February 1998

GOB/WB

Forest Resources Management Project

Technical Assistance Component

Final Report: Forest Inventory of the Natural Forest and Forest Plantations (SYLHET Forest Division)

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Mandala Agricultural Development Corporation
and
Forest Department
Ministry of Environment and Forests
Dhaka, Bangladesh
February 1998

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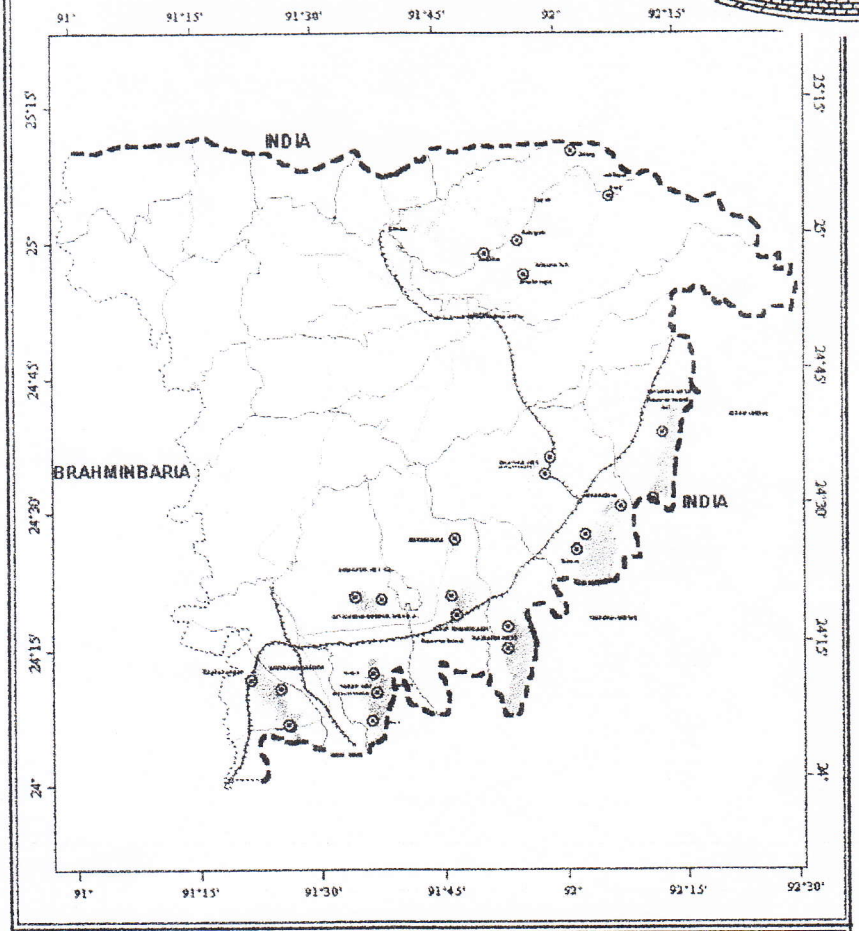
SYLHET
Forest Statistics

Sylhet Forest Division
Major Forest Types



10 0 10 20 30 40 Kilometers

Scale 1:1,00,00,00

Legend

- Teak
- Reed
- Bamboo
- Other Plantation
- Other Area
- International Boundary
- District Boundary
- Road
- Railway
- River
- Beat Office

Map History

Data Source : GIS Data Base,
Forest Resources Management Project,
Bangladesh Forest Department
Prepared by : Ruhul Mohaiman
Supervison : F.I.Khan
Date : February 1998

Statistics	Sylhet Natural Forest	Sylhet Plantations
Area, ha	23693	17871
n	279	726
NT/ha	56	133
BA/ha	5.39	6.91
Vol/ha	53.20	37.64
SE%	7.1	3.6
Seedlings	5790	2940
Saplings	737	607
Poles	241	602

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Conclusions and Recommendations

1. The FRMP forest inventory of the Sylhet Forest Division has generated the desired results as evidenced by the sampling errors of the tree volume and other estimates. The sampling error of the volume estimate at the division level is 4.8% which is lower than the target precision of not greater than 5%. The sampling errors at the stratum level are also within the designed targets of the forest inventory (Table 4) except in the case of ST (Scattered Trees) which is a minor stratum with a small area and very high variability. For example, the sampling error of the volume estimate for HF/LF (natural stands with large crown and small crown trees) is only 5.9% while those of the two important Teak strata (T/OT 1959 and T/OT 60-79) are only 5.6 and 5.2%, respectively, which are much lower than the designed targets of 10% sampling error at the stratum level. When taken altogether, the sampling error of the volume estimate for the natural forest (including ST) is 7.1% while it is only 3.6 % for the plantations. In the case of the bamboo resources, in the Bamboo stratum, the estimate on the number of Muli culms/ha has a sampling error of only 5.4%. A validation survey of bamboo plot clusters also confirmed the findings on the bamboo resources where the percent difference of the results of the regular sampling and validation survey is only 6.9% notwithstanding the two-year interval between the two surveys. Thus, it can be concluded that the results of the FRMP inventory of the natural forest and forest plantations in the Sylhet Forest Division are quite adequate for forest management planning purposes.

2. A comparison of the 1984 FAO/UNDP inventory and this inventory shows that the area of the natural forest (HF/LF) had decreased by about 17%, ST by 69%

[1] All programming tasks were done by Delwar Hossain, Computer Programmer, FRMP-TA except the first prototype of DEVP which was programmed by A. Revilla.
[2] Mr. Uttam Kumar Saha as DFO-WP (Dhaka) had Management Plan responsibility over Sylhet Forest Division during most of the forest inventory work there until October 1997. Mr. Sheik Mizanur Rahman has since then been designated/appointed to the post.

and short-rotation plantations by 18% while long-rotation plantations had increased by 76% over the 12-year period. Denuded areas had remained almost the same over the same period. The number of trees (30-cm+ dbh) per hectare in the natural forest had decreased only slightly but the pole-sized trees (10 to 30-cm dbh) had decreased by more than 65%. The number of bamboo culms (Muli)/ha in the natural bamboo forest had also decreased from about 18100 in 1984 to only 11200 in 1996 or a reduction of about 38% over the 12-year period.

3. The integrated forest management plan for the Sylhet Forest Division is being prepared by FRMP. The issue on management of the natural forest, what to do with the ST areas which contain very little timber, the diminishing density of the Muli bamboo forest, the relatively low yields of the Teak and Moluccana plantations, and the very low yields of the other long-rotation and short-rotation plantations, all these have to be addressed by the forest management system in addition to the social, environmental and biodiversity issues. There is a lot of room to improve the yields of the forests of SFD to help meet the wood needs of the country.

4. A **continuing resources change assessment system** (CRCAS) for the Sylhet Forest Division (SFD) is hereby strongly recommended. CRCAS must be designed, supported and implemented to provide timely (at least annually) resource change statistics for the Forest Managers, the Leaders and people to respond effectively to any aggravating circumstances. The basic components of CRCAS have now been set in place by FRMP at the RIMS/GIS Wing of FD. What more are needed include: a) staff to operate and maintain the system, b) annual field check/enumeration/measurement of one-tenth to one-fifth of the one-minute grid plot clusters so that all plot clusters would have been re-visited/re-enumerated in five to 10 years, c) annual/biennial acquisition of appropriate satellite imageries covering portions (sensitive portions) of the SFD to detect resource changes, d) ground monitoring system to check areas identified on the satellite imagery to have unusual activities/changes, and e) RIMS/GIS personnel to conduct necessary studies including strategic studies to manage and conserve the Sylhet forests and other forest resources for the maximum benefit of the people of Bangladesh.

5. With the adoption of the 100-ha cell (1 km grid) divided into 25-ha quadrats (1/2 km sub-grid) as field operational units, the initial (1996) condition of each cell and quadrat can be described by information available in the RIMS-GIS database and the results of the forest inventory. Each cell and quadrat has a lat-long coordinate hence the forest type and forest inventory stratum of each cell and quadrat can be identified. The stratum statistics generated by the forest inventory are then used to quantify the forest resources in the cell and quadrat, at least initially. All data that were gathered in the field and were entered in the forest inventory database are also available at the plot/plot cluster level and each plot cluster has a lat-long coordinate, hence more detailed information on each plot cluster can be readily accessed whenever necessary. The information about each cell and quadrat is then updated on an annual/continuing basis by the field offices as part of CRCAS and proactive forest management.

Scope and Objectives of the Forest Inventory Sub-Component of FRMP

The FRMP forest inventory sub-component covers eight Forest Divisions, namely: the Sundarbans Reserved Forest, Sylhet, Chittagong, Cox's Bazar, Noakhali C/A, Chittagong C/A, Patuakhali C/A and Bhola C/A Forest Divisions. As indicated in the sampling design specifications of these forest inventories, the objectives of the FRMP inventories are threefold. The primary objective is to generate information on the standing timber and other resources (bamboo, rattan, nipa and medicinal plants) for integrated forest management planning purposes. The second objective is to provide abstract time-series data, whenever possible, for plantation yield modeling purposes. And, the third objective is to set up or at least provide a basis for setting up a system of "hidden" recurrent sample plots for continuous monitoring and assessment of change in the target forest areas.

Target Precision, Sample Size (No. of Plots) and Sample Plot Configuration

Target precision. - The FRMP forest inventories were designed to attain a precision of the estimates of not greater than 5% sampling error based on the total volume of trees/ha in each division, not more than 10 to 15% sampling error for each of the more important strata, and not more than 20% sampling error for the other strata. These precision levels are considered adequate for forest management planning purposes and they apply in all the forest divisions covered by FRMP, except the C/A divisions where it would be necessary to double the resources and time requirements of the field sampling work to attain a sampling error of 5% or less at the division level.

Sample size, n, for the Sylhet Forest Division. – Considering that satellite mapping of the SFD had not been started at the time the sampling design was being prepared, a stratified random sampling design was not feasible. As such, a systematic sample was resorted to. With the wide range of areas of the forest types in the division, e.g. the area of the bamboo forest was 10 or more times than the other types, it was more efficient to use unequal probability sampling. As a result, the sampling unit may vary in weight from one stratum to another. To attain the target precision of estimates, based on available information at the time, the planned sample size was 1162 for the whole division with two different grids: 20"x10" in HF, LF and ST, 40"x40" in the natural bamboo stands, and also 20"x10" in the forest plantations. As such, a sampling unit in the bamboo stratum has eight times more weight than one in the other strata. The details of the sample distribution into the tentative strata are given in the first fielding report of the FIS (June 1995).

Sample plot configuration. – The "sample plot" adopted for the FRMP forest inventories is a **cluster of five plots** where a "plot" is actually a set of sub-plots, one sub-plot each for seedlings (1-m radius); saplings, rattan with less than 3-m long stem, small stem/other bamboo and medicinal plants (2-m radius); poles, Muli bamboo and rattan with 3-m stem or longer (5-m radius); and, trees and plantation bamboo(11-m radius). The five plots in the plot cluster are spaced 100 meters apart (in the Hill forests) reckoned from the center plot along the cardinal directions except in the case of the natural bamboo stands where the plots are 50 meters apart.

Field Sampling

Samples of the Field Data Enumeration Forms for the Hill forest, one for the natural forest and another for the forest plantations are given in Appendix 1. The field sampling procedures and instructions are contained in the second report of the FIS (July 1995). These procedures/instructions were refined during the training of the field sampling crews starting with the ACFs in October 1995. The codes for the plot and tree description variables and codes for trees and other species are shown in Appendices 2 and 3, respectively.

Field sampling started after the field crews had been trained in the respective Divisions in late 1995 except in the Coastal Divisions where the first sampling crews were fielded only during the 1996-97 season. All regular field enumeration activities were completed in May 1997. The bamboo validation survey for Sylhet was conducted in late December 1997. All field sampling activities were under the direct supervision of the respective DFO-WP.

Data Entry and Validation

Data entry and initial validation was scheduled to start after the field work season in May 1996. To meet this schedule, the Data Entry and Validation Program (DEVP) was designed starting in December 1995 and programming was scheduled in early 1996. The first prototype of DEVP was ready in May 1996 as scheduled. The structure and technical specifications of the dbf tables and DEVP are indicated in Appendix 4. The details are given in Annex 1 of the FIS' report for his second mission (May 1996).

While the field data were being prepared for entry into DEVP, further refinements were made on the computer program. Data entry and initial validation finally began in July 1996 and continued until this activity was completed for each of the eight Divisions, first, for Sylhet in mid-May 1997 followed by the Sundarbans in early August. All data entry and initial validation activities were completed by the Forest Divisions in September 1997. These activities were also under the direct supervision of the respective DFO-WP.

Tree Volume Equations Studies

In December 1995, initial arrangements were made with BFRI Researchers for them to assist in the improvement of existing tree volume equations for some plantation species, specifically those that were derived using data sets that did not include large trees which were not available at the time the data for the existing equations were collected. It was later agreed that the designated BFRI Researchers (Messrs. Md. Abdul Latif and Sukumar Das and crew) gather additional data particularly on bigger size trees of Akashmoni (*Acacia auriculiformis*), Mangium (*Acacia mangium*) and *Eucalyptus spp.* Data collection started in April 1996 and was completed in June 1996. Data entry and processing were done by the BFRI Researchers thereafter and specification of the tree volume equations for the three species was undertaken jointly with them in January 1997. The results of these studies are being used with existing

equations of other species in the generation of tree statistics for the plantations in Sylhet, Chittagong and Cox's Bazar.

Data Processing

The Field Data Processing Program (FDPP). - Design of FDPP started in early 1996 and the technical specifications, flow charts and algorithms were ready to guide the Programmer in encoding FDPP in early May 1996. The draft of the details of the design and technical specifications are contained in Annex 2 of the FIS' report for his second mission (May 1996). The final revisions/refinements are given in the revised version of the same document prepared and submitted in October 1997.

Programming started before July 1996 and individual modules were tested as soon as they were finished. Debugging and refinements continued to be made until the Sylhet and Sundarbans databases were received for final validation and processing.

Final data validation. – Final validation of the forest inventory databases took longer than expected because of high incidence of errors in data entry of plot cluster location coordinates in all cases. Identification of the stratum of each plot cluster as determined on the RIMS-GIS vegetative cover maps also had to wait for completion of digital mapping of the forest divisions.

One thousand eighty four (1084) plot clusters were enumerated and validated for final processing for the Sylhet Forest Division, 279 in the natural forest and 805 in the forest plantations and other areas.

The main forest types, final strata and species/groups. – The main forest types, final strata and species/groups used to summarize the stand and stock tables and statistics are given below. The main forest types and strata are consistent with the classes identified in digital image analysis of satellite data which were mapped and stored in the RIMS-GIS database.

The **main forest types** are: HF (natural forest with large crown trees, >50% crown cover), LF (natural forest with small crown trees, >50% crown cover), ST (scattered trees), Bamboo/bamboo dominated stands, long-rotation species plantations, short-rotation species plantations and others. The hectarages and distribution of these types into the forest ranges and beats are given in Tables 1 and 1a. The areas of the forest plantations by species/species mix and planting year/period and their distribution into the ranges and beats and final strata are shown in Tables 2, 2a and 3.

The final **strata** used to generate the stand and stock tables and statistics for the Hill forests are shown below.

