

**MANAGING FOREST MANAGEMENT UNIT 10 (FMU10:TAMBUNAN)**  
**(NULUHON TRUSMADI, SUNGAI KILUYU AND NULUHON TRUSMADI**  
**(EXTENSION) FOREST RESERVES**

The Forest Management Unit 10 (FMU10: Tambunan) is managed by the Sabah Forestry Department (SFD) under the Sustainable Forest Management (SFM) concept focusing on conservation efforts which complies with the existing States and Federal Laws, Environmental policies, legislations and regulations as well as firm commitments to the FSC principles and criteria. The management jurisdictions cover three (3) forestry districts of Tambunan, Ranau and Keningau. Each of the areas is headed by the District Forest Officer (DFO).

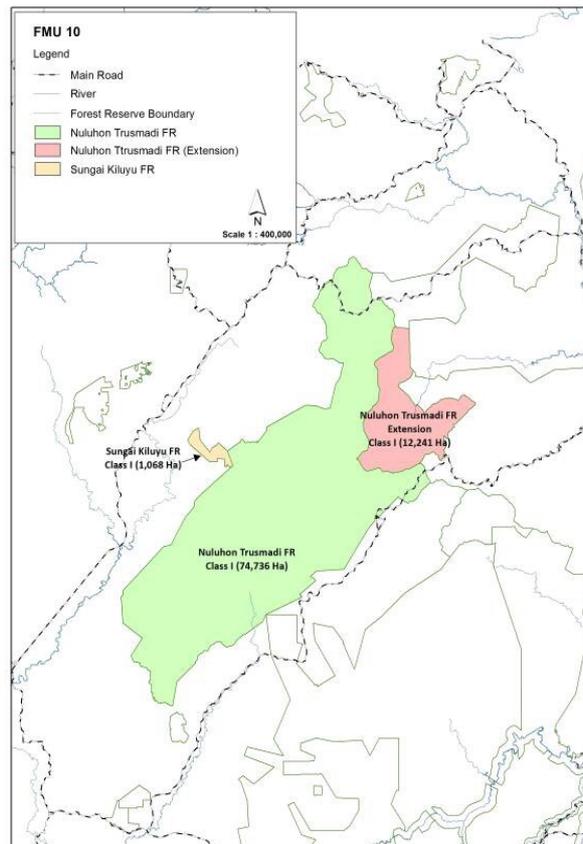
**POLICY STATEMENT**

The Forest Management Unit 10 (FMU10: Tambunan) is firm commitments to FSC principles and criteria as follows:-

- i. To manage the FMU in accordance with the principles of sustainable forest management as prescribed by international standard (i.e.FSC) and national standard (MTCC).
- ii. To respect all applicable laws in the country, including State Forest policies, environmental policies, legislations and regulations, and international treaties and agreements.
- iii. To protect FMU area from illegal harvesting, settlement and other unauthorised activities.
- iv. To provide employment and services contracts to local communities, wherever possible.

**THE AREA**

The FMU 10 was designated as a Conservation Area by the Sabah State Government as early as 2004. The whole of the FMU 10 is located in central Sabah, between longitude E 116° 21' 13. 8" and E 117° 01' and latitude N 5° 27'N and 5° 52'N (**Figure 1**). For management and identification purposes the site's name is known as the Forest Management Unit Number 10 or FMU10 (Tambunan).



**Figure 1: The location of FMU 10 (Tambunan)**

As of December 2013, the FMU10 with a total size of 75, 804 hectare (ha), consisted of the Nuluhon Trusmadi Forest Reserve and the Sg. Kiluyu Forest Reserve. Both are under Class 1 (*Protection*) Forest Reserve. In late 2016, an area totaling 12,241 ha was excised out from the neighbouring Trusmadi Forest Reserve (FMU 5 (Ranau): Class II Forest Reserve). The whole area was gazetted as a Class I Forest Reserve and is known as the Nuluhon Trusmadi (Extension) Forest Reserve. As of January 2017, the total area for FMU 10 (Tambunan) is 88,045 ha (Table 1).

