

1. INTRODUCTION

The Revised Conservation Area Management Plan (CAMP) for FMU 10 (Tambunan) (hereby called Revised CAMP FMU10) has been approved by the Director of Forestry in February 2013. Altogether four (4) volumes of documents were developed under the Revised CAMP¹ by the Management Core Planning Team (MPCT) and the Resource Persons Group (RPG). The Revised CAMP FMU10 (Volume I) which covers a 10 year planning period from 2013 to 2022 is the main guiding document for the development of this FMU 10 Annual Work Plan (AWP) for 2013. The Revised CAMP FMU10 (Volume 1) contained four (4) conservation targets to be managed and four (4) threats to be addressed. A total of twelve (12) conservation strategies are formulated to abate or reduce the four (4) threats.

This AWP describes the 12 strategies together with the corresponding 23 strategic actions and 12 monitoring activities in measuring the success of abetting the threats and their implementation schedule in 2013. It also specifies on the deployment of the current manpower, budgets and Equipments for all implementers both from the Sabah Forestry Department (SFD) and the other relevant Departmental Partners. This AWP therefore is the guiding document for the field implementers in carrying out their respective duties and responsibilities in conserving and assessing the success or impact of the conservation efforts as prescribed by the approved CAMP in 2013.

¹ The Revised CAMP Volume 1 (Conservation Targets, Threats, Capacity and Strategies) is the main document that describes and summarizes the conservation planning approaches, targets, strategies, annual actions and the monitoring plans, as well as the estimated budget for FMU 10. The other three (3) volumes of CAMP particularly Volume 2 (Relevant Planning Appendices and Budgetary Proposals), Volume 3 (Guidelines, Relevant Legislations and Policies: Part I: Guidelines on Climbing Mount Trus Madi; Part II: Guidelines for Managing Ecotourism Development in FMU 10 Part III: Guidelines, Relevant Legislations and Policies in Managing FMU 10 as a Forest Conservation Area) and Volume 4 Part I: (Guidelines, Relevant Legislations and Standard Operating Procedures (SOP) for the Management Activities for FMU10) Part II: (Guidelines and Relevant Documents for Forest Certification Initiative), are the supporting documents for the field implementers of FMU 10.

2. FMU 10 (TAMBUNAN)

Since August 2010, the Trus Madi Forest Reserve (TMFR) with a total area of 74,736 ha was re-gazetted as a Class I Forest Reserve by the Sabah State Assembly. A newly established Class I Forest Reserve, Sg Kiluyu Forest Reserve (SKFR) measuring 1,065 ha, was subsequently included as part of the FMU 10 areas. Thus, the total area, known as FMU 10 (Tambunan) is now 75,801 ha.

The FMU 10 is bordered by three (3) state administrative district and a sub-district as well as three (3) forestry districts, namely, Tambunan on the west, Keningau on the south, and Ranau on the north and Sook on the east. Out of the total area of 75,801 ha, the Keningau Forestry District administered 47,772 ha of the area, while the remaining 28,029 ha are within the Tambunan Forestry District's jurisdiction.

2.1 Management Zones

Altogether seven (7) Management Zones had been identified for FMU 10 to cater for the different usage and management prescriptions for the conservations of the four (4) identified targets (**Table 1**). Six (6) of these zones are in the FMU 10 area, and one (1) management zone is outside of the FMU 10 area. The Management Zones identified in FMU 10 are as follows:

Table 1: Management Zones in FMU 10

Zone 1:	Conservation Area covering all intact Upland Mixed Dipterocarp Forest (UMDF) and Lower Montane Forest (LMF) vegetations with an approximate area of 42,000 ha.
Zone 2:	Aquatic Protection Area that include all water bodies (rivers and streams) and their buffer zones. This zone may cover an approximate area of 4,000 ha.
Zone 3:	Forest Rehabilitation Area covering an approximate area of 22,000 ha of largely burnt and encroached areas.
Zone 4:	Controlled Hunting Area that extends over some 6,000 ha in the Ulu Monsok and Ulu Rompon area (denoted as H compartments in the map) (some areas may be included as rehabilitation areas)
Zone 5:	Eco tourism Area covering the climbing trails that extends not more than 4.9 km of climbing distance to the peak of Mount Trus Madi. It may cover an estimated area of 1,000 ha.
Zone 6:	Adventure Tourism Area operated by Borneo Jungle Area under an Occupational Permit (OP) covering an area of less than 10.63 ha.
Zone 7:	Community Woodlots Area on a state land area on the north west outside FMU 10 that may extend not more than 4,000 ha to be gazetted under the Land Ordinance 1968.

2.2 Objectives

The FMU 10 has been deliberately delineated as a Forest Conservation Area to allow for the achievement of certain goals in conserving the four (4) conservation targets (**Table 2**). Encroachment, commercial timber harvesting or large scale collections of any terrestrial and aquatic flora and fauna from this FMU are strictly prohibited.

In accordance to the conservation targets goals set above and the management zones prescribed for FMU 10, the following objectives are set for 2013:

- I) Non - destructive usage such as scientific biodiversity expedition, conservation awareness and small scale controlled/licenced flora and fauna collections in the Management Zone 1.
- II) Prohibition of any fishing, riverine or aquatic collections, except for scientific biodiversity expedition or conservation awareness purposes in Management Zone 2.
- III) Rehabilitation of encroached and fire degraded areas with native species in Management Zone 3.
- IV) Construction and upgrading of necessary infrastructures such as roads, buildings, car park, checkpoint, resting facilities and nursery in Management Zones 1, 3, 4, 5 and 6 that will allow for conservation, controlled hunting, ecotourism including mountain climbing and surveillance activities to be conducted or enhanced.
- V) Physical demarcation of the remaining forest boundaries at Part C of TMFR and the whole of SKFR as well as the maintenance of these boundaries to ensure proper surveillance and prosecutions of offenders as prescribed under the Forest Enactment 1968 as well as the Wildlife Conservation Enactment 1997 could be conducted in FMU 10.
- VI) Allowing for limited non-conservation usage, namely:
 - Ecotourism, adventure tourism and mountain climbing in Management zones 5 and 6.

- Surveying and the setting up of controlled hunting area in Management Zone 4.
- Surveying and the setting up of community woodlots area in Management Zone 7.

Table 2: Conservation Targets and Goals

Conservation Targets	Conservation Goals
Upland Mixed Dipterocarp Forest (UMDF)	Restoration of fire degraded and encroached areas with native species
	To ensure zero fire, encroachments, poaching, and illegal timber extraction occurrence in the habitat by 2011
Summit Scrub (SS)	To ensure minimal Impact from active Eco-Tourism activities at the Summit from the Three (3) Climbing Routes
Hornbills	Determination of the group's distribution and identification of the dominant species by 2018
Rajah Brooke's Birdwing (<i>Troides brookiana brookiana</i> Wallace)	Determination of the species' distribution and habitat by 2018

3. OPERATIONAL STRUCTURE AND BUDGET

3.1 Operational Responsibilities

The approved Revised CAMP recommended the prolong involvement of the MPCT and RPG in implementing the 12 strategies. Similarly to the revision of the earlier CAMP, Deputy Director (Management) Rahim Sulaiman is given the task to coordinate and facilitate the compilation of this AWP, in accordance to his additional task as the Chief Implementer/ Chairman for the MPCT for CAMP FMU 10.

The main field implementers of the CAMP in 2013 are the District Forestry Officers (DFO) of Tambunan and Keningau. In addition to their current assigned staff, they are assisted by the other departmental implementers, namely, the Sabah Wildlife Department (SWD) Keningau office, the Sabah Parks (SP), the relevant research officers from FRC and professional foresters from the Sandakan forestry headquarters and the FMU10 Operational Office. **Figure 1** describes the Organisational Structure in implementing this Revised CAMP. **Table 3** summarises the personnel's assigned to implement the various strategies in 2013.

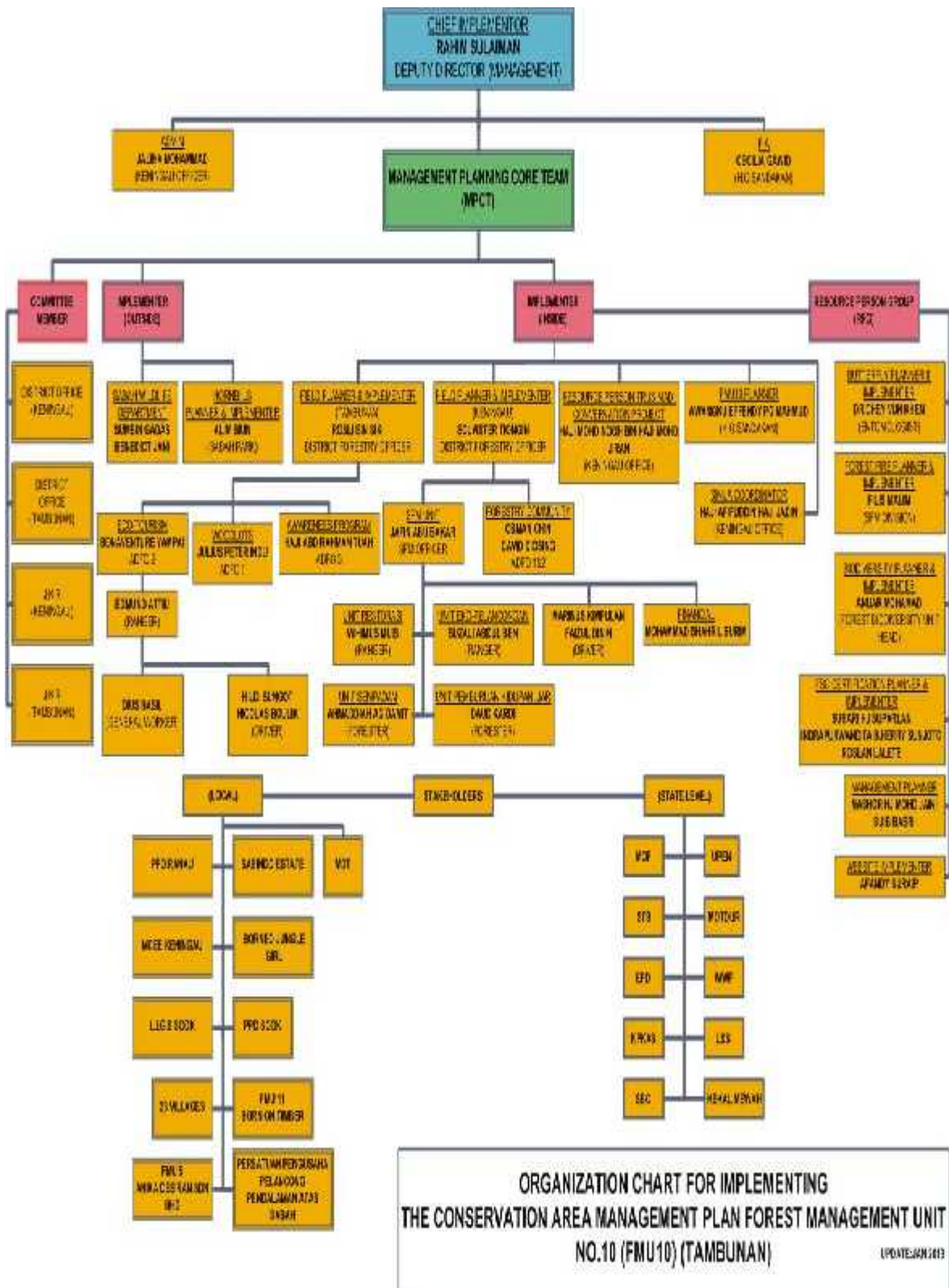


Figure 1: Organisational Structure for Implementing the Revised CAMP FMU10

Table 3: Responsibilities in Implementing the Revised Conservation Strategies for FMU 10

