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Section I. Project Information	
Project Title: Kerinci Seblat Sumatran Tiger Protection and Conservation	
Grantee Organisation: Fauna & Flora International (FFI)	
Location of project: Kerinci Seblat National Park and surrounding forests, Sumatra, Indonesia	
Size of project area (if appropriate): Kerinci Seblat National Park – 13,800Km ² forms the protected heart of the wider Kerinci Seblat Landscape (15,000Km ²) in four provinces of Sumatra island. The main field focus is to approximately 400,000ha of national park and park-edge forests of which an 88,000ha 'Tiger Core Area' receives a higher patrol focus however other actions are conducted more widely across the Kerinci Seblat Landscape.	No of tigers in project area, giving evidence & source: Drawing on park-wide Occupancy surveys by the FFI Kerinci Seblat Tiger Monitoring team in 2019-2020 and camera trapping in the Core Area (2020), there are 128 Sumatran tigers in the wider Kerinci Seblat Landscape with national park forests protecting 119 tigers of which 29 have territories wholly, or mainly, in the Core Area. If habitat across the wider Kerinci Seblat Landscape is conserved and other threats, direct and indirect, contained, there is potential for 144-150 Sumatran tigers in and around KSNP. Note – these figures exclude the Batang Hari protected forests in the NE of the Kerinci Seblat Landscape which was included in the KSL for 2007-2008 for Tiger Occupancy purposes but for which no current tiger presence data is available

Partners: (*Please give details of partners, including communities, academic institutions etc. for this project.*

Kerinci Seblat National Park Authority: The programme operates under a partnership between FFI Indonesia and KSNP which is recognised under a national level, multi-year MoU between FFI Indonesia and the Indonesian MoEF do providing clear and solid legal framework which underwrites all aspects of the programme's activities.

Units for the Conservation of Natural Resources (KSDA): Operating units of the MoEF tasked with nature conservation outside protected areas and leading collaborative human-wildlife conflict mitigation taskforce groups. Primarily KSDA Jambi and KSDA Bengkulu.

Indonesia National Police: Provincial and park-edge district divisions.

FFI Kerinci Seblat Landscape Village Forest team: Over the last decade, the team has worked with more than 80 forest-edge villages to leverage community-led sustainable management of more than 106,000ha of forests, in three provinces, under licenses issued by MoEF. The project team works with both park-edge communities and district forestry management units (KPHP) and has now expanded focus to park-edge forests in Bengkulu province in the south and south-west of KSNP.

Others:

Local and national :- Lingkar Inisiatif – now increasingly focused to developing tiger conservation capacity in the south east of KSNP in Musi Rawas and Musi Rawas Utara districts of South Sumatra province, Institut Conservation Society (West Sumatra), Flight (primarily focusing to IWT in wild birds but with teams sharing information of mutual concern), Biology Faculty of the University of Andalas, Padang (West Sumatra); Forum Harimaukita (Sumatran Tiger Conservation Forum), representing Sumatran tiger conservation practitioners in Indonesia. International: Informal discussions and exchange of information with Environmental Investigation Agency, Traffic SE Asia

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Reporting period: February 2022-January 2023

Please ensure that your report relates to the objectives and activities detailed in your proposal and logframe. Please include <u>results data</u> in Section II and Section III.

Section II. Project Results

Long Term Impact: (How has this work contributed to the vision and long-term impact that your project aims to achieve?)

The project's long-term goal is to underwrite a sustained, natural increase in Sumatran tiger populations in Kerinci Seblat National Park (KSNP) through detecting and reducing threat to tiger, their prey and habitat with activities strengthened by collaborations between national and local government, local civil society and forest-edge communities.

For the fifth consecutive year, threat to Sumatran tiger recorded on Tiger Protection & Conservation Unit patrols remained far below the long-term programme average and the project period marked the first year in which no active tiger snares were recorded on patrols. Poaching threat to rusa sambar deer and muntjac continued a long-standing multi-year decline. The project period saw lifting of national and international Covid-19-related restrictions and the team was concerned this could trigger a resurgence in IWT demand for tiger body parts. This has not been recorded, to date, in spite of a strong focus to identifying possible precursors to an increase in threat.

