

Project 10635 - Engaging key stakeholders in Javan slow loris (*Nycticebus javanicus*) conservation in Java, Indonesia

Java, Indonesia 2023 – 2025

Organisations: Little Fireface Project (LFP) & Javan Wildlife Institute (JAWI)

Project Aim: Build stakeholder commitment to Javan slow loris conservation through education and community action

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Section 1

Summary

This project aimed to protect the Critically Endangered Javan slow loris (*Nycticebus javanicus*) through integrated conservation strategies. The main objectives were: (1) implement community-based agroforestry to restore habitat, (2) deliver school-based conservation education, and (3) initiate the development of a slow loris national action plan.

Key results: The agroforestry programme exceeded expectations with 91% of monitored sites successfully establishing trees from 18,700 saplings distributed across 11 villages. Conservation education reached 178-223 students, with 71% continuing Nature Club activities beyond curriculum completion. Community engagement events attracted 533 participants, with an international art competition generating entries from 10 countries.

Main impacts: The project demonstrated that when given the chance, local people were keen to take part in conservation activities. Surveys also showed that community agroforests are important habitat for slow lorises, further supporting the conservation value of working with local communities.

Project progress was significantly delayed by Indonesia's 2024 presidential election, particularly due to disruptions to the research permitting process. As a result, the original project end date could not be met. Once it became clear that these permitting issues could not be resolved, the project team decided to substantially scale back planned activities, prioritising quality outcomes over the quantity of outputs.

Introduction

The Javan slow loris (*Nycticebus javanicus*) is classified as Critically Endangered by the International Union for Conservation of Nature (IUCN) (Nekaris et al., 2013), having experienced population declines of at least 80% over three generations. The species has been included on "The World's 25 Most Endangered Primates" (Mittermeier et al., 2022), highlighting its urgent conservation need. Endemic to Java, Indonesia, the Javan slow loris represents a unique evolutionary lineage within the nocturnal primate family and serves as a flagship species for broader biodiversity conservation efforts in one of the world's most densely populated and environmentally threatened regions.

Three primary threats drive the Javan slow loris toward extinction. Habitat loss remains a major threat, with most destruction occurring by the mid-1980s as human land use intensified across Java (Thorn et al., 2009). Only approximately 20% of historic habitat remains, with just 17% of the potential population existing within protected areas. Illegal wildlife trade constitutes the second major threat, as slow lorises are sold as exotic pets and used in traditional medicine despite their CITES Appendix I status (Subramonium et al., 2007) and Indonesian legal protections. Third, inadequate law enforcement compounds these threats, with wildlife protection laws rarely enforced at local levels despite existing legal frameworks.

This project addressed these interconnected threats through an integrated approach combining population surveys to establish baseline data for national conservation planning, community-based agroforestry to restore habitat whilst providing economic benefits to farmers, and conservation education targeting young people in habitat areas to build long-term environmental stewardship.

Project activities were concentrated in West Java and Central Java provinces (Figure 1), in regions supporting remaining slow loris populations within highly modified agricultural landscapes. Survey

work was conducted at three locations in West Java; Gunung Papandayan (Garut Regency), Gunung Sawal (Ciamis Regency) and Taman Buru Gunung Masigit Kareumbi (Bandung Regency), and one location in Central Java; Hutan Kemuning (Temanggung Regency). These sites represent the diversity of habitats where slow lorises persist, from montane forests to fragmented agricultural mosaics, providing key data on population distributions across different habitat types and degrees of human disturbance.

Agroforestry and education activities focused on communities in Garut, Bandung and Ciamis in West Java, encompassing 11 villages where human-wildlife coexistence significantly influences slow loris survival. Previous research has demonstrated that slow loris density can be surprisingly high in unprotected farmland, particularly in West Java (Voskamp et al., 2014), suggesting that community conservation activities are essential, as the active participation of local people may be the single most important factor in the survival of the Javan slow loris.

This project was implemented through collaboration with Little Fireface Project, Javan Wildlife Institute (JAWI), Yayasan Konservasi Satwa Nokturnal Nusantara and BKSDA West Java (Natural Resources Conservation Agency), combining international technical expertise with local conservation knowledge and governmental coordination.