Final Stratification for Generation of Forest Statistics

Sylhet: Strata	Chittagong: Strata	Cox's Bazar: Stratra
1 HF	10 HF/GF	10 HF/GF
2 LF	20 LF	20 LF
3 ST	30 ST/TB	30 ST/TB

4 B/BO/OB	40 B	40 B
5 T/OT, up to 1959	51 T/OT, up to 1959, <75% cc 52 T/OT, up to 1959, >75% cc	50 T/OT, up to 1959, all cc
6 T/OT, 1960-1979	61 T/OT, 1960-1979, <50% cc 62 T/OT, 1960-1979, 50 - 75% cc 63 T/OT, 1960-1979, >75% cc	61 T/OT, 1960-1979, <50% cc 62 T/OT, 1960-1979, 50 - 75% cc 63 T/OT, 1960-1979, >75% cc
7 T/OT, 1980-1989	70 T/OT, 1980-1989, all cc	71 T/OT, 1980-1989, <75% cc 72 T/OT, 1980-1989, >75% cc
8 T/OT, 1990 and up	81 T/OT, 1990 and up, <75% cc 82 T/OT, 1990 and up, >75% cc	80 T/OT, 1990 and up, all cc
9 Other LRS, up to 1984	90 Other LRS, up to 1979, all cc	91 Other LRS, up to 1979, <50% cc 92 Other LRS, up to 1979, 50 - 75% cc 93 Other LRS, up to 1979, >75% cc
10 Other LRS, 1985 and up	101 Other LRS, 1980 and up, <50% cc 102 Other LRS, 1980 and up, 50-75% 103 Other LRS, 1980 and up, >75% cc	103 Other LRS, 1980 and up, >75% 104 Other LRS, 1980 and up, <75% cc
11 Mo, up to 1989	---	---
12 Eu/Am/Ac/Kd/Others, up to 1989	120 Eu/Am/Ac/Others, up to 1989 all cc	120 Eu/Am/Ac/Others, up to 1989 all cc
13 Eu/Am/Ac/Mo/Others, 1990 & up	131 Eu/Am/Others, 1990 & up, <50% 132 Eu/Am/Others, 1990 & up, 50-75% 133 Eu/Am/Others, 1990 & up, >75%	131 Eu/Am/Others, 1990 & up, <50% 132 Eu/Am/Others, 1990 & up, 50-75% 133 Eu/Am/Others, 1990 & up, >75%
14 Other plantations	140 Other plantations	140 Other plantations
15 Others (e.g. EN, FP, Br)	150 Others (e.g. EN, FP, Br, ...)	150 Others (e.g. EN, FP, Br, ...)

Notes: In considering the crown closure classes (cc) of the forest plantations in Chittagong and Cox's Bazar, a stratum with small area was combined with the stratum with attributes closest to its own whenever practicable. For computational purposes, the strata are given numerical codes for each Forest Division. Similar strata may still be combined in final summary of the results of the forest inventory.

Legend:

HF - large crown high forest, >50% crown closure
GF - HF mainly composed of *Dipterocarpus spp.*
LF - small crown high forest, >50% crown closure
ST - scattered trees, about 20% crown closure
TB - natural forest (<50% crown closure) mixed with bamboo
B - bamboo (>80% stocking)
Bo - bamboo (<80% stocking)
OB - bamboo (dominant) with other species
T - Teak
OT - Teak with other species
LRS - long rotation species
MO - Molucanna
Eu - *Eucalyptus spp.*
Am - *Acacia mangium*
Ac - *Acacia auriculiformis*
Kd - *Anthocephalus cadamba (chinensis)*
SRS - short rotation species
EN - Encroached; FP - Failed Plantation
Br - Brush

Specifically for the Sylhet Forest Division, the following strata were combined to generate more meaningful estimates: HF and LF, strata 7 and 8, 9 and 10, and 12 and

13. It would have been more prudent to combine ST and B also if not for the need to keep B as a unique stratum in Sylhet Forest Division.

Five **species groups** were decided upon and are being used to summarize the stand and stock tables and statistics for Sylhet, Cox's Bazar and Chittagong Forest Divisions. These are: Special Class, Class A, Class B, Class C and Class D which correspond with the market value of the wood derived from the trees. The tree species codes which are given in Appendix 3 also show the commercial class to which each species belongs.

Data processing. – As soon as the location coordinates of the plot clusters were corrected, their respective strata identified, the beats/ranges validated, and the stratum areas were determined, processing of the SFD forest inventory data went into full swing. The data were analyzed not only by stratum but also by range and beat but the results at the range and beat levels could be misleading and are not statistically meaningful nor useful.

In addition to the usual stand and stock tables (per ha estimates) by dbh classes and species groups and total estimates (forest statistics) for the whole SFD, additional information needed in forest management planning were also generated, e.g. plantation plot data for yield/growth modeling. Such data were generated for Teak, Garjan, Mangium, and other plantation species.

The timber/forest statistics. – The statistics presented herein are the final results of the FRMP forest inventory of Sylhet Forest Division. The results of the forest inventory of the SFD are summarized in Tables 4 to 6. The details of these results, the number of trees, their basal area and utilizable volume per hectare, the number of poles, saplings, seedlings, bamboo (immature and mature culms), rattan and medicinal plants are given in the Stand and Stock Tables and Statistics in Appendices 7 and 8. Table 4 gives the summary of tree volumes by stratum and species group. Table 5 summarizes the bamboo resources by stratum and range while Table 6 shows the poles, saplings and seedlings by species group and stratum.

Tree volume is given for SFD only in terms of utilizable volume as defined in the existing tree volume equations. Total tree volume, VTOT (stem or bole volume + crown volume) cannot be generated because most of the volume equations do not provide the needed equations for this unlike in the new tree volume equations for the Sundarbans.

Table 8 shows the comparison between the results of regular enumeration and validation sampling of the bamboo plot clusters that were drawn at random for this purpose. Even if the validation sampling enumerated only three plots per cluster against five plots per cluster in regular enumeration, the estimated total culms of the 20 plot clusters differ only by 6.9 percent when the two results are compared. This directly validates the findings of the FRMP forest inventory on the bamboo resources of Sylhet.

Regeneration statistics. – The statistics on regeneration are summarized in Table 6. The details are given in the stand and stock tables in Appendix 7. The number of poles vary from about 400 to more than 900 stems per hectare except in ST and B

strata where there are only about 80 and 220, respectively. The saplings are also about the same range of numbers as the poles. But, the seedlings are more numerous as expected, they vary from 2600 to more than 8500 except in ST and Other SRS where there are less than 2000 seedlings per hectare. While the number of seedlings may be considered adequate in most cases, most of the seedlings are in Class D in most cases.

The Confidence Limits

Confidence limits of stratum mean. - The 95% confidence limits of the stratum mean, **xbar**, is given by the familiar expression:

xbar ± t*se

where: **t** is the t-value at 5% with degrees of freedom, **n*h*-1** (where **n***h* is the sample size of stratum *h*) and **se** is the standard error of the stratum mean.

Confidence limits of the population mean. - The 95% confidence limits of the population mean, **xdbar**, in stratified sampling is more complicated than the usual procedure specifically in determining its effective degrees of freedom, **ne**.

xdbar ± t*sed

where: **t** is the t-value at 5% level with degrees of freedom **ne** and **sed** is the standard error of the population mean; **ne** is given by the following expression (From: Cochran).

$$\mathbf{ne} = (\sum G_h * S_h^2)^2 / \sum (G_h^2 * S_h^4 / (n_h - 1))$$

where: $G_h = N_h * (N_h - n_h)/n_h$,
S_h^2 is the sample variance of stratum *h*,
N_h is the size of stratum *h*,
n_h is the sample size for stratum *h*, and
N_h and n_h are in the same units, e.g. ha.

Computation of the effective degrees of freedom in stratified sampling has been amply demonstrated in the final reports on the forest inventory of the Sundarbans Reserved Forest and Coastal plantations. While a similar exercise can be easily done for the SFD, it would be more meaningful to look at the confidence intervals for estimates at the stratum level particularly HF/LF, B, T/OT 1959 and T/OT 1960-1979. The 95% confidence intervals of the division-wide volume estimates (number of Muli culms in the case of B) for these strata are as follows:

HF/LF: 316480 – 1.98*.059*316480 to 316480 + 1.98*.059*316480
or about 279510 to 353450 cu.m.

B: 225353770-1.96*.054*225353770 to 225353770 + 1.96*.054*225353770

or about 223 million to 249 million culms of Muli

T/OT 1959: 167860 – 1.96*.056*167860 to 167860 + 1.96*.056*167860
or about 149435 to 186284 cu.m.

T/OT 60-79: 319710 – 1.96*.052*319710 to 319710 + 1.96*.052*319710
or about 287125 to 352295 cu.m.

Assessment of Change in the Forest Resources

Changes in area. - Table 7 summarizes the comparative areas of the major forest types in the 1984 FAO/UNDP inventory and the 1996 FRMP inventory.. It should be noted that the 1984 inventory estimated areas from aerial photographs while the FRMP estimates were the results of image analysis of SPOT digital data. Table 7 shows an increase of 76% in the area of long rotation plantations, an 18% decrease in short rotation plantations, a 17% decrease of HF/LF areas, a 69% decrease of ST areas, and denuded areas remaining about the same. The increase in area of B stratum is attributed to the inclusion of other sites not covered by the 1984 inventory.

Change in stocking. – Table 7 also shows the change in stocking of the natural forest and bamboo stratum over the 12-year period. The number of trees (30-cm+ dbh) in HF/LF stratum had decreased from 61 to 83 stems/ha in 1984 to about 62 stems in 1996. The pole sized trees had decreased even more from 200 in 1984 to only about 65 stems/ha in 1996. Muli bamboo, on the other hand, decreased from about 18100 culms/ha to only 11200 over the same period. No estimates on stand and stock of the plantations were presented in the FAO/UNDP report. Some graphs of number of stems, basal area and volume on age were presented purportedly for purposes of deriving yield equations for the plantations, but the results were not generated nor presented in the usual forest inventory format hence no comparison can be made on the stocking of the plantations in 1984 and 1996.

javr/13january98

Table 1. Area by Vegetative/Land Use/Cover Type and Range (Sylhet)

	Vegetative/Land Cover Type																	
Range	**B**	**Br**	**En**	**FP**	**FR**	**HF**	**LF**	**LR**	**MV**	**O**	**RP**	**Re**	**SR**	**ST**	**Sn**	**TG**	**W**	**Total**
n.a.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0
Habigonj	147.5	26.3	846.3	56.1	0.0	1596.2	251.1	3846.0	0.0	0.0	242.2	0.0	752.3	513.2	100.1	72.2	0.0	8449.5
Juri	10212.7	0.0	297.5	15.0	0.0	0.0	0.0	3665.6	0.0	128.9	0.0	0.0	0.0	116.7	0.0	0.0	0.0	14436.4
Kulaura	4792.1	0.0	2704.4	0.0	0.0	265.4	18.7	219.0	0.0	0.0	712.7	0.0	16.4	0.0	0.0	21.7	0.0	11888.0
Moulavibazar	0.0	16.9	480.3	67.3	171.1	0.0	136.1	1708.5	0.0	3.1	0.0	0.0	809.4	163.0	152.0	0.0	0.0	3969.4
North Sylhet	190.7	0.0	182.2	0.0	0.0	0.0	0.0	318.2	61.6	49.1	0.0	7018.4	367.4	0.0	0.0	0.0	26.1	8389.5
Raghunandan	0.0	0.0	123.9	0.0	0.0	0.0	0.0	2332.1	0.0	0.0	835.4	0.0	103.4	0.0	2351.8	0.0	0.0	5759.1
Rajkandi	4696.6	0.0	198.8	0.0	0.0	257.5	0.0	2318.6	0.0	0.0	0.0	0.0	0.0	25.7	0.0	0.0	0.0	7497.2
Satchari	0.0	0.0	0.0	0.0	0.0	256.6	0.0	1383.7	0.0	8.5	0.0	0.0	25.1	53.2	454.4	0.0	0.0	2181.5
Sunamgonj	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3216.0	0.0	0.0	0.0	0.0	98.6	3314.6
Total	**20039.6**	**43.2**	**4833.4**	**138.4**	**171.1**	**2375.7**	**405.9**	**15797.7**	**61.6**	**189.6**	**1790.3**	**10234.4**	**2074.0**	**871.8**	**3058.3**	**93.9**	**124.7**	**65891.2**

Source: RIMS-GIS database (FRMP).

Note: 3587.6 ha of BB area were excluded from B; BB was not included in FI field sampling.
Total Division area includes the 3587.6 ha of BB.

Legend: B - Bamboo Br - Brush En - Encroached FP - Failed Plantation FR - Forest Research Area

HF - Large Crown Natural Forest LF - Small Crown Natural Forest

LR - Long Rotation Forest Plantations MV - Murta O - Open Area

RP - Rubber Plantation Re - Reed SR - Short Rotation Forest Plantation ST - Scattered Trees

Sn - Sungrass TG - Tea Garden W - Water

Table 1a. Area by Vegetative Cover Type by Beat (Sylhet)

Range	Beat	B	Br	En	FP	FR	HF	LF	LR	MV	O	RP	Re	SR	ST	Sn	TG	W	Total
	n.a.	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	6
Habigonj	Kalenga	0	23.4	378.1	56.1	0	882	81.7	1309.1	0	0	0	0	368.1	419.3	0	0	0	3517.8
	Putijuri	147.5	2.9	105.1	0	0	0	0	495	0	0	0	0	318.9	4.2	100.1	0	0	1173.7
	Rashidpur	0	0	274.1	0	0	0	81.7	748.1	0	0	242.2	0	65.3	79.3	0	72.2	0	1562.9
	Rema	0	0	89	0	0	714.2	87.7	1293.8	0	0	0	0	0	10.4	0	0	0	2195.1
	Total	147.5	26.3	846.3	56.1	0	1596.2	251.1	3846	0	0	242.2	0	752.3	513.2	100.1	72.2	0	8449.5
Juri	Baralekha	1746.5	0	92.2	0	0	0	0	972.5	0	128.9	0	0	0	0	0	0	0	2940.1
	Lathitila	1314.9	0	69.3	0	0	0	0	797.7	0	0	0	0	0	116.7	0	0	0	2298.6
	Madhabchara	2103.2	0	75.9	15	0	0	0	111.4	0	0	0	0	0	0	0	0	0	2305.5
	Putichara	1159	0	54.1	0	0	0	0	1138.9	0	0	0	0	0	0	0	0	0	2352
	Ragna	2115.8	0	0	0	0	0	0	349.9	0	0	0	0	0	0	0	0	0	2465.7
	Sagernal	1201.8	0	0	0	0	0	0	142.3	0	0	0	0	0	0	0	0	0	1344.1
	Samanbagh	571.5	0	6	0	0	0	0	152.9	0	0	0	0	0	0	0	0	0	730.4
	Total	10212.7	0	297.5	15	0	0	0	3665.6	0	128.9	0	0	0	116.7	0	0	0	14436.4
Kulaura	Baromchal	0	0	278.6	0	0	265.4	18.7	90.5	0	0	136.1	0	16.4	0	0	21.7	0	827.4
	Bhatera	0	0	463.9	0	0	0	0	0	0	0	576.6	0	0	0	0	0	0	1040.5
	Gazipur	1604.1	0	1468.1	0	0	0	0	71.4	0	0	0	0	0	0	0	0	0	3143.6
	Monchara	1719.6	0	337.4	0	0	0	0	36.7	0	0	0	0	0	0	0	0	0	2093.7
	Muraichara	3137.6	0	56.3	0	0	0	0	12	0	0	0	0	0	0	0	0	0	3205.9
	Nalduri	1468.4	0	100.1	0	0	0	0	8.4	0	0	0	0	0	0	0	0	0	1576.9
	Total	7929.7	0	2704.4	0	0	265.4	18.7	219	0	0	712.7	0	16.4	0	0	21.7	0	11888
Moulavibazar	Chautali	0	0	0	12	0	0	0	341.1	0	0	0	0	68	0	0	0	0	421.1
	Kalachara	0	0	239.7	55.3	0	0	0	303.4	0	0	0	0	377.9	5.5	0	0	0	981.8
	Lawachara	0	0	132.5	0	98.4	0	136.1	755.7	0	0	0	0	141	0	0	0	0	1263.7
	Moulavibazar	101.9	0	23.9	0	72.7	0	0	62.2	0	3.1	0	0	76.4	11.9	0	0	0	352.1
	Satgaon	159.8	16.9	84.2	0	0	0	0	246.1	0	0	0	0	146.1	145.6	152	0	0	950.7
	Total	261.7	16.9	480.3	67.3	171.1	0	136.1	1708.5	0	3.1	0	0	809.4	163	152	0	0	3969.4
North Sylhet	Goainghat	0	0	0	0	0	0	0	0	0	0	0	1050.1	0	0	0	0	26.1	1076.2
	Jaflong	0	0	0	0	0	0	0	0	0	0	0	39.4	159.2	0	0	0	0	198.6
	Kanaighat	175.8	0	165.5	0	0	0	0	33.3	0	49.1	0	0	32.7	0	0	0	0	456.4

