

SEMINAR PAPER:
SUSTAINABLE FOREST MANAGEMENT IN SABAH

Mr. Sam Mannan
Acting Director of Forestry

and

Mr. Yahya Awang
Head of Management and Operation Division

Sabah Forestry Department
Locked Bag No. 68
90009 Sandakan
Sabah, Malaysia

Summary

Sustainable Forest Management is essential for the continuance of Sabah's forest resources that have been dwindling due to mismanagement over the past 3 decades.

The Government of Sabah recently launched its strategies to multiply the Deramakot concept of sustainable forest management to other forest reserves in Sabah.

I. INTRODUCTION

“Life is Uncertain Eat Desert First !!”

(Title of Book - S. Gordon and H. Brecher)

The title of this paper, “**Sustainable Forest Management In Sabah**”, is in some ways, a contradiction in terms. By and large, sustainable forest management (SFM), has not yet been practised in Sabah, with the exception of one little corner of her forests, Deramakot (55,000 hectares). Therefore, this paper is about the pursuance of SFM and the strategies, that have been adopted in Sabah, to operationalise, the implementation of SFM, on a much larger scale.

One of the reasons why this is so, is because, ***we have chosen to eat desert first.***

II. BACKGROUND

The history of forest management in Sabah, over the last 30 years, has been dismal, by any standard of measure. Sustainable forest management has not been practised, the growing stock continues to dwindle in terms of both quality and quantity, the returns from forests are dwindling, whilst the demand of society, on the forests, are ever increasing.

Some indications of these disturbing trends and scenarios are elaborated hereafter.

(a) The Loss of Primary Forests

Over a period of 20 years (1975 - 95), it has been estimated that the coverage of primary forests, has dwindled from 2.8 million hectares to about 0.3 million hectares, or an erosion rate of **125,000 hectares per annum**.

At the same time, the coverage of disturbed forests has increased by about 100 percent over this period (1.4 million hectares approximately to 2.8 million hectares approximately).

(Please see Table One)

TABLE ONE
SABAH: FOREST LAND BY MAJOR VEGETATION

Forest Types	1975 Area (Hectares)	Percentage of total land in Sabah (%)	1995 Area (Hectares)	Percentage of total land in Sabah (%)
(a) Mangrove Forests	365 500	4.96	317 400	4.30
(b) Transitional, Beach and Swamp Forests	203 256	2.76	193 000	2.62
(c) Undisturbed High Forests – Lowland Dipterocarp Forests and Highland Dipterocarp Forests	2 800 236	37.99	300 000	4.07
(d) Montane Forests	711 874	10.47	700 000	9.50
(e) Other Forests (Immature, Disturbed and Regenerating Forests) *	1 399 024	18.98	2 799 220	37.97
TOTAL	5 539 890	75.16	4 309 620	58.46

* **Excluding Plantation Forests.**

For forest areas, reserved, for sustainable forest management (Class II Forest Reserves), the loss of primary, old-growth forests, has been even more dramatic - 98 percent (approx.) old-growth cover in 1970 to only about 15 percent in 1996, which is forecasted to dwindle

even further to 11 percent (approx.) by the year 2000. (See Table Two)

TABLE TWO

**SABAH: ESTIMATED AREA OF VIRGIN FORESTS
(CLASS II (COMMERCIAL) FOREST RESERVE)**

Year	Area (ha) Virgin	Percentage (%) of * Present Class II (Commercial Forest Reserve)
1970	2 695 109	98.2
1975	2 442 889	89.9
1980	1 994 499	70.9
1985	1 204 589	43.9
1990	946 419	34.5
1995	640 849	23.3
1996 *	428 519	15.6
1997 P	365 879	13.3
2000 P	300 000	10.9

* *provisional*

If this trend continues, it is forecasted that all the “old-growth” forests will be worked out by the year 2010 at the latest. Premature re-entry will, thereafter, ensure the collapse of the productive capacity of the forests by the year 2020 - **a deadline with destiny.**

(b) Forest Rent Capture For The Stakeholders And Forest Owners

In the early 1980s' Sabah was riding high in the context of forest rent capture, in comparison to other States, in Malaysia, by virtue of its massive income from forest exploitation - e.g. RM1.10 Billion (1980).

