CATS
Conservation Assured | Tiger Standards

Safe Havens for Wild Tigers

A rapid assessment of management effectiveness against the Conservation Assured Tiger Standards

Recommended citation: Conservation Assured. 2018. *Safe Havens for Wild Tigers: A rapid assessment of management effectiveness against the Conservation Assured Tiger Standards,* Conservation Assured, Singapore.
ISBN: 978-2-940529-83-4

Production team
Concept and writing: Nigel Dudley, Sue Stolton, MKS Pasha, Michael Baltzer, Michael Belecky and Lim Jia Ling
Data collection and statistics: MKS Pasha and Yap Wei Lim
Design: millerdesign.co.uk

Acknowledgements
Many thanks to Global Tiger Forum (GTF), United Nations Development Programme (UNDP) and IUCN/KfW Integrated Tiger Habitat Conservation Programme for collaborating on this survey and to WWF for providing the funding. The production team would also like to thank the CA|TS Support Group members for their on-going support of CA|TS: Equilibrium Research, Freeland, Global Wildlife Conservation, GTF, IUCN, Panthera, Smithsonian Institution, UNDP, IUCN World Commission on Protected Areas, WildTeam and WWF. Most importantly, we would like to thank the site managers through their respective departments: Ministry of Environment and Forest, Bangladesh; Department of Forest and Park Services, Bhutan; Department of Nature Conservation and Protection, Cambodia; Ministry of Environmental Protection, China; Ministry of Environment, Forest and Climate Change, India; Ministry of Environment and Forestry, Indonesia; Ministry of Natural Resources and Environment, Malaysia; Nature and Wildlife Conservation Department, Myanmar; Department of National Parks and Wildlife Conservation, Nepal; National Parks and Nature Reserves of Russian Far East; Department of National Parks, Wildlife and Plant Conservation, Thailand and WWF country focal points for CA|TS for helping to collect data from the sites involved in the survey.

CONTENTS

EXECUTIVE SUMMARY

The survey was based on the Conservation Assured | Tiger Standards (CA|TS) and its associated criteria.

Conservation Assured | Tiger Standards (CA|TS) is an accreditation system where participating tiger conservation areas provide evidence demonstrating that they meet a range of criteria, which together should ensure effective conservation management.

To gain a better understanding of the challenges that tiger range governments face in protecting wild tigers and to provide a baseline for CA|TS implementation, a rapid survey was undertaken of current management in 112 sites in 11 tiger range countries. The survey covered approximately 70% of the global wild tiger population across over 200,000 km^2 of the tiger range. This summary report outlines the results and recommends some urgent actions to help secure wild tiger populations.

The results are mixed. Only 12.5% of sites surveyed are currently able to meet the full CA|TS criteria. However, half (52.5%) report fairly strong management although there are improvements needed. The remaining 35% (the majority of which are in Southeast Asia) have relatively weak management or are sites still developing management systems.

Positive findings include that tiger monitoring is being implemented in 87% of sites and that all sites surveyed in Bangladesh, Bhutan, China, India, Nepal and Russia have management plans; however several sites in Southeast Asia do not. 85% of sites also report that they have systems for assessing management effectiveness.

Three-quarters of the sites surveyed however responded that they are not sufficiently staffed to fully implement planned management activities. Community issues related to management are weak across the whole tiger range, although 58% of the sites surveyed have put in place benefit-sharing/alternative livelihood mechanisms.

Although only 16 out of the 112 sites surveyed have intelligence driven anti-poaching processes in place, 66 sites are developing or planning to develop such systems, which reflects the focus on protection undertaken in many tiger conservation areas in recent years.

Managers across the tiger range are fully aware of these weaknesses in management. They reported many actions planned in response. Across the 20 sites surveyed in Southeast Asia, 196 actions were indicated as being in the planning stage; an average of nearly 10 actions per site as opposed to an average of four actions per site in the rest of the tiger range countries where management was assessed as more in line with the CA|TS criteria.

Two recommendations can be drawn from the results:

1. Government investment in tiger conservation areas is the only long-term solution to their management needs. While some countries are investing in their sites, most in Southeast Asia are lacking even fairly basic levels of government funding – a situation which needs to change. Furthermore, as tiger conservation areas are also important for many other aspects of natural, economic and social capital, such investments would have far-reaching benefits.

2. Good management in tiger conservation areas is the single most important action to halt and reverse the decline of wild tigers. As such, CA|TS should be implemented across the tiger range to strengthen effective management of tiger conservation areas.

CONSERVATION ASSURED | TIGER STANDARDS

MISSION

- Securing safe havens for wild tigers.

VISION

- Wild tigers have spaces to live and breed safe from threat resulting in increased populations and recovery of range.

GOALS

- Adoption and implementation of CA|TS standards ensures tiger habitats are effectively conserved, well-managed and ecologically connected to maintain, secure and recover viable populations.
- CA|TS demonstrates and promotes best practice in protected area management in Asia.

OBJECTIVES

- Develop expert-led CA|TS criteria and accreditation processes which are credible and scientifically relevant and linked with associated conservation standards (e.g. IUCN Green List).
- Register the world's most important tiger areas and develop programmes which mobilise support and capacity for management in order to help these areas meet the CA|TS criteria.
- Establish linkages with global conservation agencies, government agencies / institutions to build capacity and mobilise resources and promote best practices.

TARGETS BY 2022

- More than 150 tiger conservation areas are registered and well on their way to CA|TS Approved.
- All tiger range countries are actively involved in CA|TS.
- A funding mechanism to support the improvement of registered tiger conservation areas is in place.

For more information on CA|TS visit: www.conservationassured.org

WHAT WAS THE SURVEY ABOUT?

112 tiger conservation areas from the 11 tiger range countries were surveyed on their implementation of 40 strategic tiger management activities.

Approximately 70% of the global wild tiger population in 29% (>200,000 km^2) of the tiger range was included in the survey.

*Details of the methodology and an overview of the sites for which the data was received are provided in the appendix.

The global goal to double the number of wild tigers pledged at the International Tiger Forum (otherwise known as the "Tiger Summit") held in St.Petersburg in 2010, has provided a much needed boost to conservation efforts in tiger landscapes (GTI, 2010).

Encouragingly, there are some indications that this effort is beginning to bend the curve for tigers, including the recent upwards reassessment of wild tiger numbers (WWF, 2016). Progress however remains patchy. Despite global attention on the fate of the species, some governments of tiger range countries are still failing to invest sufficiently in tiger conservation and many protected areas are struggling, and failing, to reach minimum global standards for effective management.

In response to the call for improvements in tiger conservation, Conservation Assured | Tiger Standards (CA|TS) was established with the aim of ensuring that wherever tigers live in the wild, they are receiving effective protection and management. CA|TS is an accreditation system that requires participating tiger conservation areas to provide evidence demonstrating that they meet a range of criteria.

To gain a better understanding of the challenges that tiger range governments face in protecting wild tigers and to provide a baseline for CA|TS implementation, a rapid survey was undertaken of current management in 112 sites in 11 tiger range countries (Bangladesh, Bhutan, Cambodia, China, India, Indonesia, Malaysia, Myanmar, Nepal, Russia and Thailand).* The survey covered approximately 70% of the global wild tiger population across over 200,000 km^2 of the tiger range. This is 29% of the total 700,000 km^2 tiger range (Goodrich et al., 2015), but contains a disproportionate amount of the global wild tiger population.

