

The current status of Prey Lang

4th Monitoring report with information from PLCN patrolling

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THE CURRENT STATUS OF PREY LANG

Monitoring information from PLCN patrolling for the periods:

i. Patrol period: December 2015 - March 2016

ii. Total period: February 2015 – March 2016



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Part One Theoretical Framework

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The Prey Lang Forest complex is situated in the central plains of Cambodia. It spans approximately 500.000 ha in the Cambodian lowlands, stretching across four provinces - Kratie, Stung Treng, Kampong Thom and Preah Vihear. It is the largest remaining evergreen forest in Cambodia, and possibly in the whole of Indochina, of high biological value. Prey Lang supports seven distinct forest ecosystems, including swamp forests as well as evergreen, semi-evergreen and deciduous forests. Prey Lang has a high density of rare and threatened timber trees and numerous other endangered plant and animal species [1]. Prey Lang is also a major watershed feeding into the Mekong River and Tonle Sap Lake supporting fisheries that provide much of the Cambodian population's protein intake. The forest is therefore of high importance not only to the local economies and households, but also to the broader Cambodian public. More than 250,000 mainly indigenous people live in 340 villages in Prey Lang or within 10 kilometers from it. The forest is an irreplaceable part of the communities' culture and spirituality and they depend on it for their survival. Sustainable forest-related activities such as resin tapping, food collection and gathering of timber for house construction and firewood are an important part of every-day life of the local communities.

Despite the unique value of Prey Lang, illegal logging and forest destruction has intensified over the past decades. According to Open Development Cambodia, forests covered 72% of the country's territory in 1970, whereas by 2014 the forest cover had been reduced to 48%, including plantations [2]. Forest loss in Cambodia between 2001 and 2014 accelerated at a faster rate than in any other country in the world, according to new global figures based on U.S. satellite data from the World Resources Institute and University of Maryland (Fig.1.1) [3, 4]

These results are also supported by the annual report of the Ministry of Agriculture for 2016. More in detail, the Ministry admitted that the total forest cover in Cambodia was 61% in 2002, 57% in 2010 and less than 50% in 2014. Government officials believe that the country's forest cover will continue to decrease unless forest crimes and land clearances are curtailed [5]

The forest cover loss in Prey Lang, between 2002 and 2016 is shown in fig. 1.2

As deforestation is responsible for around 12% of global greenhouse gas emissions, Cambodia's forest loss plays a significant role in driving climate change [6, 7]. Global warming is an extremely serious issue in Cambodia. It was one of the countries most affected by weather-related events in 2013 [8]. Cambodia's rural population has already experienced negative impacts on their livelihoods due to increasing temperatures and changing precipitation patterns in the last few years [9] which affect agricultural and forest output [6]. New evidence is furthermore suggesting a strong link between deforestation and reduced precipitation in tropical areas around the world. Preventing illegal logging in Prey Lang would therefore contribute to both a reduction in greenhouse gas

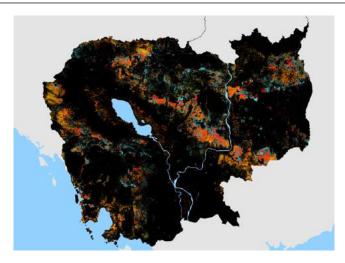


Figure 1.1: Forest cover loss in Cambodia. Blue spots show areas of tree cover loss in 2014. Yellow, orange and red spots show areas in which tree cover was lost between 2000 and 2013 (University of Maryland, 2015).[3]

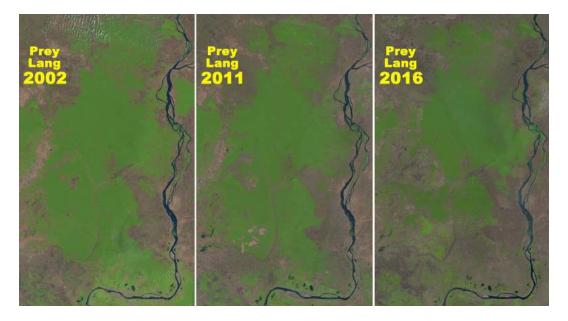


Figure 1.2: Satellite image of Cambodia generated from the USGS Earth Explorer site, freely available at http://earthexplorer.usgs.gov/ Image courtesy of Allan Michaud, Wild Cambodia

emissions and mitigation of severe drought events.

Prey Lang is an important ecological and economic resource and if managed in a sustainable way, it will continue to provide considerable benefits to the country and contribute to national development. Over the last 20 years, however, land grabbing has emerged as a major threat to the forest and rural livelihoods in this area (see 5.1). Moreover, conflicts have emerged between the affected local communities and the authorities as well as within communities between local citizens engaged in forest protection and citizens involved in illegal logging.

1.1 Prey Lang Community Network (PLCN)

In the early 2000's, communities living within the Prey Lang area started advocating for the protection of their ancestral forest lands as a response to large scale illegal logging and land grabbing – activities that destroy the forest and affect the peoples' access to natural resources. Prey Lang Community Network (PLCN), as the group of communities is called, consists of villagers from the four provinces, united to fight for preservation of the forest. Through the years, PLCN became

a well-organized group of indigenous environmental advocates, increasingly recognized both at the national and international level. Under their slogan "It's our forest too!", PLCN uses various forms of peaceful protest and advocacy to raise awareness about Prey Lang and its protection. They organize peaceful marches, demonstrations, petition writing and forest patrols to intercept the loggers and seize chainsaws and other equipment.

Although PLCN constitutes members living mostly in rural areas engaged in traditional activities of rice farming and subsistence agriculture, the work of the network entails use of new technologies and modern-day ways of communication. A smart-phone application has been developed, making it easy for the local patrols to geo-reference, document, and upload information. Thus, during the forest patrols, the villagers collect and share information about illegal activities and forest resources with the use of the specially designed smartphone application. Information collected this way is then automatically sent to a database, allowing a structured and systematized approach to data collection and analysis. Additionally, PLCN is active on social media, where they share news about the organization's recent activities ¹.

PLCN gained further media attention at the international level, especially after the recent attack on a young forest activist at the end of March 2016 by unidentified perpetrators in Kratie province. These articles were released in foreign publications in several countries including the UK[10], the US[11], Germany[12] and others.

The activist was attacked during a forest patrol in Kratie Province at night while sleeping and her foot was severely injured by an axe-blow [10, 13, 14].

Unfortunately, this is not an isolated incident. Members of PLCN suffer regular harassment from local officials involved in the timber business, police officers and Cambodian courts. Recent research shows that, 73% of PLCN monitors have been threatened by loggers and government authorities [15]. According to another source [10], "at least five deaths have been linked to logging activities since 2007" though not all of them occurred in Prey Lang.

Despite the aforementioned difficulties, PLCN continue their important work with the help of local and international partners. The efforts and commitment of PLCN were honored with the prestigious Equator Prize last November, awarded by the United Nations Development Program at the COP21 in Paris. ² Fig 1.3.



Figure 1.3: Equator Prize awarded to PLCN members, during ceremony in COP21, Paris, France. Image courtesy of Chris Rainier

Most recently, the Goldman Environmental Prize was awarded to Cambodia's activist and human rights lawyer Ouch Leng in April 2016. He was awarded for his undercover investigations of illegal logging and timber trade and for his advocacy work with communities affected by deforestation [16]. The Goldman Environmental Prize brings further media attention to illegal logging in Cambodia including in Prey Lang. The information on the severity of illegal logging provided by PLCN, together with international recognition, and pressure from Cambodian civil

¹Social media: Facebook page, Twitter

²Equator Prize: Awarding ceremony, Protecting forests video

society has brought about some crucial developments regarding Prey Lang. In May 2016, the Ministry of Environment announced 900000 hectares of new protected forest area nation-wide including some 305000 ha of Prey Lang. This figure was later increased to 432000 ha as forest in Preah Vihear was included. PLCN welcomed the recent decision of the government to protect Prey Lang [17] and to backtrack on its previous plans to exclude a large part of Prey Lang that is located Preah Vihear province [18, 19]. The sub-decree signed by the Prime Minister Hun Sen on May 9 designated almost 432,000 ha of Prey Lang as a wildlife sanctuary including at least part of the contested area in Preah Vihear. In a speech, the Prime Minister said he had approved the proposal and furthermore that: "Such as Prey Lang, we keep it for what, we have to put it as protected forest. Anyone could call on civil society to participate in this movement to protect the forest". In a similar speech on 28 April, after setting up the National Anti-Deforestation Committee (NADC) in an attempt to show that the government was trying to stop illegal logging, Prime Minister Hun Sen called on all citizens to join the battle, saying people even had the right to make citizen arrests of those found to be involved in illegal logging. The government and the people share the goal of eradicating the crime, Mr. Hun Sen said during a graduation ceremony at the University of Human Resources. Citizens must report and even arrest illegal loggers, he said. Hoeun Sopheap, a representative of the Prey Lang Community Network in Kampong Thom province, said he welcomed the prime minister's push for public participation, and noted the Prey Lang Community Network was already doing this. "We have done it for a long time now. Maybe Samdech [Hun Sen] did not know about that. However, we are very happy to hear that Samdech is committing to the fight against deforestation," he said. [20]

Another controversy concerned the Prime Minister's decision to hand over illegal timber, confiscated by the anti-logging task force in recent months, to the Education Ministry to build and repair schools [21]. This promise has been retracted by the PM recently, stating that logistical issues left selling the timber at local auctions as the only viable option [22]

Despite the recent media attention on deforestation activities in Cambodia's forests, the government's pledges to take action against illegal logging, and even claims that forest crimes decreased by 9% in 2015, activists remain skeptical [23, 24].