Sadly, this has now dwindled to about RM578 million (approx.) in 1996, which may even go down further to RM400 million by the year 2000. (Please see Table Three)

If purchasing power was accounted for, the productivity of this resource for revenue generation, would be even lower now.

TABLE THREE

SABAH: FOREST REVENUE 1980 – 1996

YEAR	REVERNUE
1980	1.098,572,590.00
1981	783,790,233.91
1982	984,119,173.80
1983	780,810,775.24
1984	679.933.949.70
1985	474,876,614.16
1986	534,829,207.12
1987	985,085,146.85
1988	1,059,840,570.00
1989	884,636,161.00
1990	777,325,656.00
1991	699,814,523.00
1992	856,540,801.59
1993	702,804,517.97
1994	686,739,072.41
1995	605,713,111.12
1996	577,947,967.76
1997	558,169,323.23
1998	450,000,000.00 (Forecast)

At the same time, the unit return from the forest resources, continues to dwindle, or at best, is static. (*Table Four*)

TABLE FOUR

SABAH: AVERAGE RETURNS (REVENUE) PER M³ 1980 - 1996

YEAR	RM/m³
1980	121
1981	67
1982	84
1983	65
1984	65
1985	44
1986	55
1987	81
1988	97
1989	93
1990	92
1991	86
1992	74
1993	76
1994	86
1995	93
1996	102

(c) Expenditure and Productivity Trends

Whilst the resource continues to dwindle and are being depleted rapidly, the expenditure outlays and size of the bureaucracy, moves in the opposite direction - almost inversely proportional !!

An example is the Forestry Department itself, whereby, the cost of running the department continues to increase, while its personnel numbers, continue to expand. Tables five and six, show these trends.

TABLE FIVE

**SABAH: FORESTRY DEPARTMENT EXPENDITURE
1980 - 1996**

YEAR	RM
1980	30,009,507.00
1981	47,485,331.99
1982	72,762,583.39
1983	162,773,163.88
1984	100,107,653.46
1985	109,613,428.50
1986	124,133,600.63
1987	113,761,664.07
1988	75,273,928.00
1989	60,886,632.00
1990	52,292,960.00
1991	42,971,235.00
1992	45,286,052.00
1993	53,340,984.99
1994	55,193,408.61
1995	54,047,636.00
1996	68,658,210.19

TABLE SIX

**SABAH: FORESTRY DEPARTMENT STAFF NUMMBERS AND PRODUCTIVITY
IN TERMS OF REVENUE GENERATION 1980 - 1996**

YEAR	NO. OF PERSONNEL	RM/PERSON
1980	1200	915,477
1981	1342	584,046
1982	1493	659,156
1983	1579	494,497
1984	1680	404,723
1985	1734	273,862
1986	1764	303,191
1987	1793	549,406
1988	1820	582,330
1989	1827	484,202
1990	1863	417,244
1991	1885	371,244
1992	1877	456,335
1993	1988	353,523
1994	2141	320,756
1995	2220	272,844
1996	2088	276,795

(d) The Causes Of Depletion

“Here’s the smell of the blood still. All the perfumes of Arabia will not sweeten this little hand”

(Shakespeare, *Macbeth*, VI)

“A Little Bit Of Information Is Dangerous“ (ANON)

We would like to postulate that the “orgy” of depletion accelerated in the early 1970s, after Sabah completed its first state-wide forest inventory. No doubt, that inventory gave a broad picture of the resource condition, quality, availability and locality, that in one way, had been positively used, to create a foundation to manage about 850,000 hectares of the best lowland Dipterocarp forests, on a 100-year rotation - i.e. SFM and security of tenure.

However, the rest of that information was used as a “**Treasure Map**” - for the first time, one can have an “objective” picture of the resource availability. Instead of using that information for long-term management strategies, the information became the punter’s **book of reference**.

The second inventory of the late 1980s’ also served that same purpose - this time, to show the availability of good logged-over forests. The cycle of exploitation was thus repeated, this time on the “pre-mature” and re-entry mode.