No	CONSERVATION STRATEGIES	IMPLEMENTERS
1	Boundaries Demarcation And Maintenance	K(FRM) Of Headquarters Assisted By DFO Keningau And Tambunan
2	Conduct Surveillance Activities	DFO Keningau And Tambunan Assisted By ADFO Tambunan Bonaventure Yampai, Haji Abdul Rahman Tuah, SFMO Jafin A Bakar And SFC Haji Afifuddin Jadin
3	Forest Restoration	DD (MGT) And DFO Keningau Assisted By SFMO Jafin Abu Bakar and FMU10PO Awangku Effendy
4	Formulate Suitable Visitation Mechanism And Flora/Fauna Collection Procedures	Committee Headed By DD (MGT) Assisted By SFC Haji Afifuddin Jadin
5	Upgrading And Maintenance Of Relevant Infrastructure	DFO Keningau And Tambunan Assisted By Bonaventure Yampai From DFO Office Tambunan, FMU10PO Awangku Effendy And SFC Haji Afifuddin Jadin
6	Implement Relevant Community Forestry Activities	DFO Keningau And Tambunan Assisted By Ricky Martin And Abdul Rahman Lamat Of Headquarters, FMU10PO Awangku Effendy And SFC Haji Afifuddin Jadin
7	Develop And Implement Controlled Hunting Plan In Ulu Rompon And Ulu Pangas	DFO Keningau assisted by Sabah Wildlife Department (Keningau) and SFMO Jafin A Bakar
8	Establish Community Woodlots In Stateland Area Near Kg. Kaingaran In Tambunan Adjoining FMU 10 Area	DFO Tambunan Assisted By Haji Mohd Nooh Jiran (Resource Person) And ADFO Tambunan Julius P Indu
9	Understanding Of The Target Species Through: A) Inventory Of Hornbills By 2018 B) Inventory Of Rajah Brooke And Their Host Plants By 2018	Alim Biun Of Sabah Parks And Dr Chey Vun Khen of FRC Sepilok
10	Implement Relevant Conservation Awareness Programmes Including Website Maintenance	DFO Keningau And Tambunan Assisted By Haji Abdul Rahman Tuah Of DFO Office Tambunan And Afendy Suraip Of FRC Sepilok
11	Scientific/Biodiversity Study	Teams Assembled By Anuar Hj Mohd Of FRC Sepilok
12	Collaborate With Adjacent Landowners At Relevant Boundaries Of FMU 10	DFO Keningau And Tambunan Assisted By SFC Haji Afifuddin Jadin

3.1.1 Existing Manpower under SFD

The total available manpower under SFD is 33 personnel. However, only 20 personnel are considered working fulltime in implementing the CAMP. The other 13 personnel are part time active implementers of the CAMP. **Table 4** summaries the manpower involved in implementing the CAMP under SFD.

Table 4: Summary of Current Manpower for CAMP Operation provided by SFD

No	Designation	Personal	Grade	Status	Total
1	Deputy Director (Management) (DD) MGT	Rahim Sulaiman	Q54	P	1
2	Senior Research Officer (SRO)	Dr. Chey Vun Khen Anuar Mohd	Q54	P	2
3	Senior Assistant Conservator of Forests (SACF)	Mashur Haji Zaini Pilis Malim	G48	P	2
4	Assistant Conservator of Forests (ACF)	Hj Mohd Nooh Mohd Jiran* (Resource Person) Solvister Tiongin* (DFO Keningau) Rosli Siki* (DFO Tambunan) Henry Ladsou (DFO Sook) Jafin A Bakar* (SFMO) AgKu Affendi Pg Mahmud (FMU10PO)* Hj Afifuddin Jadin (SFC)*	G41	P	7
5	Assistant DFO Tambunan (ADFO I)	Julius P Indu Suib Basri	G32	P	1
6	Assistant DFO Tambunan (ADFO III)	Bonaventure Yampai * Hj Abdul Rahman Awang Tuah*	G27	P	1
7	Forest Fire Officer Keningau	Vitalis I. Malangig	G27	P	1
8	Renjer Hutan (RH)	Wihimos Muis (Kngu)* Suzali Abd Ben(Kngu)*	G17	P	2
9	Pengawas Hutan Kanan (PHK)	Daud Kardi(Kngu)*	G	P	1
10	Pengawas Hutan	Edmund Attiu(Tambunan)* Ahmahdiah Awg Damit (Kngu)*	G	P	2
11	Research Assistant	Nasrah Yusof	Q17	P	1
12	Clerk (Account)	Sharil Surim*	W17	P	1
13	Driver	Faizul Dinin (Kngu)* Marinus Kimpalan (Kngu)* Hildi Sungot (Tambunan)* Nicholas Batulik (Tambunan)*	R3	T	4
15	PRA	Dius Basil (Tambunan)* Wasinin Wasi (Keningau)* Fred Abdullah (Keningau)*	R1	T	3
16	PRA from FRC	-	R1	T	4
Note: A – Acting; P – Permanent;		T-Temporary * - Working Full time on CAMP FMU 10 (20 personnel)		Total	33

3.1.2 Manpower outside SFD

A total of 9 personnel are available from the various government agencies (**Table 5**). The agencies involved are the Sabah Wildlife Department (SWD), Sabah Parks (SP), Computer Services Department (JPKN), Public Works Department (PWD) and the District Office Keningau and Tambunan. Except for the SWD, most of these staffs however are not working fulltime in implementing the CAMP. Their involvements are only in the relevant strategies which require their respective expertise.

Table 5: Summary of Manpower for CAMP Operation provided by other MPCT Partners

Agency	No of Personal	Total
Sabah Wildlife Department	3	3
Sabah Parks	4	4
District Office		
• Tambunan	1	1
• Keningau	1	1
TOTAL		9

3.1.3 Existing vehicles under SFD

Table 6 describes the existing fourteen (14) vehicles for the CAMP implementation, comprising of twelve (12) Motor Vehicles and two (2) Motorcycles.

Table 6: Vehicles Available for use for CAMP FMU 10 in 2013

Item	Vehicles	Unit	Registration Number	Utilisation Age (yr)	Assigned To
1	Toyota Fortuner	3	<ul style="list-style-type: none"> • SAA 2008R • SAA5139N • SAA5140N 	7 8 8	DD (MGT) DFO Keningau DFO Tambunan
2	Toyota Double Cab	9	<ul style="list-style-type: none"> • SAB3930A • SAB3927A • SAB3934A • SAB3937A • SAB3924A • SB3974B • SB3965B • SB6308B • SB6309B 	4 4 4 4 4 2 2 1 1	DFO Tambunan Office DFO Keningau Office DFO Tambunan Office DFO Tambunan Office DFO Tambunan Office FMU10 Operational Office FMU10 Operational Office DFO Keningau Office DFO Keningau Office
3	Motorcycle	2	<ul style="list-style-type: none"> • SAB8661G • SAB8659G 	2 2	DFO Keningau Office
	Total	14			

3.1.4 Maintenance Costs of Vehicles

The estimated cost for vehicles maintenance is expected to be **RM 366,250**. **Table 7, 7.1** and **7.2** describes the estimated maintenance costs for 2013 for all the vehicles.

Table 7: Estimated cost for maintenance of Fortuner vehicles

No	Item	Frequencies/yr	Quantity Per vehicle	Unit of vehicle	Unit Cost (RM)	Total Cost (RM)
1	Diesel	300 working days	15 litres/day	3	2.50	33,750
2	General services	30,000 km/yr	5 services/yr	3	600/service	9,000
3	Tyres	2 tyre change/year	8 tyres/year	3	400/tyre	9,600
4	Miscellaneous parts and maintenance	as required	-	3	5,000.00	15,000
					TOTAL	67,350

Table 7.1: Estimated cost for maintenance of Double Cab vehicles

No	Item	Frequencies/yr	Quantity Per vehicle	Unit of vehicle	Unit Cost (RM)	Total Cost (RM)
1	Diesel	300 working days	30 litres/day	7	2.50	157,500
2	General services	50,000 km/yr	7 services/yr	7	600/service	29,400
3	Tyres	3 tyre change/year	12 tyres/year	7	400/tyre	9,600
4	Miscellaneous parts and maintenance	as required	-	7	10,000.00	70,000
					TOTAL	225,900

Table 7.2: Estimated cost for maintenance of new vehicles

No	Item	Frequencies/yr	Quantity Per vehicle	Unit of vehicle	Unit Cost (RM)	Total Cost (RM)
1	Diesel	300 working days	30 litres/day	2	2.50	45,000
2	General services	50,000 km/yr	7 services/yr	2	600/service	8,400
3	Tyres	3 tyre change/year	12 tyres/year	2	400/tyre	9,600
4	Miscellaneous parts and maintenance	as required	-	2	5,000.00	10,000
					TOTAL	73,000

3.2 Budgets for 2013

Table 8 describes the budgets and their sources as well as the amount approved for CAMP FMU 10 in 2013. At the time of writing, not all of the warrants for the actual expenditure have been received yet.

All seven (7) budgets are utilised to implement the 12 strategies in 2009, with Forest Restoration and upgrading of facilities getting the major share and focus. The first three (3) budgets have no time limitation in their spending and could be brought forward for usage in the following year. The next four (4) budgets however need to be spent within 2013. All implementers are advised to manage the budget prudently, in view of the limited usage allowed under the various budgets. Payment of allowances to the other departmental partners in implementing their relevant strategies in 2013 will be done using the K75 budget.

