



Illegal Wildlife Trade (IWT) Challenge Fund Final Report

To be completed with reference to the “Writing a Darwin/IWT Report” Information Note: (<https://iwt.challengefund.org.uk/resources/reporting-forms-change-request-forms-and-terms-and-conditions/>). It is expected that this report will be a **maximum** of 20 pages in length, excluding annexes.

IWT Challenge Fund Project Information

Project reference	IWT048
Project title	Tackling the Illegal Wildlife Trade in Muslim Communities in Sumatra
Country(ies)	Indonesia
Lead organisation	WWF UK
Partner institution(s)	PPI-UNAS, YAPEKA, WWF Indonesia
IWT grant value	£255,000
Start/end dates of project	July 1, 2018 – September 30, 2021
Project Leader’s name	Chantal Elkin
Project website/blog/social media	http://ppi.unas.ac.id/pendidikan-dan-pelatihan-lingkungan-hidup/
Report author(s) and date	Chantal Elkin, Dr. Mangunjaya, with inputs from WWF Indonesia and Yapeka: December 15, 2021

1. Project summary

This project aimed to protect threatened species in Rimbang Baling Wildlife Reserve (RBWR), Riau, Sumatra, heavily targeted by poachers. RBWR lies within the Central Sumatra Tiger Conservation Landscape, an area critical to the long-term survival of Sumatran tigers. In Year 2 of this project, WWF through separate funding completed a report of their full coverage camera trapping in Rimbang Baling, which generated 1,542 tiger photos. They identified 23 tigers (12 males, 7 females) in the landscape. This study also generated good data on other wildlife and tiger prey.

As the RBWR had historically received minimal government support, WWF launched a RBWR protection programme a decade ago to monitor and protect wildlife in RBWR, primarily tigers. From information gathered by the WWF-supported Tiger Protection Units (TPUs), it was understood that commercial poachers were both locals and outsiders operating with collusion from locals, trapping wildlife (an average of 2 tigers/ year), mainly for Chinese markets but with some, especially birds and primates, also for domestic use. The WWF-supported Wildlife Crime Team (WCT) operating in Riau province also understood that IWT from RBWR feeds into the larger trade in Riau, a major transit area for wildlife and one of the main sources of tiger body parts.¹

Our project focused on 11 villages in the buffer zone of the RBWR. WWF/MOEF had little engagement with these villages prior to our project and very few details were known about IWT in these buffer zone villages. However, the TPUs had already identified 10 tiger hunters and 2 middlemen living there and recognised the imperative of monitoring them and of understanding better the dynamics of hunting and trade of other species by locals in the area.

¹ Sunarto *et al.*, 2013
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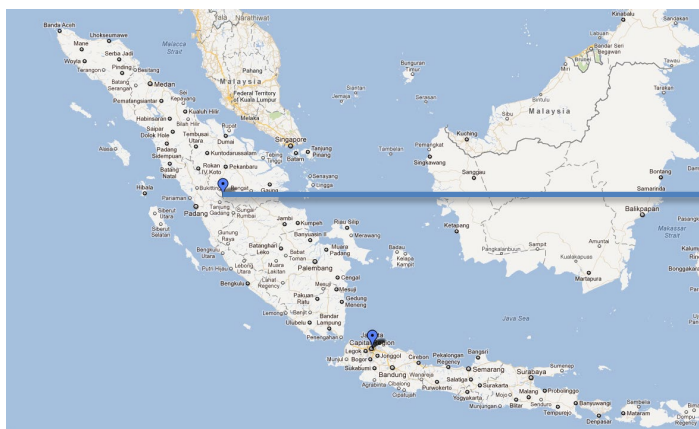
WWF's 2016 socio-economic study² in the RBWR buffer zone also highlighted low local levels of understanding about the importance of protecting RBWR's biodiversity, and the lack of local participation in conservation efforts, as drivers of IWT: 40% of those surveyed did not know RBWR existed and 80% did not know about the conservation programme. Tiger poachers identities were openly known and even respected in local villages.

In addition to lack of conservation awareness, WWF identified poverty as a key driver of IWT.³ Our target villages are in the poorest district in Riau province, where villagers rely almost exclusively on rubber farming, and on external sources of energy and food. When rubber prices fall, villagers will supplement their incomes with opportunistic poaching.

This project sought to reduce the poaching and trade of tigers and other threatened species in and around RBWR, through a strategic approach that integrated Islamic, values-based messaging by Muslim leaders in these villages about protecting wildlife and stopping participation in the wildlife trade; reduced poverty through diversified sustainable agricultural activities; encouraged tiger poachers to stop participation in the illegal wildlife trade and to assist the TPUs; and strengthened IWT monitoring in this important buffer zone area.

This project has resulted in the following successes: 1) Greater levels of fatwa awareness in the target villages and an increase in social pressure to abide by the fatwa's teachings; 2) More diversified and sustainable livelihood options for 350 families in the landscape, and a commitment by village authorities to integrate these sustainable livelihood models into future village development plans; and 3) Improved detection and monitoring of IWT in the landscape, which will bolster WWF's and the Indonesian government's ability to crack down on IWT in Riau province. This project supported the reduction of tiger trade in particular, reducing the annual killing of tigers from two to one, and obtaining commitments from 8 of 11 known tiger hunters to stop their poaching activities, with five now actively working with the TPUs as community IWT informants. This project has also brought to light the extent of other IWT activities and networks in the landscape, especially related to local bird trade.

However, information on IWT inside the reserve itself was more difficult to obtain as of 2020, when WWF Indonesia's MOU with the Ministry of Environment and Forests was canceled and WWF was no longer able to enter the reserve. The MOU cancellation, dry season fires, and the Covid pandemic unfortunately all impacted our work and collaboration between the three project elements, as regular in person collaboration and meetings with target communities were not possible from March 2020. The project team also realised, as a result of our endline surveys, that project design would have been significantly strengthened with the aid of a behaviour change specialist. While awareness of the fatwa has been strengthened through this project, and Muslim leaders have committed to spreading awareness about the fatwa's teachings, we have not seen the desired level of behaviour change that we had hoped for among the wider population in the 11 villages. However, the project has identified the areas where WWF and UNAS, who are committed to working in the landscape over the long term, can build on to target and shift behaviours that will help reduce IWT in this critical landscape.



Rimbang Baling Wildlife Reserve-Sumatra Indonesia
 Latitude: 0o 5'S -0o 30'S
 Longitude: 100o45'E- 101o 0'E

Please see [Annex](#) for map of 11 target villages

2. Project Partnerships

² Yapeka/ WWF Indonesia (2016). Livelihood Assessment through Knowledge, Attitude and Practice (KAP) Survey Approach in Rimbang Baling Landscape, Central Sumatra

³ Report on Socioeconomic Assessment of People in and around Rimbang-Baling Wildlife Reserve, Yapeka/ WWF Indonesia, 2015

This project was a partnership between WWF UK's Beliefs & Values Programme (BVP) and three on the ground partners in Indonesia: the Centre for Islamic Studies at Jakarta's national university (PPI-UNAS), Yapeka, and WWF Indonesia.

The head of PPI-UNAS, Dr. Mangunjaya, an expert on Islam and the environment, was the field level project coordinator, tasked with regularly bringing together partners in dialogue and to assess strategy and progress, updating Chantal Elkin, Head of WWF UK's BVP, and submitting regular reporting to the BVP from field partners. All project partners were engaged from the beginning of the project in strategy development and decision making, based on their considerable experience in the landscape. While UNAS was spearheading engagement with religious leaders in the RBWR landscape, Yapeka was supporting villagers to develop sustainable livelihood initiatives, and WWF Indonesia's focus was on strengthening detection, monitoring and enforcement of wildlife crime in the landscape, especially on working with known tiger poachers on no hunting agreements.

Unfortunately WWF Indonesia's MOU with the Ministry of Environment and Forests (MOEF) was canceled in January 2020, meaning WWF-supported ranger teams were unable to patrol inside the Rimbang Baling Wildlife Reserve for much of the project period. In addition there was only minimal and infrequent government ranger patrolling inside the reserve itself. However, this situation only heightened the importance of working in the buffer zone villages. Since the cancellation of the MOU, WWF Indonesia has been and is still going through a very unsettled period and it has not always been easy to plan together. WWF Indonesia also found it difficult to begin using the DEFRA funding in Year 1 and so we had a few hiccups along the way in terms of balancing our budget.

Indeed, financial management has been somewhat challenging over the course of the project. It was not always easy for UNAS, a small team not experienced with managing this kind of grant, to coordinate the financial management among all the field partners.

The Covid pandemic has also hindered what would otherwise have been more regular in person meetings between the three partners and planning sessions that would have facilitated integration of the three aspects of this project. Under the circumstances, we met online regularly and over the phone, but relationships would have been stronger had the pandemic and the MOU situation not been key issues since January 2020, in addition to delays from dry season fires.

With the cancellation of WWF's MOU with the MOEF, WWF Indonesia engaged other government partners with law enforcement authority in the wider RBWR landscape. For example, this project supported WWF Indonesia's collaboration with the Riau Attorney General's Office and with the Forest Management Unit of Kampar Kiri (KPH) which manages non-conservation forest in the RBWR buffer zone. PPI-UNAS also stepped in and sought stronger relationships with the MOEF's conservation office, the BBKSDA. The BBKSDA has been keen to increase its presence in the RBWR buffer zone in cooperation with the conservation clerics. The head of BBKSDA, for example, plans to speak about wildlife regulations and the benefits of conservation at mosques and community events such as during Ramadan.

In terms of other non-formal partners in Indonesia, these include the national Islamic Council (MUI), with whom UNAS is in frequent contact both at the national and provincial levels; local religious leaders, primarily through the conservation clerics forum "Forkodas"; local district and village authorities; and community farmers and women's groups. In Year 3 Forkodas legally registered as its own organisation with the help of WWF Indonesia, so that they may now receive charitable donations from government, religious charity (zakat institutions) and civil society.

WWF UK's BVP, with separate funding, also supported input from two experts on monitoring and evaluation, affiliated with the Oxford Martin School's Wildlife Trade Unit and San Diego Zoo, on monitoring and evaluation of the project, who assisted with the baseline and final M&E reports.

Project partners PPI-UNAS, Yapeka and WWF Indonesia were all involved with writing this report, along with WWF UK's BVP. These three partners will maintain an ongoing relationship beyond the life of this project. They are all working in the RBWR landscape and especially WWF UK's BVP and WWF Indonesia, as well as PPI-UNAS, will continue to partner on support to the conservation clerics and to help shift behaviours in the landscape to reduce the threat of IWT to the area's biodiversity.

3. Project Achievements

3.1 Outputs

Output 1. By end of Yr 3, 8,000 (49%) people in 11 buffer zone villages understand the fatwa's prohibition on IWT and provincial IWT laws, and relate wildlife conservation to their core religious values

Indicator 1.1 In Yr 1, 60 participants from 11 villages who before had no understanding of the fatwa can outline its key points on IWT after 2, 3-day fatwa trainings led by UNAS (for 30 clerics including pesantren leaders; 12 women leaders from community, prayer groups and pesantren; 18 law enforcement officials)

At the beginning of our project there was very little understanding of the fatwa in our target villages. Under this project, the UNAS team identified 52 people to be trained on the fatwa guidelines, including 40 clerics in the 11 villages and 12 members of the WWF-supported Tiger Patrol Units (TPUs) and Wildlife Crime Team (WCT) in Riau province. Among the clerics, 28 were men (78%) and 12 were female (30%). Our post-training questionnaires with the clerics demonstrated that all of the clerics had a good understanding of the fatwa's Islamic teachings on protecting species and habitats, from a baseline of 52% before the training.

Please see:

- Final Report of Fatwa Training for Clerics [and](#) **Output 1** Training

Indicator 1.2 Commitments made by training participants to share fatwa-based IWT messages at least 1/month in sermons, schools, women's prayer groups, patrols in 11 villages, reaching 8,000 people (50% women/ girls) by end of Yr 3 (baseline = 0 people reached)

During the trainings, 40 clerics committed to preaching the fatwa's teachings to 8,000 people in their communities. Please see:

- Output 1 Commitments
- [Photos in dissemination of Fatwas in community radio](#)
- Fatwa dissemination in [mosques \(Instagram of Dai Forkodas \)](#)

Indicator 1.3 By end of Yr 3, 60% (10% sample) of congregants from 18 mosques, Muslim women in female prayer and community groups, and students from 4 pesantren in 11 villages who before had no understanding of the fatwa can outline its key points on IWT

Since the trainings took place in Year 1, the clerics have been regularly preaching and spreading awareness about the fatwa in the target villages as well as online and through social media, using these methods more since March 2020 due to restrictions on group gatherings due to Covid-19. The conservation clerics could not disseminate faith-based fatwa messages on IWT as regularly since March 2020, due to restrictions on gatherings in the mosque and elsewhere. They did try to move some preaching online but poor network coverage in these villages meant that in reality their access to their communities was severely diminished during the pandemic, and we feel this has impacted their ability to regularly communicate fatwa messages to the wider community

Prior to the pandemic, in Year 2 we conducted a survey with 17 conservation clerics about how well they feel they have distributed the fatwa guidelines in their community from February 2019 to March 2020. They reported preaching to at least 20,000 people to date, although many people will have attended sermons, events and classes more than once. For example the main pesantren (boarding school) has 1,200 students and fatwa-based teachings were given about ten times in Year 2.

The UNAS team worked with clerics from 15 mosques in the 11 target villages as three of the mosques were too remote. UNAS used a WhatsApp group with the conservation clerics to maintain regular updates on their fatwa preaching activities. From the WA group and from discussions with the clerics, UNAS's endline surveys in June 2021 estimated that about 11,000 of the total population of the 11 villages (16,437 people) had heard Muslim clerics preach about the fatwa over the course of this project, or 66% of the total population.

Our endline survey in June 2021 demonstrated a rise in knowledge about the fatwa. In our baseline survey, 57% of participants in the intervention sample, and 65% of participants in the comparison sample, agreed or strongly agreed with the statement "*Hunting and rare animal trade are forbidden by the Fatwa of MUI No.4 of 2014*", versus 89% of participants in the intervention sample and 76% of participants in the comparison sample in the endline survey.⁴ In the endline surveys, community members in the four sampled intervention villages (out of 11 villages) told us they had primarily heard of the fatwa through film screenings and sermons, and recommended that awareness efforts be stepped up through billboards posters and word of mouth.

UNAS also put considerable effort into raising awareness on the fatwa with pesantren (Islamic boarding schools) in the 11 villages. The aim of the eco-Islamic boarding school programme has been to instill youth with environmental knowledge and awareness as part of their faith, integrating the principles of Islamic teachings with scientific knowledge. For more information please see: <https://ekopesantren.com/site/>

⁴ Researchers caution, however, against drawing conclusions about these numbers which they say are not statistically significant.
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Under this project, the UNAS team created and disseminated resources for youth on the fatwa in 10 pesantren in the landscape, with a collective student body of 6,357 girls and boys. These included the fatwa teaching supplement, Environmental Education for Islamic Boarding Schools, a comic book for youth about the fatwa, and all training modules including a tutorial video regarding Islam and Conservation. In April 2021, UNAS conducted a training (online and on site) with 10 pesantren representatives from the 10 pesantren.

Due to coronavirus restrictions, the UNAS team could not carry out an evaluation with the pesantren before the official end of the DEFRA grant. However, with Rufford Foundation funding, the team carried out an additional training in one large pesantren in the landscape with a student body of 1,000. They trained 10 students and 15 teachers on the fatwa and measured their knowledge of the fatwa before (36%) and after (79%).

PPI-UNAS has received two grants to support the fatwa awareness work with pesantren started under this project: £ from the Rufford Foundation to support outreach and monitoring on the fatwa teaching supplement in pesantren, with activities launched in July 2021; and a US \$ grant from the Templeton Foundation, beginning in early 2022. These grants will build on our interaction with the pesantren in the RBWR landscape to increase fatwa awareness among the landscape's youth. For more information please see:

In addition to the clerics' awareness activities through the mosques and pesantren, we have supported the production and airing of fatwa-themed videos [and radio shows, organised village level events](#), and created awareness raising tools such as comic books and teaching supplements.

Feedback from the conservation clerics in Year 2 and endline surveys in June 2021 suggest that there is a high level of support for the fatwa among local communities and Muslim leaders, and increased social pressure to abide by the fatwa, but other factors have prevented demonstrable behaviour change. These include the fact that many people are still dependent on hunting and collection of forest products to meet basic livelihood needs; the negative associations with tigers in particular; and the cultural focus on keeping songbirds. Please see the M&E section for more detail.

- For more information please see: **Output 1 M&E** and **Output 1 Pesantren**

Indicator 1.4 By Q3 Yr 1, fatwa educational materials freely available and disseminated including: materials for clerics and community leaders; teachers supplement for pesantren; content for radio shows, videos and social media, (baseline = none available)

- Please see all of the fatwa training and educational materials produced by PPI-UNAS: All Fatwa Awareness Tools in PPI UNAS Website.

Output 2. By end of Yr 2, 750 households (25% of population; 20% women) in 6 of the 11 priority villages have capacity to pursue diverse and sustainable livelihood activities:

Indicator 2.1 By Yr 1 Q2 following community forums about the project, agreements signed with 6 village chiefs to stop village participation in IWT and instead engage in sustainable livelihood activities. Monitoring of agreements by field partners 1/ month by WWF-Yapeka

Five agreements were signed in Year 1 and the remaining village signed at the beginning of Year 2.

Indicator 2.2 By Yr 1 Q3, sustainable livelihoods needs assessment and strategy document completed for 6 villages

- Completed in Yr 1. Please see this link.

