



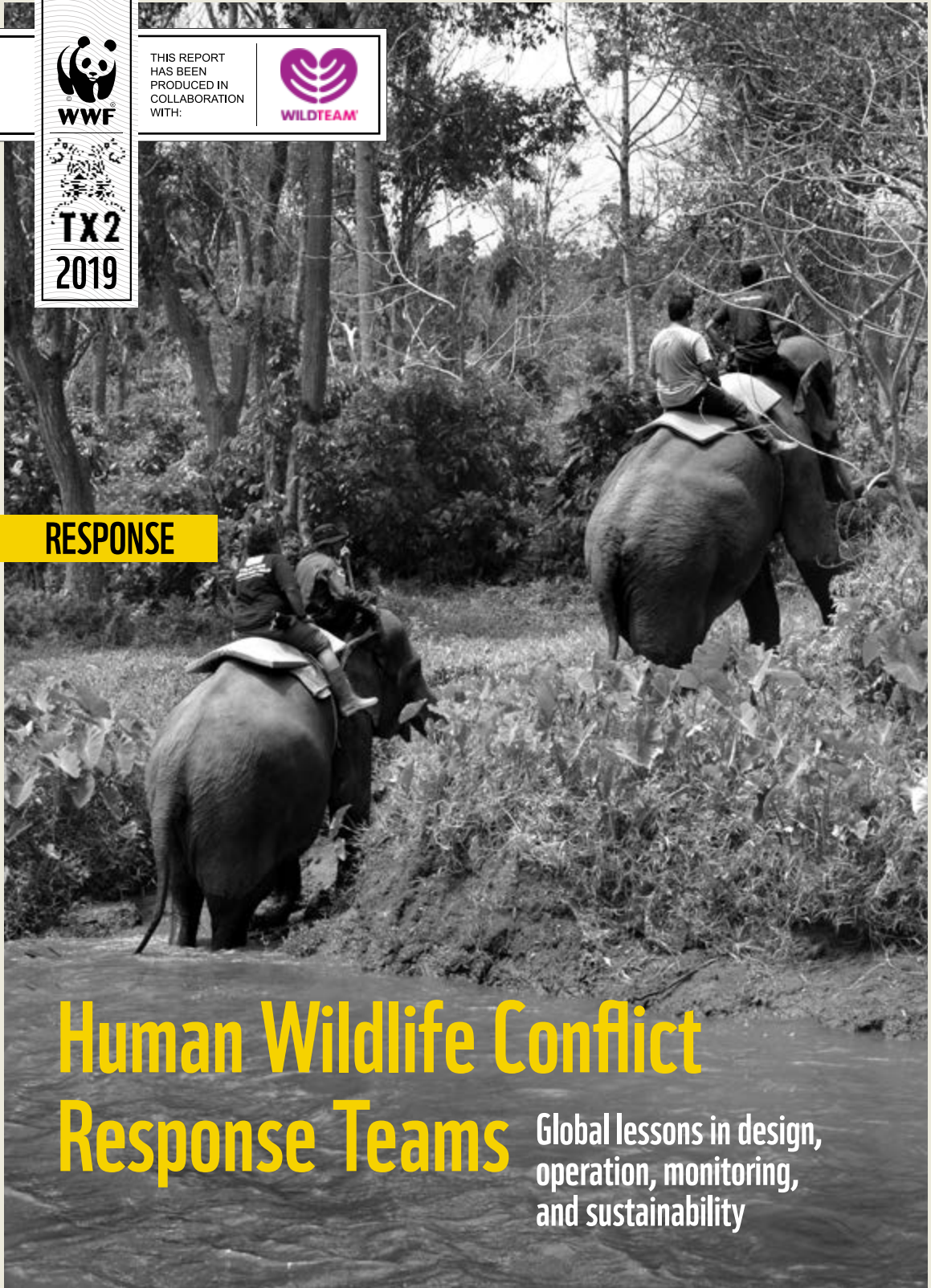
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**RESPONSE**

# Human Wildlife Conflict Response Teams

Global lessons in design,  
operation, monitoring,  
and sustainability



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**Front cover:** Human elephant conflict “Flying Squads” on patrol in Bukit Barisan Selatan National Park, Sumatra Indonesia. Photo: Job Charles.

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## The SAFE Approach to Human Wildlife Conflict Management

# RESPONSE

# Human Wildlife Conflict Response Teams

Global lessons in design, operation, monitoring, and sustainability



The Six Elements of conflict exist in all HWC contexts. Actions in each element must be included within any HWC management program for it to be effective. The Response Element is central to the functioning of any effective HWC management program. **First**, it encompasses the catalyst – the HWC incident – in the whole chain of events that determines whether another incident will occur, whether wildlife will be killed in retaliation, and whether a HWC program is failing or succeeding. **Second**, it includes the first interaction between the emotionally charged victim / person making the report and the reporting agent or Response Team (RT). And the speed of the response, the conduct of the RT, the thoroughness of the investigation, and the appropriateness of follow-up are all critical to maintaining community trust and tolerance or losing them altogether. And **third**, the information gathered by the RTs – evidence plus community sentiment – is the start of the process to build up a comprehensive picture of the conflict profile and the vital linkage with improving the effectiveness of all the other elements of conflict.

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# FOREWORD

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WWF Tigers Alive takes a holistic and integrated approach to designing and managing HWC programs. Global HWC projects and programs have historically approached conflict through a threat mitigation lens that has often led to short term project solutions that only address symptoms of the conflict and do not address broader issues around what is driving it nor over the right time frame. The SAFE Approach sets out to correct these deficiencies in the HWC system and shift programming and strategy away from truncated HWC prevention and mitigation projects, toward holistic HWC management that integrates actions across all six elements of conflict (Refer sections below).

Once practitioners recognize that all six conflict elements need to be incorporated into programs equally and that they all reinforce each other, then the system of HWC and how it feeds in to longer term outcomes becomes clear, and strategic actions can be designed and implemented. Designing and implementing actions within any of the six elements means that consideration must be given to the forward and backward linkages of that action with the other elements. Recognition of the HWC system dynamics highlights the fact the no part of the system can be omitted if HWC is to be managed effectively and incidents minimized in the long term.

A critical part of building up a knowledge base to enhance the science and practice of HWC, WWF Tigers Alive is conducting a comprehensive review of global programs across all the six elements to assess the various modalities of design and implementation that are out there, plus to explore constraints and enabling factors for success in each more broadly. This report is part of that review and focusses on one aspect of the Response Element: Response Teams.

Ashley Brooks,  
Human Wildlife Conflict and Habitats Lead,  
WWF Tigers Alive

# EXECUTIVE SUMMARY

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With increased loss of habitat and growing human populations in areas that are also used by wildlife, interactions between humans and wildlife are increasing, characterized also by an increase in the number of conflict incidents. An increase in Human Wildlife Conflict (HWC) is thought to be increasing people's motivation to retaliate against the wildlife involved or may otherwise reduce their motivation to actively participate in conserving biodiversity. A wide range of approaches has been developed to help manage HWC, including Response Teams (RT) that are set up to respond to HWC incidents, with a growing number of studies assessing their effectiveness. However, there is very little practical guidance available for conservation professionals to design and run RTs. This report, therefore, sets out to capture global lessons for setting up, managing, monitoring, and sustaining a RT. The findings here are the culmination of lessons captured through interviews with experts that have direct experience with all aspects of RT design, management, and operation.

RTs are one of the most critical pieces of the HWC chain. RTs are often the first to be notified – by a victim or a witness in distress – of an event underway or just finished. They perform diverse tasks ranging from first aid; crowd control; animal trapping, capture or killing; and the difficult task of retrieving the bodies of humans killed as a result of HWC, as well as community education. They have the responsibility to be on call 24-7 and to respond rapidly to reported

Community Response Team carrying out community awareness raising activities in a village in the Bangladesh Sundarbans. Photo: Adam Barlow.



events, investigate all events with integrity, and ensure reports are collected, collated, and acted upon. Without RTs and the functions they carry out, entire HWC management programs can fall apart, and communities can lose tolerance of wildlife and take measures into their own hands and remove the animals from that area.

Understanding where, when, how, and why RTs succeed or fail is a critical part of managing HWC. RTs fit within the Response Element of conflict (Section 1.2) and are, therefore, a critical part of the overall system of HWC, and importantly enhance the effectiveness of the actions across all the other conflict elements (policy, prevention, mitigation, understanding the conflict, and monitoring). No management of conflict in the longer term can be successful without considering these forward and backward linkages. 14 clear lessons, encompassed under the themes of design, operation, monitoring, and sustainability, have emerged from this review that can help enhance the effectiveness of RTs globally.

