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# Amur Tiger Conservation in Russia in 2017

*Final report by Phoenix Fund*

January 1 – December 31, 2017

In February 2015, the simultaneous count of Amur tigers and Amur leopards showed that about 523-540 Amur tigers occur today in the Russian Far East (comparing to 430-500 individuals recorded during the previous count in 2005). Same upward tendency was registered with the global population of Amur leopards, which numbers grew from 30 to 60-70 species in a decade.

Despite sustained conservation efforts over recent years and encouraging recent monitoring results, the big cats still remain at risk. Wildlife poaching presents a serious extinction threat to many animal species. Amur tigers and leopards are not exception. Every year the wild populations of Amur tigers and Amur leopards officially lose significant number of individuals due to poaching, collisions with vehicles and other causes of death. According to official statistics and trusted sources, in 2017 the population of Amur tigers has reportedly lost 19 individuals. This figure includes the remains of 10 tigers that were confiscated from different criminals in forms of derivatives (bones, skulls, skins).



In addition to direct poaching threats, hunting of prey species, loss of habitat to agriculture and forest fires, particularly around protected areas (PAs), increasingly threaten the survival of Amur tiger and leopard populations. Therefore, conservation of these species must take a holistic and complex approach. While improved law enforcement in PAs is just one element of this approach, ecological education and outreach is an essential component that can achieve significant results in the long-term.

In this regard, thanks to continuous support from the Kolmarden Fundraising Foundation Phoenix continued implementing its complex conservation programme with the following objectives:

- 1) to reduce poaching of Amur tigers and their prey species and improve protection of their habitat;
- 2) to improve law enforcement efforts within federal-level protected areas;
- 3) and to raise people's awareness about the state of, and the threats to, the Amur tiger population and involve the public in nature conservation actions.

## *Anti-poaching*

One of the major strategies to combat wildlife crime and poaching identified at international level is the need to strengthen wildlife law enforcement capacity. Well-run protected areas are a safety zone for the Amur tiger and other wildlife populations, but with limited resources and lack of monitoring, conservation management is challenging. In most PAs, systems to assess threats, monitor performance, and evaluate success and failures were largely absent before MIST/SMART introduction. The Spatial Monitoring and Reporting Tool (SMART) is a tool for measuring, evaluating and improving the effectiveness of anti-poaching patrols and site-based conservation activities, and has already had a significant impact in a number of Amur tiger conservation sites. Overall, Phoenix, WCS and ZSL have jointly introduced SMART to seven sites in the Russian Far East.