Table 8: Budget Available for CAMP FMU 10 in 2013

Item	Budget Approved	Balance Amount Jan 2103(RM)	Source of Fund
1	Implementing CAMP Strategies for FMU 10, TMFR (ICFMU10) 2008 K75	776,076.30	Forest Rehabilitation Fund
2	Restoration of TMFR, Keningau Forestry District (RTMFR1) 2008	90,056	Forest Rehabilitation Fund
3	Restoration of TMFR, Keningau Forestry District (RTMFR2) 2012	220,000	Forest Rehabilitation Fund
4	Upgrading Facilities for FMU10 (UFFMU10)	2,626,173.12*	10 th Malaysia Plan (Federal: MOTOURL)
5	Rehabilitation of Burnt Areas in FMU10 (RBAFMU10)	487,500	10 th Malaysia Plan (STATE)
6	Implementation of FMU 10 Strategies	1,715.20	10 th Malaysia Plan (Federal: NRE)
7	Heart of Borneo (HoB)	96,000	10 th Malaysia Plan
	TOTAL	4,297,520.62	

3.3 Forest Certification

All implementers had been briefed and informed of their respective assignments in filling up the Gaps as identified by the SCS Baseline Assessment (Volume 4: Part 1 of the Revised CAMP for FMU10). This Report will need to be prepared by the end of April 2013 with regards to the relevant actions undertaken to close all the 27 gaps. SFD has been given a deadline ranging from 2013 to 2018 to close all these 27 gaps. The preparation of the EIA on Forest Restorations and Eco-tourism activities will be done by FRC. It is expected to be completed by July 2013. A draft of the TOR of the EIA has been prepared in March 2013.

It is anticipated that a Pre - Assessment will be done by GFTN Malaysia (accredited Certifying Body) in May 2013. Analysis of this Pre – Assessment will be done by GFTN immediately, to determine whether a full scale Assessment of FMU10 for Forest Conservation Certification could be done before the end of 2013. A secretariat has been established for coordinating the relevant activities and reporting of the activities under this Forest Conservation Initiatives for FMU10. It is headed by Haji Mohd Nooh Jiran and assisted by Haji Afifuddin Jadin. Subari Suparlan of SFM's office has been appointed as the Resource Person to help the MPCT of FMU10 in this agenda. Coordination at the headquarters level will be done by Osman Bangkong, assisted by Amelia E. Bosi. All expenditures for this activities will be borne by WWF Malaysia.

4. STRATEGIES IMPLEMENTATION IN 2013

All of the 12 strategies and 23 strategic actions will be implemented in 2013 under the Revised CAMP for FMU10. The summary of the Strategies and strategic actions for implementation in 2013 and their respective expenditures are described in **Appendix 1**. The Monitoring of the Conservation Targets are describes in **Appendix 2**. The details of each strategy are as follows:

4.1 Strategy 1: Boundary Demarcation and Maintenance

The Forest Resource Management (FRM) Division of Headquarters is assigned to carry out this task. The initial assessment made in 2009 of the outer boundary of the Trus Madi Forest Reserve by the Division revealed a total length of 136,400 meters (m) to be surveyed for demarcation on the ground. For practical reason, the total length of the boundaries was divided into three (3) parts namely Part A (54,800 m), party B (51,500 m) and finally Part C (35,500 m).

As of December 2009, both Part A (Kg. Tiwag to Kg. Ulu Monsok) and Part B (Kg. Ulu Monsok to Kg. Batu Lunguyan) were successfully surveyed and demarcated on the ground. The total perimeter boundary surveyed was 106,300 m with the total cost of RM 379,491. The usual SFD Plates were also installed at a 20 m interval along these demarcated boundaries. This activity was funded under the 9th Malaysia Plan Project of the FRM Division.

Due to the unavailability of fund, survey and demarcation work for Part C (Kg. Batu Lunguyan to Kg. Sinsuron) was not done in 2010 and 2011. Similarly, due to funding constraints in 2010 and 2011, only some portions of the boundaries, namely Part A were maintained and erected with SFD Plates.

A Contract for the survey of Part C of the Trus Madi Forest Reserve was finally executed between SFD and Jurukur Swasta, Kota Kinabalu, via Contract NO: **JP/SN/PPA-FMU10/PSHS/01/2012** on the 5th of March 2012. The cost of the work was RM 169,335 to be borne under D11 (Pemuliharaan Hutan). The said survey was supposed to be completed over 48 weeks. However, due to some unavoidable circumstances, the survey was put on hold until further notice, through the Director's Circular **JPHTN/PP 100-4/1/KLT.55/105** dated 10th August 2012. Some 17,803 m was however completed before the stalling of the activity.

In May 2012, a tender was called to appoint a registered and reliable surveyor company to survey and demarcate the boundaries of Sg. Kiluyu Forest Reserve, which has been included as part of FMU10. A Contract was duly executed between SFD and Jurukur Swasta of Kota Kinabalu for the survey of 19,900 m of Sg Kiluyu Boundaries on the 6th August 2012, via Contract NO. **JP/SP/PPA-FMU10/PSHS/02/2012**. The work was scheduled to be completed within 48 weeks. However up to the end of 2012, work has yet to begin. The cost of this survey is RM94, 923 to be borne under the HoB Fund.

4.1.1 Activities in 2013

The boundary survey for Part C of Trus Madi Forest Reserve and Sg Kiluyu Forest Reserve hopefully could be completed in 2013. To ensure a proper maintenance of the existing boundaries of 177,300 m for Trus Madi Forest Reserve, qualified contractors will be appointed through the normal tendering procedure. This activity will be headed by K (FRM) of Headquarters. A total sum of RM147, 750 (RM 5.00/m) is envisaged to be spent within 2013 to engage contractors to carry out the relevant maintenance works including the installation of SFD signboards in the required areas. If funds could not be procured under the NRE, works may have to be stalled.

4.2 Strategy 2: Conduct Surveillance Activities

This strategy is entrusted to ADFO Bonaventure Yampai and Haji Abdul Rahman Tuah for the Tambunan area, SFMO Jafin A. Bakar for the Apin – Apin area and SFC Haji Afiffudin Jadin for the Sinua area. Field staffs from Tambunan and Keningau would be doing the ground patrolling.

For management purposes, the FMU 10 is divided into four (4) Mukims under both the Tambunan and Keningau Forestry Districts. The Mukims are Kirokot, Toboh and Lintuhun in Tambunan and Mukim Apin –Apin (Unit SFM Keningau). There are three (3) main access Roads to the Trus Madi Forest Reserve via the Tambunan-Kaingaran (Tambunan) through, Kepayan – Apin - Apin (Keningau) and Sinua (Sook, Keningau). There is no access road yet to Sg Kiluyu Forest Reserve. A 24 hours manned gated entrance and checking stations are constructed at both the Kaingaran and Apin-Apin roads. Therefore, strict checking and entrance enforcement is done for both stations.

The Sinua entrance has not been accorded a gated entrance and checking station due to the lack of staff and funding. However, this station is still safe from unwanted trespassers as the Villagers of Kg Sinua acted as the “custodians” on behalf of SFD. This was done through a well organised collaboration with the kampung folks under the Sinua Ecotourism Management Committee. Constant and active communications between the Sinua representatives (Laimin Dadau and Denis Ikon) and the Sinua Field Officer (SFC) Haji Afifuddin Jadin is done. Some members of the communities who had been trained by SFD will be recommended to be appointed as Honorary Rangers in 2013. Apart from being surveillance ranger for SFD, their other main tasks would be as Tourist Guides and Porters for the climbing activities through the Sinua route.

Both ground patrolling and aerial surveillance were done since 2009. Six (6) vehicles (4 Wheel Drive) were fully utilised by the field and the CAMP FMU10 Operational Office for the ground patrolling activities on a weekly basis. Helicopter from Sabah Air Sdn Bhd was rented for the aerial surveillance. A total of eleven (11) aerial surveillances were done from 2009 until 2012. As of the end of 2012, two (2) cases of encroachment and two (2) cases of poaching were apprehended and put under

control by the Keningau Forestry District. Infrastructures were demolished at the encroached area, while the poaching cases were duly prosecuted with the help of the SWD, Keningau

4.2.1 Activities in 2013

Both ground patrol and aerial surveillance which had proven to be effective in policing FMU10. A similar approach will be utilised in 2013. A reporting form (Borang Pemantauan FMU10) will be used to record and log all ground patrols and aerial surveillances in 2013. Payments of allowances, estimated at RM100, 000 and helicopters' flight will be borne under D11 and K75 budgets respectively. The yearly budget (S16) will also be utilised for allowance payments if necessary.

4.3 Forest Restoration

The objective of this strategy is to restore some 22,000 ha of burnt and degraded areas with indigenous species only. This area covers about 29 % of the FMU 10 total area. Three (3) sources of funding will be used in 2013. DD (MGT) Rahim Sulaiman is the main implementer under the RBAFMU10 budget. The DFO Keningau is the implementer for the RTMFR1 and RTMFR2 funding. SFMO Jafin A. Bakar and FMU10PO Awangku Effendi Pg Mahmud are the field supervisors for both activities.

The Ministry of Finance (MOF) Sabah approved the appointment of two (2) planting contractors for the restoration works in early 2009. The two (2) Companies chosen were Green Environmental Consult and Avitrade Plantation Sdn Bhd. The details of their contracts and the locations of the planting compartments are described in **Table 9**.

Table 9: Planting Contracts Approved by MOF Sabah for FMU 10

Name of Company	Contact No and Total Cost	Area Approved by MOF and Funding Source	Validity of Contract	Compartments Allocated for Contract Work
Avitrade Plantation Sdn Bhd	JP/TM-KGU/01/09 RM2,460,000	700 ha RFSTATE	13/08/2009 – 12/08/2010	R15, R17, R18, R23, R24A, R24B .R25A and R25B
Green Environmental Consult	JP/TM-KGU/02/09 RM592,000.00	160 ha RFTPH	19/09/2009 – 18/09/2011	R16 and R19

Avitrade Plantation Sdn Bhd	JP/TTN/TP(MGT) - D11/01/2011 RM1,938,000	300 ha (Planting) + 700 ha (maintenance) RFSTATE	19/09/2011 – 18/09/2013	R13A, R13B, R19B and R20 (Planting) R15, R17, R18, R23, R24A, R24B,R25A and R25B (Maintenance)
TOTAL	RM 4,990,000	Area Planted: 1,160 ha		

A total area of 1,000 ha had been planted by Avitrade Plantation Sdn Bhd by the end of 2011. The planted areas are located in Compartment R13A, R13B, R15, R17, R18, R19B, R20, R23, R24 and R25 (**Fig 2 and 3**). This contract is still on going until 18 September 2013. On the other hand Green Environmental Consult concentrated its 160 ha planting in compartment R16 & R19A until the end of 2011 (**Fig 4**).

Since 2009, a total area of 1,160 ha had been reforested in FMU10 (**Table 10**). A total of ten (10) indigenous species were planted. The species are Bangkal, Binuang Kapur, Kembang Semangkok, Keruing, Laran, Selangan Batu, Seraya Putih, Seraya Bukit and Seraya Spp. A total of 310, 568 trees were planted in the 12 compartments.