A small reduction in patrol Frequency of Encounter with tiger on patrols, park-wide, was recorded, not least due to a number of patrols conducted in support of the national park in low-density tiger locations. However, tiger presence on patrols in and immediately adjoining the Core Area was stable or better. Meanwhile 'spot' camera trap placements to better understand tiger movement dynamics around the Core Area recorded seven individual tigers, five previously recorded in the Core Area, including a tigress first photographed in 2015.

However, while poaching threat to Sumatran tigers in Kerinci Seblat remained at a record low, tigers in Kerinci Seblat continue to face a wide range of less direct threats and TPCU patrols and camera trapping by the Tiger Monitoring team in 2022 confirmed that African Swine Fever has had a severe impact on wild boar populations, which are important tiger prey due to naturally low rusa sambar populations.

Threats to Sumatran tiger change over time and the project team worked to build on a long-standing commitment to advancing conservation of Sumatran tigers in Kerinci Seblat National Park while recognising and addressing new and emerging challenges.

Conservation Outcome:

For the fifth consecutive year, SMART patrols by Tiger Protection & Conservation reported direct threat to Sumatran tiger far below the long-term average; no active tiger snares were recorded and only four 'recently-active' snares detected on two patrols.

Threat to key tiger prey species, rusa sambar and muntjac, maintained a now long-running, gradual decline as hunters have widely come to accept they face risk of detection with only one 'long' snare line for deer recorded and destroyed in a rarely-patrolled area of the national park.

For the first time ever, no active deer snares were recorded during fasting month of Ramadan, a period when, traditionally, local market demand for venison drives a spike in deer poaching in some areas of the national park.

Information collection across the Kerinci Seblat Tiger Conservation Landscape recorded no evidence of any measurable resurgence in IWT demand for tiger body parts following lifting of national and international Covid-19 restrictions with those poachers still believed active resorting to use of 'broker' networks to identify a potential buyer.

Where credible information was secured on IWT threat to tiger or first-hand observations were made, records were in areas far from where the project has maintained a consistent field presence.

Meanwhile, Frequency of Encounter with tiger in the Core Area was stable or better with 94% of patrols reporting one or more tiger present on patrol routes and with Frequency of Encounter with tiger improving to 1-15.95Km.

Summary of activities and achievements:

The project conducted a range of activities in national park forests and park-edge districts of the four provinces which overlay a national park recognised as offering the best hope for the long-term survival of wild Sumatran tigers.



Tiger Protection & Conservation Unit rangers conducted SMART forest foot patrols covering more than 1172Km (730 miles) reporting the presence of a minimum of 54 Sumatran tigers with 59% of patrols reporting tiger present.

Direct threat to wild tigers recorded on SMART patrols fell for the fifth consecutive year and, for the first time in project history, no active tiger snares were recorded on patrols and 'only' four 'recently-active' tiger snare placements. Threat to tiger prey maintained a long-running, gradual decline with deer poaching recorded on only one patrol.

Information collection in park-edge districts the four provinces recorded no measurable increase in IWT demand for Sumatran tiger following lifting of Covid-19 restrictions although two activities reported credible evidence of tiger poaching or trade, both in areas far from the project's main operating area.

In late July, Kerinci Seblat Tiger Protection & Conservation was honoured to be announced as one of the winners of the IUCN-WCPA International Ranger of the Year Award, which is also supported by the International Ranger Federation and WWF Tigers Alive.

The team was subsequently presented with their award Certificates by Indonesia's deputy Minister of Forestry, Dr Alue Dohong at a ceremony in Kerinci which commenced with a one-minute silence in honour of TPCU leader Gunawan Saifullah and community ranger Sudirman who died in a tragic accident while on patrol in the forest on 17th August, which marks Indonesia National Day.

Details of activities and results:

1: SMART forest patrols by Tiger Protection & Conservation Units (TPCU) to consolidate gains made to date in reducing threat to Sumatran tiger, prey and habitat and 1.2 Seasonal SMART patrols to contain increase poaching threat to deer

Tiger Protection & Conservation Units conducted a lower-than-planned number of SMART patrols in and adjoining the national park, initially as a result of counter-part funding shortfalls.

Patrol capacity was subsequently further impacted following a tragic accident, on August 17th, Indonesia National Day, when a tree fell on a TPCU forest patrol camp killing two rangers, TPCU Leader,



Gunawan Saifullah and longserving TPCU community ranger, Sudirman.