Indicator 2.3 By end of Yr 1, 5 sustainable livelihood activity demonstration plots in 6 villages established by Yapeka as learning centres for 750 households (baseline = 0)

Nine sustainable agriculture demonstration plots were established in this project, and used during Years 2 and 3 as learning sites that can later be replicated on farmland. Vegetables are being harvested, and organic fertiliser from the biogas is being used for paddy, vegetable, rubber and agroforestry plots. Planting of dragon-blood trees between rubber trees, more valuable than oil palm, and orange trees, was tested with almost 100 households, but this is a longer term activity as fruits are only harvested after several years.

Due to both dry season fires and then the impact of Covid-19 and the accompanying restrictions on group gatherings, by the end of Year 3 just under half of our target group - 350 households (47%) - participated in the demo-plot activities. Most participants in the sustainable livelihoods activities were women, exceeding our

estimates: 75% of participants in the trainings and 70% of the demo-plot activities. During this last year, however, many of the local women needed to stay home to take care of their families and tend to their rubber plantations. We were also pleased to see that five members from three poacher families living in the target villages also participated in vegetable gardening (in Tanjung Medang and Batan Sasak) and agroforestry (in Aur Kuning and Pangkalan Serei), and that members from 11 bird hunting families participated in vegetable gardening and agroforestry in Pangkalan Serei village.

- Please see this link for photos, reports, videos on demo-plots.

Indicator 2.4 By end of Yr 2, 30 sustainable livelihood skills trainings held by Yapeka for 750 householders (=187 women) from 6 villages (baseline = 0 trainings)

Yapeka held 28 training sessions on sustainable agriculture for 565 households, reaching 76% of our target 750 households. Yapeka also provided on the ground support to farmers through demonstration plots.

- Please see this link for more information.

Indicator 2.5 By the end of Yr 3, minimum 4 men and women from each of the 6 villages able to provide sustainable livelihood skills training to other villagers

In Year 3 Yapeka supported a group of 21 people, 9 of them women, as much as allowable given Covid restrictions, and to monitor their activities. We found that they are not yet confident enough to themselves become trainers and require ongoing support to reach this level. However, they are helping their neighbours to develop their own sustainable agriculture plots.

- Please see this link for more information

Output 3. By end of Yr 3, minimum 30% rise in income in 750 households in 6 villages resulting from switch to diversified and sustainable livelihood activities

Indicator 3.1 By end of Yr 3, minimum 38% rise in rubber productivity for 750 households (i.e. at least 182kg/month/100 trees of rubber sap yield), with no additional land clearing (baseline = 132 kg/month/100 trees)

By end of Year 3 we had reached 350 households of the target 750 (47% of our original target group), due to the impact of Covid and the difficulty of bringing together groups during most of Year 3. As such we had to work with much smaller groups of people. In addition, many people were focused on other economic and household duties during this unsettled time.

Amongst the 350 households, we have seen a rise from the pre-project baseline income, which mostly came from rubber sap production, of IDR, to income from other sources such as gardening, paddy field optimization and rubber optimization. *This has meant a rise to:*

- IDR /month for vegetable production (17% rise in income per month)
- IDR /month for paddy (30% rise in income per month)
- IDR /month for rubber (26% rise income per month)

At the same time, we saw a *decrease in expenses* for target households of:

- 100% for vegetables
- 20% for fuel/LPG
- 30% for fertiliser

- Please see this link for more information

Indicator 3.2 By end of Yr 3, increase to 10% of households using biogas and 30% using organic fertiliser (baseline = 0)

During Year 3, 30% of target households were using organic fertiliser produced from biogas; and 7 households were piloting the use of biogas as energy.

- Please see this link for more information; and a report on biogas

Indicator 3.3 By end of Yr 3, increase to 20% in number of women tending home vegetable gardens (baseline = 0)

Women made up 96% of the participants in gardening activities and 56 women (17%) who participated in the training began tending home gardens by Yr 3 of our target 20%

- Please see this link from the training report and demo-plot report.

Although pandemic restrictions on group gatherings during this past year meant we were unable to reach all of our target households, 76% of our target households did participate in the sustainable agriculture trainings. We hope that this capacity building will enable them to pursue sustainable agriculture in the future which will translate into more diversified and secure livelihoods. During these trainings we emphasised how sustainable land use – for paddy, rubber, vegetables - can optimise the land and replace the need for plantations and agriculture that require land clearing – and which ultimately weaken the resilience of local communities.

These pilot initiatives show promise for expansion within our target villages, which are some of the poorest in Riau province. In Year 3, these sustainable livelihood models were recommended by our project to village leaders, for inclusion in future village development plans. To date, village development plans have focused more on physical infrastructure rather than capacity building. Villagers have expressed their gratitude for our support in that it has helped them gain the skills they need to reduce expenses and add to their income, and they are keen to continue. As a result, village and community leaders have committed to prioritising sustainable livelihood capacity building and support in their upcoming village development plans, which we hope will have the impact of significantly expanding the reach of such activities from beyond the initial 350 families.

In addition to the demonstrated benefits of these approaches for local people, with strengthened monitoring and enforcement presence in the landscape during this project period, and increased awareness about conservation laws and the fatwa, villagers are increasingly realising that extractive activities like illegal logging and hunting are very risky. Based on the results of our small sample and the enthusiasm of the community and village leaders, we have concluded that support for sustainable agricultural activities, commenced through our project, has great potential in these villages to ensure more stable and dependable livelihoods in the landscape.

- For more information on livelihoods, please see the 6 month monitoring reports here.

Output 4: By end of Yr 3, >50% of the 12 poachers identified in RBWR buffer zone stop hunting and shift to alternative livelihood activities:

Indicator 4.1 By Yr 2 Q1, >50% of the 11 hunters (11 hunters, 2 traders) in 11 villages sign agreements to stop participation in IWT and instead act as community TPU liaisons, reporting IWT information collected at village level to district level TPUs (baseline= no agreements)

We have made excellent progress on this output. Our baseline assessment reported 12 wildlife crime perpetrators (10 poachers, 2 middlemen) operating in the 11 target villages. We identified one more poacher in these villages, while one moved away from the landscape. As of the end of Year 3, 8 of the 11 poachers have stopped their IWT activities with:

-7 having formally committed to stopping illegal hunting;

-1 having moved away;

-And the remaining 3 having significantly decreased their IWT activities and moved into other income generating activities.

-Of the two middlemen, one has died and the other has reported a decline in the supply of wildlife so is also operating at less capacity.

-5 ex-hunters now work with TPU as informants

- Please see hunter commitments and hunter stories

Indicator 4.2 By end of Yr 3, 12 poachers from 11 villages are trained in sustainable livelihood activities detailed in Output 3 in addition to TPU income (baseline = none trained)

As a result of this project, five ex-hunters now work with the TPUs as informants. This involved no hunting agreements, then a basic training by the TPUs on basic intelligence gathering and follow up protocols with the TPU. The hunters turned informants then regularly gathered intelligence and carried out investigations, which the

TPUs follow up on, verify, and when necessary, involve law enforcement agencies. In terms of incentives given to the tiger poachers to join our monitoring efforts, WWF implemented several compensation schemes:

- Daily per diem when informants worked with us. WWF followed its daily payment standard (IDR / day)
- Meals as relevant
- Compensation for using the property of informants such as their houses to stay overnight while carrying out investigations, motorbikes/fuel etc.
- Transportation expenses for their travel
- Small gifts during special holy days for Muslims

In addition, five members of three tiger poacher families also participated in sustainable livelihoods activities, specifically in vegetable gardening (in Tanjung Medang and Batan Sasak) and agroforestry (in Aur Kuning and Pangkalan Serei). Members from 11 bird hunting families participated in livelihoods activities in Pangkalan Serei village. Where the project could have been strengthened is in monitoring more carefully the impact of alternative livelihood engagement with hunter families to demonstrate impact on hunting choices, and this is something project partners can build on beyond the life of the project.

- Please see monitoring report for more details

Output 5: By end of Yr 3, wildlife crime monitoring in 11 target villages strengthens formal law enforcement detection efforts:

Indicator 5.1 By Yr 2 Q2, 12 TPU liaisons in 11 villages are trained in using a real time community-based wildlife crime reporting app based on best practices to report wildlife crime to district TPUs (baseline = none trained)

Early in this project the WWF team realised that network coverage in many areas of the landscape is too poor to support this so tool. Instead the TPUs gave trainings on intelligence gathering with ex-poachers and chose to have regular face to face meetings for updates.

Indicator 5.2 By Yr 2 Q2, religious, adat leaders and conservationists hold community forums and outreach in mosques encouraging villagers in 11 villages to report wildlife crime to TPU liaisons (baseline = no outreach)

Religious leaders have included these messages in their outreach.

Overall, WWF Indonesia reports that IWT detection efforts in the RBWR landscape have been strengthened through this project. At the beginning of our project there was no monitoring of IWT occurring on a regular basis in the 11 target villages. Over the course of this project, the WWF-supported TPUs regularly conducted SMART patrols 15 days a month in the RBWR landscape and have been collecting intelligence from 15 village level informants (5 ex-poachers + 11 villagers). The TPUs follow WWF's SMART patrol standards and maintain a database that has been approved by the MOEF. This database tracks IWT indicators over time, such as snare distribution, poacher information, case data and other relevant information. It is managed by WWF staff and the data analysed regularly. In addition, these patrols were also complemented by voluntary patrols by ex-poachers to eradicate snares.

Before the project began, the WWF team had identified 12 hunters and dealers in the area, but had not reached out to community members and poachers to help report on wildlife trade. In Year 1 our project partners developed good relationships with many community members in these villages through our work with religious leaders and communities and through our livelihoods support programme. The ground was softened for WWF's teams to approach known poachers to join our project, and to encourage villagers to report suspicious behaviours.

The TPUs have been regularly monitoring the activities of the 10 known wildlife poachers and 1 middleman in the 11 target villages, as well as 14 known perpetrators who act either as traders, middlemen and even ivory craftsmen in the Rimbang Baling landscape. Due to the increased number of informants and presence in the landscape, they have also been able to identify 43 bird hunters in the target villages over the course of the project. Trust is increasingly being built with the hunters and community members and more have volunteered to regularly report any useful information. We expect also that improved community reporting to TPUs on wildlife crime will continue to help clarify IWT dynamics in Riau so that TPUs can better target the middle men working at the provincial level. Improved detection has assisted the TPUs in identifying four new trade routes from the landscape to other parts of Riau, as well as the identify of three new traders. Improved detection also led to three cases actioned by law enforcement agencies over the course of the project.

During Year 3, the TPUs have therefore been able to increasingly identify threats, collect intelligence confiscate snares, and alert law enforcement agencies with relevant and time sensitive information so that they can take action and pursue offenders. These agencies includes BBKSDA, the police, customs, local forest management authorities and prosecuting agencies.

WWF has been working with police in the buffer zone to carry out investigations of the middlemen and hunters over this last year. They have noted that it has been more difficult to get information on tiger hunting, and believe it to indicate a decline in tiger hunting in the landscape. As a result of our reports, law enforcement agencies have also conducted several ground operations to stop illegal logging and arrested several perpetrators. However, without sustained enforcement presence logging continues, but when rubber prices are higher, logging appears to decrease.

TPU Findings: Records of Hunted Species & Snares Found

Hunting

Baseline: average 2/yr tigers; 1 bear killed (7 bears from 2013-2018)

YR 2: 1 tiger; 0 bears killed

YR 3: 1 tiger; 0 bears killed, 2 primates caught and traded

Snares:

YR 1: Tiger snares: 34 Prey snares: 7

YR 2: Tiger snares: 15 Prey snares: 8

YR 3: Tiger snares: 12 Prey snares: 1

Number of Arrests and prosecutions facilitated by the project:

3: 1 tiger, 1 pangolin, 1 hornbill

4 people charged as a result with 1 successfully prosecuted for 2 years and a fine

Average number of intelligence tips received by TPUs from informants as a result of this project:

Yr 1: 6

Yr 2: 14

Yr 3: 7

It is important to note that this project has focused not only on strengthening detection efforts, but also on strengthening preventative measures to reduce IWT. This has been done by encouraging law enforcement agencies such as MOEF's BKSDA and the Prosecutors Office to visit the landscape villages and meet with community members, to discuss with villagers the relevant wildlife protection laws and the importance of biodiversity protection. This is often done in conjunction with religious leaders. The religious and enforcement approaches reinforce and support each other and send a unified message to villagers about the legal and moral responsibilities of every Muslim when it comes to wildlife protection.

Our endline report suggests hunting is still occurring, primarily for the villagers' own consumption, but with some trade, as well as recreation. Other forms of deliberate killing are described, resulting from conflict/fear and retaliatory or pre-emptive killings when some species are considered pests.

Participants in our surveys considered the local community and the government as being almost equally responsible for protecting wildlife, and would like to see less top down and more collaborative approaches in wildlife protection with government agencies, as well as peer to peer support within the community itself.

Output 6: By the end of Yr 3, research results and best practices are consolidated and shared by ARC and partners for replication in other wildlife trade areas:

Indicator 6.1 By end of Yr 3, recommendations issued to 11 village councils on integrating sustainable livelihood activities into village development plans (baseline = none shared)

In Year 3, the Yapeka-led sustainable livelihoods activities were recommended by our project to village leaders as models for alternative income generation that they could include in future village development plans. To date, village development plans have focused more on physical infrastructure rather than capacity building. Villagers have expressed their gratitude for our support, which has helped them gain the skills they need to reduce expenses and add to their income, and they are keen to continue. As a result, village and community leaders committed to prioritising sustainable livelihood capacity building and support in their upcoming village development plans, which we hope will have the impact of significantly expanding the reach of such activities from beyond the initial 350 families.

- Please see link for minutes of meeting on village development plans.

Indicator 6.2 By end of Yr 3, fatwa training kit for conservationists working on IWT in Muslim communities produced by UNAS and freely available (baseline = none produced)

Fatwa training materials freely available on the UNAS-PPI website

- Please see here
- All Fatwa Awareness Tools in PPI UNAS Website.

Indicator 6.3 By end of Yr 3, at least 2 case study papers on results submitted to national and international conservation and religious publications by ARC and partners (baseline = 0)

Four articles published in international journals

Indicator 6.4 By end of Yr 3, project results shared online and nationally and internationally at conferences and meetings and with key faith and secular partners (e.g. conservation NGOs; the Siaga Bumi Indonesian multi-faith forum on the environment; Germany's new Religion-Environment programme; the UNDP-OECD faith-consistent funding programme; IUCN #NatureForAll Campaign; SCB Religion & Conservation Working Group...), vs. none shared in Yr 1

We have had many opportunities in the last year to share our project activities and results to date with conservation and faith partners in Indonesia and internationally. We will continue to share our learning in order to promote replication and adaptation in Indonesia and other Muslim wildlife trade hotspots globally. WWF UK is supporting the development and launch by early 2022 of a web portal on religion and conservation, the Faith & Nature Hub, where our project will feature prominently as a key case study with associated resources that can be freely used by others. In addition to WWF and UNAS sharing project information and results on our websites, we will continue to highlight its important lessons learned in meetings and social media.

- Please see this list of meetings where results were shared

Indicator 6.5 By end of Yr 3, an IWT fatwa module and new religion and conservation course included in UNAS's Faculty of Biology curriculum to inspire young conservationists to adopt religious approaches and partnerships in wildlife conservation (baseline = no module)

- Dr. Mangunjaya has begun to integrate the lessons learned from fatwa approaches to conservation into lectures for the existing class on Nature Conservation, Environment and Conflict, for the Biology Master Degree, School of the Graduate Program at UNAS, (Syllabus Here in Bahasa). In Yr 3, UNAS-PPI developed a distinct course on conservation and religion, and is currently reviewing the draft for finalisation.
- Dr. Mangunjaya also developed a new course for the Faculty of Philosophy and Civilization at the Sheikh Maulana Hasanudi Islamic University, in Banten, West Java, within the Bachelors Degree programme in Islamic studies (Syllabus Ecotheology). This is the first Islamic university in Indonesia to adopt such a curriculum and can be a model for others.

3.2 Outcome

Outcome: IWT is reduced >50% across 11 Muslim villages near RBWR by connecting core religious beliefs to wildlife protection, and replacing IWT benefits with values-driven, sustainable livelihood alternatives

Our team has concluded that we have reached part of our intended outcome in this project. We have successfully reduced the incidents of tiger poaching and snaring in the target areas according to our baseline and endline data,

and the majority of tiger hunters and traders active in the area before our project have stopped or significantly reduced their IWT activities, with five of them working with the WWF TPUs as wildlife crime informants. However, due to the cancellation of WWF's MOU with the MOEF, we were unable to monitor and evaluate trade levels inside the RBWR itself, and focused our activities in the buffer zone villages. Anecdotal reports suggest that hunting persists in the reserve, perhaps also due to livelihoods pressures during the Covid-19 pandemic, and improved detection indicates a high level of bird traders in the area. The majority of IWT does appear to be for local use, with some for trade in the wider Riau region. The pandemic also hindered our ability to coordinate activities as we had hoped between the three elements of our project, as in person relationship building was difficult without face to face interaction. It was also beyond the scope of our M&E capacity to regularly monitor hunters beyond the tiger hunters. On the whole, however, we feel that this project has contributed to a much more heightened awareness in target communities that IWT is an activity that is prohibited both by government regulations and religious edicts, beliefs and values, and that there is now more social pressure in the target villages to abide by these. However, we came to the realisation that a more systematic behaviour change focus, through support of a behaviour change specialist, would have created a stronger project design. With WWF and UNAS committed to engaging in this region over the longer term, we will build on the major positive elements that have resulted from this project to continue to support the reduction of the illegal wildlife trade in this important landscape.

