

## 1. INTRODUCTION

This is the second Annual Work Plan ((AWP) for FMU 10. Similarly to the first AWP for this FMU, approved by the Director of Forestry in 2009, this AWP is based on the Ten (10) Year (2009 to 2017) Conservation Area Management Plan (CAMP) for FMU 10 (Tambunan) (hereby called CAMP FMU10) that was approved by the Director of Forestry in January 2009.

Apart from describing the 18 strategies together with the corresponding 25 strategic actions and their implementation schedule in 2010, this AWP also details out the achievements in implementing these strategies and actions in 2009. In addition, it specifies on the deployment of the current manpower for all implementers both from the Sabah Forestry Department (SFD) and the other departmental partners, the relevant fund as well as the necessary equipments. 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 for FMU 10 for 2010.

## 2. FMU 10 (TAMBUNAN)

The total area covered by this FMU 10 is **74,736 ha**. It is part of the larger Trus Madi Forest Reserve (TMFR) that extended over a total area of 175,897 ha. The other part of the TMFR, covering an area of 101,161 ha, lies within the FMU No. 5, which comes under the Ranau Forestry District. The area is licensed to Anika Desiran Sdn Bhd under the Sustainable Forest Management Licence Agreement (SFMLA) since 1997.

The whole of the TMFR is located in central Sabah, between longitude 116o 34' E and 117o 01' E and latitude 5o 27'N and 5o 52'N. It was firstly gazetted in 1962, which covered an area of **75,692 ha**. In 1984, it was re-gazetted as a Class II (Commercial) Forest Reserve covering an area of 184,527 ha. Another gazette was done in 1992, making the whole of TMFR Class II into its current size of 175,897 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 74,736 ha, the Keningau Forestry District administered **47,772 ha** of the area, while the remaining **27,964 ha** are within the Tambunan Forestry District's jurisdiction. Due to interests from stakeholders in Sinua, Sook to explore the possibility of providing an alternative climbing route to Mount Trus Madi, the Sook Forestry District most likely would be assigned some tasks for implementation in the ecotourism agenda in 2010.

### 2.1 Management Zones

Altogether six (6) and one (1) management zones had been identified in and outside of FMU 10 respectively to cater for the different usage and management prescriptions for the conservations of the eight (8) identified targets (**Table 2.1**). The Management Zones identified in FMU 10 are as follows:

Table 2.1: Management Zones in FMU 10

Zone 1:	Conservation Area covering all intact Mixed Hill Dipterocarp Forest (MHDF) and Lower Montane Forest (LMF) vegetations with an approximate area of 42,000 ha (denoted as C compartments in the map)
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. (currently included in Zone 1 in Map)
Zone 3:	Forest Rehabilitation Area covering an approximate area of 22,000 ha of largely burnt and encroached areas (denoted as R compartments in the map)
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 eight (8) conservation targets (**Table 2.2**). Encroachment, commercial timber harvesting or large scale collections of any terrestrial and aquatic flora and fauna from this FMU are strictly prohibited.

Due to the magnitude and the effect of the five (5) threats namely, fire, encroachment, illegal poaching of flora and fauna, illegal timber extraction and littering, the achievement of abating and reducing these threats on the various conservation targets could only be met on a long term basis, ranging from two (2) to five (5) years.

In accordance to the conservation targets goals set above and the management zones prescribed for FMU 10, the following objectives are set for 2010:

- 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) Surveying for the physical demarcation of forest boundaries 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 2.2: Conservation Targets and Long Term Goals

Conservation Targets	Conservation Goals
<b>Mixed Hill Dipterocarp Forest (MHDF)</b>	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
<b>Lower Montane Forest (LMF)</b>	To ensure zero encroachment and poaching occurrence in the habitat by 2011
<b>Summit Scrub (SS)</b>	Restoration of degraded camping area and to achieve zero littering by climbers by 2010
<i>Rafflesia keithii</i>	Total Protection of the species as well as its host plant ( <i>Tetrastigma</i> spp) by 2012
<i>Nepenthes x trusmadiensis</i>	Total protection of the species at the summit by 2010
<b>Hornbills</b>	Determination of the group's distribution and identification of the dominant species by 2012
<b>Rajah Brooke's Birdwing</b> ( <i>Troides brookiana brookiana</i> Wallace)	Total protection of the species and its host plant ( <i>Aristolochia</i> spp) by 2012
<b>Serawi Fish (<i>Lobocheilus bo</i>)</b>	Total protection of the species by 2013 in the rivers and streams of FMU 10

### 3. OPERATIONAL STRUCTURE AND BUDGET

#### 3.1 Operational Responsibilities

The main field implementers of the CAMP in 2010 are the District Forestry Officers (DFO) of Tambunan and Keningau. In addition to their current assigned staff, they are assisted by other departmental implementers, namely, the Sabah Wildlife Department (SWD) Keningau office, the Sabah Parks (SP) Crocker Range office, the Public Works Department (PWD) Keningau and Tambunan District, the Computer Services Department Keningau office and the relevant research officers from FRC and professional foresters from the Sandakan forestry headquarters. Deputy Director (Management) Rahim Sulaiman is the Chief Implementing Chairman.

Due to current workloads, the Sabah Fisheries Department particularly the Tambunan Fisheries District Office and the hornbills' expert, Alim Biun of Sabah Parks are not able to implement the Serawi and Hornbills conservation target strategy in 2010. Efforts to engage or recruit experts from other institutions such as Universiti Malaysia Sabah would be pursued in 2010.

##### 3.1.1 Existing Manpower under SFD

The total available manpower under SFD is 34 personals. However, only 16 personnel are considered working fulltime in implementing the CAMP. The other 18 personnel are part time active implementers of the CAMP. **Table 3.1** describes the personnel involved in implementing the CAMP under SFD.

Table 3.1: Summary of Current Manpower for CAMP Operation provided by SFD

Item	Designation	Personnel	Grade	Status	Total
1	Deputy Director (Management) (DD)	Rahim Sulaiman *	G54	A	1
2	Senior Research Officer (SRO)	Dr. Chey Vun Khen	Q52	P	1
3	Senior Assistant Conservator of Forests (SACF)	<ul style="list-style-type: none"> <li>• Roslan Junaidi</li> <li>• Pilis Malim</li> </ul>	G48	P	2
4	Senior Research Officer (SRO)	<ul style="list-style-type: none"> <li>• Anuar Mohd</li> <li>• Julius Kulip</li> </ul>	Q48	P	2
5	Research Officer (RO)	Rosila Anthony	Q44	P	1
5	Assistant Conservator of Forests (ACF)	<ul style="list-style-type: none"> <li>• Hj Mohd Nooh Mohd Jiran *(DFO Tambunan)</li> <li>• Awang Ismail Awang Tuah (DFO Sook)</li> <li>• Jafin A Bakar * (Sustainable Forest Management Officer (SFMO),Keningau)</li> <li>• AgKu Affendi Pg Mahmud</li> </ul>	G41	P	4
6	Assistant Conservator of Forests	Ramli Majid *(DFO Keningau)	G41	A	1
7	Assistant DFO Tambunan (ADFO I)	Julius P Indu*	G32	P	1

8	Assistant DFO Tambunan (ADFO III)	Bonaventure Yampai *	G27	P	1
9	Forest Fire Officer Keningau	Vitalis I. Malangig	G27	P	1
10	Forest Ranger (FR)	<ul style="list-style-type: none"> <li>• Moses Stephen*</li> <li>• Rabli Ludin*</li> <li>• Servatius Joseph*</li> <li>• Mayasin Yusop*</li> <li>• Geoffrey Lusu*</li> <li>• Johnny Raymond</li> </ul>	G17	P	6
11	Research Assistant (RA)	-	Q17	P	2
12	Forest Guard(FG)	Daud Kardi *	G11	P	1
13	Ketua Kewangan (Account)	Dzul kifli Sanip *	W27	P	1
14	Driver	<ul style="list-style-type: none"> <li>• Clement J Solisip*</li> <li>• Holly Katong*</li> </ul>	R3	P	2
15	PRA	<ul style="list-style-type: none"> <li>• Sazali Hj Ismail *</li> </ul>	R1	T	1
16	PRA from FRC	-	R1	T	6
Note: A - Acting; P - Permanent;		T-Temporary * - Working Full time on CAMP FMU 10 (16 personnel )		<b>Total</b>	<b>34</b>

### 3.1.2 Manpower outside SFD

A total of 19 personnel are available from the various government agencies (**Table 3.2**). 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 staff however are not working fulltime in implementing the CAMP. Their involvements are only in the relevant strategies which require their respective expertises.

Table 3.2: Summary of Manpower for CAMP Operation provided by other MPCT Partners

Agency	No of Personal	Total
Sabah Wildlife Department (SWD)	7	7
Sabah Parks (SP)	6	6
Public Works Department Keningau (PWD)	2	2
Public Works Department Tambunan (PWD)	1	1
Computer Services Department Keningau (JPKN)	1	1
District Office (DO)		
<ul style="list-style-type: none"> <li>• Tambunan</li> </ul>	1	1
<ul style="list-style-type: none"> <li>• Keningau</li> </ul>	1	1
<b>TOTAL</b>		<b>19</b>

### 3.1.3 Existing vehicles under SFD

There are eight (8) existing vehicles under SFD for the CAMP implementation. **Table 3.3** describes these vehicles. Toyota Fortuner **SAA 2008R** is utilised by DD Rahim Sulaiman. The vehicle is also utilised for the ongoing Community Forestry Project in Klias Forest Reserve involving the nearby kampung Suasa and Nabahan. Toyota Fortuner **SAA 5139N** and two (2) new Toyota Hilux, **SAB 3927A** and **SAB 3930A** are utilised by the Keningau Forestry Office. Toyota Fortuner **SAA 5140N** and three (3) new Toyota Hilux, **SAB 3924A**, **SAB 3934A**, and **SAB 3937A** are used by the Tambunan Forestry Office.

Table 3.3: Vehicles Available for use for CAMP FMU 10 in 2010

Item	Vehicles	Unit	Registration Number	Utilisation Age (yr)
1	Toyota Fortuner	3	<ul style="list-style-type: none"> <li>• SAA 2008R</li> <li>• SAA5139N</li> <li>• SAA5140N</li> </ul>	2 3 3
2	Toyota Hilux (Vigo)	5	<ul style="list-style-type: none"> <li>• SAB3927A</li> <li>• SAB3930A</li> <li>• SAB3924A</li> <li>• SAB3937A</li> <li>• SAB3934A</li> </ul>	Brand New
	<b>Total</b>	<b>8</b>		

### 3.2 Development Budgets for 2010

**Table 3.4** describes the overall approved development budgets and their sources for CAMP FMU 10 in 2009 totalling **RM 11,145,636**. All five (5) budgets will also be utilised to implement the 18 strategies in 2010. **Table 3.5** describes the balance development budget available in 2010, amounting to **RM 8,065, 467**.

Table 3.4: Development Budget Approved for CAMP FMU 10 in 2009

Item	Budget Approved	Amount (RM)	Source of Fund
1	Implementing CAMP Strategies for FMU 10, TMFR ( <b>ICFMU10</b> ) (K75 120 150801 757000 00000000 00000)	<b>2,200,000</b>	Forest Rehabilitation Fund
2	Restoration of TMFR, Keningau Forestry District ( <b>RTMFR</b> ) (K75 120 150801 757001 00000000 00000)	<b>750,000</b>	Forest Rehabilitation Fund
3	Ecotourism Programme for Trus Madi ( <b>EPTM</b> ) (K75 120 150801 758001 00000000 00000)	<b>1,000,000</b>	Sabah Development Corridor Fund
4	Rehabilitation of Burnt Areas in TMFR FMU 10 (Tambunan) ( <b>RBAFMU10</b> ) (K75 125 160101 759001 00000000 00000)	<b>7,000,000</b>	Mid Term Review 9th Malaysia Plan (Federal)
5	Forest Boundary Budget ( <b>FBB</b> )	<b>195,636</b>	9 <sup>th</sup> Malaysia Plan
	<b>TOTAL</b>	<b>11,145,636</b>	

Table 3.5: Balance Development Budget Available for CAMP FMU 10 in 2010

Item	Budget Approved	Balance Amount (RM)	Source of Fund
1	Implementing CAMP Strategies for FMU 10, TMFR ( <b>ICFMU10</b> ) (K75 120 150801 757000 00000000 00000)	<b>1,807,383</b>	Forest Rehabilitation Fund
2	Restoration of TMFR, Keningau Forestry District ( <b>RTMFR</b> ) (K75 120 150801 757001 00000000 00000)	<b>588,636</b>	Forest Rehabilitation Fund
3	Ecotourism Programme for Trus Madi ( <b>EPTM</b> ) (K75 120 150801 758001 00000000 00000)	<b>600,000</b>	Sabah Development Corridor Fund
4	Rehabilitation of Burnt Areas in TMFR FMU 10 (Tambunan) ( <b>RBAFMU10</b> ) (K75 125 160101 759001 00000000 00000)	<b>4,885,593</b>	Mid Term Review 9th Malaysia Plan (Federal)
5	Forest Boundary Budget ( <b>FBB</b> )	<b>183,855</b>	9 <sup>th</sup> Malaysia Plan
	<b>TOTAL</b>	<b>8,065,467</b>	

The first two (2) budgets have no time limitation in their spending and could be brought forward for usage in the following year. The next three (3) budgets however need to be spent within 2010. Under such flexibility and restriction in the spending of these five (5) funds, it is decided that three (3) budgets, namely, the Ecotourism Programme for Trus Madi (**EPTM**), the Rehabilitation of Burnt Areas in TMFR FMU 10 (Tambunan) (**RBAFMU10**) and the forest boundary budget (**FBB**) will be utilised fully in 2010. The other budgets, namely, Implementing CAMP Strategies for FMU 10, TMFR (**ICFMU10**) and Restoration of TMFR, Keningau Forestry District (**RTMFR**) would only be partially used in 2010.