Ironically, this freak accident happened less than a month after the Kerinci Seblat Tiger Protection & Conservation team was announced as one of the winners of the IUCN-WCPA International Ranger of the Year award at the Africa Protected Areas Congress in Rwanda in late July.

As a result of this tragedy, for the final five months of the project period, only five TPCUs were fully operational, so adding to constraints on SMART patrol capacity as the project's standard operating procedure requires a minimum of four rangers per forest patrol, to ensure ranger safety.

Over the 12-months project period, TPCUs conducted a total

of 78 SMART patrols in national park and park-edge forests over a walking distance of 1173Km by GPS Waypoint (1587Km by Tracklog) with 411 Unit days spent in the forest on patrols.

The number of patrols conducted, forest-days and distance walked was lower than the project norm and project planning and this impacted on some patrol outputs and results analysis.

Sumatran tigers were recorded on 59% of all TPCU patrols conducted with a minimum of 54 tigers present on patrol routes on the basis of secondary signs (pugmarks, scrapes, faeces, fresh scratches) and, in one case, repeat vocalisations close to a TPCU forest camp.

Park-wide, over the project period, Frequency of Encounter with tiger reduced, slightly, to 1 tiger per 21.7Km from 1-18.37km in 2021-2022 while Effort to record tiger presence increased, slightly to 1-7.6 patrol days (1-6.4 days in 2021-2022).

This reduction in tiger encounter records was influenced by a number of patrols in low tiger density areas, including support to the national park to identify sites in an area in the east of the national park where heavy plant used for illegal gold mining, was suspected to be operating and so support subsequent law enforcement by KSNP and district police.



A total of 18 SMART TPCU patrols were conducted wholly, or mainly, in the Tiger Core Area with tigers recorded on 17 (94%) of 18 patrols conducted and with a minimum of 23 tigers present on patrol routes. Frequency of Encounter with tiger on these patrols was stable or better at 1 tiger per 15.97Km with patrol Effort to report tiger presence also stable at 1-4.5 days.

For the first time in the history of Kerinci Seblat Tiger Protection & Conservation, TPCU patrols recorded no Active tiger snares in national park or park-edge forests during the project period. However, four 'recently-active' (4-12 weeks) tiger snare placements were recorded on two TPCU patrols in the south-west of the national park. Three of these 'recently-active' snares were in an area close to where two TPCU rangers died in August 2022 and it is strongly-suspected that the poachers calculated that TPCUs would avoid this area so making it 'safe' to poach.

TPCU patrols in 2022-2023 also recorded a further fall in snare poaching threat to deer with only 10 active deer snares reported on one patrol in a rarely patrolled area in the east of the national park. This compares with 49 deer snares on four (3%) of the 72 TPCU patrols conducted in 2021-2022 - at the time, the lowest level of poaching threat to deer ever recorded on TPCU patrols.

However, while poaching of deer has continued a long-running decline, over time, in areas where TPCUs have maintained a presence, it is possible that this very low level of threat may also be be a consequence of deer poachers adopting other methods while constraints on patrol capacity may also have contributed to this fall in recorded threat.

Although poaching threat to tiger and deer continued to decline, TPCU patrols reported continuing pressure on wild birds, with evidence of active or recently-active bird poaching reported on 23% of all TPCU patrols. A total of 88 snares set for endemic pheasant and partridge, some strong enough to snare small mammals, were recorded while numerous sites showing evidence of recent past song and other wild bird-catching using bird 'lime' or mist nets were also reported.

This is not only a matter of concern for avian biodiversity but for wild tigers and deer as some tiger and deer poachers are known to hunt songbirds while 'surveying' forests for a site to place snares and to cover the cost of logistics.

In early 2020, the first cases of African Swine Fever in wild boar were reported in North Sumatra province and the virus subsequently spread into other forest landscapes in Sumatra, with wild pig hunters and poorly-supervised trans-Sumatra and inter-island wild boar meat trade networks likely playing a part in spread of the disease.

ASF is suspected to have entered wild boar populations in KSNP in late 2020 and likely peaked in Kerinci Seblat in 2021. However, the impact of the virus was only fully-appreciated in 2022 with TPCU patrols reporting very sharp falls in wild boar records, particularly in the deep forest habitat favoured by the endemic Sumatran bearded pig *Sus barbatus oi (VU)*.

