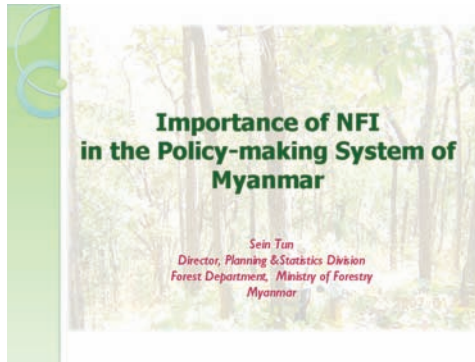


Importance of NFI in the policy-making system of Myanmar

Mr. Sein Tun



Country profile

- ◆ **Location :**
Between latitudes 9° 32' N to 28° 32' N and longitudes 92° 10' E to 101° 11' E
- ◆ **Total area :** 676,577km².
- ◆ **Forest cover:** 32.22 mil. ha (47.62% of the total land); FRA 2005
- ◆ **PFE :** 27.97% (RF: 24.04%, PA 3.93%)

- ◆ In the past, forests of the country were managed on the sustained yield basis by formulating WP.
- ◆ After UNCED in 1992, Myanmar has been streamlining its national forest program to achieve national goal of SFM
- ◆ Policy and legislations were reviewed, revised and updated in line with SFM principles adopted by UNCED.
- ◆ Myanmar Forest Policy was issued in 1995.

Myanmar Forest Policy (1995)

- Protection
- Sustainability
- Basic needs
- Efficiency
- Participation
- Public awareness

- In order to implement MFP(1995), policy measures and strategic actions in short-term / medium term/long-term are stipulated in policy statement.
- Of which, the medium term strategic action under forestry planning is as follows:
 - “Establish an information management system to provide qualitative and quantitative, socio-economic and resource data to facilitate the identification of policy options, planning and decision making”
- In addition, Forest Rules 21(c) highlights planning for forest inventory at 10 year interval; review of data at 5 year interval and submission to cabinet.

NFI Projects in Myanmar

National forest survey and inventory project (BUR/79/011)

Key objectives

- To inventory prioritized area of 10.7 million ha so as to support forest management planning & monitoring on development of forestry sector
- To take aerial photos in prioritized area (31 million ha) which were useful in forest inventory and in producing forest management maps, forest type maps and landuse maps.
- To set up NR section well equipped with computer system and mapping facilities and to strengthen Institution for conducting forest inventory in continuity .

Funding

- UNDP funded project : USD 4 million by UNDP
Kyat 23.71 million by Myanmar Govt.

Project duration

- Operational in August 1981
- Terminated in May 1986
- 4 year & 9 months



Area covered by inventoried field work and number of crews employed (BUR/79/011)

Field Season	Inventoried Area (thousand ha)	No. crews
Early	768	60
1982-83	2129	80
1983-84	2259	80
1984-85	2514	80
1985-86	2166	80
Total	9836	

Area covered by aerial photography (BUR/79/011)

Flying Season	Scale	Gross area (km2)	Net Area (km2)
1981-82	1:25,000	41,200	40,600
1982-83	1:25,000	90,700	78,300
1983-84	1:25,000	143,300	142,825
1984-85	1:25,000	31,500	30,450
	1:50,000	54,800	52,925
Total		361,500	345,100

Gross area includes sea, islands and overlap, but net area excludes.

National Forest Management and Inventory Project (MYA/85/003)

- It was second phase of (BUR/79/011) project.
- *The development objective is:*
to formulate and implement a National Forest Policy as part of an integrated, balanced land use plan.
- *Funding:*
USD 3.89 mil by UNDP & Kyat 20.54 mil by Myanmar Govt.
- It became operational to run for another five years.



National Forest Inventory Programme

- Since the second phase project was terminated in 1993, Myanmar has been conducting the forest inventory, covering about 1.6 million hectares in average each year, with its own resources.
- This is in line with the statement made in the Forest Law (1992), in which forest resource data should be collected and collated every 10 years so as to obtain fresh data for planning purpose.
- The first 5-year plan of national forest inventory was carried out starting from 1996-97 up to 2000-2001 so as to include all secured areas of the country.
- After that, the second 5-year plan of national forest inventory was implemented starting from 2001-2002 up to 2005-2006.
- Now, the third 5-year plan of national forest inventory is being implemented starting from 2006-2007 to 2010-2011.