### 3.2.1 Additional Budgetary Requirements For 2010

All of the development budgets except for **RBAFMU10** restricted the purchase of vehicles. Vehicles maintenance as well as payment of allowances for SFD staff is also not provided under all of the above budgets. This policy was set due to the availability of other annual budgetary provision in SFD to cater for the two (2) types of expenditure. Payment of allowances is however, allowed under any of these budgets to the other departmental partners in implementing their relevant strategies in 2010 due to the absence of an annual budget on their part.

Additional annual budgets for vehicles maintenance and payment of allowances for SFD staff is therefore needed in 2010. The total amount requested for both votes in 2010 is estimated at **RM 381,846** (Table 3.6, 3.7 and 3.8). If possible, this amount should be allocated to Ketua Kewangan Keningau to manage the account as in the case of the other budgets.

The detail computations for the additional budgetary estimates in 2010 are as follows:

### 3.2.1.1 Estimated Maintenance Costs for Vehicles

The estimated cost for vehicles maintenance is expected to be **RM 231,100**. **Table 3.6** and **3.7** each describes the estimated maintenance costs for 2010 for all the vehicles. The costs include payment for fuel, change of tyres and general servicing of the eight (8) vehicles. If fuel charges of **RM 127,500** are not included in this maintenance cost, the estimated amount would only be **RM 103,600**.

Table 3.6: 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 tyres change/year	8 tyres/year	3	400/tyre	9,600
4	Miscellaneous parts and maintenance	as required	-	3	5,000.00	15,000.00
					<b>TOTAL</b>	<b>67,350</b>

Table 3.7: Estimated cost for maintenance of new vehicles (Toyota Hilux)

No	Item	Frequencies/yr	Quantity Per vehicle	Unit of vehicle	Unit Cost (RM)	Total Cost (RM)
1	Diesel	300 working days	25 litres/day	5	2.50	93,750
2	General services	50,000 km/yr	7 services/yr	5	600/service	21,000
3	Tyres	3 tyres change/year	12 tyres/year	5	400/tyre	24,000
4	Miscellaneous parts and maintenance	as required	-	5	5,000.00	25,000
					<b>TOTAL</b>	<b>163,750</b>

### 3.2.1.2 Allowances

The total estimated allowances under the T & T Vote required in 2010 for FMU 10 is **RM 180,746** (**Table 3.8**). This amount includes all relevant staff in Tambunan, Keningau, headquarters and FRC. Another **RM 30,000** will be provided under the **ICFMU10** fund for payment of allowances for SWD staff.



Table 3.8: Estimated Allowances for SFD and SWD Staff in 2010

Item	Field Activities	Allowances under T &T (RM)	Allowances under ICFMU10 (RM)
1	Strategy 1: Boundary Demarcation	86,386	0
2	Strategy 6: Social Baseline Survey	7,560	0
3	Strategy 7 : Development of Controlled Hunting	0	30,000
4	Strategy 13: Conservation targets Survey		
	N. trusmadiensis Survey	4,247	
	R. keithii Survey	12,739	0
	Rajah Brooke Birdwings Survey	7,560	
5	Strategy 15: Creation of Corridors	10,200	0
6	Strategy 17: Biodiversity Expedition	40,000	0
9	Grade 41 Allowances (RM 130x10x4x10)	52,000	0
10	Grade 27 - 32 Allowances (RM 100x2x10 x 12)	24,000	0
<b>TOTAL</b>		<b>150,746</b>	<b>30,000</b>
	DD Allowances (RM205x 14 x 12)	34,440*	-
	Grade 48 and above Allowances (RM150x5x 10 x 4)	30,000*	-

**\*Note:** Allowances for DD and Grade 48 Officer and above are not included in the assessment of total allowances above to avoid confusion in the accounting procedure later by Ketua Kewangan Keningau as these officers are not based in Keningau. Payment of both allowances would be done in their respective stations.

## 4. STRATEGIES IMPLEMENTED IN 2010

Similarly to 2009, 18 strategies will be implemented for 2010 under the CAMP for FMU10. A total of 30 strategic actions or activities were supposed to be implemented, however due to work commitments and lack of manpower, only 24 strategic actions could be implemented in 2010.

### 4.1 Boundary Demarcation

Initial assessment by the Forest Resource Management (FRM) Division revealed a total length of **136,400 meters (m)** of outer boundary of FMU 10 to be surveyed and demarcated. This activity which was initiated in 2007 was envisaged to take five (5) years (2007 - 2011) to be completed. This strategy is implemented by the FRM Division under **SACF Roslan Mohd Junaidi** and assisted by mapping expert **Rosila Anthony**.

Work must be prioritized to demarcate those boundaries that are close to kampong and civilization, as these boundaries are more accessible and prone to encroachments, as well as to illegal felling and poaching activities by these communities. In this respect, the survey works for the outer boundary of FMU 10 have been divided into 3 parts, which are as follows:

- Part A: Measuring a length of **54,800 m** (Under the Tambunan Forestry District extending from Kg. Tiwag to Kg. Ulu Monsok)
- Part B: Measuring a length of **51,550 m** (Under the Keningau and Sook Forestry Districts starting from Kg. Ulu Monsok to Kg. Batu Lunguyan)
- Part C: Measuring a length of **35,500 m** (Under the Sook Forestry District from Kg. Batu Lunguyan to Kg. Sinsuron)

All of the surveys will be done in Class II standard using theodolite/total station, with an accuracy of 1: 4,000 and all azimuths based on the Rectified Skew Othomorphic (RSO) Projection as prescribed by the National Mapping of Malaysia. The final survey plans should be acceptable for registration and approval by the Director of Lands and Surveys Department. On the ground, all forest reserve boundaries will be marked by permanent and prominent concrete pillars at all strategic points and locations in addition to the usual concrete boundary stones. Coordinates for each and every corner-point of the boundaries should be computed and supplied.

All of these surveys will be carried out by registered licensed surveyors of Sabah, who are registered with the Sabah Surveyors Board established under Section 3 of the Surveyors Ordinance, 1960. **Table 4.1.1** highlighted the costs and the surveyor appointed so far for this work. Both portions comprising of Part A and B covering a total length of **106,350 m** was contracted to Perunding Teknologi Ukur. Funding for this work amounting to **RM 379, 491** was sourced from the RMK9 (**FBB**) by FRM Division.

Table 4.1.1: Costs and the Appointed Contractors for Boundary Demarcation Work in FMU 10

Area Surveyed	Length (M)	Contract Costs (RM)	Contractor Appointed
Part A	54,800	195, 636	Perunding Teknologi Ukur
Part B	51,550	183, 855	Perunding Teknologi Ukur
<b>Total</b>	<b>106,350</b>	<b>379, 491</b>	

#### **4.1.1 Progress in 2009**

The progress achieved in 2009 implemented by the FRM Division was as follows:

##### **4.1.1.1 Survey of Part A**

The survey was initiated in the middle of 2009 with the appointment of Perunding Teknologi Ukur for this work. By the end of 2009, 10% of the survey work covering a length of **5,480 m** under the jurisdiction of the District Forestry of Keningau has been completed. All survey works for Part A covering the remaining **49,320 m** is now expected to be completed by the end of 2010. The FRM Division will carry out further assessment on the ground to ensure all survey details and boundaries are marked correctly at all strategic points of Part A by Perunding Teknologi Ukur.

##### **4.1.1.2 Survey of Part B**

Survey works was initiated since 2007 by the Perunding Teknologi Ukur. However due to unforeseen circumstances faced by the said surveyor on the ground, survey work for the whole **51,550 m** was delayed. By September 2009, around 50 % of the work was completed, covering a total boundary length of **25,775 m**. The remaining length of **25,775 m** of the outer boundary survey was completed before the end of 2009. The survey plan has been sent to Juru Ukur Daerah Keningau for further assessment and final endorsement.

##### **4.1.1.3 Survey of Part C**

Since funding has not been secured by FRM, survey work for this portion could not be initiated yet for 2010. Depending on the availability of RMK 10 funding for the continuation of survey work, it is envisaged that Quotation for the survey and demarcation for Part C will only be prepared in 2011.

##### **4.1.1.4 Erection of FD Plates**

Acquisition of FD plates was done through Local Purchase Order (LPO) from various suppliers. To date a total expenditure of **RM 500,000**, including some RM220, 000 from the **ICFMU10**

budget, has been spent by the FRM Division in 2008 and 2009 to purchase 6,000 plates. The FD Plates bearing the words “**Dilarang Masuk Kawasan Hutan Simpan**” were erected at an interval of every 20 m along the surveyed boundaries. Perunding Teknologi Ukur has completed erecting the FD plates for Part B. Erections for Part A boundaries are expected to be completed by the end of 2010.

#### **4.1.1.5 Boundary Maintenance**

Checking on the integrity of protected FMU 10 boundaries should be part of the normal field surveillance work. In addition to the field surveillance, an aerial surveillance was also carried to further strengthen the safety of TMFR. These activities are highlighted further in Chapter 4.10.

The boundary maintenance was supposed to be carried out on a quarterly basis headed by FRM Division and to be assisted by the DFO Tambunan and Keningau field staff. Due to the difficulties on the ground faced by Perunding Teknologi Ukur in establishing the outer boundaries in time for Part B, this activity was therefore delayed for a few months. The boundary maintenance team headed by Forest Ranger (FR) Fauzi Paul will continue with the work throughout 2010. Progress report will be submitted to the Chairman of CAMP TRUS MADI FMU 10 for record purposes.

#### **4.1.2 Activities in 2010**

The schedule and activities to be implemented in 2010 are described in **Table 4.1.2**. These activities are as follows:

- The demarcation of verified and legal boundary on the ground for TMFR covering the remaining length of 49,320 m (Part A) by Perunding Teknologi Ukur;
- To carry out regular boundary maintenance of TMFR by the FRM and field team on the completed portion of Part B covering a total length of 51,550 m and some portions of Part A whenever completed;
- Erection of FD plates at 20 m intervals along the Part A extending 54,800 m of demarcated boundary by Perunding Teknologi Ukur.

Table 4.1.2: Activities and schedule for TMFR Boundary Demarcation in 2010

No	Activity	Month											
		1	2	3	4	5	6	7	8	9	10	11	12
1	Survey of Trus Madi FR - FMU10 - Part A involving 49,320 m	X	X	X	X	X	X	X	X	X	X	X	X
2	Erection of FD plates in Part A surveyed boundaries covering 54,800 m	X	X	X	X	X	X	X	X	X	X	X	X
3	Boundary maintenance covering 51,550 m and the additional length of 54,800 m			X			X			X			X

### 4.1.3 Estimated Expenditure

The total expenditure for implementing this strategy in 2010 is estimated at **RM 270,241**. **Table 4.1.3** describes the breakdown of the expenditure involved.

Table 4.1.3: Boundary Demarcation Expenditure in 2010

Item	Activities	Budgets (RM)		
		9MP (FRM)	T & T Vote	TOTAL
1	Survey of Part B FMU 10 Outer Boundary (RMK 9)	183,855	-	183,855
2	Maintenance of Part A & B Allowances: (RM 60/Day x 8 x 180 days)	-	86,386	86,386
	<b>Total</b>	<b>183,855</b>	<b>86,386</b>	<b>270,241</b>

## 4.2 **Upgrading of check point facilities and erection relevant strategic signage**

The objectives of this strategy are:

- To ensure check points are adequately equipped
- To ensure adequate field markers, reference point, reminders and warning signs to the public are provided.

### 4.2.1 Activities done in 2009

This strategy was implemented by **ADFO Tambunan Julius P. Indu** and **SFMO Jafin Abu Bakar**. Gated entrance was constructed at the Tambunan Check point in August 2009. The Keningau Check point was moved from the old site to a new site located at KM 1 of the Trus Madi - Pangas road in June 2009. The details of these activities are as follows:

#### 4.2.1.1 **Construction of Forest Checking Station at Kg. Tampurung/Warisan, Apin – Apin and Gated Entrance at Tambunan Check Point**

The Forest Checking station with gated entrance in Keningau Forestry District was moved to KM 1 Trus Madi - Pangas because of its strategic location as compared to the old site. The purpose was to safeguard and secure the project area against illegal activities such as illegal cultivation, poaching, encroachments, forest opening and also forest fire as well as to monitor tourist activities going to the Borneo Jungle Girl (BJG) adventure tourism. A six (6) km access road including a bridge was maintained as described in **Chapter 4.18**. This Forest Checking Station was equipped with generator and radio-call facility in case of emergency use.

Gated entrance and beautification was necessary to be done also at the Tambunan check point to provide security as well as improving the entrance outlook to visitors. Access road stretching some 13 km to this point was completed in November 2009 as described in **Chapter 4.18**.

#### **4.2.2 Activities in 2010**

Three (3) activities will be done in 2010. The implementing schedule for all of these activities is shown in **Table 4.2.1**.