**Table 1: The Forest Reserves in FMU10**

Item	Forest Reserves	Forest Reserve Class	Acreage (Ha)
1	Nuluhon Trusmadi	I	74,736
2	Sungai Kiluyu	I	1,068
3	Nuluhon Trusmadi (Extension)	I	12,241

<b>TOTAL</b>	-	-	<b>88,045</b>
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### THE CONSERVATION AREA MANAGEMENT PLAN (CAMP)

A Conservation Area Management Plan (CAMP), using the 5 S Planning approach of the TNC, had been developed by the Management Planning Core Team (MPCT). The MPCT led by Deputy Conservator of Forests (Management), Rahim Sulaiman, formulated the CAMP through a consultative and interactive planning process, involving a number of expertise and resource persons from within the SFD and also other relevant government agencies.

It was initially approved for implementations by the Chief Conservator of Forests Sabah (*formerly known as the Director of Forestry Sabah*) over a ten (10) year period in 2009. The validity of the plan was from 1.1.2009 until 31.12.2018. A review of the CAMP FMU10 was done by the MPCT in the middle of 2012 to include the necessary changes in the conservation targets, strategies and monitoring plan and other agenda such as Forest Certification. The Revised CAMP for FMU10 that was approved by the Chief Conservator of Forests was valid for another ten (10) year period from 1.1.2013 until 31.12.2022. A mid - term review was again done in late 2016 and early 2017 by the MPCT and it concluded with the latest document known as FMU10: CAMP Version.2 (FMU10: CAMP Ver.2). The document is currently under the process of peer review. Commitment to the FSC Principles and Criteria is firmly stated in the FMU10: CAMP Ver 2. Whenever, the FME uses contractors for any related works under the FMU10, it shall requires all of those contractors to comply with the FSC P&C too.

The draft of the **FMU10: CAMP Ver.2** describes and summarizes the revised conservation targets, strategies, and the monitoring plans, including the estimated budgets for FMU 10 for the period from the year 2017 to 2026. This document also describes the size and location of the FMU 10, including the area's characteristics, namely, its vegetation habitats, topography, soils associations, rainfall distributions, general flora and fauna populations and the extent of the burnt and encroached areas. Assessments of the field conservation capacity, the revised Conservation Targets including the Threats affecting the viabilities of the conservations targets, the relevant Conservation Strategies and the respective annual actions and monitoring plans are also deliberated.

### MID – TERM REVIEW OF THE CAMP

Similarly to the earlier documents, a review of this **FMU10: CAMP Ver. 2** will be done by the MPCT for FMU10 towards the end of the fourth (4) year of implementation, namely in 2020. This revision is known as the mid -term Review. A Third Revised CAMP for FMU10, to be referred to as **FMU10: CAMP Ver. 3** will be produced by the MPCT for FMU10 before January 2021. The **FMU10: CAMP Ver. 3** to be approved by the Chief Conservator of Forest Sabah will be valid for a period of ten (10) years. The mid - term review will bring on board all the necessary changes for the conservation targets, threats, all relevant changes in the operating environments of FMU10, physically or financially or socially, all relevant new things, technologies, information and the new strategies or even man power and other related planning capacities and capabilities.

## MANAGEMENT PRESCRIPTIONS

In the draft FMU10: CAMP Ver. 2 as stated in the initial CAMP, limited non - conservation usage namely, ecotourism and control hunting as well as a community woodlots usage are allowed in the designated areas. No commercial tree harvesting is allowed. The major bulk of the conservation activities in FMU10 are to counteract the major threats of Fire, Timber extractions, Poaching and forest area encroachments through forest restorations, forest awareness/ nature educations programme as well as total protection of the area from any illegal activities such as poaching of fauna and flora, illegal cutting of trees and encroachments.