Indicator 0.1 By Yr 3, >50% of poachers in 11 villages near RBWR stop participation in wildlife trade (baseline = 10 commercial poachers + 2 middlemen + local opportunistic poachers)

We have achieved our goals for this indicator. As of the end of Year 3, 8 of 11 known poachers have stopped their IWT activities (73%), according to the TPU reports (11 because another poacher became known to the TPUs this year). Of the 11 poachers, seven formally committed to stopping illegal hunting, and one moved away. The remaining 3 are at least for now seriously limiting their IWT activities, most likely due to their monitoring by the TPUs and the quicker and easier cash involved in rubber and logging. Of the two middlemen, one has died and the other is operating at less capacity due to TPU monitoring and has also reported a decline in the supply of wildlife.

We attribute this success to what is likely a combination of factors. First is the excellent outreach to poachers by WWF's TPU teams. Second, the regular patrolling in the target villages and surrounding landscape, plus the strengthened presence by other law enforcement agencies has increased detection and monitoring of IWT and has likely had a deterrent effect for the tiger hunters. A third contributing factor could have also been our support to local villagers on sustainable agriculture, including individuals from several poachers' families. We hope this is demonstrating that a secure living can be gained by legal and sustainable activities rather than from poaching and other illegal activities. And fourth, underlying all of these activities is strengthened awareness in the landscape of the fatwa, and consistent messaging from respected religious and community leaders in mosques, schools, in community events and on social media about the importance of stopping the illegal wildlife trade. Our endline surveys demonstrate that there is now more social pressure being felt by villagers about the need to stop engagement in IWT.

- For more information and evidence, please see Outputs 4&5

Indicator 0.2 By end of Yr 3, poaching linked to 11 villages of target species falls by >50% (existing baseline = 2 tigers/yr; 1 bear/yr – and baseline for other species completed by WWF by June 2018)

Our data indicates a reduction in hunting for tigers and bears over the project, from an average of 2 tigers/year pre-project, to 1 tiger/ year for Years 2 and 3 of the project. Bear hunting also went down to zero detections from 1 bear killed (baseline). We have also reported a drop in snares detected from Years 1 to 3. However, we cannot say with confidence that IWT has significantly declined in the target areas for other species. Indeed, due to greater presence and detection in the landscape, many more poachers, especially of birds, have become known to the TPUs.

TPU Findings: Records of Hunted Species & Snares Found

Hunting

Baseline: average 2/yr tigers; 1 bear killed (7 bears from 2013-2018)

YR 2: 1 tiger; 0 bears killed

YR 3: 1 tiger; 0 bears killed, 2 primates caught and traded

Snares:

YR 1: Tiger snares: 34 Prey snares: 7

YR 2: Tiger snares: 15 Prey snares: 8

YR 3: Tiger snares: 12 Prey snares: 1

Indicator 0.3 By end of Yr 3, 60% of sample households (10% sampling) in 11 villages demonstrate strong conservation awareness and willingness to abide by IWT fatwa and IWT laws for RBWR (baseline = no understanding of fatwa; 40% surveyed in 2015 did not know about the existence of RBWR, 80% did not know about RBWR conservation programme)

Our endline survey demonstrated a rise in knowledge about the fatwa. In our baseline survey, 57% of participants in the intervention sample, and 65% of participants in the comparison sample, agreed or strongly agreed with the statement “Hunting and rare animal trade are forbidden by the Fatwa of MUI No.4 of 2014”, versus 89% of participants in the intervention sample and 76% of participants in the comparison sample in the endline survey.⁵

On the whole our surveys suggest a high level of support and awareness of the fatwa, but that there are still other factors preventing behaviour change. Our feedback in Year 2 from the conservation clerics indicated that while many in the community were becoming more sensitised to wildlife and conservation issues, many people are still dependent on hunting and collection of forest products to meet basic livelihood needs, and since there is no longer a law enforcement presence inside the reserve there is not a strong deterrent to entering the protected forest.

Indicator 0.4 By end of Yr 3, minimum 30% rise in income in 750 households in 6 key villages to IDR 1,254,500/month resulting from switch to sustainable livelihood activities (baseline = IDR 965,000/month)

Due to disruptions from dry season fires and the pandemic, we did not reach our full target for number of households seeing a rise in income of 30%. However, we did make considerable progress on this indicator given the circumstances. We trained villagers from 568 households (78% of target) and had 350 (46% of target) take part in demo-plot activities. As a result, amongst those 350 families we have seen a 17% rise in income per month for vegetable produce, a 30% rise in income per month for paddy and 26% rise income per month for rubber, as well as a reduction in household expenses of 100% for vegetables, 20% for fuel/LPG and 30% for fertiliser. We count it as a major success that village authorities agreed to integrate our alternative livelihoods models into their future village development plans.

- Please see this link for more details.

3.3 Monitoring of assumptions

Outcome: IWT is reduced >50% across 11 Muslim villages near RBWR by connecting core religious beliefs to wildlife protection, and replacing IWT benefits with values-driven, sustainable livelihood alternatives

Assumption 1: The government management authorities of RBWR, village authorities, Muslim clerics, community leaders and villagers cooperate with project partners to reduce illegal wildlife trade

- This has proven to be true and all stakeholders have been very supportive of the project. The one complexity we've had to work with this year, however, is the cancellation of WWF Indonesia's MOU with the MOEF, and the subsequent lack of enforcement presence inside RBWR. In Year 3 we have approached the MOEF through partners PPI-UNAS and Yapeka, and WWF is working with additional government authorities in the RBWR buffer zone.

Assumption 2: WWF and law enforcement agencies are able to adequately monitor change in poaching activities/ number of poachers in 11 villages

- Since January WWF has not been able to operate inside RBWR, and there is therefore a weak deterrent to wildlife crime inside the park. However, the TPUs are allowed to work in the buffer zone, where most of the 11 villages are located, and therefore we are still collecting data on poaching inside and outside the park as much as possible, through our intelligence networks in the buffer zone.

***Here we add an additional assumption:** Project activities are not delayed by environmental factors.

- Two developments arose in Years 2 & 3 that has slowed our progress overall. One was the toxic haze that covered Sumatra due to forest and peatland fires from August until late October 2019. Some of the work to be done by the UNAS team, which needs to travel from Jakarta to Sumatra, was delayed until November as a result. This travel was mainly related to conducting additional awareness raising activities with target villages and clerics, as well as organising some monitoring and evaluation surveys. Some of the agricultural extension work with villagers and monitoring of demonstration plots was also put on hold until November and Yapeka was only able to train half the number of households in its agricultural support trainings. In Year 3 the Covid-19 pandemic had an impact on project progress as gatherings were

⁵ Researchers caution, however, against drawing conclusions about these numbers which they say are not statistically significant.
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prohibited.

Outputs:

Assumption 3: Religious and community leaders are respectful of the fatwa and agree to follow its guidelines

- This has proven true to date.

Assumption 4: Training participants commit to raising fatwa awareness at similar levels as previous UNAS training participants in Java and Sumatra

- This is the case so far.

Assumption 5: Communities are interested and willing to participate in sustainable livelihoods capacity building

- This holds true as per our consultations with 6 villages and livelihood activities to date.

Assumption 6: Women are willing and able to participate at high levels in trainings

- Women participated at very high levels in all of our trainings.

Assumption 7: Yapeka will be able to identify core group for training of trainers

- Yapeka has identified a core group of trainers and continues to support these local champions to build their confidence levels, which are still fairly low. We have not been able to support them as much as we wanted to due to Covid restrictions.

Assumption 8: Villagers and village governments and representatives are interested in creating diversified, sustainable livelihoods based on experience of other villages in the landscape

- This is the case and all 6 target villages signed agreements at the beginning of the project welcoming the project. Recommendations on continued support for sustainable livelihood activities will for the first time be included in the next village development plans.
- We are mindful that certain challenges remain for sustainable agriculture, including limited land availability around villages that can be used for agriculture, especially for the village inside Rimbang Baling Wildlife Reserve (Aur Kuning); the need for fences to protect crops from livestock; an overall low level of capacity on agriculture plantation management, which requires ongoing training and support; and access issues due to natural disasters like floods, fires or health crises like Covid-19. We hope that many of these issues can be discussed in village development plan sessions.

Assumption 9: Targeted poaching households are willing to work with project partners to replace short-term income from wildlife trade with longer-term benefits of sustainable livelihood activities

- Six of the 10 known poachers are replacing lost income from poaching with sustainable livelihood activities (4 working with the TPUs and 2 on agriculture/shop) and five family members from three poacher families have been participating in the sustainable livelihoods activities.

Assumption 10: Villagers who link their core religious beliefs and values with ending wildlife trade, and who benefit from more secure livelihood activities, are more willing to reduce wildlife trade in their communities

- This has been indicated by our evaluation in our previous work sites prior to this project and we assume it will be the case here. This is still being evaluated per our final project report.

Assumption 11: Communities will not be intimidated and instead act a stronghold against threats from outsider traders and poachers

- Still to be tested

Assumption 12: National and international journals, the media, conservation, development and other religious groups are interested in the subject matter

- So far this has been the case. As detailed in Section 3.1 our religious and conservation partners have been fascinated by this approach and excited about this project whenever we have spoken about it in private meetings or in conferences, webinars and podcasts and we have been invited to speak about this project in many public forums as detailed in the report.

3.4 Impact: achievement of positive impact on illegal wildlife trade and poverty alleviation

Impact Statement: The illegal wildlife trade is almost eradicated in Rimbang Baling Wildlife Reserve, Sumatra, with improvements in livelihood and social benefits for poor communities that can be replicated across Indonesia

Under this project we have implemented innovative approaches for measures to shift the enabling conditions under which IWT flourishes. This includes using the fatwa to encourage values-based wildlife protection across 11 priority villages, sustainable livelihood support, and direct monitoring and enforcement action to identify and reduce threats

through SMART patrols, conversion of poachers to monitors, development of a community informant network, and strengthened engagement with relevant enforcement agencies in RBWR buffer zones.

We feel our project is having a positive impact on reducing the illegal wildlife trade and creating an overall environment that discourages engagement in IWT. Prior to this project, there was no monitoring in the 11 villages of wildlife targeted for IWT beyond tigers. Ten known tiger hunters and two middlemen were well known in these villages and operating with impunity, as well as many other opportunistic hunters. As a result of this project, eight of what is now 11 known hunters have stopped hunting, seven having signed no hunting commitment letters with the TPUs. The remaining hunters and middleman have much reduced activity likely due to the increased enforcement presence in the landscape combined with less demand due to reduced purchasing power of consumers during the pandemic.

With local village informants, we are building up a clearer picture of levels of IWT in the buffer zone and the dynamics of the illegal trade. We are also seeing signs of growing social pressure to stop participation in IWT in target villages and a growing recognition among villagers that poaching is not aligned with their religious values. Please see our endline report.

Our work is also contributing to a greater understanding of wildlife trade dynamics in the RBWR landscape, which feeds into an understanding of how Riau province's active wildlife trade functions. Information gathered in the 11 target villages is proving very valuable to the WWF-supported TPUs and WCT, which piece together IWT investigations to identify poachers, traders, and the systems that enable IWT to flourish in the province and out to other areas in Indonesia and regionally. They in turn pass their information on to government enforcement agencies. Please see Outputs section 4 & 5 for more information.

In terms of poverty alleviation, we have been operating in some of the poorest villages in Riau province. Before this project was implemented, the average income in the target villages was IDR /month, coming mainly from one unreliable source, rubber production. In Year 3, support for diversification of livelihoods into a variety of sustainable agriculture activities has begun to demonstrate to the 6 target villages that these approaches are valuable and can boost income, secure livelihoods to a greater degree than relying only on rubber, and can reduce expenses. In Year 3 for 350 families in 6 villages we saw a rise from the pre-project baseline levels, of 17% for vegetable produce, 30% for paddy, and 26% for rubber. At the same we have seen a reduction in household expenses of 100% for vegetables, 20% for fuel/LPG and 30% for fertiliser. Rubber prices have risen in this period as well and the use of organic fertiliser to optimise production has also had an impact on production. We have observed that as rubber prices rise, hunting, especially by those villagers who hunt opportunistically to supplement their incomes, goes down. Villagers and village authorities are impressed with the results and are committed to integrating these models into future village development plans, which should contribute to more stable livelihoods and improved resilience of local communities. Overall we have made a positive impact on livelihoods, building capacity amongst villagers to pursue a variety of means to secure their livelihoods rather than sole reliance on an unpredictable rubber commodity.

Five people from three poacher families are part of the farmers group and have begun to manage their lands sustainably to better meet their daily needs and reduce the expenses. Five former poachers are receiving compensation for their work with the TPUs, one more is running a grocery stand with support from this project, and another is engaged in agricultural activities. Our hope is that these alternative sources of income will help encourage poachers to stopping all involvement in the illegal wildlife trade and serve as a model for villages in the buffer zone and for other IWT hotspots in Indonesia.

4. Project support to the IWT Challenge Fund Objectives and commitments under the London Declarations and Kasane Statement

Theme 1: The project pursues a three-pronged approach to “Developing sustainable livelihoods to benefit people directly affected by IWT” and aligns with London Conference Declaration Statements 13 and 17, and Kasane Statements 10-13.

The project aspires to shift social norms and behaviours towards wildlife trade through a values-based approach by raising awareness of the fatwa's teachings; wildlife crime monitoring and enforcement; and support to villagers in the landscape who are poor and engage in or support IWT to supplement their incomes. Through our project we seek to raise the income of some of the poorest households in Riau province through sustainable agriculture training and support so that they can meet their basic needs through a more diversified, sustainable and secure fashion, and in this last year this is demonstrating positive impacts. We aim through this project to build the overall resilience of target villages. Stable ecosystems with diverse wildlife will maintain natural resources and ecosystem services vital to supporting local communities. Cracking down on destructive illegal activities in the villages will maintain rule of law and strengthen governance and ensure greater security for local villagers, as will securing livelihoods not dependent on illegal activity like IWT. The Covid-19 crisis clearly demonstrates that wildlife trade and shrinking habitat are actually public health issues, as it brings wildlife and humans closer together and

increases the risk of zoonotic disease. We anticipate that fatwa messages on protecting wildlife and habitat will have increased urgency as conservation clerics in the coming year will highlight the links between community resilience and health and the illegal wildlife trade.

Theme 2 & 3: The project also contributes to the themes of “Strengthening law enforcement” and “Ensuring effective legal frameworks”, and therefore London Conference Declaration Statements 12 to 14, and Kasane Statements 4 and 5.

Prior to this project there was very little monitoring or enforcement in the 11 buffer zone villages of the RBWR. Now there is regular monitoring by the WWF-supported Tiger Protection Units (TPUs) and they are steadily gaining a clearer picture of IWT dynamics and increasing detections in this landscape. Detection of IWT in the landscape has improved significantly, given there was little enforcement presence there before our project. Eight of eleven known poachers are now directly involved in our project and have committed to giving up poaching activities and five of them are assisting enforcement teams, in addition to 11 villagers acting as informants. Overall this project aims to strengthen law enforcement by creating better enabling conditions for law enforcement work on IWT in the landscape. We anticipate that awareness raising through village mosques, schools and community groups on the fatwa, which prohibits IWT, will over the longer term lead to greater support in these 11 villages for stopping IWT, and assisting law enforcement teams to monitor and crack down on IWT.

We have included staff from the TPUs in our fatwa trainings in the landscape, which from previous feedback in other areas, helps motivate enforcement staff to crack down on wildlife trade as a way of living their values. During this grant period WWF has expanded its relationships with other local law enforcement agencies beyond the MOEF, including an agreement with the Riau province’s General Attorney’s office to increase their understanding of the impact of wildlife crime on the well-being of society and as such, to take wildlife crime more seriously and impose stronger penalties for offenders. They have signed an MOU to work together to raise awareness about wildlife regulations and the fatwa in the RBWR landscape. Despite WWF’s MOU issue with the MOEF, the project has strong endorsement from national and provincial government officials and Indonesia’s national religious body, the MUI.

Kasane Statement 12: This project also strongly supports Kasane Statements 12 and 13 to support inclusivity of local people in tackling IWT, as the project focuses on the role of Muslim communities in reducing the wildlife trade, and sharing lessons learned and best practices – both in Indonesia with other conservation NGOs, the Indonesian Council of Ulama (MUI), the MOEF, and Muslim leaders and communities in other wildlife trade hotspots, but also internationally in webinars, meetings, conferences, social media, with donors and NGOs, and with other countries that have large Muslim populations including Malaysia and Kenya.

5. Impact on species in focus

Our data suggests that poaching of tigers and bears in the landscape has declined during the life of this project (Please see Outputs 4 & 5). Despite these positive indications, the larger picture of IWT in the region is still unclear, as the project team has received mixed messages.

TPU data show a decline in snares for tigers and prey in the 11 villages, which WWF suggests is the result of better enforcement and monitoring presence there. According to the TPUs, poachers have reported reduced hunting activity as well as a need to go deeper in the forest to hunt, which is less cost effective. The hunters have reportedly turned to activities that are more convenient and faster money makers including logging and agriculture/gardening, which are closer to home. These reports are backed up by four wild animal collectors in the landscape who told us that in the last two years, the supply of wild animals they bought from local hunters had significantly decreased. Ivory craftsmen also report more difficulty in obtaining ivory. Year 3 data indicates that target species including pangolins and tigers have experienced a price reduction due to reduced demand. The price of pangolin scales dropped dramatically, for example, because people presumed pangolin was a source of Covid-19. Despite the social stressors of the pandemic, Covid appears to have also had a positive impact on IWT in terms of decreasing the purchasing power of buyers.