'Spot' camera trapping by the Kerinci Seblat Tiger Monitoring team, with support from Panthera and USFWS in locations in and adjoining the Core Area in 2022, to monitor tiger

CT22k14 movement dynamics, secured images of seven individual tigers, four male and three females. Five of these tigers were already known to the team from previous years' camera trapping within the Core and included tigress CA26F who was first photographed, as a juvenile, by the monitoring team in 2015.

However, from 34 camera traps stations set in sites around the Core Area over a nine months period in 2022 not one single camera trap station recorded wild boar presence, either *Sus scrofa* or Sumatran bearded pig *Sus barbatus oi*.





An abandoned tiger snare, dating back to the early days of the Covid-19 pandemic and recorded on a rarely-patrolled area adjoining the national park ©FFI/KSNP

The TPCU and tiger Monitoring teams had already warned colleagues in the national park and more widely that they feared African Swine Fever (ASF) virus had had a massive impact of a key tiger prey species in KSNP and the results of spot-camera trapping strengthens these concerns.

Unfortunately, due to the limited number of camera trap stations deployed, the monitoring team could not fully correlate 2022 spotcamera trapping results with previous camera trapping exercises where

approximately 100 camera trap stations were routinely deployed and which, in 2020, allowed a scientifically-robust Relative Abundance Index for a number of species, including wild boar, to be developed.

Patrols in the final six months of the project period and discussions with forest-edge farmers suggest that numbers of common wild boar (*Sus scrofa*) – a species which mainly favours the forest-farmland interface *may* have started to recover, slightly, in some areas. However, this may be encouraging tigers to move closer to forest-edge and into forest-edge farmland in search of prey and so contributing to an increase in human-tiger conflicts, particularly in the south-west of the park and so, potentially, making such tigers vulnerable to poaching threat.

1.2 A lower than-usual intensity of TPCU patrols to detect and counter any seasonal increase in local market-driven demand for deer were conducted during the holy month of Ramadan which fell in the month of April in 2022. In spite of drawing on rangers' local knowledge of hunting patterns, for the first time ever, no active deer snares were recorded in a period which, traditionally, has seen a sharp local market demand-driven increase in poaching threat to deer in some areas of the national park. However, one TPCU patrol in KSNP forests in the far south of the Kerinci valley, recorded and destroyed 85 snares set for pheasant and forest partridges and a shift in seasonal poaching threat from deer to pheasant and other ground birds has been previously recorded in this area.

It is possible that this absence of seasonal poaching threat to deer was due to a lower-than- usual intensity of seasonal patrols however, snare poaching pressure on deer in areas where a patrol presence has been maintained has fallen, since 2010, both during Ramadan and more broadly across the year.

2: Building knowledge of wildlife crime and perpetrators - information collection – Identify individuals posing threat to wild Sumatran tiger and secure credible data on wildlife crime to support law enforcement as appropriate while monitoring the illegal wildlife market for change to support adaptive strategies to to counter any increase in threat to Sumatran tiger.

More than 60 poaching and illegal wildlife trade information collection or 'for information' reports by project personnel were logged and graded for credibility over the project period following activities in 15 districts and municipalities of the four provinces which overlay the Kerinci Seblat Landscape.

The number of activities conducted was lower than the long-standing project norm due to financial constraints on activities due to counter-part funding shortfalls and rising costs, in particular for fuel, which increased by 30% in September 2022.

Although building understanding of wildlife crime was primarily focused to collecting or advancing information on poaching or IWT threat to Sumatran tiger, information was also collected on poaching and IWT threats more widely, including IWT demand for Sunda pangolin.

Two of these activities, one to the north of the project landscape in a district of West Sumatra province and one in a district in the far south of the national park recorded first-hand (A1) evidence of poaching and trade in Sumatran tigers.

The first was launched in August and resulted in a meeting with a self-admitted poacher, in which the skin of a young adult tiger, poached from a protected forest area to the north of the Kerinci Seblat Landscape was seen. The tiger's head, canines and skeleton had already been sold to a trader (as yet unidentified), operating out of neighbouring Riau province in north-eastern Sumatra.