In spite of increased popularity, PLCN still struggles with the same problems it used to 15 years ago. Deforestation still remains on a large scale and the area is not under any form of legal protection.

1.2 Objectives

This is the fourth monitoring report on the state of Prey Lang forest. The aim is to inform the Cambodian public and the international community. It presents an analysis of the data that has been collected in Prey Lang by local PLCN monitors. The data is collected with a smartphone application. 39 smartphones, all equipped with a purposely-designed application, have been distributed to PLCN members living in the four aforementioned provinces of Prey Lang. The PLCN monitors were given the smartphones on the 4th of February 2015 after receiving training on the use of the application.

The overall aim with the present report is to analyse data collected on patrols carried out between the 1st of December 2015 and the 30th of March 2016 and to summarise the main findings of the database from the beginning of the recordings till the end of March 2016.

The purpose of this fourth monitoring report is to:

- 1. Provide the results of the data collection to PLCN, local monitors and the broader Cambodian public.
- 2. Show how the smartphone application can support and strengthen the monitoring of forest resources in Prey Lang.
- 3. To inform the Cambodian government, the broader Cambodian public and international community about the current status of Prey Lang and the threats it faces, to help inform future management decisions.

Over the coming years, as more data is gathered, we intend to publish regular reports based on the information collected by PLCN, to create a public record of the current status of Prey Lang, regarding biodiversity, natural resources, and illegal activities.

1.3 Acknowledgments

We (PLCN) would like to express our sincere thanks to the monitors who have collected data in Prey Lang forest in order to make the present report. We would also like to thank all project partners and donors for their support in order to help us in our work and effort to protect the remaining forest of Prey Lang. We dedicate this monitoring report to Ms. Sopheak Phon, who was attacked during a patrol. In 2015 PLCN elected Sopheak Phon, together with Mr. Houen Sopheap, to join the Equator Initiative Prize Ceremony in Paris to receive the 2015 Equator Initiative Award on behalf of PLCN. This attack is not a single event, but part of the wider attack on indigenous rights in Cambodia and elsewhere. As Sopheak stated after the attack: "This incident has inspired me to be more bold in trying to protect the forest. I'm very committed to continue working with the other PLCN members." ³



Figure 1.4: PLCN members during patrol

³ Allan Michaud video



2.1 Community based monitoring

Despite all the network's efforts on patrolling Prey Lang forest, PLCN identified a need for more systematic data collection to give a more complete picture of the pressures on the forest and impacts on biodiversity and local livelihoods. Therefore they have been provided with knowledge and ICT tools to undertake community based monitoring of Prey Lang. The smartphone application will ensure that systematic and well-documented monitoring is conducted.

An important parameter has been to ensure long-term ownership that will support sustainable monitoring and patrolling independent of donor funding. Therefore, a bottom-up approach taking point of departure in the interests of the PLCN and the on-going PLCN patrols has been implemented. The app is a tool to optimize data collected by the community monitors and it uses their knowledge and capacity. The collection of data takes place on larger community forest patrols as well as through individual day-to-day forest trips.

There are several types of patrols, each of them with a slightly different goal. The first type is big patrols, happening a few times every year and involving numerous groups of people, from 30 to a few hundred patrollers. These big, organized patrols usually last up to one week and involve PLCN members from all provinces who cover vast areas of the forest by motorbike. The second type of forest patrol is more spontaneous and frequent. It happens when villagers overhear sounds of nearby logging during NTFP collection - for instance resin tapping. Subsequently other patrollers are informed and the group musters up to intercept the logging. These patrols consume a lot of resources, both in terms of money and time. This is often an issue since the communities cannot afford to patrol frequently enough due to the high opportunity costs of foregone income from their primary jobs. They therefore depend heavily on donor support. The last type of patrol, which is also the rarest, happens when scientists, students or NGO workers perform research projects in the forest accompanied by PLCN members. These situations also often include data collection with the use of the Prey Lang application.

2.2 The Prey Lang smartphone application

39 monitors from PLCN compile data with a smartphone application. The data collection officially began on the 4th of February 2015 and it is expected to be developed and expanded in the coming years. The smartphone application (Fig. 2.1) is able to register three main categories - "Activities", "Resources" and "Reporting" - with further sub-categories. Accordingly:

- The variable Activities refers to extraction activities happening in the Prey Lang area, such as illegal logging activities, illegal hunting and illegal fishing.
- The category Resources refers to natural or cultural resources and sites found in the Prey Lang area. This includes resin trees, NTFPs, and high value timber species threatened by logging. Additionally, information on wildlife is also collected on an ad-hoc basis.
- The category Reporting refers to any interaction with authorities regarding Prey Lang.
 Furthermore, this function is used when monitors submit reports and complaints to local authorities and forest administrations.

The collected data is uploaded to a database and handled by database managers. GPS-coordinates and photos substantiate all data. Moreover, audio files are frequently added to the data point in order to attach important information to the collected data.

As described earlier, the development of the application, to serve the needs of the PLCN members, is an ongoing and dynamic process. Last year, database managers and the developers collaborated in order to improve the application and help advance PLCN's goals. The applied changes, were mainly aimed at making categorization easier for the patrollers, resolving technical issues fixing bugs and making the handling of the database easier. There will be a more detailed explanation regarding the changes, in the results part of this report.

We offer to provide documentation to anyone who wishes to investigate the correctness of our claims, but reserve the right to protect the identities of individual informants and specific locations of important natural resources.



Figure 2.1: Screenshots from the starting screen of the PL app, and from the decision menu.

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This section presents an overview of the data collected by Prey Long Community Network (PLCN) using the Prey Lang smartphone application. PLCN members from all four provinces – Kratie, Stueng Treng, Preah Vihear and Kampong Thom used the app to monitor the state of the Prey Lang forest.

- 1. Firstly, a section on the latest monitoring period from 1st December 2015 to March 2016. The section will include a statistical evaluation of all the validated data entries, alongside with a number of characteristic cases that give a more nuanced picture of PLCN's work.
- 2. This will be followed by data from the beginning of the monitoring in February 2015 until March 2016 will be presented. This summarized data, will be enriched with previously invalidated data, from the earlier reporting periods.

3.1 Reporting period 1st December 2015 – 31st March 2016

3.1.1 General findings

Between December 2015 and March 31st 2016, the PLCN database was enriched by 3206 entries, 997 (31%) of these were validated and used in the statistical analysis. Validated entries (cases) contain a picture and in some cases, an audio file documenting the event. They were subsequently analysed for the purpose of this report. The number of entries uploaded differed between the provinces, with Kampong Thom province being the province with the most recorded valid entries 3.1.

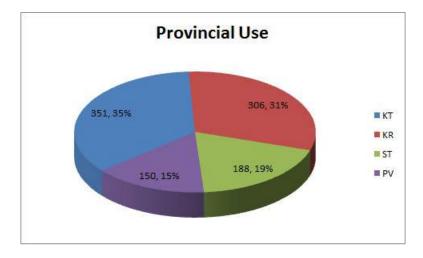


Figure 3.1: Distribution of valid entries, among the four provinces (KT=Kampong Thom, KR=Kratie, ST=Stung Treng, PV=Preah Vihear)

A total of 558 illegal activities (56%) were reported. Moreover 362 cases (36.3%) of "Resources" were recorded, mostly resin and luxury wood trees. The category "Reporting" contains information about PLCN's interactions with authorities or companies, including submitting official reports to authorities. Only 12 cases (1.2%) were recorded. The category "Other" refers to important events, which do not suit the earlier categories, for example pictures documenting patrollers during forest walks, monk marches, documents or confiscated chainsaws. 65 cases (6.5%) were reported in this category 3.2.