Table 4.2.1: Implementation Schedule for Strategy 2 in 2010

Item	Activities	Month											
		1	2	3	4	5	6	7	8	9	10	11	12
1	Construction of gated entrance at Taman Kitingan, Tambunan					X	X	X	X				
2	Construction of gated entrance in KM 1 Trus Madi – Pangas Road, Keningau				X	X	X	X	X				
3	Erections of Strategic Signage (Tambunan and Keningau)		X	X									

Apart from the erection of strategic signage, the other two (2) activities are as follows:

##### **4.2.2.1 Construction of Gated Entrance at Taman Kitingan, Tambunan**

There are four (4) established routes to the summit of Mount Trus Madi, namely, via two (2) routes from Tambunan, and one (1) each at Apin-Apin (Keningau) and Sinua (Sook). The routes from Tambunan are (1) the Trus Madi Trail and (2) the Kidukaruk Trail. But the most popular and frequented route is still the Trus Madi Trail, being the only one that remains accessible all throughout the year. It is about 4.9 Km long and begins at Taman Kitingan, the starting point for climbing Mt Trus Madi. A gated entrance to facilitate control access would be constructed in 2010.

##### **4.2.2. Construction of Gated Entrance at KM 1 Trus Madi – Pangas Road**

This activity will be done by **SFMO Jafin Abu Bakar**. Works will be contracted out through quotations and purchases through LPO.

#### **4.2.3 Estimated Expenditure**

The expenditure for 2010 is as tabulated in **Table 4.2.2**. A total amount of **RM 150,000** will be required from the **EPTM** budget.

Table 4.2.2: Estimated cost required for Strategy 2 in 2010

Item	Activities	EPTM (RM)
1	Construction of gated entrance at Taman Kitingan, Tambunan	60,000
2	Construction of gated Entrance at Km 1 Trus Madi - Pangas, Keningau	60,000
3	Erections of strategic signage	30,000
<b>TOTAL</b>		<b>150,000</b>

### **4.3 Upgrading of climbing trails (4.9 km) and construction of basic facilities at various rest areas and overnight camping area**

The objective of this strategy is to improve the condition and facilities, overnight camping facilities to climbers along the Trus Madi climbing trail and the Sinua Trail. The implementation is entrusted to **ADFO Julius P. Indu** and **SFMO Jafin Abu Bakar**.

#### **4.3.1 Activities done in 2009**

The activities implemented in 2009 under this strategy focussed on providing better facilities for climbers along the Trus Madi trail as well as on reducing the negative impact of tourism activity, not only on the climbing trail itself but in FMU 10 in general. The activities implemented in 2009 were as follows:

##### **4.3.1.1 Trus Madi Trail Improvement**

Trail improvement in the following areas:

- i) improving the trail alignment, repairing damaged footpath and climbing trails
- ii) constructing boardwalks over sensitive areas, and
- iii) Cordoning of hazardous areas and removal of potentially hazardous objects.

Activity (i) and (iii) were implemented by Tambunan FD staff under **ADFO Julius P. Indu** supervision assisted by **ADFO Bonaventure Yampai**, whereas construction for activity (ii) was contracted out.

##### **4.3.1.2 Trus Madi Trail Facilities Improvement**

Overall, basic facilities along the Trus Madi trail in Tambunan were improved by September 2009. Improvements of the basic facilities along the trail done were as follows:-

i) At Climbers Cabin

- Installation of water collection tanks and proper piping
- Construction of toilet facilities
- Construction of proper kitchen
- Installation of solar panel

ii) At Taman Ali Hassan

- Construction of Resting hut
- Improvement of Water supply
- Construction of Toilet

iii) At Taman Sulaiman

- Clearing of Camping site
- Construction of Resting hut
- Construction of gravity water supply
- Construction of Toilet

Information boards and proper signboards, location markers, pointers and labels were erected in late 2009. These had helped in improving the awareness of climbers to conservation efforts in FMU 10.

### 4.3.2 Activities in 2010

The Sinua trail will be explored and if necessary, facilities will be improved in 2010. Gated entrance and checking station will be constructed. For Tambunan, baggage props for climbers, safety climbing facilities and mini viewing tower will need to be provided in 2010. **Table 4.3.1** describes the activities and implementation schedule for 2010.

Table 4.3.1: Implementation Schedule for Strategy 3 in 2010

Item	Activities	Location	Month											
			1	2	3	4	5	6	7	8	9	10	11	12
1	Construction of check point and gated entrance at Sinua	Sinua Trail			X	X	X	X	X	X	X	X		
2	Construction of baggage Props	Trus Madi Trail			X	X	X	X						
3	Renovation of Climbers Cabin	Trus Madi Trail				X	X	X						
4	Construction of Safety Climbing Facilities	Trus Madi Trail			X	X	X	X						
5	Construction of Mini Viewing Tower	Trus Madi Peak			X	X	X							
6	Construction of Cabin at Rangers Camp	Apin – Apin Trail								X	X	X	X	



### 4.3.2 Estimated Expenditure

The expected expenditure for 2010 is as tabulated in **Table 4.3.2**. A total expenditure of **RM 350,000** is required to construct the relevant facilities under the **EPTM** and **ICFMU10** budgets.

Table 4.3.2: Expenditure for Strategy 3 in 2010

Item	Activity	EPTM (RM)	ICFMU10 (RM)
1	Construction of baggage props	5,000	-
2	Construction of check points and gated entrance at Sinua Trail	40,000	-
3	Renovation of Climbers cabin	-	60,000
4	Construction of Safety Climbing Facilities	-	100,000
5	Construction of Mini Viewing Tower	-	80,000
6	Construction of Cabin at Rangers Camp	-	60,000
	<b>TOTAL</b>	<b>45,000</b>	<b>300,000</b>

## 4.4 Development and Implementation of good visitation Protocol/Guidelines

Littering by climbers is one of the major threats faced in conserving FMU 10. A solution that was introduced in 2008 was imposing pre and post climbing baggage check of visitors. This works well for Tambunan, however it was found that littering still occurred at the summit from visitors using the Sinua climbing trail. The objective of this strategy is to ensure orderly visitation and to ascertain good climbing conduct of visitors to Trus Madi. The implementation of this strategy is entrusted to a management committee headed by **DD Rahim Sulaiman**.

### 4.4.1 Activities done in 2009

The Visitation Committee for Mount Trus Madi to develop good visitation guidelines was established in January 2009. Members of the committee are as listed in **Table 4.4.1**. The current guidelines of maintaining a restricted number of visitors of 14 people per climb and baggage check were upheld by the committee. Possibility of opening up Sinua as an alternative route to climbing Mt. Trus Madi was recommended by the Eco tourism Management Committee in January 2009. This study will be discussed in 2010.

Table 4.4.1: Members of FMU 10 Visitation Committee

Responsibility	Personal
Chairman	DD Rahim Sulaiman
Secretary	DFO Haji Mohd Nooh Mohd Jiran ADFO Julius P.Indu
Members	ADO Thomas Logijin
	ADDO Mohd Guntur Arif
	SFMO Jafin A. Bakar
	DFO Sook Awang Ismail Awang Tuah
	Other relevant stakeholders

The Terms of Reference of the Committee for 2010 remains the same as that of 2009. These are as follows:

- Revise Climbing Permits Issuance including development of guidelines for visitors and climbing certificate and make recommendation for amendments to the Director of Forestry for approval.
- Explore the possibility of providing Insurance coverage to climbers and make recommendation for implementation to the Director of Forestry for approval.
- 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.
- Review of registration procedure at check point and implement the appropriate changes.
- To hold quarterly meeting of the committee.
- 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 amendments. This consultation may be held together with that of the Ecotourism Committee under strategy 11.

#### **4.4.2 Activities in 2010**

Any recommendations for implementation would be carried out as soon as approval from the Director of Forestry is obtained. **Table 4.4.1** and **4.4.2** describe the schedule of work in 2010 and the estimated expenditure.

Table 4.4.1: Implementation Schedule for Strategy 4 in 2010

Item	Activities	Month											
		1	2	3	4	5	6	7	8	9	10	11	12
1	Committee Meeting/Stakeholders Dialogue (parallel with Strategy 11): <ul style="list-style-type: none"> <li>Study on opening up Sinua as alternative route to Trus madi</li> </ul>			X			X			X			X
2	Implementing recommended/appropriate changes			X	X	X	X	X	X	X	X	X	X

Table 4.4.2: Expenditure required for Strategy 4 in 2010

Item	Activity	ICFMU10 (RM)
1	Meeting Expenses with stakeholders	5,000
	<b>Total</b>	<b>5,000</b>

## 4.5 Development and implementation of good flora and fauna collection Protocol/Guidelines

The objective of this strategy is to develop systematic and orderly collections procedures for fauna and flora in FMU 10. Implementing the strategy is entrusted to a management committee headed by **DD Rahim Sulaiman**.

### 4.5.1 Activities done in 2009

The only activity done in 2009 was the setting up of a Committee on flora/fauna collection that will develop guidelines for such activities in FMU 10. Members of the committee are as listed in **Table 4.5.1**.

The Terms of Reference (TOR) of the committee for 2010 also remains the same as that of 2009. These are as follows:

- To review existing procedures and conditions of flora and fauna collection in FMU 10 and recommend appropriate amendments for the approval of the Director of Forestry for implementation.

- To review existing procedures and conditions of scientific research permits (**Table 4.5.3**) in FMU 10 and recommend appropriate amendments to the relevant authority in Putrajaya and Kota Kinabalu through 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.
- To hold committee meeting on a quarterly basis.

Table 4.5.1: Members of Flora/Fauna Collection Committee

Responsibility	Personal
Chairman	DD Rahim Sulaiman
Secretary	SRO Dr. Chey Vun Khen
	SRO Julius Kulip
Members	DFO Hj. Mohd Nooh Jiran
	DFO Peter Jack
	SRO Anuar Mohd
	Wildlife Officer Sumbin Gadas
	Parks Officer Alim Biun

#### 4.5.2 Activities in 2010

Committee meeting will be done on a quarterly basis to discuss any possible amendments. **Table 4.5.1** and **Table 4.5.2** describe the activities and budgetary requirement for 2010.

Table 4.5.1: Implementation Schedule for Strategy 5 in 2010

Item	Activities	Month											
		1	2	3	4	5	6	7	8	9	10	11	12
1	Committee Meeting			X			X			X			X
2	Implementing recommended actions on flora/fauna collection			X	X	X	X	X	X	X	X	X	X

Table 4.5.2: Expenditure for strategy 5 in 2010

Item	Activities	ICFMU10 (RM)
1	Meeting Expenses	5,000
	<b>TOTAL</b>	<b>5,000</b>

Table 4.5.3: Current Procedure for doing research In Sabah for Foreigners

**EXISTING APPLICATION PROCEDURE FOR RESEARCH PASS IN SABAH**

The applicant (foreign researcher) has to submit the completed EPU/Research Form 1 to the Economic Planning Unit (EPU) of the Prime Minister's Department in Putrajaya. EPU will contact Setiausaha Kerajaan Negeri, Jabatan Ketua Menteri (JKM): Bahagian Hal Ehwal Dalam Negeri & Penyelidikan and State EPU; Collaborating institution(s) in Sabah.

Upon hearing from EPU (Putrajaya) KM will reply to EPU (Putrajaya). JKM will also copy their reply to Pesuruhjaya Polis Sabah, Pengarah Imigresen Sabah, Pengarah Kastam & Eksais, and the collaborating institution(s);

The collaborating institution(s) will reply to EPU (Putrajaya). After hearing from JKM and the collaborating institution(s), EPU (Putrajaya) will decide whether the research pass should be given. If approved, the applicant has to make a payment of RM150 to EPU (Putrajaya) for conducting research in Malaysia. An initial RM50 also has to be paid as processing fee.

If the applicant is to conduct research at Danum Valley, he also needs to get approval from the Danum Valley Management Committee, as stipulated in Section 4 (iv) of the Forest (Danum Valley Conservation Area) Rules 1996, by filling in a Danum Valley Research Proposal Form. The same applies to Maliau Basin; permission is to apply from the Maliau Basin Management Committee, as in Section 4 (iv) of the Forest (Maliau Basin Conservation Area) Rules 1998. The successful applicant has to comply with conditions set by the collaborating agency.

**Implementation of controlled collection of non timber plants produce.**

- Issuance of permit to enter collection area (SFD)
- Issuance of collection permit (SWD)
- Registration at guard post/check points, handing over of equipments and tools.
- Assignment of collection block and guidelines.
- Declaration of plants collected to the officer/ ranger on duty.

### SABAH BIODIVERSITY COUNCIL

In future, an access licence from the Sabah Biodiversity Council will be required to obtain access to biological resources, as stated in Section 15 of the Sabah Biodiversity Enactment 2000. Also, no export of biological resources for research purposes is allowed without a licence issued by the Council, as stated in Section 28 of the Enactment.

Under the Sabah Biodiversity Enactment, offences and penalties include:

- Under Section 26, any access activity without an access licence will be fined RM50,000 / jailed for 5 years
- Under Section 27, unauthorised taking of exhibits, data, and resources from the Biodiversity Centre will be fined RM30, 000 / jailed for 3 year.

## **4.6 Social Baseline Survey (SBS)**

Encroachment is one of the major threats in the conservation efforts in FMU 10 especially in the Keningau forestry district. Appropriate data on these encroachers need to be collected to devise an appropriate approach to abate and reduce this problem. The objective of this strategy is to obtain baseline information on encroachers and their activities in FMU 10. **SFMO Jafin A. Bakar** is the implementer of this strategy.

### **4.6.1 Activities done in 2009**

Initial work done in 2008 was continued in 2009 which were as follows:

- Continuation of SBS for the boundary TMFR at Sook area
- Data screening, data entry and analysis
- Entering and analyzing of collected data
- Report Writing

The areas surveyed were Kg Mailo, Kg Warisan Tempurung, Barisan Baru, Kg Mangas Rompangas and Kg Kanawahon (located in FMU 5). The preliminary SBS report for these five (5) kampongs has just been compiled. Findings and recommendations will be submitted to the Director of Forestry for final decision after the data have been analysed in middle 2010.