To sum it all up, the following are the key factors that have caused the massive **depletion of forests**:

- * harvesting beyond the ability of the forest to produce-taking more than what can actually grow each year;
- * not allowing the forests to re-cuperate after logging through pre-mature “re-entry” or “re-logging” - after (6) months, after (1) year, (2) years etc;
- * damage to residual stands because of bad logging practices;
- * abandonment of silviculture and forest rehabilitation;
- * revenue priority overruling environmental limits;
- * political changes and instability - any “nest egg” built up by one government is destroyed by the next government;
- * a carnivorous appetite for the good life ;

and

- * **the forestry profession’s inability to exert influence on the powers that be and instead projecting politicians as the “bogeyman”.**

(e) The Sad Story Today

This rapid and virtually uncontrolled exploitation, has led to the following, amongst others:

- * ***Forest Resources That Are Almost Exhausted*** - the forest cover looks green from the air but on ground inspection, reveals that sites are mostly occupied by pioneers - Belukar, Non-Commercial Species Etc;
 - * ***Revenue Depletion ;***
 - * ***Dwindling Productivity;***
 - * ***Dwindling Green Capital;***
- and***
- * ***the Accelerated Expansion Of Degraded Forests That Need Enormous Investments To Correct The Situation.***

Given this bleak scenario, one may ask as to what needs to be done?

There are (2) options:

- (i) ***Do we continue Distributing Green Wealth Through Laisse Faize Timber Rights Allocation Policies Until There Is No More To Distribute?***

OR

- (ii) ***Do We Now Move Towards “Wealth Creation“ For The Future Of Sabah?***

III. THE MALAYSIAN-GERMAN SUSTAINABLE FOREST MANAGEMENT PROJECT

(a) Background

In 1989, the Forestry Department embarked on a joint collaborative programme with GTZ (German Agency For Technical Co-operation) on sustainable forest management. The project first started with a strong research emphasise, for upgrading the capabilities of the Forest Research Centre, at Sepilok, with a component for management planning at Deramakot Forest Reserve (55,000 approx.), a commercial forest reserve that has been logged over.

The project is now in its 3rd phase (1995-98), with attaining **“Sustainable Forest Management”** for Sabah’s forests, under field and operational conditions, as its major goal.

The project components consist of :

- institution building ;
- human resource development ;

- consolidation/implementation;
- and extension.

(b) Deramakot Forest Reserve

This reserve is located in the centre of Sabah, covering an area of approximately 55,083 hectares. It was first gazetted as a forest reserve in 1954 and the area was licensed for logging from 1955 to 1989. Approximately 110m³/ha of timber had been harvested from the reserve during this licensing period.

(c) Management Planning: Deramakot Forest Reserve

Field data collection (inventory, site-classification, road network, existing infrastructure etc.) commenced in 1990, with a strong component on training field personnel in various facets of field operations.

The infrastructure (camp-site etc) for field personnel was completed in 1992.

Based on the resource data and other information of the reserve, a medium-term (10 years) management plan was prepared covering the period, 1995 - 2004. The management plan, amongst others, covered: resource quantity and quality, land-use planning or forest zoning, growth projections, economic analysis etc.

(d) Forest Functions and Forest Quality - Deramakot Forest Reserve

This is summarised in Table Seven.

TABLE SEVEN

**DERAMAKOT FOREST RESERVE - FOREST FUNCTIONS
AND FOREST QUALITY**

CLASS	AREA	FOREST QUALITY	AREA
Protection	3605 ha	Poor	44,000 ha
Production	51478 ha	Good	11,000 ha

The net production area, after accounting for stream buffer zones and present infrastructure is: **49,374 ha.**

(e) Implementation Of The Requirements Of The Management Plan At Deramakot

Annual plans are prepared each year to cover the main activities to be implemented at site.

These are:

- o to produce not more than 20,000m³ (annual allowable cut) of timber in a eco-friendly manner (skyline and RIL or ground-skidding operations using tractors);**
- o to rehabilitate or plant up 200 ha of poor forests with high quality indigenous species - e.g. Bawang-Bawang (Sentang), Seraya, Kapur Etc;**
- o to do silviculture or tending on logged-areas (bamboo cutting, circle weeding etc.);**
- o to raise seedlings (at least 60,000) for each year's planting;**
- o to do maintenance on areas planted - 4 rounds per year;**
- o protection and surveillance, including aerial surveys and riverine patrols by boat;**
- o infrastructure development;**

and

- o annual harvesting planning.**

Recently, the training component has also become a major part of the activities at site, for both the private sector and the Forest Department's own personnel.

