

Forest monitoring in Prey Lang, Preah Rokar and Sorng Rokha Vorn wildlife sanctuaries

3rd Monitoring Report

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Funded by
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- Cambodia lost more than 100,000 ha tree cover in 2022
- REDD+ areas are experiencing extensive forest loss and REDD+ projects are failing to deliver on their promises
- Communities are keen to participate in forest protection





**Cambodia lost
104,000 ha of tree
cover in 2022
equivalent to 1.2 %
of its total area.**

The deforestation targeted the kingdom's best forests. In all, 37% of the total tree cover loss, equivalent to 38,000 ha, occurred inside the country's protected areas¹ ([Table 1](#)).

Although tree cover loss decreased in comparison to 2021, total tree cover loss remains high in Cambodia. Between 2001 and 2022, Cambodia lost 2.7 million ha of tree cover, equivalent to a 31% decrease in tree cover since 2000. This is equivalent to an estimated 1.77Gt of CO₂e and has contributed substantially to the nation's total greenhouse gas emissions.

Table 1.

¹Tree cover loss within protected areas in Cambodia, 2001-2021. The calculation contains data on six types of protected areas in Cambodia (national park, wildlife sanctuary, protected landscape, multiple-use area, natural heritage site, Ramsar site). Source: Hansen/UMD/Google/USGS/NASA

Introduction

Protected Area

Tree
cover loss
2022 (ha)

Cambodia (total Tree Cover Loss)

103,853

Prey Lang Wildlife Sanctuary	8,641
Beng Per Wildlife Sanctuary	5,961
Kulen Promtep Wildlife Sanctuary	4,554
Botum Sakor National Park	2,884
Keo Seima Wildlife Sanctuary	2,338
Phnom Samkos Wildlife Sanctuary	2,106
Chheb Wildlife Sanctuary	1,928
Phnom Aural Wildlife Sanctuary	1,739
Ou Ya Dav National Park	1,024
Preah Monivong National Park	893
Central Cardamom Mountains National Park	869
Phnom Namlear Wildlife Sanctuary	784
Southern Cardamom Mountains National Park	556
Lomphat Wildlife Sanctuary	461
Preah Rokar Wildlife Sanctuary	426
Phnom Thnout- Phnom Pok Wildlife Sanctuary	380
Tatai Wildlife Sanctuary	340
Dong Peng Multiple Use Area	306
Srepok Wildlife Sanctuary	281
Snuol Wildlife Sanctuary	273
Phnom Prich Wildlife Sanctuary	214
Peam Krasop Wildlife Sanctuary	214
Samlaut Multiple Use Area	199
Koh Kapik and Associated Islets	170
Virachey National Park	147
Ream National Park	126

Protected Area

Tree
cover loss
2022 (ha)

Veun Sai-Siem Pang National Park	89
Western Siem Pang Wildlife Sanctuary	65
Tonle Sap Northern Lowland Protected Landscape	52
Stung Treng Ramsar Site	49
Phnom Kulen National Park	45
Kirirom National Park	42
Protected Landscape Banteay Chmar	36
Roniem Daun Sam I Wildlife Sanctuary	29
Song Rokha Vorn Wildlife Sanctuary	28
Siem Pang Wildlife Sanctuary	18
Prek Teuk Sap Kbal Chhay Multiple Use Area	15
Tonle Sap Biosphere Multiple Use Area	14
Techo Sen Russey Treb Cambodian Royal Academy National Park	12
Kep National Park	11
Koh Rung National Park	6
Phnom Tbeng Natural Heritage Site	5
Angkor Wat Protected Landscape	5
Phnom Neang Kang Rey- Phnom Teuk Meas Multiple Use Area	4
Sambor Prey Kok Temple Cultural Resort	3
Sor Sor Sdom Tao Multiple Use Area	2
Preah Vihear Temple Protected Landscape	1
Ang Trapeang Thmor Protected Landscape	0
Roniem Daun Sam III Wildlife Sanctuary	0

TOTAL

38345



Citizens Engaged in Environmental Justice for All (CEEJA) is a 5-year action to increase the effectiveness of on-the-ground forest protection.

CEEJA is being implemented by a consortium of Danmission, the Cambodian Centre for Independent Media, Cambodian Youth Network, Peace Bridges Organisation, Ponlok Khmer, and the University of Copenhagen (UCPH). The consortium is partnering with several civil society organizations and educational institutions that have a long history of collaboration on natural resource protection in Cambodia. CEEJA is being implemented in three main areas: the **Prey Lang wildlife sanctuary**, the **Preah Rokar wildlife sanctuary**, and the **Sorng Rokha Vorn wildlife sanctuary**².

CEEJA uses on-the-ground monitoring by communities combined with remote sensing:

- On-the-ground monitoring and communities collecting data through a smartphone application and drones
- State-of-the-art satellite monitoring approaches: GLAD alert system (Maryland University), FCDM tool (Joint Research Centre of the European Commission), and high-resolution analysis-ready mosaics of the world's tropics (Planet Labs - Norway International Climate and Forests Initiative).

² For more information on the wildlife sanctuaries and the communities, please see [2nd CEEJA Monitoring Report](#)



**In partnership with
Global Forest Watch
(GFW), the Global
Land Analysis and
Discovery (GLAD)
laboratory at
the University of
Maryland**

provides annual global-scale tree cover loss data using Landsat time-series imagery. The Global Forest Change (GFC) dataset³ provides data on tree cover loss globally.

The Forest Canopy Disturbance Monitoring (FCDM)⁴ tool developed at the Joint Research Centre (JRC) of the European Commission supports the detection of forest canopy disturbance from satellite remote sensing and can provide indications of forest degradation processes. However, compared to deforestation, the mapping of 'forest degradation' has proven to be technically much more challenging and the signalling of forest canopy disturbance is less prominent as it does not result in a change in land cover.

The dataset deriving from the FCDM tool is used to complement the GFC dataset when evaluating total forest loss in the Prey Lang, Preah Rokar and Sorng Rokha Vorn wildlife sanctuaries of Cambodia.

The two data sources are combined and visualized in the Integrated Forest Observatory System (IFOROS): an online platform that can be used as an interactive tool to visualize different types of information for Cambodia's protected areas. The English version of the platform can be accessed via <https://iforos.live/platform> while the Khmer via <https://iforos.live/khmer> and is continuously updated with the latest datasets on tree cover loss.

³ M. C. Hansen et al, High-Resolution Global Maps of 21st-Century Forest Cover Change. Science 342,850-853(2013). DOI:10.1126/science.1244693

⁴ <https://forobs.jrc.ec.europa.eu/force/dNBR.php>

Forest loss in Prey Lang, Preah Rokar and Sorng Rokha Vorn wildlife sanctuaries

Prey Lang wildlife sanctuary lost more than 8,600 ha of tree cover in 2022.

This represents a **22.4% decrease**
since 2021 and a total tree cover loss of 2.1%.

Since 2000, Prey Lang wildlife sanctuary has lost 76,330 ha of tree cover, equivalent to 18% of its total tree cover (Fig. 1). In addition, the FCDM tool detected an area of 8,175 ha of forest degradation, an 8% decrease compared to the previous year (Fig. 2).

8600ha

**Tree cover loss
in 2022**

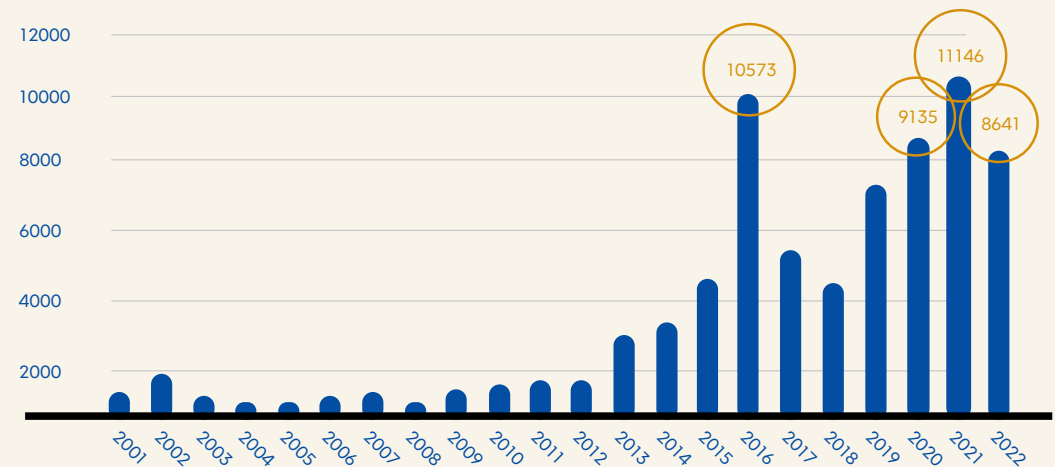


Figure 1

Annual tree cover loss (ha) in Prey Lang wildlife sanctuary.
Tree cover loss: Hansen/UMD/Google/USGS/NASA