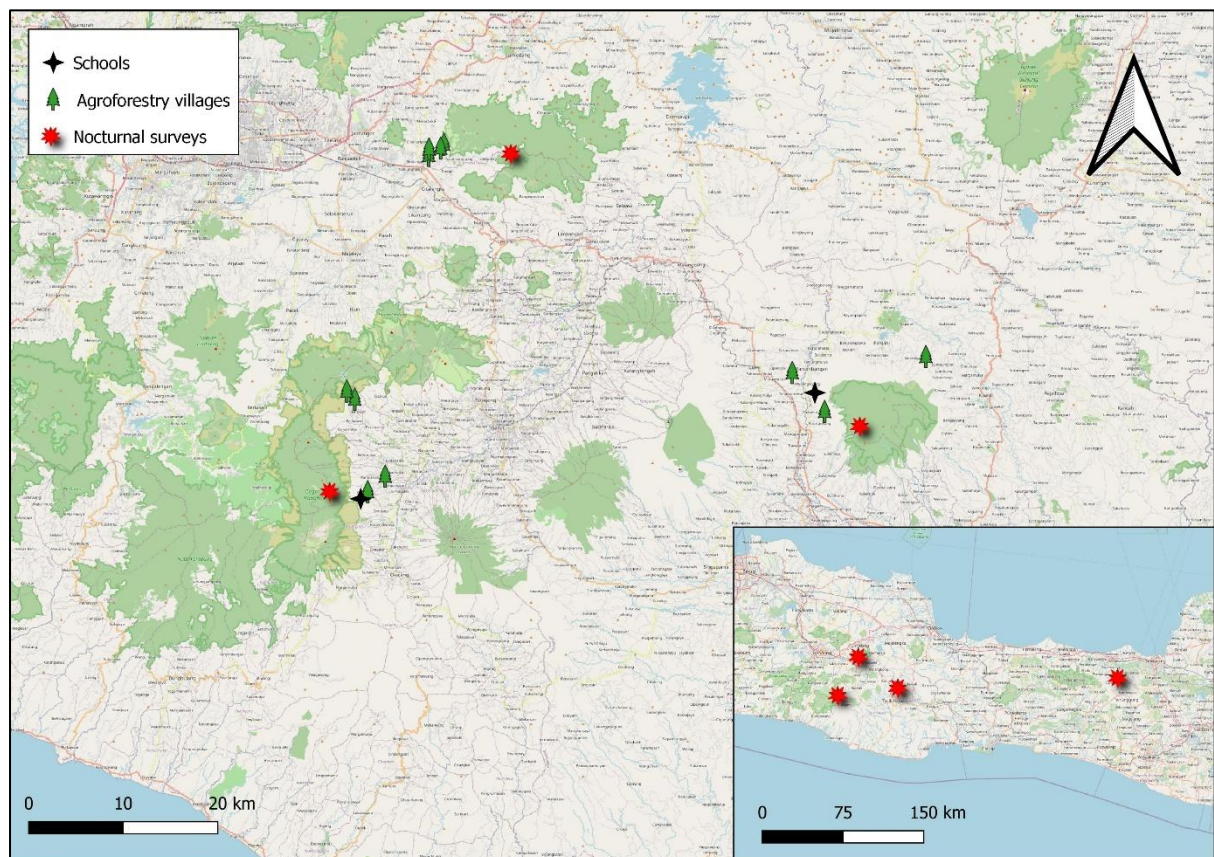


Figure 1. Map showing project activity locations across West and Central Java, Indonesia.

Nocturnal surveys (red stars) were conducted at four sites, agroforestry events (green trees) were implemented across 11 villages, and conservation education (black stars) was delivered at four schools in two locations.

Project Members

Windi Liani Bukit – Project Leader

Indonesian, 25-30 age group

Qualifications & Experience: M.Sc. Tropical Biodiversity Conservation (IPB University, 2024); B.Ed. Biology Education (Manado State University, 2018). Previously Education Officer, Little Fireface Project (2021-2025).

Current Position: Chairperson of Yayasan Konservasi Satwa Nokturnal Nusantara (2023 – present)

Project Role: Leading conservation education curriculum development and implementation; coordinating project team; organising research permits and community-based conservation activities.

Katherine Hedger – Research Coordinator

British, 30-35 age group

Qualifications & Experience: MSc Conservation and Biodiversity (University of Exeter, 2019); BSc Zoology (Cardiff University, 2017). Managed Nocturnal Primate Project in Borneo (2015-2016) tracking Western tarsiers and Philippine slow lorises.

Current Position: Regional Manager, Little Fireface Project (2020-present)

Project Role: Coordinating research activities; spatial and population density data analysis; social media and website content management for project outreach; presenting project findings.

Esther Adinda – Field Biologist

Indonesian, 25-30 age group

Qualifications & Experience: B.Eng. Forestry Engineering (Institut Teknologi Bandung). Previously Research Assistant, Little Fireface Project (2020-2023).

Current Position: Research Coordinator, Little Fireface Project (2025).

Project Role: Conducting nocturnal surveys; collecting behavioural and population data; training field teams; administrative support and meeting coordination.

Tungga Dewi Hastomo Putri – Data Analyst

Indonesian, 25-30 age group

Qualifications & Experience: M.Agr.Sc. Forest Biology (Kyoto University, 2020) funded by JICA; B.For. Wildlife Conservation (Universitas Gadjah Mada, 2018). Previously Field Station Coordinator, Little Fireface Project (2020-2021).

Current Position: Researcher, Data Science Conservation Division, Javan Wildlife Institute (2022-present).

Project Role: Conducting nocturnal surveys; organising community workshops and gatherings; contributing to national action plan development; scientific publication writing.

Muhammad Tafrichan – Spatial Data Analyst

Indonesian, 25-30 age group

Qualifications & Experience: M.For. (Universitas Gadjah Mada, 2022) funded by S.P.E.C.I.E.S.; B.For. (Universitas Gadjah Mada, 2019). Previously Research Assistant, Faculty of Forestry UGM (2019-2020).

Current Position: Researcher, Data Science Conservation Division, Javan Wildlife Institute (2021-present).

Project Role: Species distribution modeling; spatial data collection, management and analysis using GIS; habitat suitability mapping; integrating spatial and bioacoustic datasets.

Giot Marganti Ito Simanullang – Bioacoustic Data Analyst

Indonesian, 25-30 age group

Qualifications & Experience: B.For. (Universitas Gadjah Mada, 2022). Bachelor's thesis on Sumatran elephant vocal characteristics using bioacoustics, funded by SECI. Coordinator of university primate study group (2019-2020).

Current Position: Researcher, Data Science Division, Javan Wildlife Institute (2022-present)

Project Role: Bioacoustic data analysis using Raven Pro and Kaleidoscope software; passive acoustic monitoring (PAM) equipment installation; analysing Javan slow loris ultrasonic vocalisations.