Planning to support law enforcement under leadership of West Sumatra Unit for Conservation of Nature (KSDA), was launched but did not advance after it was learned the tiger skin had (allegedly) been sold to the same trader who had previously purchased the tiger's bones and head. This suspect remains under distance observation.

In the second case, conducted in a park-edge district in the far south of KSNP in the final weeks of 2022, first-hand evidence of poaching, of Sumatran tiger in the form of off-cuts of recently 'cured' tiger skin and of horns of an endangered Sumatran serow was seen. The skeleton and canines of this tiger had already been sold to an unnamed trader in a nearby municipality, well-known as an illegal wildlife trade entrepot.

The suspects in this case were a father and son, with the father first identified, by the team, in 2012, as the leader of a group of a tiger and deer poachers operating in forests to the south of Kerinci Seblat NP. Two members of this poaching gang were subsequently arrested and successfully prosecuted but their leader escaped arrest, possibly due to a tip-off from a rogue law enforcement agency officer.

Although portions of tiger skin were seen, and Sumatran serow *Capricornis sumatrensis* are also a protected species in Indonesian law, planning for law enforcement by government agency partners was not launched due to concerns that evidence seen was not sufficient to proceed through to an appropriate court judgment.

A further 15 information collection activities secured 'credible' but not proven (A2) information on tiger and other wildlife poaching or trade in park-edge districts of four provinces.

However, while activities recorded no increase in organised IWT demand for Sumatran tiger following lifting of Covid-19 restrictions with threat to tigers believed primarily from a small number of mainly older poachers operating in locations they believe safe from detection and subsequently seeking to use intermediaries to identify a buyer

From July 2022, a number of reports advised that some illegal wildlife traders may have resumed buying Sunda pangolin, a species frequently traded by the same illegal networks that threaten Sumatran tiger with Medan, the capital of North Sumatra province and Pekanbaru in Riau province of eastern Sumatra cited as the source of trade threat. These two cities were also cited in a number of information collection activities as a possible source of demand for wild tigers from the Kerinci Seblat landscape.

These suspicions were strengthened by the chance rescue of a Sunda pangolin from a vehicle in Kerinci in the final weeks of the project period. The driver, who appears to have been a building materials delivery driver, admitted he had bought the animal for £39 from 'a friend' in a nearby village was not apprehended as the rescue was conducted, opportunistically, late in the evening by two members of the TPCU and Monitoring teams. The pangolin, a young adult male, was subsequently released in national park forests in a site selected as both suitable and safe.

The potential for a gradual resurgence in IWT-driven threat and the imperative to identify any significant increase in demand was discussed, in detail, at the TPCU annual evaluation meeting in early January 2023. A strong recommendation was subsequently made by TPCU rangers that forest-edge community information networks, which were severely disrupted during the Covid-19 pandemic, should be revived and strengthened where possible.

Wildlife and habitat Law Enforcement: Conduct fair and offence-appropriate law enforcement directly while on patrols or through support to law enforcement agencies where outside the protected area and so leverage reduced threat to tiger, prey and habitat more widely

The team supported no intelligence-led tiger law enforcement actions during the project period,

although final stage planning to support law enforcement was in place as a result of a TPCU investigation into tiger poaching and trade in the far north of the landscape in West Sumatra province.

However, TPCU patrols responded to breaches of wildlife and forest law where offenders were present, primarily through use of verbal or formal cautions but also interviews and counselling of offenders and confiscation of equipment where this was appropriate or feasible.

Formal legal Cautions and orders to quit the protected area were issued to four individuals encountered on one patrol who were preparing to clear national park forest for agriculture. A further 19 verbal Cautions were issued in the course of a further six patrols for a range of offences including 'electric' fishing, wild songbird catching and clearance or use of national park forests for smallholder agriculture. Kerinci Seblat Tiger Protection & Conservation – SMART map showing Cautions issued on patrols and confiscations of illegal materials





TPCU ranger Tholibin with an illegal shotgun confiscated on a patrol from a forest edge farmhouse ©FFI KSNP

In one of the latter cases, it was learned that an area of national park forest cleared and planted with palm oil in the south-west of the national park had been sold to the smallholder farmer by an individual from a park-edge village. Further enquiries advised that the vendor had, himself, purchased the forest lands from a third individual. National park members of the team are now working with the local district forestry management service to resolve this particular case.