### **Lessons for the design and establishment of Response Teams**

Results showed that the role and, thus, design of RTs depends in large part on the entity behind it. Of the RTs assessed, community RTs generally focused on crowd control and hazing wildlife away, government RTs often dealt with translocating animals, and NGO RTs provided technical assistance to the government RTs to help translocate animals or research HWC. NGOs also had a major role to play in helping to set up and fund RTs in general.

### **The overarching lessons for Response Team establishment are:**

1. RTs need to have clear authority for carrying out their functions.
2. RTs should be set up by groups that are motivated to deal with HWC.
3. RTs should be governed by the same group that operates the RT.

### **Lessons for operating Response Teams**

4. Each RT should have a clearly defined area they are responsible for.
5. There should be a single, official contact number for people to report conflict incidents to the RT.
6. A RT should have enough members available to effectively respond to HWC incidents, especially during periods of high conflict.
7. RTs should have sufficient skills to be effective at carrying out their functions.
8. RTs should have all the specialist equipment they need to carry out their functions effectively.
9. RTs should have access to a means of transportation that enables them to reach HWC incidents in time for them to effectively carry out their functions.
10. RTs should have a documented protocol for carrying out their functions in response to the different types of HWC incidents.



### **Lessons for monitoring Response Teams' performance**

11. RTs' work should be clearly linked to a conservation strategy and be guided by SMART objectives.
12. RTs should have a regular process in place to measure and improve the effectiveness of their functions.
13. RTs should regularly collect HWC related data and share that data with regional, national, or international databases.

Wild elephant movement monitoring by Response Teams in Bukit Barisan Selatan National Park, Sumatra Indonesia. Photo: Job Charles.

### **Lessons for sustaining Response Teams**

14. RTs should have sufficient funds to cover the costs of carrying out their functions for the foreseeable future.

### **Conclusions**

Further research is recommended to strengthen the initial lessons learned captured in this survey, so that they are applicable to a wider range of situations involving different species, geographic areas, and cultural contexts. To help practitioners incorporate their HWC work into an overall conservation strategy, the authors suggest using established formats of conservation strategy to incorporate HWC-related work, developing standardized templates and indicators to help manage and report on RT work, creating a global HWC database, and providing training to practitioners to help them set up and manage RTs.



# The SAFE approach

The SAFE Approach to HWC is results-focussed and delivered through five Strategic Outcomes: safe person, safe assets, safe wildlife, safe habitat, and effective monitoring. Using lessons from global transport safety systems, this is a paradigm shift away from existing approaches to HWC globally that address only individual aspects of conflict, and have no way to address the safety of the system into the future. Existing HWC strategies often focus on “resolving” and “mitigating” conflict, though these are either too simplistic or short-sighted, or address only a part of the problem and at only specific times of a conflict event.

The SAFE approach ensures that: a) all six elements of HWC are integrated (refer next section for details), b) that the Strategic Outcomes act as minimum standards for HWC management, and c) that if each of the five Strategic Outcomes are met, then contact between humans and wildlife is minimized, and both can be safe in the event of contact within acceptable limits of tolerance.

A SAFE approach to HWC: provides a holistic view of the conflict in its entirety; is inclusive in that it encompasses all the interactions between the people, their land, their livelihoods, decision-makers, commercial and government interests, and wildlife; and is forgiving as it accommodates human error and the “wildness” of the species involved and that conflict events will never be zero. The Safe System approach has four guiding principles:

1. It recognizes that wildlife are wild and conflict will occur. When conflicts occur, however, the interventions across the system should ensure that the impact of an incident does not exceed the limits of community tolerance and does not result in retaliatory killing.
2. It stresses that individuals, communities, leaders, and the public involved in the design of the system need to accept and share responsibility for the safety of the system, and those that use the area must accept responsibility for complying with the rules and constraints of the system.
3. It aligns conflict management decisions with wider development plans and processes that contribute to economic, human, and environmental goals.
4. It guides interventions to meet the minimum standards and long-term goals, rather than setting specific targets.



**Figure 1**  
*The six elements of conflict*

## The six elements of conflict and integrated HWC management

The complexity of HWC warrants a coordinated suite of responses. Despite decades of research, piloting, and financial investment, the lack of a fundamental understanding of what drives HWC, and effective management measures at scale remain. This is largely due to HWC being dynamic in space and time and driven by a complex combination of social (including gender, religion, media, finance etc.), ecological, climatic, political, and economic forces. And while these forces change and are spatially distinct, the basic fact is that we know what these forces are.

Actions to minimize conflict globally have taken on many forms. These include the development of community-based insurance/relief schemes, fencing, deterrents, and legal protocols for dealing with straying wildlife, community education, hotspot mapping, barriers, deterrents, and the use of rapid response teams as first responders following conflict events. Many of these tools have remained unchanged for thousands of years in many communities (e.g. the fence and the scarecrow). All conflict actions can be grouped into six conflict elements: policy, prevention, mitigation, understanding the conflict, monitoring and response (Figure 1). The lack of impact up till now can be attributed to the fact that HWC actions have been implemented in isolation of each other, have not considered HWC as a system, or project designs have only a singular focus on one element.

An integrated approach to HWC means that managers recognize that HWC is a system, and that the six elements must be accounted for in any management program, and none should be implemented in isolation. As an integrative system, actions

and lessons in each element inform and reinforce actions in the other elements, and the fundamental effectiveness of the approach is contingent on actions in all elements being implemented concurrently. Actions within some elements will require tested and transferable methodologies (e.g. in barriers or hotspot mapping), while other areas will require detailed protocols, national frameworks, and decision-trees to be developed from scratch.

There are a growing number of studies that assess the effectiveness of activities to help deal with HWC<sup>1-4</sup>. Some studies have also mentioned the importance of co-management in managing HWC<sup>5-7</sup>. However, managing HWC often requires applying a variety of approaches in parallel to achieve the desired impact<sup>8</sup>. For example, making it illegal to kill an animal involved in the conflict will not prevent animal deaths without government capacity to enforce the law or general community support for its implementation. So, actions to manage HWC need to be looked at as part of an integrated approach rather than in isolation. There are a range of components and actions within each of the six conflict elements (Table 1). All actions may not be appropriate for managing every HWC situation, but they can be a useful reference point for teams considering what combination of approaches to apply.

As part of a broader series of reports delving into all the elements of conflict, this report focusses on lessons on a single element – Response: measures taken to alleviate a specific or ongoing HWC incident. While this report centres on response, where relevant, essential linkages with other elements are highlighted.

Human Elephant Conflict prevention training by “Flying Squad” members in Bukit Barisan Selatan National Park, Sumatra Indonesia. Photo: Job Charles.



# Indicative and typical actions implemented globally within each element of conflict.

## POLICY

PROTOCOLS, PRINCIPLES, PROVISIONS AND MEASURES UNDERTAKEN BY AUTHORITIES WHICH ARE STIPULATED IN LEGISLATION AND GOVERNMENTAL PLANS

- International and national law
- Wildlife and forest crime policies
- National and local HWC strategies and management plans
- Translocation and response mandates
- Insurance and compensation policies
- International collaboration for transboundary areas
- Spatial plans

## PREVENTION

STOPPING OR PREVENTING HWC BEFORE IT OCCURS

- Community education
- Livestock and crop management
- Law enforcement
- Barriers and deterrents
- Safe working environments
- Habitat management
- Land use planning
- Early warning systems
- Removal or translocation of problem animals

## MITIGATION

REDUCING THE IMPACTS OF HWC AFTER IT OCCURS

- Compensation programs
- Insurance schemes
- Alternative livelihoods
- Livelihood diversification
- Benefit sharing

## RESPONSE

MEASURES TAKEN TO ALLEVIATE A SPECIFIC OR ONGOING HWC INCIDENT

- Response Teams
- Reporting Mechanisms
- Standard Operating operating systems
- Removal or translocation of problem animals
- First aid
- Crowd control

## UNDERSTANDING THE CONFLICT

RESEARCH INTO ALL ASPECTS OF THE CONFLICT PROFILE

- Hotspot mapping
- Spatial and temporal characteristics
- Social characteristics and community attitudes
- Severity and impact monitoring
- HWC research – social, biological, climatic

## MONITORING

MEASURING THE PERFORMANCE AND EFFECTIVENESS OF HWC MANAGEMENT INTERVENTIONS OVER TIME

- Monitoring success
- Feedback
- Information sharing
- Adaptive management

# 1. INTRODUCTION

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## The objectives of this report are:

- To capture lessons learned for establishing, managing, monitoring, and sustaining RTs.
- To build success criteria that can be used by practitioners to design and establish RTs, or to assess the effectiveness of existing RTs.