Rahma Ayu Nabila – Bioacoustic Data Analyst

Indonesian, 25-30 age group

Qualifications & Experience: B.For. (Universitas Gadjah Mada, 2022). Bachelor's thesis on Sumatran elephant vocalisation detection using passive acoustics monitoring, funded by International Elephant Project. Trained by SECI in bioacoustic research methods.

Current Position: Researcher, Media Science Conservation Division, Javan Wildlife Institute (2022-present)

Project Role: Bioacoustic data collection using PAM methods; data analysis using Raven Pro software.

[Project Partners and Collaborators](#)

Project Advisors

Professor Anna Nekaris - Anglia Ruskin University, Little Fireface Project, Vice-Chair of the Special Section of the IUCN Primates Specialist Group for African and Asian Prosimians. Provided guidance on project design, nocturnal survey methodologies, and conservation education curriculum development.

Wildlife Conservation Society (Tresa Variyani Zen) - Project partner and advisor providing technical guidance.

Yayasan Konservasi Ekosistem Alam Nusantara (Rahayu Oktaviani) - Project partner and advisor.

Research & Academic Partners

Yayasan Konservasi Satwa Nokturnal Nusantara - Little Fireface Project's Indonesian research partner. Sponsored foreign researchers and obtained protected area entry permits (SIMAKSI) for the Indonesian team, facilitating legal administrative processes for project implementation.

Cikananga Wildlife Center - Collaborated as speakers at the community engagement event conservation talk show.

Institut Teknologi Bandung - Students assisted with project activities including surveys, education, and agroforestry events.

Institut Pertanian Bogor - Students assisted with project activities including surveys, education, and agroforestry events.

Government Agencies - National Level

Kementerian Kehutanan (previously Kementerian Lingkungan Hidup dan Kehutanan prior to 2024) - Ministry of Forestry. Processed research permits and facilitated access to protected areas.

Badan Riset dan Inovasi Nasional (BRIN) - National Research and Innovation Agency. Granted permission for foreign researchers to conduct research in Indonesia.

Government Agencies - Provincial Level

Balai Besar Konservasi Sumber Daya Alam (BKSDA) West Java - Provincial Natural Resource Conservation Office based in Bandung. Processed and granted permissions to conduct surveys in protected areas and provided site specific data.

Bakesbangpol Jawa Barat - Provincial Unity, Politics and Community Protection Agency. Granted permission to conduct research.

Perum Perhutani - State forestry corporation. Regional offices in Central Java, Ciamis, and Garut granted permission to conduct nocturnal surveys and accompanied surveys as supervision.

Government Agencies - District Level

BKSDA Garut - District Natural Resource Conservation Office. Staff accompanied nocturnal surveys at protected sites as supervision and provided logistical support.

BKSDA Ciamis - District Natural Resource Conservation Office. Staff accompanied nocturnal surveys at protected sites as supervision and provided logistical support.

Dinas Kehutanan Garut - District forestry office. Granted permission to conduct agroforestry events and attended events.

Dinas Pertanian Garut - District agriculture office. Participated in agroforestry events.

Dinas Pendidikan Kabupaten Garut - District education office. Granted permission to implement conservation curriculum in schools.

BPDAS Citarum Ciliwung - Watershed management agency. Provided free saplings for agroforestry programme.

Persemaian Rumpin Bogor - Government tree nursery. Provided free saplings for agroforestry programme.

Community Partners

Local village authorities - Village offices (Kantor Desa) in Barusari, Pasir Wangi, Cipaganti, Pasirnanjung, Sandingtaman, Padamulya, Kertamandala, Pamulihan, Pangauban, and Sirnajaya facilitated community engagement, hosted agroforestry events, provided access to community

forests, and assisted in recruiting local guides for survey work. Kantor Desa Cipaganti additionally provided permission for team basecamp (village residency) and hosted one of the slow loris exhibitions.

Star Energy Geothermal Darajat - Geothermal energy company operating in the project area. Collaborated in organising agroforestry workshops, facilitating community outreach in surrounding villages.

Naturalist Hub – Conservation education cafe. Hosted slow loris exhibition and promoted international slow loris art competition.

Education Partners

SDN 02 Cipaganti - Primary school. Implemented conservation education curriculum and Nature Club activities.

SDN 01 Cipaganti - Primary school. Implemented conservation education curriculum and Nature Club activities.

SDN 03 Medanglaya - Primary school. Implemented conservation education curriculum and Nature Club activities.

MI AL Hidayah - Islamic primary school. Implemented conservation education curriculum and Nature Club activities.

Section 2

Aim and Objectives

Main Aim: To provide current population density and distribution data, and educational materials on Javan slow lorises to government agencies, conservation organisations and communities living in proximity to slow lorises, so that they can actively engage in conservation efforts.

Underlying Objectives:

1. 80% of invited government agencies and conservation organisations attend the national conservation planning workshop at the conclusion of the research.
2. 70% of participating classes continue monthly Nature Club sessions 3 months after completing the conservation education module.
3. 50% of farmers that received saplings have planted the saplings in their farm within three months of the agroforestry workshops.

Adaptations to Original Objectives:

The national stakeholder workshop (Objective 1) was adapted into an extensive community engagement event held across two locations due to insufficient survey data from permit delays. This adaptation allowed for broader public participation and deeper integration of conservation messaging into local communities whilst survey efforts continued at a reduced scope across West Java.

Changes to Original Project Plan

Nocturnal survey fieldwork was significantly delayed due to complications in the permit application process. Major political shifts following Indonesia's February 2024 election further disrupted project

activities. The Ministry of Environment and Forestry was split through government reorganisation, creating unclear permitting procedures. A revised Conservation Law decentralised permits, requiring separate negotiations with national and regional authorities. These changes invalidated earlier permit applications, requiring resubmission with new documentation.