The survey is based on a simplified, abridged version of the CA|TS standards (Conservation Assured, 2017), with 40 questions representing management actions under each of the CA|TS elements and pillars. Each question was scored as to whether actions were fully implemented; actions were in the process of implementation (i.e. action initiated); planned; recognised but no action taken; or not recognised.*

The survey is intended to highlight urgent needs in terms of management for each of the sites and provides a baseline of information against which to measure progress in the future. The results show whether or not governments are investing sufficient funds into tiger conservation. The information will assist the CA|TS

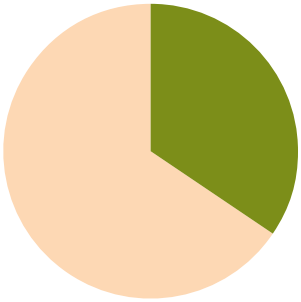
	PILLAR	ELEMENT
	CONSERVATION ASSURED	
	**IMPORTANCE AND STATUS**	1. Social, cultural and biological significance 2. Area design 3. Legal status, regulation and compliance
	**MANAGEMENT**	4. Management planning 5. Management plan/system implementation 6. Management processes 7. Staffing (full-time and part-time) 8. Infrastructure, equipment and facilities 9. Sustainability of financial resources 10. Adaptive management (feedback loop)
	**COMMUNITY**	11. Human–wildlife conflict (HWC) 12. Community relations 13. Stakeholder relationships
	**TOURISM**	14. Tourism and interpretation *Note: this standard is only applicable for areas with major tourism objectives*
	**PROTECTION**	15. Protection
	TIGER STANDARDS	
	**HABITAT MANAGEMENT**	16. Habitat and prey management
	**TIGER POPULATIONS**	17. Tiger populations

partnership (a wide range of governments, NGOs and funding bodies) in setting priorities for the most effective conservation investment, capacity building and training.

This summary report does not seek to highlight results from specific countries' tiger conservation areas, rather it provides broad-level and regional-level overviews of where sites are either reaching or failing to reach the management standards necessary to produce positive tiger conservation outcomes.

ARE TIGER CONSERVATION AREAS BEING EFFECTIVELY MANAGED?

Less than 13% of sites completing the survey said they had all the elements in place to reach the CA|TS standards.



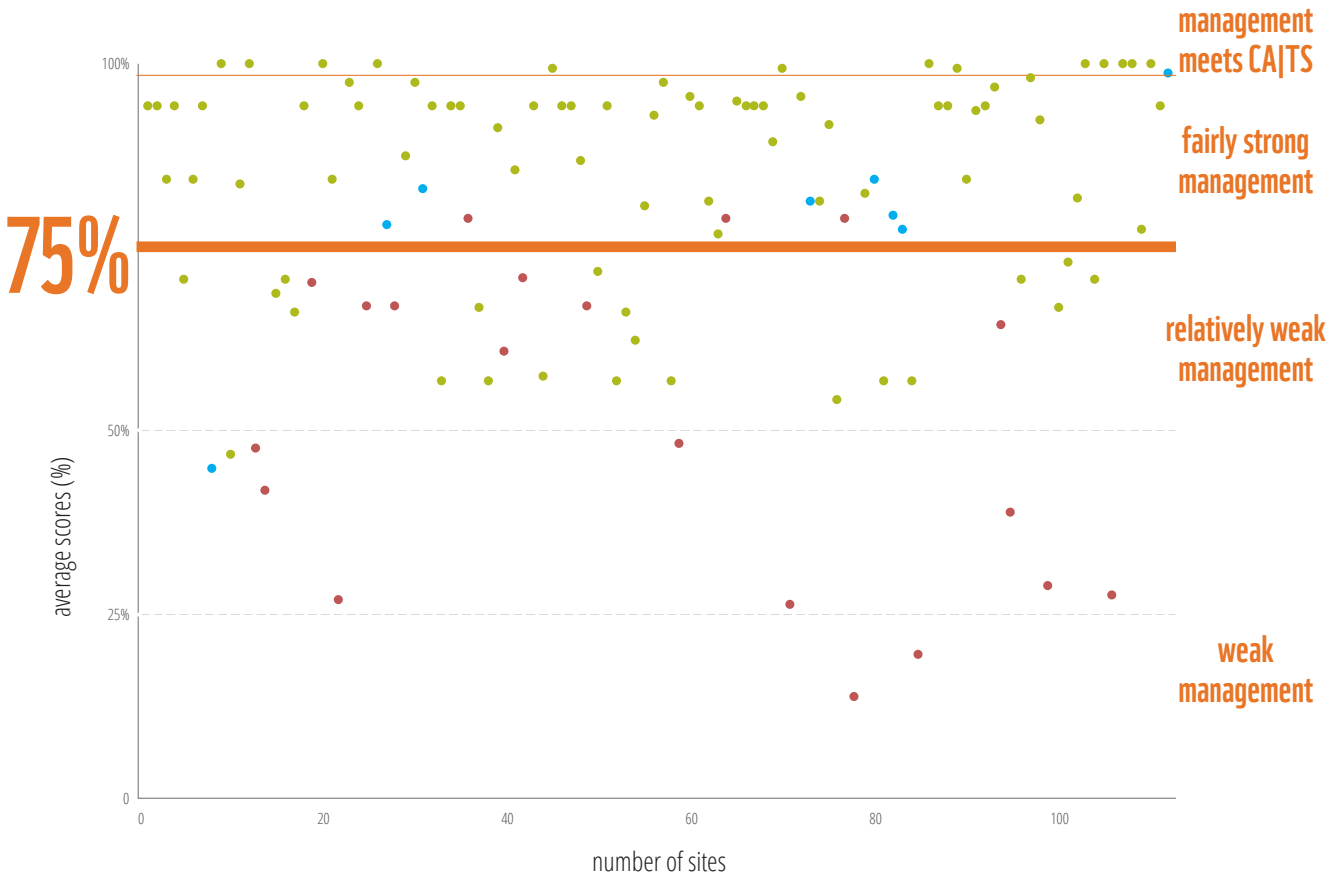
Over a third of sites have major management deficiencies.

All the sites in Southeast Asia have major gaps in management that prohibit effective protection of the sites.

CA|TS was developed to articulate best practice management standards for tiger conservation areas.

The results of the survey from all 112 sites are given in **figure 1**. To date, three sites have been awarded CA|TS Approved status. A further eleven sites report meeting, or almost meeting, all the criteria in this survey, indicating that they are probably close to fulfilling CA|TS Approved status requirements and, upon undertaking the full accreditation process, are likely to become CA|TS Approved.

Sites scoring over 75% (but below 100%) report fairly strong management although there are still some improvements needed. 59 sites (53% of the total) fell within this category. This suggests that targeted management investments in these areas could fairly quickly help them to reach CA|TS Approved status. 39 sites (or 35% of sites which responded to the survey) fall below the 75% line indicating relatively weak management or sites still developing management systems. These need to undertake a range of actions



to reach good management and in these sites tiger populations may be particularly at threat of rapid decline or extirpation. If the trends indicated here hold true across the whole tiger range, this suggests that 35% of sites are at risk of serious declines in or even loss of their tigers. Indeed, it might be inferred that the better managed and resourced sites are more likely to respond to the survey, making the "at risk" sites an even higher percentage of the total.