### **4.6.2 Activities in 2010**

In 2010, the survey will be continued in Kg Linusudan and Kg Semai Bakti at the Sook boundary. The schedule for all activities to be implemented in 2010 is shown in **Table 4.6.1**.

Table 4.6.1: Implementation Schedule for Strategy 6 in 2010

Item	Activities	Month											
		1	2	3	4	5	6	7	8	9	10	11	12
1	Continuation of SBS at the boundary of TMFR at Sook			X	X	X							
2	Data screening and entry					X	X						
3	Analyzing collected data					X	X						
4	Report Writing							X					
5	Stakeholder Discussion with Apin - Apin Encroachers		X										

#### **4.6.2.1 Additional SBS in Sook**

Two (2) field staff from the office of DFO Keningau will continue this survey along the boundary of TMFR. These two (2) kampongs were spotted during the Boundary Demarcation in 2009. Initially they were not inclusive in the Trus Madi Forest Reserve. However, after the survey and the maintenance of the rural road development, encroachments activities were activated.

#### **4.6.2.2 Data screening and entry**

All information recorded in the questionnaires need to be screened immediately after the survey to ensure that all the questions are answered correctly. After screening through the questionnaires, the encroachers' responses to the questions that have not been pre - coded will be coded with numerical codes. In this stage, reliability analysis will also be carried out. The Reliability of correspondents' response will be determined using the Lickert Scale analysis.

#### **4.6.2.3 Data analysis and Reporting**

SPSS program (Statistical Package for the Social Science) will be used for entering and analysing the data. Report will be prepared and submitted upon the completion of all analysis.

#### **4.6.3 Estimated Expenditure**

The budget expenditure for 2010 is as tabulated in **Table 4.6.2**. A total sum of **RM 9,560** will be required to implement this strategy in 2010.

Table 4.6.2: The Estimated expenditure for SBS in 2010

Item	Activity	ICFMU10 (RM)	T & T (RM)	TOTAL (RM)
1	Allowance (RM140 X 3 X 18 days)	-	7,560	7,560
2	Stakeholder Discussion	2,000	-	2,000
	<b>TOTAL</b>	<b>2,000</b>	<b>7,560</b>	<b>9,560</b>

## 4.7 Development of Controlled Hunting Area

Illegal hunting or wildlife poaching is one of the major threats to be managed in FMU 10. If this threat is not managed, it will lead to the decline in wildlife population in the area. Curbing this threat by imposing a hunting ban will not work as field investigations during the CAMP for FMU 10 development showed the occurrence of such illegal activities.

The objective of this strategy is to achieve sustainable wildlife management through controlled hunting activities in FMU 10. Controlled hunting is expected to be enforced this year. This strategy will focus on the management Zone 4 in Ulu Monsok and Ulu Rompon. The total area involved is estimated to be 6,000 ha. The objective of this strategy is to ensure an orderly and better management of hunting activities in FMU 10 of wildlife that are not prohibited to be hunted under the Wildlife Conservation Enactment 1997.

This strategy is implemented by the **Sabah Wildlife Department (SWD)** headed by **Wildlife Officer Sumbin Gadas** and assisted by **Wildlife Ranger Awang Rahimin**. A total of five (5) staff has been assigned by the Keningau office for this work. Transportation will be provided by SWD. However other necessary equipments and construction of facilities in implementing this strategy as well as payment of allowances will be provided by SFD through various sources of funds available for FMU 10.

### 4.7.1 Activities done in 2009

Facilities, namely camping area and Guard Post were constructed at Ulu Rompon in late 2009. Two (2) wildlife personnel had been assigned to man the guard post since December 2009. SWD also participated in the Trus Madi Biodiversity Expedition in August 2009 organised by SFD.

### 4.7.2 Activities in 2010

The envisaged controlled hunting activities to be implemented by the **Sabah Wildlife Department (SWD)** and **SFD** are:

- Issuance of permit to enter hunting area by SFD
- Issuance of hunting permit by SWD



- Registration at the Wildlife guard post and inspection of hunting equipments and tools by SWD
- Assignment of hunting block and hunting guide by SWD
- Declaration of animals' carcasses to the Wildlife officer ranger on duty in the controlled hunting area

The other activities for 2010 are as described in **Table 4.7.1**.

Table 4.7.1: Implementation Schedule for Strategy 7 in 2010

Item	Activities	Month											
		1	2	3	4	5	6	7	8	9	10	11	12
1	Boundary demarcation and sub division			X	X	X	X	X	X				
2	Determination of Hunting Blocks and Development of hunting trails system			X	X	X	X	X	X				
3	Conducting wildlife census			X			X			X			X
4	Installation of signboards			X	X	X	X	X					
5	To determine and Gazette hunting seasons										X	X	
6	Formulation of hunting procedures			X	X	X	X						
7	Surveillance of area	X	X	X	X	X	X	X	X	X	X	X	X
8	Preparation of Controlled Hunting Plan								X	X	X	X	X

#### 4.7.2 Estimated Expenditure

The total expenditure to implement this strategy is **RM 190,000**. The breakdown of the costs is described in **Table 4.7.2**. The wildlife census and training will be conducted by SWD. The hunting trails establishment and sign board installation will be contracted out. The specifications for the contract works will be provided by SWD.

Table 4.7.2: Estimated costs for Implementing Controlled Hunting Strategy in 2010

No	Item	ICFMU10 (RM)
1	Purchase and Erection of Sign Boards	30,000
2	Training	30,000
3	Allowances	30,000
4	Equipments including gen set, wiring, etc	50,000
5	Carpark Construction	50,000
	<b>TOTAL</b>	<b>190,000</b>

## 4.8 Development of Forest Fire Management Plan

Fire is the most destructive threat in conserving the flora and fauna in FMU 10. This threat has burned down some 22,000 ha of Mixed Hill Dipterocarp forest in FMU 10. Addressing this major threat therefore is vital to prevent further forest destruction. The objective of this strategy is to achieve zero fire incidences in FMU 10.

### 4.8.1 Activities done in 2009

Due to work commitment of the Fire Planners from Headquarters, the planned activities of assembling a fire planning team and development of a fire management plan for FMU 10 was shelved in 2009.

### 4.8.2 Activities in 2010

**SACF Pilis Malim** and **ACF Awangku Affendi**, being the Chief Fire Planners, suggested that this task be contracted out to consultants in 2010. **Table 4.8.1** describes the related activities for 2010.

Table 4.8.1: Implementation Schedule for Fire Management strategy in 2010

Item	Activities	Month											
		1	2	3	4	5	6	7	8	9	10	11	12
1	Assignment of Fire Planner and appointment of Fire Consultancy			X									
2	Developing Fire Management Plan through consultancy			X	X	X	X	X					
3	Implementation of Fire Management Plan								X	X	X	X	X

### 4.8.3 Estimated Expenditure

Payment of Fire Planning Consultant is the major expenditure estimated in implementing this strategy. The total amount estimated is **RM 70,000**.

Table 4.8.2: Estimated cost for Strategy 8 in 2009

Item	Activities	ICFMU10 (RM)
1	Fire Consultancy	70,000
	<b>TOTAL</b>	<b>70,000</b>

## 4.9 Establishment of Community Woodlots in Tambunan

The objective of this strategy is to provide necessary wood resources for the Tambunan local communities in a stateland area outside FMU 10 near Kampung Kaingaran. This objective is expected to abate or reduce the threats of communities engaging in illegal timber extraction in FMU 10, by providing alternative timber resources for their usage to be managed sustainably by the communities themselves. This strategy is implemented by **DFO Hj. Mohd Nooh Mohd Jiran**.

### 4.9.1 Activities done in 2009

The activities done in 2009 were as follows:

- Justifications and rationale for the setting up of Community woodlots in Tambunan was submitted to the Director of Forestry to obtain his signature to apply for the relevant area in Tambunan in June 2009.
- Following the endorsement by the Director of Forestry, DFO Haji Mohd Nooh Mohd Jiran had submitted the relevant application to Lands and Surveys Department Tambunan in September 2009.

### 4.9.2 Activities in 2010

**Table 4.9.1** describes the activities in 2010. Basically actions would be just reminding the Land utilisation Committee (LUC) on the area applied in 2009 for the establishment of the area. No expenditure is expected to be spent under this strategy, since all the tasks are merely documenting and paper pushing in nature.

Table 4.9.1: Implementation Schedule for Community Woodlots Strategy in 2010

Item	Activity	Month											
		1	2	3	4	5	6	7	8	9	10	11	12
1	Follow up action at LUC Meetings (Tambunan)		X	X	X	X	X						
2	Follow up action after LUC Meetings endorsement (Tambunan)				X	X	X	X	X				
3	Upon approval follow up action on surveying of area								X	X	X	X	X

## 4.10 Implementation of surveillance system

The objectives of this strategy are:

- To ensure that FMU 10 is free from threats such as fire, illegal timber extraction, poaching of flora and fauna and encroachments that jeopardise the conservation efforts
- To establish a surveillance schedule for FMU 10

There are five (5) threats that need to be managed as highlighted in the approved CAMP FMU10. These threats are fire, illegal timber extraction, encroachments, illegal hunting/collections of flora and fauna including fishing, and littering along the Trus Madi trail.

The strategy enforced currently is as follows:

- Field personals manning check points will continue to perform daily surveillance around the check points. To increase mobility as well as surveillance range, the Tambunan entry point have been equipped with a motorcycle.
- Task Force Unit from both districts will carry weekends and public holidays surveillance

### 4.10.1 Activities done in 2009

In 2009, surveillance activities are as follows:

- Task Force patrolling was done in accordance to the relevant Director's Circular in TMFR. However, due to inadequate vehicles, this Task Force was not able to fully make the round to FMU 10 areas as stipulated in the 2009 AWP.
- There was only one aerial surveillance exercise done in 2009.
- On the development of a remote monitoring device prototype, ADFO Julius Peter Indu manage to utilise a handphone and a micro controller together, which when activated will send a preset SMS message to predetermined cell phones. Unfortunately, the power supply need improvisation to make it usable in remote areas where electricity is not readily available or maintenance interval longer than one week, making the prototype mechanism not practical yet to be utilise for field surveillance.

Surveillance activities done in 2009 managed to detect 1 (one) illegal cutting of few trees in Milo, Keningau. The case had been forwarded to the court and the case is currently still proceeding. Overall it could be inferred that no encroachment and illegal activities occurred in FMU 10 for the year 2009.

#### **4.10.2 Activities in 2010**

In 2010, the same rigorous surveillance schedule is maintained as in 2009 in view of the availability of five (5) new vehicles purchased in late 2009. These vehicles are scheduled to be assigned by DD Rahim Sulaiman in January 2010 to both the Tambunan and Keningau forestry districts. The scheduled activities are as follows:

- The FMU-10 ground surveillance teams comprising of FPCT members will continue carry out weekends and public holiday surveillance round. On a more than one day public holiday, the team will be required to camp out in the field at night.
- While on duty, besides on the lookout for encroachers and fire outbreaks, the team will be required to do, among others, fish sampling, bird watching and recording their songs, etc during the day and to do night safari during the night. This will make FD's continued presence known to deter potential illegal poachers and timber thieves from entering FMU 10 area.
- Aerial surveillance will be carried out once a month to monitor remote and inaccessible areas, Aerial surveillance will be jointly undertaken by:
  - SFMO Jafin Keningau
  - ADFO Julius Peter Indu
  - ADFO Bonaventure Yampai
  - ADFO Hj Abdul Rahman Tuah
- To search for the appropriate existing equipments and to develop a better prototype of a low-cost remote monitoring devices using simple and easily assembled electronic devices. This task will exclusively be handled by **ADFO Julius P. Indu**. This involves acquiring of the following:
  - Embeded C++ programming skill
  - Micro controller programming skill
  - Appropriate equipments

The surveillance schedule for 2010 is highlighted in **Table 4.10.1**. The lists of required equipments are described in **Table 4.10.2**.

Table 4.10.1: Surveillance Schedule for FMU 10 in 2010

Item	Location	Mode	2010											
			1	2	3	4	5	6	7	8	9	10	11	12
			<b>Frequency per month</b>											
1	Sinungkalanagan, Namadan, Nandal/Kaingaran (by FPCT, Tambunan)	Ground inspection	Round trip to the area every weekends, public holidays and to perform night safari at least once a month. Round trip once a month during normal working days											
2	Ulu Monsok, Ulu Rompon (by FPCT, Tambunan)	Ground inspection	Round trip to the area every weekends, public holidays and to perform night safari at least once a month. Round trip once a month during normal working days											
3	Pangas, Apin-Apin, kawasan pemburuan, kawasan penanaman, (by FPCT, Keningau)	Ground Inspection	To make round trip to Pangas every fortnight. To carry out night safari at least once a month along the road inside the hunting zone at least once a month.											
		Ground Inspection	To make round trip around rehabilitation areas every fortnight. To carry out night safari at least once a month along the road inside the hunting zone.											
4	Sook, Sinua (by FPCT, Keningau)	Ground Inspection	Round trip once a month during normal working days											
5	Aerial Surveillance	Helicopter	To make round trip at least once a month <ul style="list-style-type: none"> <li>• along the FMU-10 forest boundary</li> <li>• Sinungkalanagan, Namadan</li> <li>• Nandal/Kaingaran</li> <li>• Ulu Monsok, Ulu Rompon</li> <li>• Along Pangas, Apin-Apin</li> <li>• hunting area, rehabilitation areas</li> <li>• Sook, Sinua</li> </ul>											

### 4.10.3 Estimated Expenditure

A total expenditure of **RM 147, 440** is required for the surveillance activities. The details are as tabulated in **Table 4.10.2**.