After nearly a year navigating this system, the team made the strategic decision to remove the foreign researcher from field activities, proceeding with Indonesian team members only. Within one month, permits were approved and fieldwork commenced. However, the delays resulted in massive scope reduction from 15 planned sites to 4 sites, with only 1 site achieving full completion to methodological protocols. This meant insufficient data for the planned national stakeholder workshop, necessitating adaptation to a community engagement event.

The closure of the Merdeka Mengajar platform (Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi Republik Indonesia, 2021) meant education materials could not be distributed online as planned. The team addressed this by engaging schools directly, delivering the curriculum through in-person visits, though this substantially reduced geographical reach compared to planned nationwide online distribution.

Methodology

Objective 1: National Conservation Planning Workshop

Nocturnal surveys were conducted between 18:00 and 06:00 using random distance point sampling (Nekaris et al., 2014) with a minimum of 30 points at each site. At each mammal sighting, researchers recorded the number of individuals, animal distance to the point, animal activity when detected, height in the tree, and tree species. Each site was surveyed at least five times during different moon phases. Camera traps and passive ultrasonic recorders were deployed to improve detection (Buxton et al., 2018; Enari et al., 2019; Zwerts et al., 2021), with occupancy modeling techniques (MacKenzie et al., 2018; Williams & Nekaris, 2020) applied to estimate species presence where sufficient data were available.

In place of the national stakeholder workshop, an extensive community engagement event was organised across two locations. The first event, held at Cipaganti village office (LFP's main field site location), engaged four local schools and the surrounding community through educational simulations demonstrating the slow loris' nocturnal lifestyle. The second event, hosted at Naturalist Hub Cafe, Bogor, was open to the public and attracted visitors from several nearby cities. Activities included public talks, creative arts activities, and an art exhibition featuring entries from a globally advertised social media competition. These free events fostered broader public participation and raised awareness about slow loris conservation across diverse audiences including students, local residents, regional visitors, and international participants.

Objective 2: Conservation Education Module and Nature Clubs

A conservation education curriculum aimed at school children aged 9-11 years was created for the Merdeka Mengajar national curriculum platform (Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi Republik Indonesia, 2021). The module, designed to run for three months, focused on wildlife conservation using the Javan slow loris as a flagship species, following multi-site environmental education approaches demonstrated effective in previous research (Brown et al., 2020). The final activity established monthly Nature Clubs for each class featuring activities to reinforce learning and encourage conservation actions such as art and drama sessions, tree planting, and recycling.

Following the closure of the Merdeka Mengajar platform, the project team adapted by training local educators at each site to teach the module to their students independently. A Whatsapp group was created for the project team to share Nature Club activities and for participating teachers to share Nature Club progress. Assessment of class participation in monthly Nature Clubs was evaluated through contributions to the WhatsApp group three months after completing the module.

Objective 3: Community-Based Agroforestry

Focus group discussions were held with communities in survey areas to obtain information on agricultural practices, and traditional ecological knowledge including wildlife sightings. This information informed the creation and implementation of interactive workshops focusing on the benefits of agroforestry for farmers and wildlife, following approaches successfully implemented in previous wildlife-friendly farming initiatives in Indonesia (Campera et al., 2021). During workshops, saplings were provided to each participating farmer.

To evaluate workshop success, sapling survival was surveyed three months after the workshops to measure the percentage of farmers who planted the saplings on their farms.

Outputs and Results

Objective 1: 80% of invited government agencies and conservation organisations attend the national conservation planning workshop.

Outcome: Objective not achieved. Due to insufficient survey data from permit delays, the national stakeholder workshop was adapted into a community engagement event.

Key Results:

- 533 total participants across two event locations
- 211 art competition entries from 10 countries
- 4 schools participated in community education activities
- Events included an art exhibition (79 visitors), a film screening (23 attendees), and a conservation talk show (40 attendees) with the theme "Forming a Species Action Plan for Slow Lorises".

Survey Activities: Survey scope was reduced from 15 sites to 4 sites due to permit delays. Surveys produced 22 Javan slow loris detections, with 91% occurring in community-managed forests. Point-based surveys showed slow loris detection rates in community forests were three times higher than protected forests (3.29 vs 1.06 detections per 100 point-visits). Additional nocturnal species documented included Javan leopard (Critically Endangered), leopard cat, flying squirrels, colugos, and civets.

Objective 2: 70% of participating classes continued monthly Nature Club sessions 3 months after completing the conservation education module.

Outcome: Objective achieved. 71% of classes (5 out of 7) completed the full Nature Club programme.

Key Results:

- 16-module conservation curriculum created
- 4 schools engaged across West Java

- 7 classes completed 15-session curriculum
- 178-223 students reached
- 5 classes completed all Nature Club activities

School	Classes	Start	End	Duration	Status
SDN 02 Cipaganti	2	Jul 2024	Apr 2025	10 months	Complete
MI AL Hidayah	1	Aug 2024	Jun 2025	11 months	Complete
SDN 03 Medanglaya	2	Mar 2025	Aug 2025	6 months	Ongoing
SDN 01 Cipaganti	2	Aug 2024	Aug 2025	12 months	Complete

Objective 3: 50% of farmers that received saplings have planted the saplings in their farm within three months.

Outcome: Objective achieved. 91% of monitored sites demonstrated successful sapling establishment.

Key Results:

- 18,000+ saplings distributed across West Java
- 11 villages across three regencies
- 400+ participants engaged (159 formally interviewed)
- 188 confirmed planting locations
- 67 sites monitored within 3-month evaluation period
- 91% success rate (61 sites with surviving trees)

Distribution included diverse species (magnolia, Indonesian bay leaf, Madagascar almond, durian, avocado, coffee, mahogany). Both individual farm and communal village planting models emerged, demonstrating community ownership and adaptive implementation.