The plan implementation is operationalised by engaging private contractors, through the calling of open tenders. This commenced in 1996 and is now in its second year. The department trains and supervises the contract gangs and the contractor implements the plan, as outlined in the agreement and tender documents.

Supervision at site is carried out by the department, which has deployed about 55 staff for such work at site. This number includes: Forest Rangers (12), skilled labourers (32), drivers (8) and other supporting staff (3).

(f) Workforce Requirement To Implement The Annual Plan

This is summarised in Table Eight.

TABLE EIGHT
WORKFORCE REQUIREMENT
TO IMPLEMENT THE ANNUAL PLAN

OPERATIONS	(CONTRACT) NO OF PEOPLE	REMARKS
Logging	40	Highly Skilled
Silviculture	15	Semi-skilled
Nursery	3	Skilled
Enrichment Planting & Maintenance Work	15	Semi-skilled
Supply of 25,000 seedlings	3	Skilled
TOTAL	76	
ADD FD'S STAFF	55	
GRAND TOTAL	130 (131)	

Over the 55,000 hectares, the manpower requirement is 1 man for every 400 hectares, as compared to about : 1:8 for oil-palm cultivation and 1:100 for forest plantations.

(g) Machine Requirement For Harvesting

This consist of :

- 1 x skyline all-terrain cable-yarder ;
- 3 x log-loaders;
- 1 x motorgrader;
- 4 x logging trucks;
- 1 x compactor;
- 1 x excavator;
- 5 x tractors;

and 1 x dump-truck.

(h) The Cost of Engaging Private Contractors At Deramakot

This is summarised in Table Nine.

TABLE NINE
COST OF ENGAGING PRIVATE CONTRACTORS

WORK	1996	1997
Harvesting	RM125.00/m ³	RM113.00/m ³
Silviculture	RM180.00/ha	RM189.00/ha
Enrichment Planting	RM750.00/ha	RM861.00/ha
Maintenance Of Planted Area	-	RM506.35/ha
Supply of 25,000 seedlings	-	RM2.00/seedling
Raising of seedlings for the following year's planting at the Deramakot nursery. (50,000 seedlings)	-	RM0.90/seedling
TOTAL CONTRACT SUM	RM2,768,980.00	RM2,817,470.00

It is glaring that the cost of bad logging haunts us back in expensive forest rehabilitation work.

(i) Log Sales (1995 - 97)

This is summarised in Table Ten. Sales are conducted by the department by auction at the storage area.

TABLE TEN
AUCTION (1995 - 1997)

YEAR	VOLUME	TOTAL SALES (RM)	AVERAGE PRICE (RM/M³)
1995	185.30 M ³	50,924.70	274.82
1996	12,992.38 M ³	3,383,525.92	260.42
1997 (Sept)	13,805.30 M ³	3,557,569.18	257.69

(j) Budget Allocation For Plan Implementation At Deramakot - 1997

Approximately 60% of the annual budget is set aside for paying the contractor. Please see Table Eleven.

TABLE ELEVEN

DERAMAKOT BUDGET – 1997

COST CENTRE	AMOUNT (RM)	PERCENTAGE OF TOTAL
* Service Contract	2,817,470.00	59.0%
* Allowances	597,806.10	12.5%
* Salaries & Wages	522,012.00	10.9%
* Infrastructure	240,000.00	5.0%
* Fuel & Transport	262,360.00	5.5%
* Contingencies	45,757.90	1.4%
* Miscellaneous	274,600.00	5.7%
	4,760,000.00	

(k) The Economics Of Eco-Friendly Harvesting

Please see table twelve which summarises the costings based on the 1997 data.

Even after taking Government charges into account that other licences would have to pay, eco-friendly harvesting still leaves a surplus.

It is unfortunate that the project has not been able to derive world-market prices for the logs produced at this stage.