Range	Beat	B	Br	En	FP	FR	HF	LF	LR	MV	O	RP	Re	SR	ST	Sn	TG	W	Total
	Khadimnagar	190.7	0	16.7	0	0	0	0	271.1	0	0	0	0	11.7	0	0	0	0	490.2
	Ranikhai	0	0	0	0	0	0	0	0	0	0	0	4420.5	0	0	0	0	0	4420.5
	Ratargole	0	0	0	0	0	0	0	0	61.6	0	0	1443.3	0	0	0	0	0	1504.9
	Salutikar	0	0	0	0	0	0	0	0	0	0	0	65.1	0	0	0	0	0	65.1
	Sari	0	0	0	0	0	0	0	13.8	0	0	0	0	163.8	0	0	0	0	177.6
	Total	366.5	0	182.2	0	0	0	0	318.2	61.6	49.1	0	7018.4	367.4	0	0	0	26.1	8389.5
Raghunandan	Jagadishpur	0	0	0	0	0	0	0	219	0	0	0	0	103.4	0	793.3	0	0	1115.7
	Shahajibazar	0	0	62.5	0	0	0	0	60.6	0	0	684.8	0	0	0	0	0	0	807.9
	Shahapur	12.5	0	0	0	0	0	0	76.9	0	0	150.6	0	0	0	1141.4	0	0	1381.4
	Shaltila	0	0	61.4	0	0	0	0	1975.6	0	0	0	0	0	0	417.1	0	0	2454.1
	Total	12.5	0	123.9	0	0	0	0	2332.1	0	0	835.4	0	103.4	0	2351.8	0	0	5759.1
Rajkandi	Adampur	1660.8	0	51.6	0	0	257.5	0	837.8	0	0	0	0	0	0	0	0	0	2807.7
	Kamarchara	336.3	0	85.5	0	0	0	0	963.6	0	0	0	0	0	25.7	0	0	0	1411.1
	Lawachara	2699.5	0	61.7	0	0	0	0	517.2	0	0	0	0	0	0	0	0	0	3278.4
	Total	4696.6	0	198.8	0	0	257.5	0	2318.6	0	0	0	0	0	25.7	0	0	0	7497.2
Satchari	Satchari	0	0	0	0	0	256.6	0	690.7	0	8.5	0	0	0	13.1	225.8	0	0	1194.7
	Telmachara	0	0	0	0	0	0	0	693	0	0	0	0	25.1	40.1	228.6	0	0	986.8
	Total	0	0	0	0	0	256.6	0	1383.7	0	8.5	0	0	25.1	53.2	454.4	0	0	2181.5
Sunamgonj	Chatak	0	0	0	0	0	0	0	0	0	0	0	1735.6	0	0	0	0	98.6	1834.2
	Doarabazar	0	0	0	0	0	0	0	0	0	0	0	1480.4	0	0	0	0	0	1480.4
	Total	0	0	0	0	0	0	0	0	0	0	0	3216	0	0	0	0	98.6	3314.6
Total		23627.2	43.2	4833.4	138.4	171.1	2375.7	405.9	15797.7	61.6	189.6	1790.3	10234.4	2074	871.8	3058.3	93.9	124.7	65891.2

Table 2. Areas of Forest Plantations by Range, Species/Group and Stratum (Sylhet)

Species	Planting Period	Habigonj	Jaintiri	Kulaura	Moulavibazar	North Sylhe	Raghunandan	Rajkandi	Satchari	Sunamgonj	n.a.	Total
Ac/Am	85-89	65.3	0	0	0	0	0	0	0	0	0	65.3
	90-91	0	0	0	0	1.5	0	0	0	0	0	1.5
	92-93	22.2	0	0	88.6	0	0	0	0	0	0	110.8
	Total	87.5	0	0	88.6	1.5	0	0	0	0	0	177.6
Ac/Eu/Kd	85-89	86.9	0	0	0	0	0	0	0	0	0	86.9
	Total	86.9	0	0	0	0	0	0	0	0	0	86.9
Ac/Ko/Kd	90-91	63.7	0	0	0	0	0	0	0	0	0	63.7
	Total	63.7	0	0	0	0	0	0	0	0	0	63.7
Ac/Mo	94-95	72.4	0	0	20.4	0	0	0	0	0	0	92.8
	Total	72.4	0	0	20.4	0	0	0	0	0	0	92.8
Am/Ac/Kd	92-93	0	0	0	85.4	0	0	0	0	0	0	85.4
	Total	0	0	0	85.4	0	0	0	0	0	0	85.4
Am/Mo/Eu	90-91	0	0	0	102.5	0	0	0	0	0	0	102.5
	94-95	6	0	0	23.2	0	0	0	0	0	0	29.2
	Total	6	0	0	125.7	0	0	0	0	0	0	131.7
B	80-84	0	0	0	0	190.7	0	0	0	0	0	190.7
	90-91	16.7	0	0	0	0	0	0	0	0	0	16.7
	94-95	130.8	0	0	0	14.5	0	0	0	0	0	145.3
	Total	147.5	0	0	0	205.2	0	0	0	0	0	352.7
Cn	94-95	0	0	0	18	0	0	0	0	0	0	18
	Total	0	0	0	18	0	0	0	0	0	0	18
Cp/Dj	85-89	242	0	0	0	0	0	0	0	0	0	242
	Total	242	0	0	0	0	0	0	0	0	0	242
Cp/Me/Cr	92-93	0	0	0	69.4	0	0	0	0	0	0	69.4
	94-95	0	0	0	0	0	0	0	153.9	0	0	153.9
	Total	0	0	0	69.4	0	0	0	153.9	0	0	223.3
Cp/Py	92-93	0	0	0	63.2	0	0	0	0	0	0	63.2

Species	Planting Period	Habigonj	Juri	Kulaura	Moulavibazar	North Sylhe	Raghunandan	Rajkandi	Satchari	Sunamgonj	n.a.	Total
	Total	0	0	0	63.2	0	0	0	0	0	0	63.2
Cp/Sl/Cr	85-89	0	0	0	26.3	0	0	0	0	0	0	26.3
	92-93	0	0	0	0	18.1	0	0	0	0	0	18.1
	Total	0	0	0	26.3	18.1	0	0	0	0	0	44.4
Cr/Cp	90-91	352.5	0	0	0	0	0	0	0	0	0	352.5
	92-93	240.7	0	0	0	0	0	0	0	0	0	240.7
	Total	593.2	0	0	0	0	0	0	0	0	0	593.2
Cr/Dj/Gj	90-91	0	0	0	0	36.3	0	0	0	0	0	36.3
	Total	0	0	0	0	36.3	0	0	0	0	0	36.3
Cr/Me/Dj	85-89	140.2	0	0	0	0	0	0	0	0	0	140.2
	Total	140.2	0	0	0	0	0	0	0	0	0	140.2
Cr/Me/Sl	80-84	0	0	0	17	0	0	0	0	0	0	17
	94-95	3.5	0	0	71.6	0	0	0	0	0	0	75.1
	Total	3.5	0	0	88.6	0	0	0	0	0	0	92.1
Cr/Py/Me	85-89	0	0	0	0	0	71.2	0	388.6	0	0	459.8
	90-91	0	0	0	0	0	10.4	0	0	0	0	10.4
	94-95	0	0	0	0	0	36.3	0	0	0	0	36.3
	Total	0	0	0	0	0	117.9	0	388.6	0	0	506.5
Dj/Cp/Gj	90-91	0	0	0	0	64.8	0	0	0	0	0	64.8
	94-95	0	0	0	0	24.5	0	0	0	0	0	24.5
	Total	0	0	0	0	89.3	0	0	0	0	0	89.3
Dj/Gj/Py	40-49	0	0	0	0	0	28.6	0	0	0	0	28.6
	90-91	0	0	0	0	0	140.3	0	498	0	0	638.3
	92-93	0	111.4	0	0	0	16.3	0	0	0	0	127.7
	Total	0	111.4	0	0	0	185.2	0	498	0	0	794.6
Eu	85-89	7.7	0	0	61.8	170.9	0	0	0	0	0	240.4
	90-91	0	0	16.4	0	137.8	0	0	0	0	0	154.2
	94-95	0	0	0	0	25.2	0	0	0	0	0	25.2
	Total	7.7	0	16.4	61.8	333.9	0	0	0	0	0	419.8

Species	Planting Period	Habigonj	Juri	Kulaura	Moulavibazar	North Sylhe	Raghunandan	Rajkandi	Satchari	Sunamgonj	n.a.	Total
Eu/Ac	85-89	0	0	0	84	0	0	0	0	0	0	84
	Total	0	0	0	84	0	0	0	0	0	0	84
Eu/Ac/Am	85-89	368.1	0	0	0	0	0	0	25.1	0	0	393.2
	90-91	0	0	0	26.8	0	103.4	0	0	0	0	130.2
	92-93	0	0	0	0	24.5	0	0	0	0	0	24.5
	Total	368.1	0	0	26.8	24.5	103.4	0	25.1	0	0	547.9
Eu/Ac/Mo	85-89	60	0	0	0	0	0	0	0	0	0	60
	94-95	0	0	0	0	7.5	0	0	0	0	0	7.5
	Total	60	0	0	0	7.5	0	0	0	0	0	67.5
Eu/Am	85-89	0	0	0	74.7	0	0	0	0	0	0	74.7
	90-91	0	0	0	195.9	0	0	0	0	0	0	195.9
	92-93	0	0	0	28.1	0	0	0	0	0	0	28.1
	Total	0	0	0	298.7	0	0	0	0	0	0	298.7
Gj/Me/Sl	85-89	0	0	0	6.7	0	0	0	0	0	0	6.7
	Total	0	0	0	6.7	0	0	0	0	0	0	6.7
Gr/Cp/Me	92-93	8.9	0	0	0	0	0	0	0	0	0	8.9
	Total	8.9	0	0	0	0	0	0	0	0	0	8.9
Gr/Sl	30-39	0	0	0	19.9	0	0	0	0	0	0	19.9
	50-59	0	0	0	9.3	0	0	0	0	0	0	9.3
	Total	0	0	0	29.2	0	0	0	0	0	0	29.2
Me/Py	90-91	0	0	0	0	0	23.3	0	0	0	0	23.3
	94-95	0	0	0	0	0	33.7	0	0	0	0	33.7
	Total	0	0	0	0	0	57	0	0	0	0	57
Mo	85-89	0	0	0	207.1	21.6	26.3	0	61.7	0	0	316.7
	92-93	34.2	0	0	12.5	0	0	0	0	0	0	46.7
	94-95	61.3	0	1.5	0	0	0	0	0	0	0	62.8
	Total	95.5	0	1.5	219.6	21.6	26.3	0	61.7	0	0	426.2
OT		0	0	8.4	0	0	0	0	0	0	0	8.4
	30-39	0	73.5	0	0	0	0	5	0	0	0	78.5

Species	Planting Period	Habigonj	Juri	Kulaura	Moulavibazar	North Sylhe	Raghunandan	Rajkandi	Satchari	Sunamgonj	n.a.	Total
	40-49	0	0	0	0	0	17.2	0	0	0	0	17.2
	50-59	171.6	237.6	0	0	0	0	418.6	0	0	0	827.8
	60-64	280.8	68.8	0	398.4	0	182.8	0	0	0	0	930.8
	65-69	225.9	112	0	62.8	0	0	320	0	0	0	720.7
	75-79	118.6	40.9	0	0	0	52.2	477.9	0	0	0	689.6
	80-84	0	955.6	0	0	29.5	131.3	577.8	0	0	0	1694.2
	85-89	0	113.3	0	0	0	58.1	475.1	0	0	0	646.5
	92-93	68.1	0	0	0	0	0	0	0	0	0	68.1
	Total	865	1602	8.4	461.2	29.5	441.6	2274.4	0	0	0	5681.8
T	30-39	0	0	0	347.1	0	0	0	0	0	0	347.1
	40-49	0	48.7	0	0	0	91.9	0	0	0	0	140.6
	50-59	513.3	216.5	0	106.7	70.2	0	0	0	0	0	906.7
	60-64	189.6	33.5	12	0	28.9	71.2	0	226.3	0	6	567.5
	65-69	165.3	460.5	71.4	150.6	0	0	44.2	27.3	0	0	919.3
	70-74	0	980.3	18.5	0	0	22.8	0	0	0	0	1021.6
	75-79	776	0	42.1	17.8	3.8	1318.2	0	0	0	0	2157.9
	80-84	0	182.6	0	0	0	0	0	0	0	0	182.6
	85-89	0	30.4	0	0	20.5	0	0	0	0	0	50.9
	92-93	215.6	0	0	0	0	0	0	0	0	0	215.6
	94-95	37.9	0	65.1	122.1	0	0	0	0	0	0	225.1
	Total	1897.7	1953	209.1	744.3	123.4	1504.1	44.2	253.6	0	6	6734.9
Total		4281.8	3666	235.4	2197.8	684.1	2435.5	2318.6	1380.9	0	6	17205.7

Table 2a. Stratum Areas by Range (Forest Plantations)

Stratum	Planting Period	Habigonj	Juri	Kulaura	Moulavibazar	North Sylhe	Raghunandan	Rajkandi	Satchari	Sunamgonj	n.a.	Total
OT		0	0	8.4	0	0	0	0	0	0	0	8.4
	30-39	0	73.5	0	0	0	0	5	0	0	0	78.5
	40-49	0	0	0	0	0	17.2	0	0	0	0	17.2
	50-59	171.6	237.6	0	0	0	0	418.6	0	0	0	827.8
T	30-39	0	0	0	347.1	0	0	0	0	0	0	347.1
	40-49	0	48.7	0	0	0	91.9	0	0	0	0	140.6
	50-59	513.3	216.5	0	106.7	70.2	0	0	0	0	0	906.7
Stratum 5		**684.9**	**576.3**	**8.4**	**453.8**	**70.2**	**109.1**	**423.6**	**0**	**0**	**0**	**2326.3**
OT	60-64	280.8	68.8	0	398.4	0	182.8	0	0	0	0	930.8
	65-69	225.9	112	0	62.8	0	0	320	0	0	0	720.7
	75-79	118.6	40.9	0	0	0	52.2	477.9	0	0	0	689.6
T	60-64	189.6	33.5	12	0	28.9	71.2	0	226.3	0	6	567.5
	65-69	165.3	460.5	71.4	150.6	0	0	44.2	27.3	0	0	919.3
	70-74	0	980.3	18.5	0	0	22.8	0	0	0	0	1021.6
	75-79	776	0	42.1	17.8	3.8	1318.2	0	0	0	0	2157.9
Stratum 6		**1756.2**	**1696**	**144**	**629.6**	**32.7**	**1647.2**	**842.1**	**253.6**	**0**	**6**	**7007.4**
OT	80-84	0	955.6	0	0	29.5	131.3	577.8	0	0	0	1694.2
	85-89	0	113.3	0	0	0	58.1	475.1	0	0	0	646.5
	92-93	68.1	0	0	0	0	0	0	0	0	0	68.1
T	80-84	0	182.6	0	0	0	0	0	0	0	0	182.6
	85-89	0	30.4	0	0	20.5	0	0	0	0	0	50.9
	92-93	215.6	0	0	0	0	0	0	0	0	0	215.6
	94-95	37.9	0	65.1	122.1	0	0	0	0	0	0	225.1
Strata 7 & 8		**321.6**	**1282**	**65.1**	**122.1**	**50**	**189.4**	**1052.9**	**0**	**0**	**0**	**3083**

