



---

# **SUMMARY ANNUAL HCV MONITORING AND EFFECTIVENESS EVALUATION IN SUGUT CONSERVATION AREA (SCA) SFM PROJECT, YEAR 2020**



**Prepared by SCA SFM Project  
September 2021**

## INTRODUCTION

Trusan Sugut Forest Reserve SFM Project has been committed in managing and beef up the High Conservation Values (HCVs) in sustainable ways based on the adaptive management cycle (Figure 1) as recommended in the High Conservation Value Forest (HCVF) Toolkit for Malaysia (WWF-Malaysia, 2009).

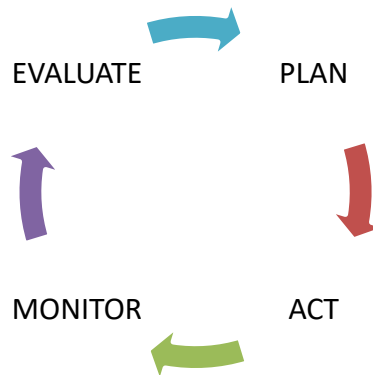


Figure 1: The Adaptive Management Cycles (Sources: WWF-Malaysia)

This report produced in order to complete the Adaptive Management Cycle particularly for the Evaluation (**effectiveness**) and plan steps prior to move the next steps in cycle future as per FCP Interim Standard for Forest Management Certification in Malaysia, especially Principle 9 Criterion 9.4. The evaluation process has been carried out which are **focusing in the effectiveness of the HCV managements, actions taken and strategies** in order to achieve the HCV management Objectives and Targets as stated in the HCV Management and Monitoring Plan for Sugut Conservation Area Project 2020.

The evaluation step takes place once related reports or documents (Wildlife Monitoring Report, Water Quality Analysis Report, Patrolling Report, Compliance Report 2020, etc.) prepared.

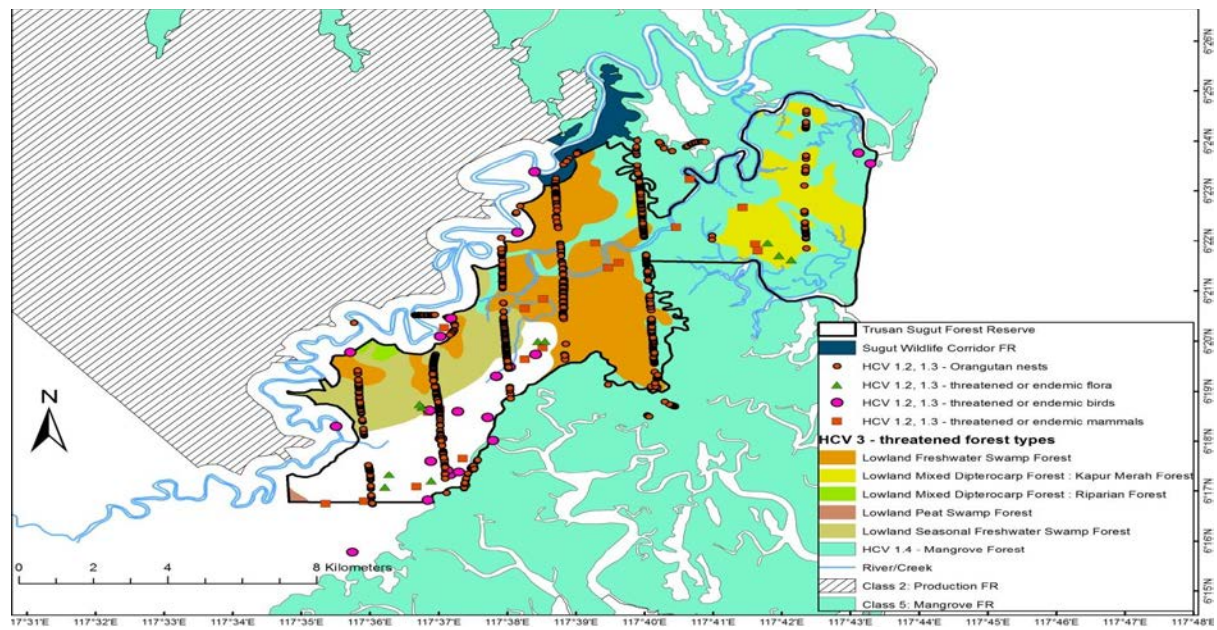


Figure 2: Zoning plan (circled and numbered in black) for various types and intensities of surveillance and patrolling in Trusan Sugut Forest Reserve