Table 4.10.2: Estimated Expenditure for Surveillance Strategy in 2010

No	Item	Quantity (unit/hrs)	Price/Unit	ICFMU10 (RM)
1	Repeater Station	1	25,000	25,000
2	Mobile Calling Units + Antenna	7	1,280 + 400	11,760
3	Handheld Calling Units + Antenna	6	880 + 150	6,180
4	Single Occupant Camping Tent	12	200	2,400
5	Camping gas	7	100	700
6	Rubber mattress	7	100	700
7	LED Headlamp with battery	7	100	700

8	Aerial Surveillance (3hr x 12)	36 hrs	2,500	90,000
9	Fund for the development of appropriate technology and innovation	-	-	10,000
<b>TOTAL</b>				<b>147,440</b>

## 4.11 Managing Ecotourism Development

CAMP FMU 10 Volume 4 describes the Malaysian Ecotourism Development Guidelines. These guidelines will form the basis of approving any potential ecotourism development proposal in FMU 10. Sustainable development goal will be made the paramount requirement in any tourism development in FMU 10. The objective of this strategy is to ensure tourism activities and development in FMU 10 meets the Ecotourism and relevant state tourism guidelines.

### 4.11. Activities done in 2009

An Ecotourism Committee was established in early 2009. The members of the committee are as shown in **Table 4.11.1**. So far only one (1) Stakeholder dialogue was done in January 2009 with some interested group from Kg Sinua. The Assistant Minister for Tourism and Environment, **YB Datuk Alfred Elron Angin** participated in the meeting. It was to discuss the potential of opening up of Sinua in Sook as an alternative route to climb Mount Trus Madi. The meeting recommended that a detail investigation be done by the DFO Keningau to study this possibility. This possibility study has been included in Strategy 3 for 2010.

Table 4.11.1: Members of Ecotourism Committee for FMU 10

<b>Responsibility</b>	<b>Personal</b>
Chairman	DD Rahim Sulaiman
Secretary	DFO Hj. Mohd Nooh Mohd Jiran
Members	DFO Ramli Majid
	DFO Awang Ismail Awang Tuah
	ADDO Mohd Guntur Arif
	ADO Thomas Logijin
	ADO Peter Beatey
	SFMO Jafin Abu Bakar

Two (2) discussions were held with Borneo Jungle Girl (BJG) mainly on road maintenance and visitors' entrance issues in March and July. In late November, Innotravel, a subsidiary company of Yayasan Sabah, specialising in eco-tourism activities and promotions had approached the committee on the possibilities of venturing into such activities in TMFR. The Chairman of the Committee, DD Rahim Sulaiman has instructed Secretary DFO Haji Mohd Nooh Mohd Jiran to set up a meeting with the company in late January of 2010 to discuss possible collaboration and joint-ventures.

The terms of Reference for this Committee in 2010 remain the same as that of 2009. These are as follows:

- To appraise any ecotourism development proposal in FMU 10 from the private sector or any project proponent and make appropriate recommendation to the Director of Forestry based on the guidelines set under the Malaysian Ecotourism Guidelines and Sabah state tourism policy/guidelines
- To hold regular (quarterly interval) Tourism dialogue with stakeholders

#### 4.11.2 Activities in 2010

The work schedule for this strategy in 2010 is described in **Table 4.11.2**. The activities are largely confined to holding quarterly stakeholders dialogue and vetting of ecotourism proposal. Committee and stakeholders meeting on a quarterly basis will be done in 2010. Priority meetings with Innotravel and BJG are scheduled in early 2010. Meetings with interested parties from Kg Sinua and Kaingaran are also anticipated. It is estimated a total expenditure of RM 10,000 will be required (**Table 4.11.3**).

Table 4.11.2: Implementation Schedule for Strategy 11 in 2010

Item	Activity	Month											
		1	2	3	4	5	6	7	8	9	10	11	12
1	Tourism Stakeholders Dialogue <ul style="list-style-type: none"> <li>• Innotravel Sdn Bhd</li> <li>• BJG</li> <li>• Kg Sinua and Kaingaran</li> </ul>	X			X			X			X		
2	Committee Meeting upon receipt of development proposal			X			X			X			X

Table 4.11.3: Estimated Expenditure for Strategy 11 in 2010

Item	Activities	ICFMU10 (RM)
1	Tourism Dialogue (Provision for Food and accommodation for kampong people)	10,000
	<b>TOTAL</b>	<b>10,000</b>



## 4.12 Forest Restoration

Since 2009, this strategy has been accorded a major portion of funding for its implementation due to the magnitude of burnt areas to be rehabilitated. Two (2) sources of funding, namely from the forest rehabilitation funds (Reforestation of Trus Madi Forest Reserve: **(RTMFR Fund)**) and from the Federal government (Reforestation of Burnt Areas for FMU 10: **(RBAFMU10 Fund)**), had been approved to implement this strategy. In accordance to the sources of funding, the implementation of this strategy has been divided into two. Under the **RBAFMU10** funding, the implementer is **DD Rahim Sulaiman**, whereas under the **RTMFR** funding, **DFO Ramli Majid** is the implementer. **SFMO Jafin A. Bakar** is the field supervisor for both funding.

As FMU 10 is set aside as a conservation area, the objective of this strategy is the restoration of the **22,000 ha** burnt areas with indigenous tropical species only. Planting of non-indigenous species, including rubber is not allowed at all.

### 4.12.1 Activities done in 2009

The activity planned for 2009 under this strategy was the restoration of **430 ha**. However, due to the late appointment of planting contractors, in accordance to the exercise of implementation of standard planting rates by SFD, only **130 ha** were planted in 2009. Two (2) Contractors were approved by the Ministry of Finance (**MOF**) to be appointed without tender procedure for the restoration works, namely Green Environmental Consult and Avitrade Plantation Sdn Bhd. <sup>1</sup>.The details of their contracts are as follows:

Table 4.12.1a: Planting Contracts Awarded in 2009 as Approved by MOF Sabah

Name of Company	Contract No and Area to be planted in 2009	Area Approved by MOF and Funding Source	Validity of Contract
Avitrade Plantation Sdn Bhd	<b>JP/TM-KGU/01/09</b> <b>350 Ha</b>	700 ha RBAFMU10 Fund	13.08.2009 – 12.08.2010
Green Environmental Consult	<b>JP/TM-KGU/02/09</b> <b>80 Ha</b>	160 ha RTMFR Fund	3.9.2009 – 2.9.2010

The planted areas are located in Compartment R24, comprising of **80 ha** funded under the **RBAFMU10**, and compartment 16 & 19, comprising of **50 ha** funded under the **RTMFR** (**Fig 4.12.1** and **4.12.2**). **Table 4.12.1b** and **Table 4.12.1c** describe the contract costs and restoration expenditure incurred by the respective planting contractors for 2009. Expenditures of **RM 282,000** and **RM 124,200** was spent on the restoration activities and paid to Avitrade Plantation and Green Environmental Consult respectively. Four (4) planting access roads were constructed in the planting area, incurring a total expenditure of **RM 139,100**.

<sup>1</sup> Approvals from MOF were through KEW(S) 300-1/1/31 KLT.17/ (72) dated 15<sup>th</sup> June 2009 and KEW(S) 300-1/1/31 KLT.18/ (77) dated 24<sup>th</sup> July 2009 respectively.

Table 4.12.1b: Forest Restoration Standardize Contract Costs and Expenditure paid to Avitrade Plantation Sdn Bhd in 2009 under the RBAFMU10 Budget

No	Item	Contract Unit Price (RM/ha or unit)	Area Planted (Ha or Unit)	Expenditure (RM)
1	Site Preparation and Planting	900	80 ha	72,000
2	Seedlings Supply	5	24,000	120,000
3	Maintenance x 3	180	-	-
4	Fertilizer x 3	120	-	-
5	Nursery Establishment	1	30,000 sq ft	30,000
6	Marked Boundary	1.50	40,000 m	60,000
			<b>TOTAL</b>	<b>*282,000</b>

**Note:** \* A total payment of RM 192,000 would need to be effected in early 2010 as this expenditure could not be paid in time for 2009 due to late submission of vouchers before the 15<sup>th</sup> December 2009 dateline.

Table 4.12.1c: Forest Restoration Standardize Contract Costs and Expenditure Incurred by Green Environmental Consult Contract in 2009 under RTMFR Budget

No	Item	Contract Unit Price (RM/ha or unit)	Area Planted Ha/Unit	Expenditure (RM)
1	Site Preparation	900	50 ha	72,000
2	Planting	500	50 ha	25,000
3	<b>Seedlings Supply</b>			
	Non – Dipterocarps	3	1,400	4,200
	Dipterocarps	5	4,600	23,000
4	Maintenance x 3	180	-	-
5	Fertilizer x 1	360	-	-
6	Marked Boundary	1.50	-	-
7	Clearing Blockage in streams	6,139	-	-
			<b>TOTAL</b>	<b>124,200</b>

## Kawasan Restoration Avitrade Plantation S/B Hutan Simpan Trus Madi - FMU 10

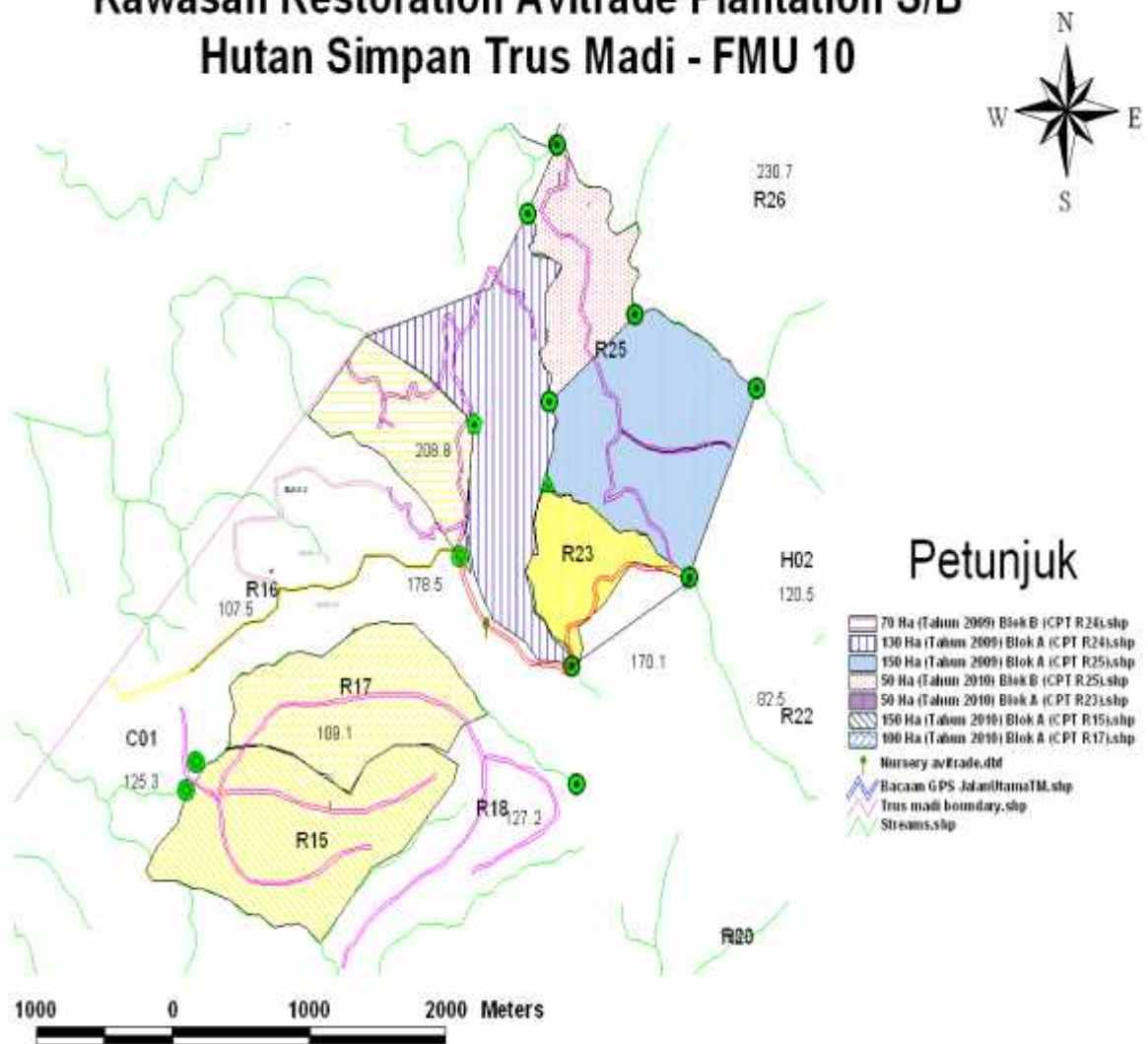


Figure 4.12.1: Location of the planting Area Contracted to Avitrade Plantation Sdn Bhd

Kawasan Penanaman Green Env. Consult  
seluas 160 hektar dalam Hutan Simpan Trus Madi