The overall results demonstrate a marked regional split. 85% of the sites in Southeast Asia (20 sites from Indonesia, Thailand, Malaysia, Cambodia and Myanmar) fall below the 75% line, and the remaining Southeast Asian sites are only just above it. Averages for the remaining countries were similar to each other and only two sites fell below the 50% mark. Accordingly, in some parts of this report the analysis has been broken down into two groupings of tiger conservation areas: 1. South Asia, Russia and China and 2. Southeast Asia.

Figure 1
Average score for all participating sites in the survey grouped regionally

- **East Asia** – China and Russia
- **South Asia** – Bangladesh, Bhutan, India and Nepal
- **Southeast Asia** – Cambodia, Indonesia, Malaysia, Myanmar and Thailand

WHICH AREAS OF MANAGEMENT ARE STRONGEST AND WEAKEST?

Community issues related to management are weak across the whole tiger range.

Site management in Southeast Asia in particular needs major improvements in areas related to community relations, human wildlife conflict, adaptive management, and tiger monitoring and management.

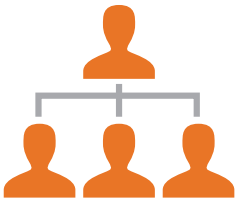


Figure 2 shows the percentage of sites that have either implemented or initiated actions which are related to standards making up each of the CA|TS pillars. It gives a succinct overview of management effectiveness and progress towards meeting the CA|TS standards. Across the tiger range, enforcement against poaching and community issues are the weakest elements of management. Tourism management is also often lacking, although tourism is not suitable or actively pursued in all tiger conservation areas (the tourism pillar in CA|TS is thus optional). Overall management is remarkably weaker across Southeast Asia.

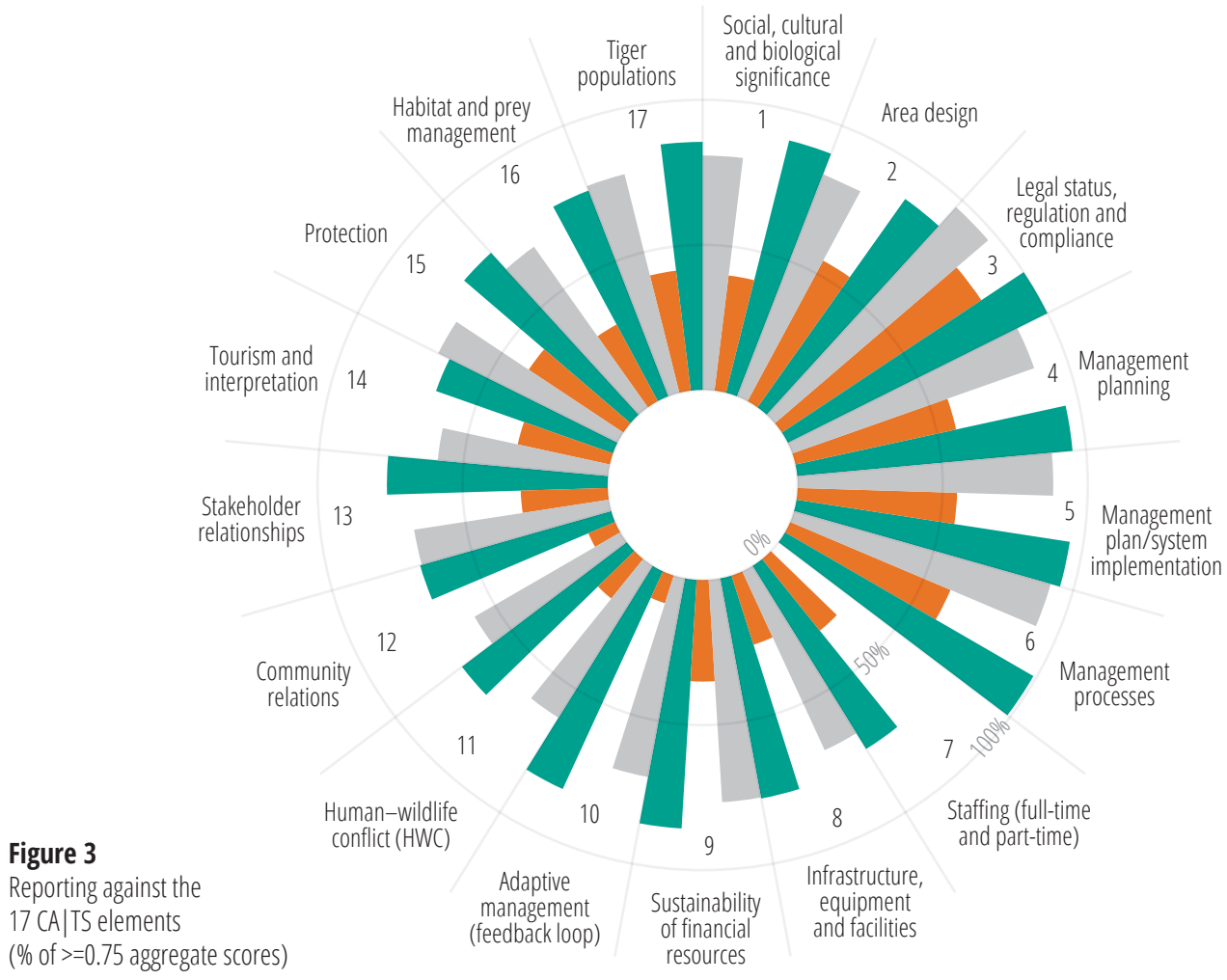
Further insight is provided by separating out the results into the 17 elements of the CA|TS standards. **Figure 3** shows the percentage of sites that have either implemented or initiated the actions which relate to the standards that make up each element.

Overall, the sites surveyed are strongest on management planning and processes, middling on prey management and protection and weakest on the social issues related to management.

Despite averages for many sites being quite high, closer examination shows that many will need to address current shortcomings before attaining CA|TS Approved status. Results indicate very severe weakness in Southeast Asia related to community relations, human wildlife conflict, adaptive management and habitat and prey management.

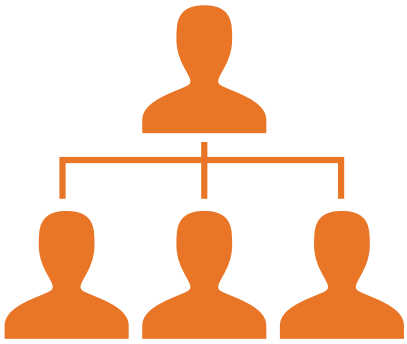
Figure 2
Reporting against the seven CA|TS pillars (% of >=0.75 aggregate scores)

Figure 3
Reporting against the 17 CA|TS elements (% of >=0.75 aggregate scores)



ARE THERE ADEQUATELY TRAINED AND RESOURCED STAFF?

Three-quarters of sites are not sufficiently staffed to fully implement planned management activities.



Three-quarters of sites lack adequate management infrastructure to support staff activities.

