WWF

REPORT

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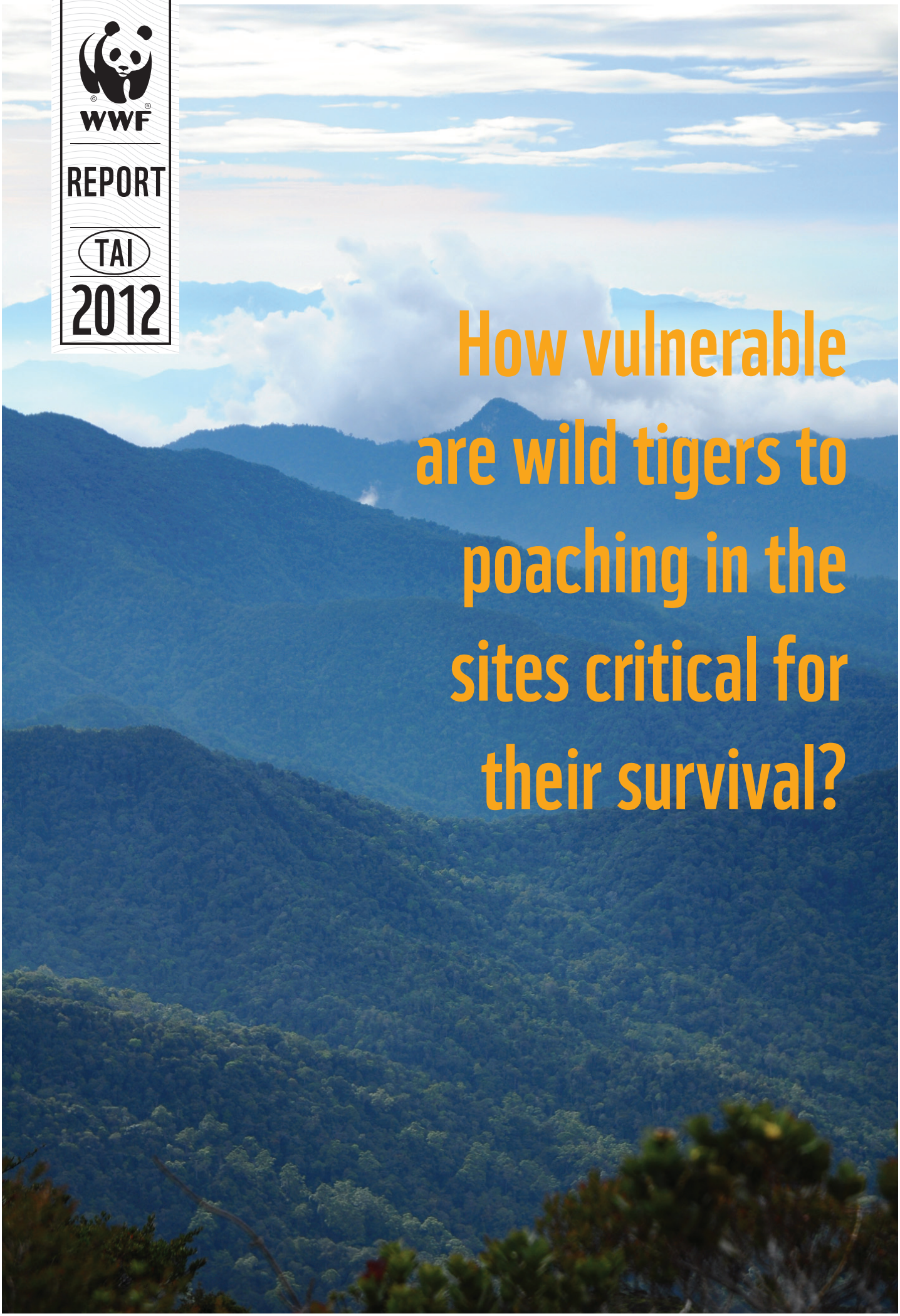

How vulnerable are wild tigers to poaching in the sites critical for their survival?

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.

The authors are extremely grateful to all those who submitted data and reviewed previous drafts of this report.

Prepared by WWF Tigers Alive Initiative

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Front cover photo: Banjaran-Titiwangsa Landscape
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INTRODUCTION

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As part of the global effort to double the number of the world's remaining wild tigers, WWF has committed to support their recovery in 12 focal landscapes. In order to ensure the most effective use of its limited resources, WWF undertakes careful evaluations and monitoring of the landscapes and the individual sites that make up that landscape, particularly Protected Areas (PA). WWF carried out a preliminary assessment in April 2012 to gain insight into the relative security of sites crucial for increasing tiger population numbers in the places where WWF focuses support.