Table 10: Annual Plantings in Trus Madi Forest Reserve

Compartment Number	Area (Ha)	Number of planted trees	Species Planted (Local names)	Year Planted
Block A (CPT 16 &19)	51.90	14,000	Seraya Putih, Kembang Semangkok, Laran, Binuang, Kapur, Selangan Batu	2009
24A	130	37,180	Keruing, Bangkal, Seraya spp, Kapur, Selangan Batu, Laran, Binuang	2009
24B	70	20,020	Keruing, Bangkal, Seraya spp, Kapur, Selangan Batu, Laran, Binuang	2009
23	50	14,300	Keruing, Bangkal, Seraya Bukit, Kapur, Selangan Batu, Laran, Binuang	2009
25A	150	42,900	Keruing, Bangkal, Seraya Bukit, Kapur, Selangan Batu, Laran, Binuang	2009
Block B (CPT 16 &19)	51.90	14,000	Seraya Putih, Kembang Semangkok, Laran, Binuang, Kapur, Selangan Batu	2010
Block C (CPT 16 &19)	56.19	14,000	Seraya Putih, Kembang Semangkok, Laran, Binuang,	2010
25B	50	14,300	Laran, Binuang, Bangkal	2010

18	65	18,590	Bangkal, Seraya spp, Kapur, Selangan Batu, Laran, Binuang	2010
17	70	20,020	Bangkal, Seraya spp, Kapur, Selangan Batu, Laran, Binuang	2010
15	115	32,890	Bangkal, Seraya spp, Kapur, Selangan Batu, Laran, Binuang	2010
19B	50	13,156	Seraya spp, Kapur, Selangan Batu,	2011
13A	50	14,300	Seraya spp, Kapur, Selangan Batu,	2011
13B	100	28,600	Seraya spp, Kapur, Selangan Batu,	2011
20	100	26,312	Seraya spp, Kapur, Selangan Batu,	2011
	1,160	310,568	(10 Indigenous Species)	

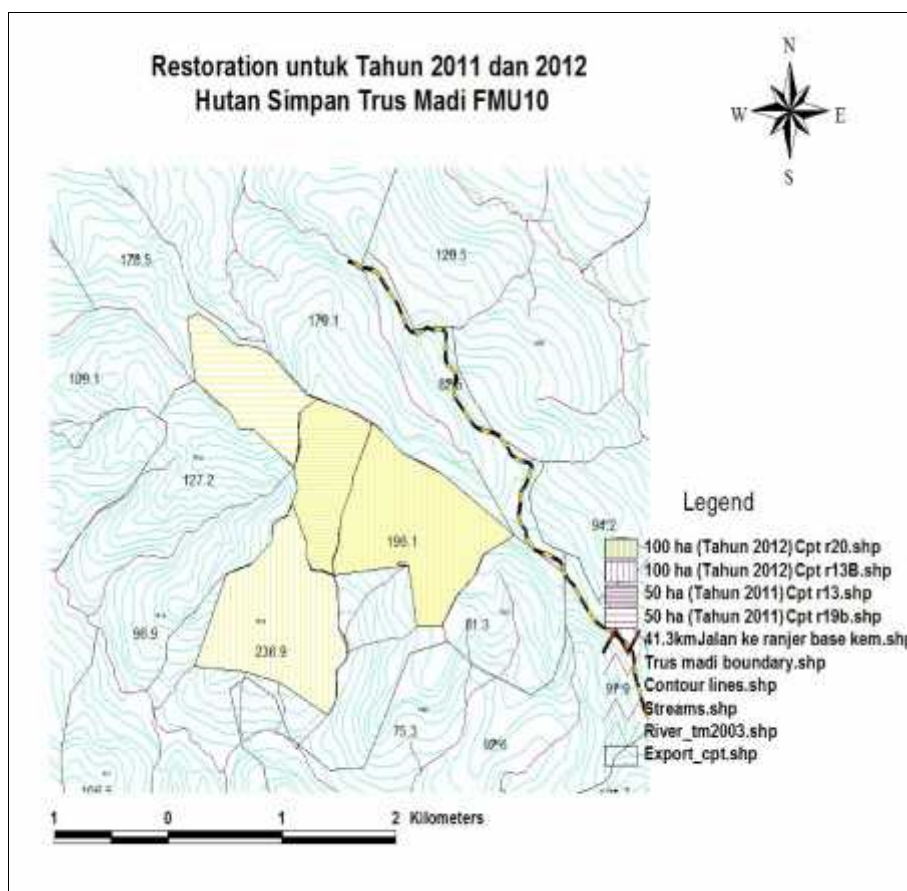


Figure 2: Location of the planted area in 2011 and 2012 by Avitrade Plantation Sdn Bhd

4.3.1 Update on Yield Plots Establishment

A number of yield plots were established by FRC in 2010. These are in Compartment R15, R18 and R24. Until the end of 2012, three (3) survival assessments were done on the planted seedlings, ranging from 4 months until year 3. A total of 1,400 of four

(4) months old Kapur and Bangkal planting at the Block A R24 were assessed for growth and mortality in early March 2010. The enumeration indicated a high percentage of survival of the plantings at 80%. A second enumeration was done on a one (1) year plantings at R15, R18 and R24 plots. A total of 450 plantings were assessed for growth and mortality. The result indicated a higher mortality rate than the previous assessment at 30%. This means that the survival rate for those plantings was at 70%. The latest assessment on the same plots done on a 3 year plantings indicated an average survival rates ranging from 65 – 70 %.

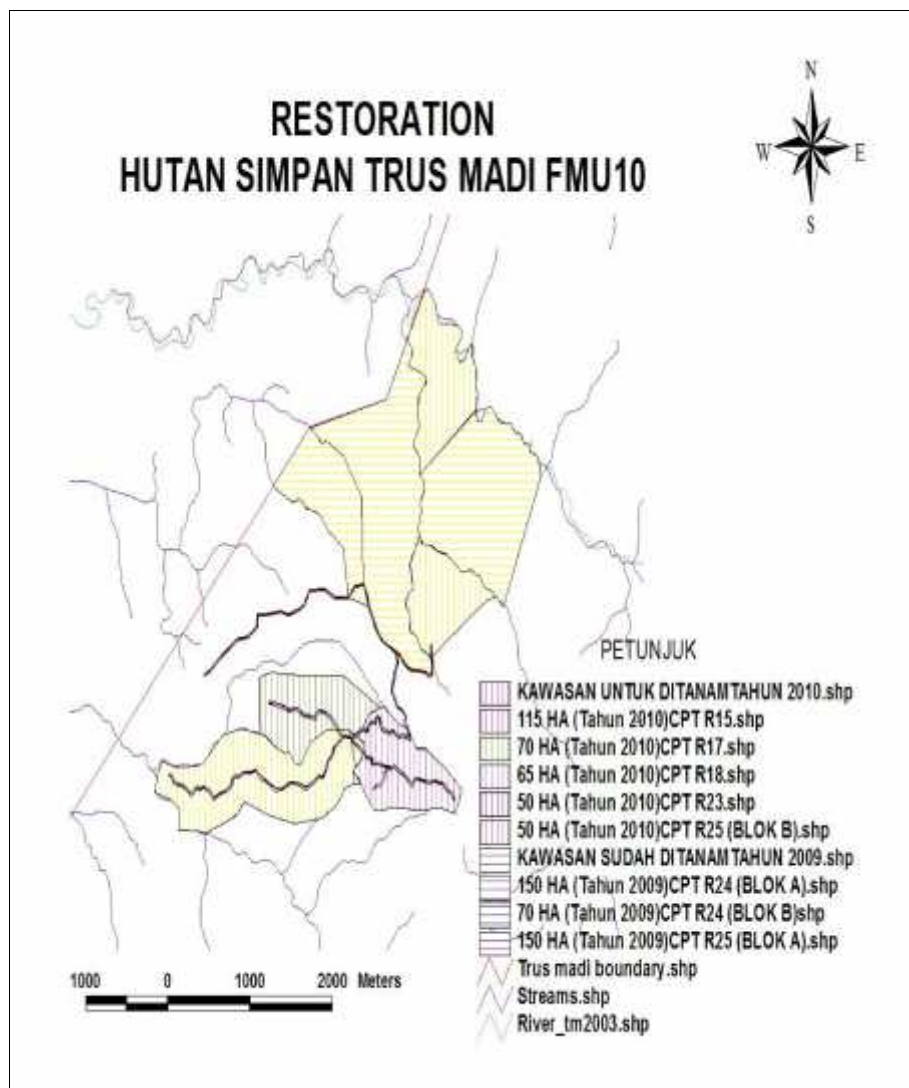


Figure 3: Location of the areas planted in 2009 and 2010 that were Maintained in 2011 and 2012 by Avitrade Plantation Sdn Bhd

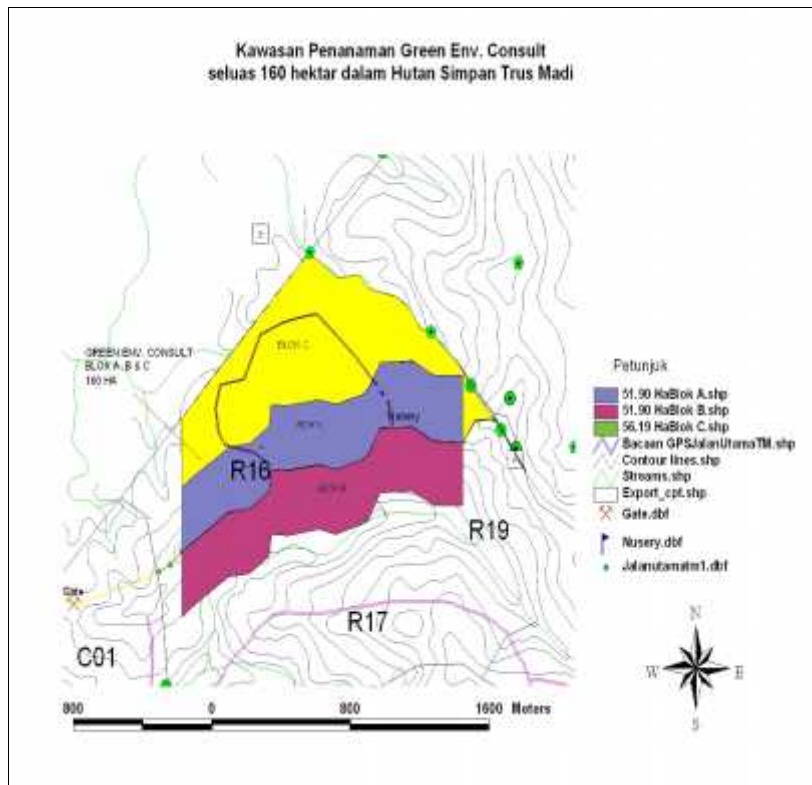


Figure 4: Location of the planted Area Contracted to Green Environmental Consult in 2010 and 2011 that were maintained in 2012

4.3.2 Activities in 2013

As mentioned earlier, this strategy would be headed by both DD (MGT) Rahim Sulaiman and the DFO of Keningau. They will be assisted by SFMO Jafin Abu Bakar and FMU10PO Awangku Affendy Pg Mahmud.

The maintenance of earlier plantings done in since 2009 would be continued in 2013. The total cost for the three (3) maintenance activities is estimated at RM 763, 200 (**Table 11**). An annual planting target of 200 ha has also been set in 2013 (**Fig 5**). This will incur an additional funding of RM 854,000. A total cost of RM 1,617,200 is therefore envisaged to be spent in 2013 for the forest restoration works. FRC would continue to monitor the yield plots in FMU10 using their own expenditure.