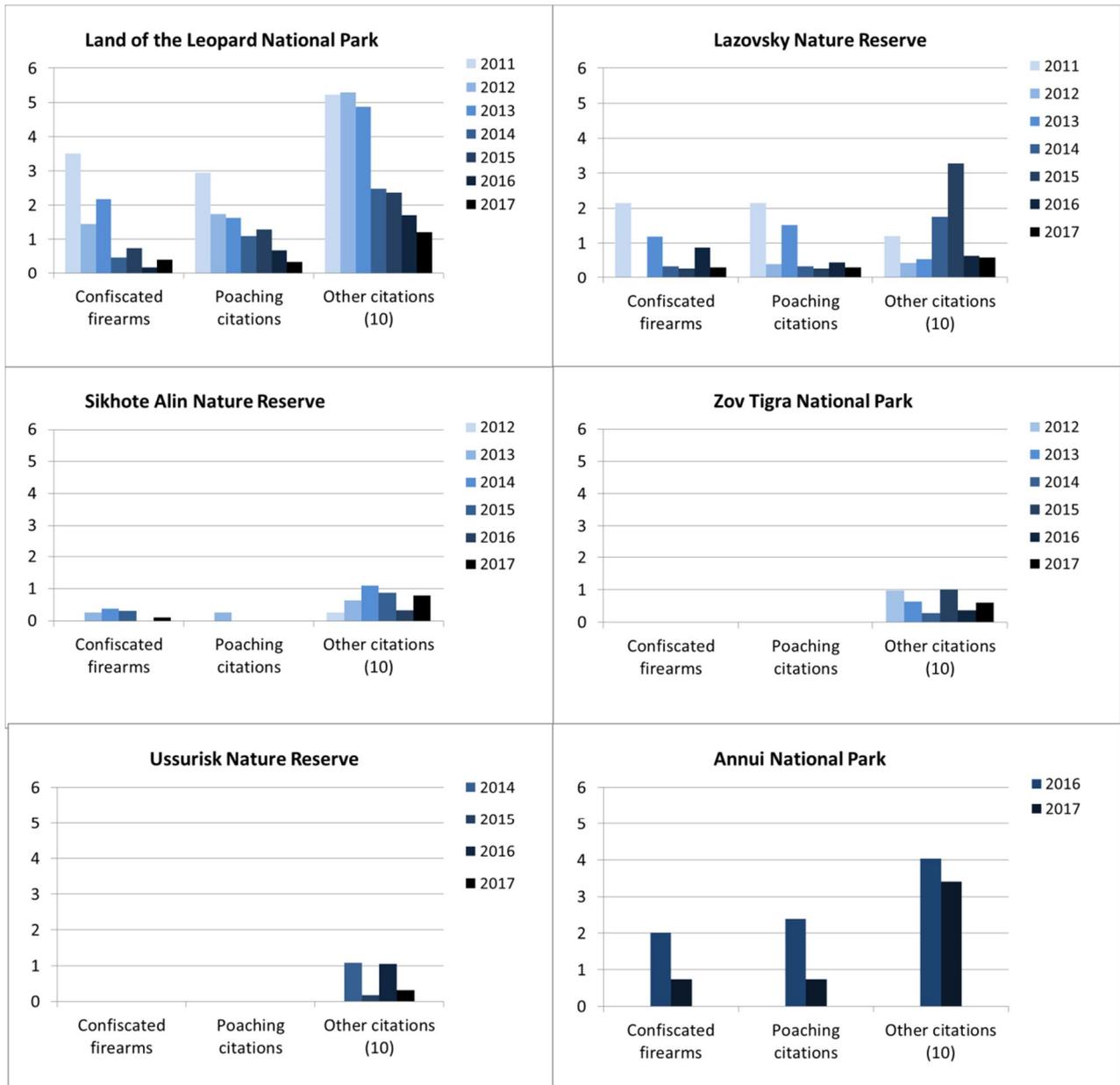
Within the framework of this project, through the support of the Kolmarden Fundraising Foundation, we selected five protected areas, tiger “source” sites, as a basis for population recovery and intend to improve tiger protection there; namely the Land of the Leopard National Park (LOL), Sikhote-Alin Nature Reserve (SANR), Ussuriisky Nature Reserve (UNR), United Directorate of Lazovsky Nature Reserve and Zov Tigra National Park (UD). Phoenix and its partners continued to implement SMART in these five PAs providing their managers and staff much needed support, including the tools enabling to collect information on where threats are occurring and the capacity to address them quickly.

Since 2010, the situation in all SMART territories has progressed from having undocumented patrols, driven in an uncontrolled and reactive manner to a state where management is using information from patrols on a quarterly basis to identify gaps and other deficiencies in patrolling, and ranger teams are competing to meet performance targets and reach threat hotspots.