Poaching is the most immediate threat to wild tiger populations worldwide (Champron *et al.*, 2008; Check, 2006; Kenny *et al.*, 1995) and therefore the main barrier to achieving the collective conservation goal of doubling the number of wild tigers by 2022 (Tx2). Stopping poaching is the single most direct action that can be taken to halt the decline in wild tigers and allow the recovery to begin. Substantial investments are being made by governments, donors and NGO partners to achieve the Tx2 goal. However, widespread poaching consistently undermines these efforts.

In the fight against poaching, PAs are the first line of defence. Ideally PAs should be secure refuges for tigers that encourage healthy gene flow and steady population growth. If these sites are not effectively functioning as safe havens for tigers, there is little hope of reaching the Tx2 goal.

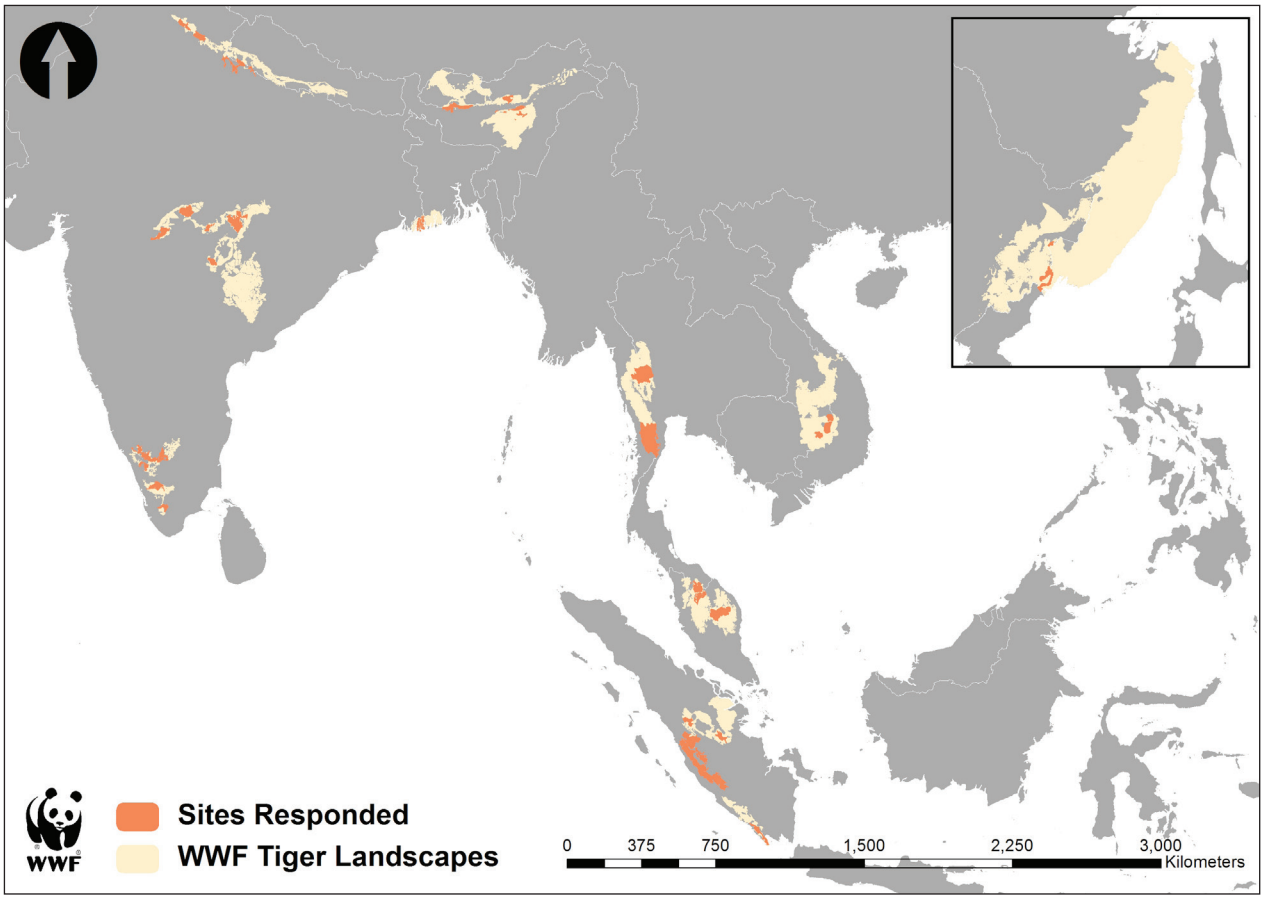
Ensuring safe havens for tigers by stopping poaching is achievable. There are many factors that contribute to effective protection. This assessment looks at three of those factors. WWF suggests three direct actions that can be taken by tiger range governments to immediately improve the protection of sites against poaching:

- Identify and delineate the area for protection and clearly declare a commitment towards zero poaching within that site;
- Allocate adequate funds to increase enforcement staff strength in sites that are currently unable to achieve a zero poaching goal; and
- Facilitate increasing enforcement capacity by setting up trainings for staff to learn and use monitoring systems such as MSTrIPES or SMART which improve the effectiveness of protection efforts.