PREY LANG WILDLIFE SA

Figure 2

Prey Lang wildlife sanctuary

Community Monitoring 2022

Prey Lang WS

GFW Tree Cover Loss 2022

FCDM detections 2022

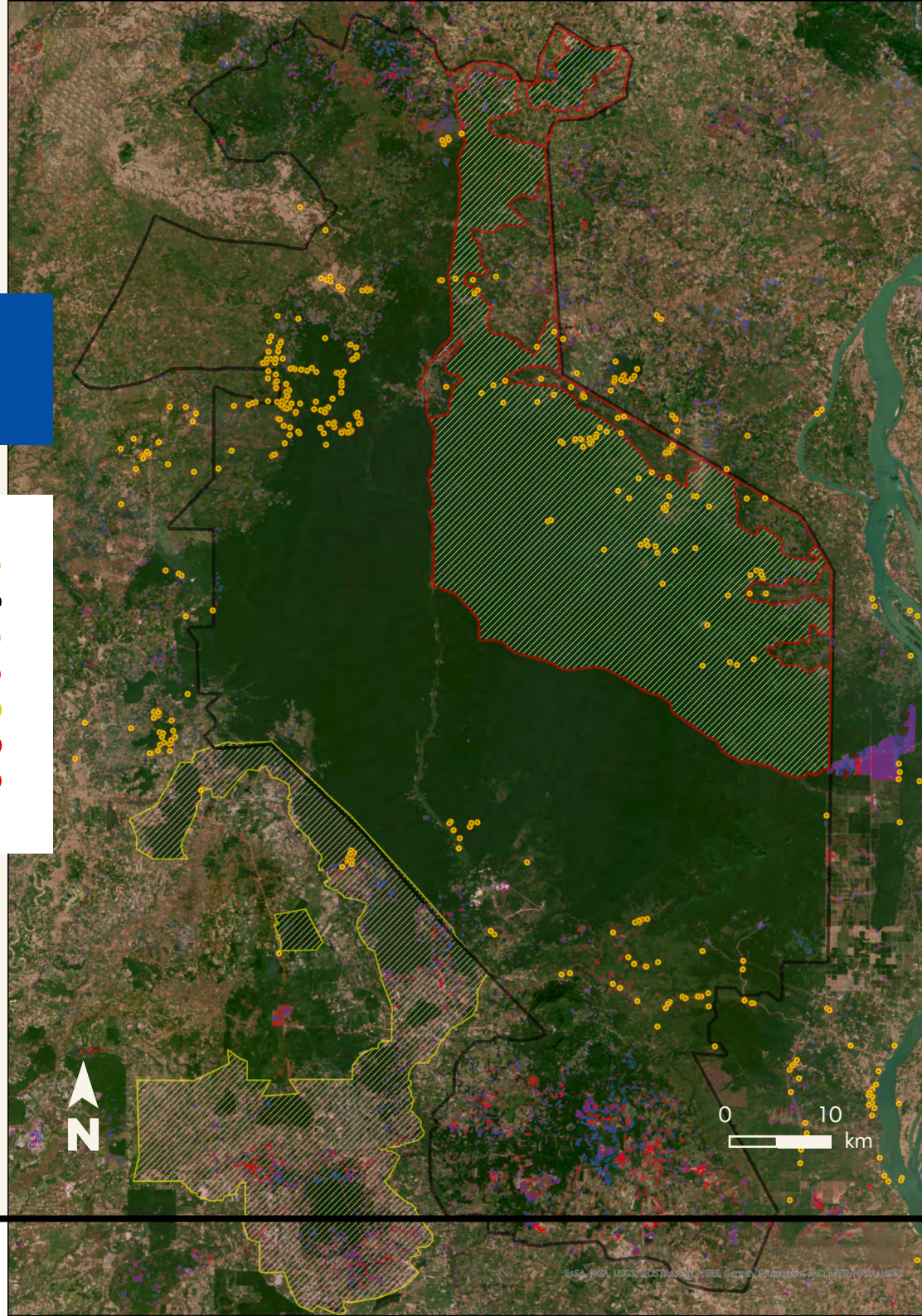
Tumring Redd+ Project Area

Stung Treng Redd+ Accounting Area

Stung Treng Redd+ Displacement Area



WILDLIFE
SANCTUARY



Forest loss in Prey Lang, Preah Rokar and Sorng Rokha Vorn wildlife sanctuaries

Preah Rokar wildlife sanctuary experienced a tree cover loss of 426 ha in 2022.

Tree cover loss in Preah Rokar
compared to 2021 but remained high.

decreased by 51%

Since 2000, Preah Rokar wildlife sanctuary has lost 4,849 ha, equivalent to a 6.3% decrease in tree cover. As can be also seen from Fig. 3, 85% of this loss has occurred since 2016. In addition, the FCDM tool detected an area of 573 ha of forest degradation, a 17% decrease compared to the previous year (Fig. 4).

426ha

**Tree cover loss
in 2022**

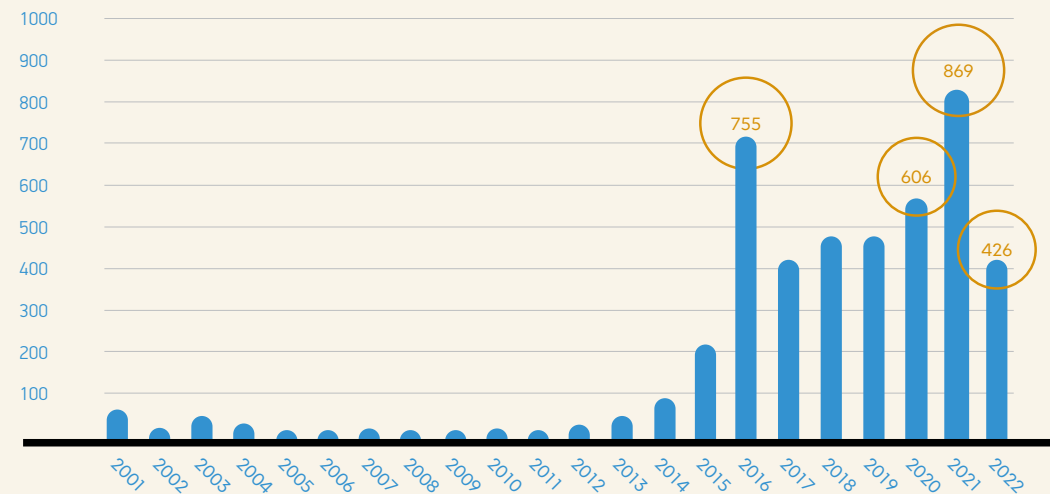


Figure 3

Annual tree cover loss (ha) in Preah Rokar wildlife sanctuary.
Tree cover loss: Hansen/UMD/Google/USGS/NASA

PREAH ROKAR WILDLIFE

Figure 4

Preah Rokar wildlife sanctuary

Community Monitoring 2022

Preah Rokar WS

Tree Cover Loss 2022

FCDM detections 2022



E SANCTUARY

Esri, NOAA, NOAA, NOAA, NOAA, Esri, © OpenStreetMap contributors, HERE, Garmin, Edugam, Microsoft, Bing, Google, NASA, USGS

Forest loss in Prey Lang, Preah Rokar and Sorng Rokha Vorn wildlife sanctuaries

Sorng Rokha Vorn wildlife sanctuary lost 28 ha of its tree cover in 2022.

This represents a

33% decrease

A total of 514 ha has been lost, equating to 5.4% of total tree cover, since 2000 (Fig.5). Moreover, the FCDM tool detected an area of 426 ha of forest degradation, a 270% increase compared to the previous year (Fig. 6).