Farmer Wildlife Observations (n=159): Structured interviews during sapling distribution revealed widespread nocturnal species presence across agricultural landscapes. Palm civet most frequently observed (49% of farmers), followed by leopard cat (33%) and slow loris (30%). Critically rare species included pangolin (4%), leopard (3%), linsang (2%), and fishing cat (1%). Clear temporal declines evident: pangolin (86% historical sightings >3 years ago), porcupine (67% historical), binturong (75% historical), contrasting with stable palm civet and leopard cat populations (>65% recent sightings <1 year). Darajat region showed highest nocturnal diversity (11/13 species). Findings validate that tree-rich farms support wildlife: slow lorises predominantly utilise agricultural landscapes with tree cover rather than solely protected forests.

Communication and Application of Results

Survey results reports were submitted to BKSDA and Perum Perhutani offices, summarising nocturnal survey findings and wildlife observations from protected and community forests. Research

results were presented to BRIN (National Research and Innovation Agency) in accordance with foreign researcher permit regulations.

The conservation education curriculum is freely available for download on project partners' websites in English and Bahasa Indonesia, enabling schools and conservation organisations across Indonesia to implement the programme independently. Teachers continue coordinating through the established WhatsApp group, sharing Nature Club activities and extending the programme beyond participating schools.

Sapling planting and establishment data reports were provided to both government tree nurseries (BPDAS Citarum Ciliwung and Persemaian Rumpin Bogor), documenting tree survival rates and validating community-led habitat restoration approaches. Results from each project objective are being prepared as scientific publications for submission to peer-reviewed journals.

Survey findings will be presented to government agencies and conservation organisations through a stakeholder workshop once data analysis is complete, informing the development of a national species action plan for Javan slow lorises. The finding that community-managed forests support viable slow loris populations validates conservation strategies prioritising community engagement and agroforestry over exclusively protected area management.

Monitoring and Evaluation

Education Programme: Teachers documented curriculum progress and Nature Club activities through photographs and descriptions shared via WhatsApp group, enabling the project team to track continuation rates. Student engagement was evaluated through activity completion and teacher feedback on implementation challenges.

Agroforestry Programme: Site visits were conducted at 67 representative planting locations within three months of sapling distribution to assess tree establishment. Each visit included GPS documentation, photographic evidence collection, and direct observation of tree survival.

Community Engagement: Event effectiveness was evaluated through systematic attendance recording at all activities and tracking art competition submissions by country of origin, providing metrics for both local and international reach.

Farmer Interviews: Structured interviews with 159 farmers during initial workshops documented baseline agricultural practices and planting intentions, creating a reference point for assessing subsequent behaviour change towards wildlife-friendly farming practices.

Achievements and Impacts

Achievement 1: Exceeded agroforestry target with 400+ participating farmers, demonstrating strong community commitment to habitat restoration.

This achievement provides evidence that direct community engagement combined with tangible agricultural benefits can drive successful habitat restoration. The distribution of 18,700 saplings across 11 villages creates wildlife corridors connecting fragmented forest patches, directly addressing habitat loss, one of the main threats to Javan slow lorises. The emergence of both individual farm and communal village planting models demonstrates genuine community ownership rather than passive participation, suggesting sustained commitment beyond project support. This approach addresses the project's core objective of reducing threats through community-led landscape restoration, whilst proving replicable across other slow loris habitat areas and applicable to other threatened species facing agricultural habitat conversion.

Achievement 2: Engaged over 500 people through community events and reached international audiences across 10 countries through the art competition.

This achievement advances the project's stakeholder engagement objective by creating conservation awareness at both grassroots and international levels. The 211 international art competition entries demonstrate that slow loris conservation messaging can resonate globally, building potential advocacy networks that may influence policy or funding beyond Indonesia. Local engagement in slow loris habitat areas builds grassroots conservation support amongst people whose daily activities most directly impact loris populations, essential for long-term threat reduction.

Achievement 3: Successfully delivered conservation education to 178-223 students across 7 classes, with 71% continuing Nature Club activities beyond curriculum completion.

This achievement advances the project's objective of building long-term conservation support by introducing conservation and encouraging an interest in wildlife in young people living in slow loris habitat areas. The hands-on Nature Club activities connected students emotionally to local biodiversity, creating the foundation for behaviour change that may reduce future threats to slow lorises. The creation of a 16-session digital module in both English and Indonesian that can be implemented without training enables any school to deliver the curriculum independently in the future. Whilst the curriculum uses the slow loris as a flagship species, the wildlife and environment conservation principles being taught are applicable globally, increasing the module's utility beyond slow loris habitat areas. This scalability creates pathways for reaching thousands more young people across Java and potentially beyond, multiplying conservation impact far beyond this project's direct reach.

Achievement 4: Initiated surveys at 4 sites and built local research capacity despite extensive permitting challenges

Whilst the team initiated surveys at fewer sites than originally planned (4 of 15), this fieldwork represents a significant milestone given the year-long permit delays. Beyond beginning the survey work itself, the team values several outcomes from this phase. Training Indonesian students and team members in nocturnal survey methodologies provided important professional development opportunities for early-career researchers. The initial field experience built technical capacity within the local team that will support ongoing monitoring efforts. The survey protocols we established, combining nocturnal point sampling with camera traps and passive acoustic monitoring, proved effective for detecting cryptic primates and provide a validated methodology for continued work.