These three actions can be implemented immediately. The governments also need to ensure that police and judiciary are invested in arresting and prosecuting poachers to the fullest extent of the law, and local communities and other local stakeholders are actively engaging in and benefiting from tiger conservation.

METHODS

The preliminary assessment focused on a subset of locations (a total of 156) within the 12 landscapes where WWF currently works on tiger conservation. These sites are presented in the map below.



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These sites have been identified for WWF's internal investment planning as the sites with the greatest potential for increasing the global tiger population in the 12 landscapes. In the nomenclature used by WWF, these sites are known as Core Tiger Areas, Potential Core Tiger Areas and Tiger Breeding Units. They represent the main sites that indicate the greatest potential for supporting robust breeding populations.

As the scoping assessment was designed to only provide an indication of the present level of protection and vulnerability, the assessment was conducted by examining only three relatively easily measurable factors that may indicate the level of protection and vulnerability. These three factors were:

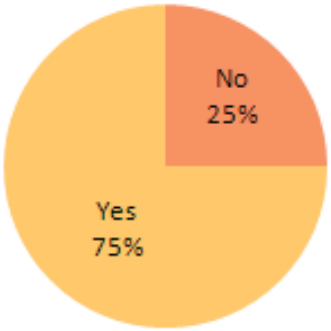
1. **Legal protection**: Obtaining legal protected status is fundamental for thoroughly securing an area against poachers. Protected Areas can be clearly delineated, signed and have obvious consequences for illegal trespassing. If the site and the wildlife within it have protected status, there is no question about the illegality of trespassing and/or poaching.
2. **Sufficient enforcement staff capacity to provide protection against poaching**: Rampant poaching continues because there are few deterrents and high pay-offs for tiger products (Verheij *et al.* 2010). In order to effectively curb poaching, enforcement staff must be capable of thoroughly monitoring sites and enforcing the law. Previous research has shown that increased enforcement presence has led to decreases in poacher presence (Messer, 2000).
3. **Use of comprehensive law enforcement monitoring software systems (MSTrIPES or MIST)**: Tracking enforcement data in a digital format is a critical part of deploying an effective protection plan. These data can inform managers on future enforcement movements within sites such as targeting areas where there may be a high density of poaching instances.

Existing data were first sourced from published sources such as the *Management Effectiveness Evaluation of Tiger Reserves in India* (Mathur *et al.* 2011), *Management Effectiveness Assessment of National and State Parks in Malaysia*, and others. To reinforce that data and to fill the gaps where information did not exist, a survey was designed. WWF field staff and, where possible, PA managers undertook the survey in each of the focal landscapes. Responses were submitted from 11 of the 12 landscapes and were analysed to show percentages.

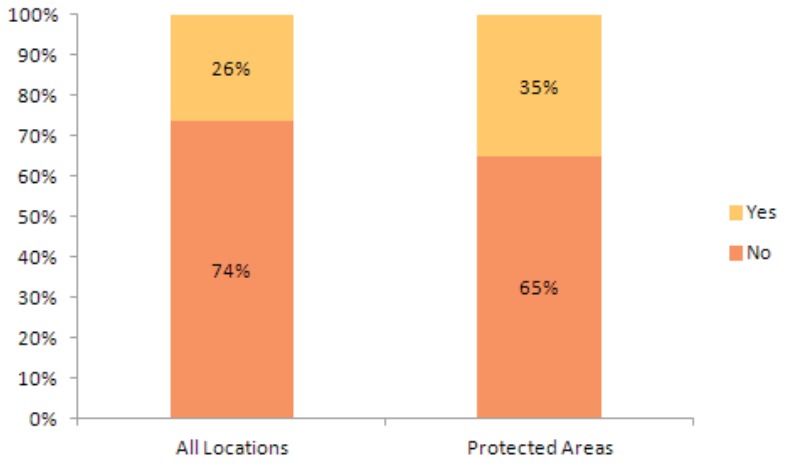
RESULTS

Out of the 156 sites surveyed, data were provided for 84.