## 1.1 Human Wildlife Conflict – a chronic and growing challenge

1. Human wildlife conflict (HWC) leads to human suffering when wildlife directly causes damage to humans, livestock, and property<sup>6</sup>. For example, crocodiles, lions, elephants, and hippopotamus cumulatively killed 265 people over 27 months in Mozambique<sup>9</sup>. The direct, immediate damage to humans and their livestock or property can also lead to secondary, longer-term socio-economic and psychological impacts<sup>10-12</sup>. For example, if a herder is killed by a lion, then in addition to the herder's family being devastated by the loss of a loved one, they may also suffer long-term economic stress due to the loss of an income source<sup>6</sup>. Likewise, HWC often forces people that already struggle to support themselves, to spend time and money dealing with the conflict (e.g. local people may have to build watchtowers, grow lower yield crops, and spend considerable time guarding their fields to reduce crop raiding by deer and elephants)<sup>10</sup>. The damage to humans is often directly linked to the persecution of animals involved in the conflict (sometimes disproportionately to the damage they cause). For example, in northern Botswana, local farmers decimated a local population of wild dogs, even though the wild dogs accounted for only 2% of livestock losses<sup>13</sup>.
2. The animals involved in the conflict also suffer when humans directly damage wildlife in retaliation for or to prevent an HWC event<sup>6</sup>. On a population level, HWC has also been cited as the main factor leading to the extinction of species such as the Thylacine<sup>14</sup>, and range collapse of some other species, such as dingoes<sup>15</sup>. The impact on an animal population may also lead to secondary impacts to the ecosystem of which the animal is a part. For example, the loss of grey wolves and grizzly bears led to changes in ungulate density and bird habitat in part of the USA's



**HUMAN WILDLIFE  
CONFLICT LEADS  
TO HUMAN  
SUFFERING WHEN  
WILDLIFE DIRECTLY  
CAUSES DAMAGE  
TO HUMANS,  
LIVESTOCK, AND  
PROPERTY**

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Rocky Mountain range<sup>16</sup>. For an individual animal, HWC may lead to both physical and psychological suffering.

3. HWC is thought to be increasing globally<sup>11</sup>, and its negative impact may increase retaliation against the wildlife involved, or may otherwise reduce peoples' motivation to actively participate in protecting those animals<sup>7, 14, 17</sup>.

## 1.2 The need for lessons from global Response Teams

The response element is central to the functioning of any effective HWC management program. First, it encompasses the catalyst – the HWC incident – in the whole chain of events that determines whether another incident will occur, whether wildlife will be killed in retaliation, and whether a HWC program is failing or succeeding. Second, it includes the first interaction between the emotionally charged victim / person making the report and the reporting agent or Response Team (RT).<sup>\*</sup> And the speed of the response, the conduct of the RT, the thoroughness of the investigation, and the appropriateness of follow-up are all critical to maintaining community trust and tolerance or losing them altogether. And third, the information gathered by the RTs – evidence plus community sentiment – is the start of the process to build up a comprehensive picture of the conflict profile and the vital linkage with improving the effectiveness of all the other elements of conflict.

The centrepiece of the response element is, therefore, the Response Teams. RTs may either act in isolation, or more commonly as part of a group set up to deal with HWC incidents across a landscape (Box 1). RTs conduct a range of functions:

- **First aid:** as the first on the scene following an incident, RTs could save some human lives by administering emergency first aid, as well as raising the alarm for others to stay away from the danger<sup>8</sup>.
- **Investigate and verify:** through their response to incidents, RTs systematically investigate and report on each site and conflict. This helps to ensure accurate documentation and reduce false reporting, and can add veracity to any compensation / insurance claims that may arise<sup>18, 19</sup>.
- **Removal:** RTs have removed a number of animals from areas. These have included wounded and diseased animals that did not cause conflict, but that wandered into towns, approached settlements, and even entered buildings<sup>20</sup>. Such situations represent a potential danger to people, domestic animals, and



**RESPONSE IS ESSENTIAL FOR EFFECTIVE HWC MANAGEMENT AS IT IS OFTEN THE FIRST ACTION TAKEN FOLLOWING AN INCIDENT.**

<sup>\*</sup> Response Teams have various designations including but not limited to: game guards, flying squads, anti-depredation squads, verification agents, carnivore management teams, wildlife protection units, and response units. This report uses “Response Teams” as the most common collective name for groups serving the same overall purpose.



**THE QUALITY OF THE RESPONSE CAN DETERMINE THE OUTCOME FOR WILDLIFE AFTER THE EVENT.**

Corral improvements to prevent livestock depredation by snow leopards, Altai Sayan, Mongolia. Photo: Chimeddorj Buyanaa.

### Box 1: Response Team definitions

**Response Team member:** A person (either volunteer or paid) that carries out HWC management actions as part of a RT. e.g. a volunteer working in a village team that scares elephants away from crops, or a forest guard working in a government team that immobilizes and translocates animals that have dispersed into village areas.

**Response Team:** A group of people with a specific role to either deal with HWC while it is taking place, assess the damage done by HWC incidents for the purposes of providing financial relief to those affected, or prepare affected communities to more effectively deal with future HWC incidents.

**Response Team group:** A collection of coordinated RTs with the same type of governance (government, community, or NGO) and responsibilities (e.g. crowd control), that are helping to manage HWC over a common landscape.

structures, and the presence of wildlife such as large carnivores and elephants requires intervention by trained personnel. Without the RTs, many of these animals would likely be killed<sup>20</sup>.

- **Crowd management:** RTs serve to manage crowds and also actively participate in village trainings and meetings around HWC<sup>21</sup>.
- **Anti-poaching:** in some countries, the RTs have a law enforcement mandate which likely prevents HWC related poaching<sup>22</sup>.



- **Allaying fear:** the ability of the RT to reduce the perceived risk may be its most important contribution to minimizing wildlife mortality following HWC incidents<sup>23</sup>. By responding quickly to an incident, the team provides an official acknowledgement of the public concern and helps to alleviate the antagonism locals might have toward the animal, and also maintain tolerance for wildlife overall<sup>23</sup>. In some places, just the presence of the RT conducting an investigation can give confidence to communities to continue their daily activities<sup>24</sup>.
- **Providing advice:** RTs are an ideal body to provide pertinent advice to land owners, farmers, and local communities in the most effective strategies to prevent future attacks<sup>24</sup>.
- **Monitoring and reporting:** RTs play an important role in monitoring, not only of incidents, but of wildlife overall. If animals are hazed out of an area, the RTs may monitor their movements (using radio collaring, or local informant networks) to track if they return or become a problem animal. Furthermore, the data recorded from each incident can be collated and periodically evaluated to guide adaptive management and the enhancement of prevention and mitigation strategies<sup>22</sup>.
- **Other benefits:** RTs are typically local people who are able to bring very experienced and nuanced knowledge to HWC and problem animals, and are able to respond to a range of HWC types<sup>10, 25, 26</sup>.



**THERE IS VERY LITTLE PRACTICAL GUIDANCE AVAILABLE FOR CONSERVATION PROFESSIONALS TO SET UP, MANAGE, MONITOR, AND SUSTAIN A RESPONSE TEAM.**

However, apart from a few exceptions<sup>7, 8, 27-30</sup>, there is very little practical guidance available for conservation professionals to set up, manage, monitor, and sustain a RT to deal with HWC incidents. Without such guidance, practitioners are forced to set up RTs in isolation, and risk setting up a team that is unable to help reduce the conflict in any meaningful way, because it is either not part of an integrated HWC program or does not have:

- The support of key stakeholders affected by the HWC
- A clear strategy that links the HWC activities to an overall goal of benefiting the wildlife in question
- The processes, skills, and resources to effectively carry out, monitor, report on, and adapt their activities
- The ability to sustain itself over the long-term

To create guidance that is both practical and generally applicable to all HWC contexts, it is important to use and build on the lessons learned by those that have helped to set up and run RTs.