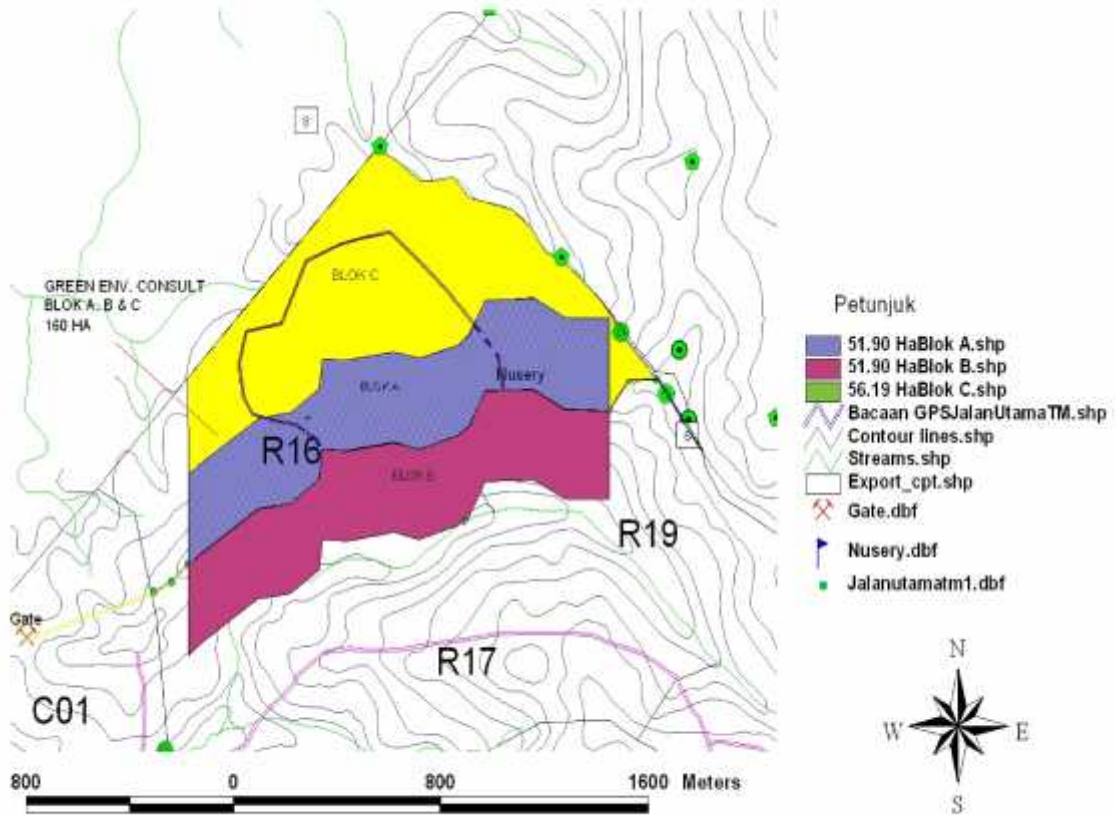


Figure 4.12.2: Location of the planting Area Contracted to Green Environmental Consult

#### 4.12.2 Activities in 2010

The following activities are planned for 2010:

##### 4.12.2.1 Avitrade Plantation Sdn Bhd

Planting of the remaining **270 ha** as required by the Contract agreement has to be completed by **12<sup>th</sup> August 2010**. Budget for this work is sourced from the **RBAFMU10** budget. In accordance to the standardize reforestation contract costs as that given to Green Environmental Consult, amendment of the contract agreement to include the **RM 500** planting rate per ha would be done in January 2010. This amendment would incur an additional expenditure of **RM 175,000** (Table 4.12.2a) under the present contract agreement. In total, an expenditure of **RM 1,228,000** would be required to reforest the remaining 270 ha in 2010.

A new contract covering an additional area of **350 ha** in accordance to the approval from MOF would be prepared in January 2010 as well. This would incur an expenditure of **RM 1,420,000** for 2010. Altogether for 2010, a total expenditure of **RM 2,648,000** is envisaged to be spent on the reforestation of a total area of **620 ha** by Avitrade Plantation Sdn Bhd (Table 4.12.2a).

Table 4.12.2a: Estimated Expenditure for the restoration work in FMU 10 under the RBAFMU10 Fund by Avitrade Plantation in 2010

Item	Activities	RBAFMU10 1 <sup>st</sup> Contract	RBAFMU10 New Contract	TOTAL Expenditure in 2010
1	Site Preparation@RM900/ha x (270 ha and 350 ha ) @620 ha	243,000	315,000	558,000
2	*Planting@RM500/ha x 350 ha x 2	175,000	175,000	350,000
3	Supply seedling@RM5 x (81,000 + 105,000)@186,000	405,000	525,000	930,000
4	Maintenance@RM180/ha x 3 x 350 ha	189,000	189,000	378,000
5	Fertilizer@RM120/ha x 350 ha x 3	126,000	126,000	252,000
6	Nursery Establishment @RM 1 x 30,000 sq ft	30,000	30,000	60,000
7	Marked Boundary@1.50/m x 40,000 m	60,000	60,000	120,000
<b>TOTAL</b>		<b>1,228,000</b>	<b>1,420,000</b>	<b>2,648,000</b>

**Note:** \* denotes the need to include an additional cost of RM500/ha for 350 ha so as to standardize the planting contract costs to Avitrade as that awarded to Green Environmental Consult. Amendment of contract **JP/TM-KGU/01/09** will be done in early 2010 to incorporate this additional cost. The new contract to be awarded to the company for the planting of an additional 350 ha in 2010 should include this cost in the standard contract costs.

#### 4.12.2.2 Green Environmental Consult

Planting of the remaining **30 ha** as required in the contract agreement would need to be completed by Green Environmental Consult by **2<sup>nd</sup> September 2010**. This would incur an estimated expenditure of **RM 198,801**. Budget for this work is funded from the **RTMFR**. A new contract would also need to be prepared in January 2010 for restoring the additional area of **80 ha** as provided by the MOF's approval to Green Environmental Consult. This would incur an additional expenditure of **RM 296,000**. In total, an expenditure of **RM 494,801** is required to complete the planting of 160 ha by this company in 2010 (**Table 4.12.2b**).

Table 4.12.2b: Estimated Expenditure for the restoration work in FMU 10 under the RTMFR Fund by Green Environmental Consult in 2010

Item	Activities	RTMFR 1 <sup>st</sup> Contract	RTMFR New Contract	Total Expenditure in 2010
1	Site Preparation@RM900/ha x (30 ha + 80 ha)	27,000	72,000	99,000
2	Planting@RM500/ha x (30 ha + 80 ha)	15,000	40,000	55,000
3	Seedling: Non Dipterocarp @ RM 3 x 5,464 + 6,864	16,392	20,592	36,984
4	Seedlings: Dipterocarp @ RM 5 x 11,416 + 16,016	57,080	80,080	137,160
5	Maintenance@RM180/ha x 3 x 80 ha	43,200	43,200	86,400
6	Fertilizer@RM360/ha x 80 ha	28,800	28,800	57,600
7	Marked Boundary@1.50/m x 3,460 m	5,190	5,190	10,380
8	Clearing Blockage in streams	6,139	6,139	12,278
<b>TOTAL</b>		<b>198,801</b>	<b>296,000</b>	<b>494,801</b>

#### 4.12.2.3 Construction of planting access road in various Compartments

Constructions of planting access road are envisaged for compartment **R 15, R 16, R 19** and **R 23**. **Table 4.12.3a** describes the compartments involved and the estimated costs. An additional cost of **RM 210,377.50** is estimated for these activities in 2010.

Table 4.12.3a: Estimated Expenditure for surveying and construction of access planting roads in various compartments in FMU 10 in 2010

No	Item	RBAFMU10 Estimated Costs (RM)
1	Road survey for Compartment R15 (2788m + 1683m) - @RM2.50/m	11,177.50
2	Road Survey for Compartment R17 (2133m) - @RM2.50/m	5,332.50
3	Road construction in Compartment R15 (3588m+1683m)@RM2.50/m	105,420
4	Road construction in Compartment R17 (2133m) @RM2.50/m	42,660
5	Road Survey for Compartment R16 & R19) (Block C) (2035m) - RM2.50/m	5,087.50
6	Road construction in Compartment R16 & R19 (Block C) (2035m)-@RM2.50/m	40,700.00
<b>TOTAL</b>		<b>210,377.50</b>

#### 4.12.2.4 New Plantings

Initial assessment in the Sook area revealed some encroachments activities by the kampong folks. To discourage such activities, SFD presence in the area should be enhanced. As such new plantings should be concentrated in the Batu Lunguyan area comprising of **50 ha**. In accordance to SFD's standardize contract costs, this restoration activity would cost **RM 205,250** to be implemented in 2010 (**Table 4.12.3a**).

Table 4.12.3a: Estimated Expenditure for the restoration of 50 ha in FMU 10 in 2010

Item	Activities	RBAFMU10 Estimated Cost (RM)
1	Site Preparation@RM900/ha x 50	45,000
2	Planting@RM500/ha x 50	25,000
3	Supply seedling @RM5 x 14,300	71,500
4	Maintenance@RM180/ha x 3	27,000
5	Fertilizer@RM360/ha	18,000
6	Nursery Establishment	15,000
7	Marked Boundary@1.50/m	3,750
<b>TOTAL</b>		<b>205,250</b>

### 4.12.3 Estimated Expenditure

The total expenditures for the reforestation work for 2010 are estimated to be as follows:

- Under the **RBAFMU10** budget, a total expenditure of **RM 3,063,627.50** is envisaged for the restoration works in 2010 (**Table 4.12.4a**). The budget amount available in 2010 is **RM 4,885,593**, which is more than adequate to finance the various restoration and access road constructions for 2010. A balance of **RM 376,183.50** would be available for road maintenance work in FMU 10 to facilitate accessibility in the area for surveillance purposes (**Table 4.12.4b**).
- Under the RTMFR fund, a total expenditure **RM 494,801** (**Table 4.12.2a**) for the restoration work is anticipated in 2010. This budget is also adequate to cover the planned restoration work of planting up 120 ha of burnt areas under this source of funding. The balance budget available for the RTMFR in 2009 is **RM 588,636**. A surplus of **RM 93,835** is still available under this fund for implementing other works in 2010 (**Table 4.12.4b**).

Table 4.12.4a: Total Expenditure for Restoration and other Relevant Works in FMU 10 under the RBAFMU10 and RTMFR Budget in 2010

Fund	Total Expenditure for Restoration Work in 2010 (RM)	Total Expenditure for Planting Access Road Construction in 2010 (RM)	Total Expenditure for 50 ha Restoration Work in Sook (RM)	TOTAL Expenditure in 2010 (RM)
RBAFMU10	2,648,000	210,377.50	205,250	3,063,627.50
RTMFR	494,801	-	-	494,801

Table 4.12.4b: Total Budget and Balance Available under RBAFMU10 and RTMFR in 2010 for other works

Fund	Budget Given in 2010 (RM)	Unspent Amount in 2009 (RM)	Total Amount in 2010 (RM)	Reforestation Expenditure in 2010 (RM)	Road Maintenance Arrears to be paid in 2010 (RM)	Surplus for other works in 2010 (RM)
RBAFMU10	3,500,000	1,385,593	4,885,593	3,063,627.50	1,445,782	376,183.50
RTMFR	-	588,636	588,636	494,801	-	93,835



## 4.13 Flora and Fauna Conservation Targets Survey

Due to the lack of human resources and work commitments of the other partner organisations, namely Sabah Parks and the Sabah Fisheries department, only three (3) conservation targets are planned in 2010. These are:

- 1) *N. xtrusmadiensis* at the summit area of Mt Trus Madi. This activity is implemented by **SRO Julius Kulip**.
- 2) Survey of *Rafflesia keithii* flowers in various location of Trus Madi. This will also be implemented by **SRO Julius Kulip**.
- 3) Survey of Rajah Brooke and its host plant. **SRO Dr. Chey Vun Khen** is the implementer of this activity

Survey of the Hornbills and Serawi fish may have be contracted out if suitable expertise could be available in 2010.

### 4.13.1 Survey of *N. xtrusmadiensis*

*Nepenthes xtrusmadiensis* is the largest Pitcher plant hybrid in the world and can only be found growing at the elevation of 2,500 to 2,642 meters on the summit of mount Trus Madi in Tambunan.

The objectives of this survey are to ascertain the species occurrence, population density, distributions and health of the hybrid. The results will be used to assess the conservation viabilities of the hybrid at the summit of Mount Trus Madi.

#### 4.13.1.1 Activities Done for 2009

The first phase of survey of *Nepenthes xtrusmadiensis*, covering the southern and northern faces of the Trus Madi summit was done in May 2009. Due to some technical misunderstanding and unclear instructions, unfortunately only the southern face was surveyed. Nevertheless, the results of the survey indicated that in the southern portion of the summit, this flora is thriving well showing healthy and active reproductions capacity.

#### 4.13.1.2 Activities for 2010

The activities planned for 2010 are as shown in **Table 4.13.1**.

Table 4.13.1a: Implementation Schedule for *Nepenthes xtrusmediensis* survey in 2010

Item	Activity	Month											
		1	2	3	4	5	6	7	8	9	10	11	12
1	Briefing for Tambunan/ FRC Staff					X							
2	Survey Execution						X						
3	Report writing and submission to DD (Mgt)							X					
4	Submission for Publication in FRC Bulletin								X				

#### 4.13.1.3 Methodology

This survey is the continuation of the phase 1 survey done in 2009. It will cover the eastern, western and the northern faces of the summit. There are two peaks of the mountain to be surveyed. The first peak at 2,642 meters above sea level is lower about 100 meters from the main peak.