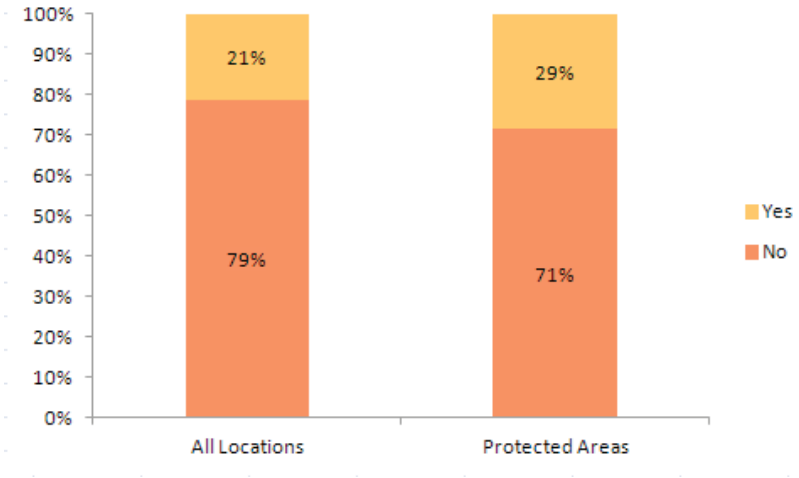
1. **Protection by law**: Of these 84 sites, 75% responded that the site was protected by law. These included National Parks, State Parks, Nature Reserves, Tiger Reserves and Wildlife Sanctuaries. Many of those areas not protected by law were related to production forests or forest corridors.



2. **Sufficient staff capacity to provide protection against poaching**: In response to whether there is currently enough enforcement staff to significantly reduce poaching towards a zero-poaching goal, a majority (74%) of respondents stated there is not enough. When looking at responses to this question for sites that are also protected, the percentage was only slightly decreased (65%).



3. **Use of comprehensive law enforcement monitoring software systems (MSTrIPES or MIST)**: In response to the final factor of whether the sites have a law enforcement monitoring software system in place currently producing reports to aid more effective patrolling and other enforcement techniques, 79% reported they currently do not have them in place. For sites that are also protected by law, this percentage slightly dropped to 71%.



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DISCUSSION

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Despite the acceleration in activities to double the number of tigers by 2022, this iconic cat is still likely to be vulnerable to poaching in many of the places that are most important for its protection. While a substantial proportion of sites important for tiger population growth are protected by law, they are clearly in need of increased investment in enforcement. The majority of responses indicated it is not possible to reach a zero-poaching goal with the current number of enforcement staff. In addition, a majority of locations are not currently using law enforcement monitoring software such as MSTrIPES or MIST. However it should be noted that enforcement staff perform manual analysis of law enforcement monitoring in many of the PAs surveyed.

Investment in the protection of sites varies according to government policies. For example, Royal Belum State Park in Malaysia, critical for the survival of the Malayan tiger currently has 17 enforcement staff to patrol over 1000 square kilometres (km^2). In comparison, Kaziranga National Park in India has approximately 800 enforcement staff to cover about 860 km^2 and has been able to maintain healthy populations of tigers as well as other threatened species such as the one-horned rhino and Asiatic elephant.

The link between targeted increases in enforcement and decreases in poaching is most recently illustrated by Nepal, which celebrated 2011 as a 'zero-poaching' year for one-horned rhinos. Nepal's Department of National Parks and Wildlife Conservation formed a body to deal specifically with wildlife security within