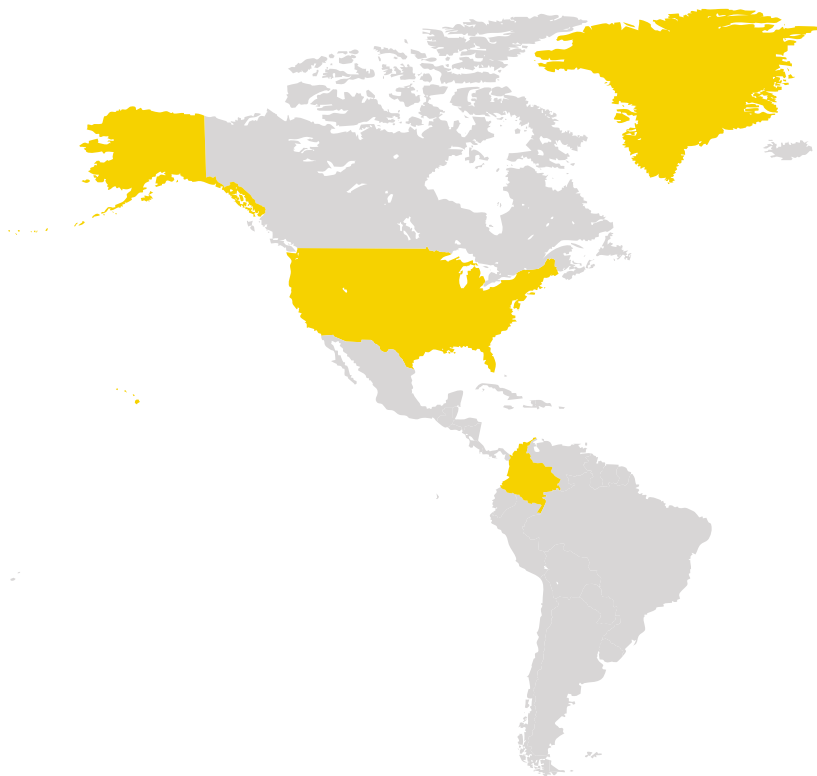
Greenland Polar Bear patrol team. Photo: Maria Hornbek.

## 2. REVIEW METHODOLOGY

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To gather lessons learned, we conducted interviews with practitioners with experience in setting up and managing RTs. To try and identify universal lessons learned, we interviewed practitioners within authors' personal networks dealing with HWC involving different species, landscapes, and socio-political contexts. Interviews between 1 and 1.5 hours in length were carried out between the 20<sup>th</sup> of April and 15<sup>th</sup> of May, 2018. A total of 20 interviews were conducted with representatives of 8 organizations who provided information on RTs operating in 16 countries (Figure 2).

Through the interviews, we gathered information and lessons learned about how the RT groups had been designed and established, how they operated in response to HWC incidents, how they monitored the effectiveness of their actions, and challenges they faced to sustain their efforts over the long-term. We also asked interviewees to highlight key lessons learned and recommendations that they considered important for setting up and managing a

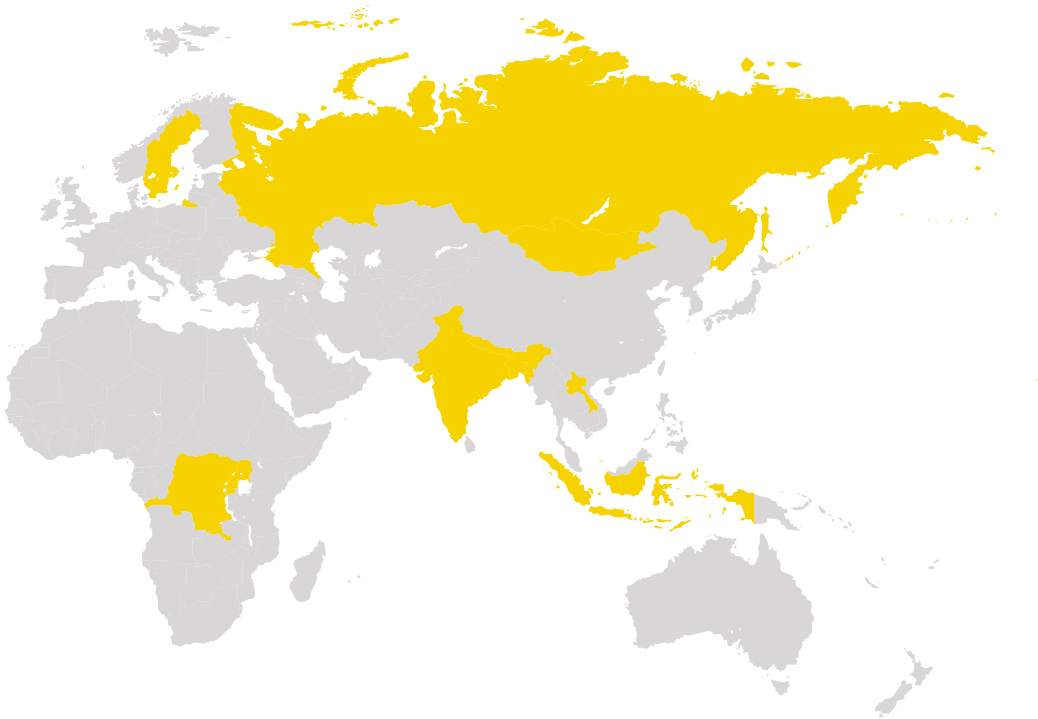


successful RT. We then collated this information into a set of key lessons learned and success criteria that were widely applicable to all HWC contexts.

The interviewees provided information on 28 different RT groups, made up of a total of 559 individual RTs and approximately 9,300 RT members (Table 2). All but one of the RT groups were still active at the time of this study. The RT groups had a collective experience of 226 years dealing with HWC incidents, with each group having been active for an average of eight years (range two to 20 years). The RTs dealt with conflict involving at least 18 species including tiger, elephant, jaguar, polar bear, and eagles (Table 3).

Each RT group was classed as either community (n = 15), government (n = 9), or NGO (n = 4), depending on which type of organization they were governed by. For all types of RT groups assessed (n = 28), the most common functions were collecting incident data (n = 21) and scaring away animals (n = 17). The most common function of community RTs was scaring away wildlife, translocating wildlife for government RTs, and collecting incident data for NGO RTs (4 RTs) (Figure 3).

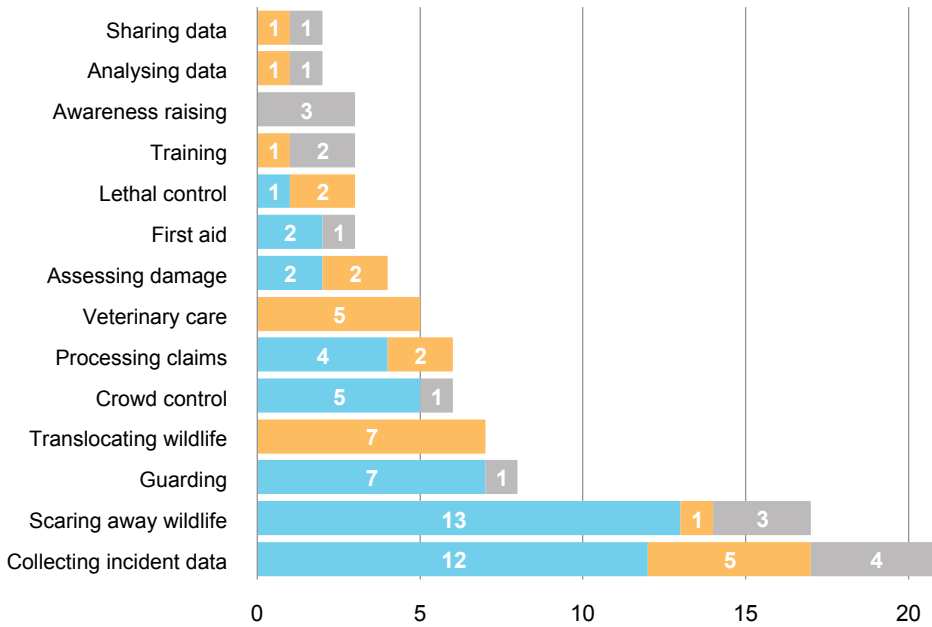
**Figure 2**  
*Countries with RT groups represented in the report.*