At the time of writing the actual sum allocated for this activity is only RM 487,500. It will not be able to cover the envisaged costs. Otherwise adjustments would need to be done by asking for the balance of the approved ceiling of the budget.

Table 11: Maintenance Schedules for the Planted Areas in FMU 10 in 2013

Area Planted (Ha)	Year Planted	2013	2013
		Maintenance Of Planted Area	Cost Of Maintenance
160	2009-2010	X	115.2
700	2009-2010	X	378
300	2011-2012	X	270
1,160	TOTAL	3X	763.2

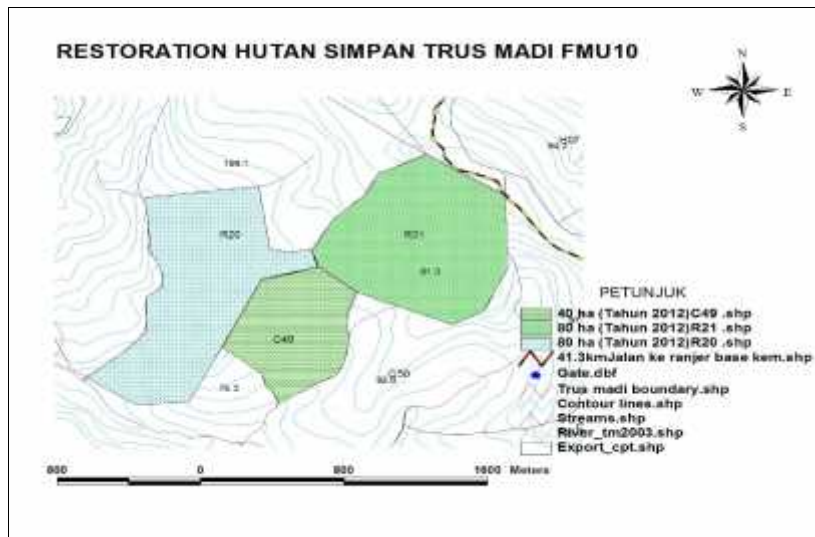


Figure 5: Locations of the Proposed 200 ha Plantings in 2013

4.4 Strategy 4: Formulate Suitable Visitation, Flora and Fauna Collections Procedure

The Non - destructive activities currently allowed in FMU10 since 2009 are adventure tourism, Insect collection and Mountain climbing. One (1) Occupational Permit (OP) is issued to Borneo Jungle Girl (BJG) to operate its adventure Tourism activities located at KM 18 from the Apin –Apin Forestry Checkpoint. A fauna collection License is currently issued to Chewi Entomological Services to collect Insects from FMU10. Mountain climbing is managed under both the Tambunan and Keningau Forestry Office. Prior to any implementations on the ground, all eco-tourism related

activities including mountain climbing as well as any collections activities and their Guidelines need the approval of the Director of Forestry.

The main objective of this strategy is to recommend to the Director all appropriate Guidelines and procedures as well as amendments for orderly visitation and fauna and flora collections. The MPCT decided to uphold the two (2) previous Committee Structures and Term of References (TOR) under the previous CAMP. However, they are now merged into a single Committee under DD (MGT) Rahim Sulaiman (**Table 12**). The Pusat Biodiversiti Sabah is represented by Dr. Abdul Fatah Amir in the committee. Appointment letters will be issued by the Director of Forestry. Meetings will be conducted on a quarterly basis. However should there be any matters of urgency to be handled the committee will convened to make recommendations to the Director of Forestry for his decisions.

Table 12: Composition of the Visitations and Collection Committee for FMU10

No	Personal	Responsibility
1	DD (MGT) Rahim Sulaiman	Chairman
2	SFC Haji Afifuddin Jadin	Secretary
3	DFO Keningau Solvister Tiongjin	Member
4	DFO Tambunan Rosli Siki	Member
5	ADO Tambunan Robert Stidi	Member
6	ADO Keningau Mohd Guntur Arif	Member
7	SWDO Benedict Jani/Sumbin Gadas	Member
8	RP Anuar Mohd	Member
9	RP Dr. Chey Yun Khen	Member
10	Dr Abdul Fatah Amir (Pusat Biodiversiti Sabah)	Member

The Terms of Reference of the Committee are as follows:

- Revise Climbing Permits Issuance including development of guidelines for visitors and climbing certificate and make recommendation for implementation to the Director of Forestry for approval.

- To review the existing procedures and conditions of flora and fauna collection in FMU 10 and recommend appropriate changes for the approval of the Director of Forestry for implementation
- To review existing procedures and conditions of scientific research permits in FMU 10 and recommend appropriate recommendations to the Director of Forestry for decisions to the relevant authority in Putrajaya and Kota Kinabalu.
- Registration of all local guides and porters with a view of assigning climbing schedule and make recommendation for implementation for the approval of the Director of Forestry.
- To receive and appraise any proposal by agencies inside and outside Sabah for collaborative work on conservation in FMU10 and recommend appropriate follow up to the project proponent through the Director of Forestry.
- Review of registration procedure at check point and implement the appropriate changes.
- Revision of the pre and post climbing baggage checks and make recommendation for appropriate changes in the procedure for implementation.
- Holding regular stakeholders consultation with Mount Trus Madi tourist operators, Guides and Porters and implement any appropriate suggestions or changes.
- To evaluate the feasibility of giving a Concession Agreement to Locals or Local Companies to operate the management of the Climbing Activities and Rest house in Kaingaran and make recommendations to the Director of Forestry
- . To hold quarterly meeting of the committee.

Prior to its closure in August 2011, the Kaingaran route recorded quite a steady number of visitors totaling 329 in 2008, 292 in 2009, 578 in 2010 and 440 in 2011 (**Table 13**). Over a four (4) year period, a total of 1,639 visitations were recorded for Mount Trus Madi. This could be translated as 1.14 visitors per day to the area. The local visitors registered an increasing trend while the foreign tourists expressed a declining trend of visitation. It could be assumed that since the upgrading of the Jalan HS Martyn and the imposition of orderly visitation by SFD from 2009, climbing mount Trus Madi has become more active. The decline in 2012 was mainly due to the bad road condition from Kaingaran to Jalan Kuang Batu 8. The particular stretch of road under the jurisdictions of the Majlis Daerah Tambunan extending some 3 km in length is maintained by Kekal Mewah Sdn Bhd. Discussion will be held in 2013 to propose to the MOF Sabah to provide funding for maintenance of the said road.

Table 13: Visitors to Trus Madi via the Kaingaran Route (2008 – 2011)

Month	Local Visitors				Foreign Visitors				Total Visitors			
	2008	2009	2010	2012	2008	2009	2010	2011	2008	2009	2010	2011
Jan	16	0	0	0	0	0	1	0	16	0	1	0
Feb	11	13	40	0	1	12	0	1	12	25	40	1
March	10	10	16	37	0	0	0	2	10	10	16	39
April	4	17	60	63	6	0	12	1	10	17	72	64
May	5	39	73	130	2	2	10	0	7	41	83	130
June	28	31	78	82	40	31	7	4	68	62	85	86
July	15	12	90	67	69	13	1	1	84	25	91	68
Aug	51	23	24	37	18	18	5	8	69	41	29	45
Sep	22	12	34	0	0	0	1	0	22	12	35	0
Oct	18	5	100	7	4	0	0	0	22	5	100	7
Nov	9	11	26	0	0	1	0	0	9	12	26	0
Dec	0	26	0	0	0	16	0	0	0	42	0	0
TOTAL	189	199	541	423	140	93	37	17	329	292	578	440

Since the closure of the Kaingaran route, the Sinua route, through Wayaan Mannan, was the only active climbing point opened to the public. Since October 2011 to January 2013, a total of 219 visitors utilised the route to the Summit of Mt Trus Madi (**Table 14**). Some of these visitations were done in collaboration with the Tambunan Village Recreation Centre (TVRC). However, to avoid negative claims by public of a monopoly, such collaboration was stopped since September 2012 at the instructions of the Director of Forestry. Climbing Guidelines to Mount Trus Madi that was proposed by the Eco – Tourism Committee was subsequently approved by the Director of Forestry for implementation via *JPHTN/TP (FSP) 400-9/1/8/3/KLT.4 (15)* dated 28th November 2012.

Table 14: Visitors to Trus Madi via the Sinua Route (2010 – 2013)

Month	Local Visitors				Foreign Visitors				Total Visitors			
	2010	2011	2012	2013	2010	2011	2012	2013	2010	2011	2012	2013
Jan	0	0	0	19	0	0	0	0	0	0	0	19
Feb	0	0	0	0	0	0	0	0	0	0	0	0
March	0	0	11	0	0	0	3	0	0	0	14	0
April	0	0	0	0	0	0	0	0	0	0	0	0
May	0	0	0	0	0	0	0	0	0	0	0	0
June	0	0	13	0	0	0	2	0	0	0	15	0
July	0	0	7	0	0	0	6	0	0	0	13	0
Aug	0	0	13	0	0	0	3	0	0	0	16	0
Sep	0	0	4	0	0	0	8	0	0	0	12	0
Oct	0	9	1	0	0	1	1	0	0	10	2	0
Nov	0	36	11	0	0	1	2	0	0	37	13	0
Dec	0	45	10	0	0	2	11	0	0	47	21	0
TOTAL	0	90	70	19	0	4	36	0	0	94	106	19

4.4.1 Activities in 2013

DD (MGT) will be heading the committee as and when there is a need to meet or every quarterly. The secretariat is handled by Sinua Field Coordinator (SFC) Haji Afiffudin Jadin. A total cost of RM5, 000 is envisaged to be spent in 2013. This will be sourced from D11 or K75 budgets.

4.5 Strategy 5: Upgrading and Maintenance of Relevant Infrastructures

Providing good accessibility and on ground presence in the Trus Madi Forest Reserve was the major focus under this strategy when the Initial CAMP for FMU 10 was approved in 2009. Implementation of this strategy was shared by ADFO Tambunan, Julius P. Indu, SFMO Jafin A. Bakar and SFC, Haji Afiffudin Jadin.

In Tambunan, the two (2) access roads were maintained. The first road was the Jalan HS Martyn, stretching some 13 Kilometer (km) from the end of Kekal Mewah Road (Jalan Kuang Batu 8) to the Kitingan Point (Climbing point access). The second one was the 9 km long, Jalan Jaafar Nyiro that has several species of birds thriving along its route. In Keningau, Jalan Ali Hasan that has a total stretch of 48 km was also maintained. However, due to funding constraints, only the first stretch of six (6) km of Jalan Ali Hasan that was graveled. The remaining 42 km stretch was only graded without any additional gravelling done. The 2 km access road (Jalan Empangan) in Sinua, under the jurisdiction of Jabatan Pengairan dan Saliran, was still in good condition and therefore does not need maintenance.