TABLE TWELVE

**ECONOMICS OF ECO-FRIENDLY HARVESTING
1997**

CONTRACT FEE	:	RM 113.00/m³
AVERAGE PRICE	:	RM 257.69/m³
GROSS RETURN	:	RM 144.69/m³

Less Government Charges

- royalty	:	RM 40.00/m³
- timber-purchase price or premium	:	RM 30.00/m³
- forest rehabilitation fee	:	RM 5.00/m³
- forest community project cess	:	RM 0.83/m³

RM 75.83/m³

NET RETURN : **RM 68.86/m³**

LESS FD MANAGEMENT COST : **RM 50.00/m³**
 (*) supervision and infrastructure

Bottom Line : **RM 18.86/m³**

* includes R & D, pioneer costs, training, cross-subsidies, passengers, sunk costs etc.

(l) The Certification Of Deramakot Forest Reserve

The Forestry Department recently engaged SGS to assess the performance of Deramakot, in accordance with various forest management standards, including: the QUALIFOR standard and the Malaysian Criteria and Indicators SFM Standard.

With good fortune, the management of Deramakot has passed both criterion, and now apparently, stands alone as the only natural forests, certified as “well-managed” in South-East Asia.

This is a major achievement, given the humble beginnings of Deramakot.

(m) What Has Been Achieved In Deramakot?

Amongst others, we believe, the following have been achieved:

- o **Sustainable Forest Management;**
 - o **Eco-friendly harvesting;**
 - o **Producing value and not volume;**
 - o **Making more and more from less and less;**
 - o **Accelerating the recovery process of areas that are poorly stocked and need help;**
 - o **Production gains through market mechanisms;**
 - o **Malaysia Incorporated (Contractor and FD working as a team);**
 - o **Commercial work ethics;**
 - o **Transparency/accountability;**
 - o **The only SFM area in operation in Malaysia and Sabah leads in SFM;**
 - o **Real transfer of technology and skills and managed almost 100% by locals with GTZ technical assistance;**
- and**
- o **Smart partnership.**

(n) A Complaint List On Operational Matters

The achievement made in Deramakot has not been one of “plain-sailing”. It was achieved with a great deal of hardwork and team spirit, sometimes under arduous conditions.

If we could summarise, some of the operational problem areas, these will **include:**

- o **log value** - very low prices of logs compared to Peninsular Malaysia - e.g. almost

double at RM400.00/m³. The opening of log exports may help;

- o **competition from non-sustainable and relatively low-cost production logs;**
 - o ***mind-set*** - in the beginning, it was difficult to convince a number of FD workers that the “8.00 A.M. - 4.15 P.M.” ruling does not apply under forest conditions;
 - o ***work ethics*** - motivation of staff and the “ weeding out “ exercise;
 - o ***Turnover Of Trained People*** - (Contractors);
Internal disputes.
 - o ***Contract Interpretation*** - one can never get anything perfect. We are still low in the learning curve;
 - o ***Examples To Follow On An Operational Scale Elsewhere*** - This is not available. Apparently, Deramakot is a pioneer project.
 - o ***Communication problems in the beginning*** - planners trying to be implementors at the same time;
 - o ***bureaucracy and the limitations of a government run system without the benefit of flexibility and action-oriented as found in a private organisation;***
 - o **the need for formalised training and certification for workers;**
 - o **the need for close supervision of contract workers in the beginning, particularly on logging;**
 - o **nature – 10 - 15% of the standing crop trees are defective (e.g. hollow);**
 - o **revisions and updating of operational plans that do not conform to the management plan need to be written up and explained;**
 - o **updating of management plan in the light of practical experience;**
 - o **poor service from contractors;**
- and**
- o ***what is the reward for producing green logs? Better Prices? Easier Access To Markets? When will this happen?***

(o) The Future Of Deramakot

From time to time, it has been questioned as to whether, the current organisation format for Deramakot, is the best and most effective way of managing the reserve.

This question arises primarily because of the apparent lack of effectiveness of a government run bureaucracy, particularly in decision-making, staffing policies etc.

Various options have been looked at and pondered over and these ***include:***

o Corporatisation

E.g. only 10 well trained supervisors are needed from FD to supervise the work of 70 - 80 contract workers.

or Trained FD Staff retire early and form their own companies to do the various operations - contractor for silviculture, contractor for logging, contractor for planting etc. with government still selling the logs.

or Eventual Privatisation

But with this option, the Government should retain the majority share to ensure that standards are maintained. The Government must always be privy to real information etc. particularly if SFM is to be expanded to other reserves to be implemented solely by the private sector. Such “ real-life” information can only be obtained through **“hands on“ experience.**

IV. THE MULTIPLICATION OF SUSTAINABLE FOREST MANAGEMENT

“ Politicians like me, may be right or wrong but we see ourselves as agents of change we challenge conventional wisdom, take on pressure groups, advocate often unpopular policies our political lives are often short. But they do not go unremembered. For good or ill, we make a difference“.