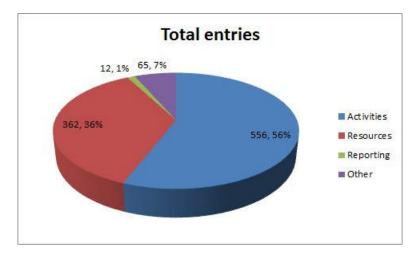


Figure 3.2: General monitoring activity

The following sections go into more detail about each of the above mentioned categories.

3.1.2 Illegal Activities

Among the entries from December to March, 558 illegal activities were recorded and almost all of them (99.6%) documented logging of some sort. Additionally there was one case of illegal fishing and two cases of ELC mining documented.

The reported cases clearly show that the PLCN members focus mainly on logging in their monitoring activity. This reflects the current situation, in which illegal logging is the main issue and forest conservation the main goal. This section takes a closer look at the means of deforestation and what conclusions the data allows.

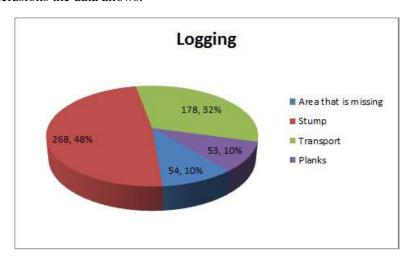


Figure 3.3: Logging cases recorded

The category logging is subdivided into four sub-categories: "Stump", "Transport", "Cleared Areas", and the newly incorporated category "Planks". This category was introduced, in order to clarify the difference between a single stump and the timber that the loggers leave behind. In Fig. 3.3 we can see that "Stump" and "Transport" constitute the majority of cases at 48% and 32% respectively. "Stump" refers to cases where the patrollers find a single tree stump. The extraction of single, high value trees is a common practice by illegal loggers, who do not have the means to log whole areas. The logged trees are either cut up on site or directly transported out of the forest as logs. Because the illegal loggers have to use roads coming out of the forest to transport the wood and pass through villages, their movement is often sighted by local PLCN members. One issue with recording cases of transportation is that it can be difficult to know whether the wood was cut legally or illegally once outside the core zone of Prey Lang.

Cleared areas were recorded 54 times (10%). While the absolute number of recorded instances for this category is rather low, it is important to understand that the relative impact is much higher than if only one tree is felled.

Some 53 (10%) instances of finding "planks" were reported. During forest patrols the patrollers usually follow the omnipresent sounds of logging. In most cases the loggers manage to run away before the patrollers can catch them, but they often leave both the timber and chainsaws behind (Fig. 3.4).

In these circumstances the chainsaws are confiscated, their serial number noted and handed over to officials from the forest administration. Unfortunately the confiscated chainsaws have, in numerous cases, been returned to the loggers, raising questions about the integrity of some forestry administration officials. The wood is often impossible to transport and therefore left behind. When the monitors encounter the loggers they first try to deescalate the situation by using non-violent methods. They will then check whether they have logging permits. If they do not, which is usually the case, PLCN informs them about the destructive effects of intensive logging on the forest and communities and make them sign a contract (using thumb-prints), which states that the loggers will refrain from continuing the illegal activities in the future. While this does not ensure that loggers will avoid unlawfully felling trees in the future, it is still useful because it creates a database of names and faces (pictures of the illegal loggers are also taken) and evokes a sense of guilt or even



Figure 3.4: Recording planks

shame in the offender.

3.1.3 Natural Resources

The documentation of natural resources constitutes an important part of the monitoring activity. They are monitored both during the patrols, but also when patrollers are in the forest for other purposes than patrolling such as collecting NTFPs.As we can see in Fig. 3.5 trees are the main resource documented (91.2%, 330 cases) followed by NTFPs (6.4%, 23 cases) which include mostly rattan, mushrooms, chili and other plants that are not specified. Animals and sacred places like burial sites, temples or sacred trees were only recorded very few times (2.5%, 9 cases).

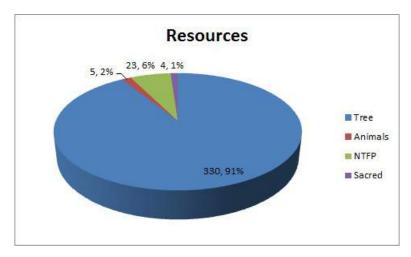


Figure 3.5: Natural Resources

Furthermore, as depicted in the following Fig. 3.6, the large majority of recorded trees (66.1%, 218 cases) refers to Derm Chbors (resin trees). Other luxury trees account for 102 cases (30.9%) and another 10 cases (3%) are unidentified. Resin trees provide income through the collection of resin that can be sold on the local markets. At the same time, timber from resin species within the Dipterocarpaceae family is of above-average quality, making it attractive for loggers. More than 25 species of luxury trees make up the "other luxury trees" category.

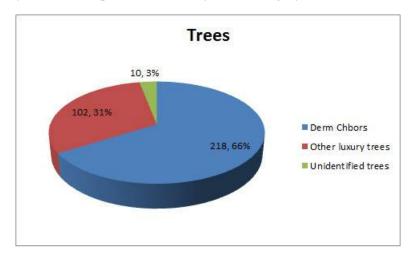


Figure 3.6: Recorded Trees

The most frequently mentioned luxury tree species were Doung Chem (*Heritiera sumatrana (Miq.) Kosterm. / H. javanica (Blume) Kosterm*) (Fig. 5.1) and Krolanh (*Dialium cochinchinense Pierre*) (Fig. 5.2), which are used for construction or furniture making. The lives of many villagers depend on forest products, collected in small quantities for sale (like rattan (Fig. 5.3) and resin (Fig. 3.18)) or for home consumption (food, medicine). Even though they often don't have formal education, they are real specialists of the forest and are able to recognize hundreds of species.

The category "Other" was not originally included in the choices of the app, however patrollers keep reporting less important, yet relevant entries. Therefore the category is made by the database

Chapter 3. Results

managers and contains everything that does not fit into any of the previous categories. The recorded items (65 in total) are listed in the Fig. 3.7 below .

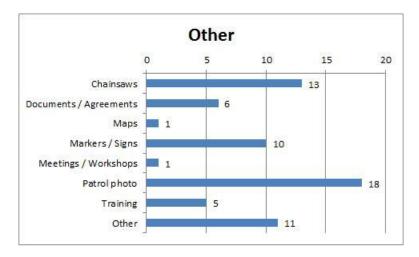


Figure 3.7: Recorded sub-categories under Other

As we can see, the patrollers often find interest in recording entries that fall under the "Other" category. The most recorded category here is photos taken during the patrols, with the recordings of confiscated chainsaws coming second. Other categories include photos of area markers in the forest, signed agreements with illegal loggers and photos from training sessions.

3.1.4 Characteristic cases

Characteristic case 1: Cow machines in Kampong Thom

On 23rd March 2016, the forest patrol group of Kampong Thom province came across as many as three tractors ("cow machine") transporting second grade Dherm Chbors timber to village "99" (Sandan district, Tamring commune), where it was to be picked up by a middleman (Fig. 3.8).



Figure 3.8: Patrollers record timber transportation with Cow machine

Haulers in this area usually merely collect timber that has already been cut up into planks by loggers, receiving up to 60\$ per loaded tractor. In this case, however, the timber had to be unloaded onto the road and the villagers were made to sign a pledge not to repeat their actions again. Nevertheless, a significant number of cases of timber transportation to "99" were documented in February and March. Timber transports were also recorded on days during which FA officials and the provincial police were patrolling the forest. More specifically, numerous claims by the patrollers pointing to illegal timber laundering and trade associated with village "99" (Sandan district, Mean Rith commune) and a Social Land Concession "95" (Kampong Thom province, Sandan district, Tamring commune) should be investigated. These claims have been backed up by numerous photos and interviews by the patrollers, which also revealed names of middlemen involved.

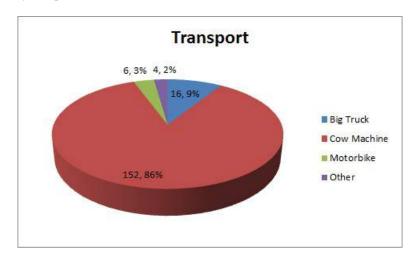


Figure 3.9: Recorded Transport Categories

As shown in Fig. 3.9, the "Cow machine" is by far the most documented means of transporting timber within the Prey Lang area. Besides hauling planks, these small tractors are used by the villagers to transport NTFPs such as collected resin or harvested crops from the plantations within the forest. The category "Other (transport)" denotes use of a car, boat or ox cart, but there were

very few cases of that kind of transport. Where forest roads are unsuitable for these machines in the deeper forest or when villagers cannot afford better equipment, motorbikes are often used instead (Fig. 3.10).