28ha

**Tree cover loss
in 2022**

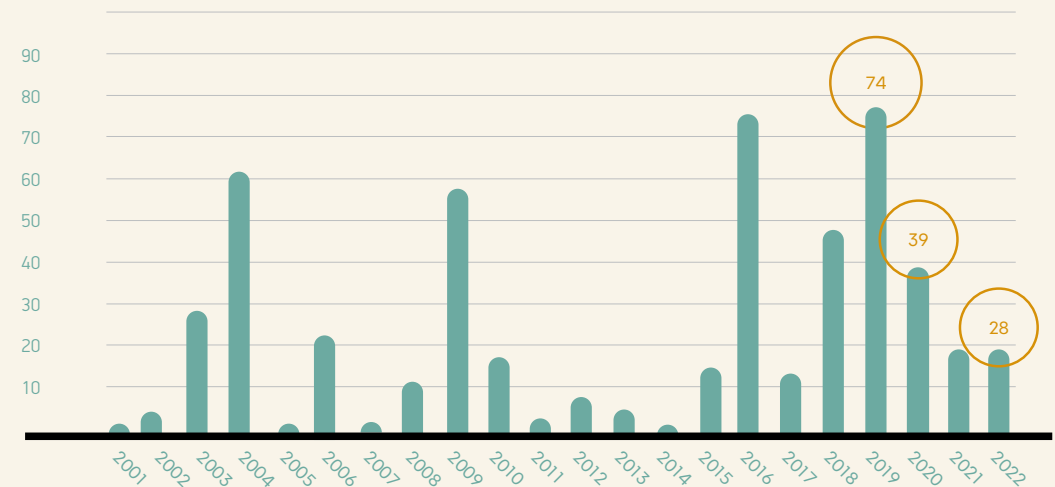


Figure 5

Annual tree cover loss (ha) in Sorng Rokha Vorn wildlife sanctuary.
Tree cover loss: Hansen/UMD/Google/USGS/NASA

SORNG ROKHA VORN W

Figure 6

Sorng Rokha Vorn wildlife sanctuary

Community Monitoring 2022

Sorng Rokha Vorn WS

Tree Cover Loss 2022

FCDM detections 2022



0 5 km

WILDLIFE SANCTUARY

Map data: Esri, DeLorme, Garmin, Foundation, Microsoft, NOAA, USGS, Esri, NOAA, NOAA, USGS

Community monitoring on the ground

63%

RESOURCES

28%

ACTIVITIES

PLCN

Established around the year 2000, the Prey Lang Community Network (PLCN) is a network of local communities around the Prey Lang wildlife sanctuary.

Its primary objective is to document and address illegal logging and other forest crimes. PLCN has gained international recognition for its commendable conservation endeavours and has been honoured with several prestigious environmental awards. Unfortunately, despite their significant achievements, PLCN members face continual harassment and arrests by officials. In 2020, the authorities banned PLCN from conducting forest patrols within the Prey Lang wildlife sanctuary. This ban led to an exponential surge in illegal logging activities.

Despite the challenges of access and customary use, the communities of Prey Lang have shown a growing involvement in monitoring the wildlife sanctuary. In 2022, PLCN documented a total of 3,698 events, indicating an increase of nearly 135% on the previous year. Most importantly:

The category

"Resources"

made up the majority, approximately **63% (2,321 entries)** of the total records. The most important findings were **resin and luxury trees (1,772 entries)** such as the Korki tree (*Hopea odorata* Roxb.). Non-Timber Forest Products (NTFPs) such as the Baynhenh plant (*Melastoma saigonense* (Kuntze) Merr.) were reported 331 times. **Animals (173 entries)** and sacred places or ceremonial sites such as burial grounds and **ordained trees (45 entries)** were less reported.

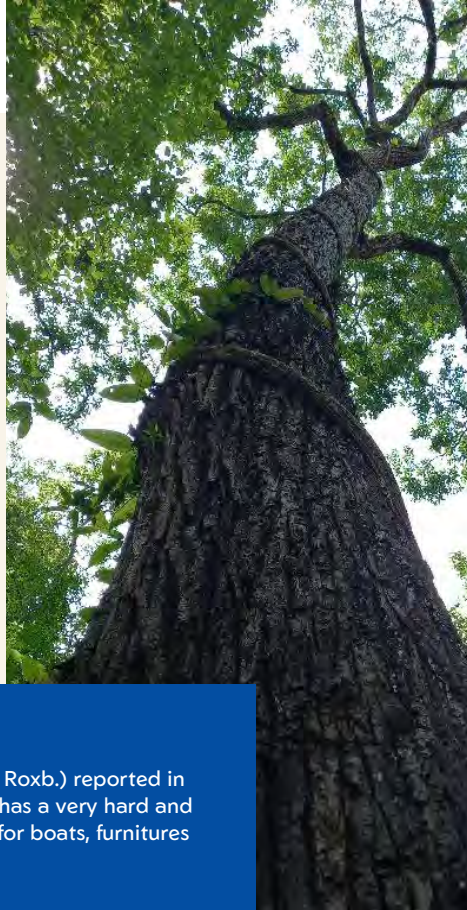


Figure 7

A Korki tree (*Hopea odorata* Roxb.) reported in Stung Treng in June 2022. It has a very hard and durable wood and it is used for boats, furnitures and house construction.



Figure 8

The Baynhenh shrub (*Melastoma saigonense* (Kuntze) Merr.), reported in Preah Vihear in May 2022. A tea made from the roots of the male and female plant is used post-partum to strengthen veins, stimulate appetite and produce more milk.

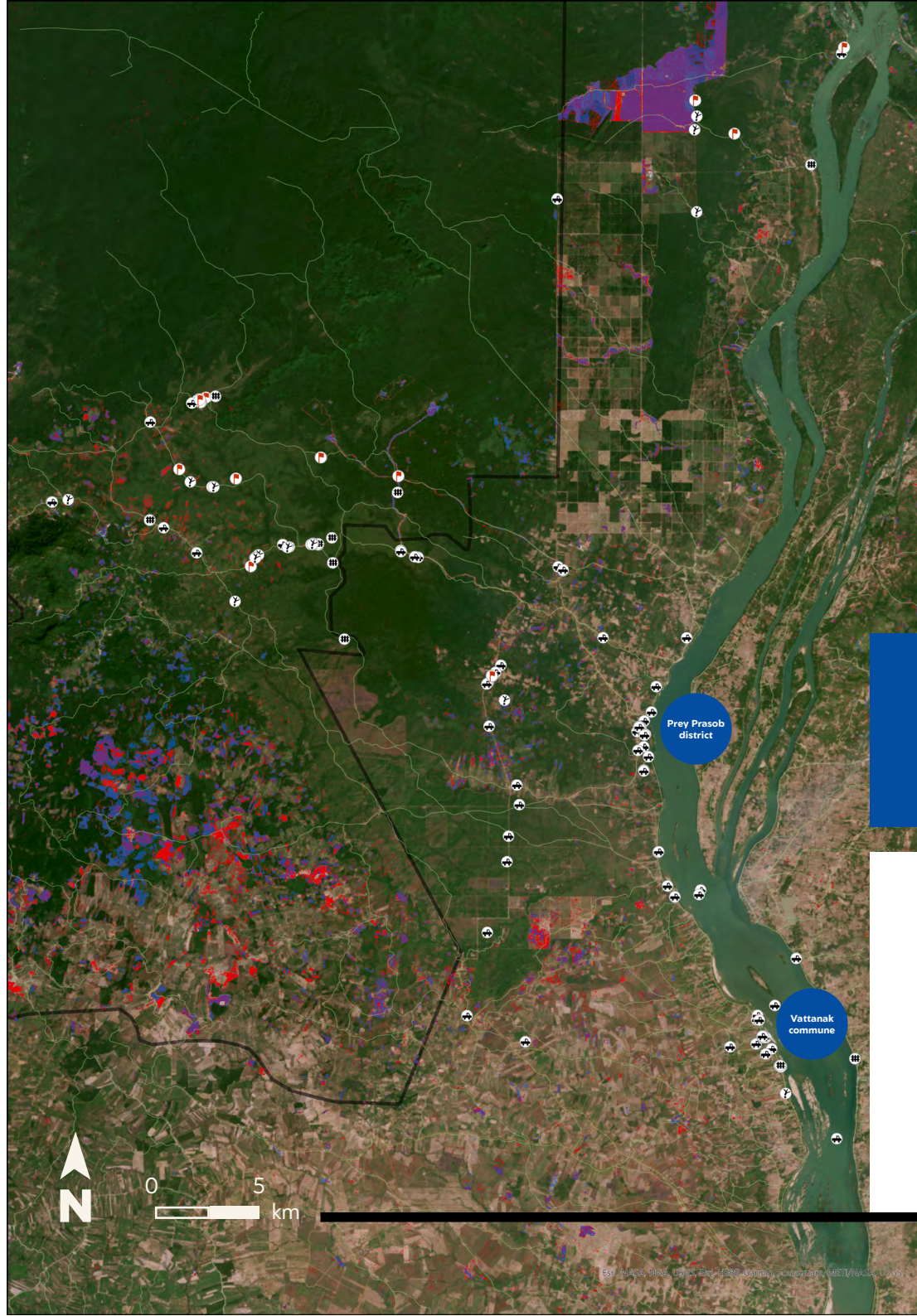


Figure 9

Steady stream of vehicles transporting luxury timber from Prey Lang wildlife sanctuary in Preah Prasob district, Kratie province. Reported during October/November 2022

The category "Activities"

accounted for approximately **28% (1,036 entries)** of the total monitoring entries for the year. **More than 95% of these related to illegal logging:** 366 entries were on the transport and storage of illegal timber, often reported at the banks of Mekong River (Fig.9). In Preah Prasob district and Vattanak commune, patrollers reported hundreds of local tractors and other heavier vehicles transporting luxury wood (Fig. 10). The construction of the Kratie bridge will facilitate future transport of luxury timber across the Mekong River and straight to Vietnam.



