



WASGAMUWA NATIONAL PARK

SCOPING REPORT FOR A GLOBAL PARK DEFENSE PROJECT

PREPARED FOR



GLOBAL
CONSERVATION

ABOUT LEF

Established in 2019, LEF is a not-for-profit organisation that supports conservation initiatives in Sri Lanka, by acting as a conduit for international funding and awarding grants to maximise local impact.

LEF is an affiliate member of the Conservation Collective, a global ecosystem of local foundations that funds effective grassroots conservation initiatives to protect the environment, restore nature, and build climate resilience.

As conservation administrators, the cornerstone of our mission is the empowerment of local communities, backed up by investment in the local environment.



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OVERVIEW

In Sri Lanka, Protected Areas (PAs) in Sri Lanka cover approximately 13% of the land surface exceeding a total area of 8500 km² from which approximately 7% of the area belongs to National Parks that come under the jurisdiction of the Department of Wildlife Conservation (DWC).

Wasmamuwa National Park (WNP) is located in the administrative districts of Matale and Polonnaruwa. Located in the Dry Zone of Sri Lanka, it spans an average of 40,000 hectares (Image 1). WNP has an average annual visitor rate of 1.35% (2017-2021), with approximately 20,000 visitors annually. In 2023, WNP recorded 10,361 visitors of which 9014 were locals and 1347 were foreign visitors.

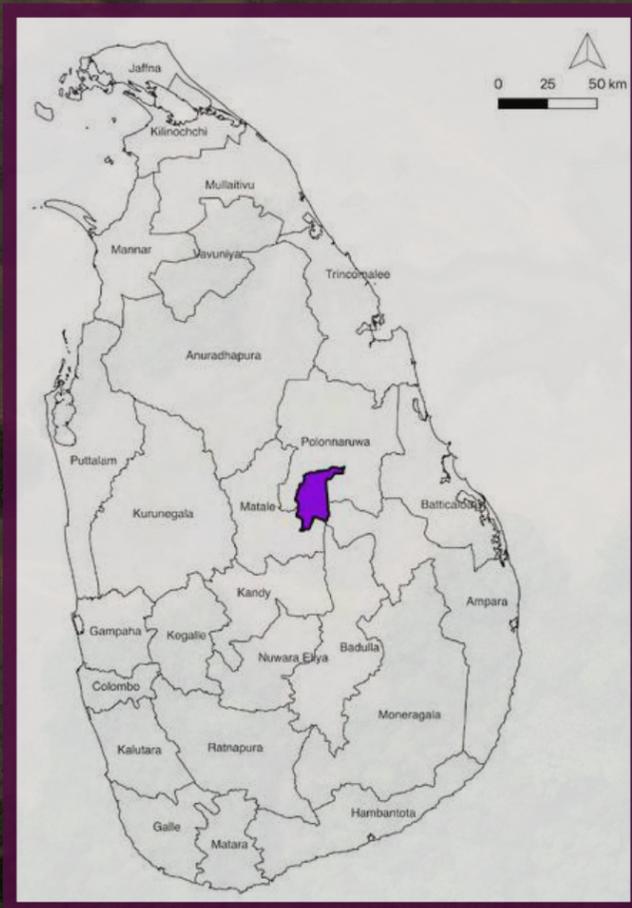


Image 1: WNP in Sri Lanka

Bordered by the hydrological features on each of its four boundaries, including the Mahaweli River (the Great Sandy River), Sri Lanka's longest river on its eastern boundary, and the Amban River, another major river on its western boundary, WNP is extremely well placed from a geographical sense.

WNP hosts diverse habitats, including dry monsoonal forests, semi-evergreen forests, abandoned paddy fields, intermediate savannah grasslands, dry-zone dry evergreen forests, dry-zone riverine forests, and dry-zone rock outcrop forests. These diverse ecosystems all come together to create a rich habitat for a variety of wildlife including including 40 mammal species (4 endemic), 155 bird species (8 endemic), and numerous endemic fish, amphibians, and reptiles.¹

¹ De Alwis, S. A. U., Dayawansa, P. N., Weerakoon, D., Wijesinghe, M. R., & Yapa, W. B. (2007). Biodiversity Baseline Survey: Wasmamuwa National Park

Wasmamuwa National Park, spanning 40,000 hectares in Sri Lanka's Dry Zone, serves as a critical ecological link between major wilderness areas, hosting diverse habitats that support a rich array of wildlife, yet faces significant threats from human-wildlife conflict, habitat fragmentation, and illegal activities

Located in close proximity to Maduru Oya National Park and directly bordering Angammedilla National Park, WNP offers vital connectivity to other wilderness areas. The Pallegama-Laggala Other State Forest (OSF) maintains the last connective wilderness tissue between Wasmamuwa and the Knuckles Conservation Forest, a highland biodiversity area, home to a plethora of flora and fauna. Thereby, further stressing the need for a conservation intervention to help secure the long-term protection of this unique area.