Patrols also confiscated one chainsaw, an illegal shotgun and factory-made ammunition and a high calibre airgun in the course of three patrols in the west and east of the protected area. Two TPCU patrols also provided support for planned law enforcement by the national park and district police against illegal gold mining in the protected area including through forest patrols to identify sites in the national park where heavy plant equipment was suspected to be operating.

Human-tiger conflict mitigation - Rapid responses to human-tiger conflicts protect both tigers and community livelihoods and reduces the risk of revenge killings

The majority of human-tiger conflicts in park-edge farmland recorded during the project period were managed and mitigated by local units of KSDA who lead multi-stakeholder human-wildlife conflict mitigation teams formed, with project support, around Kerinci Seblat, between 2015 and 2018.

In the south-west of the national park, TPCU members joined colleagues from KSDA Bengkulu on a number of human-tiger conflict mitigation actions in park-edge farmland and plantations in North Bengkulu and Mukomuko districts. Two of these cases related to repeat predation, by one or more individual tigers, of cattle grazing freely in oil palm plantations adjoining production forests which buffer the national park and TPCU rangers and KSDA colleagues strongly suspect these cases were linked to significant falls in wild boar populations, as a consequence of African Swine Fever.

One of these conflict mitigation actions a water monitor, which had died from poisoning was found close to the carcass of a cow, killed by a tiger. The conflict mitigation team concluded that the carcass of the cow had been dosed with the poison with the intention of killing the tiger but had killed a water monitor, an animal that is an avid carrion seeker. Both the water monitor and cow carcass were destroyed.

In a second case, in early 2023, conflict mitigation, again led by KSDA Bengkulu, a camera trap placed by a member of the tiger Monitoring team revealed a tiger predating cattle in an oil palm plantation bordering national park buffer-zone forests had suffered injuries to a front limb from a snare. It is unclear whether these injuries had forced the tiger to resort to predating livestock outside the forest or whether the injuries were caused by a snare set in response to livestock predation.

In the east of the national park in Kerinci district, the TPCU team worked closely with KSDA and others over a period of more than two months to manage the complex aftermath of the release, into the national park, of two captive-bred tigers from the Barimun sanctuary in North Sumatra province.

The release site had been selected by the Ministry of Environment and Forestry on the basis of low tiger occupancy and good forest cover however ground truthing surveys by the TPCU team in February and March warned of a very low prey base including an apparently total absence of wild boar. These tigers, both GPS radio-collared, were released, by helicopter, in early June into the national park but then moved into forest-edge farmland in neighbouring Kerinci district.

The project team subsequently worked closely with the national park and KSDA to monitor the situation while placing box traps with the purpose that the tigers be caught and returned to North Sumatra for further re-wilding. In July, one of these tigers died from internal injuries after being gored by a water buffalo tethered in forest-edge rice padis. The male tiger has subsequently spent more time in deep forests of the national park, roaming very widely, but frequently returning to forest-edge areas, possibly due to greater prey base availability.

The project will work with colleagues from Forum Harimaukita and the national park to advance development of detailed protocols and criteria for future Sumatran tiger releases including 'lessons learned' for approval by the Ministry of Environment and Forestry which may guide future, tiger releases both in KSNP and more widely in Sumatra.

Stakeholder liaison/Co-ordination:

All program activities and outputs were reported, monthly, to the director of Kerinci Seblat National Park and then, onward to the Directorate of Conservation of Nature and Ecosystems of the Ministry of Environment and Forestry.

Activities and results were also reported monthly to the Kerinci Seblat Landscape program manager, so informing wider conservation strategies at a landscape level by FFI and by the FFI KSL Village Forest programme which is now working with park-edge communities to strengthen conservation and build sustainable management, by communities, in more than 110,000ha of forest adjoining or bordering the protected area.

The programme team also routinely networked and collaborated with park-edge nature conservation agencies (KSDA), primarily in Jambi and Bengkulu provinces, to support responses to human-tiger conflict which has increased since mid-2021, likely as a consequence of significant falls in wild boar populations, in particular in the inner-zone of national park, as a result of African Swine Fever.