Entries documenting single stumps of luxury wood such as the Trach tree (*Dipterocarpus intricatus* Dyer) were reported **355 times**. **A total of 133 records of forest clearing** and **130 entries of stored planks** were received. The remaining **5% of the records on illegal activities** referred to mining within the wildlife sanctuary, mining machinery (15 entries) and illegal hunting, guns and traps (35 entries).

Figure 10

Detailed view of entries recorded in the Logging category from PLCN during 2022.

Cleared Area

Planks

Stump

Transport

Road Network

Tree Cover Loss 2022

FCDM detections 2022

Prey Lang WS



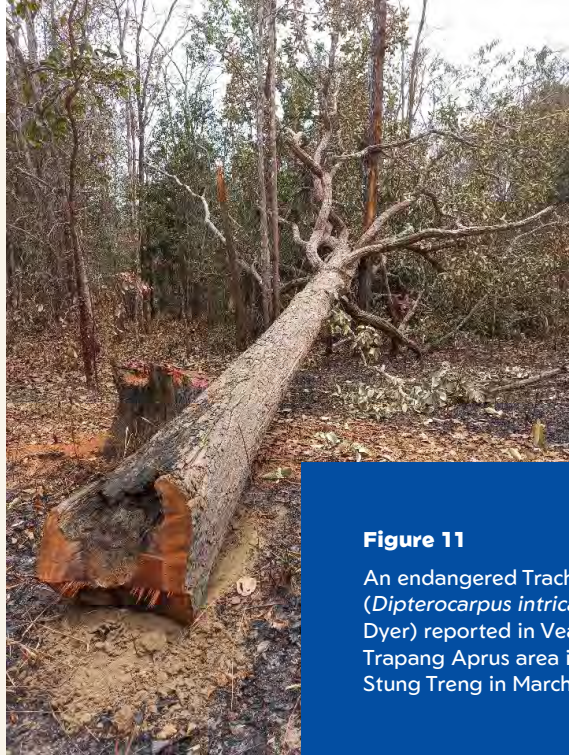


Figure 11

An endangered Trach tree (*Dipterocarpus intricatus* Dyer) reported in Veal Trapang Aprus area in Stung Treng in March 2022



Figure 12

Patrollers reporting marks of an area to be cleared by loggers at O'Koul area, in Roveang district. The observation dates from 27 September 2022.

Patrollers were successful in identifying areas marked by illegal loggers one month before the actual logging operation took place.

This shows the protective potential of communities monitoring their lands. Patrollers reported that loggers had marked trees for felling on 27 September. Satellite imagery from October 2022 shows forest loss of almost 5 ha in the area marked by loggers.



Figure 12

Satellite imagery from June 2022 (above) and October 2022 (below), confirming the findings of the patrollers. Exact coordinates of the observation 13.431965, 105.4296575. ©Planet Labs PBC, CC BY-NC-SA 2.0



The remaining categories amount to 8% of the total monitoring activity, with patrollers reporting **169 climate-related entries** such as storms, fires and changes in the local landscape, plus **113 PLCN activities** such as workshops and patrol photos. Finally, **59 entries** reported interactions between patrollers and the authorities the majority of which related to intimidation of and threats to patrol members on the part of the authorities.

Figure 14
Main categories.

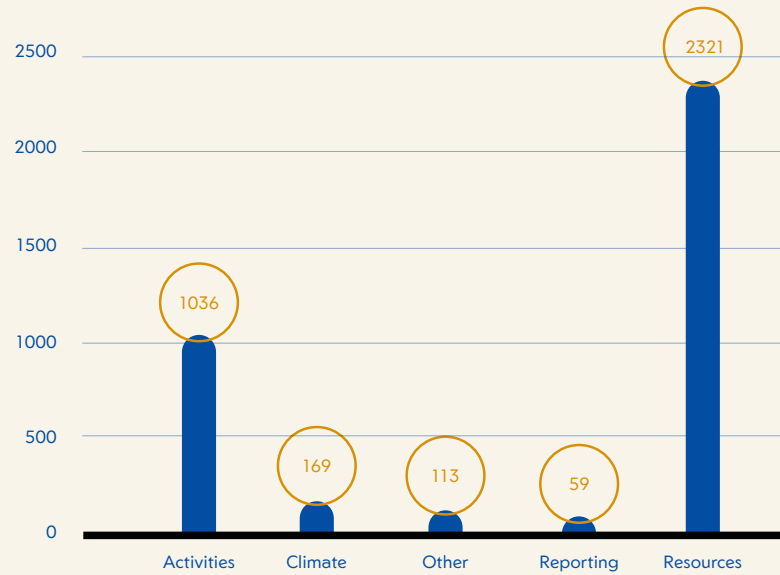
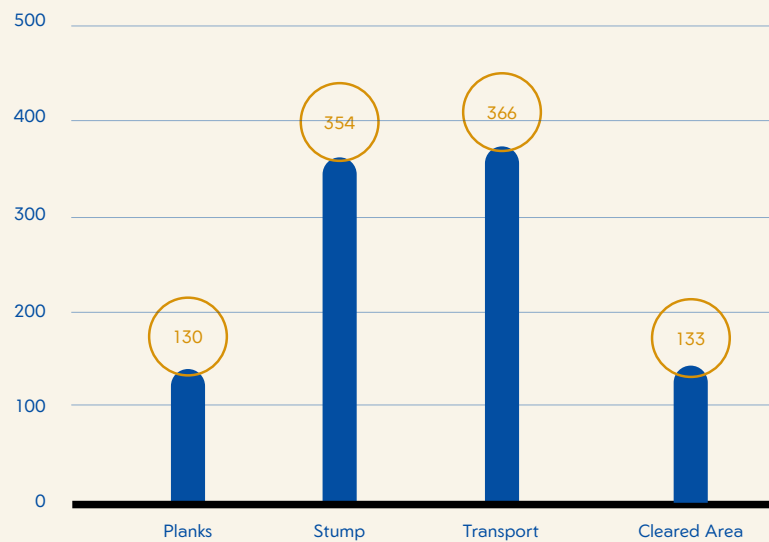


Figure 15
Logging category.



PLCN monitoring records in 2022.

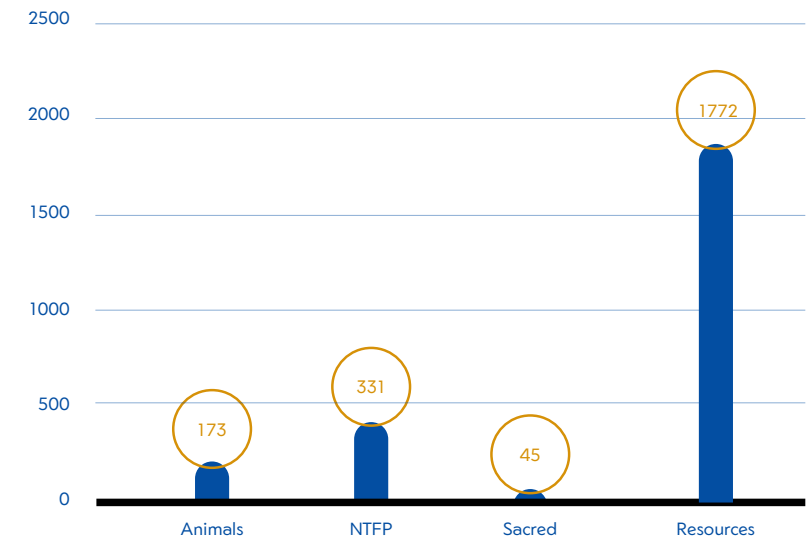


Figure 16
Resources categories.

Community monitoring on the ground

50%
RESOURCES

37%
ACTIVITIES

PFCN

The Preah Rokar Forestry Community Network (PFCN) is a network of 22 villages consisting of approximately 20,000 villagers who rely on the forest for their livelihoods.



Figure 17

PFCN patrollers reporting the collection of resin in March 2022

Comprised of both Kuy and non-Kuy Indigenous People, the PFCN is engaged in safeguarding Preah Rokar wildlife sanctuary. They consistently conduct forest patrols to document forest loss, biodiversity changes, and the impacts of climate change. Furthermore, the patrollers actively intercept and confiscate illegal logging activity on a regular basis.

PFCN significantly increased its entries in 2022:

More than 50% of 330 entries related to

"Resources"

For a community that depends on resin collection for its survival, it comes as no surprise that most of these entries (**233 entries**) related to trees and, of these, **78% (166 entries) were resin trees.**

The remaining entries related to **non-timber forest products (70 entries), animals (38 entries) and sacred sites (6 entries).**



Figure 18

PFCN patrollers reporting single tree stumps of luxury timber and resin trees in February 2022

The category

"Activities"

accounted for **37% of monitoring entries in 2022 (242 entries)**, the majority of which related to **illegal logging (97%)**. Single stumps of **luxury wood (149 entries)**, **planks left on site (52 entries)**, and **cleared areas (30 entries)** made up most of the entries while **transport of illegally felled timber** was less often reported (**6 entries**).