In hopes of securing the long-term conservation of WNP, the Lanka Environment Fund (LEF) through the support of Global Conservation (GC) carried out a scoping assessment with the eventual aim of rolling out GC's Global Park Defense (GPD) program to increase ranger patrol and park protection effectiveness in critical ecosystems.

GPD is a scalable system with technology and training tailored to each park, dramatically increasing the effectiveness of rangers and park authorities in protecting their world heritage.

The preliminary threat assessments identified through a literature review revealed that human-wildlife conflict, illegal sand mining, invasive alien species, habitat fragmentation and loss driven by deforestation and poaching were considered some of WNP's major threats. To understand the threats on the ground, an initial biodiversity scoping assessment was conducted to understand the boundaries of the NP, road connectivity within the park, the threats faced by the park and the rangers and the threats faced by the community.

THREATS & CHALLENGES

During the 4 day scoping of understanding the road networks and threats within the park, each zone presented a range of threats.

ZONE 1

- **Gem Mining:** Three individuals were observed mining for gems in the Mahaweli River near the Hatharamang Handiya Circuit Campsite.
- **Spread of Fires:** The Wilmitiya grasslands, which border agricultural lands, were found to be burned due to fire spreading from nearby areas.
- **Invasive Alien Species (IAS):** Various terrestrial invasive species were identified, including Lantana (prevalent along much of the road), Podi Singha Marang, and Gandapana. Aquatic invasive species such as Ludwigia and Salvinia were also noted at Wilmitiya Weva.
- **Lack of Formal Buffer Zone:** Agricultural lands immediately on the outskirts of the riverine nature reserve which borders the eastern boundary of the Mahaweli River, serve as a buffer zone for WNP (image 4).



Image 3: Zone 1 Red

ZONE 2

The Sanstha Pitiya Land, which was reclaimed from settlements during the time Wasingamuwa was a strict nature reserve, is now overgrown with Manna grass. The DWC beat office in this area has been abandoned and is in disrepair due to staffing shortages and lack of access to water (Image 5).