Effective tiger management is impossible unless there are enough skilled personnel to do all the jobs required: stopping poaching, managing community relations, keeping visitors safe and ensuring safe havens for tigers and other wildlife.

Many protected areas are woefully understaffed; the average apartment block in an Asian city will probably have more guards than many national parks have rangers. However good a manager is, if they don't have good people to work with, they will fail to deliver.

Unfortunately this is often the case today. Although most sites have annual operational plans (see page 16) and therefore a clear idea of the work that needs doing, there are not enough staff employed and trained to implement them in three-quarters of the sites assessed; although many sites are taking actions to improve this (**figure 4**). Furthermore, only 25% of sites have suitable management infrastructure in place to ensure effective management; a response which aligns with the perceptions of individual rangers surveyed in the region (**figure 5**) (WWF Tigers Alive Initiative & the Ranger Federation of Asia, 2016).

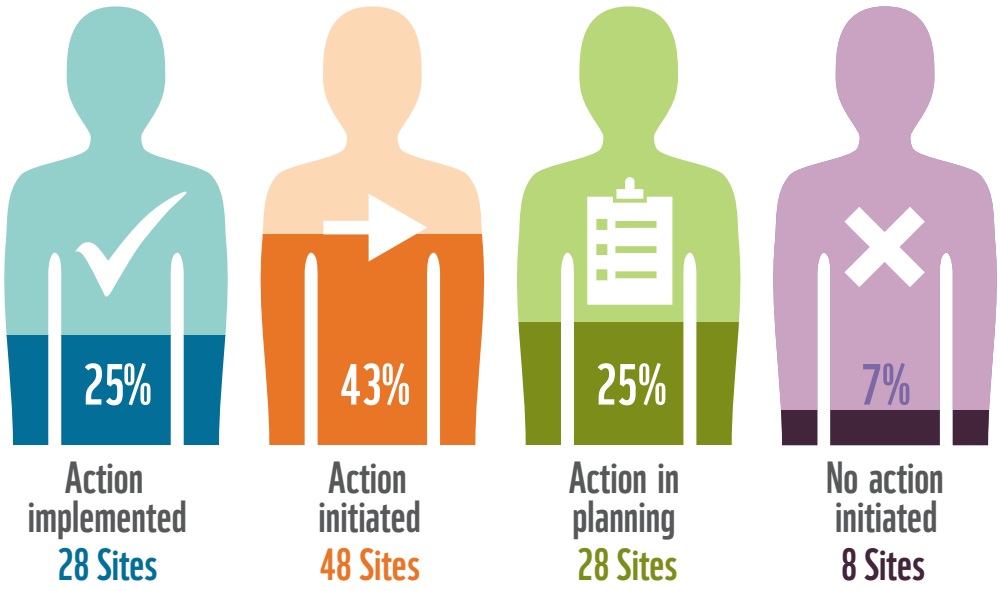


Figure 4
Sufficient staff available to implement management system

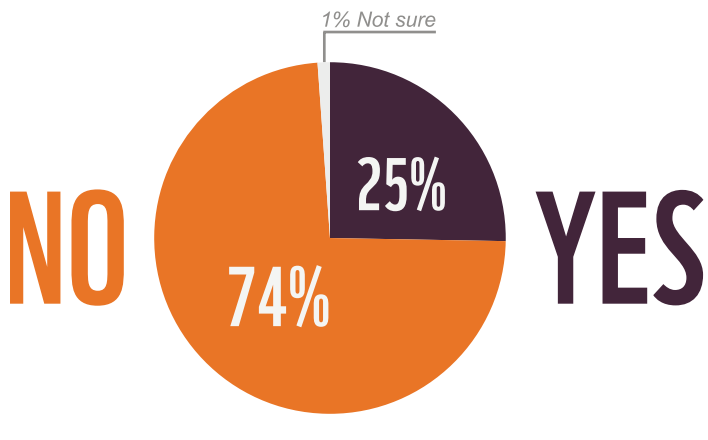


Figure 5
Response to the ranger survey question: Do you feel you are provided with proper equipment and amenities to ensure safety? (WWF Tigers Alive Initiative & the Ranger Federation of Asia, 2016)

HOW ROBUST ARE ENFORCEMENT AND PROTECTION?

Only **16** of **112** sites have intelligence driven anti-poaching processes in place, although 66 sites are developing or planning to develop such systems.

85% of tiger conservation areas surveyed do not have sufficient staff capacity to patrol sites effectively.