- In Myanmar, the Planning and Statistics Division of the FD has been conducting NFI since 1981-82.
- Generally, the forest inventory is carried out in the open seasons annually.
- Although all forest products cannot be inventoried, the data on teak and non-teak hardwoods are collected. In some areas the bamboos and rattans are also collected.
- Moreover, NR of tree species are collected in order to assess the silvicultural conditions of the forest.



Sampling design in NFI

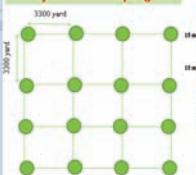
Systematic Sampling Design

- FD has been using systematic sampling since 1982.
- Sampling units or plots are distributed systematically in a square grid of 3,300 × 3,300 yards over the forest area.

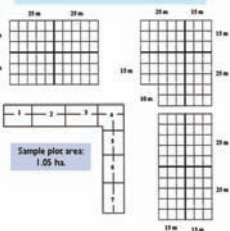
Cluster Sampling Design

- This design was used in hilly region, particularly in Chin State.

Layout of sample plot under systematic sampling



Configuration of a sample plot



Sample plot area: 1.05 ha.

Districts & Area covered by NFI from 1997-98 to 2007-2008

Year	District	Area (thousand ha)	No. of sample plots
1996-1997	Myitkyina, Bama, Falam, Lolin, Oktwin	2146	2093
1997-1998	Myitkyina, Mindat, Kyaukse, Taunggyi	2010	1901
1998-1999	Taunggyi, Kale, Mawlaik	1679	1760
1999-2000	Mawlaik, Sittwe, Kyaukphyu	1976	1116
2000-2001	Thandwe, Yangon(N), Hinthada	847	558
2001-2002	Bago, Taunggyi, Tharyawaddy, Pyay, Hinthada	1751	1049
2002-2003	Magwe, Pakokku, Minbu, Gantagaw, Thayet	2272	1050
2003-2004	Pyin Oo Lwin, Yamethin, Kyaukse, Meikhtila, Mandalay	1307	990
2004-2005	Katha, Shwebo, Monywa, Kale, Kyaukse, Sittwe, Maungdaw	1800	1440
2005-2006	Katha, Shwebo, Kyaukse	763	640
2006-2007	Taunggyi, Lolin	910	594

OUTPUTS AND UTILIZATION OF INFORMATION

Based on the national forestry inventory data collected, the following outputs are regularly produced.

Stand Table: This table shows the number of tree by GBH classes, by species and by species group.

Stock Table: This table mentions the volume by GBH classes, by species and by species group.

Bamboo Table: This table shows the number of bamboo culm by age classes and species.

AAC Table of teak and other hardwoods: This table consists of annual yield of teak and other hardwoods.

AAC Table of bamboo: This table is made up of the annual yield of bamboo species.

Data Book of Forest Resources: Consists of stand table, stock table, bamboo table, and AAC tables.

These outputs are usually utilized in forest management planning, especially at district level.

Importance of NFI in policy-making

- Fresh and reliable data of forest resources plays an important role in management planning & in successful implementation of plans.
- Similarly, inventory data are very important in monitoring, and assessment of forest management whether it leads to sustainable development.
- As stipulated in policy statement, Myanmar has strongly committed to ensure sustainable development of forest resources while contributing to socio-economic development from forestry sector.
- In order to achieve SFM goals, FD is monitoring and assessing its forest resources through forest cover assessments and forest inventories.

- In collaboration with FAO, FD is implementing MAR-SFM project and, also participating in ASEAN MAR on SFM.
- Presently, NFI and forest resource assessments are fulfilling data and information requested for MAR under regional cooperation programs to a large extent.
- In addition, these outputs, findings and feedbacks usually support policy making in Myanmar.
- The followings are milestones of policy intervention which can be seen as outcomes of monitoring & assessment.
 - ✓ *Bago Yoma greening project (to restore the degraded forest)*
 - ✓ *Project for Mitigation of Shifting Cultivation (to control improper landuse)*
 - ✓ *Private Forest Plantation program (to supplement the production of natural forests)*

THANK YOU