**Table 3**  
*Overview of Response Team groups assessed.*

Country	Group type	Focal species	Years active	Number of RTs	Number of members	Avg. team size (people)
Democratic Republic of Congo	Community	Gorilla		6	40	7
Bangladesh	Community	Elephant	3	26	260	10
	Community	Tiger	7	49	343	7
	Government	Tiger	6	1	10	10
	NGO	Tiger	9	1	5	5
Bhutan	Community	Elephant	3	5	60	12
Colombia	NGO	Jaguar, puma, spectacled bear		1	5	5
Greenland	Community	Polar bear	4	1		2
India	Community	Elephant	6	52	624	12
	Community	Elephant	14	75	900	12
	Community	Tiger	13	4	80	20
	Government	Tiger, leopard	15	1	8	8
	Government	Tiger, crocodile, leopard, sloth bear, elephant	4	53	265	5
	Government	Elephant, tiger, leopard	4	15	90	6
	Government	Tiger	13	1	8	8
Indonesia	NGO	Elephant, tiger	12	2	20	10
	NGO	Elephant	9	1	7	7
Laos	Community	Elephant	5	1	100	100
Mongolia	Community	Snow leopard, wolf	11	2	8	4
Nepal	Community	Tiger, elephant, rhino, sloth bear	2	45	250	6
	Government	Any	20	1	8	8
Norway	Community	Wolf	20	200	6,000	30
	Government	Wolf	20	1	3	3
Russia	Government	Tiger		1	5	5
Rwanda	Community	Gorilla		5	38	8
Sweden	Government	Wolf, brown bear, lynx, wolverine, golden eagle	10	21	105	5
Uganda	Community	Gorilla	20	7	107	15
USA	Community	Polar bear	2	1	0	2

**Note:** Blank cells indicate where data was not available for a particular RT group at the time of the interview.



**Figure 3**  
Frequency of functions performed by the RTs assessed.

Community  
Government  
NGO

Although NGOs only governed four RT groups, NGOs played a major role in designing and establishing the majority of RT groups included in the survey. NGOs designed 17 of the RT groups, initiated the establishment of 18 RT groups, trained 20 groups, and provided funds for 17 RT groups. Government agencies designed and set up seven RT groups, and trained and funded five RT groups. NGO government partnerships designed four RT groups, established and trained three RT groups, and funded seven RT groups.



**THE VAST MAJORITY OF PEOPLE WORKING IN THE RESPONSE TEAMS SURVEYED ARE VOLUNTEERS**

# 3. LESSONS LEARNED

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This chapter summarizes the main lessons learned in design and establishment of Response Teams (Section 3.1), operations (3.2), monitoring (3.3) and sustainability (3.4).

## 3.1 Design and establishment

### **Lesson 1: RTs need to have clear authority for carrying out their functions.**

Most RT groups assessed had some form of official, documented authority to carry out their duties, but there was no such documented authority for 9 groups. The overall conclusion of the survey was that some form of official authority (e.g. MOU, government permission, or documented community agreement) is needed to legitimize the activities of the RT with respect to key stakeholders (particularly the government), clarify the roles of different RT groups dealing with the same HWC incident, and reduce the risk that the RT gets into legal difficulties when things go wrong. It will also not be possible to raise funds in cases where donors insist on the RTs having documented authority to carry out their activities. Some instructive examples of authority exist: in Bhutan, a bylaw is in place that enabled a community group to develop its own RT; in Norway, the government issued permits to government RTs to destroy carnivores involved in the conflict; and in Indonesia, a government law is in place that provides clear authority to NGO RTs through defining how each group can contribute to dealing with HWC incidents.

### **Lesson 2: RTs should be set up by groups that are motivated to deal with HWC.**

Without motivation to set up their own RT, stakeholders are unlikely to run it effectively because they may feel the RT is doing the work for someone else (e.g. a donor or NGO) rather than for their own reasons (e.g. community RT members wanting to protect the wildlife that is part of their culture). With good motivation, a group is likely to do everything it can to improve the effectiveness of the RT to deal with the HWC issue that they want to address. With low motivation, a RT is likely to, at best, do what they are told or, at worst, do the least amount of work possible. While NGOs and government can recruit motivated staff and maintain their motivation through financial reward, motivation of community



WE COLLATED THE INFORMATION FROM OUR INTERVIEWS INTO A SET OF KEY LESSONS LEARNED AND SUCCESS CRITERIA THAT WERE WIDELY APPLICABLE TO ALL HUMAN WILDLIFE CONFLICT CONTEXTS.

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## **Box 2**

### **To pay or not to pay community Response Teams**

Paying community RT members may be a good approach in some circumstances because (a) the RT work has a value to both humans and wildlife, and (b) the RT members may often be poor, risk their own safety, and have little time to do the RT work.

Not paying community RT members, however, may improve the effectiveness of those teams because the RT members are making a personal commitment to deal with HWC for their own reasons. This sense of ownership may help focus RT members on how to carry out their function better, but may also be the starting point for developing a strong social platform for the RT members to carry out and inspire additional conservation activities in their own communities. Many volunteer community RT members carried out education activities or helped the authorities catch poachers on their own initiative. No such behaviours were noted from the community RT groups that were paid. Paying community RT members' salaries may also make it more difficult to sustain those teams financially and will greatly impede the rate at which those types of teams can be established. In the event that funding dries up, the RT motivations may also go down and impede long-term impact.

groups is more closely linked to the non-financial benefits RT members receive (e.g. social recognition) for being part of the RT (Box 2). A clear sign that the community group is motivated to set up their own RT is if they request help to do so using their own initiative. Villages in Bangladesh, for example, requested an NGO to help them set up a RT to deal with dispersing tigers after they had seen the success of RTs in other villages.

### **Lesson 3: RTs should be governed by the same group that operates the RT.**

Of the 12 community RT groups assessed, 11 selected their own members, but one community group had its members selected for them by a government agency. The majority of community RT groups (n=9) engaged their members as volunteers, with the remainder (n=3) employing its members on temporary contracts. Government and NGO RT groups all selected and paid the members of their teams. From considering all the interviewees' responses, it appeared that, even if the stakeholders are highly motivated to set up and operate a RT, they will not be able to use that motivation if they are unable to govern the RT themselves, particularly through the selection of the leaders and members of the RT. When a group has overall governance of the RT, then it has total ownership over the RT and its work. In Mongolia, for example, the community RTs that oversee the provision of compensation for livestock losses due to snow leopard attack also selected their own leaders and members.

## 3.2 Operation

### **Lesson 4: Each RT should have a clearly defined area in which they are responsible for.**

The longer an HWC incident continues, the more damage is likely to occur, particularly in cases of crop raiding, multiple livestock attacks, and dispersing animals that have been surrounded by a crowd of angry villagers. Likewise, delayed follow-up activities such as HWC data collection may lead to information loss that could impair management planning or verifying claims for compensation. Once a RT has been alerted of a HWC incident, the speed at which that RT can respond is a function of how large an area it is responsible for, where the RT is based with respect to that area, and its means of reaching HWC sites within that area.

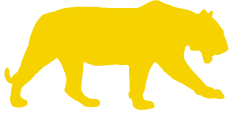
Without a well-defined area, it will be unclear which RT is responsible for responding to a given incident, and difficult to measure the effectiveness of each RT's activities. Each RT should, therefore, have a clearly defined area in which they are responsible for responding to HWC incidents.

The survey found that, in general, government RTs included in the survey had relatively well known (but undocumented) areas that they were responsible for (e.g. around the boundaries of the

Elephant watch tower installed by village response teams in Khata Corridor, Terai Arc Nepal. Photo: Ashley Brooks.







**THE ANIMALS INVOLVED IN THE CONFLICT ALSO SUFFER WHEN HUMANS DIRECTLY DAMAGE WILDLIFE IN RETALIATION.**

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protected areas that they administered). However, NGO RTs had very large, inadequately defined areas (e.g. an NGO might collect HWC data from part of a landscape based on what they can achieve with resources available). Likewise, although it was clear where all community RTs were located, the area that they responded to was undefined or restricted to the general village area where they were located.

**Lesson 5: There should be a single, official contact number for people to report conflict incidents to the RT.**

Emergency services like police, fire brigade, and ambulance rely on quick, well managed communications to reduce response times and improve the effectiveness of that response. Likewise, the survey found that people need a quick, standardized way to contact RTs to either report or get support for managing a HWC incident. Most RT groups (n=15) were contacted about an HWC incident via personal mobile phones, nine were contacted through local office numbers, and only four through a dedicated HWC number. A single official contact number can help speed up these communications to get support for the RT as soon as possible. Having a single line of communication can also help a RT collect incident data through a single point of contact. Another advantage of setting up dedicated numbers is that the person receiving the call can be trained in a standardized protocol of how to document and respond to the information provided. A HWC “hotline” does not have to be for a whole country, but could instead be region-specific and directly linked to the RT that has the responsibility of responding to HWC in a given area. For example, some rapid response teams in India set up to deal with human carnivore conflict have well-advertised hotline numbers that local villagers can use to contact a RT covering a particular area.