Figure 3.10: Recording transportation with motorbike

Furthermore, big trucks loaded with timber are sometimes spotted driving through villages around Prey Lang (Fig. 3.11), supposedly from one of the many sawmills located within ELCs in the area. Proving illegal origin of such timber is difficult, however, since transporting it from within ELC premises gives it an appearance of legality.



Figure 3.11: Reporting Transportation with big trucks

Characteristic case 2: Clear-cuts in Prey Lang

On 10th March 2016, a patrol group from Kratie province came across large swathes of cleared land located in a part of Prey Lang core zone in Stueng Treng province, southwest of Ou Lang village (Fig. 3.12). According to information from residents in the village, the then deputy commune chief (now the commune chief) is believed to have been behind these operations to make way for a plantation, presumably one planted with cashew trees. After the more valuable trees had been taken out for timber, the land was burned to fertilize the soil and woody debris removed, for easier

access and planting. Clearing larger forest areas in Prey Lang (outside ELCs) has two main causes: medium scale (up to 10 ha) clear cuts by immigrants, who have moved into the forest to find land for subsistence farming, and larger-scale (cassava, cashew or sugar cane) plantation clearings, often carried out with complicity of, or directly by, local authorities. The former is often done with the silent permission of authorities in return for votes in the next elections [25], while the latter is problematic to deal with due to the frequent connection of these activities with people in power.



Figure 3.12: Reporting "Area that is cleared". Observed on 10th March 2016 in a part of Prey Lang located in Stueng Treng.

54 cases of cleared areas of forest were documented in this reporting period (Fig. 3.3), which is an increase over the previous reporting period from July to November 2015, when only 18 cases were reported. Another frequent evidence of logging observed in the forest is an occurrence of a single stump or a group of stumps. The logged stems are then either crudely cut into smaller pieces or cut skillfully with a chainsaw into planks for later transportation (Fig. 3.13). A large number of confiscation cases came about thanks to the distinct sound of chainsaws cutting the logs, drawing the attention of patrolling PLCN members.



Figure 3.13: Reporting "Planks". A stem of Pdeak tree (Anisoptera costata Korth.) was being cut into planks when PLCN members from Kampong Thom province intervened on 7th March 2016

Characteristic case 3: Mixed Interactions with the authorities

On 9th February 2016, Mr. Tith Pichey, a PLCN member, was invited by the Rovieng Forestry Administration (FA) office of Preah Vihear province to discuss cooperation between PLCN and the FA Fig.3.14 with the aim of identifying illegal logging in the region and patrolling to prevent further destruction. This meeting was preceded by a report on deforestation in the area sent to the FA headquarters in Phnom Penh by PLCN members from Preah Vihear province.



Figure 3.14: Reporting "Positive interaction with authorities": A meeting between a PLCN member and Rovieng FA officials on 9th February

On 10th February, PLCN members of Preah Vihear province accompanied by an FA official, a police officer and a soldier patrolled the forest (Fig.3.15). The result of their efforts was confiscation of five chainsaws and up to 50 cubic meters of illegal timber, including one fully loaded truck (Fig. 3.16).



Figure 3.15: Reporting "Other/Patrol photo": PLCN members with authorities after a successful patrol in Preah Vihear on 10th February

Cooperation between the community and authorities is not always easy, however. On the common forest patrol by members from all four provinces on 23rd – 27th March 2016, only one police officer from Kampong Thom province was present, with several members from the other provinces complaining they had been unable to persuade any officials to join them. Reporting unwillingness and/or negative interactions with authorities is nonetheless very rare among PLCN

members, with only two documented cases in the reporting period, while there were 10 cases of reporting positive interaction (Fig. Not shown). As patrollers confessed during personal communication, the negative encounters with authorities are more common, but remain unreported, due to the fear of prosecution.



Figure 3.16: Reporting "Activities/Logging/Transportation": A truck in Preah Vihear province transporting timber out of Prey Lang on 10th February that was stopped for inspection

Characteristic case 4: Natural Resources



Figure 3.17: Reporting Derm Chbors (resin tree)

Protection of Prey Lang is vital to the communities for its abundance of various non-timber forest products (NTFPs) that provide the locals with additional income and a safety net in times of lowered primary earnings (e.g. during the dry season when rice farming is not viable). A large number of families are involved in resin collection, with an average family tapping up to several hundred resin trees.[26] As a group interview with villagers conducted by PLCN members from

Kratie province on 8th March 2016 revealed, resin tappers can earn somewhere around 2500-4000 riel per kilogram of resin, depending on the province, with some families collecting up to 100 kilograms per collection round.

As we can see in Fig.3.18 the majority (82%) of the reported cases refer to current resin trees (Derm Chbors Thom) while in 18% of cases the patrollers reported future resin trees.

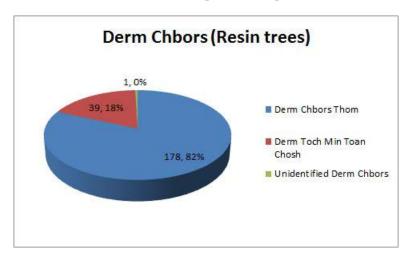


Figure 3.18: Recorded resin trees

Another group of natural resources are animals, like this elongated tortoise found at an illegal logging site on 27th March (Fig. 3.19). They are often hunted using hounds or chased away from their shelters by forest fires and then captured. Although tortoises are a common edible resource for the villagers, this one was released into the wild as this is believed to bring good luck.



Figure 3.19: Reporting "Natural resources/Animal": An elongated tortoise (Indotestudo elongate) confiscated from illegal loggers by PLCN members from Kampong Thom province.

In the updated version of the app, an additional categorization has been added regarding the NTFPs. Now the patrollers can chose between "Edible", "Medicinal" and "Craft" use of NTFPs. Moreover there is a new, fully enriched list of luxury tree, animal and NTFP species for the patrollers to choose from. The reportability (not shown here) of these categories is still relatively low, but we have no doubt, that when patrollers get more acquainted with this function, the app will operate as a useful natural resources monitoring tool. While rattan and mushrooms were the most reported NTFPs, other forest NTFPs were reported as well, like honey or edible leaves and roots of wild plants (Fig. 3.20).

In addition to edible NTFPs, there is a large variety of medicinal plants being reported by the PLCN members. An example of such a plant is Ktong (*Ancistrocladus tectorius Lour.*), whose boiled roots are used to treat dysentery and other diarrhea-like diseases (Fig. 3.21).



Figure 3.20: Reporting Natural resources/NTFP/Edible: Leaves of this plant called Smarch (*Syzy-gium zeylanicum (L.) DC.*) are used in cooking as salad, eaten either fresh or cooked



Figure 3.21: Reporting Natural resources/NTFP/Medicinal: Ktong plant (*Ancistrocladus tectorius Lour*.)

3.2 Reporting period 4th February 2015 – 31st March 2016

3.2.1 General findings

This section of the report will function as an overall assessment of the entries from the beginning of the reporting period (February 2015) until the end of March 2016. Over a 16 month period, 11190 entries were received out of which 2394 (21%) were validated. Fig. 3.22 shows that the number of validated entries has been increasing over time and that during the last few months the highest number of entries were made.

This increase in reported cases can be explained by the fact that the patrollers have, during the



Figure 3.22: Number of cases by month

last months, participated in multiple training sessions on how to use the app.

Fig. 3.23 shows how many entries were validated from each of the four provinces. Kampong Thom leads the list with 848 (35%) validated cases, followed by Kratie (667, 28%), Preah Vihear (435, 18%) and Stung Treng (424, 18%). The sign XX refers to minor test entries made by developers and is not significant.

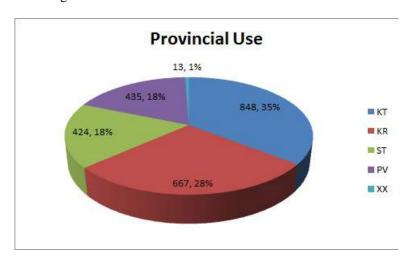


Figure 3.23: Cases recorded in each province (Feb 15-Mar 16)

These differences in use between provinces might be due to varying availability of time and resources among PLCN members from the respective provinces. Kratie and Kampong Thom are the provinces with the biggest area of remaining forest, meaning that more activities and resources are bound to be found in those provinces. Each recorded entry falls into one of four categories. 52% of the validated entries were categorized as "Activities", 40% as "Resources", 7% as "Reporting" and finally 1% were categorized as "Other" (Fig. 3.24).