Capacity Development and Leadership Capabilities

Field Research Capacity: Team members gained expertise in nocturnal primate survey methodologies, including random distance point sampling, camera trap deployment and management, and passive ultrasonic monitoring. Coordinating nocturnal surveys in unfamiliar, remote locations required developing skills in night navigation, assessing safety risks in unknown terrain, and adapting to unpredictable field conditions such as varying weather, difficult access routes, and encounters with local communities unfamiliar with researchers working after dark. Team members learned to troubleshoot equipment failures in the field and make real-time decisions about survey timing based on moon phases and local conditions, building confidence in independent fieldwork essential for conservation careers.

Community Engagement Skills: Leading agroforestry workshops, conducting farmer interviews, and coordinating with village authorities strengthened facilitation and stakeholder engagement

capabilities. Team members developed cultural competency navigating diverse community contexts and building trust with farming communities initially sceptical of conservation initiatives.

Education Programme Management: Adapting the curriculum from online to in-person delivery required creativity and flexibility under pressure. Team members gained experience in teacher training, developing age-appropriate conservation education materials, and maintaining ongoing school relationships through digital communication platforms.

Leadership and Strategic Decision-Making: Navigating permit challenges, government restructuring, and platform closures required strategic thinking and adaptive leadership. Team members coordinated efforts across multiple sites, managed relationships with diverse stakeholder groups, and made critical decisions such as removing foreign researchers from fieldwork to enable survey continuation. Organising the multi-day community engagement event demonstrated event management and inter-organisational coordination capabilities.

Section 3

Conclusion

This project advanced Javan slow loris conservation by building stakeholder commitment through habitat restoration, education, and community engagement, despite substantial permit and platform challenges requiring significant adaptation.

The agroforestry programme exceeded expectations with 91% establishment success across 18,700 saplings in 11 villages, demonstrating that combining economic benefits with conservation goals motivates farmers to restore habitat. This directly addresses the forest conversion threat identified in the introduction. Survey detections confirmed previous research by Voskamp et al., (2014) that Javan slow loris populations predominately resides outside of protected areas, demonstrating that appropriately managed agricultural landscapes can sustain viable loris populations. This finding fundamentally shifts conservation priorities toward supporting community forestry rather than focusing exclusively on protected areas.

Conservation education established a replicable model for embedding slow loris awareness in school curricula despite infrastructure limitations. The 16-session bilingual digital module requiring no training enables independent implementation, addressing the knowledge gap about this Critically Endangered species amongst habitat communities whilst providing globally applicable conservation principles.

Community engagement through creative approaches amplified messaging beyond traditional stakeholder workshops, whilst multi-organisational collaboration established foundations for future coordinated planning.

The project exposed critical information about Indonesia's evolving permit landscape, requiring removal of foreign researchers to enable survey continuation, and demonstrated that community-centred approaches succeed when formal government engagement pathways remain blocked by bureaucratic restructuring.

Problems encountered and lessons learnt

Which project activities and outcomes went well and why?

The agroforestry programme emerged as the project's most successful component. Over 18,700 saplings were distributed to farming communities across West Java, directly supporting habitat

restoration and promoting sustainable agricultural practices. The programme's success stemmed from its practical approach: farmers received tangible benefits whilst contributing to conservation goals. Structured interviews conducted alongside tree distribution provided valuable insights into local agricultural methods and land use patterns, informing both current activities and future conservation strategies. The direct engagement model built strong relationships with farming communities and generated genuine enthusiasm for wildlife-friendly agriculture.

The community engagement event also exceeded expectations, attracting 533 participants including students, local residents, and visitors from neighbouring cities. The globally advertised art competition generated international participation from 10 countries, demonstrating the potential for social media to amplify conservation messaging beyond local boundaries.

Which project activities and outcomes have been problematic and in what way, and how has this been overcome?

The education component faced significant challenges requiring substantial adaptation. Beyond losing access to the Merdeka Mengajar online platform, the curriculum designed for 9-11 year olds encountered resistance from schools whose students in this age group were prioritising examination preparation. The team responded by completely revising the module for 7-8 year olds, simplifying content whilst maintaining conservation messaging. This revision enabled successful implementation, though it required providing financial incentives to teachers and supplying printed materials to schools.

The nocturnal surveys proved most problematic. In 2023, Indonesian government policy shifted dramatically regarding foreign-funded wildlife research, triggered by foreign researchers publishing scientific criticism of government conservation claims in late 2022 (Harish, 2022). The Ministry of Environment and Forestry began restricting permits and revoking previously approved access, citing concerns about research that could "discredit the government." Permits were cancelled and applications had to restart under evolving regulations. After nearly a year navigating this system, the team made the strategic decision to remove the foreign researcher from field activities, proceeding with Indonesian team members only. Within one month of this adjustment, permits were approved and fieldwork commenced. However, the permit delays resulted in massive scope reduction from 15 planned sites to 4 sites initiated, with only 1 site achieving full completion to methodological protocols. This meant insufficient data for the planned national stakeholder workshop, necessitating adaptation to a community engagement event instead.

Briefly assess the specific project methodologies and conservation tools used

The random distance point sampling combined with camera traps and passive ultrasonic monitoring proved effective for detecting cryptic nocturnal primates, providing complementary datasets that enhanced detection rates. The three-month conservation education module with integrated Nature Clubs successfully engaged younger students, though requiring adaptation for age appropriateness and additional resources for implementation. The agroforestry workshop methodology, combining focus group discussions with practical sapling distribution, successfully translated conservation messaging into tangible agricultural benefits. Direct engagement with farmers built trust and enabled understanding of local land use pressures. However, both education and agroforestry components required more financial resources than anticipated.