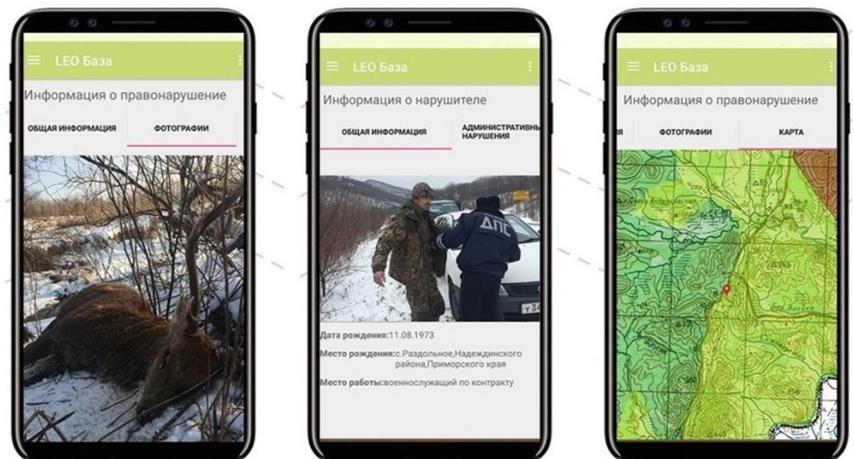




The patrol results (confiscated firearms, citations for poaching, citations for other violations such as trespassing, logging, fishing and campfires) per patrol-effort unit (in this case per 1000 patrol hours) form an indication of poaching and other human pressures. It is clear that poaching has been brought under control at SMART sites.



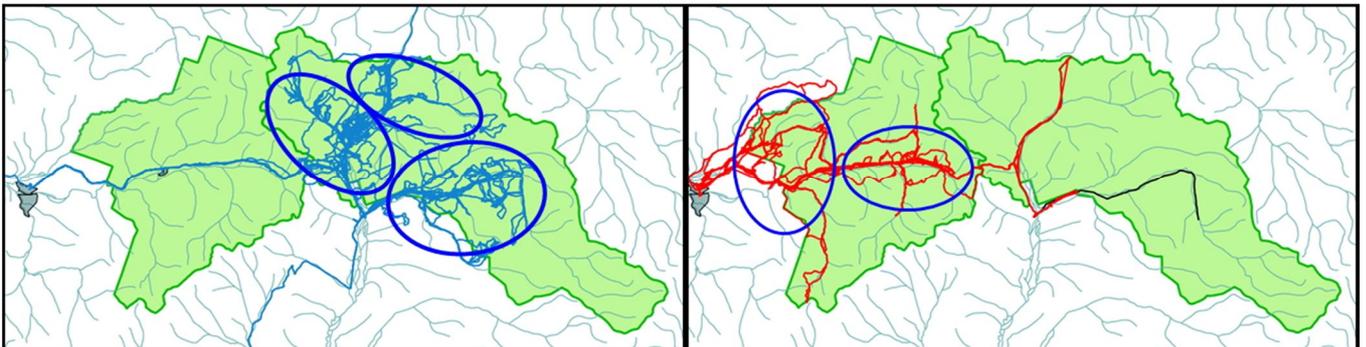
At two SMART sites for which we have reliable historic patrol data available, the number of citations for poaching violations and confiscated firearms increased both 2.2 times in the first year of the SMART programme in comparison to the average of the three years prior to the programme. Now a unique mobile application to identify violators right in the field is being developed at the Land of the Leopard National Park with the data from SMART. Through a special programme, rangers will get access to a huge amount of information collected during the years of anti-poaching activities. Over the five years, the threat from poachers has significantly decreased in LOL.



Although all components of the project programme were realized, implementation of SMART has proceeded at different rates across the PAs. It was expected given the scale of the project and the various constraints of geographic features and human resources acting at different project sites. At the United Direction of Lazovsky Nature Reserve and Zov Tigra National Park we faced sudden staff turnovers in 2016-2017. Twenty seven long-service employees left their job in the reserve due to embittered relations with the new director Vladimir Aramilev. At the same time, LOL and UNR became almost fully independent from our management support. SMART project also has successfully and directly engaged Bikin National Park and Anyuisky National Park, and drawn the interest of other Russian PAs.

During the reported year, 9 feedback meetings where heads of protection departments presented summary of patrol efforts and results including registered violations, confiscations, observations, etc., based on information collected by rangers and entered into the SMART database were carried out. These presentations and data were used to target future patrol efforts based on key threats and wildlife occurrence, and to inform on broader PAs monitoring, management, planning and reporting. Targets and recommendations for patrols vary and depend on the season, assessment of threats and many other factors. If they meet the targets, rangers receive bonuses, which are paid at the team or individual level. The incentive system seems to have improved morale based on the increased enthusiasm displayed by enforcement staff during monthly meetings.