Two methods will be used during this survey namely random and by establishing selected plots. The survey will be done by establishing three (3) 500 m long lines from the trig point towards the eastern, western and northern parts of the summit. The first method or random survey will be carried out along this line. One square plot with a size of 10m x 10m will be established on each line using pegs and yellow plastic ribbons. Although the plots will be randomly selected, enumerators should however choose areas that are of good vegetations growth having evidence of *N. xtrusmediensis* plants growing on such sites. Each of the plots will be subdivided into 25 sub-plots, each measuring 2m x 2m. All of these activities will be done over a total period of seven (7) days.

Data and assessment to be recorded by the enumerators are as indicated in the relevant forms in **Table 4.13.1b** and **4.13.1c** respectively.

Table 4.13.1b: *N. x trusmediensis* Random Survey Form 1 (Sample)

<u>BORANG 1: Kajian rawak sepanjang 500m rentis jalan menghala ke trig puncak</u>	
Kumpulan	: FRC, Sepilok / PPD Tambunan
Nama Ketua Kumpulan	:
Nama-nama ahli kumpulan:	
Kawasan di kaji	:
Tarikh kajian	:

Nombor Rumpun	Koordinat GPS	Ketinggian Altitude (masl)	Bilangan individu setiap rumpun	Bilangan individu mati atau tidak sihat (Kering, cedera atau dimakan serangga).

Table 4.13.1c: *N. x trusmadiensis* Survey Form 2 (Sample)

**BORANG 2: Kajian di dalam plot 10m x 10m pada rentis jalan menghala ke trig puncak.**

Kumpulan : FRC, Sepilok / PPD Tambunan Nama Ketua Kumpulan : Nama-nama ahli kumpulan: Kawasan di kaji : Tarikh kajian : Ketinggian (masl) : Koordinat GPS :			
<b>Bilangan</b>	<b>Jumlah bilangan individu</b>	<b>Jumlah bilangan individu yang TIDAK sihat</b>	<b>Jumlah bilangan individu yang SIHAT</b>
<b>Nombor Rumpun</b>			
Rumpun 1			
Rumpun 2			
Rumpun 3			
Rumpun 4			

**4.13.1.4 Estimated Expenditure**

The budget required for 2010 for this activity is RM 7,747. Breakdown of expenditure is described on **Table 4.13.1d**.

Table 14.13.1d: The expenditure for Survey of *Nepenthes xtrusmadiensis* in 2010

Item	Activity	T&T (RM)	ICFMU10 (RM)	TOTAL (RM)
1.	<b>Allowance for field survey.</b> Rate:(@ 7 days) RM 106.66/day x 1 SRO RM 69.99/day x 2 RA RM 59.99/day x 4 PRA & 2 Drivers	4,247	-	4,247
2.	<b>Purchasing of Camping equipments</b> Storage box = 2 units Portable cooking stove = 7 units Portable cooking utensils = 7 sets Medicines and Vitamins = 7 sets	-	2,000	2,000
3.	<b>Working equipments:</b> To utilize that from survey 4.13.2	-	-	-
4.	<b>Research equipments</b> Spray paint = 1 doz. Colour tape = 1 roll	-	1,500	1,500
<b>TOTAL</b>		<b>4,247</b>	<b>3,500</b>	<b>7,747</b>

#### 4.13.2 Survey of *R. keithii*

Rafflesia flower is the largest single flower ever known to mankind in this world and *Rafflesia keithii* is the largest and certainly the most spectacular of Sabah's Rafflesias which is also found in Trus Madi range. Although this flower was well known to people, many have not got a chance to see the living plants. The uniqueness of *Rafflesia* lies not just in its size and appearance. Its peculiar parasitic life style for survival is equally interesting. It depends on its host plant *Tetrastigma* spp., a wild grape vine (Vitaceae family) for its food and water for survival.

The objective of this survey is to ascertain distributions and assessment of conservation viabilities of *Rafflesia keithii* in Trus Madi (FMU 10) Tambunan and Keningau districts. The result of this survey will be published in scientific botanical journal for information.

##### 4.13.2.1 Activities in 2010

The activities set for 2010 are as indicated in **Table 4.13.2a**.

Table 4.13.2a: Activities for *R. keithii* survey in 2010

Item	Activity	Month											
		1	2	3	4	5	6	7	8	9	10	11	12
1.	Briefing	X											
2.	Purchasing Equipments		X										
3.	Survey execution			X				X			X		
4.	Report writing and submission to DD (MGT)				X				X			X	
5.	Final Report and submit for publication												X

#### 4.13.1.3 Methodology

In order to accomplish the objective of this study, the plants need to be located and mapped. To do this, a systematic search approach will be employed by dividing the FMU 10 areas into grids. Range of altitude where survey will be conducted is between 600 – 1,000 meter above sea level. Data to be taken are species, population status, elevation, GPS coordinate and forest types. Data and assessment to be recorded by the staff as dictated in the form as shown in **Table 4.13.2b**.

Table 4.13.2b: *Rafflesia keithii* survey form 1

<u>Borang 1: Borang kajian lokasi bunga <i>Rafflesia keithii</i></u>				
Kumpulan penyelidik: FRC, Sepilok / PPD Tambunan				
Ketua Kumpulan.				
Grid.				
Tarikh populasi dijumpai.				
Kedudukan GPS.				
Ketinggian Altitude....masl				
Jenis hutan/habitat...				
Nombor Populasi	Jumlah Bunga Mekar	Jumlah Tunas (Anak Bunga)	Jumlah Bunga Mati	Catatan lain-lain
1.				
2.				
3.				
4.				
5.				

#### 4.13.1.4 Estimated expenditure

The budget required for 2010 for this activity is RM 26,738.18. Breakdown of expenditure is described in **Table 4.13.2c**.

Table 4.13.2c: The expenditure for Survey of *Rafflesia keithii* in 2010

Item	Activity	T&T (RM)	ICFMU 10 (RM)	TOTAL (RM)
1.	<b>Field Survey Allowance</b> Rate: (@ 7 days x 3 times) RM 106.66/ day x 1 SRO RM 69.99/ day x 2 RA RM 59.99/ day x 4 PRA & 2 Drivers	12,739	-	12,739
2.	<b>Purchasing of camping equipments</b> Gen set = 1 unit; Lamp (tube) = 2 sets Cable wire = 1 roll Suiz and plug = 2 units each Water purifier set = 2 units Water-proof Storage box = 2 units; Chainsaw (Small) = 1 unit Portable cooking stove = 9 pcs; Cooking utensils = 9 sets	-	8,000	8,000

	Medicines & Vitamins = 9 sets;Canvas (8m x 4m) = 2 sets Hammock = 9 pcs;Sleeping bag = 9 pcs Mosquito net = 9 pcs;Flash lights = 9 pcs Hammer = 2 pcs;Nails (2in) = 2kgs Scoup = 1 pc;Changkul = 1 pc Tumbak/Tolimbu = 2 pcs;Parang = 7 pcs Batu pengasa = 2 units;Rafia rope = 2 doz.			
3.	<b>Working gears</b> Warm cloth = 7 pcs Rain cloth = 7 pcs Water-proof cap = 7 pcs Water-proof shoe = 7 pcs Knap sack (Large) = 7 pcs Knap sack (Small) = 7 pcs Leech socks = 7 pcs Gloves = 7 pcs	-	3,000	3,000
4.	<b>Research equipments</b> Spray paint tube = 1 doz. Clipped file (plastic) = 2 pcs Note book (W/proof) = 3 pcs GPS = 2 units Compas = 2 units Camera digital = 2 units Coloured tape = 1 doz.	-	3,000	3,000
<b>TOTAL</b>		<b>12,739</b>	<b>14,000</b>	<b>26,739</b>

### 4.13.3 Survey of Rajah Brooke and its host plant

The objective of the survey is to ascertain distributions and assessment of conservation viabilities of Rajah Brooke's Birdwing in FMU 10. Due to roads' inaccessibility, limited survey was carried out in 2009 during the Trus Madi Biodiversity Expedition. This strategy is implemented by **SRO Dr. Chey Vun Khen**.

#### 4.13.3.1 Activities in 2010

The following are the activities planned for 2010:

- Data analysis and report preparation for Trus Madi Expedition conducted in August 2009
- A seven (7) days Survey at the Borneo Jungle Girl (BJG) site
- Mark and recapture method will be used to estimate the population
- Periodic Monitoring to be done twice a year
- Analysis and Report writing

The schedule is described in **Table 4.13.3a**. The estimated cost for the survey is **RM 22,560 (Tab4.13.3b)**.

Table 4.13.3a: Implementation Schedule for R. Brooke survey in 2010

Item	Activity	Month											
		1	2	3	4	5	6	7	8	9	10	11	12
1	Field Survey			X									
2	Periodic Monitoring						X			X			
3	Data Analysis	X	X										X

Table 4.13.C.2: Estimated Expenditure for R. Brooke survey in 2010

Item	Activities	ICFMU10 (RM)	T & T (RM)	TOTAL
1	Research Tools	15,000	-	15,000
2	Allowances (60x7x3x6)	-	7,560	7,560
	<b>TOTAL</b>	<b>15,000</b>	<b>7,560</b>	<b>22,560</b>

#### 4.14 Conservation awareness programme

The objective of this strategy is to create a conservation culture among the communities around FMU 10. This is implemented by **ADFO Julius P Indu**, **SFMO Jafin A. Bakar**, **ADFO Bonaventure Yampai** and **ADFO Haji Abdul Rahman Tuah**.

##### 4.14.1 Activities done in 2009

Two (2) activities were implemented in 2009. These were:

- Production of pamphlets

The main purpose of the pamphlet was to inform the public regarding CAMP FMU 10 and their role in conservation. This pamphlet were distributed during the Koningau Festival in Keningau and district level Harvest Festival in Tambunan as well as the Heart of Borneo (Hob) Forum and Exhibition in October 2009.

- Participation in Local Annual Festivals

SFD participated in the Koningau Festival held in November 2009 in Keningau, the District Level Harvest Festival in Tambunan in May 2009 and the HoB Exhibition in October 2009. Responses from the public in all occasions were overwhelming.

#### 4.14.2 Activities in 2010

Participation in the Tambunan and Keningau festivals as well as other exhibitions would be continued in 2010. FMU 10 Conservation talk will be done in various secondary schools in Tambunan and Keningau districts. This conservation talk would be headed by ADFO Haji Abdul Rahman Tuah. The schedule for this strategy is described in **Table 4.14.1**.

Table 4.14.1: Implementation Schedule for conservation awareness in 2010

Item	Activity	Month											
		1	2	3	4	5	6	7	8	9	10	11	12
1	Pamphlet production			X	X								
2	A 10 minutes Video Production		X	X									
3	Participation in the Harvest Festival exhibition in Tambunan					X							
4	Participation in the Koningau Fest exhibition in Keningau											X	
5	FMU 10 Conservation Talk in Secondary Schools	X	X	X	X	X	X	X	X	X	X	X	X

The estimated expenditure for the awareness strategy in 2010 is **RM 16,000 (Table 4.14.2)**.

Table 4.14.2: Estimated Expenditure for the Awareness Strategy in 2010

No.	Activity	ICFMU10 (RM)
1	Koningau Festival	2,000
2	Harvest Festival	2,000
3	Pamphlet production	4,000
4	Video Production	8,000
<b>TOTAL</b>		<b>16,000</b>

#### 4.15 Creation of corridors at relevant boundaries

Assessment made by the Forest Resource Management Division (FRM) showed that the total length of the boundary for Trus Madi FR is 136,400 meters. It has been estimated that it will take three (3) years, i.e. from 2009 until 2011 to complete the said boundary demarcation. The objective of this strategy is to persuade adjacent landowner to collaborate with SFD regarding the creation of conservation corridor on their land at the relevant boundary of FMU 10.



#### 4.15.1 Activities done for 2009

Due to the late acquisition of vehicle, this strategy was shelved for implementation in 2009. Activities were confined to collation of land owners' data along the boundary of FMU 10.

#### 4.15.2 Activities in 2010

The activities set under this strategy for 2010 to be implemented by **SFMO Jafin A. Bakar**, are as follows:

- Identify and collect data of land owners based on land title and ground inspection.
- Meeting and discussion with kampong people nearest boundary Trus Madi FR. This will be based on the accessibility of the kampongs from the main road. In the meantime, efforts will be focussed on kampong Mailo, Kg. Nandagan and Kg. Sinua.
- Preparation of pamphlet on conservation targets, goals, threats and the strategies as highlighted by the approved CAMP for FMU 10 for the kampong people.
- Recording data during field inspection visit and from the mapping section of FRM.

The schedule for all activities related to this strategy and targets are shown in **Table 4.15.1**.

Table 4.15.1: Implementation Schedule for strategy 15 in 2010

Item	Activity	Month											
		1	2	3	4	5	6	7	8	9	10	11	12
1	Identification and collection of data of land owners based on ground inspection.							X	X	X	X	X	X
2	Meeting and discussion with kampong people nearest boundary Trus Madi FR.							X	X	X	X	X	X
3	Preparing Pamphlet or information paper to kampong people			X	X	X	X						X
4	Record data based on field inspection and from mapping section FRM							X	X	X	X	X	X

#### 4.15.3 Estimated Expenditure

The total estimated expenditure in implementing this strategy in 2010 is **RM 14,700**. **Table 4.15.2** describes the breakdown of the costs involved.