Image 5: Abandoned beat office

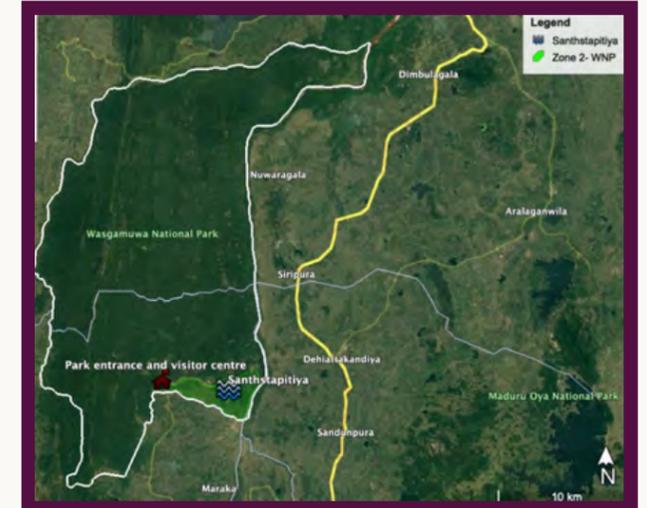


Image 4: Zone 2 Green



Image 6: Evidence of gem mining

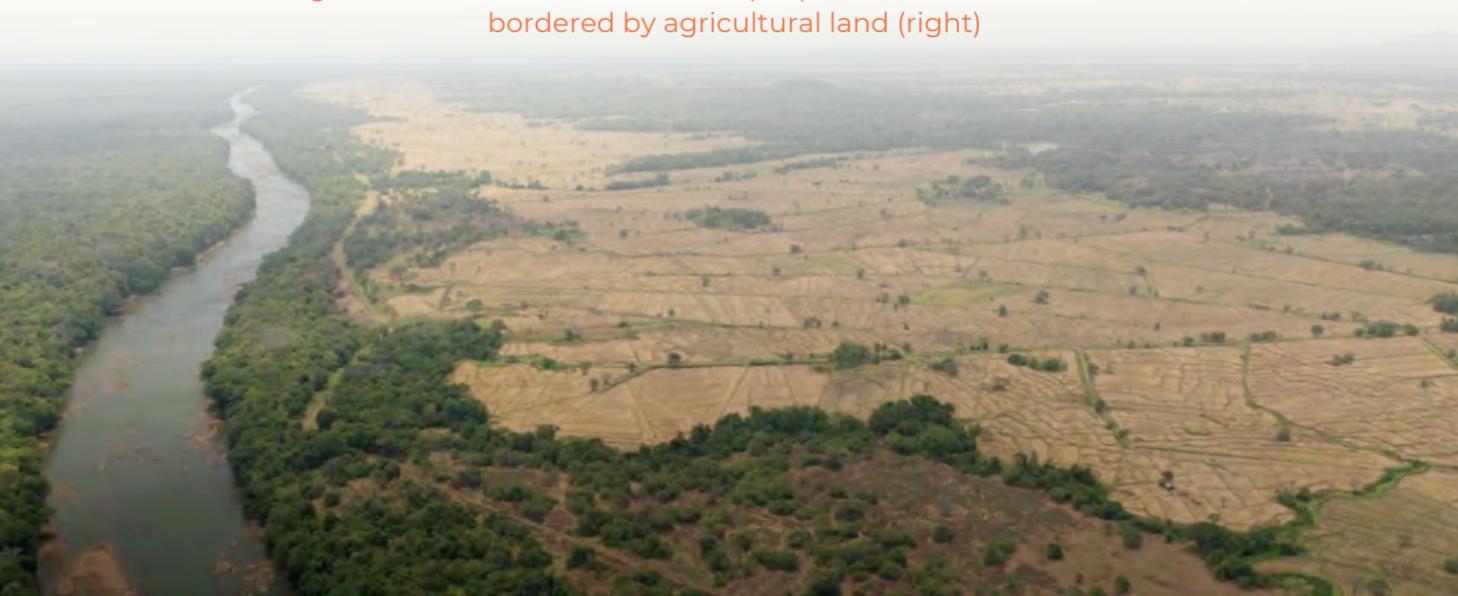
ZONE 3

- **Gem Mining:** Numerous burrows spread across this zone indicate ongoing gem mining activities. DWC officers at the entrance confirmed this as the most significant threat to this side of the park (Image 6).
- **Poaching:** Identified by DWC officers as the second most prominent threat in this zone, poaching poses a serious risk to the park's wildlife.



Image 7: Zone 3 Blue

Image 4: Mahaweli River with WNP (left) and Riverine Nature Reserve bordered by agricultural land (right)



COMMUNITY OUTLOOK

WNP is surrounded by villages along the western and eastern boundaries (Image 9) and both the communities and wildlife have faced multiple fatal incidents historically. Sadly, Sri Lanka records the world’s highest numbers of Human-Elephant Conflict (HEC) numbers with over 400 elephants and 150 humans dying on an annual basis. The most recent case of an elephant death was reported in August 2024 in Bakamuna, a town along the northwestern periphery where three cops were arrested for shooting an elephant that was reportedly blind in one eye and attempting to move the body with a backhoe.²