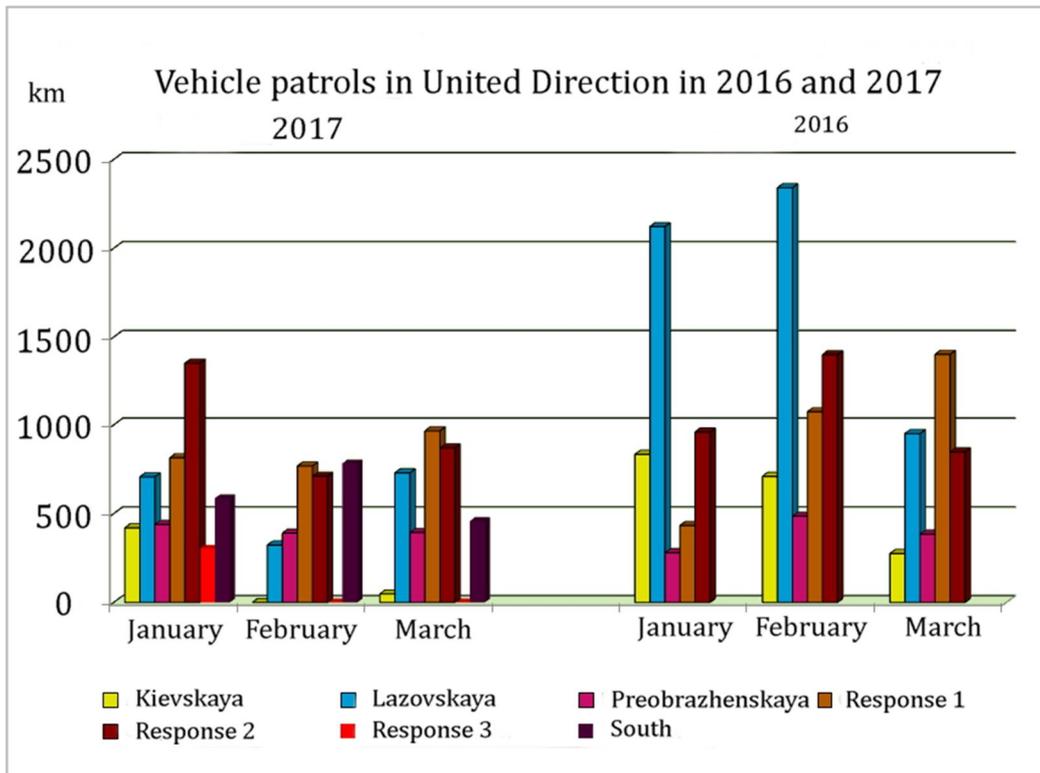
On the maps below there is an example of fulfilled recommendations to increase patrol efforts in the priority areas (blue circles) for Komarovskaya and Suvorovskaya teams of Ussuriisky Nature Reserve from July through September 2017.