## THE REVISED CONSERVATION TARGETS AND THREATS

Using the 5 – S planning approaches, a total of eight (8) targets were identified as the main subjects for conservation in the initial CAMP for FMU10 (Rahim, 2009). These Targets were further classified into three (3) habitats and five (5) species group. The Conservation Targets included under the habitat group were the Upland Mixed Dipterocarp Forest (UMDF), the Lower Montane Forest (LMF), and the Summit Scrub (SS). The species group conservation targets comprised of *Nepenthes X trusmadiensis*, *Rafflesia keithii*, Rajah Brooke's Birdwing butterfly, the hornbills and Serawi fish. Poaching of large and small fauna and flora, fire, littering along the summit's trail, encroachment and small scale illegal timber extractions were identified earlier as the five (5) main threats to the viability of conserving the identified eight (8) targets accordingly (Rahim, 2009)

Under the mid-term review in 2013, both of the Conservation Targets and the Threats were reduced to only four (4) Targets and four (4) Threats respectively (Rahim, 2013). One of the previous target that is the *Nepenthes x trusmadiensis* was chosen as a High Conservation Value Forests (HCVF) since 2015. The revision done under the FMU10: CAMP Ver. 2 further reduced the Conservation targets into just three (3), namely, the Upland Mixed Dipterocarp Forest (UMDF), the Summit Scrub (SS) and the hornbills (Table 2).

Table 2: The Revised Conservation Targets under FMU10: CAMP Ver. 2

NO	CONSERVATION TARGETS	DESCRIPTIONS OF TARGET AND RATIONALES FOR ITS SELECTION
1	<b>UPLAND MIXED DIPTEROCARP FOREST (UMDF)</b>	This habitat covers about 46 % of the FMU 10. An important habitat that supports about 80% of the flora and 70 % of fauna surveyed in the area. This habitat is the main site for forest restorations, controlled hunting and gateway for ecotourism and mountain climbing activities. It is still susceptible to encroachment, forest fire and illegal poaching for flora and fauna as well as small scale timber extractions if not checked. This Target therefore still need to be maintained and monitored from the revised threats of Fire, illegal poaching and encroachment. A water intake source was also chosen as an HCV 5 area at the Sg Kaintano near the Wokok Sinua. Monitoring of the site will continue and an agenda for discussion in all Forest Communities meetings in Sinua.
		Forms the peak habitat at Gunung Trus Madi. Contains unique montane flora and fauna, namely <i>Nepenthes x trusmadiensis</i> . The area covers

2	<b>SUMMIT SCRUB (SS)</b>	approximately the size of two (2) football pitch. Due to its fragile habitats, target needs to be managed by restricting the trampling of the habitats by visitors. Impact of frequent visitations to the area could be minimised by providing for a certain path to be used by the visitors. Opening up of new walk paths in the summit will not be allowed. Poaching of <i>Nepenthes x trusmadiensis</i> did not occur at all since the CAMP was fully implemented in 2009 as visitors were prohibited to pick any neither flora nor fauna during their visitations to the peak or all along the three (3) Wayaans. These restrictions will continue to be practiced. This area was also chosen as a site for the HCV 1.3, due to the endemism of the <i>N. x trusmadiensis</i> . Two plots had been established under the HCV 1.3 category in 2014. Monitoring will continue.
3	<b>HORNBILLS</b>	The FMU 10 may support up to seven (7) species of this particular bird. The hornbills group is listed as protected fauna in the Wildlife Conservation Enactment 1997, although it's hunting through valid licences are allowed by the Sabah Wildlife Department. Surveys since 2011 indicated the presence of six (6) species in FMU10. Continuation of surveys is necessary. This activity will be led by Mr. Alim Biun of Sabah Parks.

The four (4) threats are further reduced to only three (3). These are Fire, Poaching of large and small fauna and flora as well as area encroachment (Table 3).