However, both the quantitative and qualitative analyses in our June 2021 endline survey demonstrated that hunting was still occurring in and around the villages surrounding Rimbang Baling Wildlife Reserve. In our survey, 152 respondents admitted to hunting at least one of the target species. Twenty of the 152 respondents hunted more than one species. Motives for hunting include for livelihood (both consumption and trade) and recreational purposes, but consumption was the most frequently mentioned motive. Other forms of deliberate killing are described, resulting from conflict/fear and retaliatory or pre-emptive killings when some species are considered pests. In addition, we can surmise that WWF’s inability to monitor inside the reserve, and the low level of government enforcement presence there as a result of the WWF MOU cancellation, may have reduced the deterrent to IWT for villages inside the reserve.

Songbirds appear to be the most traded wildlife, as people continue to keep birds as pets and for song bird competitions. The Endangered greater green leafbird (*Chloropsis sonnerati*) was revealed to be the most hunted species by the respondents from the list of target species. Of the respondents who had hunted this species in the last 12 months, 58 were from the intervention villages, compared to 76 in the comparison sample. In Year 3 we

were able to identify 43 bird hunters in the landscape, almost double the amount we knew about last year, but this was not due to an increase in hunters but to our improved detection capacity through our community monitors. In Year 3, birds, and deer (for subsistence), were reported as the most targeted species according to TPU reports, while information on the hunting of primates, bears and pangolins has been harder to come by.

6. Project support to poverty alleviation

A central aim of our project was to raise the income and strengthen security for some of the poorest villagers in Riau province. Villagers in the target 11 villages are primarily rubber farmers. Our Year 1 surveys revealed that due to the instability of prices and inefficient yields, they cannot meet basic subsistence needs and supplement incomes with illegal forest activities including IWT. This project aimed to raise income levels by 30% among 750 households in 6 of the 11 villages, and we expected that best practices would be integrated into village development plans in the Rimbang Baling buffer zone.

By the end of Year 3 our activities have significantly raised income and provided more livelihood security for hundreds of target families, although we did not reach the full target due to delays and restrictions on travel and group gatherings during the dry season fires and then the pandemic. This was achieved by carrying out trainings for 568 of the targeted 750 households (76%), helping them build skills in sustainable agriculture, including vegetable, paddy, agroforestry and rubber, as well as training to develop organic fertiliser and biogas. We have demonstrated to farmers the ways they can intensify and increase their production through use of a variety of planting methods and use of organic fertiliser while creating vegetable gardens, which can reduce expenses and increase family income. This capacity building will, we hope, equip most of our target households with the skills they need to reach energy and food security by diversifying their livelihood strategies.

From the high level of those trained in sustainable agriculture skills, a lower number, 350 households (47% of target) then took part in the demo-plot activities as test sites. Our data tracked difference in income in these families, and concluded that by the end of Year 3, our support through this project has helped them raise their income and decrease their expenses, reducing the pressures of poverty in these households.

At the end of Year 3 the baseline income of the 6 villages rose from an average of IDR /month, in which the community focused only on rubber production as an income source, to income from other sources such as gardening, paddy field optimization and rubber optimization. As previously detailed, we have seen in our pilot sites a 17% rise in income per month for vegetable produce, a 30% rise in income per month for paddy and 26% rise in income per month for rubber. At the same time we saw a decrease in expenses for target households of 100% for vegetables, 20% for fuel/LPG (3kg) and 30% for organic fertiliser.

We anticipate that the livelihood activities under this project will have an amplifying impact over the coming years in the wider landscape. The village governments, traditional leaders, womens groups and village consultative bodies on livelihood activities in the 6 target villages have now all committed to prioritising sustainable livelihood and conservation activities as part of their new village development plans and through the village fund schemes. We are also exploring with local village development funds to support the use of biogas as an alternative energy source to substitute firewood and to reduce monthly expenses for fuel. Although the project is ending, Yapeka as a local NGO will continue to advocate for the continuation of the sustainable livelihood activities as a key part of the village development plans and offer advice to village leaders.

In addition to income generation, the project has sought to improve community awareness about the value of wildlife and habitat conservation, based on the core beliefs and values of their religious Islamic teachings. These traditional systems inherently include Muslim villagers as key managers of natural resources, and combined with scientific teachings, highlight to villagers how sustainable care for the natural world, including wildlife, translates into more stable and productive livelihoods. The link between IWT and pandemics has been especially important to highlight and we continue to emphasise raising awareness about how wildlife trade can destabilise communities.

Our project has also promoted the strength of women as religious and community leaders, and in providing sustainable livelihoods for their families, as detailed in the following section.

In terms of dry season fires, we have been in discussion with village government and communities the formulation of a community response unit to prevent and handle forest fires, and have requested government authorities, especially BBKSDA/Mangala Agni (firefighter brigade), for support. We have also been exploring whether it makes sense to choose alternative locations for livelihood activities that are safer from forest fires. In Year 3, we provided wells in Tanjung Medang village to provide more dependable water sources, as this was the one village that did not receive government support for fire mitigation. The wells are managed by the villagers used to water the crops.

In terms of support specifically for poachers, three poacher families participated in the gardening and agroforestry activities, while five others are receiving compensation for their work with the TPUs, one more is running a grocery

stand with support from this project, and another is involved in sustainable agriculture. Our hope is that these alternative sources of income will help encourage poachers to stopping all involvement in the illegal wildlife trade and serve as a model for villages in the buffer zone and for other IWT hotspots in Indonesia.

Please see final Livelihoods Report

7. Consideration of gender equality issues

Women's groups in our target villages have been important to the project. They are visible in religious and community life as leaders of prayer groups and teachers in Islamic schools, and they are critical to supporting their family's basic livelihood needs. In Year 1 women made up 30% of Muslim leaders trained on the fatwa and committed to spreading the fatwa's teachings in their prayer and community groups, in their families and in their schools. In two of the target villages, female clerics preached on the fatwa to 300 women in their female congregations. Women were well represented in the sustainable livelihoods trainings (75%) and in demo-plot activities on sustainable agriculture (70%). The project also facilitated exchange visits for women's groups in various villages (Tanjung Medang and Batu Sasak) on managing vegetable commodities to support their families, and supported women's groups to grow herbs for traditional medicine. The project had reached out to the village level family welfare groups (PKK), farmers groups, and Muslim women's groups for participation, as women are powerful agents of change in household economic development through agriculture. Women are also more likely to manage home gardens and represented 96% of the participants in the gardening activities, and 56 women (17% of our target 20%) who participated in the training began tending home gardens by Year 3. Of the 21 villagers chosen to be 'trainers' for other villagers on sustainable agriculture, 9 are women (43%). In addition, our core project team in Indonesia across the 3 organisations also involves 4 core female staff and 5 men. In our endline M&E surveys, out of a total of 606 respondents in eight intervention and comparison villages, 327 (54%) were women and 279 (46%) were men. Please see this report for more information.

8. Sustainability and legacy

Our strategy has been designed to develop lasting impacts beyond the life of the project by:

- Integrating religious values-based fatwa teachings into religious sermons, education and community life in the RBWR landscape. By having influential messengers (religious leaders) speak regularly about these values to the youth and families in these villages, we hope to encourage a new ethos around wildlife protection based on deep rooted beliefs and values, and for there to be as a result less tolerance for poaching and trade in these communities. Fatwa messages are now a part of sermons in mosques, discussions in community and women's groups, echoed by village leaders, and part of the education of many schoolchildren in the landscape. WWF is committed, with UNAS, to continue our support and encouragement of the conservation clerics to continue to spread faith-based IWT messaging in this landscape.
- The UNAS-supported eco-pesantren initiative holds great promise for continued IWT messaging through Islamic schools in the landscape and beyond. With two new grants and excellent reception from the pesantren themselves, this initiative will be sustained long after the DEFRA grant period. With almost 30,000 Islamic boarding schools spread throughout Indonesia (Kemenag 2020), there is through this programme the potential to instill Muslim youth with a determination to protect and conserve wildlife and their habitat as part of their religious duty.
- At the same time, by providing support for alternative livelihoods for some of the poorest community members in the RBWR landscape, we hope that they will, after the project ends, continue to diversify income sources away from unsustainable rubber production and opportunistic IWT activities, based on the skills they have learned and the benefits they have experienced. We also hope that support for alternative livelihoods will help ex-poachers maintain their commitments to no longer engage in IWT. With WWF-supported TPUs remaining active in the RBWR landscape after the project ends, monitoring of and interaction with these ex-poachers will continue.
- We are also pleased that the sustainable livelihoods trainings and support have been so well received in the villages, to the extent that village government and community leaders have approved integrating these activities into their village development plans in the coming years and will allocate some of their village development funds to supporting these activities.
- We are also integrating our project as much as possible with the strategies and plans of government authorities such as with those agencies responsible for wildlife management and buffer zone management of the RBWR; with local village and district level development plans and; with the national Islamic Council nationally and locally.

- WWF Indonesia has a long term commitment to the protection of the RBWR and will continue to integrate the fatwa approach into its ongoing activities. It is still optimistic that its MOU with the MOEF will be restored so that it can begin patrolling and monitoring inside RBWR.
- In terms of raising the profile of the project nationally, Dr. Mangunjaya in particular continues to raise awareness widely about the project in national forums and through his academic and advisory council roles. The project has excellent visibility among conservation NGOs, the MOEF, the BRG (Peatlands Agency), in targeted Islamic schools (pesantren), amongst multi-faith religious leaders, and in other priority landscapes in Indonesia where the wildlife trade and fire fatwas have been used.
- As a result, our Islamic values-based approach is being adopted in various areas. In educational circles, the uptake of our learning in an Islamic university and the interest expressed amongst students at UNAS in lectures featuring fatwa approaches, as well as interest from pesantren on our education module have been gratifying. All of our materials are open access on UNAS-PPI's website, and we have had good feedback and appreciation of our resources. We have received a small grant recently as well to strengthen the role of Islamic schools in conservation approaches and will expand on this work in RBWR.
- Other donors have shown interest in the fatwa approach. The Biodiversity Foundation in Indonesia is interested in receiving a proposal on fatwa-based approaches from PPI-UNAS. The national Peatlands Restoration Agency (BRG) is sponsoring UNAS to improve fatwa awareness in fire prone areas, based on a fatwa on stopping destructive forest and peatland fires, which we supported following the IWT fatwa. In Year 2 we received a US \$ for a two year songbird trade project in West Kalimantan using Islamic values-based approaches to promote behaviour change; a £ grant from the Rufford Foundation, and a \$ grant from the Templeton Foundation to support fatwa-based awareness raising in Islamic schools.
- There is also significant interest from international faith and conservation partners. Dr. Mangunjaya and Chantal Elkin speak about this project at every opportunity. WWF will also highlight this project on our a new open access Faith and Nature web portal, to be launched in early 2022. We will feature this project prominently in order to help spread lessons learned and to inspire others, inside and outside Indonesia, to adopt similar approaches.

9. Lessons learnt

Worked well

- The poverty reduction element of our project has been very important in fostering trust, cooperation and enthusiasm from the local community for involvement in the project, especially in the sustainable agriculture work in the demonstration-plots. As a result we have seen a very strong commitment of the village governments and customary and religious leaders to the project.
- Working with Forkodas has been very effective in terms of how project partners interact with the conservation clerics. Forkodas links the clerics trained in our project area (11 villages) to conservation clerics in the wider landscape, previously trained before this project started. Forkodas clerics communicate regularly via their WhatsApp group to share information and experience and this has been a big help (apart from for those clerics located in villages with poor signals). Being able to communicate with the conservation clerics via the Forkodas group has also facilitated interaction with UNAS and WWF. Also, this grouping seems to have fostered a sense of ownership of the fatwa awareness work, so much so that they have created a distinct identity and have formed an independent foundation so that they can receive charitable donations.
- WWF has found reaching out to other government agencies rather than the MOEF has worked well in the current situation. The new relationship with the office of the attorney general of Riau, for example, is strengthening knowledge about wildlife crime in this office, and is encouraging them to take wildlife crime more seriously and increase penalties for offenders.
- We have worked closely with the village governments and community representatives, who have agreed to prioritise our recommendations for sustainable livelihoods support on an ongoing basis and in their village development plans and funding schemes.
- During the pandemic, online webinars and meetings have worked well to a certain degree to keep the momentum going with conservation clerics, who have also used social media and radio and other means to communicate fatwa messages during this time.

Didn't work well

- Collaboration between MOEF BKSDA and WWF and the cancellation of WWF's MOU in January 2020, prohibiting WWF teams to work inside the RBWR itself.
- Project monitoring conducted by phone in several villages were unreachable and difficult.

- Due to busy schedules with all organisations, having more time to sit as a group to discuss progress and revise strategy would be helpful.
- No real contingency plans for delays to activities due to dry season fires/ haze. The COVID pandemic has of course caused difficulties for in person meetings, trainings, support and availability of stakeholders.
- Overall the project team made certain assumptions when it came to IWT in the target villages. Having a social scientist assist the project with detailed surveys at the beginning of the project in relation to the motivations for hunting would have been most useful to designing more targeted interventions.

9.1 Monitoring and evaluation

This project has several layers of M&E.

A. *In order to monitor and evaluate whether levels of awareness about the fatwa have increased in the target villages:*

The 2019 Baseline Report contained two elements:

(1) A baseline report by Dunn & Verissimo, two external researchers affiliated with the Oxford Martin School's Wildlife Trade Unit and San Diego Zoo. A total of 592 respondents were surveyed across the 8 intervention and comparison villages in February 2019. The design of the survey instrument and framework, the carrying out of the surveys and the analysis have been funded through our match funding from WWF UK.

(2) Yapeka carried out a KAP assessment in 6 of the 11 villages where they are supporting villagers with alternative sustainable livelihoods capacity building. The KAP report was combined with the research carried out by PPI-UNAS researchers, which included qualitative surveys with villagers and conservation clerics in the landscape. Research was conducted in Year 1, prior to the clerics fatwa training. The original researcher fell ill so another took this research forward and needed to refine the methodology, so the report was completed in Year 2.

(3) Final M&E Report

An endline survey was conducted in June 2021 with WWF UK match funding, repeating the baseline survey that was completed pre-intervention. A total of 606 respondents were surveyed across eight intervention and comparison villages in June 2021. Of these respondents, 338 (56%) were from intervention villages and 268 (44%) were from comparison villages. Farming was the main job of most respondents followed by housewife. Respondents were asked to what extent they agreed or disagreed with a series of statements as part of the theory of planned behaviour (Ajzen 1991). As well as the endline quantitative survey, interviews with focus groups were conducted across each of the intervention sample villages with community leaders, community members, religious clerics, and the Tiger Patrol Unit (TPU). The focus group members were asked questions regarding attitudes towards wildlife protection, hunting behaviour in the villages, and the fatwa. Some of the key findings include:

- Participants expressed a need to protect the forest and wildlife primarily due to their custodial duty and to preserve the ecosystem services they provide. Wildlife is valued for both consumptive and non-consumptive purposes.
- Despite a clear positive connection between the participants and wildlife, statements relating to fear of and conflict with wildlife were almost as frequent as statements describing a custodial duty to protect wildlife. Most fear stemmed from the presence and threat of tigers: 62% of statements referring to fear of and conflict with wildlife mentioned tigers. There is a belief in these villages that *"there are tigers who come down to the village if someone violates customary law"*. One community member states that *"we need to protect ourselves from the attacks of wild animals."* The community leaders recount three instances where tigers were pre-emptively killed after entering a village. This was a key finding that came to light in these surveys, as the project team had not appreciated fully the negative bias towards tigers and the fear of conflict that appears to be a major factor in threats to the tiger and other 'dangerous' wildlife. Statements suggest that the right to protect themselves from these threats surmounts their duty to protect wildlife.
- It is clear from both the quantitative and qualitative analyses that hunting still occurs in and around the villages surrounding Rimbang Baling Wildlife Reserve. In the June 2021 survey, 152 respondents admitted to hunting at least one of the target species. Twenty of the 152 respondents hunted more than one species. Motives for hunting include for livelihood (both consumption and trade) and recreational purposes, but consumption was the most frequently mentioned motive. Other forms of deliberate killing are described, resulting from conflict/fear and retaliatory or pre-emptive killings when some species are considered pests.
- The Endangered greater green leafbird (*Chloropsis sonnerati*) was the most hunted species by the respondents from the list of target species. Of the respondents who had hunted this species in the last 12 months, 58 were from the intervention villages, compared to 76 in the comparison sample. Given the high

level of bird hunting in Indonesia it would be useful to pursue a more in-depth study of bird hunting dynamics in these villages in order to identify effective conservation responses.