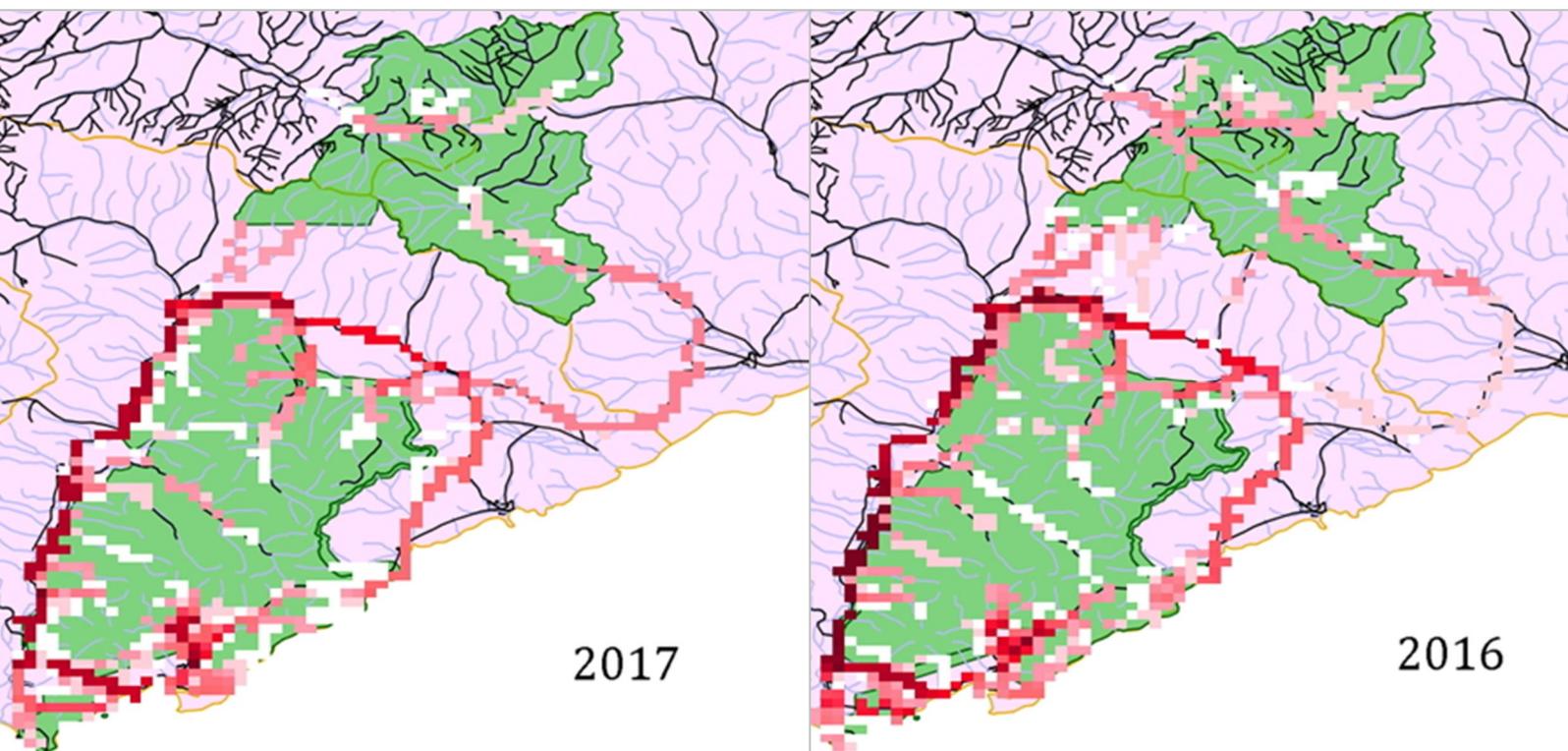
Within the limits of the project, through the support of the Kolmarden Fundraising Foundation and in collaboration with SMART partners, we continued to sponsor a performance-based incentives programme in UNR and SANR. Our experience showed that the incentives system is significantly increasing the patrol effort and further reducing the direct threats to wildlife. As we anticipated SMART facilitated management of the performance incentive system at the sites. In the LOL the incentives are now paid from the PA's budget and in general the park do not need much financial assistance from our side at this point, which we see as a successful achievement of one of the project goals. In UD, on the other hand, we faced a situation when the newly appointed director, Vladimir Aramilev, refused to receive funds for rangers' incentives from us as he disapproved our performance-based system. He insisted on paying bonuses only for successfully registered violations, despite the actual enforcement efforts of the teams. In the late 2016 and the first half of 2017 it resulted in collective redundancies of long-serviced rangers and a dramatic drop in patrol results. However, in November 2017 Aramilev had to seek our assistance to continue SMART implementation in United Direction. He even agreed to reconstitute the performance-based incentives programme. We expect it will take some time before protection of the Lazovsky reserve and Zov Tigra national park would recover the old level with new personnel. The effectiveness of anti-poaching efforts, and in particular that of the patrol staff, is one of

the most important factors in providing proper deterrent to illegal activities in an area. Poachers are typically extremely driven and effective because if they do not succeed in their crimes they make no profit. Often emerging from a context of hardship and lack of opportunities for legitimate income generation, which is especially true for villagers, they are willing to accept the risk of penalty or imprisonment as a result of their activities. A fundamental challenge for area managers is therefore to develop a ranger force with capabilities and motivation that matches that of the poachers they are up against. There are no simple or universal solutions that will result in the development of these key attributes. Such qualities are built up over time and are dependent on innumerable small acts, incremental changes, and continual positive interactions with patrol leaders and senior management.

