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Mongabay Series: Asian Rhinos

U.S. fund that supports Sumatran rhino research faces deep cuts under Trump

by Charles Pekow on 14 May 2020

- *Established in 1994, the U.S. Rhinoceros and Tiger Conservation fund provides grants to support international conservation efforts.*
- *The fund, administered by the U.S. Fish and Wildlife Service, supports organizations working to protect various tiger and rhino species, including the Sumatran rhino in Indonesia.*
- *While the law allows for spending of up to $10 million per year, the United States Congress has historically provided about $3.5 million annually. Now, the Trump administration is pushing to slash funding to just $1.575 million.*
- *Previous grants have supported anti-poaching patrols in Sumatran rhino habitat, and research into Sumatran rhino genetics.*

The Sumatran rhinoceros — the smallest, hairiest and most endangered of all rhino species — is today only found in Indonesia. But for a quarter century, the remaining few have benefited from a program established by the United States government to support endangered species around the world.

The Rhinoceros and Tiger Conservation Act, signed into law in 1994, set up the Rhinoceros and Tiger Conservation fund to provide grants to support international efforts to preserve the three-toed ungulates and big cats.

Records from the U.S. Fish and Wildlife Service (FWS), which administers the fund, show that in fiscal years 2012-2018 it specifically supported 12 projects designed to protect the critically endangered Sumatran rhinoceros (*Dicerorhinus sumatrensis*). But while the species remains on the brink, the 25-year-old program is facing a threat to its own viability: a Trump administration not focused on environmental issues.

Congress reauthorized the law several times and it is currently in effect through 2023. But while the law allows spending of $10 million a year, Congress has historically provided only about $3.5 million annually. And the U.S. Department of the Interior (DoI), parent agency to FWS, has proposed a budget for FY2021 that would slice current funding for rhinos and tigers to less than half, to only $1.575

million. The DoI also tried to halve the fund's FY2020 budget, but congress didn't go along.

Laury Marshall, assistant chief of FWS's Office of Public Affairs, would only say that the budget reflects the priorities of the Trump administration, which plans to trim the overall FWS budget by 17%.

Female Sumatran rhino Ratu with her calf at the Sumatran Rhino Sanctuary in Way Kambas, Indonesia. Image courtesy of the International Rhino Foundation.

The DoI proposes cutting the fund, even though its own budget justification says that in "Asia, the status of both rhinos and tigers is … bleak." It further says the fund "has been essential in responding to the poaching and trafficking crisis while also addressing other critical threats facing rhinos and tigers."

The administration hasn't been in a hurry to support new programs to save the vanishing species. It still has not awarded all available FY2019 money and hasn't even solicited applications for FY2020 grants, despite $3.44 million available for each year. DoI says it is revamping its grants process, hence the delays.

“Unfortunately, it appears the administration is stalling wildlife conservation grants completely unrelated to any controversy,” Rep. Raúl Grijalva (D-AZ), who chairs the House Natural Resources Committee, said in a statement to Mongabay. “[Interior Secretary David] Bernhardt needs to give Congress justification for why the Department of the Interior is eroding critical conservation work, holding back funds that Congress appropriated, and calling for more conservation cuts in its most recent budget.”

Some other federal money also augments the funds slightly. In 2011, the U.S. Postal Service (USPS) started issuing a semipostal stamp, one that costs a nickel more than standard postage, with the extra 5 cents going to the Multinational Species Conservation Funds, a series of programs that includes the rhino and tiger fund as well as others providing grants to save great apes, sea turtles, and other threatened species. Five cents at a time, the Save Vanishing Species Stamps, also known as Tiger Stamps, have raised $5.7 million for the funds, according to USPS.

But USPS stopped selling the stamps while maintaining an unsold inventory. Last year, Congress ordered USPS to sell the remaining stamps. Asked by email why USPS paused sales, USPS representative Roy Betts did not explain the original suspension, but noted that, once it had stopped, the service was unable to resume sales until legislation was passed. “As semipostal stamps are mandated by Congress through act of law, the USPS simply follows the letter of the law. We knew there was unresolved congressional action pending after the stamp was removed from sale, so the USPS simply went on hold during that period.”