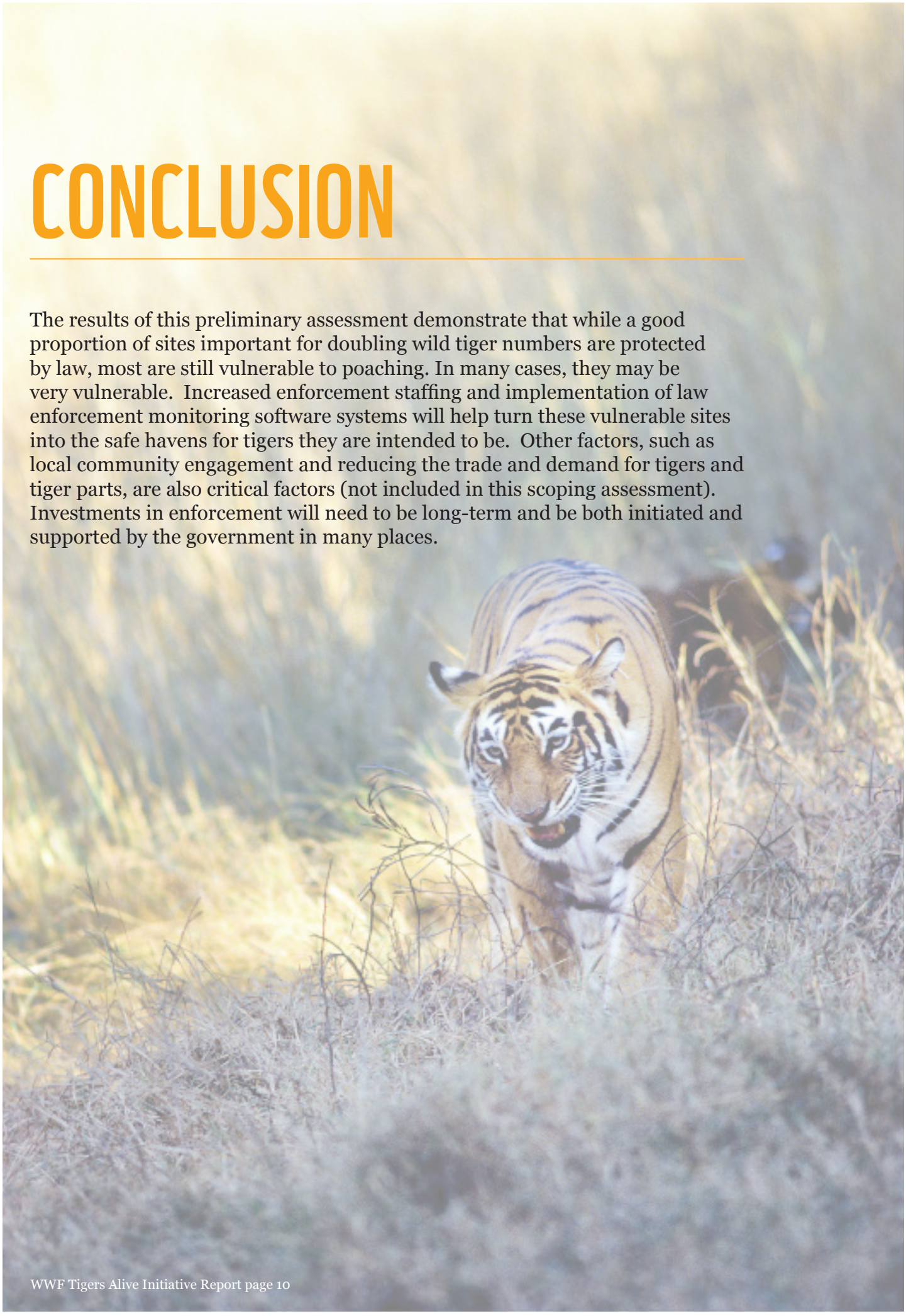
parks and increased the number of range posts across several sites from a total of 7 to 51.

Halting poaching is an achievable goal. In order to make the necessary leaps forward in enforcement to secure sites imperative for tiger population growth, increased government commitment and long-term monetary investment is imperative. Previous research has projected the costs of effectively protecting and monitoring tigers at source sites to be a little over US $900/km^2 per year. Not including India, where government investment is higher, average government commitment in the other tiger range countries is currently around US $365/km^2 per year; leaving a shortfall of $535/km^2 (Walston *et al.*, 2010). It is not feasible for NGO fundraising to cover this shortfall alone.

On 15-17 May 2012, government representatives from the 13 tiger range countries and other partners supporting the implementation of the Global Tiger Recovery Programme to double the number of wild tigers by 2022, will meet in New Delhi to take stock of progress so far. Protecting key sites in the landscape is only one part of the solution towards meeting the goal of doubling the number of tigers in the wild. To meet this goal, tigers need to be able to move and breed across large, well-connected landscapes. The first step is to provide protection for the most critical sites but protection solutions are also needed for the full landscape.

CONCLUSION

The results of this preliminary assessment demonstrate that while a good proportion of sites important for doubling wild tiger numbers are protected by law, most are still vulnerable to poaching. In many cases, they may be very vulnerable. Increased enforcement staffing and implementation of law enforcement monitoring software systems will help turn these vulnerable sites into the safe havens for tigers they are intended to be. Other factors, such as local community engagement and reducing the trade and demand for tigers and tiger parts, are also critical factors (not included in this scoping assessment). Investments in enforcement will need to be long-term and be both initiated and supported by the government in many places.



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WWF was founded in 1961

+ 100

WWF is in over 100 countries, on 5 continents

+ 5M

WWF has over 5 million supporters

+ 5,000

WWF has over 5,000 staff worldwide

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