Table 4.15.2: Estimated Expenditure for Strategy 15 in 2010

Item	Activities	ICFMU10 (RM)	T & T (RM)	TOTAL
1	Identify and collect data of land owners based on ground inspection. Allowance (RM90 X 2 X 30 days) Allowance (RM80 X 2 X 30 days)	-	10,200	10,200
2	Meeting and discussion with kampung people nearest boundary Trus Madi FR.	2,000	-	2,000
3	Prepared Pamphlet or information paper to kampung people	2,000	-	2,000
4	Record data based on field inspection and from mapping section FRM HQ	500	-	500
	<b>TOTAL</b>	<b>4,500</b>	<b>10,200</b>	<b>14,700</b>

#### 4.16 Website development and maintenance

The objective of this strategy is providing the sharing of conservation efforts at FMU 10 globally. This strategy is coordinated by **DD Rahim Sulaiman**. Expertise of Jabatan Perkhidmatan Komputer Keningau especially Computer Officer Dorothy Polus would be sought in some of the website maintenance. Updating of the website content would be done by the Computer Services Section in headquarters.

##### 4.16.1 Activities done in 2009

Purchase of ten (10) laptop computers for the MPCT members, at a cost of **RM 20,890**, were completed in August 2009. The website development work was contracted to Sinaran Mewah at a cost **RM 33,000**. The Trus Madi Conservation Area (FMU 10) website was launched by YAB Chief Minister, Datuk Seri Panglima Musa Haji Aman, on the 26<sup>th</sup> October 2009, during the Heart of Borneo (**HoB**) Forum in Kota Kinabalu.

##### 4.16.2 Activities in 2010

The major work in 2010 under this strategy is to maintain the website throughout the year. This work could possibly be assigned to the ICT Division. Should the need to outsource the expertise arise, then the work could also be contracted out. The schedule of work is shown in Table 4.16.1. The estimated expenditure involved is **RM 30,000 (Table 4.16.2)**.

Table 4.16.1: Implementation Schedule for Strategy 16 Implementation in 2010

Item	Activity	Month											
		1	2	3	4	5	6	7	8	9	10	11	12
1	Website Maintenance	X	X	X	X	X	X	X	X	X	X	X	X

Table 4.16.2: Estimated Expenditure for Strategy 16 in 2010

Item	Activities	ICFMU10 (RM)
1	Costs for Website Maintenance	26,000
2	Computer and printer Maintenance (RM500 x 8)	4,000
<b>TOTAL</b>		<b>30,000</b>

## 4.17 Scientific/Biodiversity Expeditions

The main objective of this strategy is to document flora and fauna populations in the unexplored parts of FMU 10. This effort will be opened to all government departments and institution of higher learning in Sabah. This work is implemented by **SRO Anuar Mohd**.

### 4.17.1 Activities done in 2009

The expedition was done in August 2009 over two (2) weeks duration (3<sup>rd</sup> – 14<sup>th</sup> August 2009). A total of **66** people participated with some **RM50, 000** spent during the said expedition. A total of three (**3**) Institutions also participated in the expedition, namely from Universiti Malaysia Sabah (UMS), Sabah Wildlife Department and Boonrich Sdn Bhd. A total of **15** related biodiversity studies were conducted during the expedition.

### 4.17.2 Activities in 2010

The activities involved in 2010 are as follows:

- Presentation of the 2009 Biod Expedition in Keningau tentatively in February 2010
- Identification of suitable areas in FMU 10
- Preparing a planning schedule for 2010
- Informing, recruiting of interested parties and execution of the expedition
- Presentations of findings and report writing by members of the expedition

The tentative schedule in implementing this strategy is described in **Table 4.17.1**. The estimated cost for executing the expedition is **RM 80,000 (Table 4.17.2)**.

Table 4.17.1: Implementation Schedule for Strategy 17 in 2010

Item	Activity	Month											
		1	2	3	4	5	6	7	8	9	10	11	12
1	Presentation of Expedition Findings		X										
2	Identification of suitable areas			X									
3	Preparation of a Planning Schedule				X								
4	Informing all members of regarding intention to carry out Scientific Expedition				X								
5	Recruiting interested parties for FMU 10 Expedition				X								
6	Expedition Implementation						X						
7	Presentations of Preliminary Findings by FMU 10 Expedition Teams										X		
8	Submission of Reports to SFD												X

Table 4.17.2: Costs of Biodiversity Expedition in 2010

Item	Activities	ICFMU10 (RM)	T & T (RM)	TOTAL (RM)
1	Allowances for SFD Staff	-	40,000	40,000
2	Expedition Costs (Including Presentation in Keningau and camping facilities)	40,000	-	40,000
<b>TOTAL</b>		<b>40,000</b>	<b>40,000</b>	<b>80,000</b>

#### 4.18 Maintenance of roads

The objective is to maintain accessible road networks to facilitate surveillance, restoration and other management operations in FMU 10. **DD Rahim Sulaiman** is the main implementer of this activity. **SFMO Jafin Abu Bakar** is the field supervisor for Keningau, and **ADFO Bonaventure Yampai** is the field supervisor for Tambunan. The PWD Keningau and Tambunan are assisting in providing the specifications of roads to be maintained.

#### **4.18.1 Activities done in 2009**

Road upgrade and maintenance are important to facilitate good access to the proposed site for forest restoration and other conservation management activities. Two access (old logging) roads were maintained and upgraded to be all weather roads in 2009. Calling of tenders were done by K (PPA) in Sandakan in April 2009, after submission of the relevant specifications from the MPCT.

Selection of the relevant tenders documents for **JP/TN/TM/02/2009** and **JP/TN/TM/01/2009** was done by the MPCT in Keningau in June 2009. Awarding of the successful tenderers was done by the Ministry of Finance in Kota Kinabalu in July 2009 attended by DD Rahim Sulaiman. Site acquisition works were completed in August in the two sites by the respective successful tenders.

The road maintenance components costing **RM 1,888,677** were as follows:

- a) Access road from the Trus Madi forest boundaries at Kg. Pangas junction to Kg. Warisan, in Mukim Apin-Apin, Keningau measuring 6 Kilometers. Maintenance work was awarded to Cyaza Sdn Bhd at a cost of **RM 524,087** through Contract Agreement **JP/TN/TM/01/2009** signed on 26<sup>th</sup> November 2009.
- b) Access road off the Tambunan road to Trus Madi starting point (Taman Kitingan) measuring 13 Kilometers. The work was tendered and awarded to Supreme Force Sdn Bhd at a cost of **RM 885,790** through Contract Agreement **JP/TN/TM/02/2009** signed on 26<sup>th</sup> November 2009.
- c) Construction of additional road measuring 278 meters and a 14 meters (length) bridge crossing the Mirad Irad River. This work was awarded directly to Supreme Force Sdn Bhd through approval from MOF at a cost of **RM 478,800** through Contract Agreement **JP/TN/TM/03/2009**. Payment for this work however will be effected in 2010, as the work was only started in late November 2009.

#### **4.18.2 Activities in 2010**

A number of road upgrading is actually required to be done in FMU10. Earlier assessment done indicated the following maintenance:

- Maintenance of newly reconstructed existing access road in Tambunan (13 km) and Keningau (6 km)
- Maintenance and upgrading of alternative access road to starting point in Tambunan (9 km)
- Maintenance and upgrading of existing access road in Sook Jalan Batu Lumuyan – Trus Madi (12 km)
- Maintenance of existing access road Jalan Pangas – Rangers Camp (51 km)

- Construction of new bridge at KM 44 Jalan Pangas – Rangers Camp
- Construction of two (2) Culverts at KM 17 and KM 38 Jalan Pangas – Rangers Camp

However, due to the availability of limited funds, only a few of this maintenance could be done in 2010. The activities planned for 2010 are highlighted in **Table 4.18.1**.

Table 4.18.1: Implementation Schedule for Road maintenance in 2010

Item	Activity	Month											
		1	2	3	4	5	6	7	8	9	10	11	12
1	Maintenance of access road <ul style="list-style-type: none"> <li>• 6 km in Keningau</li> <li>• 13 km in Tambunan</li> </ul>	X	X	X	X	X	X	X	X	X	X	X	X
2	Maintenance and upgrading of access roads <ul style="list-style-type: none"> <li>• 9 km in Tambunan</li> <li>• 51 km in Keningau (Jalan Pangas – Rangers Camp)</li> <li>• 12 km in Sook (Jalan Batu Lumuyan – Trus Madi)</li> </ul>		X	X	X	X	X	X	X				

The total estimated cost for road maintenance and upgrading is **RM 782,000** using two (2) sources of funding, namely the **RBAFMU10** and the **EPTM** budget as described in **Table 4.18.2**.

Table 4.18.2: Estimated Expenditure for Road maintenance in FMU 10 for 2010

Item	Activities	RBAFMU10 (RM)	EPTM (RM)	TOTAL (RM)
1	Maintenance of access road <ul style="list-style-type: none"> <li>• 6 km @ RM 8,000/km</li> <li>• 13 km @ RM 8,000/km</li> </ul>	48,000 104,000	- -	48,000 104,000
2	Upgrading of new access Road <ul style="list-style-type: none"> <li>• 9 km (Tambunan) @RM45,000/km</li> <li>• 51 km (Keningau)@RM3,000/km</li> <li>• 12 km (Sook) @RM6,000/km</li> </ul>	- 153,000 72,000	405,000 - -	405,000 153,000 72,000
<b>TOTAL</b>		<b>377,000</b>	<b>405,000</b>	<b>782,000</b>

## 5. EXPENDITURE

In 2009, the total of the development cost approved for CAMP FMU 10 under various sources of funding and the additional cost requested for maintenance and allowances was **RM 11,768,336**. In 2010, this amount is **RM 8,397,214** (Table 5.1).

Table 5.1: Expenditure in 2009 and the Estimated Expenditure in implementing the 18 strategies for CAMP FMU 10 in 2010

No	Fund*	Amount Approved/ Requested In 2009 (RM)	Expenditure in 2009 (RM)	Balance after Expenditure in 2009 (RM)	Additional Amount Available /Requested in 2010 (RM)	Total Available/ Requested Budget in 2010 (RM)	Estimated Expenditure in 2010 (RM)
1	ICFMU10	2,200,000	392,617	1,807,383	0	1,807,383	852,400
2	RTMFR	750,000	161,364	588,636	0	588,636	494,801
3	EPTM	1,000,000	400,000	100,000	500,000	600,000	600,000
4	RBAFMU10	7,000,000	2,114,407	4,885,593	3,500,000	4,885,593	4,885,593
5	9MP Fund (FRM)	195,636	195,636	0	183, 855	183, 855	183, 855
6	Vehicles Maintenance	314,100	100,000	0	231,100	231,100	231,100
7	Allowances	308,600	308,600	0	180,746	180,746	180,746
<b>TOTAL</b>		<b>11,768,336</b>	<b>3,672,624</b>	<b>7,331,513</b>	<b>6,991,720</b>	<b>8,327,214</b>	<b>7,428,495</b>

### 5.1 Expenditure in 2009

A total expenditure of **RM 3,722,723** was utilised in implementing the 18 strategies for FMU 10 in 2009 (Table 5.1 and Table 5.2). Although not fully computed yet, payment of allowances and vehicle maintenance also form a major bulk of expenditure for 2009 if the requested amounts for 2009 are taken into account. The major bulk of expenditure was for road maintenance, infrastructural development (listed as others in the Table), reforestation activities and purchase of vehicles and maintenance (Table 5.2).

Table 5.2: Utilisation of Funds in Implementing the 18 Strategies in FMU10 in 2009

Fund	Reforestation Works (RM)	Purchase of Vehicles (RM)	Road Maintenance (RM)	Boundary Demarcation (RM)	Others (RM)	Allowances* (RM)	TOTAL (RM)
ICFMU10	0	0	0	210,951	181,666	0	392,617
RTMFR	161,364	0	0	0	0	0	161,364
EPTM	0	0	0	0	350,000	0	400,000
RBAFMU10	282,000	431,129	1,409,877	0	41,500	0	2,164,506
RMK9 Fund	0	0	0	195,636	0	0	195,636
T & T *	0	0	0	0	0	308,600	308,600
Maintenance**	0	0	0	0	100,000	0	100,000
<b>TOTAL</b>	<b>443,364</b>	<b>431,129</b>	<b>1,409,877</b>	<b>406,587</b>	<b>731,666</b>	<b>308,600</b>	<b>3,722,723</b>

Note: \* Actual amounts for allowances paid in 2009 for FMU10 activities are yet to be assessed. This amount represents the sum requested in 2009.

\*\* Actual amount for vehicles maintenance in 2009 have not been computed yet. Amount represents an estimated sum spent in 2009 by DFO Tambunan, Keningau, Headquarters and FRC.

## 5.2 Expenditure in 2010

A total development and requested budget of **RM 8,327,214** is required to implement the 18 strategies for FMU 10 in 2010. The total expenditure on the other hand is estimated at **RM 7,428,495** (Table 5.1). A balance of **RM 898,719** is envisaged to be available in 2011 from largely the **ICFMU10** and a small amount from the **RTMFR** fund in 2011.

## 6. CONCLUSION

Except for the Serawi and the hornbills' conservation targets and their related strategies, the remaining six (6) conservation targets threats abatement strategies, namely, the MHDF, LMF, SS, *N. xtrusmediensis*, Rajah Brooke Birdwings are implemented in 2010. The total manpower of 34 personals from SFD and 19 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 Rahim Sulaiman as the Chairman of the Operational Committee. A monthly operational meeting should therefore be done to resolve any problems or deviations that may arise from such cooperation.

A total of **RM 8,327,214** from various budgets' sources is estimated for funding these strategies and actions in 2010. A total expenditure of **RM 7,428,495** including additional expenditure for vehicles maintenance and allowances is envisaged to be spent in 2010. Based on the premises that all of the 18 strategies and 25 strategic actions planned in 2010 have correspondingly been assigned to specific personnels and given the necessary budget allocations, the success of this FMU 10 AWP for 2010 therefore has a very high probability of being implemented.