Stratum	Planting Period	Habigonj	Juri	Kulaura	Moulavibazar	North Sylhe	Raghunandan	Rajkandi	Satchari	Sunamgonj	n.a.	Total
Cr/Me/Sl	80-84	0	0	0	17	0	0	0	0	0	0	17
Dj/Gj/Py	40-49	0	0	0	0	0	28.6	0	0	0	0	28.6
Gr/Sl	30-39	0	0	0	19.9	0	0	0	0	0	0	19.9
	50-59	0	0	0	9.3	0	0	0	0	0	0	9.3
Stratum 9		**0**	**0**	**0**	**46.2**	**0**	**28.6**	**0**	**0**	**0**	**0**	**74.8**
Cp/Dj	85-89	242	0	0	0	0	0	0	0	0	0	242
Cp/Me/Cr	92-93	0	0	0	69.4	0	0	0	0	0	0	69.4
	94-95	0	0	0	0	0	0	0	153.9	0	0	153.9
Cp/Py	92-93	0	0	0	63.2	0	0	0	0	0	0	63.2
Cp/Sl/Cr	85-89	0	0	0	26.3	0	0	0	0	0	0	26.3
	92-93	0	0	0	0	18.1	0	0	0	0	0	18.1
Cr/Cp	90-91	352.5	0	0	0	0	0	0	0	0	0	352.5
	92-93	240.7	0	0	0	0	0	0	0	0	0	240.7
Cr/Dj/Gj	90-91	0	0	0	0	36.3	0	0	0	0	0	36.3
Cr/Me/Dj	85-89	140.2	0	0	0	0	0	0	0	0	0	140.2
Cr/Me/Sl	80-84	0	0	0	17	0	0	0	0	0	0	17
	94-95	3.5	0	0	71.6	0	0	0	0	0	0	75.1
Cr/Py/Me	85-89	0	0	0	0	0	71.2	0	388.6	0	0	459.8
	90-91	0	0	0	0	0	10.4	0	0	0	0	10.4
	94-95	0	0	0	0	0	36.3	0	0	0	0	36.3
Dj/Cp/Gj	90-91	0	0	0	0	64.8	0	0	0	0	0	64.8
	94-95	0	0	0	0	24.5	0	0	0	0	0	24.5
Dj/Gj/Py	40-49	0	0	0	0	0	28.6	0	0	0	0	28.6
	90-91	0	0	0	0	0	140.3	0	498	0	0	638.3
	92-93	0	111.4	0	0	0	16.3	0	0	0	0	127.7
Gj/Me/Sl	85-89	0	0	0	6.7	0	0	0	0	0	0	6.7
Gr/Cp/Me	92-93	8.9	0	0	0	0	0	0	0	0	0	8.9
Gr/Sl	30-39	0	0	0	19.9	0	0	0	0	0	0	19.9

Stratum	Planting Period	Habigonj	Juri	Kulaura	Moulavibazar	North Sylhe	Raghunandan	Rajkandi	Satchari	Sunamgonj	n.a.	Total
	50-59	0	0	0	9.3	0	0	0	0	0	0	9.3
Me/Py	90-91	0	0	0	0	0	23.3	0	0	0	0	23.3
	94-95	0	0	0	0	0	33.7	0	0	0	0	33.7
Stratum 10		**987.8**	**111.4**	**0**	**283.4**	**143.7**	**360.1**	**0**	**1040.5**	**0**	**0**	**2926.9**
Mo	85-89	0	0	0	207.1	21.6	26.3	0	61.7	0	0	316.7
Stratum 11		**0**	**0**	**0**	**207.1**	**21.6**	**26.3**	**0**	**61.7**	**0**	**0**	**316.7**
Ac/Am	85-89	65.3	0	0	0	0	0	0	0	0	0	65.3
Ac/Eu/Kd	85-89	86.9	0	0	0	0	0	0	0	0	0	86.9
Eu	85-89	7.7	0	0	61.8	170.9	0	0	0	0	0	240.4
Eu/Ac/Am	85-89	368.1	0	0	0	0	0	0	25.1	0	0	393.2
Eu/Ac/Mo	85-89	60	0	0	0	0	0	0	0	0	0	60
Eu/Am	85-89	0	0	0	74.7	0	0	0	0	0	0	74.7
Stratum 12		**588**	**0**	**0**	**136.5**	**170.9**	**0**	**0**	**25.1**	**0**	**0**	**920.5**
Ac/Am	90-91	0	0	0	0	1.5	0	0	0	0	0	1.5
	92-93	22.2	0	0	88.6	0	0	0	0	0	0	110.8
Ac/Ko/Kd	90-91	63.7	0	0	0	0	0	0	0	0	0	63.7
Ac/Mo	94-95	72.4	0	0	20.4	0	0	0	0	0	0	92.8
Am/Ac/Kd	92-93	0	0	0	85.4	0	0	0	0	0	0	85.4
Am/Mo/Eu	90-91	0	0	0	102.5	0	0	0	0	0	0	102.5
	94-95	6	0	0	23.2	0	0	0	0	0	0	29.2
	90-91	0	0	16.4	0	137.8	0	0	0	0	0	154.2
	94-95	0	0	0	0	25.2	0	0	0	0	0	25.2
	90-91	0	0	0	26.8	0	103.4	0	0	0	0	130.2
	92-93	0	0	0	0	24.5	0	0	0	0	0	24.5
	94-95	0	0	0	0	7.5	0	0	0	0	0	7.5
	90-91	0	0	0	195.9	0	0	0	0	0	0	195.9

Stratum	Planting Period	Habigonj	Juri	Kulaura	Moulavibazar	North Sylhe	Raghunandan	Rajkandi	Satchari	Sunamgonj	n.a.	Total
	92-93	0	0	0	28.1	0	0	0	0	0	0	28.1
Mo	92-93	34.2	0	0	12.5	0	0	0	0	0	0	46.7
	94-95	61.3	0	1.5	0	0	0	0	0	0	0	62.8
Stratum 13		**259.8**	**0**	**17.9**	**583.4**	**196.5**	**103.4**	**0**	**0**	**0**	**0**	**1161.0**

Table 3. Plantation Areas by Beat, Species Group and Year Planted (Sylhet)

			Habigonj					Juri								Kulaura							Moulavibazar					
Species	Yr.Plante	n.a.	Kalenga	Putijuri	Rashidp	Rema	Total	Baralek	Lathitil	Madha	Putich	Ragna	Sagern	Saman	Total	Barom	Bhate	Gazip	Monc	Murai	Naldu	Total	Chaut	Kalac	Lawa	Moula	Satga	Total
Ac/Am	85-89	0	0	0	65.3	0	65.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	90-91	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	92-93	0	0	22.2	0	0	22.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	39	49.6	0	88.6
	Total	0	0	22.2	65.3	0	87.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	39	49.6	0	88.6
Ac/Eu/Kd	85-89	0	0	86.9	0	0	86.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	86.9	0	0	86.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ac/Ko/Kd	90-91	0	0	63.7	0	0	63.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	63.7	0	0	63.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ac/Mo	94-95	0	0	72.4	0	0	72.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20.4	20.4
	Total	0	0	72.4	0	0	72.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20.4	20.4
Am/Ac/Kd	92-93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.2	79.2	0	0	0	85.4
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.2	79.2	0	0	0	85.4
Am/Mo/Eu	90-91	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	102.5	102.5
	94-95	0	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23.2	23.2
	Total	0	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	125.7	125.7
B	80-84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	90-91	0	0	16.7	0	0	16.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	94-95	0	0	130.8	0	0	130.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	147.5	0	0	147.5	1078.3	1243	2103.2	913.8	1647	783.6	566.3	8336	0	0	932.7	1720	644.5	1183	4480	0	0	0	0	0	0
Cn	94-95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	0	0	18
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	0	0	18
Cp/Dj	85-89	0	121	0	0	121	242	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	121	0	0	121	242	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cp/Me/Cr	92-93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	69.4	0	0	69.4
	94-95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	69.4	0	0	69.4
Cp/Py	92-93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	63.2	0	0	0	63.2
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	63.2	0	0	0	63.2
Cp/Sl/Cr	85-89	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26.3	0	26.3
	92-93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26.3	0	26.3
Cr/Cp	90-91	0	352.5	0	0	0	352.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	92-93	0	152.3	0	88.4	0	240.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	504.8	0	88.4	0	593.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cr/Dj/Gj	90-91	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cr/Me/Dj	85-89	0	0	0	0	140.2	140.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	140.2	140.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cr/Me/Sl	80-84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	0	0	17
	94-95	0	0	3.5	0	0	3.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	71.6	71.6
	Total	0	0	3.5	0	0	3.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	0	71.6	88.6
Cr/Py/Me	85-89	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	90-91	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	94-95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

			Habigonj					Juri								Kulaura							Moulavibazar					
Species	Yr.Plante	n.a.	Kalenga	Putijuri	Rashidp	Rema	Total	Baralek	Lathitil	Madha	Putich	Ragna	Sagern	Saman	Total	Barom	Bhate	Gazip	Monc	Murai	Naldu	Total	Chaut	Kalac	Lawa	Moula	Satga	Total
Dj/Cp/Gj	90-91	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	94-95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dj/Gj/Py	40-49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	90-91	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	92-93	0	0	0	0	0	0	0	0	111.4	0	0	0	0	111.4	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	111.4	0	0	0	0	111.4	0	0	0	0	0	0	0	0	0	0	0	0	0
Eu	85-89	0	0	7.7	0	0	7.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	61.8	0	0	0	0	61.8
	90-91	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16.4	0	0	0	0	0	16.4	0	0	0	0	0	0
	94-95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	7.7	0	0	7.7	0	0	0	0	0	0	0	0	16.4	0	0	0	0	0	16.4	61.8	0	0	0	0	61.8
Eu/Ac	85-89	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	84	0	0	84
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	84	0	0	84
Eu/Ac/Am	85-89	0	368.1	0	0	0	368.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	90-91	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26.8	0	26.8
	92-93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	368.1	0	0	0	368.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26.8	0	26.8
Eu/Ac/Mo	85-89	0	0	60	0	0	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	94-95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	60	0	0	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Eu/Am	85-89	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	74.7	0	0	0	74.7
	90-91	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	195.9	0	0	0	195.9
	92-93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28.1	0	0	0	28.1
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	298.7	0	0	0	298.7
Gj/Me/Sl	85-89	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.7	0	6.7
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.7	0	6.7
Gr/Cp/Me	92-93	0	0	0	8.9	0	8.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	8.9	0	8.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gr/Sl	30-39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19.9	0	19.9
	50-59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.3	0	9.3
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	29.2	0	29.2
Me/Py	90-91	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	94-95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mo	85-89	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	152.9	54.2	0	0	207.1
	92-93	0	0	34.2	0	0	34.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12.5	12.5
	94-95	0	4	0	57.3	0	61.3	0	0	0	0	0	0	0	0	0	0	0	1.5	0	0	1.5	0	0	0	0	0	0
	Total	0	4	34.2	57.3	0	95.5	0	0	0	0	0	0	0	0	0	0	0	1.5	0	0	1.5	0	152.9	54.2	0	12.5	219.6
OB		0	0	0	0	0	0	0	0	0	245.2	0	0	0	245.2	0	0	556.4	0	0	0	556.4	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	245.2	0	0	0	245.2	0	0	556.4	0	0	0	556.4	0	0	0	0	0	0
OP		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OT		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8.4	8.4	0	0	0	0	0	0
	30-39	0	0	0	0	0	0	0	0	0	0	0	73.5	0	73.5	0	0	0	0	0	0	0	0	0	0	0	0	0
	40-49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	50-59	0	171.6	0	0	0	171.6	0	237.6	0	0	0	0	0	237.6	0	0	0	0	0	0	0	0	0	0	0	0	0
	60-64	0	0	0	0	280.8	280.8	0	0	0	0	0	68.8	0	68.8	0	0	0	0	0	0	0	278.3	0	120.1	0	0	398.4
	65-69	0	0	0	173.1	52.8	225.9	0	0	0	0	0	0	112	112	0	0	0	0	0	0	0	62.8	0	0	0	0	62.8

			Habigonj					Juri								Kulaura							Moulavibazar					
Species	Yr.Plante	n.a.	Kalenga	Putijuri	Rashidp	Rema	Total	Baralek	Lathitil	Madha	Putich	Ragna	Sagern	Saman	Total	Barom	Bhate	Gazip	Monc	Murai	Naldu	Total	Chaut	Kalac	Lawa	Moula	Satga	Total
	75-79	0	0	0	118.6	0	118.6	0	0	0	0	0	0	40.9	40.9	0	0	0	0	0	0	0	0	0	0	0	0	0
	80-84	0	0	0	0	0	0	0	0	0	955.6	0	0	0	955.6	0	0	0	0	0	0	0	0	0	0	0	0	0
	85-89	0	0	0	0	0	0	11.3	0	0	0	102	0	0	113.3	0	0	0	0	0	0	0	0	0	0	0	0	0
	92-93	0	0	68.1	0	0	68.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	171.6	68.1	291.7	333.6	865	11.3	237.6	0	955.6	102	142.3	152.9	1602	0	0	0	0	0	8.4	8.4	341.1	0	120.1	0	0	461.2
RP		0	0	0	242.2	0	242.2	0	0	0	0	0	0	0	0	136.1	576.6	0	0	0	0	712.7	0	0	0	0	0	0
	Total	0	0	0	242.2	0	242.2	0	0	0	0	0	0	0	0	136.1	576.6	0	0	0	0	712.7	0	0	0	0	0	0
T	30-39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	347.1	0	0	347.1
	40-49	0	0	0	0	0	0	0	48.7	0	0	0	0	0	48.7	0	0	0	0	0	0	0	0	0	0	0	0	0
	50-59	0	322.9	0	190.4	0	513.3	0	128.7	0	87.8	0	0	0	216.5	0	0	0	0	0	0	0	0	21.1	0	0	85.6	106.7
	60-64	6	0	189.6	0	0	189.6	0	0	0	33.5	0	0	0	33.5	0	0	0	0	12	0	12	0	0	0	0	0	0
	65-69	0	0	161.7	3.6	0	165.3	0	200.1	0	42.9	217.5	0	0	460.5	0	0	71.4	0	0	0	71.4	0	0	92	0	58.6	150.6
	70-74	0	0	0	0	0	0	961.2	0	0	19.1	0	0	0	980.3	18.5	0	0	0	0	0	18.5	0	0	0	0	0	0
	75-79	0	77	0	0	699	776	0	0	0	0	0	0	0	0	42.1	0	0	0	0	0	42.1	0	0	0	0	17.8	17.8
	80-84	0	0	0	0	0	0	0	182.6	0	0	0	0	0	182.6	0	0	0	0	0	0	0	0	0	0	0	0	0
	85-89	0	0	0	0	0	0	0	0	0	0	30.4	0	0	30.4	0	0	0	0	0	0	0	0	0	0	0	0	0
	92-93	0	107.8	0	107.8	0	215.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	94-95	0	0	37.9	0	0	37.9	0	0	0	0	0	0	0	0	29.9	0	0	35.2	0	0	65.1	0	66.2	55.9	0	0	122.1
	Total	6	507.7	389.2	301.8	699	1898	961.2	560.1	0	183.3	247.9	0	0	1953	90.5	0	71.4	35.2	12	0	209.1	0	87.3	495	0	162	744.3
n.a.		0	1840.6	212.3	507.3	901.3	3462	221.1	186	90.9	54.1	0	0	6	558.1	584.4	463.9	1468	337.4	56.3	100.1	3010	12	300.5	367	111.6	398.7	1190
Total		6	3517.8	1173.7	1562.9	2195	8450	2940.1	2299	2305.5	2352	2466	1344.1	730.4	14436	827.4	1041	3144	2094	3206	1577	11888	421.1	981.8	1264	352.1	950.7	3969