Checkpoints and staff quarters at Tambunan and Keningau were constructed. The climbing route, i.e. Wayaan Kaingaran, stretching some 4.9 km from Kitingan Point to the summit was upgraded with some basic accommodations and toilets facilities in early 2009 and 2010. There were also requests from the stakeholders Workshop done in 2007 that the two (2) climbing routes, Wayaan Mastan, through Apin – Apin and Wayaan Mannan, through Sinua to be developed as well for eco-tourism activities. This request was eventually put into reality in 2010 and 2011 when funding was available.

4.5.1 Activities in 2013

There is not much funding available for the maintenance and upgrading of the main infrastructures such as access roads and others in 2013 and RP3. The relevant budgets are nevertheless documented in Volume 2. A total of RM 18,675,000 has been estimated to fund various relevant infrastructures in FMU 10. Those documents would be used to apply for funding in the coming years again especially under RP4. It is envisaged that the greater part of the year would be spent in monitoring the current upgrading work in Wayaan Kaingaran. The work is funded by MOTOUR Malaysia. The task of constructing a 3 km Board walk and a 20 Pax Rest house was supposed to be completed by 8th February 2013. However due to weather and road condition, an Extension of Time ((EOT) was approved by SFD for the Contractor (Usaha Hakikat Sdn Bhd) to finish the job by 26 July 2013. Additional works would be tendered as well. During the time of writing, the field staffs are still working out the details and specifications of work to be done with the help of JKR Tambunan for final

write up and approval by KPKAS and MOTOUR. An estimated amount of RM 600,000 is envisaged to be spent.

4.6 Strategy 6: Implement Relevant Social Forestry Activities

Due to the heavy workload assigned to SFMO Jafin A. Bakar especially under the Forest Restoration and Infrastructure strategies, the SBS was not implemented fully until 2012. The heavy work schedules of the relevant staff of SFM Division in executing SBS in other parts of the state was also the major reason for the postponement of this strategy. Since 2010, this strategy was entrusted to FMU10 Planning Officer (FMU10PO) Awangku Effendy Pg Mahmud. His main task was to monitor the activities of the six (6) kampungs.

Baseline information on encroachers and their activities in FMU10 was done in 2009. The areas surveyed were Kg. Mailo, Kg. Barisan Baru, Kg Mangas Rompangas and Kg Warisan Tempurung. A total of 54 respondents were interviewed on a one to one basis. Further baseline information for Kg. Linsudan and Kg. Semai Bakti was not done in 2010. A Two (2) days training on Forestry Community Management was conducted in March 2011. The objective was to train the relevant field staff to do further SBS work in 2012. A total of 30 field staff from MCEE Unit, Keningau, Tambunan, Tenom, Sook, and Nabawan forestry offices participated in this training.

A comprehensive SBS on the villages located within a radius of 2 km from FMU10 was conducted under the leadership of Raman Lamat of the SFM Division from April until May 2012. This activity was coordinated by Awangku Effendy Pg Mahmud with the participation of the field staff from Keningau, Tambunan and Sook Forestry Office. More than 400 respondents from 21 villages were interviewed on a one to one basis. Respondents from two (2) kampungs, namely Kanawahon and Kaimadang however did not participate in the interview.

4.6.1 Activities in 2013

The extent and situations of encroachment of FMU10 by the local communities has not been assessed fully yet as the data are still being analysed by the SFM Division under Ricky A. Martin. The detail budget for this strategy however could only be done once the Report is finalised with concrete recommendations to the Director by the SFM Division. Based on the available raw data collected as described in **Table 15**, it is estimated that 10 groups of illegal farms could be located within the FMU10. The

encroached area could possibly extend to more than 5,990 acres. Further analysis of the collected data however will be required to confirm the preliminary findings on the illegal farms. It is expected that a final report of the SBS survey will be completed by June 2013. Another ground survey would be done in February 2013 to gather data on Kaimadang, Linsudan and Sg. Mailo. Payments of allowances would be borne under D11.

Table 15: List of Villages Enumerated under the SBS in 2012

Villages & Zones			Year Established	Estimated Encroached Area (Acre)	Families (Houses)
No	Village	Zone			
1	Kepayan Baru	Keningau	1960	1,590	106 (70)
2	Linsudan	Keningau	1976	60	56 (66)
3	Luanti Baru	Keningau	1959	30	124 (51)
4	Marasak	Keningau	1959	210	53 (42)
5	Panui	Keningau	1968	765	50 (32)
6	Marapuk	Keningau	1958	NA	140 (120)
7	Kaimadang	Keningau	NA	NA	N/A
8	Sinua	Sook	1945	NA	120 (89)
9	Tuawon	Sook	1915	1,200	52 (45)
10	Sinaron	Sook	1972	NA	51 (50)
11	Manggarimot	Sook	1975	NA	38 (39)
12	Mansiat	Sook	1950	750	50 (50)
13	Lalapakon	Sook	1973	275	58 (48)
14	Seselungon	Sook	1977	NA	37 (30)
15	Nandagan	Sook	1962	1,050	79 (42)
16	Mempisas	Sook	1960	60	22 (18)
17	Batu Lunguyan	Sook	NA	NA	105 (85)
18	Monsok Ulu	Tambunan	1961	NA	39 (20)
19	Monsok Tengah	Tambunan	N/A	NA	N/A
20	Pononoburan	Tambunan	N/A	NA	67 (50)
21	Kaingaran	Tambunan	N/A	NA	55 (39)
			Total	5,990	1,302 (986)

4.7 Strategy 7: Develop and Implement Controlled Hunting Plan in Ulu Rompon and Ulu Pangas

This strategy was headed by the Keningau SWD. The site for this activity was located at KM 18 Jalan Ali Hasan, Ulu Pangas, Keningau. Since 2009 a number of activities were carried out to decide on the next course of actions under the Controlled Hunting Strategy in FMU 10 Trus Madi Forest Reserve. The facilities constructed in 2009 were a two room guard post, 12 Pax hunters lodge and a 10 vehicle car park. The facility was also equipped with electricity and gravity water supply. Apart from that some signboards were also erected. In 2010, general regulations signage and sketch map of the location of the hunting trails was erected.

Identification of areas for the development of hunting trail was carried out on 15-21/7/2010. Eventually five (5) trails within the control hunting area were successfully developed. The trails were named as Pelanduk Trail, Landak Trail, Keluang Trail, Kijang Trail and Payau Trail. These activities were implemented with the collaboration between Keningau Wildlife Office staff and staff from other Wildlife Stations.

A total of five (5) Wildlife inventories were done in the area since 2009 (**Table 16**). The objective was to determine the population and density of wildlife species especially of game animal (species) as listed in Schedule 3 of the Wildlife Conservation Enactment 1997. SWD staff from the other districts including headquarters, West Coast, Lok Kawi Wildlife Park, Lahad Datu, Sandakan and Tawau was recruited for this general inventory on wildlife.

Table 16: Wildlife Inventories Done in FMU10 since 2009

NO	DATE OF INVENTORY	RESULTS OF INVENTORY
1	15-21/07/2010	10 species of mammals and 25 species of birds
2	16-19/03/2011	10 species of mammals and 54 species of birds
3	25-28/04/2011	11 species of mammals and 47 species of birds.
4	10-15/10/2011	10 mammal species and 20 bird species
5	10-15/09/2012	14 species of mammals and 41 species of birds

The wildlife inventories carried out so far indicated the presence of several species of game animals in the controlled hunting areas. However, its density is still low to justify the opening of the area for controlled hunting activity yet. Further inventories need to be done to monitor the densities of the wild lives in the area.

4.7.1 Activities in 2013

Activities to be done in 2013 under this strategy involve the maintenance of the hunting trails, wildlife surveys and conducting wildlife courses. These activities are envisaged to incur an expenditure of RM 40,000. It will be borne under K75.

4.8 Strategy 8: Establish Community Woodlots in Stateland Area in Tambunan Adjoining FMU 10

The objective of this strategy is to provide necessary wood resources for the Tambunan local communities in a stateland area outside FMU 10 near kampong Kaingaran. This objective is also expected to abate or reduce the threats of communities engaging in illegal timber extraction in FMU 10 by providing alternative timber resources for their domestic usages and managed them sustainably by the communities themselves. The task to proceed and to implement this strategy was entrusted to DFO Tambunan assisted by ADFO Julius Peter Indu. Resource Person Hj Mohd Nooh Jiran would also be assisting in this strategy.

A quick survey of the villages situated along the fringes of FMU10 in the early days of the planning stage indicated that the houses in those villages are primarily built using chainsaw-cut timber. As for now, those villagers got their timber from their own lots of forest but these privately owned forests are being converted to agriculture land. It is envisaged that in a not too distant future, wood will be in a very short supply around the Tambunan area, thus putting FMU10 increasingly threatened from illegal wood harvesting.

To abate that threat, it was decided that a community woodlot outside the Trus Madi Forest Reserve should be established. After some deliberation, the area formally issued with logging TOL to Ipang Ganggal, Anthony Dubis, Regina Rundi and Jimmy Jipulis, Intra Bayangan and Alam Semesta which is situated at the headwaters of Namadan and Kaingaran rivers and has a combined area of approximately 3,700 ha was selected. The reasons for selecting this area are, firstly because it could act as a buffer zone for FMU10 and secondly because the soils of the area falls within the Trus Madi soil series, which is best left forested due of its fragile characteristics and therefore not suitable for agriculture development.

The woodlot will be administered and managed by a committee which will be headed by the DFO Tambunan. Members of the committee would include the District Officer of Tambunan, the District Chief of Tambunan and relevant Heads of Department in Tambunan. Through such mechanism, each relevant Department will have a role to play in supporting the management of the Woodlots Strategy. Forestry Department through FMU10 will be entrusted in forest inventory, data analysis and preparations of Comprehensive Harvesting Plan and in seedlings supply.

A sub-committee, to be headed by the Native Chief, will also be formed. He will be assisted by all the village headmen and the Village Development and Security Committee (JKKK) chairpersons from participating villages. Its function will be as a communal work coordinating body. During the days of Forest Guard Peter Lupang Tingkalus way back in 1935, he and a local charismatic Native Chief by the name OKK Tahiban, gather together all bamboo extraction permit holder on an appointed date to carry out communal work to plant bamboo in an area designated to be a bamboo reserve. In this sub-committee, the Native Chief will walk in the shoes of OKK Tahiban to keep tab of all permit holders and to gather and mobilise them to participate in communal work at the woodlot.

A briefing related to the concept and implementation of the community woodlot, the beneficiaries and mechanisms was done at length by Rahim Sulaiman, DD (MGT) in a special meeting with the District Officer and PPHT personals of Tambunan District in the middle of 2009. The Woodlot matter was also highlighted during the Stakeholder workshop in Hotel Perkasa Keningau and was endorsed by all except by delegates from Kaingaran, Pononoburan and Nandal. Overall the responses were positive especially from The District Officer of Tambunan as Chairman of the committee. However, SFD was advised to apply for the area to the Assistant Collector of Land Revenue (ACLR) Office not only for the purpose of the Creation of the Woodlot but also for gazette purpose. The advice given was supposed to be following the standard procedure for any normal land application. Mapping and documentation was duly done by the DFO Tambunan as per advised.