- The interviews suggest that there is considerable support for the fatwa in principle, but that actual behaviour change was limited over the course of the project. While some participants spoke of positive behaviour change after learning of the fatwa (e.g., *“if we remind each other, we can certainly do it”* and *“I will follow if it is in accordance with Islamic teachings”*), the endline study concluded no evidence of significant behaviour change in the target villages when it comes to reducing the illegal wildlife trade. However, there was a significant positive variation between participants’ total scores for subjective norms in the endline survey compared to the baseline survey, pointing to attitudinal change regarding social norms. This suggests that there may be more societal pressure to discontinue illegal wildlife trade activities and adopt pro-conservation behaviours as a result of the project. The study concludes that *“Therefore, while the intervention is likely to have successfully shifted subjective norms towards pro-conservation behaviours, no conclusions can yet be drawn regarding subsequent behaviour change”*.
- The study brought to light some possible obstacles to the lack of behaviour change: a) *“The juxtaposition between the participants’ duty to protect wildlife and need to protect themselves may help to explain why changes in the other TPB factors, such as attitudes or perceived behavioural control, were not observed, despite social pressures to adopt pro-conservation behaviours.”* Interventions to protect wildlife could therefore have better considered human wellbeing – such as safety from animal attacks, particularly tigers, and damage to livelihoods and financial assets, and the negative associations the villagers have with tigers in the village being retribution for violating customary laws; b) Results also point to the need for a more collaborative approach to hunting regulations between the government and local communities, and also between community members. As one survey participant noted, *“If the government only gives warnings without holding outreach to the community, the results will also be zero.”* As it stands the community appears to feel left to their own devices to ensure their safety and livelihoods and this means preventative and retaliatory killings as well as hunting for consumption. And; c) Fatwa communication methods would be more effective in these villages if they were more grassroots – including more posters, billboards and discussions.
- There is a sense from this final report that if the community is a more equal participant in developing wildlife regulations, and if they receive more support for human-wildlife conflict and livelihoods, that there is an inherent will to protect local wildlife that could result in real behaviour change regarding hunting and consumption of wildlife.
- The endline study highlights to the project team the importance of including more studies at the beginning of the project that include strong social science expertise in order to understand these kinds of dynamics, and if we were to begin again, this is what we would invest in first and foremost.
- On the positive side, despite the lack of tangible behaviour change in target villages when it comes to IWT, it seems that there is a strong relationship with wildlife amongst the villagers and a desire to protect wildlife that can be built upon. There is a need to consider more thoroughly some of the obstacles to behaviour change that have been identified in our study and that would have to be considered much more thoroughly in subsequent outreach if real behaviour change is to happen.

(B) In order to evaluate how effective our fatwa trainings were in the landscape with participants:

UNAS carried out before and after surveys as per our Year 1 report. This report, however, is still in draft and will be finalised soon. For our Year 2 training with the TPUs PPI-UNAS held a feedback session. Please see this link for more information.

(C) In order to evaluate impact on poverty and livelihoods:

Yapeka issued 6 month progress reports during this project and an endline report. Please see this link for more information.

(D) In order to evaluate impact on IWT: We are monitoring this through the following:

- WWF-supported TPUs SMART patrol reports and monitoring reports on the activities of the 10 known tiger hunters and middlemen in the 11 villages;
- WWF-supported WCT reports on wildlife crime in the Riau province and beyond;
- WWF law enforcement data on poaching and trade incidents in the landscape, held in their databases;
- Number of reports from community members and clerics to TPUs on wildlife crime;
- Number of poachers committed to stop poaching;
- Number and quality of intelligence reports from ex-poachers to TPUs;
- Snare tracking and reports.

For more information please see here.

9.2 Actions taken in response to annual report reviews

No.	2.1.1 Comment	DN	re	U
1	Please provide supporting evidence relating to Output 2 (local capacity to pursue diverse, sustainable livelihood activities)			X
2	Evidence would also be useful on the demonstration plots in activity 3.2			X
3	How have the changes in income been ascertained? i.e. what is the evidence for livelihood improvements?			X
4	Please describe the nature/scale of the 'rewards and incentives' mentioned in connection with Activity 5.2?			X

Our project team has responded to the majority of the comments by the reviewers, particularly the feedback on not providing enough evidence.

10. IWT Challenge Fund Identity

The project has used the UK Government logo on every resource we have printed including books, videos, banners for field activities and on our websites as well as highlighting DEFRA's support at our meetings and presentations locally, and nationally and internationally, for example:

<http://ppi.unas.ac.id/partners-networks/>

<http://ppi.unas.ac.id/people-and-planet-faith-in-the-2030-agenda-16-18-march/>



Banner at Aur Kuning Village with UK AID logo prior to fatwa video screening

11. Impact of COVID-19 on project delivery

The Indonesian government Covid-19 measures have impacted our project implementation particularly in curtailing access to travel to the field. This resulted in delays and adjustment of our project timelines and associated budget spending and project achievement. The government deployed police and military officers in every corner of the district borders to ensure that there was no movement of people, except for important purposes such as logistic (food, fuel, and other fundamental goods) distributions. In addition, communities in Rimbang Baling preferred to avoid direct meetings and physical presence of outsiders as they were concerned about health issues during Covid-19, so we respected them by not visiting communities at that time.

As such, we adjusted our workplan/timelines and approaches. For example, we asked field team members from local communities and former poachers to implement more of the project activities. Communication and coordination with them were challenging, however, because of low network signal coverage, with associated delays for project reporting (including financial report) and data entry.

The conservation clerics also could not disseminate faith-based fatwa messages on IWT as regularly since March 2020, due to restrictions on gatherings in the mosque and elsewhere. They did try to move some preaching online but poor network coverage in these villages meant that in reality their access to their communities was severely diminished during the pandemic, and we feel this has impacted their ability to regularly communicate fatwa messages to the wider community.

In our livelihoods work we reached half of our target households, due to dry season fires and then the impact of Covid and the difficulty of bringing together groups during most of Year 3. As such we had to work with much smaller groups of people. In addition, many people were focused on other economic and household duties during this unsettled time.

Our team adopted health and safety procedures in line with government guidelines including:

- We tested our team members prior to field activities and other travels.
- We equipped our team members with masks and other safety equipment and mandated them to implement health and safety protocol all the time.
- We implemented the maximum number of people in a car (four people, including the driver) and a room (depending on room size and ventilation).
- We must take a break and go outside alongside every two hours for indoor meetings.
- We implemented a physical distancing minimum of 1.5 meters.
- We always asked communities, whether they accept our presence or not, if so then we could continue the activities.
- We postponed some flights of project members from Jakarta to Pekanbaru or vice versa.

[Could any of your project outcomes or impacts assist with the response to COVID-19 or reduce the risk of future pandemics?](#)

Covid-19 was allegedly associated with wildlife poaching and consumption, which was the focus of our project. We hope that our project has planted more seeds that will create stronger social action to curb IWT in the RBWR landscape, and therefore exposure to wildlife, which can curb potential zoonotic disease and contribute to reducing future pandemics.

[Do you expect or hope to continue with any of the new ways of working adopted over the past year, once the pandemic passes? For example, greater use of virtual meetings to reduce the need to travel?](#)

Due to the remoteness of many of the target villages, it is very important that we pursue physical interaction with target villages and with the conservation clerics. These activities also build trust and relationships not easily developed by using online platforms, especially in areas without reception in Rimbang Baling.

12. Finance and administration

12.1 Project expenditure

Project spend (indicative) since last annual report	2020/21 Grant (£)	2020/21 Total actual IWT Costs (£)	Variance %	Comments (please explain significant variances)
Staff costs (see below)				
Consultancy costs				
Overhead Costs				
Travel and subsistence				
Operating Costs				
Capital items (see below)				
Others (see below)				
TOTAL				

Staff employed (Name and position)	Cost (£)
Chantal Elkin (Project manager)	
Helen Gardiner (Finance Analyst)	
Sian Troote (Admin support)	
Oliver Smith (Project Director)	
Dr. Fachruddin M Mangunjaya (Project leader) UNAS	
Gugah Praharawati, MSi.M (PPI Finance) UNAS	
Yeremiah R Camim (Researcher UNAS)	
Bahrul Ilmi/Faujiah Ilmi/Taufik (Staff project) UNAS	
Agustinus Wijayanto (Project Leader) YAPEKA	
Rudianto Surbakti (Field Coordinator) YAPEKA	
M. Suhadi (Community Facilitator). YAPEKA	
Fitriani Dwi Kurniasari (Database dan Technical Support WCT) WWF	
Muliadi (Ground Operator Intelijen WCT). WWF	
TOTAL	

Capital items – description	Capital items – cost (£)
TOTAL	

Other items – description	Other items – cost (£)
Office stationary, meetings, photocopying UNAS	
International journal cost (baseline data) UNAS	
Ethical approval question cost UNAS	
Endline data proses in Rimbang Baling, transport, volunteer cost, rapid test, honor data entry. UNAS	
Planting/ YAPEKA	
TOTAL	

12.2 Additional funds or in-kind contributions secured

Source of funding for project lifetime	Total (£)
UNAS	
YAPEKA	

WWF-Indonesia	
TOTAL	

Source of funding for additional work after project lifetime	Total (£)
UNAS/Rufford Small Grant 2021/2022	
UNAS/FT 2021/2024	
WWFID/Raise awareness of local people in HII sites and surrounding areas through several approaches i.e. religious approach, campaign, etc	
WWFID/Continue collect information and support law enforcement to tackle wildlife crime in Central Sumatra	
TOTAL	

12.3 Value for Money

The project partners felt this project provided good value for money. We strove in our work to create maximum sustainability so that positive impacts could be sustained beyond the life of the project. With minimal investment in training and some support, integrating conservation messaging into regular Islamic teachings by respected Muslim leaders is something that can be sustained over the long term. The livelihoods programme provided a model for village development plans that can be supported by village level resources in the future. And with WWF Indonesia's ongoing presence in the landscape, investment in supporting poachers to shift to informants has reaped huge rewards.

13. **OPTIONAL: Outstanding achievements of your project during the (300-400 words maximum). This section may be used for publicity purposes**

I agree for the IWT Secretariat to publish the content of this section (please leave this line in to indicate your agreement to use any material you provide here)

- Please see this [link](#)

Annex 1 Project's original (or most recently approved) logframe, including indicators, means of verification and assumptions.

Note: Insert your full logframe. If your logframe was changed since your application and was approved by a Change Request the newest approved version should be inserted here, otherwise insert application logframe.

Project summary	Measurable Indicators	Means of verification	Important Assumptions
Impact: The illegal wildlife trade is almost eradicated in Rimbang Baling Wildlife Reserve, Sumatra, with improvements in livelihood and social benefits for poor communities that can be replicated across Indonesia (Max 30 words)			
Outcome: IWT is reduced >50% across 11 Muslim villages near RBWR by connecting core religious beliefs to wildlife protection, and replacing IWT benefits with values-driven, sustainable livelihood alternatives (Max 30 words)	<p>0.1 By Yr 3, >50% of poachers in 11 villages near RBWR stop participation in wildlife trade (baseline = 12 commercial poachers + local opportunistic poachers)</p> <p>0.2 By end of Yr 3, poaching linked to 11 villages of target species falls by >50% (existing baseline = 2 tigers/yr; 7 bears/yr – and baseline for other species completed by WWF by June 2018)</p> <p>0.3 By end of Yr 3, 60% of sample households (10% sampling) in 11 villages demonstrate strong conservation awareness and willingness to abide by IWT fatwa and IWT laws for RBWR (baseline = no understanding of fatwa; 40% surveyed in 2015 did not know about the existence of RBWR, 80% did not know about RBWR conservation programme)</p> <p>0.4 By end of Yr 3, minimum 30% rise in income in 750 households in 6 key villages to IDR /month resulting from switch to sustainable livelihood activities (baseline = IDR /month)</p>	<p>0.1 & 0.2 WWF June 2018 baseline survey of IWT in 11 villages (KFW funded); WWF IWT monitoring reports in Yrs 1, 2 & 3; Village level wildlife crime phone app database analysis by TPUs in Yrs 2, 3; Yapeka quarterly reports; annual WWF/ MOEF TPU law enforcement IWT databases and reports for RBWR; Yapeka quarterly field reports and KAP surveys Yrs 1, 3</p> <p>0.3 UNAS surveys in Yrs 1, 2, 3 measuring shifts in awareness and understanding of the fatwa and IWT regulations; Yrs 1 & 3 Yapeka KAP householder surveys and questionnaires integrating questions on understanding of the fatwa and IWT regulations</p> <p>0.4 Yapeka-led KAP baseline survey in Yr 1 and follow up surveys in Yr 3; Yapeka quarterly reports measuring changes in income, skills, diversification of livelihood strategies, gender equity</p>	<p>The government management authorities of RBWR, village authorities, Muslim clerics, community leaders and villagers cooperate with project partners to reduce illegal wildlife trade</p> <p>WWF and law enforcement agencies are able to adequately monitor change in poaching activities/ number of poachers in 11 villages</p>
Outputs: 1. By end of Yr 3, 8,000 (49%) people in 11 buffer zone villages understand the fatwa's prohibition on IWT and	1.1 In Yr 1, 60 participants from 11 villages who before had no understanding of the fatwa can outline its key points on IWT after 2, 3-day	1.1 UNAS training report and pre & post training questionnaires	Religious and community leaders are respectful of fatwa and agree to follow

<p>provincial IWT laws, and relate wildlife conservation to their core religious values</p>	<p>fatwa trainings led by UNAS (for 30 clerics including pesantren leaders; 12 women leaders from community, prayer groups and pesantren; 18 law enforcement officials)</p> <p>1.2 Commitments made by training participants to share fatwa-based IWT messages at least 1/month in sermons, schools, women's prayer groups, patrols in 11 villages, reaching 8,000 people (50% women/ girls) by end of Yr 3 (baseline = 0 people reached)</p> <p>1.3 By end of Yr 3, 60% (10% sample) of congregants from 18 mosques, Muslim women in female prayer and community groups, and students from 4 pesantren in 11 villages who before had no understanding of the fatwa can outline its key points on IWT</p> <p>1.4 By Q3 Yr 1, fatwa educational materials freely available and disseminated including: materials for clerics and community leaders; teachers supplement for pesantren; content for radio shows, videos and social media, (baseline = none available)</p>	<p>1.2 UNAS fatwa training reports; Commitment documents signed by training participants, witnessed by the MUI; UNAS M&E reports at end of Yr 1, Yr 2 & Yr 3 by UNAS (based on at least 1 Whatsapp group/ phone call every 2 months + field visits with surveys every 6 months)</p> <p>1.3 UNAS surveys in Yrs 1, 2, 3 including before and after sermons measuring shifts in awareness; women-focused surveys; surveys in pesantren; Yrs 1 & 3 Yapeka KAP householder surveys and questionnaires integrating fatwa questions</p> <p>1.4 Media hits, educational materials printed, videos and radio shows produced; UNAS, WWF & Yapeka reports</p>	<p>its guidelines</p> <p>Training participants commit to raising fatwa awareness at similar levels as previous UNAS training participants in Java and Sumatra</p>
<p>2. By end of Yr 2, 750 households (25% of population; 20% women) in 6 of the 11 priority villages have capacity to pursue diverse and sustainable livelihood activities</p>	<p>2.1 By Yr 1 Q2 following community forums about the project, agreements signed with 6 village chiefs to stop village participation in IWT and instead engage in sustainable livelihood activities. Monitoring of agreements by field partners 1/ month by WWF-Yapeka</p> <p>2.2 By Yr 1 Q3, sustainable livelihoods needs assessment and strategy document completed for 6 villages</p> <p>2.3 By end of Yr 1, 5 sustainable livelihood activity demonstration plots in 6 villages established by Yapeka as</p>	<p>2.1 Community agreements between Yapeka and village government and adat (customary) leaders; Yapeka reports on community forums; Agreement documents; WWF, Yapeka, UNAS progress reports in Yrs 2 & 3</p> <p>2.2 Yapeka-led village needs assessment report; village map; KAP study; strategy document; all detailing village livelihood dynamics, needs, opportunities, and gender sensitivities</p>	<p>Communities are interested and willing to participate in sustainable livelihoods capacity building</p> <p>Women are willing and able to participate at high levels in trainings</p> <p>Yapeka will be able to identify core group for training of trainers</p>

	<p>learning centres for 750 households (baseline = 0)</p> <p>2.4 By end of Yr 2, 30 sustainable livelihood skills trainings held by Yapeka for 750 householders (=187 women) from 6 villages (baseline = 0 trainings)</p> <p>2.5 By the end of Yr 3, minimum 4 men and women from each of the 6 villages able to provide sustainable livelihood skills training to other villagers (baseline =0)</p>	<p>2.3 Yapeka training reports; Yapeka quarterly reports</p> <p>2.4 Demo-plots created; Yapeka quarterly reports</p> <p>2.5 Yapeka training of trainer reports/quarterly report</p>	
<p>3. By end of Yr 3, minimum 30% rise in income in 750 households in 6 villages resulting from switch to diversified and sustainable livelihood activities</p> <p>(baseline average of IDR 965,000/month to rise to IDR 1,254,500/month)</p>	<p>3.1 By end of Yr 3, minimum 38% rise in rubber productivity for 750 households (i.e. at least 182kg/month/100 trees of rubber sap yield), with no additional land clearing (baseline = 132 kg/month/100 trees)</p> <p>3.2 By end of Yr 3, increase to 10% of households using biogas and 30% using organic fertiliser (baseline = 0)</p> <p>3.3 By end of Yr 3, increase to 20% in number of women tending home vegetable gardens (baseline = 0)</p>	<p>Yapeka-led needs assessment in Yr 1; KAP surveys Yr 1 & 3, Yapeka quarterly reports</p>	<p>Villagers and village governments and representatives are interested in creating diversified, sustainable livelihoods based on experience of other villages in the landscape</p>
<p>4. By end of Yr 3, >50% of the 12 poachers identified in RBWR buffer zone stop hunting and shift to alternative livelihood activities</p>	<p>4.1 By Yr 2 Q1, >50% of the 12 hunters in 11 villages sign agreements to stop participation in IWT and instead act as community TPU liaisons, reporting IWT information collected at village level to district level TPUs (baseline= no agreements)</p> <p>4.2 By end of Yr 3, 12 poachers from 11 villages are trained in sustainable livelihood activities detailed in Output 3 in addition to TPU income</p>	<p>4.1 Agreement documents.</p> <p>4.2 Yapeka-WWF training reports/quarter report and regular progress reports in Yrs 2 & 3</p>	<p>Targeted poaching households are willing to work with project partners to replace short-term income from wildlife trade with longer-term benefits of sustainable livelihood activities</p>