		North Sylhet									Raghunandan					Rajkandi				Satchari			Sunamgonj			Total
Species	Yr.Planted	Goaingha	Jaflong	Kanaigh	Khadi	Ranik	Ratargo	Salutik	Sari	Total	Jagadi	Shahaji	Shahap	Shalti	Total	Adam	Kama	Lawac	Total	Satch	Telma	Total	Chata	Doara	Total	
Ac/Am	85-89	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	65.3
	90-91	0	0	0	0	0	0	0	1.5	1.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.5
	92-93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	110.8
	Total	0	0	0	0	0	0	0	1.5	1.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	177.6
Ac/Eu/Kd	85-89	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	86.9
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	86.9
Ac/Ko/Kd	90-91	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	63.7
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	63.7
Ac/Mo	94-95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	92.8
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	92.8
Am/Ac/Kd	92-93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	85.4
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	85.4
Am/Mo/Eu	90-91	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	102.5
	94-95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	29.2
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	131.7
B	80-84	0	0	0	190.7	0	0	0	0	190.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	190.7
	90-91	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16.7
	94-95	0	0	14.5	0	0	0	0	0	14.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	145.3
	Total	0	0	14.5	190.7	0	0	0	0	205.2	0	0	0	0	0	1536	336.3	2082	3954	0	0	0	0	0	0	17122
Cn	94-95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18
Cp/Dj	85-89	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	242
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	242
Cp/Me/Cr	92-93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	69.4
	94-95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	153.9	153.9	0	0	0	153.9
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	153.9	153.9	0	0	0	223.3
Cp/Py	92-93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	63.2
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	63.2
Cp/Sl/Cr	85-89	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26.3
	92-93	0	0	0	18.1	0	0	0	0	18.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18.1
	Total	0	0	0	18.1	0	0	0	0	18.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44.4
Cr/Cp	90-91	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	352.5
	92-93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	240.7
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	593.2
Cr/Dj/Gj	90-91	0	0	0	36.3	0	0	0	0	36.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	36.3
	Total	0	0	0	36.3	0	0	0	0	36.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	36.3
Cr/Me/Dj	85-89	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	140.2
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	140.2
Cr/Me/Sl	80-84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
	94-95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	75.1
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	92.1
Cr/Py/Me	85-89	0	0	0	0	0	0	0	0	0	36.9	34.3	0	0	71.2	0	0	0	0	189.3	199.3	388.6	0	0	0	459.8
	90-91	0	0	0	0	0	0	0	0	0	0	0	0	10.4	10.4	0	0	0	0	0	0	0	0	0	0	10.4
	94-95	0	0	0	0	0	0	0	0	0	0	0	0	36.3	36.3	0	0	0	0	0	0	0	0	0	0	36.3
	Total	0	0	0	0	0	0	0	0	0	36.9	34.3	0	46.7	117.9	0	0	0	0	189.3	199.3	388.6	0	0	0	506.5
Dj/Cp/Gj	90-91	0	0	0	64.8	0	0	0	0	64.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	64.8

		North Sylhet									Raghunandan					Rajkandi				Satchari			Sunamgonj			Total
Species	Yr.Planted	Goaingha	Jaflong	Kanaigh	Khadi	Ranik	Ratargo	Salutik	Sari	Total	Jagadi	Shahaji	Shahap	Shalti	Total	Adam	Kama	Lawac	Total	Satch	Telma	Total	Chata	Doara	Total	
	94-95	0	0	0	24.5	0	0	0	0	24.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24.5
	Total	0	0	0	89.3	0	0	0	0	89.3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	89.3
Dj/Gj/Py	40-49	0	0	0	0	0	0	0	0	0	28.6	0	0	0	28.6	0	0	0	0	0	0	0	0	0	0	28.6
	90-91	0	0	0	0	0	0	0	0	0	85.2	0	0	55.1	140.3	0	0	0	0	167.8	330.2	498	0	0	0	638.3
	92-93	0	0	0	0	0	0	0	0	0	16.3	0	0	0	16.3	0	0	0	0	0	0	0	0	0	0	127.7
	Total	0	0	0	0	0	0	0	0	0	130.1	0	0	55.1	185.2	0	0	0	0	167.8	330.2	498	0	0	0	794.6
Eu	85-89	0	159.2	0	11.7	0	0	0	0	170.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	240.4
	90-91	0	0	0	0	0	0	0	137.8	137.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	154.2
	94-95	0	0	25.2	0	0	0	0	0	25.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25.2
	Total	0	159.2	25.2	11.7	0	0	0	137.8	333.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	419.8
Eu/Ac	85-89	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	84
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	84
Eu/Ac/Am	85-89	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25.1	25.1	0	0	0	393.2
	90-91	0	0	0	0	0	0	0	0	0	103.4	0	0	0	103.4	0	0	0	0	0	0	0	0	0	0	130.2
	92-93	0	0	0	0	0	0	0	24.5	24.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24.5
	Total	0	0	0	0	0	0	0	24.5	24.5	103.4	0	0	0	103.4	0	0	0	0	0	25.1	25.1	0	0	0	547.9
Eu/Ac/Mo	85-89	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60
	94-95	0	0	7.5	0	0	0	0	0	7.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.5
	Total	0	0	7.5	0	0	0	0	0	7.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	67.5
Eu/Am	85-89	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	74.7
	90-91	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	195.9
	92-93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28.1
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	298.7
Gj/Me/Sl	85-89	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.7
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6.7
Gr/Cp/Me	92-93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8.9
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8.9
Gr/Sl	30-39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19.9
	50-59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9.3
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	29.2
Me/Py	90-91	0	0	0	0	0	0	0	0	0	18.3	0	5	0	23.3	0	0	0	0	0	0	0	0	0	0	23.3
	94-95	0	0	0	0	0	0	0	0	0	33.7	0	0	0	33.7	0	0	0	0	0	0	0	0	0	0	33.7
	Total	0	0	0	0	0	0	0	0	0	52	0	5	0	57	0	0	0	0	0	0	0	0	0	0	57
Mo	85-89	0	0	0	21.6	0	0	0	0	21.6	0	26.3	0	0	26.3	0	0	0	0	61.7	0	61.7	0	0	0	316.7
	92-93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46.7
	94-95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	62.8
	Total	0	0	0	21.6	0	0	0	0	21.6	0	26.3	0	0	26.3	0	0	0	0	61.7	0	61.7	0	0	0	426.2
OB		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	801.6
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	801.6
OP		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18.3	9.6	27.9	0	0	0	27.9
	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18.3	9.6	27.9	0	0	0	27.9
OT		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8.4
	30-39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	5	0	0	0	0	0	0	78.5
	40-49	0	0	0	0	0	0	0	0	0	0	0	17.2	0	17.2	0	0	0	0	0	0	0	0	0	0	17.2
	50-59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	86.4	332.2	418.6	0	0	0	0	0	0	827.8
	60-64	0	0	0	0	0	0	0	0	0	0	0	0	182.8	182.8	0	0	0	0	0	0	0	0	0	0	930.8

		North Sylhet									Raghunandan					Rajkandi				Satchari			Sunamgonj			Total
Species	Yr.Planted	Goaingha	Jaflong	Kanaigh	Khadi	Ranik	Ratargo	Salutik	Sari	Total	Jagadi	Shahaji	Shahap	Shalti	Total	Adam	Kama	Lawac	Total	Satch	Telma	Total	Chata	Doara	Total	
	65-69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	166	154	0	320	0	0	0	0	0	0	720.7
	75-79	0	0	0	0	0	0	0	0	0	0	0	17.8	34.4	52.2	205.7	87.2	185	477.9	0	0	0	0	0	0	689.6
	80-84	0	0	29.5	0	0	0	0	0	29.5	0	0	0	131.3	131.3	48.9	528.9	0	577.8	0	0	0	0	0	0	1694
	85-89	0	0	0	0	0	0	0	0	0	0	0	0	58.1	58.1	417.2	57.9	0	475.1	0	0	0	0	0	0	646.5
	92-93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	68.1
	Total	0	0	29.5	0	0	0	0	0	29.5	0	0	35	406.6	441.6	837.8	919.4	517.2	2274	0	0	0	0	0	0	5682
RP		0	0	0	0	0	0	0	0	0	0	684.8	150.6	0	835.4	0	0	0	0	0	0	0	0	0	0	1790
	Total	0	0	0	0	0	0	0	0	0	0	684.8	150.6	0	835.4	0	0	0	0	0	0	0	0	0	0	1790
T	30-39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	347.1
	40-49	0	0	0	0	0	0	0	0	0	0	0	0	91.9	91.9	0	0	0	0	0	0	0	0	0	0	140.6
	50-59	0	0	0	56.4	0	0	0	13.8	70.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	906.7
	60-64	0	0	0	28.9	0	0	0	0	28.9	0	0	0	71.2	71.2	0	0	0	0	226.3	0	226.3	0	0	0	567.5
	65-69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44.2	0	44.2	27.3	0	27.3	0	0	0	919.3
	70-74	0	0	0	0	0	0	0	0	0	0	0	0	22.8	22.8	0	0	0	0	0	0	0	0	0	0	1022
	75-79	0	0	3.8	0	0	0	0	0	3.8	0	0	36.9	1281	1318.2	0	0	0	0	0	0	0	0	0	0	2158
	80-84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	182.6
	85-89	0	0	0	20.5	0	0	0	0	20.5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50.9
	92-93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	215.6
	94-95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	225.1
	Total	0	0	3.8	105.8	0	0	0	13.8	123.4	0	0	36.9	1467	1504.1	0	44.2	0	44.2	253.6	0	253.6	0	0	0	6735
n.a.		1076.2	39.4	214.6	16.7	4421	1504.9	65.1	0	7337.4	793.3	62.5	1141.4	478.5	2475.7	309.1	111.2	61.7	482	504	268.7	772.7	1834	1480	3314.6	22602
Total		1076.2	198.6	456.4	490.2	4421	1504.9	65.1	177.6	8389.5	1116	807.9	1381.4	2454	5759.1	2808	1411	3278	7497	1195	986.8	2182	1834	1480	3314.6	65891

Table 4. Summary of Tree Volumes (cu m/ha) by Stratum and Species Group, 20cm+dbh for Natural Forest and 15cm+dbh for Plantations(Sylhet Forest Division)

Stratum (Code)		Species Group					All Species Groups	Sample size, n	Sampling Error(%)
		Special Class	Class A	Class B	Class C	Class D			
HF (1)//LF (2)		0.56	33.51	10.92	17.78	51.01	113.8	104	5.9
ST (3)		2.64	3.30	1.02	8.41	1.39	16.76	16	71.3
B/Bo/OB (4)		0.21	12.56	7.11	7.56	18.94	46.38	159	9.3
All Strata, Natural Forests		**0.34**	**14.68**	**7.33**	**8.79**	**22.06**	**53.20**	**279**	**7.1**
T/OT,1959 (5)		50.45	18.97	0.78	0.22	1.74	72.16	159	5.6
T/OT,60-79 (6)		30.24	7.57	1.45	1.33	5.05	45.63	237	5.2
T/OT,8+ (7/8)		16.95	5.65	0.39	0.17	1.46	24.62	117	11.4
Other LRS (9/10)		7.46	7.51	10.3	0.69	0.82	26.78	95	14.5
Mo,1989 (11)		1.19	1.28	39.1	0.15	0.04	41.76	26	20.0
Other SRS,1989 (12)/(13)		0.83	1.18	2.50	1.37	0.26	6.14	92	14.0
Others: En,FP,RB, ...(14/15)		2.36	3.93	2.27	0.75	7.79	17.10	79	19.6
All Strata (Plantations) except 14&15		**22.79**	**7.86**	**3.46**	**0.86**	**2.63**	**37.60**	**726**	**3.6**

Table 4a. Summary of Tree Volumes (cu.m.) by Stratum and Species Group, 20cm+dbh for Natural Forest and 15cm+dbh for Plantations (Whole Forest Division)

Stratum (Code)	Area (in hectares)	Species Group					All Species Groups
		Special Class	Class A	Class B	Class C	Class D	
HF (1)//LF (2)	**2781.6**	1558	93211	30375	49457	141889	316546
ST (3)	**871.8**	2302	2877	889	7332	1212	14611
B/Bo/OB (4)	**20039.6**	4208	251697	142482	151499	379550	929437
All Strata, Natural Forests	**23693.0**	**8056**	**347813**	**173670**	**208261**	**522668**	**1260468**
T/OT,1959 (5)	**2326.3**	**117362**	**44130**	**1815**	**512**	**4048**	**167866**
T/OT,60-79 (6)	**7007.4**	**211904**	**53046**	**10161**	**9320**	**35387**	**319748**
T/OT,8+ (7/8)	**3083.0**	52257	17419	1202	524	4501	75903
Other LRS (9/10)	**3001.8**	22393	22544	30919	2071	2461	80388
Mo,1989 (11)	**316.7**	377	405	12383	48	13	13225
Other SRS,1989 (12)/(13)	**2081.5**	1728	2456	5204	2852	541	12780
All Strata (Plantations) except 14&15	**17816.7**	**406043**	**140039**	**61646**	**15322**	**46858**	**669908**
Total Volume in Sylhet FD, cu.m.	**41510**	**414098**	**487853**	**235315**	**223584**	**569526**	**1930376**
Vol. (Special Class), Strata 5 & 6	**9333.7**	**329266**					

Table 5. Summary of Bamboo Resources by Stratum (Sylhet Forest Diviison)

	Muli			Other Bamboo		
Stratum (Code)	**Imm. Stems/ha**	**Mat. Stems/ha**	**Total**	**Imm. Stems/ha**	**Mat. Stems/ha**	**Total**
HF (1)/LF (2)	0.73	0	0.73	4503.3	858.01	5361.31
ST (3)	0	0	0	1285.68	0	1285.68
B (4)	**6155.44**	**5089.99**	**11245.43**	**4568.4**	**3371.79**	**7940.19**
T/OT 1959 (5)	436.90	701.99	1138.89	3035.38	949.5	3984.88
T/OT 1960-1979 (6)	470.64	711.35	1181.99	3510.11	1349.02	4859.13
T/OT 1980+ (7/8)	31.01	21.36	52.37	2478.15	1295.39	3773.54
OLRS,all (9/10)	61.17	98.61	159.78	3280.25	274.62	3554.87
Mo 1989 (11)	19.59	0	19.59	2687.29	0	2687.29
OSRS, all (12/13)	0	0	0	2003.72	0	2003.72
Others (14/15)	313.20	153.03	466.23	2176.11	68.42	2244.53

Table 5a. Summary of Bamboo Resources in the Bamboo Forest Type (Stratum 4) by Range

		Muli			Other Bamboo		
Range	**Area of B, ha**	**Imm. Stems/ha**	**Mat. Stems/ha**	**Total, Muli**	**Imm. Stems/ha**	**Mat. Stems/ha**	**Total, Other B**
Habigonj	147.5	907927	750774	1658701	673839	497339	1171178
Juri	**10212.7**	**62863662**	**51982541**	**114846203**	46655699	34435080	81090778
Kulaura	**7929.7**	**48810793**	**40362094**	**89172886**	36226041	26737283	62963325
Moulavibazar	261.7	1610879	1332050	2942929	1195550	882397	2077948
North Sylhet	366.5	2255969	1865481	4121450	1674319	1235761	2910080
Raghunandan	12.5	76943	63625	140568	57105	42147	99252
Rajkandi	**4696.6**	**28909640**	**23905647**	**52815287**	21455947	15835949	37291896
Total	23627.2	145435812	120262212	265698024	107938500	79665957	187604457

Note: BB areas were excluded from B.