The chart below shows an obvious decrease in patrol efforts of all teams in the United Direction of Lazovsky Nature Reserve and Zov Tigra National Park in the first quarter of 2017.



The overall coverage of the United Direction protected areas also declined in 2017.



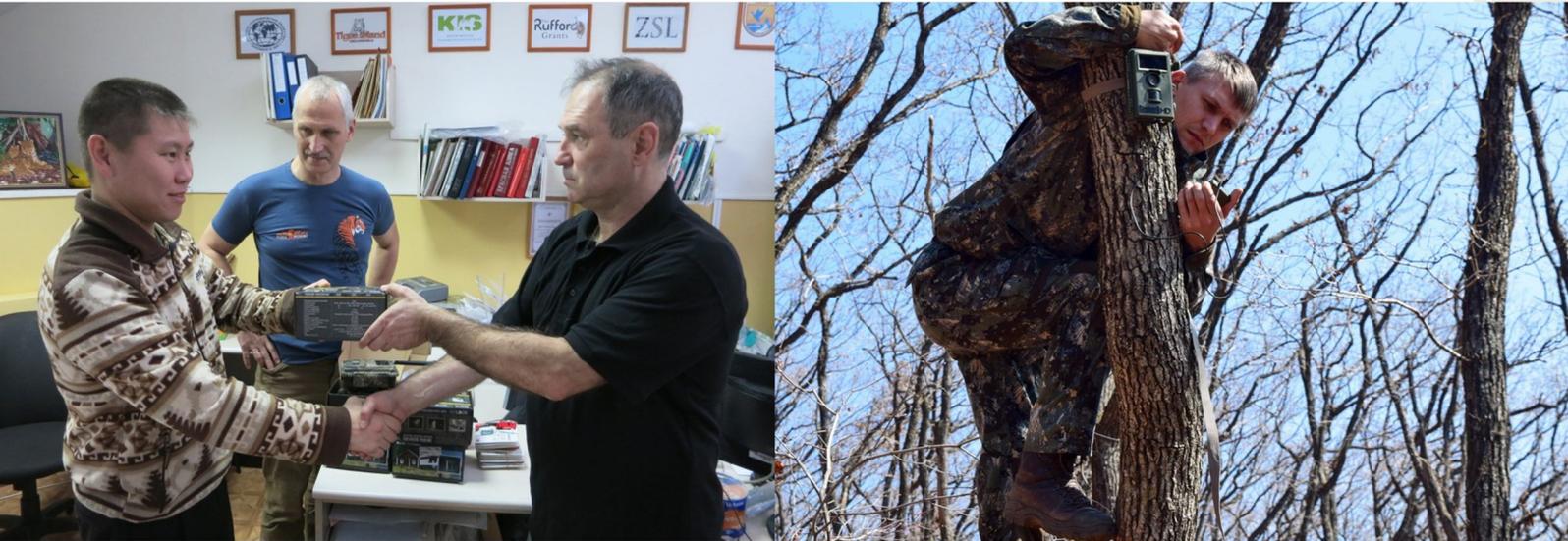
The effective implementation of anti-poaching patrols and other law enforcement activities depends on a firm foundation of institutional competencies and functions. Perhaps the most important aspect in this regard is strong leadership from senior PA managers. Heads of Protection Departments – Eugeny Stoma in LOL, Mikhail Litvinov in UNR and Ivan Ampleev in SANR have sufficient frontline law enforcement experience and authority to make decisions, key management and administrative skills. Thanks to regular SMART meetings managers directly engage with patrol staff, providing them with regular feedback on their performance as well as on shifting law enforcement priorities. Although routine foot and vehicle patrols form the backbone of law enforcement efforts in most areas, strategies are regularly reviewed and remain dynamic to effectively anticipate and respond to changing situations on the ground. This is particularly important because poachers and other violators (loggers, fishermen, ginseng gatherers, etc.) tend to rapidly adapt their tactics in response to changing protection scenarios or market conditions.