The fund is also augmented by fines, penalties and proceeds seized from illegal wildlife trafficking and poaching, including rhino horns. The Government Accountability Office reported that about $7 million was available in this account in FY2017, the last time it checked. But law requires that FWS can only use this money to pay informants and care for illegally trafficked plants and animals.

The grants can go a long way to leveraging other funds: in FY2018, about $3.4 million in federal funds leveraged more than $10.4 million in matching funds from foreign governments, grantee matches and other donors. As to how effectively the funds are spent, it’s hard to know. FWS stopped publishing summary reports on the program in 2003 and neither Congress nor Interior ‘s Office of Inspector General has reported on the issue since then. Congress last conducted a hearing on the fund in 2001, even though it reauthorized it several times since then.

But back in 2007, the Senate Committee on Environment and Public Works reported that “Continued funding is considered essential because future survival in the wild of these charismatic species remains tenuous due to increased poaching, escalation in illegal trade, spotty local law enforcement, habitat loss, political instability and civil strife within regions where these animals range. Despite achievements made …

current conservation efforts could collapse with the cessation of U.S. financial involvement."

Going by the report's own figures, there's been a massive decline since then. The 13-year-old report estimated about 300 Sumatran rhinos lived in Indonesia and Malaysia. Now, all estimates presume fewer than 100, with the species officially declared extinct in Malaysia.

A rhino protection unit patrols Indonesia's Way Kambas National Park, one of the few places on earth where Sumatran rhinos still roam. These patrol units have been one of the beneficiaries of the Rhinoceros and Tiger Conservation fund. Image courtesy of Yayasan Badak Indonesia.

Protecting rhinos in the wild

Since FY2012, FWS has awarded $2,075,649 in grants and cooperative agreements to protect the Sumatran rhino (though a few of the projects also involve protecting other species, such as its Indonesian cousin, the Javan rhinoceros, *Rhinoceros sondaicus*). Some 77% of the funds since FY2012 went to the International Rhino Foundation (IRF), which got funded every year. According to FWS's project summaries, funding for these projects was matched by $1,387,580 in outside contributions.

“The support FWS has provided over Sumatran rhinos has been extremely important,” said IRF development director Maggie Moore. “It is a longtime partner of IRF and our local NGO partner in Indonesia,” Yayasan Badak Indonesia, or the Indonesian Rhino Foundation.

Most of IRF’s funding from FWS has supported rhino protection units in Sumatra’s Bukit Barisan Selatan and Way Kambas national parks.

The units work with government patrols to monitor rhinos and other threatened and endangered animals; fight illegal hunting, trapping and encroachment; and minimize effects of other human activity. Most of the poachers aren’t after rhinos but would take one if they could find one. “Everyone knows how much a rhino horn can fetch on the market,” Moore said.

FWS has helped fund 20 rhino protection units over the last 15 years. The units also receive aid from the government of Indonesia, private foundations, zoos and individuals, according to Moore.

“The continuous protection provided by the [units] is essential for Sumatran rhinos’ survival, and IRF and [its Indonesian partner] are committed to continuing to fund this critical program. We will continue to work with our large coalition of donors and partners to provide the funding necessary to support the [project], even during this difficult economic climate,” Moore said.

FWS support has also been essential to the antipoaching efforts of the Leuser Conservation Forum, which has received FWS funding to train, equip and operate antipoaching ranger teams. The forum’s Sumatran Rhino Project trains the five-member teams and equips them with tents, field clothes, GPS units, and cameras. The teams operate in the Leuser Ecosystem, an area of about 25,900 square kilometers (10,000 square miles) in northern Sumatra which is believed to hold some of the world’s last remaining reproductively viable Sumatran rhino populations. It is also known for being the last place on Earth where tigers, rhinos, elephants and orangutans live together in the same forest.

“When we started the program, we had two teams,” project manager Rudi Putra said. Now 26 teams patrol the area. The main function of the teams consists of finding and dismantling snares left by poachers. “We drop [patrols] at the edge of the forest,” Putra said, where they begin a 15-day shift, moving to a different camp each night. After their shift, they rest at home a week, then spend a week doing other work before returning to the wild.