(RUTH RICHARDSON - 1995)

“..... And Indeed, there will be time to wonder, “Do I Dare? And “Do I Dare?” Do I Dare “Disturb The Universe”

(T.S. ELIOT - “THE LOVE SONG OF J.A. PRUFROCK”)

“Premium Non Nocere“

(First Of All, Do Not Harm)

(ANON)

“ GUTS, GUTS AND MORE GUTS “ (ANNON)

Deramakot is just a model - ***the mother of Sustainable Forest Management in Sabah.*** However, that “ mother “ is marginalised in its value, if there is no procreation. Therefore, the Deramakot concept must multiply in order for SFM to be truly accepted in the State. For that to happen you need: ***political will, vision, courage, guts and more guts.***

How this strategy of expansion is being operationalised, is discussed hereinafter.

(a) The Concept Of Forest Management Units (FMU)

The permanent forest estate of Sabah, covers about 3.60 million hectares, of which, 2.74 million hectares (approx.) are classified as Class II or commercial forest reserves. (Table Thirteen)

TABLE THIRTEEN

SABAH: PERMANENT FOREST ESTATE (PFE) 1996

CLASS	FOREST RESERVES	AREA (Ha)
I	Protection	283 376
II	Commercial	2 743 959
III	Domestic	7 355
IV	Amenity	20 767
V	Mangrove	316 024
VI	Virgin Jungle Reserve (VJR)	90 386
VII	Wildlife	132 653
	TOTAL	3 594 520

The Class II forest reserves are in turn, divided into 27 FMUS, of approximately 100,000 hectares in area. These units essentially mean administrative districts that have been chosen, in accordance to, amongst others: its management history, relationship to existing administrative districts, natural boundaries and so on.

The number 27 is not a magic figure that is to be ruthlessly defended, nor the size of the FMU itself. It is primarily for the purpose of convenience and a starting point for operationalisation, that this has been so. At least, it provides a framework for changes that may be required in the future during the implementation of SFM in each unit.

(b) How Do You Manage the Units For SFM?

The Government has various options on this, including:

- by the forest department itself ;
- by a quasi - government body;
- by the private sector ;

or

a mixture of all (3) options.

The State Government has opted for a mixture of all 3 systems in the expansion of SFM to the commercial forest reserves of Sabah. On the **10.9.97**, the State Government launched the initiation of SFM expansion, through the issuance of 10 long-term “ Sustainable Forest Management” licences, covering on area of approximately 2 million hectares. Of these, (1) quasi-government body, shall manage approximately 1 million hectares, and another 1 million hectares are to be managed by 9 other long-term licensees.

This long-term tenure shall address the importance of security of tenure, essential for successful SFM and at the same time, it projects a contract that covers succeeding generations, **an inter-generational contract**.

(c) Why Is The Participation Of The Private Sector Vital?

The Government has insufficient resources to implement SFM on its own, and the limitations of a government run bureaucracy, sometimes hinder effective implementation on the ground.

Through the concept of “ smart partnership “ with the private sector, it is believed that SFM can be more effectively and more quickly implemented.

(d) Undertakings Of The Licensee/Sustainable Player

The licensing system is through a totally new “ **Sustainable Forest Management Licence Agreement** “ format prepared by the Malaysian-German Sustainable Forest Management Project, which addresses amongst other things:

- * the “total“ concept of forest management encompassing, amongst others: eco-friendly harvesting, forest rehabilitation, silviculture, training etc;
- * safeguards against non-compliance;
- * forest rent capture provisions;
- * preparation of a management plan before operations are allowed;
- * third-party assessment for compliance or non-compliance;
- * employment of trained personnel including : foresters and field staff;
- * licensee solely responsible for financing all SFM costs ;
- * performance bond guarantees (RM5.00 million);
- * security of tenure and legal protection;
- * forest protection by the licensee;

and

- * to employ only eco-friendly harvesting systems (ground based or skyline).