Table 6. Summary of Estimates on Poles, Saplings and Seedlings by Stratum and Species Group (Number of stems/ha); Sylhet Forest Division

Stratum (Code)	Special Class	Class A	Class B	Class C	Class D	Total	SE%
Poles:							
HF/LF (1/2)	11.51	76.74	32.5	20.63	273.5	414.91	6.7
ST (3)	9.15	7.96	44.56	5.17	13.93	80.77	--
B/BO/OB (4)	1.47	36.43	14.86	12.76	158.34	223.86	8.9
T/OT, 1959 (5)	80.64	87.4	14.65	20.29	177.5	380.48	5.6
T/OT, 1960-1979 (6)	137.65	74.6	21.14	24.00	240.83	498.22	5.4
T/OT, 1980+(7/8)	303.92	173.46	6.67	25.26	381.99	947.3	7.0
Other LRS (9/10)	74.77	93.75	165.13	36.66	165.56	535.87	7.9
Mo, 1989 (11)	10.77	59.74	139.08	27.67	198.09	435.35	19.7
Other SRS (12/13)	14.67	229.88	355.45	87.9	133.3	821.2	6.8
Others (14/15)	29.45	38.00	53.96	23.94	56.32	201.68	18.3
Saplings:							
HF/LF (1/2)	5.74	218.95	22.2	25.26	840.71	1112.87	9.5
ST (3)	84.6	57.23	79.62	0	129.38	350.82	--
B/BO/OB (4)	1.38	67.82	7.43	22.11	603.01	701.74	10
T/OT, 1959 (5)	17.19	166.27	9.27	7.35	431.74	631.83	14.8
T/OT, 1960-1979 (6)	32.2	94.16	21.51	16.78	506.1	670.75	12.3
T/OT, 1980+(7/8)	26.97	108.51	17.98	19.26	607.94	780.66	13.2
Other LRS (9/10)	43.71	72.2	23.81	14.05	361.4	515.18	16.7
Mo, 1989 (11)	0	93.4	105.65	27.56	330.72	557.33	--
Other SRS (12/13)	13.85	46.73	36.35	13.85	136.59	247.37	16.9
Others (14/15)	4.47	58.78	30.14	10.42	215.29	319.1	17.1
Seedlings:							
HF/LF (1/2)	12.25	2442.12	189.86	146.99	5797.3	8588.5	11.4
ST (3)	607.09	1174.36	0	0	79.62	1861.07	--
B/BO/OB (4)	0	784.61	45.59	140.93	4602.06	5573.18	11.5
T/OT, 1959 (5)	42.21	1552.39	31.98	19.19	1846.88	3492.63	15.0
T/OT, 1960-1979 (6)	54.44	673.04	118.26	78.84	1812.48	2737.06	11.7
T/OT, 1980+(7/8)	35.96	970.82	30.82	133.55	2140.69	3311.84	18.4
Other LRS (9/10)	159.24	686.9	93.67	124.89	2870.92	3935.61	17.2
Mo, 1989 (11)	24.5	226.61	40.83	226.61	2155.81	2674.34	--
Other SRS (12/13)	41.54	200.2	27.69	6.92	814.06	1090.42	--
Others (14/15)	0	350.71	5.95	0	1220.32	1576.99	19.9

Table 7. Comparision of Sylhet FD Statistics by Range: FAO/UNDP (1984) and FRMP (1996)

Statistics	Year	Juri	Moulavib	Rajkandi	Kulaura	Habiganj	Raghuna	Satchari	Sunamg	North Syl	All Ranges
Plantations (LR)	1984	1872	1351	1864	105	2415	1158	199	--	--	8964
	1996	3666	1708	2319	219	3846	2332	1384	0	316	15798
Plantations (SR)	1984	0	934	56	0	1087	25	436	--	--	2538
	1996	0	809	0	16	752	103	25	0	367	2074
HF+LF	1984	368	29	647	113	1566	189	425	--	--	3337
	1996	0	136	257	284	1847	0	257	0	0	2782
Scattered Trees	1984	0	120	65	1565	477	316	289	--	--	2832
	1996	117	163	26	0	513	0	53	0	0	872
Bamboo	1984	7530	0	4362	2041	0	0	0	--	--	13933
	1996	10213	0	4697	4792	147	0	0	0	191	20039.6
Denuded	1984	0	627	10	196	346	1839	389	--	--	3407
	1996	144	368	0	0	182	2352	463	0	49	3478
Others	1984	0	143	0	159	1	757	49	--	--	1109
	1996	0	171	0	734	314	835	0	0	0	2054
Agriculture	1994	1261	518	306	679	1154	119	15	--	--	4052
	1996	Note: No clear equivalent classification from satellite image.									
Others+ (slack var.)	1996	296	614	198	5843	848	137	0	3315	7466	18793
Total	1984	11031	3722	7301	4858	7046	4403	1802	--	--	40172
	1996	14436	3969	7497	11888	8449	5759	2181	3315	8389	65891

Comparison of No. of Trees and Volume per ha in the Natural Forest

		NT/ha (10-30 cm dbh)		NT/ha (30-cm+ dbh		Vol/ha (30-cm+ dbh)		SE%
HF	1984	201		83		89.3		19.2
LF	1984	204		61		60.0		17.7
HF/LF	1996	65		62		84.1		5.9

Comparison of Bamboo Resources (Muli only) in Bamboo Forests

		Juri	SE%	Rajkandi	SE%	Kulaura
Area, ha	1984	7530	--	4362	--	2041
Area, ha	1996	10213	--	4697	--	4792
Immature stems/ha	1984	9631	4.7	5617	14.7	--
Mature stems/ha	1984	18104	5.0	8540	9.7	--
Immature stems/ha	1996	6155	--			
Mature stems/ha	1996	5090	--			
Total stems/ha	1996	11245	5.4			

Note: Bamboo was sampled as one stratum in the 3 Ranges.

Table 8. Comparison of Regular Enumeration and Validation Survey Results for Bamboo (Muli) in Sylhet

Regular Enumeration Data (1995-1997)				Validation Survey Data (December 1997)			
PC No.	No. of Immature Stems	No. of Mature Stems	Total No. of Stems	PC No.	No. of Immature Stems	No. of Mature Stems	Total No. of Stems
9	1326107	710540	14744	9	738680	1149058	13666
14	622602	2704976	24090	14	492453	1430460	13921
33	1139678	246227	10033	33	146564	621429	5560
43	780890	615567	10110	43	252089	779718	7470
51	1023600	622602	11918	51	826618	1025945	13412
58	654260	186429	6086	58	685917	1330797	14600
69	270849	460796	5297	69	1723587	1149058	20797
78	1825595	636672	17826	78	803168	246227	7597
130	1716552	425620	15508	130	668330	861794	11077
147	738680	323612	7691	147	967319	2913683	28097
204	1262791	460796	12478	204	832481	5569414	46347
424	787925	467831	9091	424	445553	551079	7215
437	1093950	3369788	32315	437	685917	1623924	16722
438	1086915	2170313	23581	438	87938	621429	5136
454	791443	249744	7538	454	1319072	1524261	20584
508	1473843	787925	16374	508	392790	1348384	12605
523	1312037	1375352	19456	523	492453	1324934	13157
562	50123	125308	1270	562	131903	251349	2775
577	116954	208407	2355	577	85004	366398	3268
652	188182	132343	2320	652	81340	384718	3374
	18262977	16280849	250082		11859179	25074058	267380
	No. of Stems/ha	12504			No. of Stems/ha	13369	
					% Difference =	6.9	

Note: The values in columns 2,3,6 and 7 are number of culms/ha multiplied by the weight (as in unequal probability sampling) of Bamboo plot clusters (Sylhet).

APPENDIX 1

Field Data Enumeration Forms 1 and 2

BANGLADESH FRMP FOREST INVENTORY

1 ENUMERATION, NATURAL HILL FOREST

2

PLOT CLUSTER			LOCATION									NUMBER OF RECORDS										
NUMBER	LONGITUDE	LATITUDE	PLOT NUMBER	CONTROL	RECORD TYPE	DIVISION	RANGE	BEAT	BLOCK	LAND USE	FOREST TYPE	STAND CONDITION	PILFERAGE, NO. OF STUMPS	TERRAIN	SLOPE	ASPECT	SOIL TYPE	TREES/POLES	SEEDLINGS	SAPLINGS	RATTAN	BAMBOO	MEDICINAL PLANTS	CREW	DAY	MONTH	YEAR
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
					1																						

5 1 3

4

ENUMERATOR: _____

CHECKER: _____

SHEET: _____ OF: _____

		r = 1m SEEDLINGS HT. < 1.5m			r = 2m SAPLINGS HT. > 1.5m OR DBH < 5.0 cm			RATTAN r = 2m: < 3.0m LONG r = 5m: > 3.0m LONG				r = 2m OTHER BAMBOO			r = 2m MEDICINAL PLANTS			r = 5m BAMBOO, SOLITARY STEMS				r = 5m POLES DBH = 5.0 -19.5 cm			r = 11m TREES DBH/DAB = 20.0 + cm	READINGS FOR BOLE & TREE HEIGHTS										
RECORD TYPE	CONSEC NUMBER	SPECIES	SPECIES CODE	NO. OF STEMS	SPECIES	SPECIES CODE	NO. OF STEMS	SPECIES	SPECIES CODE	<3.0 m LONG	>3.0 m LONG	SPECIES CODE	IMMATURE STEMS	MATURE STEMS	SPECIES	SPECIES CODE	NO. OF STEMS	SPECIES CODE	IMMATURE STEMS	MATURE STEMS	RECORD TYPE	CONSEC NUMBER	SPECIES	SPECIES CODE	DBH 0.1cm	SPECIES	SPECIES CODE	DBH or DAB 0.1 cm	BUTTRESS HEIGHT	DAMAGE	GRADE	INFESTATION	BOLE HEIGHT	TREE HEIGHT	HORIZONTAL DISTANCE	HEIGHT OF BASE	PERCENT TO BASE	PERCENT TO CROWN POINT	PERCENT TO TOP
10	11		12	13		12	14		12	15	16	12	17	18		12	19	12	20	21	10	11		12	13		12	13	14	15	16	17	18	19					
4	1																				2	1																
4	2																				2	2																
4	3																				2	3																
4	4																				2	4																
4	5																				2	5																
4	6																				2	6																
4	7																				2	7																
4	8																				2	8																
4	9																				2	9																
4	10																				2	10																
4	11																				2	11																
4	12																				2	12																
4	13																				2	13																
4	14																				2	14																
4	15																				2	15																
4	16																				2	16																
4	17																				2	17																
4	18																				2	18																
4	19																				2	19																
4	20																				2	20																
4	21																				2	21																
4	22																				2	22																
4	23																				2	23																
4	24																				2	24																
4	25																				2	25																

BANGLADESH FRMP FOREST INVENTORY

2. ENUMERATION, FOREST PLANTATIONS (HILL FOREST)

PLOT CLUSTER			LOCATION														NUMBER OF RECORDS												
NUMBER	LONGITUDE	LATITUDE	PLOT NUMBER	CONTROL	RECORD TYPE	DIVISION	RANGE	BEAT	BLOCK	LAND USE	FOREST TYPE	STAND CONDITION	PILFERAGE, NO. OF STUMPS	YEAR PLANTED	TERRAIN	SLOPE	ASPECT	SOIL TYPE	TREES/POLES	SEEDLINGS	SAPLINGS	RATTAN	BAMBOO	MEDICINAL PLANTS	CREW	DAY	MONTH	YEAR
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
					1																							

5 1 3 2

4

ENUMERATOR: _____

CHECKER: _____

SHEET: _____ OF: _____

		r = 1m SEEDLINGS HT. < 1.5 m			r = 2m SAPLINGS HT. > 1.5 m OR DBH < 2.5 cm			RATTAN r = 2m: < 3.0m LONG r = 5m: > 3.0m LONG				r = 2m OTHER BAMBOO			r = 2m MEDICINAL PLANTS			r = 5m, BAMBOO SOLITARY STEMS r = 11m, BAMBOO CLUMPS				r = 5m POLES DBH = 2.5 -14.5 cm			r = 11m TREES DBH/DAB = 15.0+ cm								READINGS FOR BOLE & TREE HEIGHTS				
RECORD TYPE	CONSEC NUMBER	SPECIES	SPECIES CODE	NO. OF STEMS	SPECIES	SPECIES CODE	NO. OF STEMS	SPECIES	SPECIES CODE	<3.0 m LONG	>3.0 m LONG	SPECIES CODE	IMMATURE STEMS	MATURE STEMS	SPECIES	SPECIES CODE	NO. OF STEMS	SPECIES CODE	IMMATURE STEMS	MATURE STEMS	RECORD TYPE	CONSEC NUMBER	SPECIES	SPECIES CODE	DBH 0.1 cm	SPECIES	SPECIES CODE	DBH or DAB 0.1 cm	BUTTRESS HEIGHT	DAMAGE	GRADE	INFESTATION	BOLE HEIGHT	TREE HEIGHT	HORIZONTAL DISTANCE	HEIGHT OF BASE	PERCENT TO BASE	PERCENT TO CROWN POINT	PERCENT TO TOP
10	11		12	13		12	14		12	15	16	12	17	18		12	19	12	20	21	10	11		12	13		12	13	14	15	16	17	18	19					
4	1																				3	1																
4	2																				3	2																
4	3																				3	3																
4	4																				3	4																
4	5																				3	5																
4	6																				3	6																
4	7																				3	7																
4	8																				3	8																
4	9																				3	9																
4	10																				3	10																
4	11																				3	11																
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4	20																				3	20																
4	21																				3	21																
4	22																				3	22																
4	23																				3	23																
4	24																				3	24																
4	25																				3	25																

APPENDIX 2

Plot and Tree Description Codes

PLOT/TREE DESCRIPTION CODES

(Hill Forests)

Land Use Category

1	Tidal forest
2	Coastal forest
3	Natural hill forest
4	Forest plantation
5	Bush/shrubland
6	Fruit/other trees
7	Agriculture
8	No vegetation
9	Settlement
10	Others

Forest Type

1	Mangrove forest
2	Nipa forest
3	Coastal forest
4	Natural hill forest
5	Bamboo forest
6	Forest plantation

Stand Condition:

Natural (hill) forest

1	Well-stocked (at least 50% crown cover)
2	Poorly stocked (<50% crown cover)

Bamboo forest

1	Newly harvested
2	Harvested, more than one year ago

Forest plantations

1	Well-stocked (at least 50% crown cover or of original stocking)
2	Poorly stocked(<50% crown cover or of original stocking)
3	Failure
4	Destroyed by fire

Terrain

0	Flat or undulating (0-10% slope)
1	Lowland gully
2	Lower slope of mould (lower part of sloping terrain)
3	Mid-slope (middle part of sloping terrain)
4	Upper slope (upper part of sloping terrain)
5	Slope gully
6	Hill top
7	Ridge

Slope

0	0 to 8%
1	9 to 15%
2	16 to 25%
3	26 to 45%
4	40 to 70%
5	71 to 100%
6	>100%

Aspect

0	Flat and undulating (0 to 10% slope)
1	N, azimuth 338 to 22 degrees
2	NE, 23 to 67 degrees
3	E, 68 to 112 degrees
4	SE, 113 to 157 degrees
5	S, 158 to 202 degrees
6	SW, 203 to 247 degrees
7	W. 248 to 292 degrees
8	NW, 293 to 337 degrees

Soil type

0	Clay
1	Clay loam
2	Loam
3	Sandy
4	Sandy loam

Tree grade

1	Straight and clean without damage, circular cross-section, apparently sound
2	Similar to 1 but up to half of surface is knotty or cross-section is irregular, or with slight sweep
3	Twisted and knotty, or with other defects which reduce usable volume by up to 25%, such as rot, burn, physical damage, forks or bends
4	Very knotty and bent, or with defects which reduce usable volume by up to 25 to 50%
5	Reject, with such defects that only less than 50% of volume is usable

Damage

0	No damage
1	Slight damage, tree will survive
2	Heavy damage, tree will die
3	Uprooted
4	Felled
5	Broken
6	Dead

Infestation

0	No infestation
1	Insect infestation
2	Climbed by rattan
3	Slightly infested with climbers
4	Severely infested with climbers
5	Infested with mistletoe (Loranthus sp.)
6	Others

PLOT/TREE DESCRIPTION CODES
(Mangrove Forest and Coastal Plantations)

Land use category

1 Tidal forest

2 Coastal forest

3 Natural hill forest

4 Forest plantation

5 Bush/shrubland

6 Fruit/other trees

7 Agriculture

8 No vegetation

9 Settlement

10 Others

Forest type

1 Mangrove forest

2 Nipa forest

3 Coastal forest

6 Forest plantation

Stand Condition:

Mangrove forest

1 Harvested, less than 5 years ago

2 Harvested, 5 or more years ago

Nipa forest

1 Newly harvested

2 Harvested, more than one year ago

3 Cleared

Forest plantations

1 Well-stocked (at least 50% crown cover or of original stocking)

2 Poorly stocked (< 50% crown cover or of original stocking)

3 Failure

4 Destroyed by fire

5 Eroded

6 Encroached

7 Handed over to Revenue Department

Damage

0	No damage
1	Slight damage, tree will survive
2	Heavy damage, tree will die
3	Uprooted
4	Felled
5	Broken
6	Dead

Infestation

0	No infestation
1	Insect infestation
2	Climbed by rattan
3	Slightly infested with climbers
4	Severely infested with climbers
5	Infested with mistletoe (Loranthus sp.)
6	"Top dying" (die-back)
7	Others

Tree grade

1	Straight and clean without damage, circular cross-section, apparently sound
2	Similar to 1 but up to half of surface is knotty or cross-section is irregular, or with slight sweep
3	Twisted and knotty, or with other defects which reduce usable volume by up to 25%, such as rot, burn, physical damage, forks or bends
4	Very knotty and bent, or with defects which reduce usable volume by up to 25 to 50%
5	Reject, with such defects that only less than 50% of volume is usable