- The remaining **9%** of entries were on **climate-related events (51 entries)**, **other (11 entries)** and **reports of positive interactions with the authorities (9 entries)**.





PFCN monitoring records in 2022.

Figure 19

Main categories.

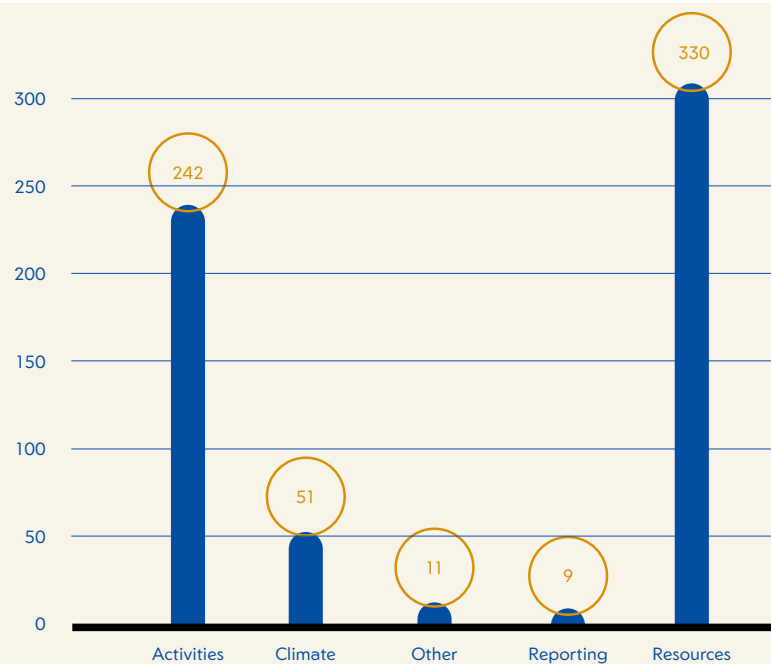


Figure 20

Logging category.

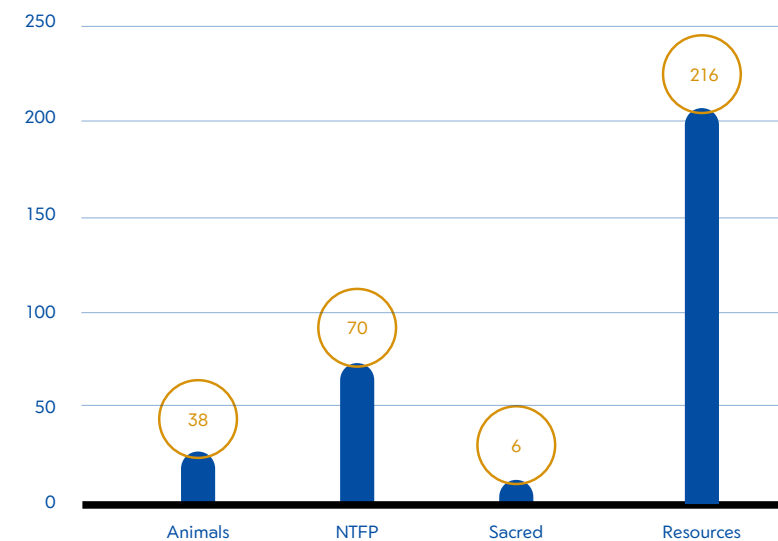
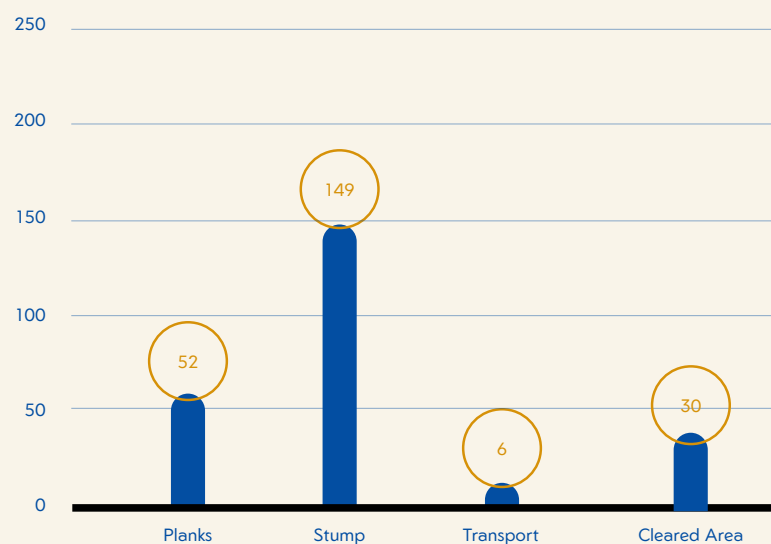


Figure 21

Resources categories.

Community monitoring on the ground

23

RESOURCES

9

ACTIVITIES

MCF

The Monk Community Forest (MCF) conducts patrols within Sorng Rokha Vorn wildlife sanctuary with the aim of monitoring and deterring illegal activities.

Benefiting from the respected status of monks in a predominantly Buddhist country, the community has been able to foster positive relationships with both local and provincial authorities. Through their dedicated environmental protection efforts, the Monk Community Forest is directly supporting some 4,000 people who depend on the forest for their livelihoods.

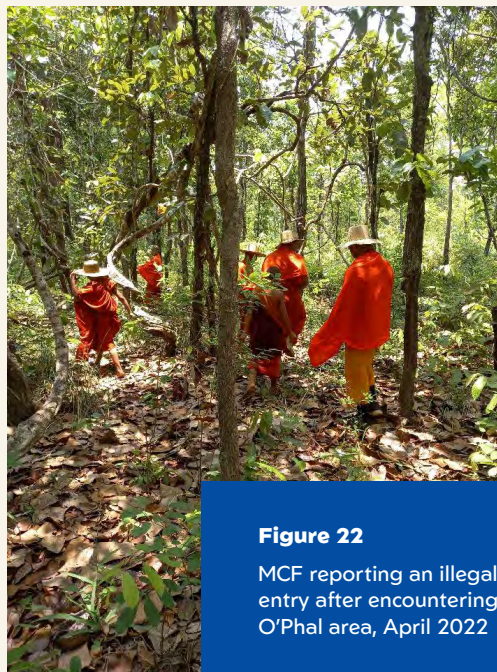


Figure 22

MCF reporting an illegal hunting entry after encountering traps in O'Phal area, April 2022

MCF rarely use the monitoring application in 2022, recording just 23 entries on valuable resources (9), illegal activities (9), other (2) and reporting (2).

MCF monitoring records in 2022.

Figure 23
Main categories.

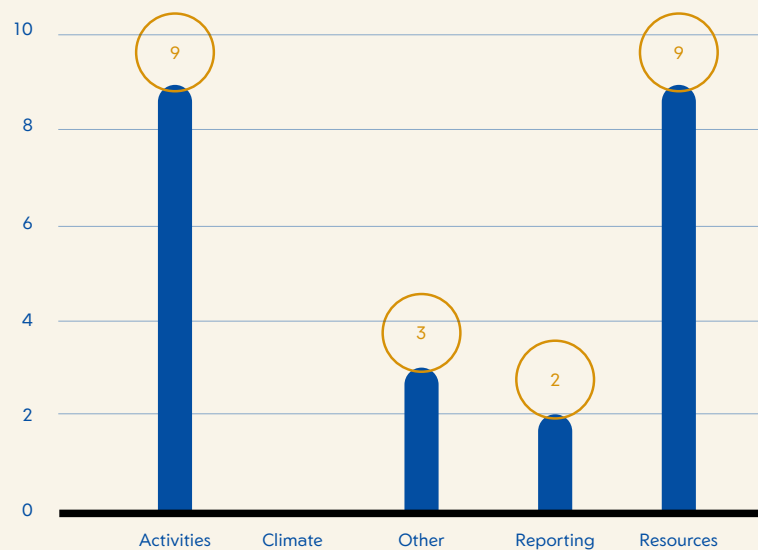


Figure 24
Logging category.