**Lesson 6: A RT should have enough members available to effectively respond to HWC incidents, especially during periods of high conflict.**

Of the RT groups surveyed, 12 reported that they were not able to be effective in carrying out their key functions because they had an insufficient number of staff. Despite the lack of manpower, most (23) RT groups were available to respond to HWC incidents 24 hours a day, with the remaining (5) RT groups only operating within normal working hours. The groups that were available to respond 24 hours a day generally were those that were trying to help manage HWC incidents as they occurred (e.g. a RT in India that responded to help drive elephants away from coffee plantations), whereas the RTs that operated during set time periods were those that focused

on dealing with HWC after the incidents had finished (e.g. a RT in Sweden that visited the site to verify which type of animal had killed a sheep).

The frequency of HWC incidents may often fluctuate due to season, crop availability, and the behaviour of individual animals or people. RTs may, therefore, go through long periods of inactivity, followed by periods of intense activity where they are involved in dealing with multiple incidents over a very short timeframe. For example, in Assam, some RTs have only had to deal with HWC incidents every two years, but those incidents often lead to extensive destruction of crops if not dealt with. It is, therefore, a challenge for a RT to have sufficient staff to minimize damage during peak HWC activity. If the RT is geographically isolated, then it must have all the members it needs within the RT to deal with these HWC incident peaks, but if there are RTs in neighbouring areas, then it may be possible for the RTs to work collectively to deal with high levels of HWC. In Laos, for example, farmers that had been trained to deterring elephants away, took turns guarding each other's crops and worked collectively when elephants came close to the fields.

### **Lesson 7: RTs should have sufficient skills to be effective at carrying out their functions.**

The majority of RT groups (n=20) reported that they were not able to be effective in carrying out their key functions because they had insufficient skills. A RT's ability to deal with a HWC incident is largely dependent on the skill of its individual members. The specific skill set required for RT members will depend on their function. For example, members of community RTs often need to be skilled in deterring wildlife while also preventing a crowd of their fellow villagers from harming those animals. Likewise, government RTs often need very specialized skills in how to capture, immobilize, treat, transport, and release large animals like tigers. NGOs, which often play a role in helping to set up government and community RTs, often need to be skilled trainers with specialist areas of expertise such as monitoring. When the skills needed to carry out a particular function are lacking or inadequate, it could increase the risk of injury or death to both the RT members and the animal involved.

### **Lesson 8: RTs should have all the specialist equipment they needs to carry out their functions effectively.**

Overall, interviewees reported that most RT groups (n=15) were not able to be effective in carrying out their key functions because they had insufficient specialist equipment. This is particularly the case for government teams that are involved in the capture, immobilization, treatment, transport, rehabilitation, and release of



Anti-depredation squads driving wild elephants out of a tea plantation in Sonitpur District, Assam, India. Photo: WWF India.

animals. In such cases, specialist equipment may include dart guns and immobilization drugs, and specially-designed cages or transport containers (e.g. cages to transport tigers captured in villages on the boundary of the Sundarbans forest). For RTs that focus on crowd control or scaring away animals, the specialist equipment may be lower tech, but no less essential, such as megaphones, flash lights, and heavy weather clothing that can enhance the effectiveness of the RT.

**Lesson 9: RTs should have access to a means of transportation that enables them to reach HWC incidents in time for them to effectively carry out their functions.**

Half the RT groups (n=16) were not able to be effective in carrying out their key functions because they had insufficient transport facilities. Each RT needs a cost-effective means of transportation that enable them to respond as quickly as possible to any HWC incidents occurring in the area that the RT covers. Even for teams that deal with the effects of HWC incidents after they occur, they still need a means to travel to the incident site, for example, to assess damage, verify the animal involved, and liaise with people affected by the incident. The transport needs for a RT will be dependent on the size of the area they are responsible for, the terrain of that area,

the type of HWC incidents they respond to, and their role. It may be appropriate, for example, for a RT to use a helicopter to respond to incidents quickly over a vast area, as is the case for government RTs in Norway that deal with human wolf conflict. But cheaper, slower forms of transport maybe more suitable for other situations (e.g. horses being used to visit HWC incident sites across mountainous terrain in Mongolia, or villagers responding on foot to deal with crop raiding elephants near their village in South and South East Asia).

**Lesson 10: RTs should have a documented protocol for carrying out their functions in response to the different types of HWC incident.**

HWC incidents often happen without warning, are over within a short period of time, and can result in serious harm to the people or wildlife involved. Of the RT groups surveyed, nine groups did not have any documented process for managing HWC incidents. To be effective, HWC teams will need to make decisions quickly to deal with the HWC incident at hand and to adapt as the HWC incident changes in nature. A clear protocol or decision-tree on how to manage different HWC incident types, ideally based on the experience of other RTs who have faced the same circumstance, enables a RT to quickly make the best decision possible in any given situation. Making the best decision possible will reduce the damage done to people and wildlife, build the confidence of the RT, and increase stakeholder support of the RT. Conversely, if there is no clear protocol to aid decision-making, then each RT will have to learn slowly and painfully mainly through their own mistakes. Likewise, a protocol would reduce the risk of RTs being held accountable for the decisions that they took to address HWC incidents that were not managed effectively. More importantly, using a well thought out protocol could reduce the risk of RT members and others being harmed during HWC incidents. Stand out examples of RT protocols are the Indian Standard Operating Procedures of the National Tiger Conservation Authority (<https://projecttiger.nic.in>), and WildTeam’s decision-tree for human tiger conflict in the Bangladesh Sundarbans (Box 3).

## 3.3 Monitoring

### **Lesson 11: RTs' work should be clearly linked to a conservation strategy and be guided by SMART objectives.**

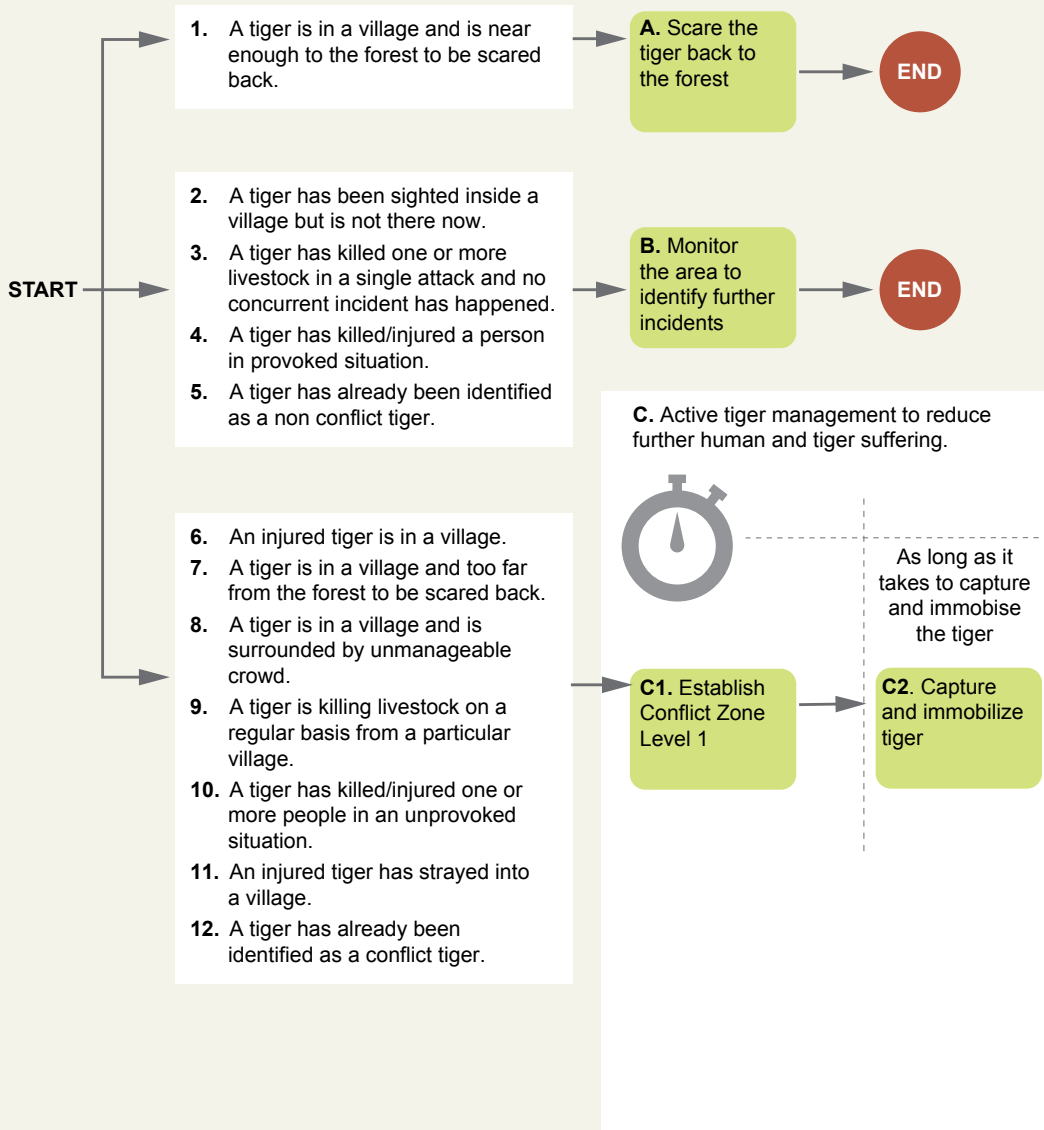
For 17 RT groups, the HWC work was a documented part of a local conservation strategy for the wildlife or landscape in question, but there was no such link for 11 RT groups. Only nine RT groups reported having any Specific Measurable Achievable Realistic Timely (SMART) objectives relating to the RT work, but 13 RT groups reported that there had been a measured reduction in HWC since the start of the RT work. It is unlikely that a RT working in isolation will be able to achieve a measurable decrease in HWC. Instead, for a RT to contribute to decreasing HWC, it needs to be part of an overall strategy that may include a wide range of supporting activities that are enhanced by, and enhances, the other five elements of conflict. The survey findings suggest that the RT work must be part of an overall integrated conservation program and a local HWC management plan that clearly links the work of RTs with all the other conflict elements. The RT work should also contribute to SMART objectives that clearly outline what the conservation work, of which the RT is a part, is trying to achieve. SMART objectives enable a RT to monitor their progress, adapt to changing conditions, and report what they have achieved to stakeholders such as the community, government, or donors<sup>31</sup>.