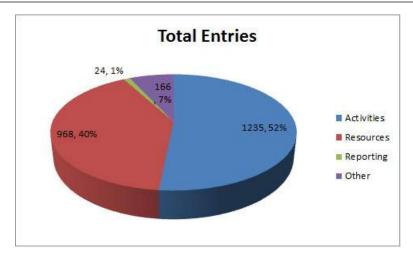


Figure 3.24: Total entries recorded

3.2.2 Illegal Activities

Activities generally stand for illegal actions performed by individuals or groups inside the forest, like logging, hunting or fishing as well as Economic Land Concessions (ELCs) and the activities performed in these areas. The vast majority of activities that PLCN members have recorded in Prey Lang are cases of illegal logging (Fig. 3.25). Logging constitutes almost 100% of all entries within the "Activities" category. Other activities like illegal hunting (3 cases), illegal fishing (2 cases), ELC Plantation (1 case) and ELC Mining (2 cases) together add up to less than 1%.

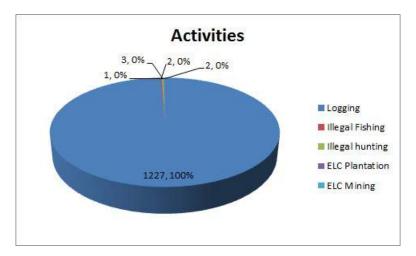


Figure 3.25: Activities recorded (Total period)

However one of the cases regarding ELC Mining is of special interest. During a patrol in Kratie on 18 of February 2016, patrollers encountered a mining ELC. The ELC was guarded by a soldier and when he was approached by PLCN members with questions, he replied that the company is Chinese but he declined to answer if it possesses any contract with the government. In turn he asked the PLCN members to leave the place (Fig. 3.26, 3.27).



Figure 3.26: Reporting Activities/ELC mining



Figure 3.27: Reporting Activities/ELC mining

Each recorded logging activity was further categorized in accordance with its type. Four types can be distinguished: Cleared area, stump, transport and planks.

The most commonly observed incidents are tree stumps (670 cases, 54.5%), marking the location of a single felled tree in the forest. Whole deforested areas (multiple trees in the same area) were observed 168 times (13.7%). The severity of each incident highly depends on the size of the area and the number of trees felled. In 84 cases (6.8%) processed wood in the form of planks was found at logging sites or on roadsides. Loggers often merely cut up the timber into planks to be transported by a different group of haulers (Fig. 3.28). As stated before, the update of the app, features a new option in this category. Patrollers are able to record the local name of species under the category stump. As it is a new feature, there are relatively few entries but the two most recorded species are Cherthheal (*Dipterocarpus costatus Roxb*) and Pdeak (*Anisoptera costata Korth*).

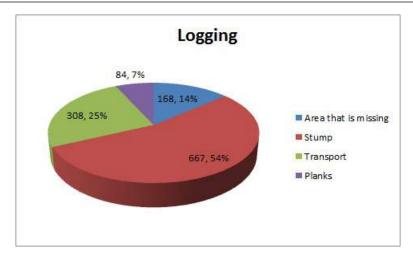


Figure 3.28: Logging cases (total period)

Transport is the second most common observation (308 Cases, 25%), where vehicles that transport illegally harvested wood out of the forest are intercepted and/or recorded. The following types of vehicles transporting timber were recorded. The most prevalent vehicle used is the "Cow Machine", a type of tractor used by the local population for farming and transportation. This form of transport accounts for 73% of all entries. Motorbikes come in second (11%), big trucks third (8%), Ox carts (4%), while the category other (4%) contains cars, unidentified vehicles and boats (Fig. 3.29).

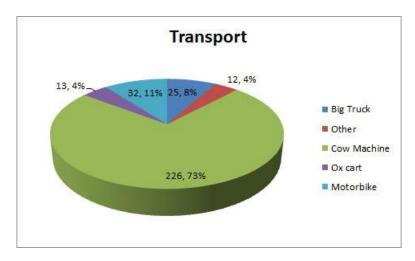


Figure 3.29: Recorded Transport cases (total period)

As of December 2015 the "locality" option was added to the app and gives the forest guardians the possibility to record information about the illegal loggers. Since this feature is relatively new, the forest guardians have not used it frequently yet, but this is expected to change in the future. The following options are available to record information on illegal loggers: local, immigrant, ELC, and "do not know". In total, 157 origins were recorded; 59 Locals, 14 Immigrants, 24 ELCs, and 60 cases of "do not know".

3.2.3 Natural Resources

The category resources is again split into four sub-categories. Trees, animals, non-timber forest products (NTFPs) and sacred sites. The majority of recorded instances in "Natural Resources" are Trees (88.9%) followed by NTFPs (6.1%), animals (3.1%) and sacred sites (1.9%).

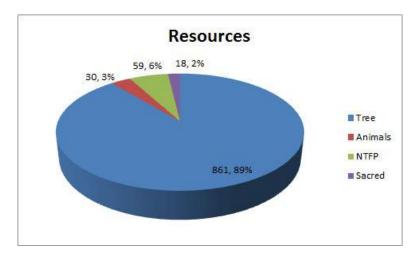


Figure 3.30: Recorded Natural Resources (Total period)

The high proportion of recorded trees shows once more the importance that trees in particular play in the lives of the indigenous communities. Mostly recorded in this category are the resin trees (76%, 657 cases) which play a central role in the lives of many local families. Their location is usually known by the locals since they use them to collect resin and they have been tapped by their families for generations. These trees are being increasingly targeted by illegal loggers after the more valuable timber of other luxury trees had already been depleted. The complementary two categories are unidentified trees (1%, 10 cases) and other luxury trees (23%, 196 cases) (Fig. 3.31).

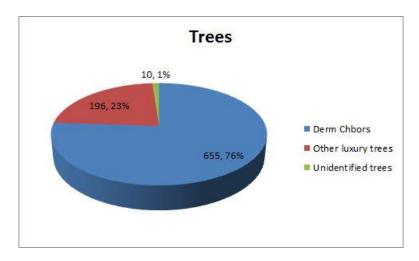


Figure 3.31: Recorded Trees (Total period)

Similar to previous categories, again the possibility of recording further classification of the luxury trees has been developed in this new version of the app. Preliminary results show that the most reported luxury trees among PLCN members are the previously mentioned Cherthheal and Pdeak as well as Chambork (*Colona auriculata (Desf.) Craib*).

Next to timber and trees, non-timber forest products provide additional income and are a source of food and medicine especially in times of scarcity and hardship (Fig. 3.32). NTFP used for crafts such as resin and rattan were recorded 24 times (40.7%), edible NTFP (chillies, mushrooms etc.) 17 times (28.8%), while NTFPs used as medicine and unidentified NTFPs were both recorded 9 times (15.3%). This categorization is an improvement of the recently released new version of the app.

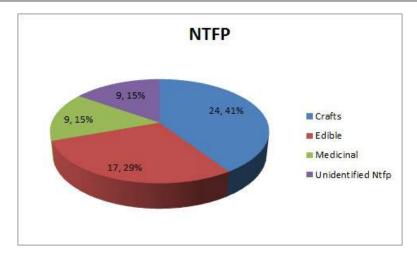


Figure 3.32: Recorded NTFPs (Total period)

Animals were recorded 30 times in total, with most species observed only a single time. While the biodiversity of the Prey Lang area is generally high, the main focus of the monitors is to document illegal activities. Biodiversity is reported less frequently. However on numerous occasions, patrollers have encountered signs of animal activity like feces, tracks or noises. The following fig. 3.33 goes more in detail about the type of the animals recorded.

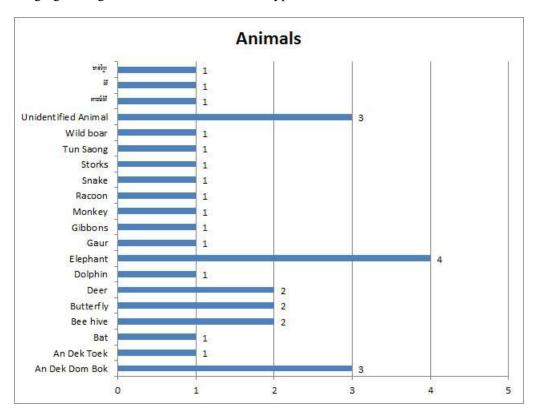


Figure 3.33: Recorded Animals (total period)

3.2.4 Reporting

Under this category, positive and negative interactions with the authorities, misconduct by officials (authorities seen currying out illegal actions) and submissions of official reports were recorded. A total of 25 entries were made, documenting 20 positive and three negative interactions with the authorities, one case of officials being seen during illegal actions and no instances of official reports submitted to authorities (Fig. 3.34). While these cases (negative interaction and authorities carrying out illegal actions) seem highly important, the patrollers are reluctant to report them due to fear of retaliation.