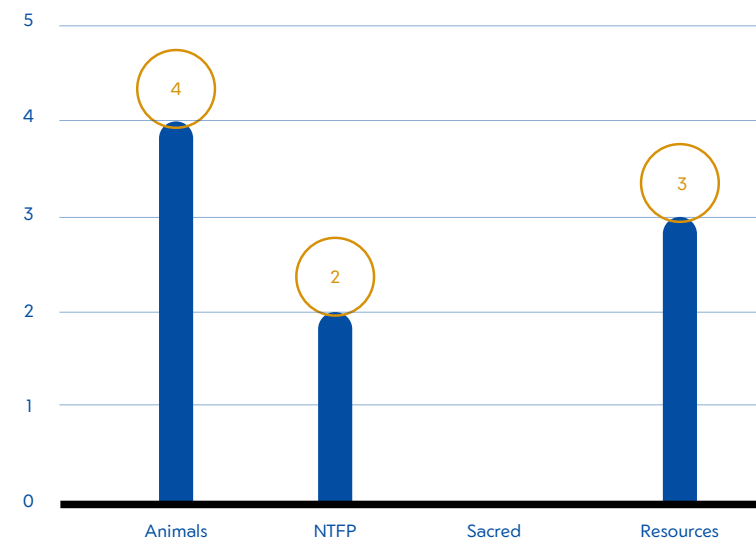
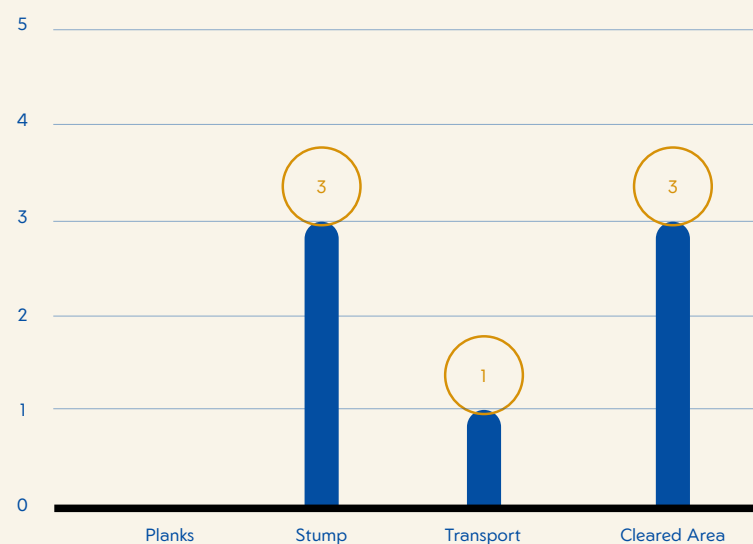




Figure 25
Resources categories.



Reducing Emissions from Deforestation and Forest Degradation (REDD+) is a global initiative aimed at combating climate change by incentivizing forest conservation and the sustainable management of forests.



The programme provides financial incentives to developing countries to reduce greenhouse gas emissions through activities such as halting deforestation, protecting existing forests, and promoting sustainable land-use practices.

The market-based approach of REDD+ has been criticized for commodifying nature and reducing forests to mere carbon stocks, potentially enabling exploitation by large corporations and financial institutions, leading to social and environmental injustices. REDD+ has had a limited impact in achieving its goals on a

large scale, failing to effectively address the underlying drivers of deforestation such as infrastructure development, land tenure issues and unsustainable agriculture. Furthermore, there are concerns regarding inadequate social and environmental safeguards, such as a lack of protection of the rights of local communities and Indigenous Peoples^{5,6,7}. Finally, scepticism remains regarding the use of forest carbon offsets as a solution to climate change, with scholars describing it as greenwashing that allows developed countries to avoid significant domestic emission reductions.

REDD+ projects

New research into **Verra**^{8,9}, the world's leading carbon standard for the rapidly growing US\$2bn voluntary offsets market, has found that

more than 90% of their rainforest offset credits are likely to be "phantom credits" that do not represent genuine carbon reductions.

This research is based on new analysis of scientific studies of Verra's rainforest schemes. Among others, the investigation found that¹⁰:

- Only a handful of Verra's rainforest projects showed evidence of deforestation reductions, according to two studies, with further analysis indicating that 94% of the credits had been of no benefit to the climate.
- The threat to forests had been overstated by around 400% on average for Verra projects, according to the analysis of a 2022 University of Cambridge study.
- Human rights issues are a serious concern in at least one of the offsetting projects.

For Cambodia, there are six REDD+ projects, four of them listed in Verra's registry, namely:

- 1. Reduced Emissions from Deforestation and Degradation in Community Forests – Oddar Meanchey, Cambodia (Verra)**¹¹
- 2. Reduced Emissions from Deforestation and Degradation in Keo Seima wildlife sanctuary (Verra)**¹²
- 3. Tumring REDD+ Project (Verra)**¹³
- 4. Southern Cardamom REDD+ Project (Verra)**¹⁴
- 5. Northern planes REDD+**¹⁵
- 6. Stung Treng REDD+**¹⁶

The following sections review the most prominent of the registered Cambodian REDD+ projects.

⁵ Rights and Resources Initiative, Community Rights and Tenure in Country Emission Reduction Programs, June 2016 <https://doi.org/10.53892/VZYX4582>

⁶ ERRICO, S. "Opportunities and Challenges to Strengthen Indigenous Peoples' Rights and Livelihoods in the Context of REDD+: A Study of REDD+ Implementation in Vietnam." The International Forestry Review 18, no. 4 (2016): 412–28. <http://www.jstor.org/stable/44132661>.

⁷ Rights and Resources Initiative & McGill University, Status of Legal Recognition of Indigenous Peoples' Local Communities' and Afro-descendant Peoples' Rights to Carbon Stored in Tropical Lands and Forests, June 2021, <https://doi.org/10.53892/MLQQ5744>

⁸ West TAP, Börner J, Sills EO, Kontoleon A. Overstated carbon emission reductions from voluntary REDD+ projects in the Brazilian Amazon. Proc Natl Acad Sci U S A. 2020 Sep 29;117(39):24188–24194. doi: 10.1073/pnas.2004334117. Epub 2020 Sep 14. PMID: 32929021; PMCID: PMC7533833.

⁹ West, Thales & Wunder, Sven & Sills, Erin & Börner, Jan & Rifai, Sami & Neidermeier, Alex & Kontoleon, Andreas. (2023). Action needed to make carbon offsets from tropical forest conservation work for climate change mitigation. 10.48550/arXiv.2301.03354.

¹⁰ <https://www.theguardian.com/environment/2023/jan/18/revealed-forest-carbon-offsets-biggest-provider-worthless-verra-aoe>

¹¹ Verra registry, [Terra Global Capital](#)

¹² [Verra registry](#), Everland, [Beyond neutral sell of Carbon credits, Cambodia REDD+ program](#)

¹³ [Verra registry](#), [Tumring Redd+ trust fund, Cambodia REDD+ program](#)

¹⁴ [Verra registry](#), Everland, [Cambodia REDD+ program](#)

¹⁵ [Redd positive fund \(WCS\)](#), [USAID feasibility study](#)

¹⁶ [The Joint Crediting Mechanism \(JSM\)](#)

The Tumring REDD+ Project (TRP) borders the south-western edge of the Prey Lang wildlife sanctuary and covers approximately 67,791 hectares of land located in the central part of Cambodia, to the west of the Mekong River. It is a joint REDD+ project of the Korea Forest Service and the Cambodian government with technical support from Wildlife Works Carbon.

The project commenced on 10 December 2014 and will end in 2045. According to the project document¹⁷ that was issued in August 2018: “(the project) will reduce over 3 million tCO₂e emissions over a 10-year timeframe. The Project will increase forest protection by expanding the current government ranger and community protection force. It will also assist local communities by promoting effective land-use planning and granting secure land tenure” and “The Project will result in an average net annual emission reduction of 378,434 tCO₂e, with the total emission reduction over the Project’s 30-year lifetime of an estimated 11,353,005 tCO₂e.”

project duration
2014 - 2045

The first monitoring report¹⁸ of the TRP issued in August 2020 already stated that “the total GHG reduction achieved by the TRP during the monitoring period (2015-2019) is 645,410 tCO₂e.” Such an amount resembles an annual emissions reduction of 129,082 tCO₂e, or 65% less than the initial plan.

According to [Global Forest Watch](#) and the [dataset of the University of Maryland](#), for the 2015-2019 period, the Tumring REDD+ project area lost 19,975 ha of forest, an amount that corresponds to 12,678,994t CO₂e. These emissions are from stand-replacing disturbances and do not include emissions from forest degradation. The annual gross estimated removals were 157,000 tCO₂e, which corresponds to net emissions of 11,893,994 tCO₂e for the period 2015-2019¹⁹.

According to the same source, the area of the TRP lost 30,584 ha of forest from 2015-2022 and is a net carbon source of 996ktCO₂e/year¹⁹. The detections from the Forest Canopy Disturbance Monitoring tool inside the Tumring REDD+ project area total an area of more than 14,500 ha of forest degradation for the years 2018 to 2022 (Fig.26).

In response to a Korean-Cambodian NGO inquiry, the Korean Forest Service replied that “There has been no large-scale illegal logging at the Cambodian project site”²⁰.

Overall, TRP has not achieved its planned emission reductions, with a significant shortfall observed during the monitoring period from 2015-2019.

Furthermore, the TRP area has experienced substantial forest loss and degradation, raising concerns as to the project’s effectiveness in preserving the forest and reducing carbon emissions as intended.

TUMRING REDD+ PROJECT

Turning REDD+ area with yearly detections from the Forest Canopy Disturbance Monitoring tool, entries reported by PLCN patrollers in 2022 and area boundaries.