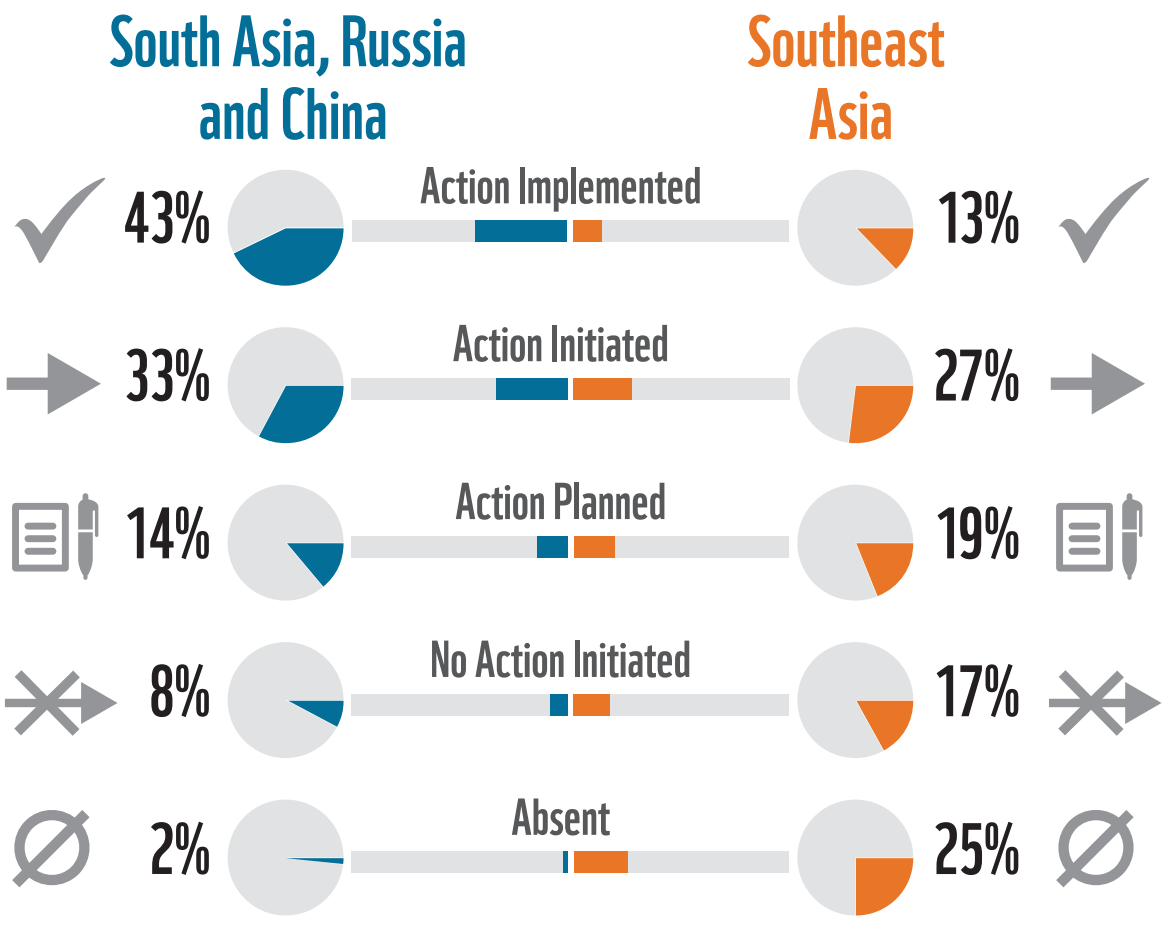


Figure 6
Consolidated results for protection and enforcement

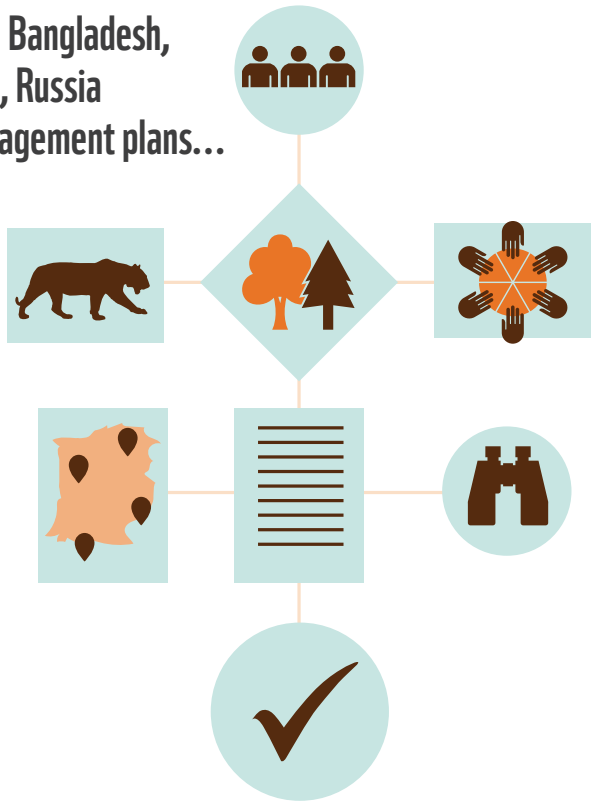
The survey included six questions related to protection and enforcement (*protection strategy developed and implemented; threats known and monitored; tiger protection infrastructure in place; law enforcement monitoring in place; protection efforts intelligence driven; sufficient staff employed and trained to patrol effectively*). The aggregated results (**figure 6**) show weakness in protection and enforcement in general, and specifically in Southeast Asia.

Most successful anti-poaching operations are built around sophisticated intelligence operations, which in turn imply good community relations; if local people support conservation activities they will let managers know about poaching activity. **Figure 7** indicated that very few sites (14%) consider their protection includes intelligence driven approaches, the lowest score for any of the 40 questions in the survey (see page 23), however over half (52%) report that they are in the process of initiating such systems, reflecting the focus of considerable capacity development on this issue in recent years.

Figure 7
Number of sites with intelligence operations in place

HOW GOOD ARE MANAGEMENT PLANNING AND MANAGEMENT EFFECTIVENESS?

All sites surveyed in Bangladesh, Bhutan, Nepal, India, Russia and China have management plans…



However several sites in Southeast Asia do not

70% of sites have not fully engaged stakeholders in management planning.

85% of sites report that they have systems for assessing management effectiveness.

Tiger conservation areas need clear, long-term strategies if they are to succeed in conserving tigers. A management plan is a fundamental building block of such an approach.

CA|TS provides best practice guidance on such planning. Although most sites in the survey reported having management plans (94%) and annual operational plans (90%) implemented or initiated, none of the sites in Southeast Asia reported having management plans fully implemented; with two sites reporting plans in development and five with no plans at all. Developing and implementing management plans in these areas is therefore an urgent priority.

Alarmingly, 70% of sites have not fully engaged stakeholders in management planning, which in practice means that existing plans have probably been put together only by staff, or by external consultants, with little engagement of the people likely affecting, or affected by, a tiger conservation area. Participatory approaches require particular skills; building these with managers and staff is a clear step towards strengthening management.

Encouragingly, most sites appear to be considering a landscape approach, which goes further than the tiger conservation area's borders, helping to expand tiger conservation landscapes beyond the physical border of protected areas. As well as core tiger sites in these protected areas being recognised, acknowledged, managed and maintained in the majority of sites (79%), three-quarters of sites have identified areas critical to tigers outside the protected area, with a further 17% of sites planning to identify these areas.

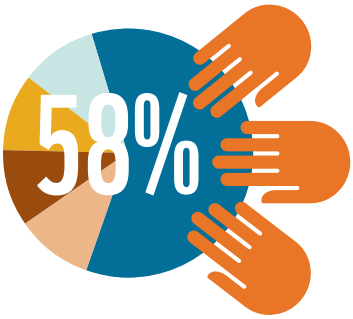
Most sites (89%) state the management plan/system forms the basis for implementation of conservation activities, suggesting a welcome level of professionalisation. Furthermore, 85% report that they have systems for assessing protected area management effectiveness (PAME) in place; for example the Indian Management Effectiveness Evaluation of Tiger Reserves (MEETR) system, specially designed for tiger conservation areas.

However, assessment is only constructive if it is used to improve management. Currently, PAME results are not always being fed back into management, as 30% of sites state that management is not adaptive and similarly 27% report that they are not using monitoring results to inform management. This is far from uncommon around the world, particularly when PAME assessments are part of donor requirements rather than seen as an integral part of day-to-day management. But it represents an important lost opportunity to strengthen management approaches.

Tourism

Planning effective tourism is a requirement for many sites with tiger populations. Responsible tourism can also help maintain tiger populations by providing income to local communities and to tiger conservation sites, and by building domestic and international interest in tiger conservation. India has demonstrated the importance of domestic tourism in maintaining the momentum behind conservation. Analysis shows that 87 sites have or are planning tourism and interpretation facilities. Results show a high involvement of communities in tourism operations, with 67 sites already involving communities and an additional 20 with plans in place to do so.

HOW ARE STAKEHOLDER RELATIONS MANAGED?



58% of the sites surveyed have already put in place benefit-sharing/alternative livelihood mechanisms.

Many sites (and all the sites in Southeast Asia) still do not have systems for mitigating human-wildlife conflict fully in place.

Social engagement and community relations were amongst the weakest elements in management according to the survey results. It is notable that many managers feel insufficiently trained in these areas, which are often complex and require specialised knowledge of and sensitivity to diverse interests.

Figure 8
Consolidated results for actions implemented or initiated related to the questions addressing management of social issues (*social, cultural and spiritual value identification; stakeholder involvement in management planning; involvement in site management; conflict management; benefit-sharing/alternative livelihood mechanisms*)

Figure 8 shows that some efforts in this area are occurring. However, these averages mask serious shortcomings. For example, although 68% of sites involve communities in applicable areas of site management, only 29% have involved stakeholders in management planning. However a further 67% of sites say that they are starting to, or are planning to, involve stakeholders, in line with an observed pattern of greater emphasis on stakeholder involvement in protected area management in recent years.