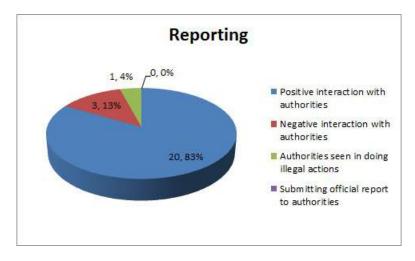


Figure 3.34: Reporting category (total period)

All entries that did not fit into any of the above mentioned categories have been recorded in the category named Other. Fig. 3.35 shows the details of the recorded entries (166 entries).

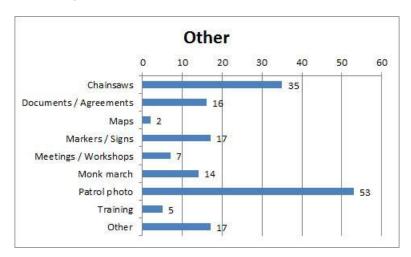


Figure 3.35: Sub-categories under Other (total period)

While most of these cases report confiscated chainsaws and patrol photos we noticed a solitary entry reporting a sawmill. This case has been categorized under Other/Other and depicts an area full of tree logs (Fig. 3.36).

This is a sawmill in Kratie province and is the one out of at least five sawmills in the whole area of Prey Lang. We decided to highlight this case as sawmills should not be found in a protected forest.



Figure 3.36: Reporting Other: Sawmill

3.3 Preliminary map of PLCN's monitoring activity

Figure XX is a visual representation of what has been monitored in Prey Long between february 2015 and March 2016. The entries were categorised as follows:

- 1. Natural Resources (177 entries) includes: Trees (95%) and NTFPs (5%)
- 2. Animals (7 entries)
- 3. Sacred Site (5 entries) includes: temples, sacred trees, burial sites
- 4. Illegal Logging (141 entries) includes: Stumps (78%), Clear Cut Areas (15%), Planks left on site (7%)
- 5. Transport (of illegally cut timber) (78 entries) and
- 6. Chainsaws (11 entries)

The map shows that the majority of records were natural resources and illegal logging activities. Illegal logging activities are spread all around the territory but a higher density is observed in Preah Vihear and Kratie, surrounding ELCs. Most of the transportation has been recorded along the Mekong River. The newly granted Prey Lang Wildlife Sanctuary Area (in May 2016) includes 3500 ha of mining concessions and 1200 ha of ELCs. Many illegal activities have already been recorded inside these concessions. The contradiction between having mining and economic concessions inside the protected area should open the debate on the possible cessation of the already established concessions and the prohibition of future concessions in the area. The report by Forest Trends in 2015 exposed the fact that a large number of concessions and extractive activities still occur in many protected areas of Cambodia (Forest Trends 2015). If Prey Lang is to be truly protected these issues must be addressed by the Government and affected stakeholders. The affected stakeholders include the PLCN, who until now have been involved in patrolling and protecting the forests and should therefore be legally authorized to co-manage the Prey Lang Wildlife Protected Area. The areas of Prey Lang that are left outside the protected area are also of concern. For example, parts of the evergreen forest, the biologically most important, in Stung Treng and Kampong Thom are left unprotected and illegal activities have already been reported in these areas. These areas are still rich in biodiversity richness and are essential for the survival of the people living around them. To ensure the protection of these areas the current customary patrols of the PLCN should become officially authorized.

Chapter 3. Results

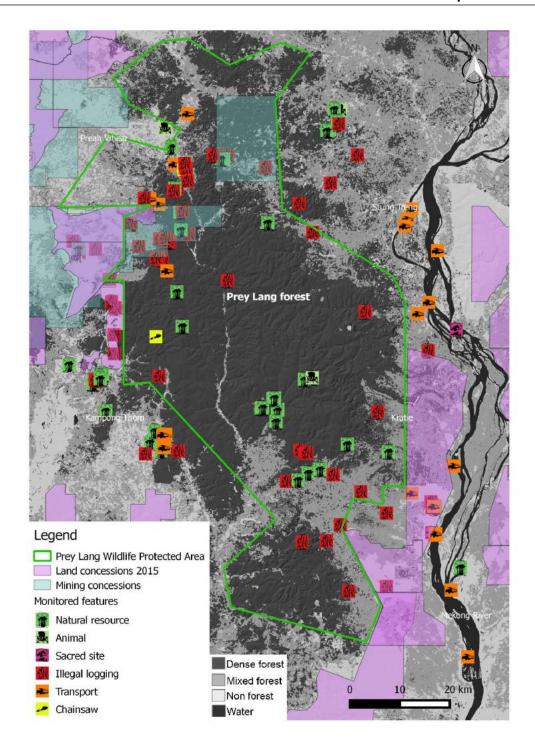


Figure 3.37: Map of Prey Lang with the monitored activities. Forest cover map modified from Open Development Cambodia (ODC, 2014). Economic land concessions and mining licenses data was taken from Licadho (2015) and ODC. Map generated using QGIS Brighton 2.6.0

4.1 Conclusions

Deforestation and illegal logging are still serious threats to Prey Lang. The number of recorded incidents increased over the whole monitoring period. The collected data shows that both protected and unprotected areas are affected by illegal logging. The work conducted by the PLCN, resulted in the most extensive source of data on illegal logging activities in Prey Lang and may be in all of Cambodia. This data is highly valuable for the government, researchers and the general public and should be used to step up the protection of Prey Lang.

The PLCN has shown that community monitoring can

- 1. Provide data of the same accuracy as that collected by professionals
- 2. Increase the feeling of ownership and responsibility among the local population
- 3. Promote local involvement in decision-making
- 4. Shorten the time to put new regulations in place and
- 5. shorten the response time from the moment illegal activity is observed until enforcement happens.

Some general differences between community-led and scientist-led monitoring are summarized below (Fig 4.1).

	Communitites	Scientists		
Aim of monitoring	Impact: stop illegal logging	Provide scientific data		
Sampling design	Unsystematic. Targeting illegal activities.	Systematic. Random or stratified random sampling		
Activities	Collect data and stop illegal activities	Collect data		
Time from data collection to				
publication		Long		
	On-line, newspapers, social media, Facebook,			
Publication	Twitter, Youtube, VIMEO	Scientific journals		
Farget group	General public, policy-makers	Scientists, Protected Area managers		
Level of training needed	Low, community monitors	High, scientists, experts		
Cost of monitoring		High		
Local participation	High	Low		
Level of media-coverage	High			
Policy relevance	High	Low-Medium		

Figure 4.1: Differences between community-led and scientist-led monitoring table (Ditlev Damhus and Ida Theilade 2016)

4.2 Recommendations

Community patrols armed with smartphones and a specially designed app have proven a costeffective way to monitor illegal logging and other forest crimes. Local communities quickly
learn how to use information and communication technology and are able to document and report
forest crimes. The simple and visual design of the app enables community monitors to up-load
observations to a common data-base increasing the number of data points dramatically. The
efficiency of the community patrols should prompt the Cambodian government and the Ministry of
Environment in particular to initiate a dialogue and enhance cooperation with the PLCN. Given
the government's poor record in managing existing protected areas the recent declaration of Prey
Lang as a protected area should be seen as an opportunity to develop a co-management model. This
model should define the roles, benefits and responsibilities of stakeholders including the PLCN in
the protection of Prey Lang. Continued community patrols and vigilance of citizens is essential to
achieve Cambodia's goal of reducing deforestation.

Furthermore, the numerous claims by the patrollers pointing to illegal timber laundering and trade along road 99 in a Social Land Concession of Kampong Thom Province, Sandan District, Tamring Commune should be investigated. These claims have been backed up by numerous photos and interviews by the patrollers, which also revealed names of the middlemen involved.

Finally, the present report has shown that the quality of data collected by community monitors has increased dramatically over a one-year period. Continued training of the patrol members and improved versions of the app clearly pays off in terms of the amount and quality of data collected. Continued financial as well as political support for PLCN's activities would greatly contribute to the success of the project and the protection of Prey Lang for future generations.

4.3 PLCN Statement

KINGDOM OF CAMBODIA NATION RELIGION KING

Phnom Penh, 5 June 2015

JOINT STATEMENT Concerns the designation of Prey Lang as a Wildlife Sanctuary

We, Prey Lang Community Network (from Kratie, Stung Treng, Preah Vihear and Kampong Thom provinces), are very concerned about the situation of the forest and wildlife. Prey Lang is facing deforestation by illegal loggers, and private companies still continue cutting down and transporting the trees out of Prey Lang.