Table 3: Descriptions of the Revised Threats in FMU 10 for 2017 until 2026

NO	THREATS TO THE CONSERVATION TARGETS	DESCRIPTIONS OF THE THREATS AND RATIONALES FOR ITS SELECTION
1	<b>FIRE</b>	<p>Since 2009 up to 2015, only one (1) incidence of fire was encountered in the Nuluhon Trusmadi FR. The damage was estimated to cover some 20 ha of secondary vegetation. Awareness campaign done so far has proven to be effective to control this threat. Unfortunately during the dry period from January to June 2016, SFD had to put up a big effort in fire fighting near the Sungai Atug area, in the southern part of Nuluhon Trusmadi FR. Some 1,200 ha were estimated to be burnt and SFD suspected that these fires were initiated from the open burning activities. Ground and aerial surveillances as well as awareness programs will be continued. The Sg Kiluyu FR remained unaffected by fire since 2009. Field staff remained vigilant and alert all the time for this threat.</p>
2	<b>ENCROACHMENT</b>	<p>In the Social Baseline Surveys (SBS) done in 2012 a total of 23 kampungs outside the Nuluhon Trusmadi FR were enumerated. The final tally was reduced to only 18 kampungs after a special SBS done in 2013. An area totaling 2,977.62 ha were encroached by some 519 individuals from the 18 kampungs. Activities had been put on checked through continuous monitoring of these areas through ground and aerial surveillances as well as Forest Communities meetings. Sg Kiluyu FR is free from any encroachment activities. Final recommendation on these encroachments would be put up by the MPCT before the end of 2017 for approval by the Chief Conservator of Forests.</p>
3	<b>ILLEGAL POACHING OF FLORA AND FAUNA</b>	<p>Since 2009, only one (1) incidence of illegal poaching of fauna that has been apprehended at Apin-Apin, Keningau. The culprit was subsequently convicted in court. Surveillance and awareness campaign need to be continued to check on this threat. Records of animals frequenting the area have been done through the night spotting and camera trap methodologies under the supervision of a trained SFD staff. This activity would be continued. Animal surveys together with the Sabah Wildlife Department would be done if the particular Department could spare free time to do this.</p>

### THE REVISED STRATEGIES

The ultimate objective of the conservation strategies developed under this FMU10: CAMP Ver. 2 is to reduce the stresses and threats that are not only degrading but also lowering the viability

of the three (3) selected Conservation Targets. In the original approved CAMP in 2009, a total of eighteen (18) Strategies were selected. These strategies were subsequently reduced to twelve (12) under the approved Revised CAMP in 2013. By focusing on the conservation targets and their sources of threats, the previous twelve (12) strategies were further reduced to ten (10) strategies under this FMU10: Ver. 2 (Table 4).

Table 4: Responsibilities in Implementing the Strategies under FMU10: CAMP Ver. 2

NO	CONSERVATION STRATEGIES	IMPLEMENTERS
1	BOUNDARIES DEMARCATION AND MAINTENANCE	K(FRM) Assisted By DFO Keningau, Tambunan and Ranau and all field staff
2	SURVEILLANCE AND MONITORING ACTIVITIES	DFO Keningau, Tambunan and Ranau assisted by Bonaventure Yampai, Muhd Asri Muhd Shitin, Jafin Abu Bakar, Ricky Yolok and Haji Afifuddin Jadin
3	FOREST RESTORATION	DFO Keningau assisted By Jafin Abu Bakar and Anuar Mohammad
4	MANAGEMENT OF ECO TOURISM ACTIVITIES	DFO Keningau and Tambunan assisted by Haji Afifuddin Jadin and Bonaventure Yampai
5	UPGRADING AND MAINTENANCE OF RELEVANT INFRASTRUCTURES AND WEBSITE	DFO Keningau, Tambunan and Ranau assisted by Bonaventure Yampai, Muhd Asri Muhd Shitin Jafin Abu Bakar, Awangku Effendy, Haji Afifuddin Jadin
6	COMMUNITIES ENGAGEMENT	DFO Keningau and Tambunan assisted By Awangku Effendy, Jafin Abu Bakar, Marjjah Othman, Clarice Alliun, Ricky Yolok and Haji Afifuddin Jadin
7	WILDLIFES SURVEYS IN ULU ROMPON AND ULU PANGAS	DFO Keningau assisted by Sabah Wildlife Department (Keningau) and Jafin A Bakar
8	SURVEY OF HORNBILLS	Alim Biun Of Sabah Parks
9	CONSERVATION AWARENESS PROGRAMMES	DFO Keningau and Tambunan assisted by Marjjah Othman (Tambunan) and Clarice Alliun (Keningau and Muhd Asri Muhd Shitin (Ranau)
10	MANAGING SCIENTIFIC STUDY	DFO Tambunan/Keningau/Ranau assisted by Muhd Asri Muhd Shitin , Marjjah Othman and Clarice Alliun and Forest Research Centre

## HIGH CONSERVATION VALUE FOREST (HCVF)

Based on the recommendation of an Ad Hoc Team headed by Haji Mohd Nooh Jiran, the MPCT had agreed on the establishment of two (2) categories of the HCV (High Conservation Value) areas in FMU 10. The HCV areas were the **HCV 1.3: Endemism of the *Nepenthes x trusmadiensis*** and the **HCV 5: Basic Needs of Local Communities** for water source (Mohd Nooh, 2015). **Table 5** describes the two (2) categories and the location of its establishments in FMU10 respectively.