As opposed to this licensing arrangement, the conventional licences (1-21 years) emphasise

only timber-extraction and revenue collection, more than anything else.

(e) Role Of The Forestry Department With SFM Licensing

It is believed, with this new type of licensing arrangement, the government and the private sector licensee, shall now be in ***partnership, whereby, the burden and responsibility of sustainable forest management and forest protection shall be equally shared.***

As the licensee will now be making investments into the forests, to ensure the sustainability of their nest-egg, it will transform their management perception, in that, ***they will regard the resource as “ their own “ that needs to be perpetuated and no longer just mined.***

The department, on the other hand, will concentrate more on training of the licensee personnel, preparing guidance for the licensee and pursue continuous improvement on the technologies and skills needed for sustainable forest management. With this organisational framework, ***the emphasise on self-regulation by the licensee themselves, and the provision of “ third party certification “, the department will have a more focused administration and role to support SFM implementation.***

(f) Distortions and Misinformation About SFM and Its Multiplication?

“ Consensus among interest groups on quality decisions rarely, if ever, arises before they are made and implemented. It develops after they are taken, as the decisions deliver satisfactory results to the public”

(Roger Douglas - 1993)

The government’s policy on expanding the concept of SFM has had its fair share of criticisms, distortions, and misinformation. This apparent opposition comes from within the government machinery itself and also from outside it.

Amongst others, some of the distortions are:

- * *SFM is a government policy to strip Sabah’s assets and to sell off her natural heritage;*
- * *monopoly by big companies with the financial resources and clout;*
- * *the “ QUALIFOR” certification process undermines the aspirations of the country;*
- * *the dismantling of Sabah’s largest concessionaire and its tenureship;*
- * *SFM is not economic and will not work. I.R.R. analysis, for example, is inappropriately applied to expound their views;*
- * *management planning for Deramakot was done “on the table”;*
- * *the tenureship for SFM Licensing is too long;*
- * *the existing “adhoc“ licensing system benefits a greater number of people;*
- * *there is insufficient information and experience to implement SFM on a larger scale;*

and

* the Class II forest reserves are best de-classified for agricultural usage.

Much of the misinformation on the SFM expansion programme has come about as a consequence of distortions by “ **Status Quo**” **agents**, who prefer the present system to continue, despite its non-sustainability and the harm it will do to the forests, which will eventually collapse.

However, one must take such criticisms in its stride, and take them as part of the change process, and an essential ingredient of any reform programme.

To counter such negative reactions, the State Government has expanded its publicity programme on this policy implementation, to as far as wide, of Sabah's society. The Seminar today, is one such forum.

V. DISCUSSIONS

“A dreamer is one who can only find his way by moonlight. And his punishment is that he sees the dawn before the rest of the world“

(Oscar Wilde)

“ one small step for man, one giant leap for mankind “

(Neil Armstrong - 1969)

The policies that have been adopted and recently launched by the State Government is only the beginning of the long process of attaining SFM. However, with every journey, that covers a thousand miles, it all starts with one step. This generation initiates it and others will carry on the work for eventual total implementation in years to come.

The hard work is only just beginning and no doubt, in our quest to attain SFM, we will be passing through many hurdles - organisational, political, technical, economic and so on. But at the very least, the beginning has started.

Amongst various matters that will need to be addressed are:

- o ***a massive re-training programme*** - workers of the private sector licensees will have to be trained in: forest rehabilitation, silviculture, forest harvesting, management planning and so on. At the same time, the Forestry Department will have to divert its training resources and capability to meet this demand. This entails a ***focused programme of a scale not seen before. SFM may need 4000 - 6000 of “ knowledge“ workers.***
- o ***the acceptance of lower profit margins*** - Most of the forested areas allocated for SFM licensing are in a state of degradation of varying degrees. In some localities, there is to be no harvesting for the first ten years of the planning period.

Even if harvesting was allowed, it will be of a much lower volume, perhaps not significantly more or less than what is allowed in Deramakot. At the same time, investments into the forests are to be made to build up the growing stock.