A variety of new technologies, including thermal imaging equipment (LOL), unmanned aerial vehicles (LOL, SANR, UNR), GPS-based monitoring devices and trailcams surveillance systems (all 5 PAs) are used in project sites providing potentially important tools for law enforcement managers to combat increasingly sophisticated poaching gangs. In 2012 Phoenix launched “Unmanned aerial vehicles for conservation” project in Primorye, thereafter we purchased 27 quadcopters and has organized 46 workshops/training courses for over 60 rangers from 14 federal-level PAs and other nature conservation agencies. Now rangers use drones to conduct aerial survey of the protected areas.



Phoenix also purchases trailcams for the reserves to help them get a solid surveillance network in place to focus patrols on real targets. The camera traps are also used for animals monitoring.



Effective field intelligence and investigations are also among the most important proactive measures that PA managers take against wildlife crime. All project areas work in collaboration with other law enforcement agencies (Hunting Management Department, Police, frontier guards, fishing control authorities, etc.) and with prosecutors, ensuring that the entire investigative process leading up to prosecution in court is appropriately coordinated and supported. One of the examples of successful prosecution took place in December 2017, when the Khasansky District Court sentenced a Chinese citizen to 3 years and 8 months of imprisonment in a correctional colony for acquiring and illegal storage of Amur tigers' bones. During public holidays in May 2017, border guards seized over 120 tiger bones, about 15 ginseng roots, 20 derivatives of sika deer and 20 grams of methamphetamine, a strong and highly addictive drug from a local of Kraskino village close to the Chinese border and the Land of the Leopard National Park. The wildlife derivatives and the drug were confiscated from a Chinese citizen who has been living in Russia for a long time.



## Ecological Education

Nowadays Ecological Education (EE) has occupied a role in conservation strategy based on the belief that EE has the potential to instill knowledge on, and values for, the preservation of biodiversity—and ultimately to change the behavior of the country’s next generation of resource users.



The Phoenix Fund has early recognized the instrumentality of EE in their conservation efforts. Since 1998 the Phoenix Fund has been working with outreach professionals and opening ecological centers across the region to coordinate conservation activities of educators in Primorye.

Phoenix Fund’s Ecological Education program is rooted in a way that is compatible with and supportive of the standards-based school curriculum, complementing it with regional component. To this end, Phoenix has developed cross-cutting materials connecting species conservation and environmental protection framework with Ecology, Biology, Literature, English Language, and Geography literacy.

We believe in the critical role of the educator and the importance of a holistic approach that actively engages learners in a complete experience. Our educators use best practices that appear to drive positive results in knowledge, awareness, skills, attitudes, intentions, behavior, and enjoyment that include (according to the survey conducted by Phoenix in March 2017):