Between 2016 and 2018, the patrols have deactivated almost 4,000 snares, some left opportunistically, others specifically set to trap animals like tigers or rhinos that can fetch a high value on the black market. Patrols caught 50 poachers last year, Putra said.

“We work with many donors,” he said. “We cannot depend on one donor only.” The government of Indonesia, for instance, pays the salaries of its rangers, while the forum has to come up with pay and expenses for the rest of the teams with FWS and other support.

Currently, all the patrols are hampered by the COVID-19 pandemic. Leuser’s rangers hike 2 meters (6 feet) apart and get tested when they return from patrol. IRF rangers go out seven to 10 days at a time, wear masks, stay home during breaks, and undergo temperature checks and other health assessments.

IRF has closed its Indonesia offices due to COVID-19 restrictions, Moore said. “Some of the travel and trying to capture rhinos [for captive breeding] is on hold. We’re hopeful that later in the year, we’ll be able to start that process up again in earnest.”

A rhino protection unit at work in Bukit Barisan Selatan National Park in Sumatra, Indonesia. From left to right: Yuliane Afterya, assistant manager of education in Sumatra for the RPUs; Masum, the field coordinator of the RPUs at Bukit Barisan Selatan; and Bahara, a senior member of the RPU. Image by Jeremy Hance for Mongabay.

Supporting new research

FWS support goes beyond patrols. Back in FY2014, FWS awarded $39,383 to U.K.-based Fauna & Flora International (FFI), which calls itself “the world’s oldest international wildlife conservation organization.” The grant went to study the status of Sumatran rhinos in Ulu Masen Landscape in Indonesia’ Aceh province and use the data “as a baseline for a long-term strategy to secure this population,” according to FWS.

The project came up with a map of suitable rhino habitat in the area and trained staff to detect rhinos. “Regretfully, during these surveys, no verifiable signs of rhinos were found, although a follow-up meeting developed plans for improved field surveys and shared findings relating to other elements of Ulu Masen’s biodiversity,” according to a statement provided by FFI spokesman Nathan Williams. The project did, however, identify “ways to improve the search for rhinos in Ulu Masen and – unfortunately – by sharing our finding that the species could not be detected in Ulu Masen, this project emphasizes the vital importance of protection of the other populations of this critically endangered species,” FFI said.

More surveys are needed, Williams said. It is possible rhino were still present at the time of the survey, but were not detected because “the area is remote and takes two weeks to reach. The survey sampled a cross section of this remote area,” he said.

One of the most recent grants went to the University of Illinois’s Department of Animal Sciences, which received $129,430 in FY2018 to work with the Eijkman Institute for Molecular Biology in Jakarta to learn what it could about Sumatran and Javan rhinos via genetic markers found in their dung samples. “We developed markers [that can] distinguish individuals, the same kind of markers you find at crime scenes,” said Alfred Roca, a professor at the University of Illinois.

It is much easier to find feces from the species than the species itself; both Sumatran and Javan rhinos are famously elusive and live in remote, difficult terrain. But the project had to develop ways to use low-quality markers. “DNA from poop is much worse quality than what you get from high quality tissue or blood,” Roca said. The project was able to compare its findings with previously collected DNA from Sumatran rhinos from across their former range, in Borneo, Myanmar, the Malay Peninsula and Laos. The project determined that at one time the population consisted of three subspecies. And the few left on Sumatra are divided by a mountain range that keeps them from interbreeding.

As if the inbreeding among a small population isn’t enough of a problem, if females go too long without mating, they can develop reproductive pathologies that leave them unable to mate or bear young.

The population is so small that the project has recommended that all survivors become part of a captive-breeding program and with enough luck reintroduce them in the wild if the population becomes large enough. “If they can’t mate, researchers

can collect gametes [sperm and egg cells] that may be kept indefinitely and used for breeding or perhaps cloning one day. Matching different subgroups may restore genetic diversity," Roca said.

But collecting and analyzing DNA, learning about the species genetic history, and using that information to inform breeding strategies all require financial support. "None of this could be done without FWS," Roca said.

Banner image: A rhino calf, photographed in 2016 at the Sumatran Rhino Sanctuary. Photo by Rhett A. Butler/Mongabay.