### **Lesson 12: RTs should have a regular process in place to measure and improve the effectiveness of their functions.**

A RT should be constantly trying to improve how it carries out its functions so that it can have the maximum effect on reducing HWC in the long term, plus maintain stakeholder support for the conservation goals. However, only about a third (n=9) of the RT groups included in the survey had a process in place to assess their effectiveness. Ad hoc meetings to discuss what is working, what is not working, and what can be done better is a great start, but a standardized process of measuring, reporting on, and adapting a RTs function will help speed up the process of continual improvement and, if shared, may help other RTs learn fast as well. How to measure effectiveness will vary depending on local context and team function, but some common, basic indicators of effectiveness could include: time taken to respond; type of interventions used; community support / collaboration; and proportion of HWC incidents managed that lead to positive outcomes.

# WILDTIME'S DECISION TREE FOR RESPONSE TEAMS

## Inside village incidents

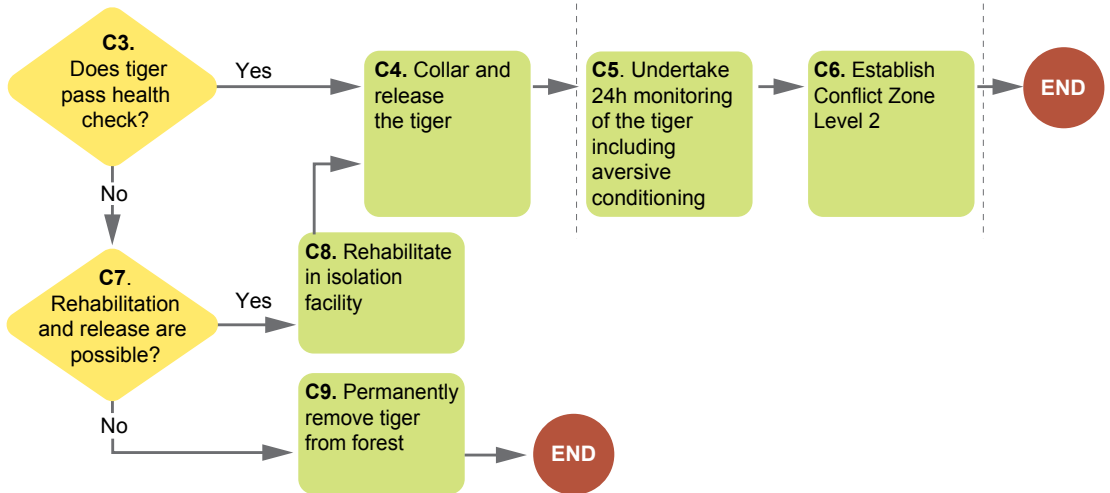


WildTeam developed the decision tree through a multi-stakeholder workshop that included representatives of the Bangladesh Forest Department, local communities, academic institutions, and conservation NGOs. The protocol is now used when training government staff and by the Emergency Response Team responsible for dealing with tigers that enter village areas. The advantage of such decision trees is that they provide a justifiable basis for making otherwise difficult management decisions. As the protocol reflects what is accepted as a sound basis for making a decision in the best interests of the people and wildlife involved, the decision-maker can feel confident in making a decision and course of action.

## Time elapsed

As per anaesthesia recover time

These steps happen simultaneously





**Lesson 13: RTs should regularly collect HWC related data and share that data with regional, national, or international databases.**

All 28 RT groups collected some data relating to the HWC incidents (e.g. time and location of incident, species involved, and level of damage caused) to help monitor and manage HWC for a particular landscape. Only nine RT groups provided their data to a national HWC database, and only one RT group reported its data to an international level database. Data was captured either through site visits (22 RT groups) or phone surveys (6 RT groups). Data on HWC incidents is needed on a local level to help monitor impact of RTs but can also be used on a national or international scale to help RTs in different areas learn, assist in identifying hotspots and trends, plan where to establish RTs, and how to inform and enhance success of all the other actions across the six elements of conflict.

Anti-degradation squad members along with WWF India personnel, at Rengonijaar. Photo: WWF India.

### 3.4 Sustainability

**Lesson 14: RTs should have sufficient funds to cover the costs of carrying out their functions for the foreseeable future.**

Funds are required to cover costs such as salaries, specialist equipment, transportation, accommodation, facilities, and food. As reported for eight RT groups, the average cost of setting up an individual RT was approximately \$6,000 (range \$30-\$25,000), but



not all costs were included in the estimate for each group. Despite a general lack of funding availability (n=18) and fundraising capacity (n=15), all but one of the RT groups were still active at the time of the survey. Government groups employ their RT members, so salary costs were accounted for through official budgets, but the overall costs for running those groups is often supplemented by NGOs (e.g. by supplying vehicles and or paying for fuel). Because most of the community groups were volunteers, there was no issue of sustainability in terms of having to provide funds to cover their salaries. For the few community groups that did have paid members, those salary costs were either provided by the government through a direct, temporary contract, through funds raised from tourist revenue and supplied through a community group or paid directly by an NGO. NGOs also had to raise funds to maintain their own RT groups. Therefore, NGOs will often need dedicated staff that have the skills and time to acquire funds from external sources such as grants, public donations, and financing mechanisms such as payments for ecosystem services.

The Human Tiger  
Conflict resolution  
group of the Hunting  
Department of  
Primorsky Province.  
Photo: WWF Russia.

A consistent source of funding is needed so the RTs can deal with HWC incidents and to retain and strengthen trust with key stakeholders, such as the communities and governments. Securing the funds in advance is also necessary to prevent reallocation of funds from other conservation work to keep RTs operational.



# 4. SUCCESS CRITERIA

Based on the information collected, we developed a list of criteria for success that represent best practices for setting up, managing, monitoring, and sustaining a RT.