	(baseline = none trained)		
5. By end of Yr 3, wildlife crime monitoring in 11 target villages strengthens formal law enforcement detection efforts	<p>5.1 By Yr 2 Q2, 12 TPU liaisons in 11 villages are trained in using a real time community-based wildlife crime reporting app based on best practices to report wildlife crime to district TPUs (baseline = none trained)</p> <p>5.2 By Yr 2 Q2, religious, adat leaders and conservationists hold community forums and outreach in mosques encouraging villagers in 11 villages to report wildlife crime to TPU liaisons (baseline = no outreach)</p>	<p>App database analysis regularly compiled in WWF TPU & WCT reports; law enforcement agency database and reports; Yapeka quarterly field reports; UNAS & Yapeka meeting reports</p>	<p>Villagers who link their core religious beliefs and values with ending wildlife trade, and who benefit from more secure livelihood activities, are more willing to reduce wildlife trade in their communities</p> <p>Communities will not be intimidated and instead act a stronghold against threats from outsider traders and poachers</p>
6. By the end of Yr 3, research results and best practices are consolidated and shared by ARC and partners for replication in other wildlife trade areas	<p>6.1 By end of Yr 3, recommendations issued to 11 village councils on integrating sustainable livelihood activities into village development plans (baseline = none shared)</p> <p>6.2 By end of Yr 3, fatwa training kit for conservationists working on IWT in Muslim communities produced by UNAS and freely available (baseline = none produced)</p> <p>6.3 By end of Yr 3, at least 2 case study papers on results submitted to national and international conservation and religious publications by ARC and partners (baseline = 0)</p> <p>6.4 By end of Yr 3, project results shared online and nationally and internationally at conferences and meetings and with key faith and secular partners (e.g. conservation NGOs; the Siaga Bumi Indonesian multi-faith forum on the environment; Germany's new</p>	<p>6.1 Recommendations document; meeting minutes; Yapeka reports; village development plans</p> <p>6.2 Training kit produced; freely available on partner websites</p> <p>6.3 Letters of acknowledgement from national and international publications</p> <p>6.4 Meeting reports, ARC and partner websites, number of media hits and articles</p>	<p>National and international journals, the media, conservation, development and other religious groups are interested in the subject matter</p>

	<p>Religion-Environment programme; the UNDP-OECD faith-consistent funding programme; IUCN #NatureForAll Campaign; SCB Religion & Conservation Working Group...), vs. none shared in Yr 1</p> <p>6.5 By end of Yr 3, an IWT fatwa module and new religion and conservation course included in UNAS's Faculty of Biology curriculum to inspire young conservationists to adopt religious approaches and partnerships in wildlife conservation (baseline = no module)</p>	<p>6.5 UNAS reports; course module produced</p>	
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Annex 2 Report of progress and achievements against final project logframe for the life of the project

Project summary	Measurable Indicators	Progress and Achievements	
<p>Impact</p> <p>The illegal wildlife trade is almost eradicated in Rimbang Baling Wildlife Reserve, Sumatra, with improvements in livelihood and social benefits for poor communities that can be replicated across Indonesia</p>		<ul style="list-style-type: none"> Strengthened detection, monitoring & intelligence on IWT in 11 villages in RBWR landscape 8 of 11 tiger poachers stopped IWT; 3 more have reduced IWT activities. Of 2 middlemen, 1 died and the other reduced his IWT activities Rise in income and decrease in expenses for 350 households in 6 poor villages in landscape, and capacity building on sustainable agriculture for 565 households (out of 750 household target) Further integration of Islamic fatwa teachings on IWT in mosques, schools, social media and community groups Evidence of increased societal pressure to stop IWT in target villages although not yet resulting in significant behaviour change 	
<p>Outcome</p> <p>IWT is reduced >50% across 11 Muslim villages near RBWR by connecting core religious beliefs to wildlife protection, and replacing IWT benefits with values-driven, sustainable livelihood alternatives</p>	<p>0.1 By Yr 3, >50% of poachers in 11 villages near RBWR stop participation in wildlife trade (baseline = 12 commercial poachers + local opportunistic poachers) *revision: 11 hunters, 2 middlemen</p> <p>0.2 By end of Yr 3, poaching linked to 11 villages of target species falls by</p>	<p>0.1 8 of 11 tiger poachers stopped IWT; continued outreach to 3, who have much reduced IWT activity. Of 2 middlemen, 1 died and the other reduced his IWT activities</p> <p>0.2 End of Yr 3: 1 tiger, 0 bears in</p>	

Project summary	Measurable Indicators	Progress and Achievements	
	<p>>50% (existing baseline = 2 tigers/yr; 1 bear/yr – and baseline for other species completed by WWF)</p> <p>0.3 By end of Yr 3, 60% of sample households (10% sampling) in 11 villages demonstrate strong conservation awareness and willingness to abide by IWT fatwa and IWT laws for RBWR (baseline = no understanding of fatwa; 40% surveyed in 2015 did not know about the existence of RBWR, 80% did not know about RBWR conservation programme)</p> <p>0.4 By end of Yr 3, minimum 30% rise in income in 750 households in 6 key villages to IDR /month resulting from switch to sustainable livelihood activities (baseline = IDR /month)</p>	<p>2021</p> <p>-For more information see Output 4&5</p> <p>0.3 Continued fatwa messaging on IWT by conservation clerics in mosques, on community visits, on social media and in schools</p> <p>Our endline survey in June 2021 demonstrated a rise in knowledge about the fatwa in target villages:</p> <p>Baseline: 57% of participants in the intervention sample, and 65% of participants in the comparison sample, agreed or strongly agreed with the statement <i>“Hunting and rare animal trade are forbidden by the Fatwa of MUI No.4 of 2014”</i></p> <p>Vs.</p> <p>Endline: 89% of participants in the intervention sample and 76% of participants in the comparison sample</p> <p>*Endline survey demonstrates increased social pressure to abide by the fatwa, but researchers found no direct evidence of behaviour change due to other factors</p> <p>0.4 At end of Yr 3, 568 households from 6 villages benefitting from training and support for sustainable agricultural activities. 350 households saw a diversification of income away from reliance on</p>	

Project summary	Measurable Indicators	Progress and Achievements	
		<p>rubber production and a rise in income to:</p> <ul style="list-style-type: none"> • IDR/month for vegetable production (17% rise in income per month) • IDR /month for paddy (30% rise in income per month) • IDR /month for rubber (26% rise income per month) <p>And a <i>decrease in expenses</i> for target households of:</p> <ul style="list-style-type: none"> • 100% for vegetables • 20% for fuel/LPG • 30% for fertiliser <p>Livelihoods Documents</p>	
<p>Output 1. Output 1. By end of Yr 3, 8,000 (49%) people in 11 buffer zone villages understand the fatwa's prohibition on IWT and provincial IWT laws, and relate wildlife conservation to their core religious values</p>	<p>1.1 In Yr 1, 60 participants from 11 villages who before had no understanding of the fatwa can outline its key points on IWT after 2, 3-day fatwa trainings led by UNAS (for 30 clerics including pesantren leaders; 12 women leaders from community, prayer groups and pesantren; 18 law enforcement officials)</p> <p>1.2 Commitments made by training participants to share fatwa-based IWT messages at least 1/month in sermons, schools, women's prayer groups, patrols in 11 villages, reaching 8,000 people (50% women/ girls) by end of Yr 3 (baseline = 0 people reached)</p> <p>1.3 By end of Yr 3, 60% (10% sample) of congregants from 18 mosques,</p>	<p>1.1 UNAS trained 40 Muslim leaders (Male=28, 70%; Female=12, 30%) from 10 of the 11 target villages in Yr 1 and in Yr 2, 12 enforcement officials, for a total of 52. Surveys showed among Muslim leaders: a rise in knowledge on the fatwa from 52% before to 100% after the training</p> <p>1.2 In Yr 1 the 40 Muslim leaders all signed commitment documents to spread awareness on the fatwa until February 2021 to 8,000 people as per Yr 1 report.</p>	

Project summary	Measurable Indicators	Progress and Achievements	
	<p>Muslim women in female prayer and community groups, and students from 4 pesantren in 11 villages who before had no understanding of the fatwa can outline its key points on IWT</p> <p>1.4 By Q3 Yr 1, fatwa educational materials freely available and disseminated including: materials for clerics and community leaders; teachers supplement for pesantren; content for radio shows, videos and social media, (baseline = none available)</p>	<p>1.3 Ongoing awareness raising by Muslim leaders in 11 villages; project partners also support events and a range of educational and media tools to strengthen awareness</p> <p>Endline M&E report based on quantitative and qualitative data from surveys and FGDs with clerics from 15 mosques, 10 schools, community and prayer groups (sample size): 57% of participants in the intervention sample, and 65% of participants in the comparison sample, agreed or strongly agreed with the statement “<i>Hunting and rare animal trade are forbidden by the Fatwa of MUI No.4 of 2014</i>”, versus 89% of participants in the intervention sample and 76% of participants in the comparison sample in the endline survey.⁶</p> <p>UNAS endline surveys with clerics estimate about 11,000 of the total population of the 11 villages (16,437 people) have heard Muslim clerics preach about the fatwa over the course of this project, or 66% of the total population.</p> <p>1.4 All materials developed and freely available on PPI-UNAS website</p> <p>All Fatwa Awareness Tools in PPI UNAS Website.</p>	
<p>Activity 1.1</p> <p>UNAS prints 300 fatwa guide booklets, sermon handbooks, Islam & conservation guidebooks;100 training toolkits, 300 leaflets, 300 posters prior to trainings</p>		<p>Completed in Yr 1 and materials freely available on the UNAS-PPI website</p> <p>All Fatwa Awareness Tools in PPI UNAS Website.</p>	
<p>Activity 1.2 UNAS leads 2 trainings with 60 clerics, community leaders, law enforcement staff, with visits to RBWR</p>		<p>40 clerics trained in Yr 1; 12 enforcement officers trained in Yr 2 rather than 18 due to MOU cancellation with WWF</p>	
<p>Activity 1.3 Training participants sign commitment agreements to highlight fatwa guidelines at least once a month over 3 years to reach 8,000 people through</p>		<p>-All 40 clerics signed commitments in</p>	

⁶ Researchers caution, however, against drawing conclusions about these numbers which they say are not statistically significant.

Project summary	Measurable Indicators	Progress and Achievements	
sermons, festivals, community gatherings, women's groups, schools		<p>Yr 1</p> <ul style="list-style-type: none"> - Regular awareness raising by Muslim leaders in 11 villages, with support from project partners for events and media -Feedback from 17 clerics compiled into report in Yr 2 - UNAS endline surveys with clerics estimate about 11,000 of the total population of the 11 villages (16,437 people) have heard Muslim clerics preach about the fatwa over the course of this project, or 66% of the total population 	
Activity 1.4 UNAS distributes pre and post-trainings questionnaires to training participants		Completed in Yr 2	
Activity 1.5 UNAS helps Yapeka incorporate fatwa-themed questions into KAP and other householder surveys to understand shift in attitudes towards wildlife trade and wildlife conservation in Yr 3 vs Yr 1		KAP carried out in Yr 1, baseline report combined with UNAS research refined in Yr 2	
Activity 1.6 UNAS researchers and MSc students carry out sample surveys and interviews to measure against commitments made by training participants to disseminate fatwa messages; to measure shifts in attitudes and behaviours of congregants attending fatwa-themed sermons; of women at women's prayer and community group gatherings; of householders, in Yrs 1, 2 & 3		Surveys conducted in Yr 1 and Yr 2 for baseline report and Endline report June 2021	
Activity 1.7 UNAS completes fatwa-based teachers supplement for pesantren and distributes to local pesantren, regional and national pesantren associations, by beginning of Yr 3		<ul style="list-style-type: none"> -Fatwa teachers supplement completed in Yr 2 -Fatwa comic book for youth distributed to 1 Islamic school and in 2 villages (with separate USFWS funding) -In Yr 3, 300 copies of teaching supplement to pesantran in target villages; and distributed comic book to 	

Project summary	Measurable Indicators	Progress and Achievements	
		<p>all pesantren and all villages</p> <ul style="list-style-type: none"> -Shared as free public online resource on Ekopesantren.com -10 teachers from 10 pesantren trained on using supplement -New £ Rufford Foundation-funded project launched to further train teachers on fatwa supplement in Yr 3 -New Templeton Foundation funding for pesantren from 2022 (US \$) <p>See more on Pesantren</p>	
<p>Activity 1.8 UNAS carries out awareness and attitude surveys about the fatwa in pesantren at beginning and end of Yr 3</p>		<p>Rufford-funded training for 10 students and 15 teachers in 1 pesantren (student body 1,000). Surveys showed fatwa knowledge rose to 79% post training from 36% pre-training</p>	
<p>Activity 1.9 UNAS and Yapeka with ARC/ WWF UK analyse data from all surveys and use it to inform methodology going forward</p>		<p>Baseline reports refined in Yr 2 used for ongoing analysis and direction of project. Team strategy session and quarterly progress meetings. As Covid-19 situation developed, ongoing check ins about project strategy</p> <p>Final M&E report conducted June 2021 to inform any future activities in the landscape</p>	
<p>Activity 1.10 WWF and UNAS develop input to fatwa-themed community radio shows and create fatwa videos</p>		<p>8 videos produced and a series of 19 radio shows and links to these available on UNAS-PPI website</p>	

Project summary	Measurable Indicators	Progress and Achievements	
		All Fatwa Awareness Tools in PPI UNAS Website.	
<p>Output 2. By end of Yr 2, 750 households (25% of population; 20% women) in 6 of the 11 priority villages have capacity to pursue diverse and sustainable livelihood activities</p>	<p>2.1 By Yr 1 Q2 following community forums about the project, agreements signed with 6 village chiefs to stop village participation in IWT and instead engage in sustainable livelihood activities. Monitoring of agreements by field partners 1/ month by WWF-Yapeka</p> <p>2.2 By Yr 1 Q3, sustainable livelihoods needs assessment and strategy document completed for 6 villages</p> <p>2.3 By end of Yr 1, 5 sustainable livelihood activity demonstration plots in 6 villages established by Yapeka as learning centres for 750 households (baseline = 0)</p> <p>2.4 By end of Yr 2, 30 sustainable livelihood skills trainings held by Yapeka for 750 householders (=187 women) from 6 villages (baseline = 0 trainings)</p> <p>2.5 By the end of Yr 3, minimum 4 men and women from each of the 6 villages able to provide sustainable livelihood skills training to other villagers/</p>	<p>2.1 All agreements signed. Yapeka monitors agreements regularly.</p> <p>2.2 Completed in Yr 1</p> <p>2.3 9 demonstration plots established as of Yr 3</p> <p>2.4 28 Sustainable livelihood skills training attended by 568 households complete by Yr 3</p> <p>2.5. A core group of 21 people were chosen in Yr 2 (9 women = 43%) but still require more support to build their confidence to train others, as not as much support as hoped for to this group due to Covid restrictions</p> <p>Please see Livelihoods</p>	
<p>Activity 2.1 Yapeka, WWF, UNAS in coordination with religious leaders hold consultations with community leaders, heads of villages and sub-districts, and with Muslim women's community groups to explain project and receive initial</p>		<p>Conducted in Year 1 as per Yr 1 report but ongoing. Community events</p>	

Project summary	Measurable Indicators	Progress and Achievements	
feedback		organised by project partners in Yr 2	
Activity 2.2 Agreements signed with 6 village chiefs to support the project		5 villages signed agreements in Yr 1 and 1 signed in Yr 2 June 2019	
Activity 2.3 Regular, 6-month monitoring of agreements with 6 villages by Yapeka, WWF, UNAS through site visits and semi-structured interviews and questionnaires		Progress reports conducted in Yr 2 & 3	
Activity 2.4 Yapeka conducts village mapping showing land use, socio-economic conditions (respondents=government, village leaders)		Completed in Year 1 as per Yr 1 report	
Activity 2.5 Yapeka conducts needs assessments in 6 villages to understand gender sensitivities, village livelihood dynamics, needs and opportunities for sustainable livelihood activities. (Respondents = villagers, and women's consultations and interviews initially done separately)		Completed in Year 1 as per Yr 1 report	
Activity 2.6 Yapeka analyses data and produces baseline; develops strategy document in consultation with other partners		Baseline report completed in Yr 1 integrating mapping and needs assessment	
Activity 2.7 Yapeka establishes 5 demonstration plots for use by 6 villages to act as training and learning sites		9 demonstration plots established: 5 in Yr 1; 2 in Yr 2; 2 in Yr 3 -350 villagers participated in ongoing demo-plot planting, management and harvest by end Yr 3, including 5 individuals from 3 poacher families	
Activity 2.8 Yapeka leads 30 small but regular trainings for 750 householders to build sustainable livelihoods skills		28 trainings held on sustainable agriculture for 568 households: 3 in Yr 1; 16 in Yr 2; 9 in Yr 3. Total trained: 580 individuals	
Activity 2.9 Yapeka chooses subset of villagers who demonstrate strong skills, for participation in training of trainers, so that they can train others in the community in the future in sustainable livelihood skills		Group of 21 chosen (9 women = 43%) but require ongoing support to build capacity	