Recently (9th of May 2016) the Government of Cambodia has signed Decree No. 74 designating Prey Lang as a wildlife sanctuary. This was a good and wise decision of the government on the protection of Prey Lang, which is the last forest in Cambodia. On the 12th of May, when presiding over the closing ceremony of Annual Review of Agriculture, Forestry and Fisheries, Samdech Prime Minister Hun Sen called on residents, monks, communities and activists, who love the forest, to join forest protection with the government and to immediately report to the government if there are still any illegal logging.

We have also observed that the Minister Sai Sam Al, the park rangers from the Ministry of Environment and the district authorities participated in the effort to patrol and to hinder the forestry crimes.

But despite these efforts of the government, the Ministry of Environment, the local authorities and our volunteer network, deforestation continues in the Prey Lang area. Many cubic meters of timber are transported everyday by tractors and trucks out of the forest. The past few weeks, since May 13, 2016 to the present, we have confiscated 22 chainsaws, 38 recently cut trees, 21 cubic meters of chopped woods and 6 tractors from the illegal loggers. We also made a number of agreements with those who cleared over 500 hectares of the forest land at Stung Ou Siam, Ou Toek Krom, Ou Jorm Kuk, Ou Yarv, Central Prey Lang, Kratie Province, with those who cleared over 6

hectares of the forest land at Stung Po Rong, Chrok Tal, Central Prey Lang, with 5 families who have settled in Chrok Towl, Kampong Thom, with 32 families at Trapeng Tear, Kratie, and confiscated some other evidences. On May 29, 2016, when we, the community representatives, confiscated a chain saw from Mr. Tra, who presently lives in Phhek Roleuk village, Thmea commune, Chey Sen district, Preh Vihear province, this individual and his group behaved rudely and threatened to kill us with a homemade weapon. These offenders seemed not to fear the law at all, when acting in this manner.

We, Prey Lang Community Network, are very concerned and worried about the situation of Prey Lang, which is being aggressively destroyed by anarchic individuals and timber companies. In addition, we are also worried about death threats, and other types of threats to our community.

We, members of Prey Lang Community Network, strongly believe that a significant way to stop deforestation in Prey Lang area is that the government takes serious and timely action as we suggest below:

Suggestions:

- 1. The government takes immediate action to confiscate all chainsaws from the villages, communes, districts, provinces and timber companies located in Prey Lang area, and stop any further import of chainsaws.
- 2. The government takes action to end buying and selling all types of wood, both legal and illegal wood from Prey Lang.
- 3. The government intervenes to shut down all sawmills and all kind of timber business around Prey Lang.
- 4. The Ministry of Environment takes action on the illegal and anarchic residential camps intending to clear the forest land, to hunt wild animals, and to shelter the illegal loggers in Prey Lang.
- 5. The Ministry of Environment cooperates with Prey Lang Community Network, which was established in 2000, in stopping and preventing forest crimes in Prey Lang.
- 6. The committee of preventing and stopping forest crimes takes immediate action to intervene and stop the forest crimes in Prey Lang area.
- 7. Takes legal action against the government officials, local authorities and those who threaten forest protectors, and against timber brokers involved in illegal timber business and deforestation in Prey Lang.
- 8. The government controls and investigates the social land concessions, mining concessions and economic land concessions around Prey Lang.



Part Three Additional information

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5.2	Annex (2) – The Joint Statement	
5.3	Annex (3) – Additional uploaded pictures	
5.4	Bibliography	



5.1 Annex (1) – Baseline Study

A baseline survey was carried out in Prey Lang area in 2014 by a CPN consultant in collaboration with local informants from the four provinces that stretch the Prey Lang landscape. The data was collected through interviews and focus group discussions. Furthermore, relevant documents from local authorities, village leaders and NGOs have been collected in order to contribute to the present baseline survey. The baseline survey encompasses data on demographics, human and natural resources and identification of key challenges related to natural resources. It constitutes an accurate current picture of the threats to Prey Lang and its' importance to the local livelihoods. Main findings The baseline survey was carried out in 69 villages, 14 communes and seven districts across Kratie, Stung Treng, Preah Vihear and Kampong Thom provinces. The main conclusions from the baseline study are listed below:

- The main occupation in the Prey Lang area is farming, resin collection, NTFP collection and fishing. An increasing number of people leave the Prey Lang area in order to get cash income.
- Communities are facing challenges from mining, illegal logging, logging concessions, migration and illegal fishery.
- Villagers cannot afford and do not have enough time to go patrol the forest with the PLCN, because they need to take care of their families.
- There is a lack of participation and engagement from provincial and local authorities as well as the forest administration (FA) regarding protection of natural resources in Prey Lang.
- No participation is offered to the local communities in managing Prey Lang, in spite of a wish to engage.
- Up to the baseline survey in 2014, there were 33 private companies with economic land concessions (ELCs) operating in Prey Lang. These are companies working with agro-industry (plantations). These companies create conflicts with the local communities.
- The biggest companies are CRCK in Kampong Thom, PNT company in Preah Vihear and Chhun Hong Rubber and Think Biotic Co. Ltd. in Kratie. There are five mining companies in Prey Lang in Preah Vihear province.
- Community forests are not well protected and are currently facing logging problems.
- Labour companies hunt wildlife with guns and electrical traps and sell them on the markets. Especially monkeys. (Illegal hunting)
- Local communities wish to manage the forest through traditional methods.

- Resin trees are a major part of the local economy.
- Resin trees are lost every day. In the present study, there were 17,010 lost among the 483,756 that are tapped in Prey Lang.
- Increasing migration issues.
- Since 2007 150-250 migrant families moved to Preah Vihear. In Kampong Thom it is 150-300 families since 2005. In Stung Treng and Kratie 200-300 families since 2007.
- Immigrants created conflicts in local communities because of robberies, harassment, immorality and destruction of natural resources.
- Most of the families are migrants from Kampong Cham, Kandal, Prey Veng and Svay Reang
 provinces. They create problems for local people who protect land and forests. Some reported
 that migrants are hired by companies to slash and clear forest for land plantation. And some
 reported that migrants are hired by companies to cut down luxury wood.
- Communities in the Prey Lang area are facing increasing poverty issues, because of decreasing
 occupation options. More people are selling trees to logging companies because they have
 no choice.
- Remote and isolated communities have to pay a high cost of traveling to attend community gatherings/trainings. Lack of communication to remote villages (limited network coverage).
 These communities get excluded from patrol events and NGO trainings etc.
- Only more expensive phone companies have antennas in Prey Lang. This makes it harder to communicate among villages and with NGOs.
- It was reported that local authorities and the FA do not support Prey Lang communities. Also, the police are supporting illegal loggers and often corruption occurs.
- ELCs and mining companies cause forest degradation, loss of land, loss of rural livelihoods and loss of income.
- PLCN communities would like to strengthen the capacity of local governments in order to
 recognize and respect traditional management and use of natural resources and respect the
 communities' property that they rely on for their livelihoods.
- The communities wish to encourage local governments to uphold and support traditional job and income practices/possibilities.
- The communities also wish to implement a community investment plan (CIP) to protect Prey Lang. The CIP should encompass patrolling events, biodiversity studies, NTFP studies as well as a monitoring plan through consultation and participation of Prey Lang communities.

5.2 Annex (2) – The Joint Statement

KINGDOM OF CAMBODIA NATION RELIGION KING

Phnom Penh, 26 May 2015

JOINT STATEMENT A MARCH TOWARDS THE DISASTER OF PREY LANG

We, monks; Prey Lang Community Networks; students; youth networks; Indigenous Peoples and Forestry Network (IPFN); and civil society organizations (CSOs), are gravely concerned over the status of intense destruction of the Prey Lang forest during the last few years, which march towards the disaster of Prey Lang forest in the near future.

Although the Royal Government of the Kingdom of Cambodia has adopted the Forestry Law, the Law on Environmental Protection and Natural Resource Management and other important regulations to protect forestry, natural resources and the environment. However, illegal logging activities have continued along with logging under the disguise of granting of economic land concessions, mining concessions, social concessions, and forestry concessions. These concessions have been seriously threatening Cambodia's forestry, in particular, the Prey Lang , the last lowland forest of Cambodia and in the Indochina subcontinent.

For the past 10 years, Prey Lang has been destroyed and cleared by concession companies and exploration activities of mining companies in the area. Hundreds of thousands of hectares of jungles have been cleared and replaced with rubber trees, tapioca, and mining of metal and other materials. A commune-level quantitative research report of the Prey Lang Community Networks published in April 2015 suggests that in 33 communes within Prey Lang forest and other communes bordering the 33 communes there are 53 concession companies in total, which have been operating in the area as of end 2013. The total concession land areas include 234,784.08 ha of economic land concessions, 264,693.23 ha of mining concessions, 932,434.20 ha of forestry concessions and 4,000.00 ha of social land concessions.