South Asia, Russia and China

Southeast Asia

Over half of the sites (**see figure 9**) have put in place benefit-sharing/alternative livelihood mechanisms, although no sites in Southeast Asia have mechanisms of this type fully implemented. Once communities can see that they gain concrete benefits in areas such as tourism revenue or Payment for Ecosystem Service schemes, their attitudes to tiger conservation are often transformed. Much work is being done to improve this situation as reflected in the number of sites with relevant activities planned or in progress.

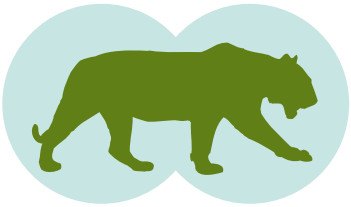
In many human-dominated landscapes, tigers often come into conflict with communities, taking a toll on livestock and sometimes human lives. Tiger prey species, such as wild boar, can also be a major source of agricultural damage. Managing the trade-offs between tiger conservation and resident or local communities requires careful negotiation, and usually some kind of compensation scheme. Failure to take this seriously leads to increased community tensions, lack of support for management and at times results in retaliatory killings of tigers or their prey species.

There is a stark difference between the two regions in terms of implementing effective management strategies (e.g. policy, prevention, mitigation, responses and understanding the conflict) for human–wildlife conflict (HWC). While 57% of sites in South Asia, Russia and China have implemented such systems; only two sites in Southeast Asia have systems initiated and another eight have HWC systems planned.

Figure 9
Number of sites where benefit-sharing schemes are in place

HOW PROACTIVE ARE TIGER, HABITAT AND PREY MANAGEMENT?

Tiger monitoring is taking place in 87% of sites.



Over 61% of the sites in Southeast Asia report that they do not have active tiger and prey habitat management systems in place.

Four questions (**see figure 11**) were grouped around the theme of tiger monitoring and prey. Taking active steps to maintain tigers and their prey is at the heart of successful tiger conservation and of the CA|TS accreditation scheme; without such proactive approaches conservation efforts invite failure. It is therefore heartening that 77% of sites in South Asia, Russia and China reported fully implementing most or all of the actions outlined in the questions; conversely it is of deep concern that only 16% of sites in Southeast Asia have done so.

Looking at these questions in more detail (**figure 10**) shows that tiger monitoring is now established (fully implemented or being implemented) across most of the sites important for tigers (96 out of the 112 surveyed). Slightly less (85 sites) are also monitoring prey and managing habitat for tigers and their prey (83 sites). Monitoring tiger numbers is one of the most crucial activities for assessing progress in tiger conservation. So ensuring progress in the seven sites across the whole range that have no monitoring in place, and the nine (eight of which are in Southeast Asia) which are still in the planning phase, is vital.

Figure 10
Number of sites with tiger monitoring systems in place

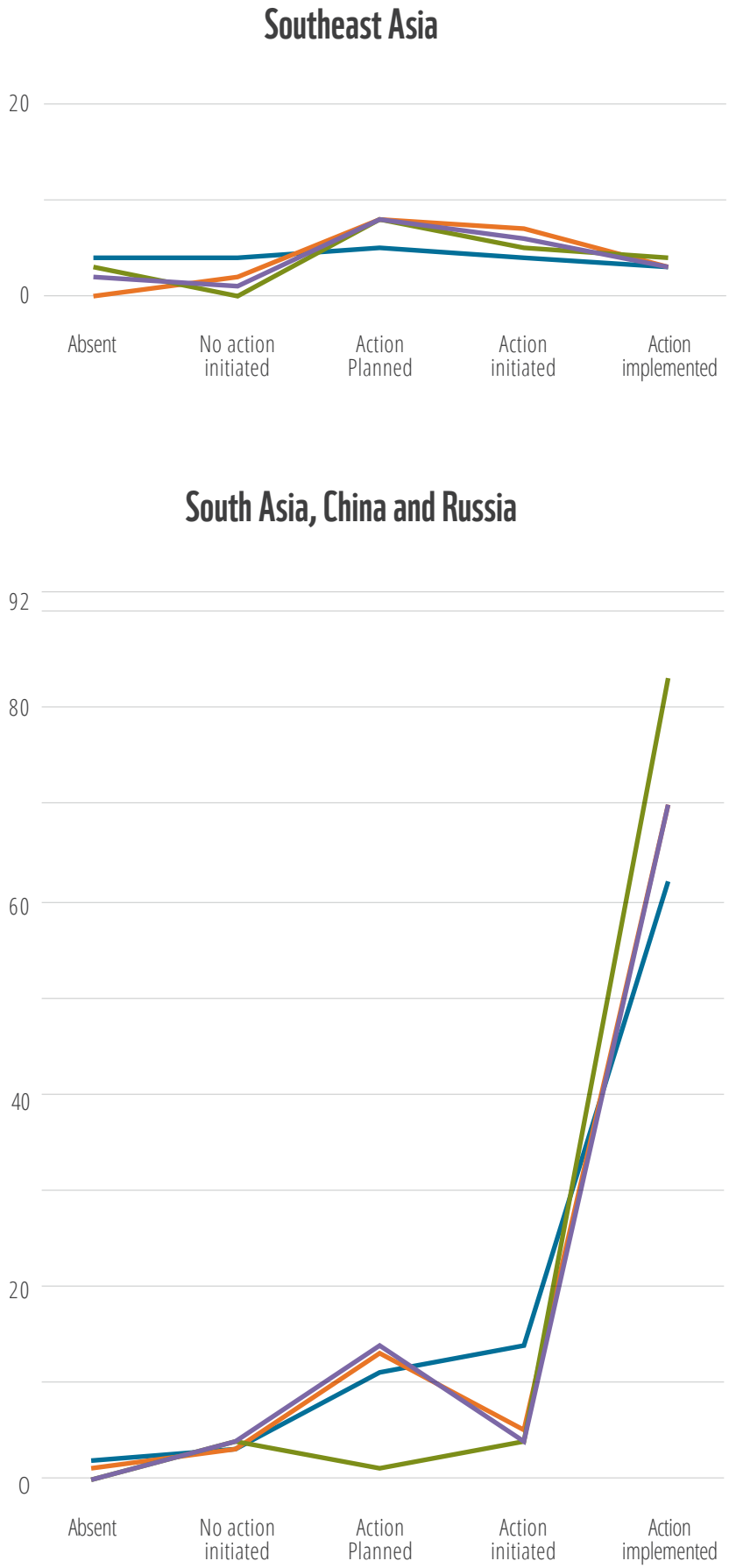


Figure 11
Specific tiger conservation actions in Southeast Asia (top) and in South Asia, China and Russia (bottom)

Key to questions

- Tiger and prey habitat management systems are in place
- Tiger and prey species distribution should be mapped and monitored
- Tiger monitoring systems are in place
- Prey populations are adequate (now and/or in the future) to support viable or significant tiger populations

Note that these questions are not hierarchical

HOW SECURE ARE TIGER CONSERVATION AREAS?

Across all sites, the most neglected actions are related to social aspects of conservation, staffing and protection.

Southeast Asia has twice as much work to do to secure safe havens for tigers despite having far less financial security for their sites, according to respondents.