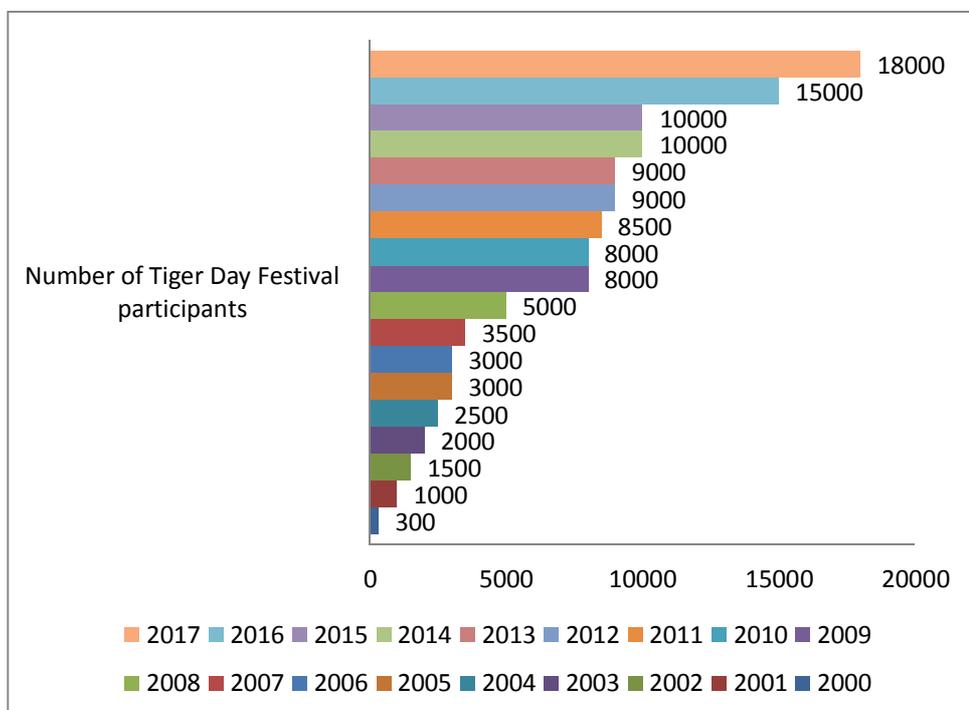
- Dosage (longer experiences) (80% of educators);
- Experiential approaches (100% of educators);
- Investigation, issue-based, and project-based approaches (60% of educators);
- Reflection and relevance (100% of educators);
- Efforts to explicitly provide students with a sense of empowerment (100% of educators);
- Incorporating social components, such as involvement with communities facing real environmental problems and active group discussion(80% of educators);
- Designing programs with specific goals in mind (100% of educators).

*In 2017, educators gave 972 lessons for 18 948 children in Lazovsky, Khasansky, and Terneisky, and in Vladivostok city*

During the reported period, thanks to support from the Kolmarden Fundraising Foundation, the Phoenix Fund continued supporting the educators working in three administrative districts of Primorye, namely Lazovsky, Khasansky, and Terneisky, and in Vladivostok city. In all, from January through December 2017, the teachers gave 972 lessons and organised nature-oriented events for 18 948 children.

The knowledge and attitudes of local communities (level of children’s and adults’ knowledge about tigers, leopards and other wildlife) was measured based on the results of two opinion polls conducted before and after educational events. Data from opinion polls helped understand weaknesses and strength of our educational program and lead to improved educational activities. Additionally, people were interviewed during Tiger Day Festivals in Primorye in order to assess how celebrating changes people’s views.

The main objectives of the survey were to determine among the children in Lazovsky, Khasansky, and Terneisky districts and Vladivostok city the level of knowledge on Amur tigers and the efficiency of eco-lessons given by our educators. The first (interim) opinion poll was carried out among the schoolchildren before they started to attend a series of eco-lessons devoted to the Amur tiger and the Amur leopard. The second opinion poll was carried out with the same schoolchildren after they listened lectures and attended various in-school and outdoor events devoted to Amur tigers and leopards. The questionnaire consisted of 18 questions. Over 450 interviews were conducted based on a questionnaire. We selected only children ranging in age between 10 and 17. Comparing the results of two opinion polls, one could see that the schoolchildren possessed good knowledge on tigers and leopards without attending special lessons. 49% is the average rate of correct answers among those respondents. But it is obvious that the lessons devoted to the big wild cats have significantly boosted children’s’ knowledge level (63% of correct answers). An opinion poll carried out during Tiger Day Festivals showed that festival participants (330 people were surveyed) have good knowledge about the Amur tigers, its prey species, habitat and main threats to survival. Almost 85% of respondents gave correct answers to questions (Compare: 74% of respondents gave correct answers in 2016), which indicates that growing environmental awareness of children and adults is result of various education and outreach activities held by local NGOs, including the Phoenix Fund.



The growing number of participants of Tiger Day Festival in Primorye also proves that people are becoming increasingly conscious of issues such as depletion of natural resources, extinction of wildlife and importance of Amur tiger conservation and other. Participants who attend Tiger Festivals are people deeply concerned about the fate of the Amur tiger population and the state of the whole ecosystem of the region.





Credits: Phoenix Fund, Land of the Leopard National Park, Lazovsky Nature Reserve, Sikhote-Alin Nature Reserve, Ussuriisky Nature Reserve, WCS, GTI, SMART

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