Given this scenario, it is envisaged that the profit-margins will be much lower than what licensees are used to now. Based on the experience of Deramakot, a margin of 20 - 25% is attainable.

o ***lower revenue for the State Government***

By the turn of the century, when we enter the next millennium, with SFM being implemented, it is envisaged that the annual harvest from the forest reserves will be not more than 700,000 cubic metres per annum.

This points to a drastic drop of government revenue compared to what is derived now. Given today's market situation and assuming the current forest rent capture system continues, it will translate to an annual income of only about RM100 million.

Therefore, the State Government will need to diversify its revenue sources urgently, land-rent, from lands developed for agricultural purposes, being a major potential.

o ***the quality of available manpower***

SFM needs highly motivated people whom, in the beginning of any change programme, are expected to work, above and beyond the call of duty. They also need to be knowledgeable in the work they are implementing and have the right mental perception.

Such availability is scarce and those that carry the flag, normally work under highly stressful conditions over a long period of time. The human toll of any reform programme, is only now being recognised.

They may not explicitly express this in any books or papers on SFM but without a doubt, ***mental and physical stress is part of SFM***. To reduce this burden, it is important that the crop of motivated and highly skilled personnel be stepped up rapidly, particularly in the premier implementing agency, the Forestry Department, so that the workload is wisely allocated. “ ***Burn out*** “ of key SFM personnel will be a hindrance to smooth SFM implementation.

o ***incentives for SFM*** - To activate greater involvement of people with surplus funds to invest (***venture capitalists***) in SFM, and to make it more attractive to the SFM licensees, the incentive system for forestry as practised in countries such as Chile, should be adopted in Malaysia.

For example, profits from another business, invested into SFM, should be ***tax-deductable at source***.

o ***the market for “ Green Timber ”*** - The prices obtained for Deramakot logs are most discouraging. They are such primarily because of the “ glut “ of supply from non-sustainable sources. Nevertheless, no market that requires such specialised timber has yet been obtained, although Deramakot is now well-known throughout the

world. Apparently, the demand for certified timber now exceeds supply.

In order for SFM to truly pay, the prices of such timber should reflect the cost of its management, and as a reward from consumers to the producer for having chosen the path of SFM, better prices should be paid.

This is particularly important, when the next crop of “green timber” becomes available from the SFM licences.

and

SFM Consultancies - New businesses will be generated whereby, “knowledge workers” at all levels will be required. This may be a golden opportunity for the forestry profession to redeem itself in Sabah.

VI. CONCLUSIONS

In 1995, at the Malaysian Forestry Conference in Miri (S. Mannan & Y. Awang - 1995), we expounded on the believe that SFM is essentially a **human issue and not a technical issue. We still stand by that thinking.**

For example, the achievement at Deramakot was possible only because of the dedication, skills, and motivation of the multi-cultural and multi-national team at site. Likewise, the recent launching of SFM expansion in Sabah, was only possible because of a quality decision taken at the highest political level - a human decision and not a technical decision per se.

The success of the implementation, again hinges on the quality of the entrepreneurs and their workers, given this responsibility.

With preserverance and strong leadership at the highest echeloens of power, we are optimistic that the aspirations of the people of Sabah, to attain and achieve SFM, at long last, will be realised.

We end this paper, with the following quotation, which, in our opinion, describes, the quality of manpower that have achieved greatness for Sabah in **SFM, and we dedicate this to them:**

“..... All such people have certain values : he principle one is that, they believe that their efforts make a difference. They believe that what they do, therefore is important, that their contribution has value. They believe in cause and effect, that what they individually do, has results that are measurable and important”

(David McClelland - 1961)

REFERENCES

1. Reader's Digest (Nov. 1997) - "Give Yourself A Break":
Quoted By David B. Posen. Title Of Book By Sol Gordon & Harold Brecher.
2. Shakespeare - Macbeth vi. i.
3. Ruth Richardson - " Making A Difference ". Shoal Bay Press Ltd 1995. (N.Z.)
4. Roger Douglas " Unfinished Business ". Random House New Zealand ltd. 1993.
5. Oscar Wilde - " The Critic As Artist " .
6. S. Mannan & Y. Awang (1995) - " Forestry Management In Sabah And ITTO
2000 - Issues and Pre-requisites", Paper presented at the 12th Malaysian Forestry
Conference, Miri, Sarawak.
7. David McClelland (1961) - " The Achieving Society " .