Figure 2: Zoning plan (circled and numbered in black) for various types and intensities of surveillance and patrolling in Trusan Sugut Forest Reserve

## **OBJECTIVE**

1. To evaluate the effectiveness by which HCV management and protection measures to maintain and or enhance the pertinent conservation attributes.
2. As a guidance for Forest Manager to modify/adjust/enhance HCV management prescription to cater for any weaknesses.
3. To comply with FSC indicator 9.4.3

## SUMMARY OF MONITORING ACTIVITIES AND ACTIONS TAKEN ACCORDING TO HCV ATTRIBUTES/ELEMENTS BY THE PROJECT TEAM

HCV		Monitoring activities and actions taken by Project Team
1	1.1	<ul style="list-style-type: none"> <li>• Patrolling was conducted all year round</li> <li>• Aerial surveillance using Drone twelve times or more yearly</li> <li>• Inspection of boundaries</li> <li>• Re-brushing of main boundaries</li> <li>• Establishment of enforcement gates to curb poaching activities and entering without permit</li> <li>• Establishment of one Forest Checking stations for enforcement and monitoring</li> <li>• Wildlife monitoring activities conducted extensively, reporting by quarterly and yearly. Three methodologies were used i.e., camera traps survey by car and survey by boat.</li> <li>• Establishing PSP Plots and yearly maintenance, re-enumeration conducted in every 3 years</li> <li>• Proper signboards were erected at all main boundaries.</li> </ul>
	1.2	
	1.3	
	1.4	
2		<ul style="list-style-type: none"> <li>• Patrolling was conducted all year round</li> <li>• Aerial surveillance using Drone twelve times or more yearly</li> <li>• Inspection of boundaries</li> <li>• Re-brushing of main boundaries</li> <li>• Establishment of enforcement gates to curb poaching activities and entering without permit</li> <li>• Establishment of one Forest Checking stations for enforcement and monitoring</li> <li>• Wildlife monitoring activities conducted extensively, reporting by quarterly and yearly. Three methodologies were used i.e., camera traps and Opportunistic sighting.</li> <li>• Establishing PSP Plots and yearly maintenance, re-enumeration conducted in every 3 years</li> <li>• Proper signboards were erected at all main boundaries.</li> </ul>
3		<ul style="list-style-type: none"> <li>• Patrolling was conducted all year round</li> <li>• Aerial surveillance using Drone twelve times or more yearly</li> <li>• Inspection of boundaries</li> <li>• Re-brushing of main boundaries</li> <li>• Establishment of enforcement gates to curb poaching activities and entering without permit</li> <li>• Establishment of one Forest Checking stations for enforcement and monitoring</li> <li>• Wildlife monitoring activities conducted extensively, reporting by quarterly and yearly. Three methodologies were used i.e., camera traps survey by car and survey by boat.</li> <li>• Establishing PSP Plots and yearly maintenance, re-enumeration conducted in every 3 years</li> <li>• Proper signboards were erected at all main boundaries.</li> </ul>
4		<ul style="list-style-type: none"> <li>• Patrolling was conducted all year round to curb illegal activities such as encroachment to steep areas and riparian.</li> </ul>

	<ul style="list-style-type: none"> <li>• Aerial surveillance using Drone twelve times or more yearly</li> <li>• Inspection of boundaries</li> <li>• Re-brushing of main boundaries</li> <li>• Establishment of enforcement gates to curb poaching activities</li> <li>• Establishment of two Forest Checking Stations for enforcement and monitoring</li> <li>• Establishing PSP Plots and yearly maintenance, re-enumeration conducted in every 3 years</li> <li>• Proper signboards were erected at all main boundaries, as well as all identified HCV area</li> <li>• Forest Fire Management Plan was made available as well as conducted forest fire awareness to stakeholders and contractors</li> </ul>
5	No area known in SCASFM that corresponds with HCV (5)
6	<ul style="list-style-type: none"> <li>• Patrolling was conducted all year round</li> <li>• Aerial surveillance using Drone twelve times or more yearly</li> <li>• Inspection of boundaries</li> <li>• Re-brushing of main boundaries</li> <li>• Establishment of enforcement gates to curb poaching activities and entering without permit</li> <li>• Establishment of one Forest Checking stations for enforcement and monitoring</li> <li>• Wildlife monitoring activities conducted extensively, reporting by quarterly and yearly. Three methodologies were used i.e., camera traps survey by car and survey by boat.</li> <li>• Establishing PSP Plots and yearly maintenance, re-enumeration conducted in every 3 years</li> <li>• Proper signboards were erected at all main boundaries.</li> <li>• Solve any complaints from stakeholder</li> </ul>