Important lessons learnt and recommendations for future enhancement

Future projects must allocate substantially more time for permitting processes in Indonesia as even routine permit extensions require months. Political contexts can shift rapidly, necessitating contingency planning for foreign researcher involvement. Direct community engagement, whilst more resource-intensive than online platforms, builds stronger relationships and more sustainable outcomes. When implementing education programmes, budget for teacher incentives and printed materials rather than assuming schools can absorb these costs. Flexibility and willingness to adapt methodologies proved essential for maintaining project momentum despite unforeseen obstacles.

In the future

Survey efforts will continue beyond the grant period using external funding to compensate for the substantial scaling back necessitated by permit delays. Expanding the survey scope across additional sites in Java will provide the comprehensive population and distribution data required to develop a robust national action plan for the Javan slow loris. The conservation education curriculum remains freely available on our website for schools and conservation organisations to download and implement independently, ensuring the education component continues reaching new audiences.

Further work essential for species conservation includes establishing long-term population monitoring protocols to track demographic trends and assess habitat quality changes over time. Strengthening collaboration with regional forestry departments and protected area managers will facilitate more streamlined permitting processes for future research. Expanding the agroforestry programme to additional communities would create broader wildlife corridors connecting fragmented habitat patches. Research into illegal trade networks and enforcement effectiveness would inform targeted anti-poaching strategies. Finally, engaging local communities as citizen scientists through training programmes in loris identification and monitoring would build conservation capacity whilst generating valuable presence data from areas inaccessible to formal research teams. These combined efforts would create a comprehensive, community-supported conservation framework for this Critically Endangered species.

Financial Report

1 READ THIS INFORMATION: COMPLETE THIS SPREADSHEET TOGETHER WITH YOUR MAIN WORKSHEET (FINANCIAL REPORT WORKSHEET) The column TOTAL CLP SPENT is filled automatically using the figures entered into the MAIN WORKSHEET. DO NOT attempt to enter					
Itemized expenses	Total CLP Requested (USD)*	Total CLP Spent (USD)	% Difference	Details & Justification (Justification must be provided if figure in column D is +/- 25%)	Proposed Spending (Preliminary Report Only)
PHASE I: PROJECT PREPARATION					
1 Communications (telephone/internet/postage)	210.00	205.58	-2%		
2 Field guide books, maps, journal articles and other printed materials	0.00		#DIV/0!		
3 Insurance	0.00		#DIV/0!		
4 Visas and permits	3,000.00	2298.05	-23%		
5 Team training	450.00	450.00	0%		
6 Reconnaissance	0.00		#DIV/0!		
7 Other (Phase 1)	0.00		#DIV/0!		
PHASE II: IMPLEMENTATION					
8 Scientific field equipment and supplies	5,178.00	5394.57	4%		
9 Photographic equipment	0.00		#DIV/0!		
10 Camping equipment	0.00		#DIV/0!		
11 Boat/engine/truck (including car hire)	0.00	760.40	#DIV/0!	We did not anticipate hiring a car in our original proposal however we found that the majority of survey sites were not accessible by pub	
12 Other (Equipment)	0.00		#DIV/0!		
PHASE III: POST-PROJECT EXPENSES					
13 Accommodation for team members and local guides	1,000.00	1075.46	8%		
14 Food for team members and local guides	1,000.00	874.34	-13%		
15 Travel and local transportation (including fuel)	1,000.00	927.59	-7%		
16 Customs and/or port duties	0.00		#DIV/0!		
17 Workshops	500	522.25	4%		
18 Outreach/Education activities and materials (brochures, posters, video, t-shirts, etc.)	250.00	265.87	6%		
19 Other (Phase 2)	845.00	652.78	-23%		
PHASE IV: POST-PROJECT EXPENSES					
20 Administration	0.00		#DIV/0!		
21 Report production and results dissemination	1,500.00	1464.37	-2%		
22 Other (Phase 3)					
Total	14,933.00	14,891.26			
*These figures should be the same as those listed in the original proposal					
**Explanation must be provided if figure in column D is +/- 25%					

Section 4

Photo Documentation

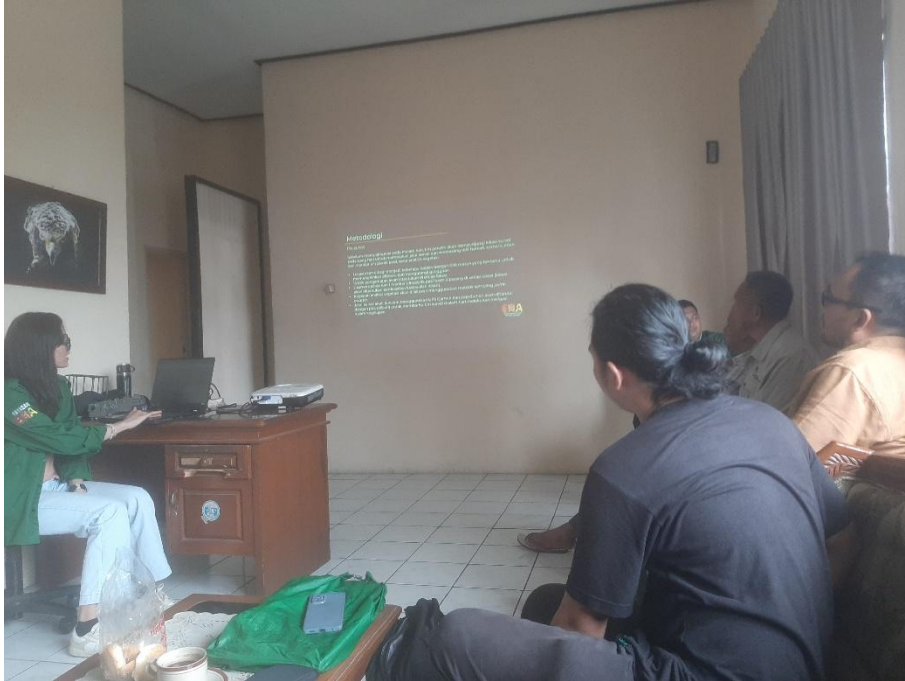


Figure 1 Presenting our research proposal to the Natural Resources Conservation Agency



