions and the competence to respond to the conflict situation.
- All planning and state-level efforts should be supported by gender/sex-segregated data pertinent to local situations and conditions. The current efforts to create these data systems should have information related to gender-based roles, identities and community representation across the country/region / state. This should be well coordinated for the project specific-regions, and the analysis and information sought from the data should be made available in the state-specific planning process. Planning at the local panchayat, block or district level should be gender-sensitive and should have sex-segregated information to support local development efforts.
- Women's intrinsic knowledge of managing the negative impacts of wildlife and safeguarding their houses should also be utilised as an important source of information. Towards this end, strategies to engage with men and women (including the youth) of the community and gain the active participation of women (which could be a challenge in itself) may be developed by the programme.
- Educational institutions and training centres involved should develop a curriculum to integrate a gender approach in all technical areas of wildlife management and forest protection.
- Existing policies related to targeting women and gender equity should be widely communicated to all those involved at the state and regional levels.
- An analysis and review of the land rights policies and the implementation of land distribution for gender equity and women's land rights (especially in indigenous communities) may be undertaken.

The process of integration and inclusive development can be broadly highlighted in the following action-oriented steps, which are general and can be looked at as a first step for the integration of gender-based activities within HWC mitigation measures:

- Understanding socio-economic (including cultural) specificities related to regions or states that affect gender roles.
- Acknowledgement of women's role in mitigating the overarching negative impacts of HWC.
- Integrating a gender perspective into all components of an HWC mitigation programme and developing a gender strategy adapted to the cultural context
- Developing a gender-sensitive monitoring system that focuses on sex-disaggregated data wherever possible.
- Building local and state-level capacities wherever possible, working with local NGOs and being involved in discussions on gender mainstreaming with self-help groups, local-governance bodies, etc.

- Increasing access to digital technologies, information and knowledge to reduce the drudgery of women and men, supporting women's aspirations to adopt new livelihoods and look for alternate sources of livelihoods that encompass strategies aimed at HWC mitigation.

- Carrying out activities that empower women (women in decision making; activities of *Gram Sabhas*/local bodies; planning, implementation and monitoring of natural resource management and agriculture/livestock-related groundwork) and policy interventions that support women's rights and women's control over fundamental assets.

- In ensuring that gender becomes integrated into the HWC mitigation plans, the state governments should create a common and clear vision, with knowledge and commitment about the purpose of mainstreaming gender.

- The local institutions, such as panchayats, as well as the front-line staff of the forest departments, should be aware of the importance of integrating gender perspectives in their activities and demonstrate their support for the same in order to improve knowledge and increase awareness.

Box 8: Indicators in the National HWC Mitigation Strategy and Action Plan of India (2021-26) ensuring gender-inclusive approach

- Trends in number of women and farmers practicing HWC-safe livelihoods (I)/ Goal 6: Livelihood dependence of humans on protected areas, corridors, forests and other natural habitats is reduced

- Trend in number of women in national, state and landscape-level HWC Mitigation Fora and Working Groups (P) (Goal 18: Most vulnerable sections of the society such as economically weaker groups, youth and women participate in planning, development and implementation of mitigation measures)

- Division-wise trend in proportion of women in response teams (P) (Goal 18: Most vulnerable sections of the society such as economically weaker groups, youth and women participate in planning, development and implementation of mitigation measures)

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Action Plan

By When | Who will do what? | Resources Required | Support required from FD

Activities

25th Sep -
30th Sept

Nature
Study
Tour
in
Gorumara
Forest

North Bengal St. Xavier's College

Directorate of Forest Education
Ministry of Enviroment, Forest and Climate Change, Government of india

DFS

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