Project summary	Measurable Indicators	Progress and Achievements	
<p>Output 3. By end of Yr 3, minimum 30% rise in income in 750 households in 6 villages resulting from switch to diversified and sustainable livelihood activities</p>	<p>3.1 By end of Yr 3, minimum 38% rise in rubber productivity for 750 households (i.e. at least 182kg/month/100 trees of rubber sap yield), with no additional land clearing (baseline = 132 kg/month/100 trees)</p> <p>3.2 By end of Yr 3, increase to 10% of households using biogas and 30% using organic fertiliser (baseline = 0)</p> <p>3.3 By end of Yr 3, increase to 20% in number of women tending home vegetable gardens (baseline = 0)</p>	<p>3.1 In our test sites there was a rise from the pre-project baseline income, mostly from rubber sap production, of IDR 965,000/month, to: IDR/month for vegetable production; IDR 1,254,370/month for paddy; and IDR /month for rubber. This represents a 17% rise in income per month for vegetable produce from baseline to end of Yr 3, a 30% rise in income per month for paddy and a 26% rise income per month for rubber,</p> <p>In 2 pilot villages average rubber productivity went from a baseline average of 132 kg/month/100 trees to 162 kg/month/100 trees (23% rise) in one village and 239 kg/month/100 trees (81% rise) in the other.</p> <p>3.2 In pilot 30% of target households using organic fertiliser produced from biogas; 7 households piloting biogas as energy</p> <p>3.3 Women made up 96% of the participants in gardening activities and 56 women (17%) who participated in the training began tending home gardens by Yr 3 of our target 20%</p> <p>Please see final Livelihoods report</p>	
<p>Activity 3.1 Yapeka carries out quarterly monitoring reports to assess progress on livelihood activities in 6 villages</p>		<p>6-month reports carried out</p>	
<p>Activity 3.2 Yapeka provides ongoing capacity building at demo plots and on community land based on feedback from quarterly monitoring reports</p>		<p>On the ground capacity building provided at demo plots over the course of Year 3</p>	
<p>Activity 3.3 Yapeka carries out KAP surveys at beginning and end of project</p>		<p>KAP surveys conducted in Year 1 as per Yr 1 report</p>	
<p>Output 4. By end of Yr 3, >50% of the 12 poachers identified in RBWR buffer zone stop hunting and shift to alternative livelihood activities (*correction: 10 hunters and 2 traders)</p>	<p>4.1 By Yr 2 Q1, >50% of the 11 hunters (11 hunters, 2 traders) in 11 villages sign agreements to stop participation in IWT and instead act as community TPU liaisons, reporting IWT information collected at village</p>	<p>4.1 By end of project, 8 of 11 hunters stopped IWT and 3 turned to other activities and reduced IWT</p> <p>-7 formal agreements by hunters committing to no hunting</p> <p>-5 ex-hunters work with TPU as informants</p>	

Project summary	Measurable Indicators	Progress and Achievements	
	<p>level to district level TPUs (baseline= no agreements)</p> <p>4.2 By end of Yr 3, 12 poachers from 11 villages are trained in sustainable livelihood activities detailed in Output 3 in addition to TPU income (baseline = none trained)</p>	<p>-1 hunter left area</p> <p>-1 trader died, the other reports less activity</p> <p>4.2 In Yr 3, 5 members of 3 poacher families participated in sustainable livelihoods support through Yapeka's activities targeting 6 villages; 1 ex-poacher runs a grocery stand out of his house and has home garden; another grows and sells herbs.</p>	
<p>Activity 4.1 Agreement signed with hunters from 11 villages designating them as community liaisons in reporting wildlife crime, and training and equipping them with community-based app on smartphone</p>		<p>-7 hunters signed no hunting commitments</p> <p>-5 work with TPUs as informants</p> <p>-Smartphone deemed inappropriate for remote villages; other systems of secure communications in place between informants and TPUs</p> <p>-Continued outreach to remaining 3 hunters to join as informants</p> <p>-Ongoing monitoring of poacher activities by TPUs</p> <p>See Outputs 4 & 5</p>	
<p>Output 5. By end of Yr 3, wildlife crime monitoring in 11 target villages strengthens formal law enforcement detection efforts</p>	<p>5.1 By Yr 2 Q2, 12 TPU liaisons in 11 villages are trained in using a real time community-based wildlife crime reporting app based on best practices to report wildlife crime to district TPUs (baseline = none</p>	<p>5.1 Network coverage in many areas of the landscape is scarce so is not the most effective tool. Training was given to ex-poachers by TPUs and face to face meetings found to be more appropriate.</p>	

Project summary	Measurable Indicators	Progress and Achievements	
	<p>trained)</p> <p>5.2 By Yr 2 Q2, religious, adat leaders and conservationists hold community forums and outreach in mosques encouraging villagers in 11 villages to report wildlife crime to TPU liaisons (baseline = no outreach)</p>	<p>5.2 Religious leaders have included these messages in their outreach</p> <p>See Outputs 4 & 5</p>	
<p>Activity 5.1 Community awareness raising through mosques and community forum advocating reporting to community liaison on suspicious activity related to IWT</p>		<p>Conservation clerics included these messages in their fatwa outreach</p>	
<p>Activity 5.2 Community TPU liaisons begin to record IWT data and send to TPUs, who share info with law enforcement. WWF follows up on cases.</p>		<p>Ex-hunter community monitors conduct voluntary snare patrols, share information on snaring and wildlife trade with TPUs, which is shared with WCT and enforcement officials</p>	
<p>Activity 5.3 WWF monitoring of agreements with former poachers from 11 villages</p>		<p>TPUs monitor activities of ex-poachers</p> <p>See Outputs 4 & 5</p>	
<p>Activity 5.4 WWF analyses IWT data collected from 11 villages in conjunction with law enforcement agency and TPU reports</p>		<p>-Some action on this but progress has slowed due to WWF MOU canceled by MOEF. WWF has own databases on wildlife crime and SMART patrolling and will compare baseline with end of project data</p> <p>See Outputs 4 & 5</p>	
<p>Output 6. By the end of Yr 3, research results and best practices are consolidated and shared by ARC/ WWF UK and partners for replication in other wildlife trade areas</p>	<p>6.1 By end of Yr 3, recommendations issued to 11 village councils on integrating sustainable livelihood activities into village development plans (baseline = none shared)</p> <p>6.2 By end of Yr 3, fatwa training kit for</p>	<p>6.1 Over the course of the project we have regularly shared results with village councils and community leaders. In Year 3 the 6 target villages agreed to integrate sustainable livelihood activities into new village development plans and funding schemes, as signed by their representatives.</p>	

Project summary	Measurable Indicators	Progress and Achievements	
	<p>conservationists working on IWT in Muslim communities produced by UNAS and freely available (baseline = none produced)</p> <p>6.3 By end of Yr 3, at least 2 case study papers on results submitted to national and international conservation and religious publications by ARC and partners (baseline = 0)</p> <p>6.4 By end of Yr 3, project results shared online and nationally and internationally at conferences and meetings and with key faith and secular partners (e.g. conservation NGOs; the Siaga Bumi Indonesian multi-faith forum on the environment; Germany's new Religion-Environment programme; the UNDP-OECD faith-consistent funding programme; IUCN #NatureForAll Campaign; SCB Religion & Conservation Working Group...), vs. none shared in Yr 1</p> <p>6.5 By end of Yr 3, an IWT fatwa module and new religion and conservation course included in UNAS's Faculty of Biology curriculum to inspire young conservationists to adopt religious approaches and partnerships in wildlife conservation (baseline = no module)</p>	<p>6.2 Fatwa training materials freely available on the UNAS-PPI website All Fatwa Awareness Tools in PPI UNAS Website.</p> <p>6.3 Four articles published in international journals</p> <p>6.4 Regular sharing of progress in meetings with our many faith and conservation partners in and outside of Indonesia and on social media</p> <p>6.5 Learning from Islamic approaches integrated into UNAS Masters of Biology course Conservation and Conflict and an Islamic University in West Java has adopted this learning into their Environmental Theology course in their Faculty of Philosophy</p>	
<p>Activity 6.1 Consortium partners issue recommendations to 11 village governments on livelihood and wildlife trade programmes for integration into village development plans</p>		<p>Recommendations issued to village governments in 6 target villages who agreed to integrate these into their village development plans and fund</p>	

Project summary	Measurable Indicators	Progress and Achievements	
		allocation	
Activity 6.2 UNAS finalises fatwa training kit for conservation and development groups		<p>-Materials for the training kit are completed (6 modules, posters, training videos, awareness videos, educational resources, comic books, pesantren teachers supplement)</p> <p>-All materials shared freely on the UNAS-PPI website</p> <p>-Materials put on draft Faith & Nature Hub website, to be publicly launched in early 2022 by WWF</p> <p>All Fatwa Awareness Tools in PPI UNAS Website.</p>	
Activity 6.3 ARC/ WWF UK with partners submits journal article(s) to national and international publications		-4 articles published on the project	
Activity 6.4 ARC/ WWF UK and partners share project results at national and international conferences and meetings		WWF and UNAS-PPI have widely shared our project activities and results to date	
Activity 6.5 UNAS shares project progress with the Siaga Bumi multi-faith forum on the environment at regular meetings to stimulate action on wildlife trade by other religious groups; shares progress regularly with government, conservation and civil society groups; All partners put up project news on websites, media/ social media at key milestones throughout the project, and particularly at end of Year 3 with project results		Progress shared with Siaga Bumi at their meetings, with government and NGO partners at national meetings and on social media and partners will continue to share after life of project. Project is on PPI-UNAS website and soon to be launched WWF Faith & Nature Hub website	
Activity 6.6 UNAS integrates lessons learned into UNAS curriculum by developing fatwa-module and new religion and conservation course in the Post Graduate Programme in the Faculty of Biology		Learning from our project is integrated into the existing Masters of Biology course and an Islamic University in West Java adopted this learning into their Environmental Theology course in	

Project summary	Measurable Indicators	Progress and Achievements	
		their Faculty of Philosophy Dr. Mangunjaya continues to build interest and connection on this focus in UNAS and Islamic universities	

Annex 3 Standard Measures

If your project is finished, please complete the table below. We use these figures as part of our evaluation of the wider impact of the Illegal Wildlife Trade Challenge Fund programme. Projects are not evaluated according to quantity. That is – projects that report few standard measures are not seen as being of poorer quality than those projects which can report against multiple standard measures.

Please quantify and briefly describe all project standard measures using the coding and format of the Illegal Wildlife Trade Challenge Fund Standard Measures in Table 1 found on the IWT website [here](#). If any sections are not relevant for your project (or for a specific measure), please leave blank.

Table 1: Project reporting against IWT Challenge Fund Standard Measures

Project Ref and Title: Tackling the Illegal Wildlife Trade in Muslim Communities in Sumatra							
Code	Description	Total	Nationality (if relevant)	Gender (if relevant)	Title or Focus (if relevant)	Language (if relevant)	Comments
Sustainable livelihoods and economic development measures							
1A	Number of individuals who received training in sustainable	568	Indonesia	Male: 142 Female: 426		Bahasa Indonesia	

Project Ref and Title: Tackling the Illegal Wildlife Trade in Muslim Communities in Sumatra

Code	Description	Total	Nationality (if relevant)	Gender (if relevant)	Title or Focus (if relevant)	Language (if relevant)	Comments
	livelihood skills						
1B	Number of households who received training in sustainable livelihood skills	568	Indonesia	Male: 142 Female: 426		Bahasa Indonesia	
1C	Number of individuals benefitting from training (i.e. broader HH of individual directly trained)	1084	Indonesia	Male: 356 Female: 728		Bahasa Indonesia	
1D	Number of training weeks provided	28 x during the project period	Indonesia			Bahasa Indonesia	28 x during the project period
2A	Number of cooperatives established	0					
2B	% Cooperatives established that are functioning at project end (at least a year after establishment)	0					
3A	Number of credit	0					

Project Ref and Title: Tackling the Illegal Wildlife Trade in Muslim Communities in Sumatra

Code	Description	Total	Nationality (if relevant)	Gender (if relevant)	Title or Focus (if relevant)	Language (if relevant)	Comments
	and savings groups established						
3B	Number of loans provided to micro, small and medium enterprises (MSMEs)	0					
3C	Total value (£) of loans provided	0					
4A	Number of sustainable livelihoods enterprises established (Please note: these are not businesses but they are livelihoods projects initiated in the community)	2	Indonesia	Number of people participating in sustainable livelihoods : 16 (male) and 193 (female)		Bahasa Indonesia	<ul style="list-style-type: none"> Vegetable gardens Agroforestry gardens
4B	Number of existing enterprises receiving capacity building support	9	Indonesia	Number of individuals /people involved: male 142;		Bahasa Indonesia	<ol style="list-style-type: none"> Making local Microorganisms (organic fertilizers) Composting Slurry application

Project Ref and Title: Tackling the Illegal Wildlife Trade in Muslim Communities in Sumatra							
Code	Description	Total	Nationality (if relevant)	Gender (if relevant)	Title or Focus (if relevant)	Language (if relevant)	Comments
				female 426			4. Biogas installation 5. Land/garden optimization 6. Agriculture management (Green House) 7. Areca nursery training 8. Agroforestry 9. Comparative study on agriculture and marketing
5A	Number of households that have experienced an increase in household income as a result of involvement	350	Indonesia			Bahasa Indonesia	Gardening and agriculture
5B	Average percentage increase per household against baseline	17%, 30%, 26%	Indonesia			Bahasa Indonesia	<ul style="list-style-type: none"> • 17% (vegetable) • 30 % (rice paddy) • 26% (rubber)
6A	Number of people to receive other forms of education/training	607	Indonesia	Male: 166 Female: 441		Bahasa Indonesia	1. Making local microorganisms (organic fertilizers) 2. Composting

Project Ref and Title: Tackling the Illegal Wildlife Trade in Muslim Communities in Sumatra							
Code	Description	Total	Nationality (if relevant)	Gender (if relevant)	Title or Focus (if relevant)	Language (if relevant)	Comments
							3. Slurry application 4. Biogas installation 5. Land/garden optimization 6. Agriculture management (Green House) 7. Areca nursery training 8. Agroforestry 9. Comparative study on agriculture and marketing 10. Environmental education (Islamic student/MDA/pesantrens)
6B	Number of training weeks provided	28 x during the project					28 x during the project
7	Number of (i.e., different types - not volume - of material produced) training materials to be produced for use by host country	3				Bahasa Indonesia	3 modules (agriculture, areca nut cultivation, biogas), 10 copies/module
Law enforcement and legal framework measures							
8	Number of illegal wildlife trade	1 document Annual	Indonesia	4 participant		Bahasa Indonesia	Annual Workplan (including timeline, approaches used, targets of activities,

Project Ref and Title: Tackling the Illegal Wildlife Trade in Muslim Communities in Sumatra							
Code	Description	Total	Nationality (if relevant)	Gender (if relevant)	Title or Focus (if relevant)	Language (if relevant)	Comments
	management plans, action plans, or strategies produced for use by Governments, public authorities, or other implementing agencies in the host country	Workplan		s (all males)			etc) under MoU with Kuantan Singingi District Prosecuting Agency (Kejaksaan Negeri Kuantan Singingi).
9	Number of field guides/manuals produced to assist work related to IWT product identification, classification, and recording	3 guides/manuals	Indonesia	11 participants (8 males, 3 females involved)		Bahasa Indonesia	1. Standard Operation Procedure (SOP) for Investigation of wildlife poaching and trade. 2. Guide to identify body parts of wildlife being trade. 3. SOP for TPU (internal team).
10A	Number of customs officials trained	0					
10B	Number of prosecutors/judges trained	2 indoor training	Indonesia	>60 participants		Bahasa Indonesia	Training of wildlife hunting investigations and wildlife trade for prosecutors of Kuantan Singingi District Prosecuting Agency (Kejaksaan Negeri Kuantan Singingi).
10C	Number of police officers trained	0					

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Code	Description	Total	Nationality (if relevant)	Gender (if relevant)	Title or Focus (if relevant)	Language (if relevant)	Comments
10D	Number of trainers trained	2 training sessions	Indonesia			Bahasa Indonesia	Training management investigation risk and money laundering (internal team members) in Palembang and Medan.
10E	Number of individuals who attended refresher training	6 training sessions	Indonesia	6 team members (4 males, 2 females).	Routine internal refresher training (twice a year)		For internal team members
10F	Number of other specialist services trained (e.g. dog units, rangers, forensic services).	0					
11A	Number of criminal networks/trade routes mapped/identified	4	Indonesia			Bahasa Indonesia	Four trade routes from Rimbang Baling to Pekanbaru, Jambi, Sumatera Barat and Palembang. Identified 3 women involved in wildlife trade business
11B	Number of illegal wildlife shipments detected	<ul style="list-style-type: none"> • 3 tiger cases detected • Birds and wild boars. 	Indonesia			Bahasa Indonesia	<ul style="list-style-type: none"> • Based on what we successfully identified, there were 3 tiger shipment cases. • Hunting occurred in Bukit Rimbang Bukit Baling WR, such as birds, followed by wild boar. Birds were mostly transported to Java Island and wild boars were mostly

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							transported to North Sumatra Province. We could not count the exact number of birds and wild boars.
12	Duration or frequency of patrols by law enforcement rangers supported through the project	4 patrols	Indonesia			Bahasa Indonesia	With co-funding from WWF and DEFRA, SMART patrols were conducted by the TPUs 15 days/month. These were also complemented by ex-poachers who conducted voluntary patrols in order to eradicate snares.
13A	Number of arrests (linked to wildlife crime) facilitated by the project	3 cases	Indonesia			Bahasa Indonesia	1 for tiger case, 1 for pangolin case, 1 for hornbill case.
13B	Value of illegal wildlife products seized through law enforcement action facilitated by the project		Indonesia			Bahasa Indonesia	Based on average values from direct poachers. The price in middlemen and markets could be higher
13C	Number of wildlife crime cases submitted for	3 cases	Indonesia			Bahasa Indonesia	1 for tiger case, 1 for pangolin case, 1 for hornbill case.