Table 5: The HCV Areas Established in FMU10

Categories	Definitaton under the HCVF Toolkit	Area Established in FMU10
HCV 1.3: ENDEMISM	“Any forest containing endemic species as identified by FRIM, MNS, SFC, Forestry Departments and published literature, particularly in high concentrations or highly restricted distribution, can be considered HCV 1.3”.	The Summit scrub, which is also a Conservation Target under the Revised CAMP for FMU10 was chosen by as the habitat that supports the endemic <i>Nepenthes x trusmadiensis</i> , a hybrid species between <i>N. lowii</i> and <i>N. macrophylla</i> . Two Temporary Plots were established for the species at the summit scrub (Mohd Nooh, 2015).
HCV 5: BASIC NEEDS OF LOCAL COMMUNITIES	“Forest area is fundamental to meeting basic needs of local communities”.	A water Intake source for the gravity water system at Sungai Kaintano for the villagers of Kg Sinua was established (Mohd Nooh, 2015)

## FOREST CERTIFICATION ANNUAL SURVEILLANCE

The FMU10, one of the areas that are managed wholly by SFD was selected for certification in 2014 under the Forest Stewardship Council's (FSC) Principle of Forest Certification. The relevant documents and guidelines for the Forest Certification were distributed and appended for further references to all field staff and implementers of the CAMP for FMU10. Another important document that details the gaps to be acted upon, resulting from an earlier Baseline Assessment done in June 2014 by a third party Assessor from the Global Forest and Trade Network (GFTN) was also distributed and appended to all staff and implementers of CAMP for FMU10. All implementers for the Revised CAMP FMU10 were made aware of their respective roles and responsibilities in acting upon the relevant gaps.

The FMU10 was subjected to rigorous auditing for Forest Certification by the Scientific Certification System (SCS) Global Services in 2015 under the Principles and Criteria of the Forest Stewardship Council (FSC), which were fully subscribed by the MPCT for FMU10 and the Sabah Forestry Department (SFD). A Forest Certification (*SCS-FM/COC-005062; FSC-*

C122511: SCS-FCP Interim Standard for Forest Management Certification in Malaysia Version 6.1) was subsequently awarded to FMU10. This Forest Certificate is valid from 11.5.2015 until 10.5.2020. Surveillance auditing by SCS Global Services to assess the compliance of the FMU10's activities to the FSC Certification's requirements will be done annually. Opening and closing meetings with the MPCT and other implementers will be done accordingly. Audit Findings will need to be taken action by the MPCT as to the requirements of FSC Forest Certification's procedures.

### MONITORING PROGRAMMES

To ensure the success of the ten (10) strategies for the FMU10:CAMP Ver.2, a number of measurements and monitoring of the conservation targets and the HCVF will need to be done. The summary of the monitoring programmes listed in **Table 6**, describes briefly the seven (7) monitoring activities to be done in measuring the conservation success of the three (3) targets for the next Ten (10) years. All Implementers are responsible to carry out the assessment of the various targets in accordance to their respective indicators, methodologies and frequencies.

**Table 6: Summary of the Monitoring Activities for the Conservation Targets under FMU10**

Item	Target	Indicator	Methodology	Frequency	Responsibility
1	UMDF	Demarcated Forest Boundaries: <ul style="list-style-type: none"> <li>• No Encroachments</li> <li>• No Illegal Timber Extractions</li> <li>• No Fire Occurrence</li> <li>• No wildlife Poaching</li> <li>• No enlargement of encroached areas by communities</li> </ul> <p style="text-align: center;"><b>Macro view</b></p>	Remote sensing Report: FMU10	Tri Annually	K(FRM) n
2		Demarcated Forest Boundaries: <ul style="list-style-type: none"> <li>• No Encroachments</li> <li>• No Illegal Timber Extractions</li> <li>• No Fire Occurrence</li> <li>• No wildlife Poaching</li> <li>• No enlargement of encroached areas by communities</li> </ul> <p style="text-align: center;"><b>Micro view</b></p>	BORANG FMU10-1 (Borang Pemantauan/ Rondaan)	Monthly Surveillance	Field Staff
3		Burnt Area Planted and Restored	Laporan Restorasi	Quarterly for Planted Acreage and Area Maintained	Field Staff