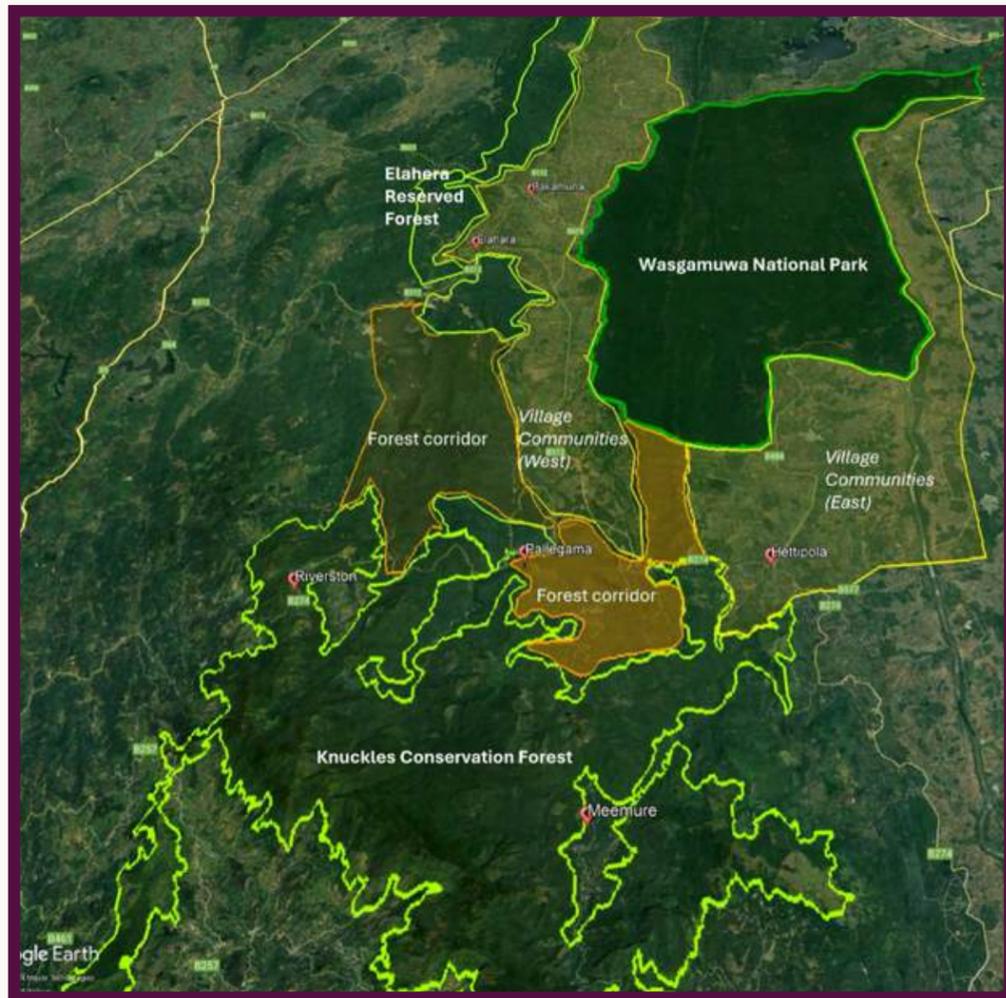


Image 8: Map of WNP with village communities and forest corridors extracted from the WNP Tourism management plan (concept note) developed for Asian Development Plan, June 2024

Added to this, Human-Bear Conflict (HBC) is also a threat. With humans accessing parts of the National Park illegally to collect Velvet Tamarind (*Dialium cochinchinense*) and Honey, Sloth Bears, who also enjoy feasting on these resources, often get startled coming into contact with humans, which often ends negatively for humans and in past cases have resulted in complete disfiguration.³

Parallel to the conflicts faced between communities and wildlife, the buffer communities have also faced challenges with land disputes and relocations during the Mahaweli Development Project, which was the countries biggest hydro-energy project that spanned 30 years.

BUFFER COMMUNITY PERSPECTIVES

To understand community perception around conservation efforts to secure WNP, the scoping team met with Sunela Jayawardena, environmental architect, and resident in Handungamuwa, a town situated in the buffer zone towards the park entrance. The meeting with Sunela helped the team uncover a preliminary understanding of the history of the community and their interactions with the landscape and wildlife.

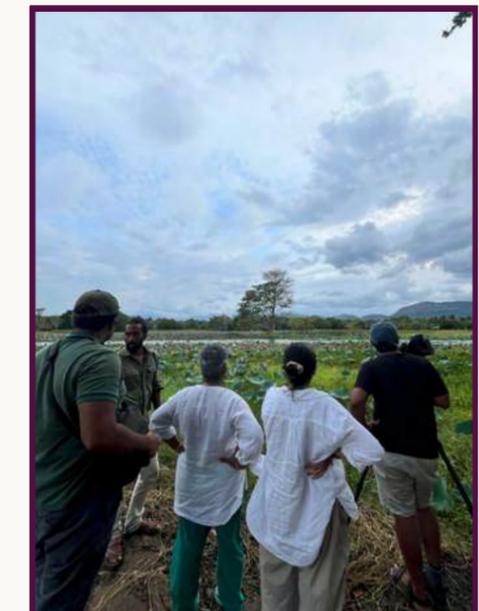


Image 9: The scoping team meets with Sunela Jayawardena, resident of Handungamuwa