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Code	Description	Total	Nationality (if relevant)	Gender (if relevant)	Title or Focus (if relevant)	Language (if relevant)	Comments
	prosecution						
13D	Number of individuals charged for wildlife crime	4 people	Indonesia	All males		Bahasa Indonesia	1 for tiger case, 1 for pangolin case, 1 for hornbill case.
13E	Number of individuals successfully prosecuted for wildlife crime cases, charges brought for wildlife crime offences using non-wildlife crime specific legislation – e.g. money laundering	1 people	Indonesia	Male		Bahasa Indonesia	Pangolin case in Pelalawan District. The perpetrator is a policeman doing money laundering.
13F	Number of actioned cases handed to/received from another agency						
14	Value of assets seized through money laundering or proceeds of crime legislation		Indonesia			Bahasa Indonesia	The suspect was sentenced to 2 years and a fine of IDR 800 million.
15A	Number of	>4 reports	Indonesia			Bahasa Indonesia	Intelligence reports submitted at least

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	intelligence reports fed into management decisions on species protection		a				twice a year and if there are cases of concern, they will be submitted case by case (2018-2019). We did not report data to BBKSDA Riau in 2020 or after the termination of MoU with the MoEF.
15B	Number of intelligence or information reports exchanged with INTERPOL or the World Customs Organization	0					
15C	Number of amendments to national laws and regulations in project countries	1	Indonesia			Bahasa Indonesia	We were involved in the process of revision of Law No. 5 of 1990 concerning Conservation of Biological Diversity and Its Ecosystems is included as a National legislation process (Prolegnas) to be revised (process)
16A	Number of databases established in project countries	0					
16B	Number of databases established that are operational in	1				Bahasa Indonesia	WWF's IWT database for Region Central Sumatra level, covering three provinces (Riau, West Sumatra and Jambi) established prior to project but built upon

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	project countries						for Riau in this project.
16C	Number of databases established that are used for law enforcement	0					Usually, we sent official reports instead of database form (See points No. 13, 14 and 15).
17A	Number of people who received other forms of education/training (which does not fall into the above category)	3 training sessions	Indonesia	<ul style="list-style-type: none"> • >40 participants • 9 TPU team members 		Bahasa Indonesia	Conducted to build capacity of Da'i Konservasi in Rimbang Baling.
17B	Number of training weeks provided	2 times	Indonesia			Bahasa Indonesia	Training for internal team members (refresher training and capacity building on database, M&E, report writing) in Padang, West Sumatra and Pekanbaru, Riau.
Behaviour change for demand reduction measures							
18A	Number of individuals surveyed on relevant IWT	12 individuals	Indonesia	All males		Bahasa Indonesia	12 target individuals (hunters, middlemen and collectors) – but one trader died

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	behaviour pre-intervention (baseline)						
18B	Number of individuals surveyed on relevant IWT behaviour post-intervention	7 poachers agreed to no hunting commitments	Indonesia			Bahasa Indonesia	12 target individuals (hunters, middlemen and collectors) – but one trader died
18C	Number and type of IWT behaviour change materials produced / Number and type of IWT behaviour change materials distributed	<p>For community awareness and behaviour change - Video: 8 pax</p> <p>1 long video about cleric conservation in Rimbang Baling</p> <p>2 medium video about</p>	Indonesia	in developing comic, there is gender equality; male and female students		Indonesia	•

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		Fatwa MUI on Protecting the wildlife 4 short (1 min) video about : Man as the leader on earth, protecting the earth, nature for human, let the wildlife pray and free. 1 collaborative video from IUCN					
18D	Number of communication channels carrying campaign message	10	Indonesia			Bahasa Indonesia	1 Radio Community at Rimbang Baling, Tanjung Belit 2 Social Media Manage by Conservation Claric Forum (IG and FaceBook).

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Code	Description	Total	Nationality (if relevant)	Gender (if relevant)	Title or Focus (if relevant)	Language (if relevant)	Comments
							<p>3 What app groups</p> <p>4 Social media manage by PPI UNAS: FaceBook, IG, Twitter, YoutubeChannel</p> <p>UNAS PPI: http://ppi.unas.ac.id/iwt-project-awareness-tool-2018-2021/ http://ppi.unas.ac.id/iwt-project-awareness-tool-2018-20213/</p> <p>Facebook: https://www.facebook.com/PPIUNAS/</p> <p>Twitter: https://twitter.com/ppi_unas</p> <p>Istagram: https://www.instagram.com/ppi.unas.ac.id/</p> <p>Youtube: https://www.youtube.com/channel/UCfG0jEwjz7Z6-eaxUHOABdw/videos</p> <p>Flickr: https://www.flickr.com/photos/125076947@N07/albums</p>
18E	Number of champions/key influencers speaking on behalf of the demand reduction campaign	6 Muslim clerics					<p>Dr Ustadz Abdus Somad</p> <p>https://www.youtube.com/watch?v=pMhLZuOJcF8</p> <p>Ust Zecrillah Saf</p> <p>https://www.youtube.com/watch?v=GrmTgvhoETM</p>

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Code	Description	Total	Nationality (if relevant)	Gender (if relevant)	Title or Focus (if relevant)	Language (if relevant)	Comments
							<p>Ust Masriadi https://www.youtube.com/watch?v=B0z1C3LVglo</p> <p>Ustadz Asben https://www.youtube.com/watch?v=_VrNr9_5kk4</p> <p>Ustadz Aldian https://www.youtube.com/watch?v=88o6cCY-wzk&t=77s</p> <p>Azadil Amal https://www.youtube.com/watch?v=Kb3-qOLd68s</p> <p>See Forkodas IG: https://www.instagram.com/forkodas/</p> <p>Also available at PPI Youtube Channel https://www.youtube.com/channel/UCfG0jEwjz7Z6-eaxUHOABdw/videos</p> <p>WWF ID Youtube Channel:</p>

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Code	Description	Total	Nationality (if relevant)	Gender (if relevant)	Title or Focus (if relevant)	Language (if relevant)	Comments
18F	Number of appropriate partners with direct influence on target audience that have distributed campaign message(s)						
18G	Number of people reached with behaviour change messaging (i.e. audience)	Social media Video: 18,384 view, 50 shared Reached 48,816 in seven provinces	Indonesia		Fatwa of Endangered Wildlife protections	Indonesia	Face Book and Video Boost
19	Number of individuals that have had their relevant IWT behaviour changed	10 poachers	Indonesia			Bahasa Indonesia	7 hunter at the border of Rimbang Baling Nature Reserve and 3 in the landscape of RBWR
20	Number of stakeholders/key influencers that have actively						

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Code	Description	Total	Nationality (if relevant)	Gender (if relevant)	Title or Focus (if relevant)	Language (if relevant)	Comments
	discouraged the purchase/use of IWT products e.g. pledges signed						
Cross cutting measures							
21A	Number of papers published in peer reviewed journals	2			Fatwas and conservation awareness	English	
21B	Number of papers submitted to peer reviewed journals	2	Indonesia				1 under review at AJCB 2 ongoing to be publish
21C	Number of other publications produced	7					Books and Book Chapter
22A	Amount of match funding secured (£) for delivery of project during the period of the IWT Challenge Fund grant <i>(please note that the figure provided here should align with financial information</i>	Total					Please see Finance Report

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Code	Description	Total	Nationality (if relevant)	Gender (if relevant)	Title or Focus (if relevant)	Language (if relevant)	Comments
	<i>provided</i>						
22B	Funding leveraged (£) for work after the IWT Challenge Fund grant ends <i>(please note that the figure provided here should align with financial information provided in section 11.2)</i>						Both grants are for follow up work on fatwa awareness in Islamic schools in the landscape villages
23	Estimated value (£) of physical assets to be handed over to host country(ies)	0					
24A	Number of Bachelor qualifications (BSc) obtained	1	Indonesia	Female	Fatwa and Wildlife knowledge	Indonesia	Selni Putri, Faculty of Biology UNAS Graduate 2020
24B	Number of Masters qualifications (MSc/MPhil etc) obtained	1	Indonesia	Female	Media awareness of fatwa	Indonesia	Dewinta Febrianti, Master Degree in Biology, UNAS, Graduate, 2021 (Ms Dewinta Febrianti conducted Master thesis on the impact of fatwa with dissemination of Social Media such as

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Code	Description	Total	Nationality (if relevant)	Gender (if relevant)	Title or Focus (if relevant)	Language (if relevant)	Comments
							Facebook and WhatsApp Group)
24C	Number of other qualifications obtained (PhD in Conservation Tropical Biodiversity)	1	Indonesia	Female/male	Conservation of Tropical Biodiversity	Indonesia/English	Gugah Praharawati, MS (Ongoing, expected grad 2022/2023) (Ms Praharawati is a PPI UNAS researcher, and a PhD student in Tropical Biodiversity Conservation at Bogor Agricultural University. She conducted research to support this project and produce publications for government and other policy makers)
25A	Number of undergraduate students who received training	19	Indonesia	Male/Female	Conservation and Environmental Law	Indonesia	BSc in Faculty of Biology UNAS, 2019/2020 Students received fatwa educational materials and lectures during their course module on illegal wildlife trade
25B	Number of training weeks provided	16 weeks	Indonesia	Male and female		Indonesia	BSc students were taught about Islamic approaches including the fatwa during their course module on illegal wildlife trade

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Code	Description	Total	Nationality (if relevant)	Gender (if relevant)	Title or Focus (if relevant)	Language (if relevant)	Comments
25C	Number of postgraduate students who received training	13	Indonesia	Female/male		Indonesia	Fatwa module integrated with Master Degree in Conservation Biology Syllabus: Conservation and Wildlife Conflict
25D	Number of training weeks provided						
26A	Number of conferences/seminars/ workshops organised to present/disseminate findings	18					Most of the work is in year Final Y2 Report
26B	Number of conferences/seminars/ workshops attended at which findings from IWT project work will be presented/ disseminated	24				Indonesia and English	Listed in Final Report F18AP0074-USFWS 2020
26C	Number of individual media articles featuring the project	9					https://theconversation.com/untuk-melindungi-harim-desa-desa-di-jambi-dengan-tingkat-risiko-konflik-man https://sains.kompas.com/read/2018/09/27/1908222-menerus-jadi-korban-bagaimana-melindunginya?page

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							https://www.wwf.id/staging/publikasi/safari-ramadh https://kumparan.com/kumparannews/mui-luncurka-menurut-hukum-islam https://www.ajnn.net/news/forum-dai-rimbang-balin-aceh/amp.html https://www.mongabay.co.id/2018/12/29/catatan-ak-harimau-sumatera-harus-ada-strategi-komunikasi/ https://news.detik.com/berita/d-4606021/mui-riau-a https://kolom.tempo.co/read/1315645/virus-corona http://ksdae.menlhk.go.id/info/6873/da'i-konservasi-islam-untuk-pengabdian-pada-masyarakat.html

Publications

Provide full details of all publications and material that can be publicly accessed, e.g. title, name of publisher, contact details. Mark (*) all publications and other material that you have included with this report

Table 2: Details of project publications

Type *	Detail	Nationality of lead author	Nationality of institution of lead author	Gender of lead author	Publishers	Available from
(e.g. journals, manual,	(title, author, year)				(name, city)	(e.g. web link, contact address etc)

CDs)						
Journal	Mangunjaya, F.M. , C. Elkin, G.Praharawati, I. S. L. Tobing & Y.R. Tjamin. (2018). Protecting Tigers with A Fatwa: Lesson Learn Faith Base Approach for Conservation.	Indonesia	Indonesia	male	Asian Journal of Conservation Biology,	Asian Journal of Conservation Biology. July 2018. Vol. 7 No. 1 , pp. 78-81 (Pdf)
Journal	Mangunjaya, Fachruddin M & Praharawati, G. (2019) Fatwas on Boosting for Environmental Conservation in Indonesia . Special Edition on Religion and Environmental Activism in Asia.	Indonesia	Indonesia	male	Religions MDPI, Switzerland	<i>Religions</i> 2019 , 10(10), 570; https://doi.org/10.3390/rel10100570 (registering DOI)
Journal	Selni, M.P., Mangunjaya, F.M. , Praharawati, G., Tjamin Y.R. 2021. Pengetahuan, Persepsi dan Sikap Masyarakat Terhadap Keinginan Untuk melakukan Konservasi Hewan Liar yang Terancam Punah. (Indonesia	Indonesia	female	Jurnal Edukatif	<i>Knowledge, Perception and Atitude to Intention for Wildlife Conservation) Edukatif : Jurnal Ilmu Pendidikan</i> Vol 3 No 4 https://www.edukatif.org/index.php/edukatif/article/view/579
Book Chapter	Mangunjaya, FM and I Ozdemier. 2020. <i>Sustainability and Communities of Faith: Islam and Environmentalism In Indonesia</i> . In: Indrawan, M. (Ed) <i>Civic Engagement in Asia: Stories of Transformative Learning in the Work for a Sustainable Future</i> .	Indonesia and Turkey	English	Male	Jakarta: Yayasan Obor Indonesia (ISBN: 978-602-433-929-6) p 257-264.	
Book Chapter	Mangunjaya, F.M. 2021. Etika Agama Sebagai Platform Menggalang Kesadaran	Indonesia	Indonesia	Male	Jakarta: Yayasan Obor Indonesia (ISBN:978-623-321-071-3)	

	Konservasi. Dalam: Jatna Supriatna (Ed). Metode dan Kajian Sumber Daya Hayati dan Lingkungan (<i>Religious Ethic as Platform to increase conservation awareness</i>) in Method and Study of Biodiversity and Environment				xxxii+800, halaman 487-492. (Pdf)	
	Mangunjaya, F.M.2019. <i>Konservasi Alam Dalam Islam. (Edisi Revisi)</i> . (Nature Conservation in Islam)	Indonesia	Indonesia	Male	Yayasan Obor Indonesia , Jakarta: xxx + 337 ISBN: 978-602-433-779-7	
Guide Book Fatwa	Mangunjaya F M , Hayu Prabowo, Imran SL Tobing, Sunarto, Ahmad Sudirman Abbas, Taufik Mei Mulyana. 2019. <i>Pelestarian Satwa Langka untuk Keseimbangan Ekosistem</i> . Petunjuk untuk Implementasi Fatwa Satwa Langka No 14. 2013.	Indonesia	Indonesia	Male	Majelis Ulama Indonesia (MUI). Jakarta. 141 halaman	
Friday Sermon	Hayu Prabowo, Fachruddin M Mangunjaya , Shalahuddin al Ayyubi, Mifta Huda, Abdurahman Hilabi. 2017. <i>Khutbah Jumat: Pelestarian Satwa Langka untuk Keseimbangan Ekosistem</i> .	Indonesia	Indonesia	Male	Majelis Ulama Indonesia (MUI). Jakarta. 97 halaman	
Comic Book for Pesantren	Yesi Maryam.2019 .They Praise God (Mereka Juga Bertasbih) (Bahasa Pdf 2.4	Indonesian	Indonesia	Female	PPI UNAS	http://ppi.unas.ac.id/wp-content/uploads/2018/09/KOMIK-PERDAGANGAN-SATWA-LIAR-

Student	MB, Low Res)					REVISI-2-low-res.pdf
Poster	Wilife Fatwa Poster				PPI UNAS	Link: http://ppi.unas.ac.id/wp-content/uploads/2015/12/Poster-Fatwa-Satwa-Langka.pdf

Annex 4 IWT Contacts

To assist us with future evaluation work and feedback on your report, please provide details for the main project contacts below. If you are providing personal details on behalf of someone else, please ensure that they have agreed to sharing their information with us.

Please add new sections to the table if you are able to provide contact information for more people than there are sections below.

Please see our Privacy Notice on how contact details will be used and stored: <https://www.gov.uk/government/publications/illegal-wildlife-trade-challenge-fund-application-round>

Ref No	
Project Title	
Project Leader Details	
Name	Chantal Elkin
Role within IWT Project	Liaison with UNAS as main field partner, and periodically with other partners; donor liaison; input to strategy
Address	
Phone	
Fax/Skype	

Email	
Partner 1	
Name	Dr. Fachruddin Mangunjaya
Organisation	PPI-UNAS
Role within IWT Project	Main Project Lead in Indonesia, coordinated with other 2 field partners WWF Indonesia and Yapeka, carried out UNAS-related activities, reporting
Address	
Fax/Skype	
Email	
Partner 2	
Name	Febri Widodo
Organisation	WWF Indonesia
Role within IWT Project	WWF Indonesia representative, Landscape Manager
Address	
Fax/Skype	
Email	
Partner 3	
Name	Agustinus Wijayanto
Organisation	Yapeka
Role within IWT Project	Main contact at Yapeka, team leader carrying out livelihoods aspect of project, reporting
Address	
Fax/Skype	
Email	

Checklist for submission

	Check
Is the report less than 10MB? If so, please email to IWT-Fund@ltsi.co.uk putting the project number in the subject line.	X
Is your report more than 10MB? If so, please discuss with IWT-Fund@ltsi.co.uk about the best way to deliver the report, putting the project number in the subject line.	
If you are submitting photos for publicity purposes, do these meet the outlined requirements (see section 13)?	
Have you included means of verification? You should not submit every project document, but the main outputs and a selection of the others would strengthen the report.	X
Do you have hard copies of material you need to submit with the report? If so, please make this clear in the covering email and ensure all material is marked with the project number.	
Have you involved your partners in preparation of the report and named the main contributors	X
Have you completed the Project Expenditure table fully?	X
Do not include claim forms or other communications with this report.	