Figure 2 Conducting pre surveys in protected forest



Figure 3 Conducting nocturnal mammal surveys in Kemuning, Central Java



Figure 4 Slow loris exhibition in Garut, West Java open to the local community during Slow Loris Outreach Week



Figure 5 Winners of the slow loris art competition during Slow Loris Outreach Week



Figure 6 Speakers from Javan Wildlife Institute, Cikananga Wildlife Center and Little Fireface Project presenting at the Slow Loris Outreach Week exhibition



Figure 7 The team responsible for organising and delivering the Slow Loris Outreach Week event at the Naturalist Hub, Bogor, West Java



Figure 8 Entries to the slow loris art competition displayed in an exhibition at the Naturalist Hub, West Java



Figure 9 Implementing the conservation curriculum in Ciamis, West Java



Figure 10 Implementing the conservation curriculum in Garut, West Java

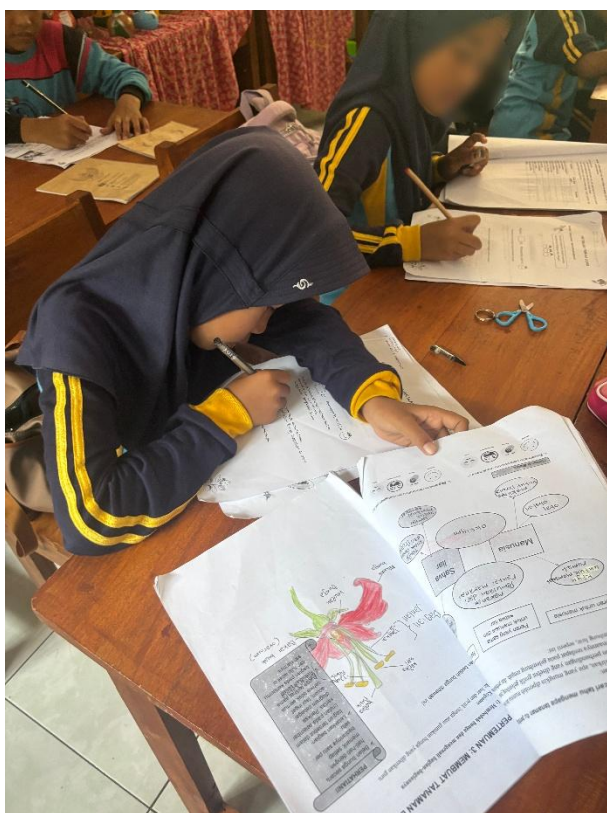


Figure 11 A student engaging with an activity from the project's conservation curriculum.



Figure 12 Conducting interviews with local farmers on farming practices



Figure 13 Community participants and local government officials at an agroforestry event promoting sustainable land-use practices.



Figure 14 Team members distributing free tree saplings to participants at the agroforestry event.

Appendices

CLP M&E measures table

Output	Number	Additional Information
Number of CLP Partner Staff involved in mentoring the Project	1	Tresa Variyani Zen (Wildlife Conservation Society)
Number of species assessments contributed to (E.g. IUCN assessments)	na	
Number of site assessments contributed to (E.g. IBA assessments)	na	
Number of NGOs established	na	
Amount of extra funding leveraged (\$)	\$5000	From ReWild Primate Action Fund for developing a slow loris species action plan
Number of species discovered/rediscovered	na	
Number of sites designated as important for biodiversity (e.g. IBA/Ramsar designation)	na	
Number of species/sites legally protected for biodiversity	na	
Number of stakeholders actively engaged in species/site conservation management	~440	400+ farmers, 6 government organisations, 11 village offices, ~10 government officials
Number of species/site management plans/strategies developed	0	National action plan development in progress but not completed due to insufficient survey data from permit delays
Number of stakeholders reached	~1,350	Includes 500+ community event participants, 200+ art competition entries from 10 countries, 178-223 students in conservation education curriculum, 400+ farmers in agroforestry programme, teachers, and government agencies/organisations
Examples of stakeholder behaviour change brought about by the project	3	Farmers adopted wildlife-friendly agroforestry practices; teachers and students engaged in ongoing conservation education through Nature Clubs; general public engaged in conservation awareness through art competition and community events.
Examples of policy change brought about by the project	na	
Number of jobs created	~15	No permanent positions created. Project provided temporary paid work to local community members for

		survey fieldwork, agroforestry coordination, and sapling maintenance
Number of academic papers published	na	
Number of conferences where project results have been presented	na	

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[Address list and web links](#)

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Useful Resources:

[Conservation education curriculum download](#)

[Distribution list](#)

This report has been distributed to:

1. Conservation Leadership Programme - Final project report submitted as grant requirement 31st December 2025
2. Yayasan Konservasi Satwa Nokturnal Nusantara
3. West Java Regional Forestry Department
4. Project team members
5. Tresa Variyani Zen (Wildlife Conservation Society)

The report is available digitally and can be requested from Little Fireface Project at research@littlefireface.org.