²De Alwis, S. A. U., Dayawansa, P. N., Weerakoon, D., Wijesinghe, M. R., & Yapa, W. B. (2007). Biodiversity Baseline Survey: Wasgomuwa National Park

³Perera, Nilupulie & Abeyratne, Sandya & Kiritharan, Perumal & Jayasinghe, Liyanaarachchige. (2024). Two cases of extensive maxillofacial injury following mauling by bears: Sri Lankan experience. Oral and Maxillofacial Surgery Cases. 10. 100364. 10.1016/j.omsc.2024.100364.

Evidence of Land Ownership Disputes

No land surveys were conducted before demarcating areas for the national park, leading to disputes over land ownership. Electric fences have been installed in incorrect locations, exacerbating conflicts and misunderstandings about land boundaries. There have been alterations to the original land allocations, further complicating ownership claims and creating tension among local communities. It was suggested to realign the park boundaries to match ecological boundaries that are recognizable to wildlife, potentially reducing human-wildlife conflicts.

Visible poacher trails have been observed in the villages along the Ambanganga, indicating ongoing illegal activities. A significant portion of the park is currently inaccessible due to overgrown pathways, resulting from a lack of visitation and maintenance.

Community Interactions

Trackers, safari jeep drivers (approximately 60), and volunteers involved with the park are predominantly from nearby villages and are considered non-residents. The surrounding communities rely on the forest for various resources, including firewood, bushmeat, illicit gem and sand mining, and timber. The park is also a drop-off point for illicit timber. Agricultural lands are burned for cattle farming, which runs the risk of spreading PA lands. Additionally, poachers use burning to attract young deer and fire-breakers have been destroyed by the community.

The meeting with Sunela brought our attention to the complexities faced within the communities and a need for a more comprehensive social science study to unpack the political, historical and cultural dimensions of how the buffer communities have experienced ownership over conservation of WNP.



MEETING DWC OFFICERS

The threats faced to the environment and the community further uncover complexities that exist within the DWC and their limitations when it comes to patrolling the park. Through conversations with park rangers Abisheka and Dhammika at the Kirioya entrance (Image 7), the scoping team were able to analyse the immediate challenges faced.

Meeting with DWC Officers at the Kiri Oya Secondary Entrance to WNP

- **Office Resources:**

- Staffing: The Kirioya office has a total of 8 DWC officers, but only 6 of them are qualified to go on patrol.
- **Vehicles and Fuel:** The office is equipped with 1 double cab, with a fuel allowance of 150 litres per month. This fuel must cover all transportation needs, patrolling, court visits, and other administrative tasks.

- **Weapons:** The officers have access to 5 weapons, which include 4 revolvers and 1 shotgun.
- **Visitor centre at Kiri oya is not up to standard:** The secondary visitor centre was built as a part of the Moragahakanda project, which is the last stage of the Mahaweli Development Project, however, since the centre was open to the public, it has undergone intense water and structural damages.

- **Patrolling and Law Enforcement:**

- Patrolling is carried out sporadically due to the officers' 24-hour shifts. Patrols are conducted approximately 15 days per month, with the frequency often dictated by the number of court visits required.
- Last year, approximately 20 arrests were made. So far this year, around 12 arrests have been recorded.
- The office lacks a holding cell, and the police do not arrive to collect offenders. As a result, offenders often have to be released.

- Some officers are not given uniforms and accounts of public undermining their authority were collected, for example, when rangers try to hold visitors who do not follow the rules when bathing in the rivers accountable, they [visitors] question who the [officers] are.

Meeting with DWC Officers at the Main Entrance to WNP

- **Poaching and Mining** are prevalent during periods of reduced agricultural activity, specifically after rice harvests. The community, primarily engaged in agriculture, faces these issues as a means of survival. Additionally, there is a significant social stigma attached to those caught in these offences.
- **Ongoing education and awareness programs have demonstrated success**, particularly among school children.
- **The DWC officers are stretched thin due to a shortage of staff.** They are expected to participate in multiple responsibilities, including managing bungalows, patrolling, attending court visits, and addressing human-wildlife conflicts (HWC) within the community.
 - Despite local interest in participating, the Flora and Fauna Protection Ordinance (FFPO) restricts community access and involvement in National Park management activities.