The program team also networked, informally, with local NGO partners in the landscape and joined distance discussions with colleagues in the Sumatran tiger conservation forum 'Harimaukita'

regarding the impacts of African Swine Fever on wild tiger conservation and reviewing protocols and procedures for tiger relocations and releases.

Capacity raising

No formal training or capacity development was conducted during the project period, however, KSNP auxilliary rangers (MMP) joined some Bengkulu TPCU patrols to gain experience in SMART patrols and forest navigation while a senior member of the Kerinci Seblat Tiger Monitoring team attended a training workshop on collection of suspected African Swine Fever specimens for subsequent forensic analysis and subsequently provided guidance notes to the TPCU team.

Key achievements of this project:

- In July 2022, Kerinci Seblat Tiger Protection & Conservation was awarded an International Ranger of the Year Award recognising the long-term commitment of TPCU rangers and measurable results achieved in conserving Sumatran tiger in Kerinci Seblat National Park
- Tiger Protection & Conservation Units conducted 77 SMART forest foot patrols across a distance of 1,172Km (694 miles) by GPS Waypoint in national park and park-edge forests of three provinces with not fewer than 54 tigers reported on patrols.
- For the first time in the project's 23 years history, no active tiger snares were recorded on TPCU patrols in spite of a continuing strong focus to identifying areas where tigers may be at threat for a patrol response.
- Poaching of tiger prey species, in particular rusa sambar, detected on patrols maintained a longrunning decline with only one patrol reporting active deer snares (10).
- For the first time ever, patrols conducted during the holy month of Ramadan recorded no poaching threat to deer to supply local market demand
- Activities to build understanding of human-driven threat to wild tigers and 'for information' reports found poaching threat to tiger remains primarily opportunist and conducted by older, habitual poachers with hunters avoiding areas of the national park where TPCUs may be active

Obstacles to success:

Counter-part funding shortfalls:

The project continued to suffer significant financial constraints on activities due to the ongoing financial impact of the Covid-19 pandemic on donors so that the number and scope of of forest patrols and other activities, including investigations, was lower than the long-term norm while inflation, and a 30% increase in fuel costs from September 2022 posed further challenges.

Poaching:

Although poaching threat to tiger has fallen significantly, a small number of habitual poachers, mainly older men and members of their immediate family, are believed or known to continue to pose threat to conservation of wild tigers and their prey in Kerinci Seblat. These individuals are very aware of the risks of detection and are very cautious. A local NGO partner continues to conduct interviews to

identify the motivations of these individuals and actions to leverage change in behaviour, including through identifying sustainable and legal alternative income sources may be one solution. However, this lies outside the scope of this project.

Habitat loss:

Forest conversion by smallholder farmers, not all poor or landless, for coffee production in highland areas and for oil palm in lowland forests continues to pose a wider challenge to tiger conservation in Kerinci Seblat, as with elsewhere in Sumatra. Work by the FFI Kerinci Seblat landscape Village Forest team and local NGO partners to develop community-managed 'village forests' to buffer the National Park is proving helpful in some areas and this work has now expanded to park-edge forests in the south-west of the national park in Bengkulu province with members of the Tiger Monitoring team providing support to the Village Forest team in conducting biodiversity surveys and assessments in planned Village Forest sites so that wildlife – including tiger – conservation is built into village forest management planning

Disease:

The African Swine Fever is now known to have had serious impacts on wild boar populations in Kerinci Seblat with very significant falls in wild boar presence recorded on TPCU patrols and during spot camera trapping by the Tiger Monitoring team in 2022, particular in the Interior Zone forests of the park favoured by Sumatran bearded pig. This is a matter of great concern for tiger conservation given naturally low rusa sambar densities and may be contributing to an apparent increase in tigers moving at the farmland-forest interface favoured by common wild boar *Sus scrofa*. Canine Distemper Disease (CDV) has been recorded in Sumatra, including in sampling of wild boar hunting dogs in one park-edge province.