Logging Entries 2022

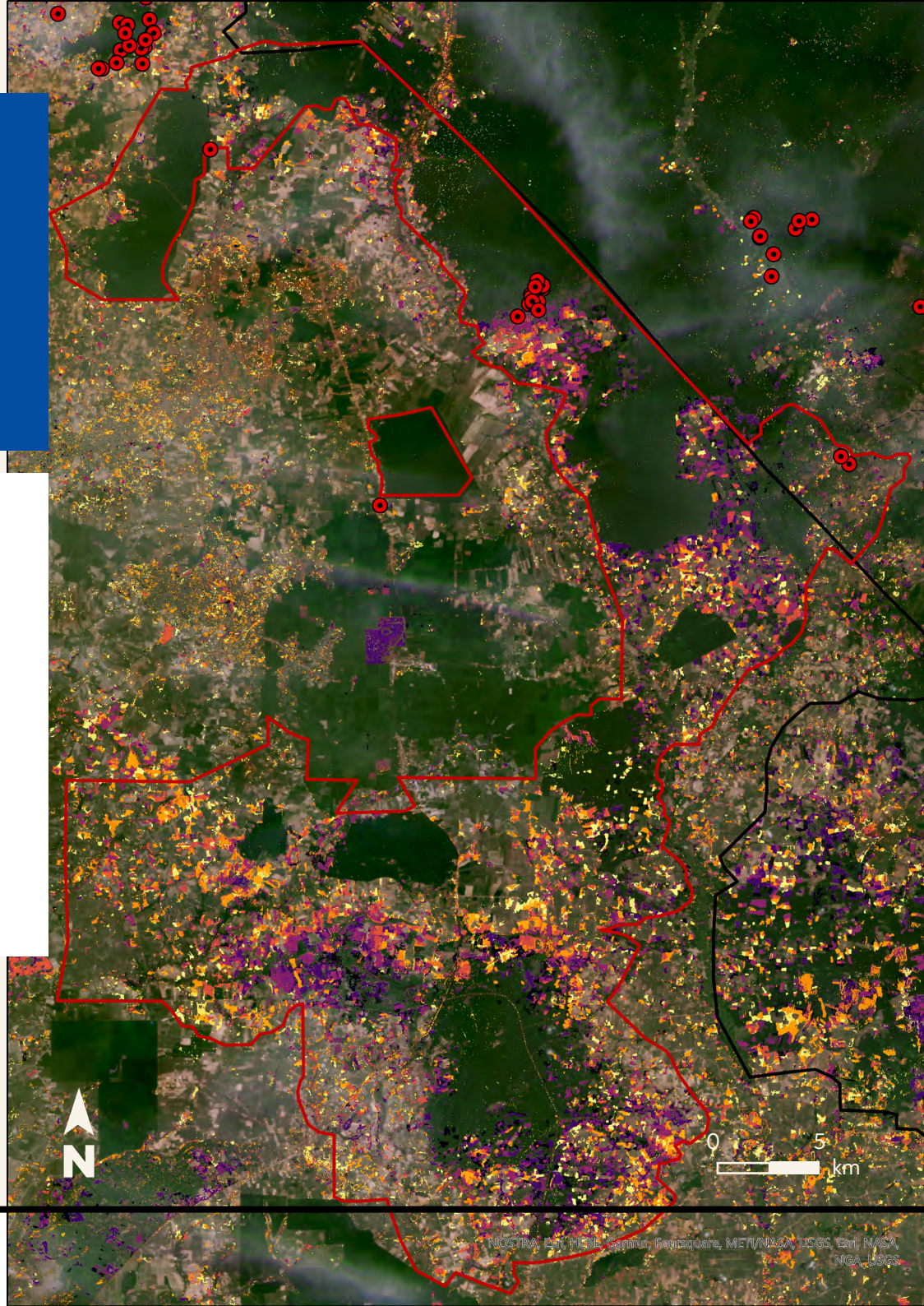
Prey Lang WS

2018

2020

2022

2023



¹⁸[The Tumring REDD+ project 1st Monitoring Report, 18.08.2020](#)

²⁰ [Friends of the Earth Asia Pacific](#)

According to the project document²¹

“the Stung Treng REDD+ project aims to reduce deforestation in the Prey Lang wildlife sanctuary portion within Stung Treng province; this will subsequently be expanded throughout the entire Prey Lang wildlife sanctuary in a next phase (...)

The project will implement effective law enforcement to secure forest resources and guard against forest loss. At the same time, it will develop sustainable livelihoods of communities in and around PLWS Stung Treng so that communities can move away from economic activities resulting in deforestation.”

The starting date of project operation was March 2018 and the expected operational lifetime of the project is 13 years. The project document states that there was no legal requirement for an environmental impact assessment. The project is being run by the Japanese company Mitsui & Co., Ltd., together with the Cambodian Ministry of Environment and the US-based non-profit organization Conservation International Foundation, while the credit validation is carried out by Aster Global Environmental Solutions, Inc.

project duration
2018 - 2031

Although the document describes a reduction in deforestation within the Prey Lang wildlife sanctuary in Stung Treng province, the actual project area carefully excludes a “displacement belt”, which is the most logged area of Stung Treng province. According to the project document:

“The project will implement activities to reduce the risk of deforestation in and around the project area, but conversion could be displaced from the project area. To capture displacement due to the project activities, forested area which is close to the project area and has similar land tenure and management jurisdiction was identified as an area where potentially displacement from the project area due to the project activities could occur. (...) The identified area is 16,567 ha. Projected deforestation within the project area is approximately 2,000 ha annually, and the project will implement activities to reduce the risk of deforestation in and around the project area. The identified 16,567 ha is reasonably large enough to absorb potential displacement due to the project activities, and therefore was selected as the displacement belt.”

Since the inception of the project in 2018, there has been an increase in forest loss in the Prey Lang

wildlife sanctuary portion of the REDD+ project within Stung Treng province: for the period 2014 to 2018, the average forest loss was 1,386 ha while, for the period 2019-2022, the average forest loss has been 2,125 ha. Accordingly, the average gross emissions for 2014-2018 are 879 kt CO₂e, while for the period 2019-2021 the average gross emissions increased to 1.48 Mt CO₂e.

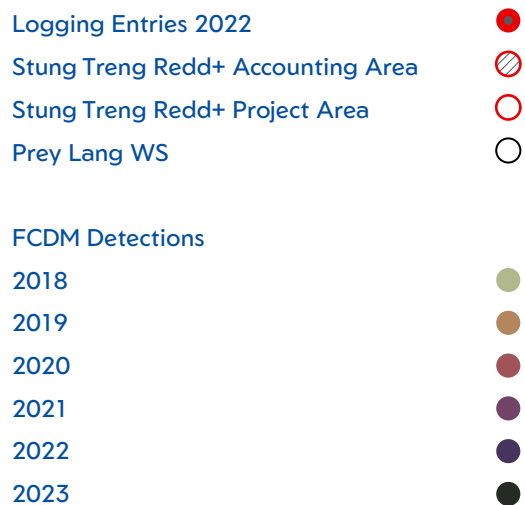
Even when the estimated annual emission reductions of 351 kt CO₂e are taken into account,

the Stung Treng REDD+ project has been a carbon source of an average 1.13 Mt CO₂e since the project started²².