Figure 12 includes summaries of all 40 questions in the survey and identifies how many sites have fully implemented the actions outlined. The results show that although many sites have the basics of good conservation management in place, the lowest scoring questions (i.e. elements of management that the least number of tiger conservation areas have implemented) are related to social aspects of conservation management, staffing capacity and protection.

Responses from the survey show a sharp contrast between tiger conservation areas in South Asia, China and Russia and those of Southeast Asia. While weaknesses exist throughout, areas in Southeast Asia consistently demonstrate weaker management, particularly in critical areas such as community relations, tiger-specific conservation actions, and enforcement of anti-poaching efforts. These weaknesses are reflected in a continuing decline in tiger numbers in many of these places (Goodrich et al., 2015). Additionally, lack of adequate tourism facilities in many Southeast Asian sites is impeding development of domestic and international interest in the region's tigers, which is in turn probably hampering the political momentum for tiger conservation.

Managers are fully aware of these weaknesses; they reported them to the survey. Many actions are planned in response. Across the 20 sites surveyed in Southeast Asia, 196 actions were indicated as being in the planning stage (i.e. an average of 9.8 actions per site) as opposed to an average of just four actions per site in the rest of the tiger range countries. However it is not a given that such plans will be realised, as in most cases existing resources will not be sufficient. When sites report that an action is "under development", future progress is often funding dependent. While 86% of sites in South Asia, Russia and China stated that finances are, or are on the way to being, sustainable, with additional revenue streams maximised and linked to management priorities, only 35% of sites in Southeast Asia are in a similar position.

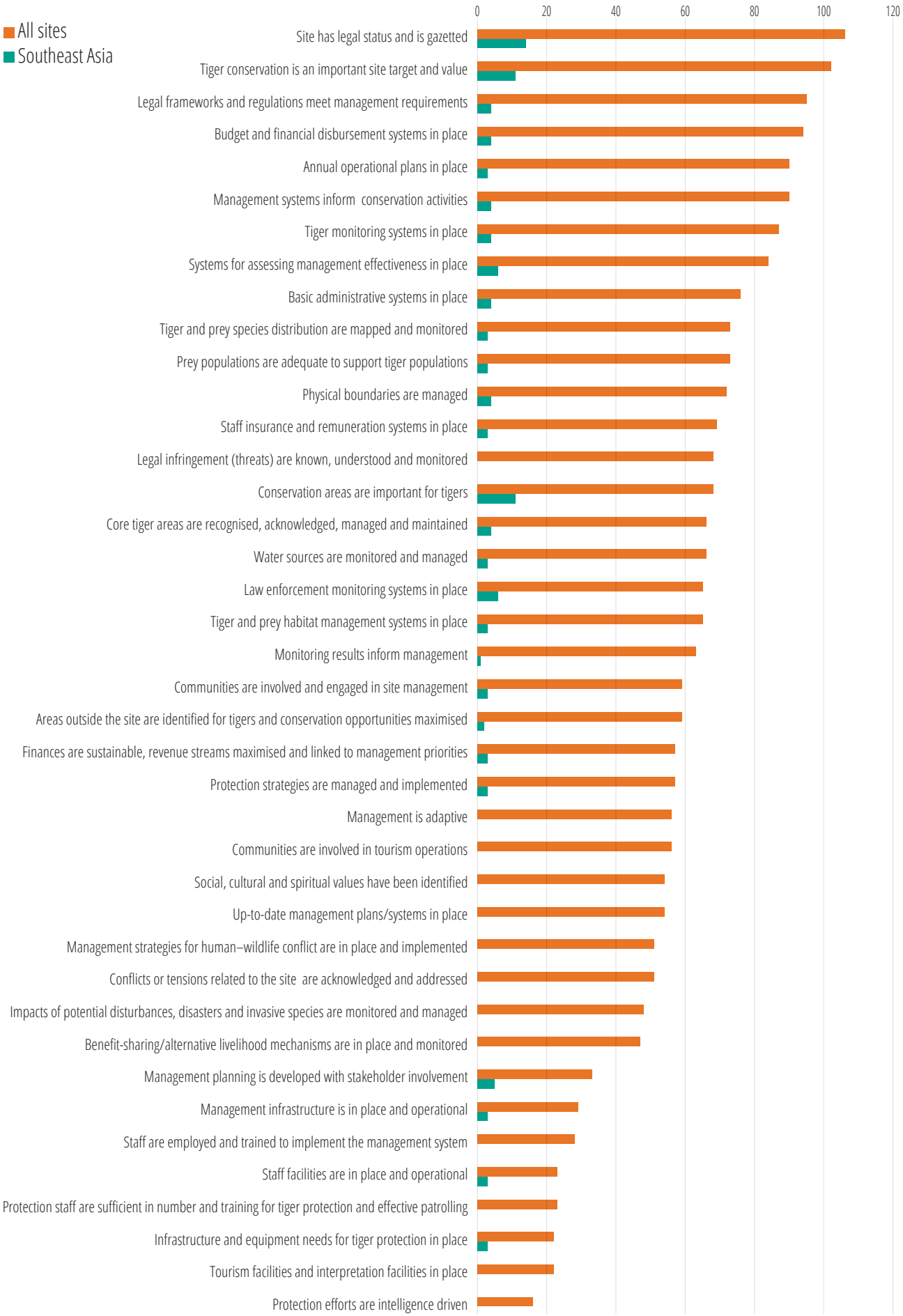


Figure 12
Number of sites with maximum scores for each question

WHAT CAN WE DO TO IMPROVE EFFECTIVE MANAGEMENT?

Most sites surveyed need to undertake further management activities if they are to reach the CA|TS standards and secure safe havens for tigers.

It is widely agreed that the most fundamental and important strategy for tiger recovery is the protection and management of the places, habitats and prey species that can support tigers. These tiger conservation areas are the backbone and building blocks for landscape scale tiger conservation and through their conservation can provide a wide range of other conservation, and social benefits (WWF, 2017). Poor and ineffective site management will lead to the further decline of the species. Tiger conservation areas are most often designated protected areas but can include any areas managed and conserved with tiger conservation as a priority. As the survey indicates few of these sites are truly effective refuges for tigers and this has been a contributing factor to the catastrophic decline in tiger numbers in recent decades.

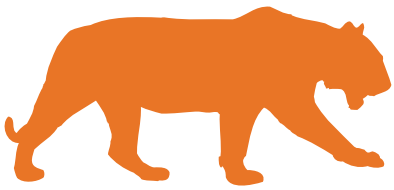
Investment in the effective management of tiger conservation areas has been an important strategy for tiger conservation for many decades. For example, Project Tiger, the first concerted effort to recover tigers in India, was founded on the need to provide safe havens through a network of tiger reserves. Despite these successes, throughout much of the tiger's distribution, sites are far from effective and investment has been seriously lacking. Tigers have consequently been lost from vast areas of their potential range.

Conservation Assured | Tiger Standards (CA|TS), was developed in response to these needs through creating a partnership between governments and conservation organisations to assess gaps in effective management and encourage best standards of management.