## MONITORING SUMMARY

### Monitoring Result for HCV 1:1 Protected Area

No.	ACTIVITIES	COMPARTMENT	TARGET	ACHIEVEMENT THROUGHOUT YEAR 2020
1.	Aerial Monitoring using Drone	All boundary	12 times per year	100%
2.	Land Monitoring	All boundary	2 times per week	100%
3.	Sea Monitoring	All boundary	3 times per week	100%

**Table 1: Protection and enforcement activities throughout year 2020**

Based on the extensive activity such which are achieved 100% for year 2020 (Table 1), there have no **Forest Offences, Illegal Hunting, Forest Fire** detected. Therefore, the particular objectives for HCV 1.1 are successfully achieved.

### Monitoring Result for HCV 1.2 Threatened and Endangered Species

\* Similar to HCV 1.1

\* Objectives are successfully achieved.

Based on wildlife monitoring, there were about **29 individuals** detected which are **classified in the HCV 1.2** based on the conservation/legal status. For more information, kindly refer to the Wildlife Monitoring section.

### Monitoring Result for HCV 1.3 Endemism

\* Similar to HCV 1.1

\* Objectives are successfully achieved.

Throughout year 2020, **3 wildlife species** detected which are **classified in the HCV 1.3** namely **Proboscis Monkey (*nasalis larvatus*)**, **Bornean Yellow Muntjac (*muntiacus atherodes*)** and **Kinabalu Squirrel (*callosciurus baluensis*)**. For more information, kindly refer to the analysed wildlife monitoring data in the Wildlife Management section. While, there were 6 insects had recorded as a Bornean endemic species based on the insect survey report by Forest Research Centre (FRC). The report available in the Publication section.

### Monitoring Result for HCV 1.4 Critical Temporal Use, HCV 2: Landscape-Level Forest, HCV 3L Ecosystems and HCV 6: Cultural Identities of Local Communities

\* Similar to HCV 1.1

\* Objectives are successfully achieved.

### Monitoring Result for HCV 4.1: Watershed Protection, HCV 4.2: Erosion Control, HCV 4.3: Barrier to Destructive Fires

\* Similar to HCV 1.1

\* Objectives are successfully achieved.

Latest water quality test/analysis report is available in the Monitoring section.

## **EFFECTIVENESS OF MONITORING PROGRAM AND ENHANCEMENTS BY EACH HCV ATTRIBUTES:**

Based on the summary and monitoring activities table below above, the effectiveness of the monitoring activities can be elaborated as follows:

### HCV 1 – HCV 4 and HCV 6

The protected areas activities in the SCASFM project are divided into several activities, such as the following:

#### 1. Patrolling and Enforcement

Based on the Annual Report 2014-2020, occurrence of poachers trying to enter without permission into the project area was remained zero case recorded. There were no arrests made since the year 2014-2020 related to the forest offences. This indicates that patrolling and enforcement, arrest, prosecution activities were successful. Therefore, the HCVs as a whole were maintained and enhanced with the monitoring program until present.

#### 2. Inspection of boundaries and re-brushing of main boundaries, and installing of proper signage along the main boundaries of SCASFM

As stated in the AWP 2014-2020 and also Compliance Report 2014-2020, the inspection and re-brushing of main boundaries was conducted yearly. This corresponds to the responsibility of the team management to protect the project area and installing of proper signage to ensure that all the stakeholders are aware of entering the area.

There is few signage had been placed as follow:

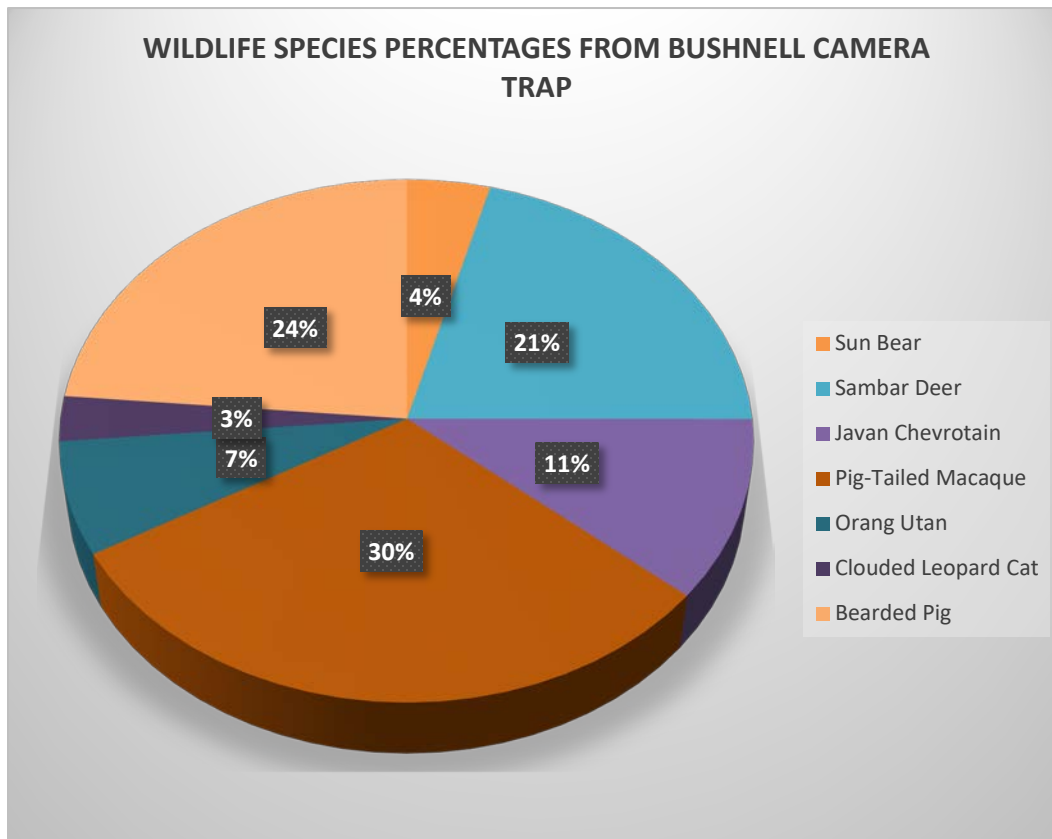
- a) Project signboards on all entries
- b) Warning signboards on all entries
- c) Safety signage
- d) HCV signage
- e) Enforcement signage
- f) Prohibited activities signage