In 2010, not much progress was achieved. The Land Application was submitted to PPHT Tambunan and given the reference PT NO. 20-10140023 but unfortunately, the land application was not tabled at any of the LUC meeting in 2010. It was later understood that a working paper was needed. A working paper was submitted to

PPHT as requested but still the application was not tabled at the LUC meeting despite all the reminders.

Despite various reminders by DFO Tambunan, hearing of the application was not acceded by the Land Utilisation Committee until the end of 2011. The main reason cited this time around was that the Land and Survey Department was directed by the government to expedite the processing of outstanding land applications from the public yet to be tabled in the Committee Meeting.

Finally the SFD Land Application was brought up and tabled in the Land Utilisation Committee Meeting on 12 Mac 2012 with comments from the District Surveyor from Keningau as follows:

- The area applied by Sabah Forestry Department also fall within the water catchment area of Sag Kaingaran being applied by Jabatan Pengairan Sabah under Land Application No.PT 2009140029.
- The area applied was also overlapping with a land application under T.O.L.95142010 P 141226953.

The Committee was not able to come up with any recommendation yet with regards to SFD's application. Instead, the SFD was advised to present its case with detail justification in the next Committee Meeting. ADFO Julius Peter Indu duly did the presentation to the Committee Meeting in June 2012. The said meeting of June 2012 again advised SFD to submit a detailed working paper for presentation in the next meeting envisaged to be held in March 2013.

4.8.1 Activities in 2013

It was noted that not much has been achieved related to the strategy in the previous five years apart from general surveillance of the area from the air and on the ground. The identified and applied area is still subject to the availability of the area on the ground and also depends on the outcome of the Committee Meeting to be held once every quarter of each year. Although the proposed establishment of a community woodlot was endorsed by all stakeholders, including community leaders, its implementation has yet to begin due to unforeseen or grossly underestimated obstacles and hindrance. The biggest hurdle, it seems is the Land Utilisation Committee (LUC).

DFO Tambunan is required to prepare and submit the management plan to the LUC for their next course of action. To date some 1,000 ha of the applied area has been approved for logging by the government under a TOL Licence expiring in April 2013. A total sum of RM 1,190,300 is envisaged to be spent once the land is approved to be established as a Community Woodlots. At the time of writing, SFD has been advised by the PPHT's office to stall discussion on this matter after the 13th Malaysian General Election.

4.9 Strategy 9: Understanding of the Target Species Through:

4.9.1 Inventory of Hornbills By 2018

Inventory of the Hornbills will be done annually from 2013 until 2018. The actual area and frequencies of the inventory would be decided by Alim Biun of Sabah Parks. An annual expenditure of RM 15,000 is estimated to be required by the team.

4.9.2 Inventory of Rajah Brooke's Birdwing and Their Host Plants By 2018

Similarly with the previous hornbills' strategy, the Inventory of the Rajah Brooke's Birdwing will also be done annually from 2013 until 2018. The actual area and frequencies of the inventory would be decided by Dr. Chey Vun Khen. An expenditure of RM 15,000 is estimated to be incurred from the survey.

4.10 Strategy 10: Implement Relevant Conservation Awareness Programmes and Website Maintenance

The conservation awareness Programmes strategy was headed by Haji Abdul Rahman Tuah. The objective was to provide information and to educate the general public of Tambunan and Keningau on the importance of conserving forested areas and general biodiversity. The task of managing the FMU10 Conservation Area (FMU10CA) website was handled by the JPKN Keningau.

4.10.1 Update on the Awareness Programmes

A total of eleven (11) Awareness programmes were implemented since 2009 (**Table 17**). Through this effort a total of 3, 326 visitors or participants were educated and made aware of the conservation efforts in FMU10 during these programmes.

Table 17: Awareness Programmes Implemented Since 2009

No	Activity	Date Implemented	No of Visitors/Participants
1	Tambunan District Harvest Festival	23/5/2009	127
2	State Harvest Festival ,Keningau	23/05/2009	520
3	Pesta Keningau	1-2/5/2010	200
4	Tambunan District Harvest Festival	15/5/2010	139
5	Public Compliant Day (Biro Pengaduan Awam)	23/07/2010	20
6	Rain Forest Carnival	9-10/12/2010	130
7	Client's Day (Road Transport Department)	24/03/2011	201
8	Tambunan District Harvest Festival	21/05/ 2011	184
9	Tambunan Homestead Road Show	30/11/2011	67
10	Tambunan District Harvest Festival	19/05/ 2012	135
11	SMK,Tambunan Awareness Program	18-01-2012.	1,603
	TOTAL VISITORS/	PARTICIPANTS	3,326

4.10.2 Update on the Website Maintenance for FMU10

The current FMU10 Conservation Area (FMU10CA) website has not been updated due to the missing source files when the JPKN staff was transferred to the other part of the state in 2010. Under the Revised CAMP, this responsibility is now entrusted to Afendy Suraip of FRC, Sepilok. As to avoid such problem occurring in the future, a new dynamic and easy to update website using an open-source Content Management System (CMS) is currently being developed to enable anyone with the authority to update and maintain the website in the future.

4.10.3 Activities in 2013

4.10.3.1 Awareness Programme

In view of the encouraging response from schools around Keningau, Tambunan and Sook, this awareness programmes would be focusing on these institutions for the coming years. The annual Districts' Festivals would continue be the avenue for the implementation of this strategy as well. **Table 18** describes the typical annual awareness programmes for the schools as outlined for 2013. It is estimated that an Annual expenditure of RM 5,000 is required for this strategy. It will be borne under K75.

Table 18: Lists of Activities for Awareness Programme in 2013

No	Name Of School	Secondary School	Primary School	Tentative Schedule	District
1	SMK Nambayan	x		March,2013	Tambunan
2	SMK Gunsanad II	x		March,2013	Keningau
3	SMK Keningau II	x		March,2013	Keningau
4	SMK Sook	x		March,2013	Sook
5	SMK Tulid	x		March,2013	Sook
6	SK Patau		x	April, 2013	Tambunan
7	SK Kaingaran		x	April, 2013	Tambunan
8	SK Kg.Kapayan Apin-Apin		x	May, 2013	Keningau
9	SK Kg.Baru Apin-Apin		x	May, 2013	Keningau
10	SK Binawou		x	May, 2013	Sook
11	SK Sinua		x	May, 2013	Sook

4.10.3.2 Website Maintenance

The Content Management System (CMS), as compared to Conventional “Expensive” Website, is selected as an alternative development platform for the FMU10 Conservation Area (FMU10CA) in the coming years. Being absolutely free was the main reason for its selection, besides it only requires a little trained computer development skills to develop the website. Upon completion, the website should be easily updated by anyone and from anywhere using the Sabah.Net network. The CMS is also largely used by governments, NGOs and companies around the world to deliver and promote their content in the World Wide Web. This system is also currently being used in the SFD’s main website. Up to now, no critical or serious

problems were ever reported. In 2013, there would be five (5) phases of development to be done for FMU10CA website (**Fig 6**). All of these works would be managed by Afendy Suraip of FRC. It is estimated that some RM 50,000 will be utilised to purchase IT Equipments and other related costs under the K75.

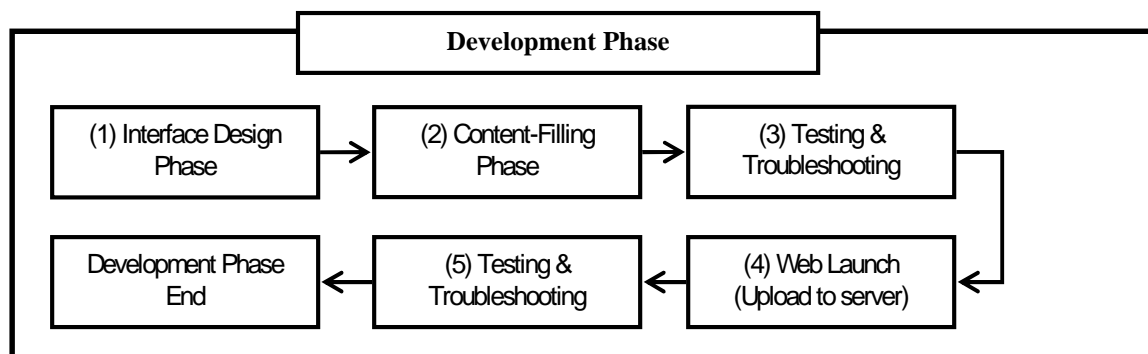


Figure 6: FMU10CA Version 2 Website Development Stage

4.11 Strategy 11: Scientific/Biodiversity Study

The main aim of this strategy is assemble a team headed by FRC to conduct a scientific expedition to explore and study the biodiversity that thrive in this Trus Madi Forest Reserves landscape. This was managed by Resource Person, Anuar Mohd of FRC, Sepilok. In the past, some expeditions and various studies have been conducted in the area especially at the summit and rivers by various institutions and individuals. Under this strategy, the unexplored areas within the Trus Madi Forest Reserve, namely the Mirad – Irad Base Camp area and the Sinua Base Camp area were selected. During the expeditions, the participations of outside institutions and individuals were invited to compliments the existing expertise available within the SFD. Two (2) expeditions, one (1) workshop and a Roundtable Discussion have been held since the inception of the CAMP FMU10 in 2009. These are as follows:

4.11.1. Kaingaran Trus Madi Biodiversity Expedition in 2009

This 1st Kaingaran Trus Madi Biodiversity Expedition was held on the 4th - 12th August, 2009. The base camp of the expedition was sited at the north-western part of FMU 10 beside the Mirad-Irad River at an altitude of about 900 m asl. The objective of the expedition was to survey the biodiversity richness in the adjacent area and its vicinity leading to Mount Trus Madi. Some 70 researchers/scientists and supporting

staffs from the FRC, the School of International Tropical Forestry (SITF) of Universiti Malaysia Sabah (UMS), Universiti Teknologi Mara (UITM) and a private company took part in the expedition. A total of about RM45, 000 was utilized under the Unit Biodiversity Hub's (UBC) budget of FRC.

4.11.2 Trus Madi Workshop in 2010

This workshop was held on the 23-24th, March 2010 at Perkasa Hotel, Keningau. It was officiated by Datuk Sam Mannan, the Director of Sabah Forestry Department. The workshop was held to disseminate research findings based on the expedition done in 2009. The Workshop also served as a platform for information sharing and discussion among the MPCT members, experts and the relevant stakeholders, both inside and outside of the SFD.

A total of 15 papers were presented and 3 information papers were disseminated and shared among the 150 workshop participants. An exhibition showcasing all the activities undertaken and facilities available within the Trus Madi FR was also held at the Lobby of the hotel. Field excursion to climb Mt Trus Madi and visiting the restoration sites the following day for interested participants of the workshop. A total of about RM3, 000 was utilized using the budget of the UBH of FRC during the workshop. However, most of the costs in holding the Workshop were absorbed under the CAMP FMU 10 Fund, estimated at RM100, 000. A Proceeding of this workshop was also published in 2011. A total sum of RM 30,000 was utilised from the budget of UBH of FRC for this publication.