4	Growth and Yield Plots	Growth Report on the PSPs	Bi-Annually	FRC Research Team
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**Table 6: Summary of the Monitoring Activities for the Conservation Targets under FMU10 (continuation)**

Item	Target	Indicator	Methodology	Frequency	Responsibility
5	UMDF	Wildlife Surveys, HCV 1.3 and HCV 5 areas monitored	BORANG FMU10 - 3 and BORANG FMU10 - 4	Quarterly	Field Staff
6	Summit Scrub	No Poaching of Flora and Fauna	BORANG FMU10 - 2	All ascents and descents by Tourists: Monthly (Summary)	Field Staff
7	Hornbills	Population density/ Species Distributions of Hornbills	Survey Reports	After each Survey	Sabah Parks Team

These monitoring reports and Borang (Table 7) would help to advise the MPCT to make the necessary actions and amendments to meet the goals of the Conservation Targets and in managing the HCVF categories and areas.

**Table 7: The Various Monitoring Forms (Borang) and Reports for FMU10**

Item	Borang/Reports	Frequency Of Reporting	Information
1	Remote sensing Report: FMU10	Tri-Annually	Overall remote Sensing health of FMU10
2	BORANG FMU10-1	Monthly	Monthly Surveillance status of FMU10 area
3	BORANG FMU10-2	Monthly	Quarterly Status of Baggage Check
4	BORANG FMU10-3	Quarterly	Quarterly status of Wildlife Surveys
5	BORANG FMU10-4	Quarterly	Quarterly status of HCV 1.3 area
6	Growth and Yield Reports on the PSPs	Bi-Annually	Bi-annual status of planted areas
7	Laporan Restorasi	Quarterly	Quarterly status of planted areas
8	Hornbills Reports	Randomly	Status of Hornbills in FMU10

9	Minutes of Meeting	Six Monthly	Status of HCV 5 area
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### UPDATES AND ADDITIONAL INFORMATION

Any important or pertinent updates or changes such as manpower and other planning capacities or capabilities or even changes in Forest policies or other relevant policies, which are needed for mass dissemination to the public, if so required, will be taken on board in the Annual Work Plan (AWP) or in this Public Summary on the FMU10 Website. Those updates will either be regularly done or otherwise will be taken as additional notes to this Document. The relevant Chapters in the FMU10: CAMP Ver. 2 document will be quoted with regards to those required updates. If those updates are found to be totally new and not detailed in the FMU10: CAMP Ver. 2 document, new chapters will be added accordingly and they should be taken as new addendum to this Document. The MPCT for FMU10 will produce an Addendum document for approval by the Chief Conservator of Forest Sabah accordingly, if that write up has not coincided with the mid – term review period.

To ensure continuity and to avoid confusions, the tasks of monitoring and developing the subsequent changes or updating of the relevant documents and the public summaries and others in the website are assigned to Jafin Abu Bakar and Haji Afifuddin Jadin. In the event of any transfers of these two (2) officers, able replacements must be assigned to continue these tasks.

### REFERENCES

- 1) Mohd Nooh M. J. 2015. Report on the Identification and Selections of the High Value Conservation Forest Areas in FMU10 (Trusmadi Forest Reserve (Class 1) and Sg.Kiluyu Forest Reserve (Class 1). Submitted to the MPCT for FMU10. 13 pp
- 2) Rahim Sulaiman. 2009. Conservation Area Management Plan for Forest Management Unit 10 (Tambunan). Sabah Forestry Department. Volume 1. 108 pp.
- 3) Rahim Sulaiman. 2013. Revised Conservation Area Management Plan for Forest Management Unit 10 (Tambunan). Sabah Forestry Department. Volume 1. 108 pp.