Development:

Village development grants to boost rural economies have been a core strategy of Indonesia's president Jokowi and may include roads development which, in some sites, has potential to give easier access to national park or other forests. This potential obstacle may be minimised in areas where the FFI Kerinci Seblat Village Forest team or TPCUs have relationships with village governments and traditional law leaders and mitigation measures may be put in place,

A major coal user and exporter, Indonesia is now actively moving to transition to a low carbon economy with geothermal energy identified as a key energy resource and the government has ruled these may be exploited in the outer 'Wilderness' or 'Traditional Use' zones of national parks. Three geothermal power plants are now operational in park-edge forests of three provinces with two further plants in an advanced planning stage. To date, these geothermal companies have been been supportive of the national park and wider conservation goals, however the need for roads to serve and support facilities remains an area of grave concern.

Monitoring and Evaluation:

TPCU forest patrols: Results are evaluated twice-monthly, by ranger teams and team leaders and also draw on the programme's SMART database and SMART patrol maps to analyse and compare patrol results over time. Over a longer period, Tiger presence and change in encounter rates are also evaluated using both Effort to detect tiger sign @ patrol days per tiger, and Frequency of Encounter (Km walked to record) and % of patrols reporting tiger presence. Active or recently-active poaching threat to tiger is recorded quantitatively (number of snares, number/% of patrols recording) and Effort (days) to detect. Threat to tiger prey species is primarily recorded through # of active snares reported

and % of patrols recording over the year as a whole and during the fasting month of Ramadan. Patrol 'coverage' of an area is not a key evaluation tool as a consistent, but unpredictable, patrol presence in the forest is found to have greater conservation impact than 'coverage'.

Building understanding of poaching and IWT threat to tigers: Number of reports logged, and graded for credibility) and geographic spread of information collection effort. Activities securing credible data on blackmarket prices or reported changes in IWT demand for tiger or other species, new trade routes or identification of previously-unknown individuals (poachers, traders, couriers). Information collection supporting patrols which record active threat. Number of activities supporting subsequent wildlife law enforcement or patrol deployment where threat is confirmed. Willingness of forest-edge informants to provide information on suspected threat to tiger or tiger prey or an emerging conflict for a TPCU response.

Law enforcement: Number of pre-planned/information-led tiger law enforcement actions conducted in support of the relevant government law enforcement agency and outcomes; number of suspects, evidence and, if Sumatran tiger, condition of evidence (complete or partial body parts, missing body parts). Law enforcement proceeding from arrest through Case Development to a court hearing and to sentencing. Judgments made (sentences, fines etc). Availability of suitable Expert Witnesses. Number of habitat and other law enforcement actions on patrols where offenders are present, type of offence, number of offenders, actions taken. Post-law enforcement patrol records and information collection in areas where law enforcement has been conducted and evidence of law enforcement impact (where relevant).

Human-tiger conflict mitigation: Number of human-tiger conflict incidents reported, grade (severity) of conflict. Conflicts reported before livestock (excluding farmland guard dogs) predation has occurred, and conflicts involving livestock predation or posing direct threat to people. Conflicts mitigated in partnership with other government agencies under multi-stakeholder conflict mitigation taskforce groups (*satgas*) or directly by TPCU personnel. Post-conflict mitigation outcomes, including use of community informants to monitor any recurrence of conflict or reports of poachers entering the area.

Shared learning:

The programme operates under a partnership between FFI IP and KSNP management authority (BBTNKS) and all TPCU activities and outputs were reported, monthly, to the national park director and subsequently, to forestry headquarters in Jakarta. This reporting system delivered real-time information to the national park leadership and national MoEF decision-makers in evaluating progress towards Sumatran tiger goals, challenges recorded in the field and actions required.

Activities were also reported monthly to the FFI Kerinci Seblat Landscape project team so informing wider conservation strategies in the Kerinci Seblat Landscape.

Team members also took part in informal 'distance' discussions with colleagues on the Sumatran Tiger Conservation Forum (Forum Harimaukita) while the dramatic falls recorded in wild boar presence were discussed with other tiger conservation programmes in Sumatra and Malaysia and, informally, with a senior member of the IUCN Suid Specialist Group.

The programme advisor is a member of the Tiger Vision group of international NGOs and took part in detailed tiger conservation strategy discussions, over the course of 2022, to provide input to planning for wild tiger conservation under a future Global Tiger Recovery Program for 2022-2034.

Media: N/A

Have you provided at least 2 blogs? A blog will be provided by end of quarter 2, 2023.

Have you provided at least 10 high quality images with details of the relevant credit? These will be sent separately (likely via WeTransfer)