**Table 4** RT success criteria.

	Success criteria	Rating scores
		Poor
<b>Design and establishment</b>	Authority	Authority for RT activities has not been established in any form
	Motivation	The group setting up the RT is forced by another external group to set-up the RT
	Governance	The leaders and members of the RT are selected by an external group
<b>Operation</b>	Designated area	The RT has no designated area for which they are responsible for when responding to HWC incidents
	Communications	Multiple, personal contact numbers are used to report HWC incidents to the RT
	Members	RT has members available to respond to <50% of HWC incidents during periods of highest conflict
	Skills	RT staff have been told about their responsibilities, but have not been trained or their skills assessed in any meaningful way
	Specialist equipment	RT does not have the specialist equipment it needs to carry out its function effectively
	Transportation	For RTs that aim to reduce the immediate impact of an HWC incident: RT has sufficient means of transportation to reach site of HWC incident >4 hours after the incident being reported  For RTs that aim to carry out follow-up activities after an HWC incident has occurred: RT has sufficient means of transportation to reach site of HWC incident >24 hours after the incident being reported
	Management protocols	RT has no protocol for carrying out its functions
<b>Monitoring</b>	Monitoring impact	The link between the RT work and the conservation of the species and landscape in question is not documented in an overall conservation strategy and there are no SMART objectives and indicators relating to the impact of the RT work
	Monitoring effectiveness	The RT does not have indicators or regular meetings to help assess and improve the effectiveness of how they carry out their functions
	Data collection and sharing	The RT does not collect HWC-related data, or provide that data to any external database
<b>Sustainability</b>	Fund availability	The RT has sufficient funds to cover the costs of carrying out its function for the next year

To get an indicative measure of how your Response Team is performing against the criteria, follow this simple scoring system for each criteria in Table 4: Poor rating = 1; Adequate = 2; Strong = 3. Sum all scores and take the average. Can you enhance your RTs score?

Adequate	Strong
Authority for RT activities has been verbally agreed by a key stakeholder	Authority for RT activities is documented and approved by a key stakeholder
The group that is setting up the RT agrees to the RT being set-up upon suggestion by an external group	The group that is setting up the RT has requested it to be set-up or is initiating its set up on their own initiative
The leaders and members of the RT are jointly selected by both the group who provides the leaders and members of the RT, and an external group	The leaders and members of the RT are selected by the group who provides the leaders and members of the RT
The RT is aware about (but has not documented) the area for which its responsible for when responding to HWC incidents	The RT has documented the area for which they are responsible when responding to HWC incidents
There are different official contact numbers to report HWC incidents in different areas	There is a single, official contact number for people to report HWC incidents to the RT
RT has members available to respond to 50-80% of HWC incidents during periods of highest conflict	RT has members available to respond to over 80% of HWC incidents during periods of highest conflict
RT staff have attended training courses or been provided training materials relating to their functions, but have not passed standardized assessments of their skills	RT staff have been trained and have passed skills assessments relating to their functions
RT has most of the specialist equipment it needs to carry out its function effectively	RT has all the specialist equipment it needs to carry out its function effectively
For RTs that aim to reduce the immediate impact of an HWC incident: RT has sufficient means of transportation to reach site of HWC incident between 4-2 hours of the incident being reported For RTs that aim to carry out follow up activities after an HWC incident has occurred: RT has sufficient means of transportation to reach site of HWC incident between 8 and 24 hours after the incident being reported	For RTs that aim to reduce the immediate impact of an HWC incident: RT has sufficient transport facilities to reach site of HWC incident within 1 hour of the incident being reported For RTs that aim to carry out follow up activities after an HWC incident has occurred: RT has sufficient means of transportation to reach site of HWC incident <8 hours after the incident being reported
RT has verbal protocol for carrying out its functions or has a documented protocol that is not followed through with	RT has documented protocol for carrying out its functions, and follows that protocol
The link between the RT work and the conservation of the species and landscape in question is documented in an overall conservation strategy that does not include SMART objectives and indicators relating to the impact of the RT work	The link between the RT work and the conservation of the species and landscape in question is clearly documented in an overall conservation strategy that includes SMART objectives and indicators relating to the impact of the RT work
The RT does not have indicators, but does have regular meetings to help assess and improve the effectiveness of how they carry out their functions	The RT has indicators and regular meetings to help assess and improve the effectiveness of how they carry out their functions
The RT does collect HWC-related data, but does not provide that data to any external database	The RT does collect HWC-related data, and does provide that data to an external database
The RT has sufficient funds to cover the costs of carrying out its function for the next 2 years	The RT has sufficient funds to cover the costs of carrying out its function for the next 3 years

# 5. NEXT STEPS

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## Strengthening lessons learned

The lessons learned collated in this study should be considered as a starting point to continually improve how HWC RTs are set-up, managed, monitored, and sustained. Further study, that includes a wider range of experts and types of HWC situations, will no doubt be able to improve on these initial findings and provide additional insights and tools that can help conservation professionals develop these RTs. For example, this report is based on HWC situations involving large, terrestrial mammals such as elephants and tigers, but there are many HWC situations involving marine<sup>32</sup> or smaller species<sup>33</sup> that could provide further insight and help improve recommendations.

Likewise, the focus of this initial study has been on developing a universal, generic set of lessons learned and associated success criteria that can be used for all types of RT, but there is ample scope for developing more specific, detailed lessons learned and success criteria that are tailored for any RT type (community, government, or NGO), or the context in which they operate (e.g. the species involved in the conflict, the landscape they work in, or the socio-political situation).

**HUMAN WILDLIFE CONFLICT IN DEVELOPING COUNTRIES IS ONE OF THE MAJOR CHALLENGES FOR CONSERVATIONISTS AND GOVERNMENT AGENCIES. SPECIALLY TRAINED AND ADEQUATELY EQUIPPED RESPONSE TEAMS STATIONED IN VULNERABLE AREAS IS THE FUTURE FOR ADDRESSING THIS CONFLICT.**

**Dr. Dipankar Ghose,  
Director Species and Landscapes, WWF India.**

## Recommendations

- To help conservation teams incorporate HWC work into an overall conservation strategy: use already established formats for documenting the current situation that they are aiming to change, and the theory of change for what they want to achieve in the future<sup>31, 34-36</sup>.
- The development of a standardized set of templates to help conservation teams efficiently establish, operate, monitor, and sustain a RT group or individual RT. Standardized templates, for example, could help teams collect, document, and share the outcomes of management interventions. Likewise, a standardized HWC indicator list would help conservation teams measure their impact and effectiveness, to help them quickly learn if what they are doing is working and help them identify areas for improvement.
- The setting up of national HWC databases and associated user-friendly mechanisms (e.g. data entry apps) to help conservation teams monitor their work and enable assessments in HWC trends and identification of solutions on national, regional, global, and thematic levels.
- Provision of training to build the capacity of the conservation sector to use the success criteria suggested in this report, together with the proposed templates, indicators, and establishment of national, and ultimately global HWC databases.

Rapid Response Team members setting up nylon mesh fencing for human tiger conflict prevention, Sundabans, India. Photo: WWF India.



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## The SAFE Approach

The SAFE Approach – developed by Tigers Alive – takes lessons from the transport safety sector in seeking to make people and their assets, and wildlife and their habitats safe. It does this by identifying and eliminating the risk factors that contribute to human wildlife conflict. In the long term the focus on safety of each part of the system can lead to a gradual decrease in incidents and therefore contribute to maintaining tolerance for wildlife locally.

WWF Tigers Alive is an initiative of WWF that supports tiger range countries achieve their commitments under the Global Tiger Recovery Program to double the number of tigers by 2022.

WWF is one of the world's largest and most experienced independent conservation organizations, with over 5 million supporters and a global network active in more than 100 countries. WWF's mission is to stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature, by: conserving the world's biological diversity, ensuring that the use of renewable natural resources is sustainable, and promoting the reduction of pollution and wasteful consumption.

The designation of geographical entities in this report and the presentation of material, do not imply the expression of any opinion whatsoever on the part of WWF concerning the legal status of any country, territory, or area, or its authorities, or concerning the delimitation of its frontiers or boundaries.


**WildTeam UK** is a registered charity that helps conservationists achieve more impact through best practice development, training, and non-profit consultancy support. WildTeam have trained over 230 conservationists from over 30 countries in key conservation skills such as strategy development and project management. In addition, WildTeam is helping to save animals such as tiger, elephant, orangutan and Ethiopian wolves, by helping to improve the management of over 130,000 km<sup>2</sup> of wild landscapes.

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# THE SAFE APPROACH TO HUMAN WILDLIFE CONFLICT MANAGEMENT

SAFE is a holistic and modern approach to an age old challenge. It integrates the ancient tools within each of the Six Elements of conflict to gradually increase the safety of people and their assets, and wildlife and their habitat in an area overtime.



 <p><b>WWF</b></p>	<p>Working to sustain the natural world for people and wildlife.</p> <p><b>together possible</b></p> <hr/> <p>panda.org</p>
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