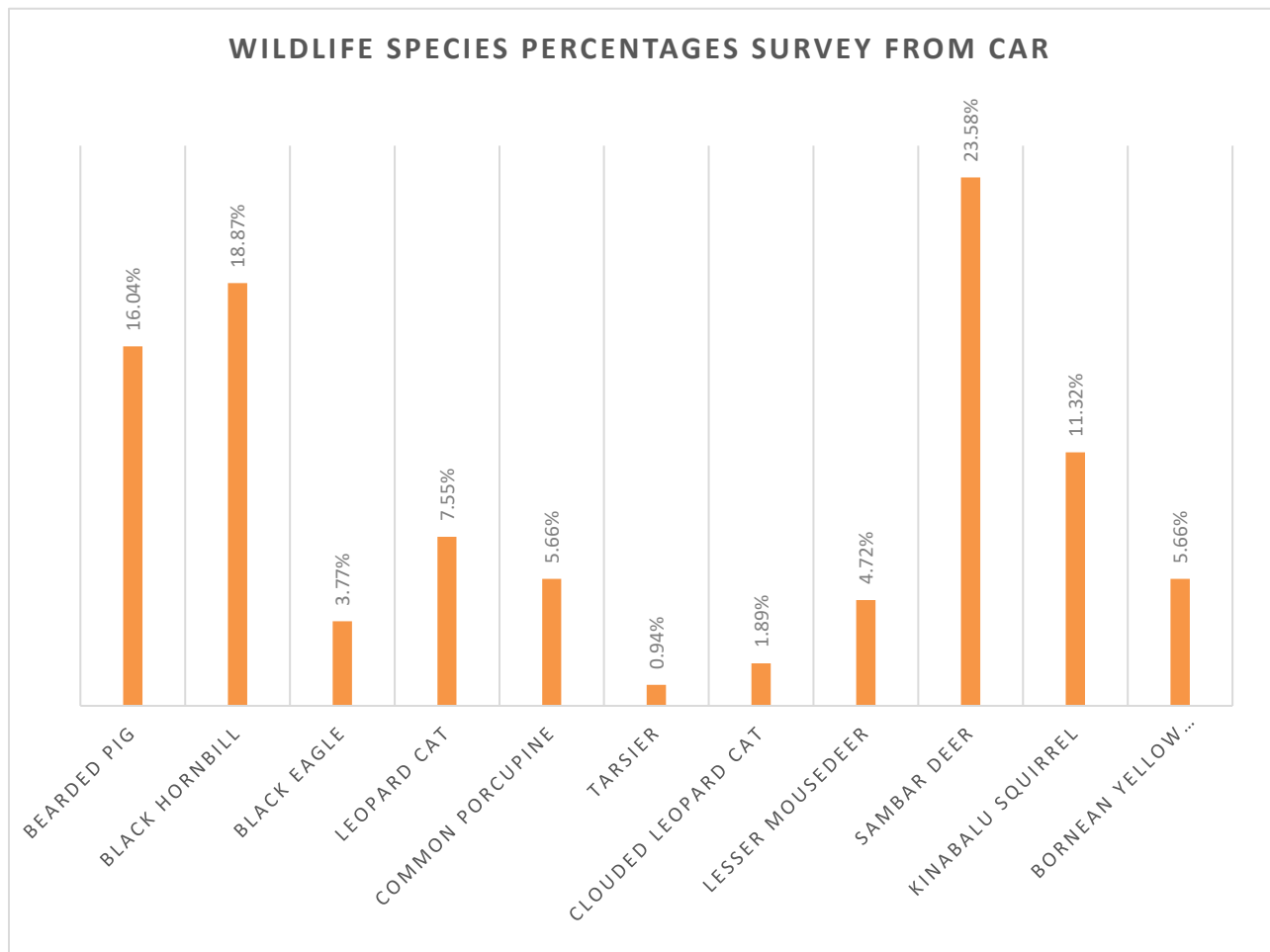
### Wildlife Monitoring Program

Based on the yearly report of Wildlife Monitoring, quarterly report and annual report, there are three (3) methodology of wildlife monitoring program in SCASFM Project Area i.e. Camera Traps, Survey by Car and survey by Boat.

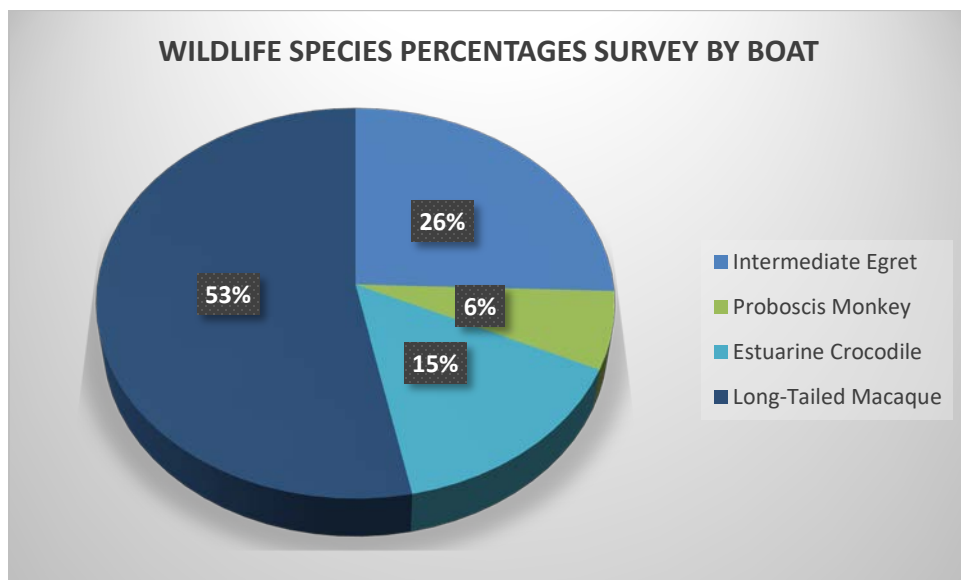
Based on the chart, the frequency of presence of Wildlife by camera trap installed at different location in the forest reserves. Since there was no cases of poaching and hunting reported, the total of wildlife assumed increase from year to year.



The graph above shows the abundance of wildlife detected via camera trap



The graph above shows the abundance of wildlife detected via survey by car



The graph above shows the abundance of wildlife detected via survey by boat

#### 4. Implementation of the function of the Forest Checking Stations.

The project team has managed to implement the function of the Forest Checking Stations in regards to the team's responsibility to safeguard the HCVs as a whole. All the area had been safeguarded to prevent any forest offences occur. Therefore, the HCVs as a whole were maintained continuously.