If managers' opinions of the sites taking part in the survey are accurate, currently only a few would likely pass the CA|TS accreditation process if they were to register for CA|TS today **(see figure 1, page 9)**. The remainder need more comprehensive capacity building. It is thus vital that conservation efforts focus on the actions required to ensure effective management as soon as possible.

Bringing these sites up to the effective management described by the CA|TS standards requires secure government investment as the only long-term solution. It is encouraging to find that many governments in the region are already demonstrating commitment to the future of wild tigers. However, conversely it is worrying that lack of investment in some sites, particularly in Southeast Asia, is hampering conservation, so that even within protected areas there have been a disproportionate level of tiger losses in recent decades. Addressing this shortfall remains one of the most urgent tasks needed to ensure the future of wild tiger populations.

RECOMMENDATIONS



Government investment in tiger conservation areas is the only long-term solution to their management needs. While some countries are investing in their sites, most in Southeast Asia are lacking even fairly basic levels of government funding – a situation which needs to change. Furthermore, as tiger conservation areas are also important for many other aspects of natural, economic and social capital, such investments would have far-reaching benefits.

Good management in tiger conservation areas is the single most important action to halt and reverse decline of wild tigers. CA|TS should be implemented across the tiger range to strengthen effective management of tiger conservation areas.

References

Conservation Assured. 2017. *CA|TS Manual Version 1.4.* March 2017, Conservation Assured, Singapore. www.conservationassured.org/resources

Goodrich, J., Lynam, A., Miquelle, D., Wibisono, H., Kawanishi, K., Pattanavibool, A., Htun, S., Tempa, T., Karki, J., Jhala, Y. & Karanth, U. 2015. Panthera tigris. *The IUCN Red List of Threatened Species* 2015: e.T15955A50659951. dx.doi.org/10.2305/IUCN.UK.2015-2.RLTS.T15955A50659951.en. Downloaded on 9 January 2018.

GTI. 2010. The St. Petersburg Declaration on Tiger Conservation. cmsdata.iucn.org/downloads/st_petersburg_declaration_english.pdf. Downloaded on 9 January 2018.

WWF Tigers Alive Initiative and the Ranger Federation of Asia. 2016. *Rangers Perceptions: Asia*. WWF

WWF. 2016. http://tigers.panda.org/news/wild-tigers-numbers-increase-to-3890/. Downloaded on 9 January 2018.

WWF. 2017. *Beyond the Stripes: save tigers, save so much more*. WWF International, Gland, Switzerland.

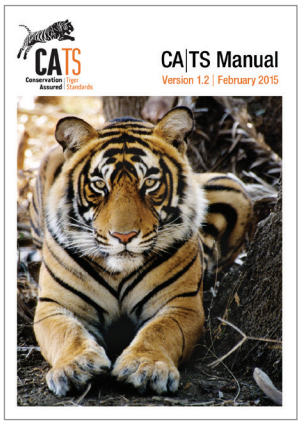
APPENDIX:

HOW WAS THE SURVEY CONDUCTED?

The survey has been conducted with the help of several agencies, individuals, experts and CA|TS Support Group members (e.g. site managers through their respective departments: Ministry of Environment and Forest, Bangladesh; Department of Forest and Park Services, Bhutan; Department of Nature Conservation and Protection, Cambodia; Ministry of Environmental Protection, China; Ministry of Environment, Forest and Climate Change, India; Ministry of Environment and Forestry, Indonesia; Ministry of Natural Resources and Environment, Malaysia; Nature and Wildlife Conservation Department, Myanmar; Department of National Parks and Wildlife Conservation, Nepal; National Parks and Nature Reserves of Russian Far East; Department of National Parks, Wildlife and Plant Conservation, Thailand; WWF country focal points for CA|TS). The Global Tiger Forum, UNDP, IUCN-KfW and WWF were the main collaborators.

The survey encompassed critical tiger conservation areas in all extant tiger range countries, representing all tiger landscapes. 180 sites with the largest population of tigers, plus one site in Cambodia which is critical for recovery of wild tigers, were approached by the Global Tiger Forum, assisted where necessary by members of the CA|TS Support Group. Forty questions were posed, informed by the CA|TS criteria. The survey aimed to provide a rapid overview of how well sites measure against CA|TS, along with their general level of management effectiveness in terms of tiger conservation. All the answers were assessed; a selection of the most relevant information is presented in this summary report. For each of the forty questions, five options were given for the responses:
1 = Recognised and action implemented
0.75 = Recognised and action initiated
0.5 = Recognised and action being planned
0.25 = Recognised but no action initiated
0 = Not recognised

Responses were received from 62% of sites, creating a database for 112 sites: **Bangladesh**: 1 site covering 3,179.50 km^2; **Bhutan**: 6 sites covering 14,945.80 km^2; **Cambodia**: 1 site covering 363.11 km^2; **China**: 3 sites covering 4,425.54 km^2; **India**: 72 sites covering 93,610.79 km^2; **Indonesia**: 9 sites covering 43,434.32 km^2; **Malaysia**: 3 sites covering 7,384.04 km^2; **Myanmar**: 4 sites covering 5,910.46 km^2; **Nepal**: 5 sites covering 6,989.71 km^2; **Russia**: 5 sites covering 18,790.37 km^2; **Thailand**: 3 sites covering 8,022.03 km^2



The full CA|TS Manual and the CA|TS survey can be found at: www.conservationassured.org/resources

"Healthy tiger populations are a critical indicator for sustainable development of the range countries; their survival means integrity of nature which is the foundation of life on Earth – our life. The loss of the tiger is like losing a part of the human heart and wild Asia. The CA|TS survey results chart a path for parks, people and tigers to all thrive together."

Midori Paxton, Head: Ecosystems and Biodiversity, UNDP–Global Environmental Finance Unit, Bureau for Policy and Programme Support

"CA|TS has proved to be a very useful tool to understand the gaps where Park Managers need to focus attention to ensure conservation of tigers. This has also helped decision makers and policy planners to effectively and efficiently utilise the scarce resources for conservation. The GTF is committed to take it forward."

S.P.Yadav, Assistant Secretary General, Global Tiger Forum

"CA|TS provides a standardised matrix against which protected areas can assess what they need to prioritise to have maximum impacts for tiger population recovery. It is a platform on which different sectors can communicate shared aims."

Sugoto Roy, Integrated Tiger Habitat Conservation Programme, IUCN

"Improving the management effectiveness of tiger conservation areas is a vital step in securing tigers in the wild. The results of this survey will help the CA|TS partnership focus on the management areas which need most capacity development to help ensure slowly recovering tiger populations across the whole range."

Sue Stolton, Partner, Equilibrium Research

Wild tigers are at a crossroads. Following a disastrous decline, a coordinated conservation effort appears to have stabilised numbers, and even led to a slight increase in populations. But responses vary between sites and between countries; in some places tigers are still declining and poaching is an ever-present threat.

We present a summary of the largest survey of tiger management undertaken to date. The full survey tells conservation partners where tiger conservation is winning and where it is losing, enabling future efforts and investments to be targeted at the most important sites.

Based on the criteria of the Conservation Assured | Tiger Standards (CA|TS), the survey results will help CA|TS ensure we secure tigers in the wild.

SAFE HAVENS FOR TIGERS — HELPING TO CONSERVE THIS ICONIC ANIMAL IN THE WILD

www.conservationassured.org