At present, besides land concession projects, we have found that loggings of forest for business and clearance of forested land for private ownership are increasing significantly. In this regard, communities claim that some government officials and local authorities have been involved. To date, tens of thousands of cubic meters of logs have been transported out of Prey Lang, hundreds of thousands of community resin trees have been felled, and hundreds of thousands of hectares of forested land have been cleared into deserts in a rampant manner without any or little control by technical officials and relevant authorities. Seeing such disaster occurring to Prey Lang, communities have been trying to protect it and prevent forestry offenses and illegal encroachment, but in return they have been subjected to killing and/or intimidation from perpetrators, technical officials, and local authorities.

For many years now, the Prey Lang Community Networks, youths, and CSO networks have submitted petitions, complaints, and request for intervention to the Royal Government and technical agencies for establishment of a Prey Lang forestry protection legal mechanism, collaboration and cooperation to protect and jointly manage the forest in a sustainable manner. For instance, on 27 April 2015, 34 Prey Lang representatives submitted a petition to seek interventions from the National Assembly, Government agencies, and the two major political parties with seats at the National Assembly, but as of now, there has been no response.

We, monks; Prey Lang Community Networks; students; youth networks; Indigenous Peoples and Forestry Network (IPFN); and civil society organizations (CSOs), are seriously worried about the losses of forestry, forested land, biodiversity and aquatic resources in the near future if no timely interventions are made. This would affect the forestry coverage restoration program, the carbon credit program, and in particular, the maintenance of water equilibrium and water supply to the Tonle Sap during rainy seasons, leading to underground water imbalance. If the Prey Lang forest disappeared, what would happen to the Tonle Sap, Cambodia's heart? Moreover, this would affect or cause losses of wildlife habitats, fish spawning grounds, and occupations of tens of thousands of

community people and households who depend on forestry products, non-timber forestry products, fisheries, and especially, water source for agriculture and daily consumption for the people around the area. The loss of Prey Lang forest, in particular, would affect 1.5 million of fishing people who are benefiting directly from the Tonle Sap.

We do not object to development, but would like to request that proper legal procedures be followed, equity of development projects be assured, and environmental and social impacts be minimized.

We, therefore, would like to submit the following requests to Government, MAFF, and FA:

- 1. Take measures and intervene immediately to prevent forestry offenses in the Prey Lang forestry areas.
- 2. Intervene to have the draft Sub-Decree on Prey Lang Forestry Protected and Biodiversity Areas be disclosed for public consultations with the Prey Lang communities and other stakeholders.
- 3. Include Prey Lang Community Network in the four provinces as co-managers of the Prey Lang Landscape through inserting the rights and roles of Prey Lang Community Network in the Sub-Decree on Establishment of "Prey Lang" Forestry Protected and Biodiversity Conservation Areas.
- 4. Intervene to government officials at all levels to carry out investigation at the Prey Lang areas and ensure effective enforcement of laws related to the forestry sector, environmental impact assessment, granting of social land concessions, and illegal land grabbing by migrants.
- 5. Take legal actions against those officials and local authorities involved in timber business and illegal logging in Prey Lang areas.
- 6. Stop all forms of intimidation from the court and armed forces against Prey Lang forestry activists.
- 7. Preserve the Prey Lang areas as an academic and research zone for training of human resources in enhancing the environment, natural resources and eco-tourism.
- 8. Review the use of saw machines to ensure compliance with legal requirements as stipulated under Article 70, Chapter 13, Forestry Law, on Measures Governing Forestry Activities. If the governing is not effective, please suspend or stop imports of saw machines into Cambodia

5.3 Annex (3) – Additional uploaded pictures



Figure 5.1: Patrollers reporting Doung Chem (*Heritiera sumatrana (Miq.) Kosterm. / H. javanica (Blume) Kosterm*)



Figure 5.2: Reporting Other luxury wood / Krolanh [kh.] (*Dialium Cochinchinense*)



Figure 5.3: Patrollers reporting Rattan



Figure 5.4: Patrollers reporting Medicinal NTFP



5.4 Bibliography

- [1] Hayes, B.; Khou, E.H.; Thy, N.; Furey, N.; Sophea, C.; Holden, J.; Seiha, H.; Sarith, P.; Pengly, L. and Simpson V. 2015. *Biodiversity assessment of Prey Lang. Kratie, Kampong Thom, Stung Treng and Preah Vihear Provinces*.
- [2] Open Development Cambodia 2014: Forest Cover
- [3] University of Maryland: Global forest Change
- [4] Zsombor P. 2015: Cambodia Sees World's Fastest Acceleration of Forest Loss. Cambodia Daily..
- [5] Khmer times Deforestation Costs Acknowledged
- [6] Le Coz, C; Raab, A. and Cristofoletti, T. Vanishing roots. The dedication of an indigenous Cambodian community to protect its sacred forest.
- [7] Smith P., M. Bustamante, H. Ahammad, H. Clark, H. Dong, E.A. Elsiddig, H. Haberl, R. Harper, J. House, M. Jafari, O. Masera, C. Mbow, N.H. Ravindranath, C.W. Rice, C. Robledo Abad, A. Romanovskaya, F. Sperling, and F. Tubiello, 2014: Agriculture, Forestry and Other Land Use (AFOLU). In: Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change Edenhofer, O., R. Pichs-Madruga, Y. Sokona, E. Farahani, S. Kadner, K. Seyboth, A. Adler, I. Baum, S. Brunner, P. Eickemeier, B. Kriemann, J. Savolainen, S. Schlömer, C. von Stechow, T. Zwickel and J.C. Minx (eds.). Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.
- [8] Kreft, S.; Eckstein, D.; Junghans, L.; Kerestan, C. and Hagen, U. 2015. GLOBAL CLIMATE RISK INDEX 2015. Who Suffers Most From Extreme Weather Events? Weather-related Loss Events in 2013 and 1994 to 2013. Germanwatch e.V. Bonn
- [9] International Fund for Agricultural Development (IFAD). 2013. Cambodia Environmental and Climate Change Assessment. IFADs Country Strategic Opportunities. Programme 2013-2018. Asia and the Pacific Division. Environment and Climate Division. Programme Management Department.

54 BIBLIOGRAPHY

[10] Cheang, S. AP. 2016. Group urges probe into attack on Cambodian forest activist. The Daily Mail. 05/04/2016.

- [11] Janjevic Darko, Deutsche Welle 05/04/2016 Cambodian activist slashed with machete in her sleep.
- [12] Kronholm Alex, 24/02/2016 Ground zero in the highly dangerous and rapidly growing illegal luxury timber trade.
- [13] Seangly P. and Kossov, I. The Phnom Penh Post 29.03.2016. Lauded activist attacked while patrolling Prey Lang forest.
- [14] Wright, G. and Odom, S. The Cambodian Daily 02.04.2016. Attacked Prey Lang Activist Vows to Keep Up the Fight.
- [15] Turreira Garcia N., Meilby H., Brofeldt S., Argyriou D., Theilade Ida: Who wants to save the forest? Characterising community led monitoring in Prey Lang, Cambodia 2016 (Manuscript under review).
- [16] Wright, G. The Cambodian Daily 19/04/2016. Local Activist Earns International Acclaim.
- [17] Zsombor, P. and Pheap Aun. The Cambodia Daily 18/05/2016. Government expands sanctuary in Prey Lang, adds Preah Vihear.
- [18] Sotheary, P. The Phnom Penh Post 26/04/2016. New protected forest areas revealed.
- [19] Titthara, M. Khmer Times 25/04/2016. Preah Vihear Excluded from Protection Area.
- [20] Titthara, M. Khmer Times 18/04/2016. Prey Lang Protection Moves Forward.
- [21] Samean, L. The Phnom Penh Post 01/04/2016. PM pledges seized timber for schools.
- [22] Naren, K., Pheap A. The Cambodia daily 11/05/2016 Hun Sen Orders Timber Sale Because Teachers Can't Move It.
- [23] Narim, K. The Cambodia Daily 01/03/2016. Forestry Crimes Decrease by 9 Percent in 2015, Report Says.
- [24] RFA Khmer Service 22/04/2016. New Front in the Battle for Cambodias Wilderness.
- [25] Titthara M. The Phnom Penh Post 11 April 2013 Thousands drawn to Prey Lang
- [26] Hüls Dyrmose A.M., Turreira Garcia N., Theilade Ida, Meilby H. *Economic importance of oleoresin to forest-adjacent households in Cambodia* 2016 (Manuscript under review)