APPENDIX 3

Species Codes

List of Forest Species, Codes and Commercial Class

Hill Forests:

	Vernacular Name	Botanical Name	Code Name	Code No.	Commercial Group/Class
Trees:					
1.	Agar	*Aquilaria agallocha*	AG	100	5
2.	Am	*Mangifera indica*	AM	101	5
3.	Am-Chundal/Civit	*Swintonia floribunda*	CI	102	3
4.	Amora	*Spondias mangifera*	AR	103	5
5.	Arjan/Arjun	*Polyalthia simiarum*	AJ	104	4
6.	Arsol/Awal/Goda/ Hornia	*Vitex spp.*	AW	105	3
7.	Australian Acacia	*Acacia auricoliformis*	AA	106	2
8.	Bahera	*Terminalia belerica*	BH	107	4
9.	Baittya/Garjan	*Dipterocarpus spp.*	GJ	108	2
10.	Banderhola/Kacha	*Duabanga grandiflora*	BD	109	2
11.	Batana/Batna	*Quercus spp./ Castanopsis tribuloides*	BT	110	5
12.	Bhadi/Jiulbhadi	*Lannea coromandelica*	BI	111	3
13.	Boilam/Boilsur	*Anisoptera glabra*	BM	112	1
14.	Bokain/Ghoranim	*Melia sempervirens/ Melia azaderach* ✓	BK	113	3
15.	Bonak/Kanak	*Schima wallichii*	BN	114	4
16.	Cashew	*Anacardium occidentale*	CW	115	5
17.	Chakua/ Chakkua-Korai	*Albizzia chinensis*	CK	116	5
18.	Cham/Chapalish	*Artocarpus chapasha*	CP	117	2
19.	Champa/Champa-ful	*Michelia champaca*	CM	118	1
20.	Chapalish/Cham	*Artocarpus chapasha*	CP	117	2
21.	Chatim/Chhatian	*Alstonia scholaris*	CT	119	3
22.	Chikrassi	*Chickrassia tabularis*	CS	120	1
23.	Chundul/Mainakat	*Tetrameles nudiflora*	MK	121	3
24.	Civit/Am-Chundal	*Swintonia floribunda*	CI	102	3
25.	Dhakijam	*Syzygium grande*	DK	122	3
26.	Dharmara/Kamrang	*Stereospermum personatum*	DR	123	5
27.	Dudya/Tali	*Palaquium polyanthum*	DD	124	3
28.	Eucalyptus	*Eucalyptus spp.*	EU	125	3
29.	Gamar/Gamari	*Gmelina arborea*	GM	126	2
30.	Garjan/Baittya	*Dipterocarpus spp.*	GJ	108	2
31.	Ghoranim/Bokain	*Melia sempervirens/ Melia azaderach*	BK	113	3
32.	Goda/Hornia/ Arsol/Awal	*Vitex spp.*	AW	105	3
33.	Hargaza	*Dillenia pentagyna*	HG	127	4
34.	Hari/Jhaw	*Casuarina equisetifolia*	JW	128	5
35.	Haritaki	*Terminalia chebula*	HR	129	4
36.	Hijal	*Barringtonia acutangula*	HJ	130	5
37.	Hornia/Goda Arsol/Awal	*Vitex spp.*	AW	105	3
38.	Ipil-ipil	*Leucaena leucocephala*	IP	131	5
39.	Jam	*Syzygium spp.*	JM	132	2
40.	Jarul/Kanta Jarul	*Lagerstroemia speciosa*	JR	133	2
41.	Jhaw/Hari	*Casuarina equisetifolia*	JW	128	5

42.	Jiulbhadi/Bhadi	*Lannea coromandelica*	BI	111	3
43.	Kacha/Banderhola	*Duabanga grandiflora*	BD	109	2
44.	Kadam	*Anthocephalus cadamba*	KD	134	3
45.	Kainjal/Lohabhadi	*Bischofia javanica*	KJ	135	3
46.	Kala Koroi/Siris	*Albizzia lebbek*	KK	136	3
47.	Kamrang/Dharmara	*Stereospermum personatum*	DR	123	5
48.	Kanak-Cuampa/Moos	*Pterospermum acerifolium*	MS	137	5
49.	Kathal	*Artocarpus intergrifolia*	KT	138	2
50.	Khoirjam	*Eugenia barringtonii*	KM	139	3
51.	Kanta Jarul/Jarul	*Lagerstroemia speciosa*	JR	133	2
52.	Koroi	*Albizzia procera*	KO	140	2
53.	Kosturi/Tejbohal	*Cinnamomum cecidodaphne*	KS	141	5
54.	Kusum/Jaina	*Schleichera oleosa*	KU	142	5
55.	Lohabhadi/Kainjal	*Bischofia javanica*	KJ	135	3
56.	Lohakat/Pynkado	*Xylia dolabriformis*	LK	143	2
57.	Mahogany/Mehogini	*Swietenia spp.*	ME	144	1
58.	Mainakat/Chundul	*Tetrameles nudiflora*	MK	121	3
59.	Mangium	*Acacia mangium*	MG	145	4
60.	Mehogini/Mahogany	*Swietenia spp.*	ME	144	1
61.	Minjiri	*Cassia siamea*	MJ	146	5
62.	Moluccana	*Paraserianthes falcataria*	MO	147	3
63.	Monawal	*Vitex altissima*	MN	148	5
64.	Moos/Kanak-Cuampa	*Pterospermum acerifolium*	MS	137	5
65.	Nageswar/Nagkesar	*Mesua ferrea*	NS	149	2
66.	Narikel/Narikeli	*Pterygota alata*	NK	150	3
67.	Padauk	*Pterocarpus dalbergiodes*	PD	151	1
68.	Pine	*Pinus carribea*	PI	152	5
69.	Pitali	*Trewia nudiflora*	PL	153	3
70.	Pitraj	*Aphanamixis polystachya*	PT	154	2
71.	Pynkado/Lohakat	*Xylia dolabriformis*	LK	143	2
72.	Raktan/Sheradong	*Lophopetalum fimbriatum*	SH	155	3
73.	Rangkat/Haldu	*Adina cardifolia*	RK	156	2
74.	Rata	*Amoora wallichii*	RA	157	5
75.	Sal	*Shorea robusta*	SL	158	2
76.	Shagwan/Shegun/Teak	*Tectona grandis*	TE	159	1
77.	Sheradong/Raktan	*Lophopetalum fimbriatum*	SH	155	3
78.	Shishu	*Dalbergia sisso*	SI	160	1
79.	Shourala/Sonalu	*Cassia fistula*	SR	161	5
80.	Simul/Tula	*Salmania spp.*	SM	162	3
81.	Siris/Kala Koroi	*Albizzia lebbek*	KK	136	3
82.	Sonalu/Shourala	*Cassia fistula*	SR	161	5
83.	Suruj/Toon	*Cedrela toona*	TO	163	2
84.	Tali/Dudya	*Palaquium polyanthum*	DD	124	3
85.	Teak/Shegun/ Shagwan	*Tectona grandis*	TE	159	1
86.	Telsur/Tersol	*Hopea odorata*	TS	164	1
87.	Tetuya koroi	*Albizzia odoratissima*	TY	165	5
88.	Tejbohal/Kosturi	*Cinnamomum cecidodaphne*	KS	141	5
89.	Toon/Suruj	*Cedrela toona*	TO	163	2
90.	Udal	*Firmiana colorata/ Sterculia spp.*	UD	166	5
91.	Uriam	*Mangifera sylvatica*	UR	167	3
92.	Dhali Garjan	*Dipterocarpus gracilis*	DG	168	2
93.	Baita Garjan	*Dipterocarpus costatus*	BG	169	2
94.	Teli Garjan	*Dipterocarpus turbinatus*	TG	170	2

95.	Kamdeb	*Callophyllum polyanthum*	KA	171	3
96.	Banspata	*Podocarpus nerlifolia*	BA	172	3
97.	Chalmugra	*Gynocardia odorata*	CH	173	4
98.	Miscellaneous/Unknown tree species		UN	199	5

Forest Species: Sundarbans and Coastal Divisions

	Vernacular Name	Botanical Name	Code Name	Code No.	Commercial Group/Class
Trees:					
1.	Amur	*Amoora cucullata*	AU	201	5
2.	Babul	*Acacia nilotica*	BB	202	5
3.	Baen	*Avicennia officinalis*	BA	203	5
4.	Ban jam	*Eugenia fruticosa*	BJ	204	5
5.	Batla/Batul	*Excoecaria indica*	BL	205	5
6.	Bhaela/Baral	*Intsia bijuga*	BE	206	5
7.	Bhola	*Hibiscus tiliaceus*	BO	207	5
8.	Bon Lichu	*Lepisanthes rubiginosa*	BC	208	5
9.	Bon Notoy	*Mallotus repandus*	BY	209	5
10.	Choyla/Ora/Soyla	*Sonneratia caseolaris*	CY	210	5
11.	Dhundul	*Xylocarpus granatum*	DN	211	5
12.	Doyal	*Mucuna gigantea*	DY	212	5
13.	Gab	*Diospyros peregrina*	GB	213	5
14.	Garjan/Jhanna	*Rhizophora mucronata*	JN	214	5
15.	Gewa	*Excoecaria agallocha*	GW	215	3
16.	Goran	*Ceriops decandra*	GN	216	5
17.	Jhanna/Garjan	*Rhizophora mucronata*	JN	214	5
18.	Jhao	*Tamarix indica*	JA	217	5
19.	Jir	*Ficus sp.*	JI	218	5
20.	Kankra	*Bruguiera gymnorhiza*	KA	219	5
21.	Karanj/Karanja	*Pongamia pinnata*	KR	220	5
22.	Keora	*Sonneratia apetala*	KE	221	4
23.	Khalisha/Khalshi/ Khulsha	*Aegiceras corniculatum*	KC	222	5
24.	Kirpa/Kripa	*Lumnitzera racemosa*	KP	223	5
25.	Ora/Choyla/Soyla	*Sonneratia caseolaris*	CY	210	5
26.	Passur	*Xylocarpus mekongensis*	PS	224	5
27.	Sadda Baen/ White Baen	*Avicennia alba*	SB	225	5
28.	Shingra	*Cynometra ramiflora*	SG	226	5
29.	Sitka/Sitki	*Clerodendrum inerme*	SK	227	5
30.	Sundri	*Heritiera fomes*	SU	228	3
31.	Sundri Lota	*Brownlowia tersa*	SL	229	5
32.	White Baen/ Sadda Baen	*Avicennia alba*	SB	225	5
33.	Miscellaneous/Unknown species		UM	299	5

Legend:

1 - Special Class
2 - Class A
3 - Class B
4 - Class C
5 - Class D

Bamboos:

1.	Bariala Bans	*Bambusa vulgaris*	BR	301
2.	Bazali Bans	*Teinostachyum griffitbii*	BZ	302
3.	Choitoya/Muli Bans	*Molocanna bambusoides*	MU	303
4.	Daloo Bans/Dalu	*MNeohouzeana(?) or Teinostachyum(?) dulloa*	DA	304
5.	Daral (climbing)	*Melocalamus compactiflorus*	DL	305
6.	Kali Bans	*Oxytenanthera nigrocilinta*	KB	306
7.	Kaligoda	*Bambusa tulda* (probably)	KG	307
6.	Kaliserri Bans	*Oxytenanthera auriculatam*	KI	308
7.	Khang/Orah Bans	*Dendrocalamus longispathus*	KH	309
8.	Mitenga Bans/ Mirtinga	*Bambusa tulda*	MI	310
9.	Muli/Choitoya Bans	*Molocanna bambusoides*	MU	303
10.	Orah Bans/Khang	*Dendrocalamus longispathus*	KH	309
11.	Parua	*Bambusa teres* (probably)	PR	311
12.	Pecha	*Dendrocalamus hamiltonii*	PC	312
13.	Rupahi	*Dendrocalamus longispathus* (?)	RU	313
14.	Miscellaneous/Unknown species		UB	399

Rattans/Canes:

1.	Galla	*Daemonorops jenkinianus*	GA	401
2.	Horna	*Calamus latifolius*	HO	402
3.	Jalli	*Calamus tenuis*	JL	403
4.	Sundi	*Calamus guruba*	SD	404

Palm:

1.	Golpatta	*Nypa fruticans*	GP	290

APPENDIX 4

Structure and Specifications of Data Entry/Validation Tables

Structure of Data Entry Table (with DEVP and final validation criteria) for Natural Forest: Enumeration Form 1

No	Field Name	Variable Name	Type	Width	Dec'l Pt.	Technical Specifications DEVP	Final
1	Data form	AFORM	C	1	0	=1, 2 or 3	=1
2	Plot cluster number	APCN	C	4	0	=001 to 1300	=001 to 1300
3	Longitude: degrees	ALONGDEG	C	2	0	=88 to 93	See Table A2-4
4	Lon: minutes	ALONGMIN	C	2	0	=0 to 59	=0 to 59
5	Lon: seconds	ALONGSEC	C	2	0	=0 to 59	=0,10,20,30,40,50
6	Latitude: degrees	ALATDEG	C	2	0	=20 to 27	See Table A2-4
7	Lat: minutes	ALATMIN	C	2	0	=0 to 59	=0 to 59
8	Lat: seconds	ALATSEC	C	2	0	=0 to 59	=0,10,20,30,40,50
9	Plot No.	APLOTNO	C	2	0	=1 to 5	=1,2,3,4 or 5
10	Control	ACONTROL	C	1	0	=0 or 1	=0 or 1
11	Record type1	ARECTYPE1	C	1	0	=1 to 6	=1
12	Division	ADIVISION	C	2	0	=1 to 30	See Table A2-5
13	Range	ARANGE	C	2	0	=1 to 50	See Table A2-5
14	Beat	ABEAT	C	2	0	=1 to 99	See Table A2-5
15	Block	ABLOCK	C	3	0	=1 to 500	=1 to 50
16	Land use category	ALUSEC	C	1	0	=1 to 9	=3, or 5,6,7,8 or 9
17	Forest type	AFOTY	C	1	0	=1 to 6	=4 or 5
18	Stand condition	ASTCO	C	1	0	=1 or 2	=1 or 2
19	Pilferage: no. of stumps	APILNOS	C	2	0	=0 to 30	=0 to 30
20	Terrain	ATERRAIN	C	1	0	=0 to 7	=0 to 7
21	Slope	ASLOPE	C	1	0	=0 to 6	=0 to 6
22	Aspect	AASPECT	C	1	0	=0 to 8	=0 to 8
23	Soil type	ASOTY	C	1	0	=0 to 4	=0 to 4
24	No. of records (NR): trees/poles	ANORETP	C	2	0	= 0 to 50	= 0 to 50
25	NR:seedlings	ANRSEED	C	2	0	=0 to 30	=0 to 30
26	NR: saplings	ANRSAP	C	2	0	=0 to 20	=0 to 20
27	NR: rattan	ANRRAT	C	2	0	=0 to 20	=0 to 20
28	NR: bamboo	ANRBAM	C	2	0	=0 to 20	=0 to 20
29	NR:medicinal plants	ANRMED	C	2	0	=0 to 50	=0 to 50
30	Crew No.	ACREWNUM	C	2	0	=0 to 30	=0 to 30
31	Date: day	ADAY	C	2	0	=1 to 31	=1 to 31
32	Date: month	AMONTH	C	2	0	=1 to 12	=1 to 12
33	Date: year	AYEAR	C	2	0	=95 to 98	=95 to 98