#### 5. Establishing PSP Plot and yearly maintenance

Re-enumeration was done every 3 years. There are a total of 11 PSP Plots being established from 2014 onwards and one newly established PSP Plot is made available in 2019. All the plots by certain type of forest condition as follow:

- a) Good forest silviculturally treated
- b) Good forest not treated silviculturally
- c) Buffer
- d) Steep area
- e) Good growth performance
- f) Good growth performance for regeneration

## EVALUATION

### HCV 1, HCV 2 and HCV 3

Based on extensive patrolling and enforcement activities which were conducted commenced in the year 2013 until September 2021, there were no **Forest Offences, Illegal Hunting, Forest Fire** cases detected. Hence, in general HCV1, HCV2, HCV3, HCV4 and HCV6 were maintained since there were no mentioned cases occur within the 4 years period.

In 2020, no Silviculture and Enrichment Planting had been conducted due to financial problems.

Particularly for HCV 1.2 and 1.3, throughout the year 2020, six (6) Bornean Endemic species of insects have been detected based on the insect report produced by Forest Research Centre (FRC). While, one Sabah endemic species of flora also detected via Permanent Sample Plot survey conducted by FRC, namely Seraya Kuning Kudat (*shorea kudatensis*). Hence, the HCVs have been enhanced with the new information regarding Bornean Endemic species which are available in Trusan Sugut Forest Reserve.

Besides, based on the wildlife monitoring activities, there was a number of footprints and faces which are believed form Banteng (*bos javanicus*) at the boundary of Compartment 3 and Compartment 6. Therefore, camera traps have been installed at the mentioned area in order to capture the pictures of the animals. Besides a systematic planning on installing the camera traps also have been produced in order to cover all the 15 compartments within a year. Hence, the HCV management on the particular HCVs are enhanced in order to gain information of the HCVs. Besides, one of the management efforts is planting selected grass about 5 ha at the strategic area along the road in order to add and enriching the food source of animals other than fruits planting. The aim of the planting is for the grazing animal (Banteng, Sambar Deer, etc.).

### HCV 4

Management activities in order to conserve HCV 4 are maintained and enhanced continuously. In the year 2020, water quality analysis had been conducted as usual. Water samples had taken from the streams which are located inside the project area and outside the project area in order to analyse the effect of management activities (development) to the inside and outside project area as per FCP Interim Standard for Forest Management Certification in Malaysia, indicator 6.1.3.

### HCV 6

There was a number of patrolling have been conducted to curb any forest encroachment within the HCV 6 area, namely Bukit Kumbawon, Malawaring and Sungai Sugut Parai (Tagal System Implemented). Management activities are maintained continuously by considering any public reports or complain regarding the mentioned area.

## CONCLUSION

Based extensive activities throughout the year 2020, the management target and objectives had been achieved successfully. There were no forest encroachments, no forest fire, no illegal hunting occurs. However, in order to beef up more on the engagement activities based on the HCV Management and Monitoring Plan, some information and planning have been created based on the monitoring before implementation in future.

Besides, based on the Annual Report 2014-2020, occurrence of poachers trying to enter without permission into the project area was remained zero case recorded. There were no arrests made since the year 2014-2020 related to the forest offences. This indicates that patrolling and enforcement, arrest, prosecution activities were successful. Therefore, the entire area of the project was maintained and enhanced with the monitoring program until present.

This also show that the management have manage to implement the enforcement program adequately. Nevertheless, the management must improve on the enforcement practices i.e., increase the rate of patrolling within the area and outside the area, identify possible route of poachers coming in the area etc. Furthermore, the frequency of aerial surveillance must be increased to ensure the forest safety.

1. Inspection of boundaries and re-brushing of main boundaries and installing of proper signage along the main boundaries of Trusan Sugut Forest reserve must be maintained.
2. Based on the Wildlife monitoring report compilation from year 2014-2020, the number of wildlife sighting recorded by the three methods use increase exponentially. There are two possible reasons:
  - a. Data collecting skills and frequency increase.
  - b. The population of wildlife increase in the area. This can be attributed to the effectiveness of protection, controlling and enforcement activities.

This means, that the wildlife monitoring program conducted by the management is getting more improve by each year and the management should maintained for consistency.

3. The Forest Checking Station i.e., Sugut Class 1 Forest Reserve and at the Sugut Conservation Area is to be maintained because the station plays an integral part of monitoring, control and enforcement activities.
4. All the PSP plot are to be maintained yearly and re-enumeration must be done. It will be up to the management on how to the new plots will be added later such as where, how, how many, distance and many more.