- Community members can participate in certain volunteer activities such as the IAS removal.
- The impact of Human Elephant Conflict (HEC) is more detrimental to the local community than to the elephants themselves.
 - Compensation for damages caused by elephants is typically only 25-30% of the actual damage cost.
 - The process to receive this compensation can take several years.
- All village tanks (10 of them) are currently covered with IAS



MEETING WITH THE ASSISTANT PARK WARDEN

Despite there being shortages of resources, the park and the rangers were quite confident in their roles. However, meeting with the assistant warden, Sumedha Sennanayake, revealed the biggest challenge with acquiring resources falls back onto the bureaucratic process that is both lengthy and inefficient.

The process involves writing to the head office situated in Colombo for them to approve the request and then release a tender notice for external bids. Following this, more often than not, the most affordable option is chosen, which does not always translate into the most reliable and long-lasting option.

Mr Sumedha then told us about the office's resources and capabilities. The park has been allocated a cadre of 22 personnel, 11 are rangers, out of which 7 have weapons training including the warden and assistant park warden, and 11 are volunteers. They have 3 vehicles with 150 litres of fuel allowance per month, and 2 tractors for maintenance work.

Although it was observed that elephant deaths in this region are comparatively lower than in other regions with high elephant densities, ensuring that the rate of HEC is maintained would require interventions. Mr Sumedha was aware of SMART patrolling technology, and when the team introduced the concept of Global Park Defence, he [Sumedha] agreed that drones and thermal cameras could improve tracking of both wildlife and illegal activities.

Key observations:

- **Community Relations:**

- There are slight tensions within the community due to the arrest of offenders. Additionally, the village includes resettled community members from when the park was downgraded from a Strict Nature Reserve to a National Park in 1984 which has created disunity.
- DWC officers currently lack the training needed to address these community tensions effectively.

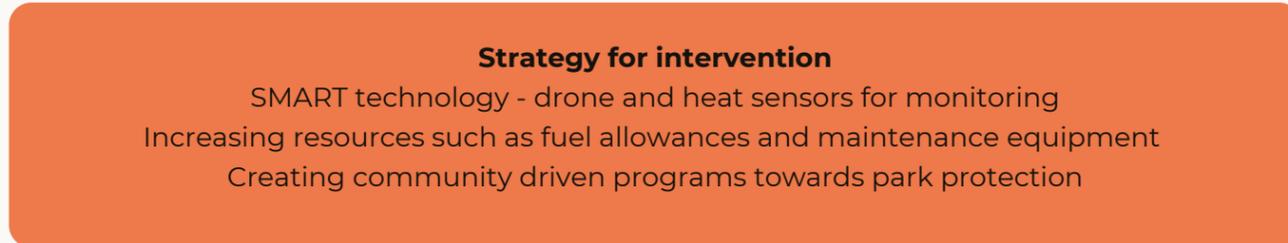
- **Community Engagement Projects:**

- The DWC's "Janaweeddum" project involves providing resources to community members to reduce illegal activity within the park.
- A partnership with MAS (an apparel conglomerate) led to a project that donated sewing machines, cut pieces of fabric, and skills training to community members. However, this initiative was not sustainable in the long term due to the lack of a local market for tailors.
- A composting workshop was also conducted to support livelihoods, using materials collected through the removal of Invasive Alien Species (IAS) in Handungamuwa.



NEXT STEPS

Our exposure visit allowed us to understand the physical boundaries and connectivity of the park along with a preliminary overview of the resources allocated to WNP. According to the Global Park Defence rollout stages, the scoping assessments allow us to ground truth the threats that WNP faces, and allow us to further investigate baseline data. The metrics available then would feed into our implementation strategy and measure success.



According to the preliminary scoping analysis, the intervention requires providing resources and a management plan, while fostering relationships within the bordering local communities towards protecting the National Park. However, our understanding is that the relationships between government, park, and community are fragmented and a socioeconomic survey can help us gain better metrics to plan for a sustainable livelihoods approach in securing WNP.

Scoping Team

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