STUNG TRENG REDD+

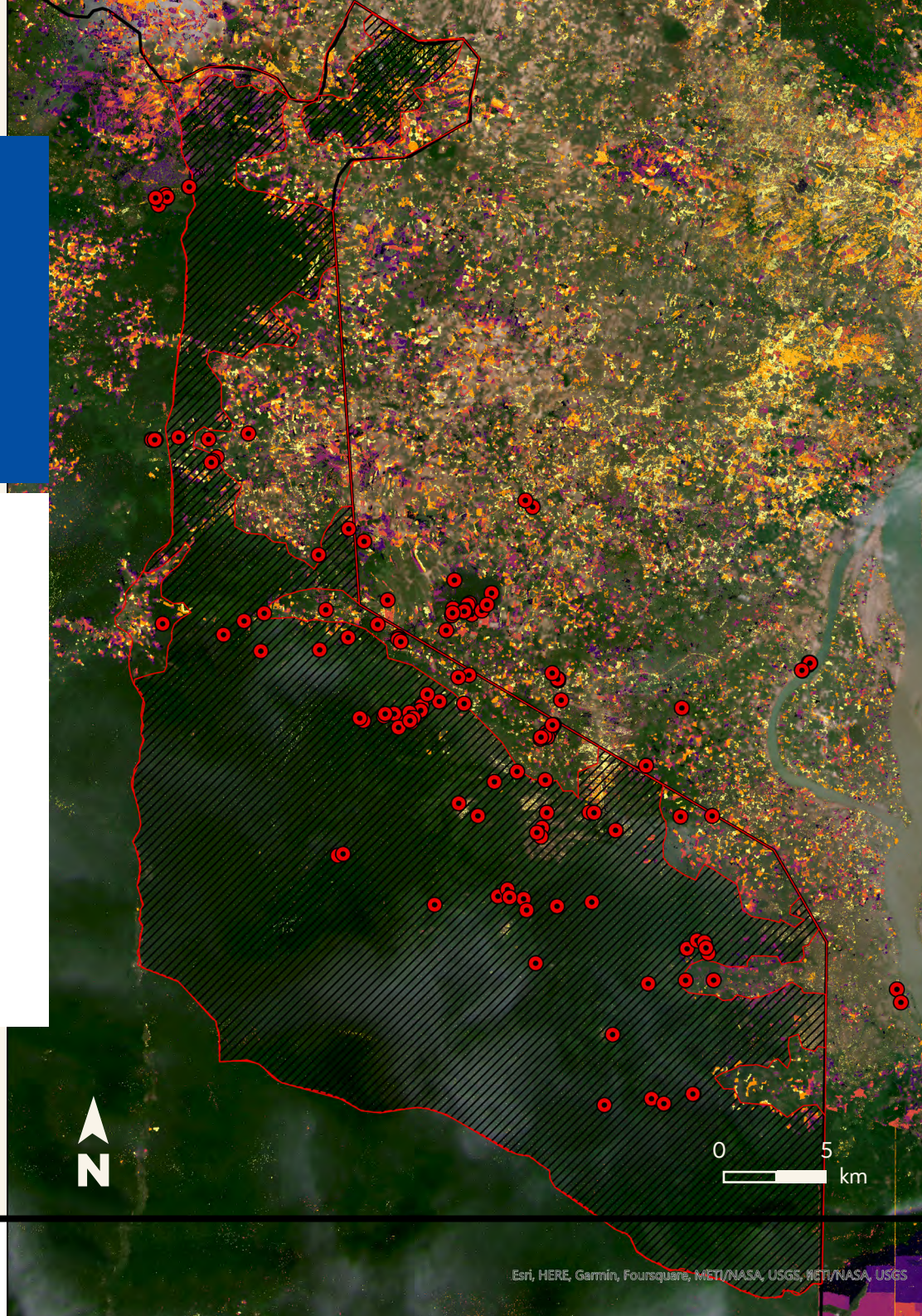
Figure 26

Stung Treng REDD+ area with yearly detections from the Forest Canopy Disturbance Monitoring tool, entries reported by PLCN patrollers in 2022 and area boundaries. Satellite mosaic imagery is from February 2022 ©Planet Labs PBC, CC BY-NC-SA 2.0



²¹ [JCM project design document](#)

²² Global Forest Watch. "Forest-related greenhouse gas fluxes in Stung Treng REDD+ project area". Accessed on 15.05.2023 from www.globalforestwatch.org.



In essence, despite its goal to reduce deforestation within the Prey Lang wildlife sanctuary portion of Stung Treng province,

the Stung Treng REDD+ project has experienced an increase in forest loss since its inception in 2018.



Figure 27

A cleared area inside the Stung Treng REDD+ project area near Khle village in March 2022.

The project's actual operational area excludes a highly logged region and, despite efforts to reduce deforestation risks, there has been a substantial rise in forest loss, leading to an increase in carbon emissions. Consequently,

the project has failed to achieve its intended objective of reducing deforestation and has, in fact, become a significant source of carbon emissions since its initiation.

PLCN patrols documented illegal logging of luxury timber as well as larger cleared areas within the REDD+ project. For example, patrollers reported a cleared area of approximately 10 ha in Aur Vek area close to Khle village in March 2022. Satellite images shows a set of deforested areas totalling almost 50 ha between February and April 2022. The Forest Canopy Disturbance Monitoring tool detected 10,000 ha of forest degradation within the Stung Treng REDD+ project area for the years 2018 to 2022.

STUNG TRENG REDD+

A study on the effects of REDD+ projects in Keo Seima REDD+ and Oddar Meanchey REDD+ found only a slight increase in livelihood assets from project validation to implementation, while natural capital assets sharply declined (Ken et.al. 2020)²³. The respondents primarily blamed illegal logging for the decline, suggesting that strict patrolling and enforcement had to be implemented. Furthermore, the scarcity of carbon-credit buyers and the projects' inability to generate carbon-based revenues has led to dissatisfaction among local communities. The study concludes that a financial mechanism is urgently needed to ensure sufficient and sustained financial support regardless of carbon-market volatility.

REDD+ projects are highly complex, involving numerous accounting procedures that obscure what is actually happening on the ground. The pursuit of short-term financial gain is often preferred over real protection and conservation.

As anthropologist
Courtney Work points out²⁴ :

"Many indigenous people around the world are not protecting the forest just because they are paid. Market-driven solutions like REDD+ can maybe bring some outcome in the short run to change the ways that businesses and governments think about valuing the forest.

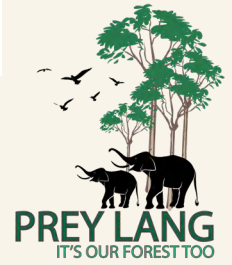
In the long run, however, it changes the traditional community values towards the forest toward monetary compensation rather than protecting livelihoods through forest health. With these new values, we will not be able to expect the next generation to do the same (conservation) actions."

²³ Ken, Sereyrotha & Entani, Tomoe & Tsusaka, Taku & Sasaki, Nophea. (2020). Effect of REDD+ projects on local livelihood assets in Keo Seima and Oddar Meanchey, Cambodia. *Heliyon*. 6. e03802. Doi:10.1016/j.heliyon.2020.e03802.

²⁴ [Friends of Earth](#)



**Statement on
Illegal logging activities,
forest clearances, wildlife
hunting, use of handmade
guns, and mining
concessions in
Prey Lang have
continued.**



We, the members of the Prey Lang Community Network (PLCN) in four provinces: **Kampong Thom, Preah Vihear, Kratie, and Stung Treng** have voluntarily protected the Prey Lang wildlife sanctuary for more than 20 years. PLCN has been carefully monitoring illegal logging activities, timber transportation, the use of handmade guns, and wildlife poaching, even though our network has been banned from patrolling in Prey Lang Wildlife Sanctuary by Ministry of Environment since early February 2020.

Since Prey Lang was declared a Wildlife Sanctuary, we've observed an increase in forest logging activities. Remarkably, since the Ministry of Environment banned PLCN from patrolling, loggers are free to enter and leave Prey Lang, cutting and transporting timber smoothly by paying officers at the checkpoint for permission to engage in illegal activities.



During 2023, we have observed illegal activities in and around the Prey Lang Wildlife Sanctuary area have continued such as:

- **Mining concessions in the Prey Lang area** such as; Late Cheng Mining Development Co., Ltd which had Chinese owners in the Phnom Chi area, bordering Kratie and Kampong Thom provinces.
- **Removal of big trees and daily activities of timber transportation** with many local tractors into the concessions without any official action from the relevant authorities.
- **Forest clearance and slum settlement in the buffer zone of Prey Lang Wildlife Sanctuary** with new migrants and some powerful officials behind them.
- **The use of drugs** and the production and use of **handmade guns by loggers**. As a result, the defenders of natural resources and wildlife have been threatened by villagers who live close to the Prey Lang.
- **Poaching of wildlife, electro-fishing the use of monkey nets**, and other illegal equipment have seriously affected wildlife, the sustainability of biodiversity, and the environment.

We all call to the Royal Government of Cambodia, the Ministry of Environment, and relevant authorities at all levels;

- To monitor and **revoke any economic concessions from companies** that did not comply with other agreements in the Prey Lang Wildlife Sanctuary.
- To **supervise and evaluate the role of any officials** who are involved in forest crime and inaction in the performance of their duties.
- To inspect and develop specific strategic plans to combat deforestation, any new forest clearance for agriculture purposes, anarchic settlements, handmade guns, wildlife poaching, and other equipment to facilitate illegal activities.
- To **implement new regulations** and laws for forest protection protected areas.

We encourage the Cambodian and international public to actively engage in protecting natural resources. We call everybody to stop buying all kinds of illegal timber originating from Cambodia. Finally, we request the major international actors to allocate resources for the environmental protection of Cambodia.

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"WE TOGETHER PROTECT PREY LANG FOREST, IT IS OUR FOREST TOO"

Phnom Penh,
Date: 27 October, 2023



Front cover photo: An illegally felled stump reported in Preah Rokar wildlife sanctuary on 20 February 2022.

Back cover photo: Medicinal NTFP reported in Preah Vihear on 22 October 2021.

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The Prey Lang app is based on Sapelli: an open-source software that facilitates data collection across language or literacy barriers through highly configurable icon-driven user interfaces. For more info see: <http://www.sapelli.org/>

All photos are the intellectual property of the communities that collected them. All maps were made with ArcGIS Pro 2.7.1.

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