4.11.3 Trus Madi Sinua Expedition in 2011

This second Expedition was a continuous effort by the MPCT and FRC to better understand and uncovers the Trus Madi vast Biodiversity and forests. It was held on Oct 24th – Nov 2nd, 2011. A Total of about 50 individuals consisting of researchers and supporting staffs took part in the expedition. An estimated sum of RM80, 000 was utilised from the CAMP FMU 10 fund for this activities.

4.11.4 Trus Madi – Sinua Roundtable Discussion in 2012

This Discussion to disseminate and share the findings and information based on the Trus Madi Sinua expedition was held in September, 2012.

4.11.5 Activities in 2013

A total cost of RM50, 000 is expected to be incurred for this strategy in 2013. It will be borne under K75. The activity will be focusing on a small scale expedition in Sg. Kiluyu Forest Reserve and holding of a seminar and the development of some data base.

4.12 Strategy 12: Collaborate With Adjacent Landowners at Relevant Boundaries of FMU10

Due to the heavy workload of SFMO Jafin Abu Bakar, this strategy which was accorded a lower priority, limited attention was focused in its implementation. This strategy is now assigned to SFC Haji Afifuddin Jadin. The progress done in 2012 has been limited to identifying the major and big landowners around the vicinity of FMU10. So far, a number of big land owners such as Sabindo Plantation, which was also given an OP on an access road in the Pangas area, Sook Oil Palm Plantation (Ladang Sungala), Sabah Forestry Development Authority (SAFODA) and Lembaga Industri Getah Sabah (LIGS) near Nandagan had been identified and consulted with regards to this Revised CAMP's implementation.

4.12.1 Activities in 2013

For the large part of 2013, land data would be collected from the Land and Surveys, Keningau and Tambunan. This activity will be done by SFC Haji Afiffudin Jadin through consultations with the various Land owners especially the big companies.

5. EXPENDITURE IN 2013

The overall operational and development cost for CAMP FMU 10 in 2013 is estimated at **RM 5,342,709 (Appendix 1)**. This estimated cost covers all aspects of expenditure, including allowances, purchasing of necessary Equipments, maintenance and development of infrastructures, field activities and contract services. If the focus is given on the seven (7) budgets the estimated expenditure is only **RM 4,976,459**. The additional expenditure of **RM 366,250** will need to be sourced from the T & T vote.

It is noted that in 2013, the total approved sum for CAMP FMU 10 at the time of writing this AWP is **RM 4,297,521**. Given the total estimated expenditure of **RM 5,342,709**, it would appear that there will be a budget deficit of **RM 1,045,188** in 2013. The deficit is largely due to the Forest Restoration activities. Therefore some adjustments may be required to be done on the actual planted area maintenance and new plantings. There will not be a problem in implementing all of the remaining 11 strategies in 2013. A mid - year review of this AWP will determines whether the additional funding could be derived from the D11 vote to cover the deficit expenditure for the Forest Restoration activities.

6. CONCLUSION

This AWP is the first of such plan implemented after the revision of the CAMP which was approved by the Director of Forestry in February 2013. Input from the various members of MPCT and RPG was sought in accordance to their area of expertise and responsibilities. Under the Revised CAMP, the Conservation targets had been reduced from eight (8) into four (4). Similarly, the threats had been also reduced from five (5) to four (4). All 12 strategies and 23 strategic actions of the approved CAMP FMU10 are implemented in 2013.

The Forest Certification initiatives will continue in 2013, through the preparation of report to fill the 27 gaps identified earlier in 2012 as well as Pre – assessment and hopefully for a full assessment by GFTN. All implementers had been assigned their specific duties and briefed on the certification agenda.

The total manpower of 33 personals from SFD and 9 personals from the other agencies partners in implementing the required strategies for this FMU 10 AWP appeared to be quite substantial. However, in reality, only about half of the numbers are actually working fulltime. It is imperative therefore that existing cooperation and commitments of all of these personals be executed to the maximum by DD (MGT) Rahim Sulaiman as the Chairman of the MPCT and Chief Implementer. A monthly operational meeting should therefore be done to resolve any problems or deviations that may arise from such cooperation.

A total of **RM 4,297,521** budget from various sources has been acquired by the MPCT for funding these strategies and actions in 2013. A total expenditure of **RM 5,342,709** is expected. A deficit budget of **RM 1,045,188** is therefore anticipated mainly due to the Forest Restoration activities. Based on the premises that all of the remaining 11 strategies and 23 strategic actions planned in 2013 have correspondingly been assigned to specific personnel and given the necessary budget allocations, the success of this FMU 10 AWP for 2013 therefore has a very high probability of being implemented.

Appendix 1: Summary of the Conservation Strategies and Strategic Actions to be implemented in 2013 for CAMP_FMU 10

No	Strategy	Strategic actions	Expenditure (RM)	1	2	3	4	5	6	7	8	9	10	11	12
1	Boundaries Demarcation and Maintenance	1. Boundary demarcation for part C of Trus Madi Forest Reserve (Last 19,000 m) and Sg Kiluyu Forest Reserve (19,900 m)	96,000 + 169,335	X	X	X	X	X	X						
		2. Boundary maintenance	147,750			X	X	X	X	X					
2	Conduct Surveillance Activities	3. Ground Patrol	100,000	X	X	X	X	X	X	X	X	X	X	X	X
		4. Aerial Surveillance	40,000			X			X			X			X
3	Forest Restoration	5. Maintenance of Planted Areas	763,200			X	X	X	X	X	X	X			
		6. Rehabilitation of Degraded Areas including planting roads maintenance, constructions and Yield Plots establishments by FRC.	854,000			X	X	X	X	X	X	X	X	X	X
4	Formulate Suitable Visitation, Flora And Fauna Collections Procedure	7. Management of climbing activities to Mt Trus Madi (Through Kaingaran, Apin-Apin and Sinua) and Flora and Fauna Collection Procedures (Committee Meeting)	5,000			X			X			X			
5	Upgrading And Maintenance Of Relevant Infrastructures	8. Upgrading and Maintenance of Facilities For Wayaan Tambunan, Apin-Apin and Sinua and other Infrastructures	2,626,174		X	X	X	X	X	X	X	X	X	X	X
6	Implement Relevant Social Forestry Activities	9. Field Survey at Kaimadang, Milo and Merapok and Analysis for relevant actions to Director of Forestry			X	X	X	X	X						
		10. Submission of Analysis and Implement Relevant Community Forestry As Per Directive from Director	Expenditure to be prepared according to Directives given								X	X			

No	Strategy	Strategic actions	Expenditure (RM)	1	2	3	4	5	6	7	8	9	10	11	12
7	Develop And Implement Controlled Hunting Plan In Ulu Rompon And Ulu Pangas	11. Formulation of Controlled Hunting Plan in Ulu Rompon and Ulu Pangas	40,000					X	X						
		12. Implementation of the Controlled Hunting Plan (CHP)							X	X	X	X			
8	Establish Community Woodlots In Stateland Area Near Kg. Kaingaran In Tambunan Adjoining FMU 10 Area	13. Presentation of Proposal to LUC Tambunan							X						
		14. Preparation and implementation of Community Wood Lots Management Plan	Expenditure to be prepared when area approved							X	X	X	X	X	
9	Understanding Of The Target Species Through: A) Inventory Of Hornbills By 2018 B) Inventory Of Rajah Brooke And Their Host Plants By 2018	15. Field Inventory and Analysis	30,000			X			X			X			
10	Implement Relevant Conservation Awareness Programmes Including Website	16. Maintenance of Website	50,000	X	X	X	X	X	X	X	X	X	X	X	X
		17. Awareness/ Educating Public on Conservation Issues	5,000			X	X	X	X	X	X	X	X	X	X

No	Strategy	Strategic actions	Expenditure (RM)	1	2	3	4	5	6	7	8	9	10	11	12
		18. Expedition (Kiluyu and Kaingaran)	40,000									X			
11	Scientific/ Biodiversity Study	19. Workshop/ Seminar	10,000											X	
		20. Development of Trus Madi Flora and Fauna Database		X	X	X	X	X	X	X					
12	Collaborate With Adjacent Landowners At Relevant Boundaries Of FMU10	21. Identify the Big and Individual Landowners around FMU10		X	X	X									
		22. Collect Relevant additional Data From Lands and Survey					X	X	X						
		23. Consultations with Relevant Land Owners/Workshops/ Stakeholders Meetings								X	X	X	X	X	X
A		TOTAL (RM)	4,976,459												
B		Vehicles Maintenance	366,250												
C		GRAND TOTAL	5,342,709												

Appendix 2: Summary of Monitoring Activities to be done in 2013 under CAMP FMU 10

Table 1: Summary of the Monitoring Activities for the UMDF/LMF Conservation Targets

Item	Target	Indicator	Methodology	Frequency	Responsibility
1	UMDF/ LMF	Area of undamaged Forest by fire: macro view	Remote sensing interpretation;	Annually	Forestry Department: Management (HQ) Level
2	UMDF/ LMF	Area of undamaged Forest by fire: micro view	Inspection and Direct Interpretation	Bi-Weekly Surveillance	Respective Mukim Staff
3	UMDF	Area of undamaged Forest by Illegal Timber Extraction	Inspection and Direct Interpretation	Bi-Weekly Surveillance	Respective Mukim Staff
4	UMDF	Encroached areas are not enlarged	Inspection and Direct Interpretation	Bi-Weekly Surveillance	Respective Mukim Staff
5	UMDF	Controlled Hunting Area Not Encroached and Regulations not violated	Inspection and Direct Interpretation	Bi-Weekly Surveillance	Respective Mukim Staff

**Table 1: Summary of the Monitoring Activities for the
MHDF/LMF Conservation Targets (Continuation)**

Item	Target	Indicator	Methodology	Frequency	Responsibility
6	UMDF	Burnt Area Planted and Restored	Inspection and Random Enumerations	Quarterly for Planted Acreage	Jafin Abu Bakar & Awgku Effendy
7	UMDF	Growth and Yield Plots	Direct Growth Measurement & Mortality	Annually	FRC Research Team
8	UMDF	Demarcated Forest Boundaries are not Encroached	Remote sensing interpretation	Annually	Forestry Department: Management (HQ) Level
9	UMDF	Demarcated Forest Boundaries are not Encroached	Inspection and Direct Interpretation	Monthly Surveillance	Respective Mukim Staff
10	UMDF/ LMF	Eco tourism Guidelines adhered	Direct Interpretation and Observation	Every Climb	Respective Mukim Staff

Table 3: Summary of the Monitoring Activities for the Hornbills and Rajah Brooke's Birdwing Conservation Targets

Item	Target	Indicator	Methodology	Frequency	Responsibility
11	Hornbills	Population density/ Species Distributions of Hornbills	Plots and population census	After each Survey	Forestry and Sabah Parks Integrated Field Team
12	Rajah Brooke's Birdwing	Population density: Distribution and Occurrence	Inspection and observation on Fixed plots	After each Survey	Forestry Field Team