34	Invalid subplot(IS): seedlings	AISSE	C	1	0	=0	=0 or 1
35	IS: saplings	AISSA	C	1	0	=0	=0 or 1
36	IS:rattan<3m	AISRL3	C	1	0	=0	=0 or 1
37	IS:rattan>=3	AISRG3	C	1	0	=0	=0 or 1
38	IS: OB	AISOB	C	1	0	=0	=0 or 1
39	IS: med. plts.	AISMP	C	1	0	=0	=0 or 1
40	IS: SSB	AISSSB	C	1	0	=0	=0 or 1
41	IS: poles	AISPOLES	C	1	0	=0	=0 or 1
42	IS: trees	AISTREES	C	1	0	=0	=0 or 1
43	Record type2	ARECTYPE2	C	1	0	=1 to 6	=4
44	Consecutive number 1	ACONSNUM1	C	2	0	=1 to 50	=1 to 50
45	Species code: seedlings	ASCSEED	C	3	0	=100 to 299	=100 to 199
46	No. of stems: seedlings	ANSSEED	C	2	0	=0 to 20	=0 to 20
47	SC: saplings	ASCSAP	C	3	0	=100 to 299	=100 to 199
48	NS: saplings	ANSSAP	C	2	0	=0 to 20	=0 to 20
49	SC: rattan	ASCRAT	C	3	0	=401 to 409	=401 to 409
50	NS: rattan < 3.0m	ANSRATLT3	C	2	0	=0 to 50	=0 to 50
51	NS: rattan =or> 3.0m	ANSRATEG3	C	2	0	=0 to 99	=0 to 99
52	SC: other bamboo (OB)	ASCOB	C	3	0	=301 to 399; not 301/303	=302 to 399; but not 303
53	NS: immature stems, OB	ANSISOB	C	2	0	=0 to 99	=0 to 99
54	NS: mature stems, OB	ANSMSOB	C	2	0	=0 to 99	=0 to 99
55	SC: medicinal plants	ASCMED	C	3	0	=100 to 409	=100 to 409
56	NS: medicinal plants	ANSMED	C	2	0	=0 to 99	=0 to 99
57	SC: solitary stem bamboo (SSB)	ASCSSB	C	3	0	=303	=303
58	NS: immature stems, SSB	ANSISSSB	C	3	0	=0 to 200	=0 to 200
59	NS: mature stems, SSB	ANSMSSSB	C	3	0	=0 to 200	=0 to 200
60	Record type3	ARECTYPE3	C	1	0	=2, 3 or 5	=2

61	Consecutive number 2	ACONSNUM2	C	2	0	=1 to 50	=1 to 50
62	SC: poles	ASCPOLES	C	3	0	=100 to 299	=100 to 199
63	DBH: poles	ADBHPOLES	N	4	1	=2.5 to 19.5	=5.0 to 19.5
64	SC: trees	ASCTREES	C	3	0	=100 to 299	=100 to 199
65	DBH/DAB: trees	ADBHTREES	N	5	1	=14.6 to 120.0	=20.0 to 120.0
66	Buttress height	AHTBUT	N	3	1	=1.1 to 8.0	=1.1 to 8.0
67	Damage	ADAMAGE	C	1	0	=0 to 6	=0 to 6
68	Grade	AGRADE	C	1	0	=1 to 5	=1 to 5
69	Infestation	AINFEST	C	1	0	=0 to 6	=0 to 5
70	Bole height	ABOLEHT	N	4	1	=0.5 to 40.0	=0.5 to 40.0
71	Tree height	ATREEHT	N	4	1	=4.0 to 50.0	=4.0 to 50.0
72	Hor. distance	AHORDIS	N	4	1	=5.0 to 40.0	=5.0 to 40.0
73	Height of base	AHTBASE	N	3	1	=0.0 to 3.0	=0.0 to 3.0
74	Percent to base	APCTB	C	3	0	=0 or (+ or -) 1 to 30%	=0 or (+ or -) 1 to 30%
75	Percent to crown point	APCTCP	C	3	0	=0 or (= or -) 1 to 150%	=0 or (= or -) 1 to 150%
76	Percent to top	APCTTOP	C	3	0	=0 or (+ or -) 1 to 150%	=0 or (+ or -) 1 to 150%

C - Character

N - Numeric

Structure of Data Entry Table (with DEVP and final validation criteria)
for Hill Forest Plantations: Enumeration Form 2

No	Field Name	Variable Name	Type	Width	Dec'l Pt.	Technical Specifications DEVP	Final
1	Data form	BFORM	C	1	0	=1, 2 or 3	=2
2	Plot cluster number	BPCN	C	4	0	=001 to 1300	=001 to 1300
3	Longitude: degrees	BLONGDEG	C	2	0	=88 to 93	See Table A2-4
4	Lon: minutes	BLONGMIN	C	2	0	=0 to 59	=0 to 59
5	Lon: seconds	BLONGSEC	C	2	0	=0 to 59	=0,10,20,30,40,50
6	Latitude: degrees	BLATDEG	C	2	0	=20 to 27	See Table A2-4
7	Lat: minutes	BLATMIN	C	2	0	=0 to 59	=0 to 59
8	Lat: seconds	BLATSEC	C	2	0	=0 to 59	=0,10,20,30,40,50
9	Plot No.	BPLOTNO	C	2	0	=1 to 5	=1,2,3,4 or 5
10	Control	BCONTROL	C	1	0	=0 or 1	=0 or 1
11	Record type1	BRECTYPE1	C	1	0	=1 to 6	=1
12	Division	BDIVISION	C	2	0	=1 to 30	See Table A2-5
13	Range	BRANGE	C	2	0	=1 to 50	See Table A2-5
14	Beat	BBEAT	C	2	0	=1 to 99	See Table A2-5
15	Block	BBLOCK	C	3	0	=1 to 500	=1 to 50
16	Land use category	BLUSEC	C	1	0	=1 to 9	=1 to 9 but not 3
17	Forest type	BFOTY	C	1	0	=1 to 6	=6
18	Stand condition	BSTCO	C	1	0	=1 or 2	=1 or 2, if bamboo; =1 to 4, otherwise
19	Pilferage: no. of stumps	BPILNOS	C	2	0	=0 to 30	=0 to 30
20	Year planted	BYEARP	C	2	0	=0 to 97	=0 to 97
21	Terrain	BTERRAIN	C	1	0	=0 to 7	=0 to 7
22	Slope	BSLOPE	C	1	0	=0 to 6	=0 to 6
23	Aspect	BASPECT	C	1	0	=0 to 8	=0 to 8
24	Soil type	BSOTY	C	1	0	=0 to 4	=0 to 4
25	No. of records (NR): trees/poles	BNORETP	C	2	0	= 0 to 50	= 0 to 50
26	NR:seedlings	BNRSEED	C	2	0	=0 to 30	=0 to 30
27	NR: saplings	BNRSAP	C	2	0	=0 to 20	=0 to 20
28	NR: rattan	BNRRAT	C	2	0	=0 to 20	=0 to 20
29	NR: bamboo	BNRBAM	C	2	0	=0 to 20	=0 to 20
30	NR:medicinal plants	BNRMED	C	2	0	=0 to 50	=0 to 50
31	Crew number	BCREWNUM	C	2	0	=0 to 30	=0 to 30
32	Date: day	BDAY	C	2	0	=1 to 31	=1 to 31
33	Date: month	BMONTH	C	2	0	=1 to 12	=1 to 12
34	Date: year	BYEAR	C	2	0	=95 to 98	=95 to 98

35	Invalid subplot (IS): seedlings	BISSE	C	1	0	=0	=0 or 1
36	IS: saplings	BISSA	C	1	0	=0	=0 or 1
37	IS:rattan<3m	BISRAL3	C	1	0	=0	=0 or 1
38	IS:rattan>=3	BISRAG3	C	1	0	=0	=0 or 1
39	IS: OB	BISOB	C	1	0	=0	=0 or 1
40	IS: med. plts.	BISMP	C	1	0	=0	=0 or 1
41	IS: SSB	BISSSB	C	1	0	=0	=0 or 1
42	IS: plntn B	BISPB	C	1	0	=0	=0 or 1
43	IS: poles	BISPOLES	C	1	0	=0	=0 or 1
44	IS: trees	BISTREES	C	1	0	=0	=0 or 1
45	Record type2	BRECTYPE2	C	1	0	=1 to 6	=4
46	Consecutive number 1	BCONSNUM1	C	1	0	=1 to 50	=1 to 50
47	Species code: seedlings	BSCSEED	C	1	0	=100 to 299	100 to 299
48	No. of stems: seedlings	BNSSEED	C	2	0	=0 to 20	=0 to 20
49	SC: saplings	BSCSAP	C	3	0	=100 to 299	=100 to 199
50	NS: saplings	BNSSAP	C	2	0	=0 to 20	=0 to 20
51	SC: rattan	BSCRAT	C	3	0	=401 to 409	=401 to 409
52	NS: rattan < 3.0m	BNSRATLT3	C	2	0	=0 to 50	=0 to 50
53	NS: rattan =or> 3.0m	BNSRATEG3	C	2	0	=0 to 99	=0 to 99
54	SC: other bamboo (OB)	BSCOB	C	3	0	=301 to 399; not 301/303	=302 to 399; but not 303
55	NS: immature stems, OB	BNSISOB	C	2	0	=0 to 99	=0 to 99
56	NS: mature stems, OB	BNSMSOB	C	2	0	=0 to 99	=0 to 99
57	SC: medicinal plants	BSCMED	C	3	0	=100 to 409	=100 to 409
58	NS: medicinal plants	BNSMED	C	2	0	=0 to 99	=0 to 99
59	SC: solitary stem bamboo (SSB)	BSCSSB	C	3	0	=303	=303
60	NS: immature stems, SSB	BNSISSSB	C	3	0	=0 to 200	=0 to 200
61	NS: mature stems, SSB	BNSMSSSB	C	3	0	=0 to 200	=0 to 200
62	SC: plant'n bamboo (PB)	BSCPB	C	3	0	=301	=301

63	NS: immature stems, PB	BNSISPB	C	3	0	=0 to 99	=0 to 99
64	NS: mature stems,PB	BNSMSPB	C	3	0	=0 to 99	=0 to 99
65	Record type3	BRECTYPE3	C	1	0	=2, 3 or 5	=3
66	Consecutive number 2	BCONSNUM2	C	2	0	=1 to 50	=1 to 50
67	SC: poles	BSCPOLES	C	3	0	=100 to 299	=100 to 199
68	DBH: poles	BDBHPOLES	N	4	1	=2.5 to 19.5	=2.5 to 14.5
69	SC: trees	BSCTREES	C	3	0	=100 to 299	=100 to 199
70	DBH/DAB: trees	BDBHTREES	N	5	1	=14.6 to 120.0	=14.6 to 120.0
71	Buttress ht.	BHTBUT	N	3	1	=1.1 to 8.0	=1.1 to 8.0
72	Damage	BDAMAGE	C	1	0	=0 to 6	=0 to 6
73	Grade	BGRADE	C	1	0	=1 to 5	=1 to 5
74	Infestation	BINFEST	C	1	0	=0 to 6	=0 to 5
75	Bole height	BBOLEHT	N	4	1	=0.5 to 40.0	=0.5 to 40.0
76	Tree height	BTREEHT	N	4	1	=4.0 to 50.0	=4.0 to 50.0
77	Hor. distance	BHORDIS	N	4	1	=5.0 to 40.0	=5.0 to 40.0
78	Height of base	BHTBASE	N	3	1	=0.0 to 3.0	=0.0 to 3.0
79	Percent to base	BPCTB	C	3	0	=0 or (+ or -) 1 to 30%	=0 or (+ or -) 1 to 30%
80	Percent to crown point	BPCTCP	C	3	0	=0 or (= or -) 1 to 150%	=0 or (= or -) 1 to 150%
81	Percent to top	BPCTTOP	C	3	0	=0 or (+ or -) 1 to 150%	=0 or (+ or -) 1 to 150%

C - Character

N - Numeric

APPENDIX 5

Range and Beat Codes

Forest Division/Range/Beat Codes

HILL FOREST DIVISIONS

DIVISION	CODE	RANGE	CODE	BEAT	CODE
Sylhet	11	Juri	1	Sagarnal	1
				Ragna	2
				Putichara	3
				Barlekha	4
				Somanbag	5
				Lathitila	6
				Madhabchara	7
		Moulavi Bazar	2	Lawachara	1
				Chautali	2
				Kalachara	3
				Moulavibazar	4
				Satgoon	5
		Rajkandi	3	Kurma	1
				Adampur	2
				Kamarchara	3
		Kulduta	4	Muroichara	1
				Monchara	2
				Gazipur	3
				Baramchal	4
				Bhattera	5
				Nalduri	6
		Habigonj	5	Kalenga	1
				Rema	2
				Rashidpur	3
				Putijuri	4
		Raghunandan	6	Shahapur	1
				Shaltila	2
				Shahajibazar	3
				Jagadishpur	4
		Satchari	7	Satchari	1
				Telmachara	2
		North Sylhet	8	Jaflong	1
				Shari	2
				Gowainghat	3
				Kanairghat	4
				Rafargole	5
				Khadimnagar	6
				Tilagaor	7
				Ranikhal	8
				Salutikar	9
		Sunamgonj	9	Maheshkhola	1
				Dalergaon	2
				Saktiarkhola	3
				Sunamgonj Sadar	4
				Doarabazar	5
				Chatak	6

DIVISION	CODE	RANGE	CODE	BEAT	CODE	BLOCK	CODE
Chittagong	21	Olinagar	1	Olinagar	1	Feni	1
		Karerhat	2	Karerhat	1	Lakhichari	1
				Andermanik	2	Panua	2
						.Nalua West	3
				Kolia	3	Kolia North	4
				Hiakhon	4	Hiakhon	5
						Nischinta	6
		Mirsarai	3	Hinguli	1	Hinguli	1
						Kolia South	2
				Zorarganj	2	Zorarganj	3
				Gobania	3	Raghunathpur	4
						Gobania	5
		Baralya-dhala	4	Baratakia	1	Kunderhat	1
				Baralyadhala	2	Wahidpur	2
						Baralyadhala	3
				Sitakunda	3	Sitakunda	4
						Chandranath	5
				Hazarikhil	4	Hazarikhil	6
						Rangapani	7
				Fatickchari	5	Fatickchari	8
						Harwalchari	9
		Kumira	5	Barabkunda	1	Barabkunda	1
				Kumira	2	Kumira	2
				Shitalpur	3	Shitlapur(P.F)	3
		Narayan-hat	6	Dantmara	1	Nalua East	1
						Dantmara	2
				Balukhali	2	Chandpur	3
						Idilpur	4
						Badurkhil	5
				Narayanhat	3	Kalyapukhia	6
						E. Kalyapukhia	7
				Dhurang	4	E. Kanchannagar	8
						W. Kanchannagar	9
		Hasnabad	7	Tarakhon	1	Tarakhon	1
				Hasnabad	2	Hasnabad	2
		Hathazari	8	Hathazari	1	Hathazari	1
				Sarta	2	Khiram	2
						Gopalghata	3
						Magkata	4
						Gamaritala	5
				Sobhanchari	3	Baramasid	6
						Sobhanchari	7
				Mondakini	4	Udolla	8
						Monaichari	9
						Lot udolia	10
						Hazirkhil	11
						Choto Kanchanpur	12

DIVISION	CODE	RANGE	CODE	BEAT	CODE	BLOCK	CODE
		Ichamati	9	Ischamati	1	Thandachari	1
				Nischintapur	2	Ghagra	2
						Nischintapur	3
		Dohazari	10	Lalutia	1	Lalutia	1
						Chiringhata	2
				Dhopachari	2	Mangala	3
						Dhopachari	4
				Sangu	3	Sangu	5
				Baltarani	4	Baltarani	6
		Rangunia	11	Kodala	1	Kodala	1
				Chiringa	2	Chiringa	2
						Sarapbhata	3
				Narischa	3	Tripura Sundari	4
						Narischa (P.F.)	5
				Pomora(P.F.)	4	Pomara (P.F.)	6
		Khurusia	12	Sukbilash	1	Sukbilash	1
				Dudpukuria	2	Dudpukaria	2
				Khurusia	3	Khurusia	3
				Kamaichari	4	Silchari	4
		Patiya	13	Bhandarjuri	1	Dumuria	1
				Kelishahar	2	Bhandarjuri	2
				Srimal	3	Silchari	3
						Srimal	4
				Barguni	4	Sonaichari	5
						Hashempur	6
						Elahabad(P.F.)	7
		Padua	14	Barduara	1	Mahalla	1
						Puranagar	2
				Hangar	2	Sarasia	3
				Tankawali	3	Charamba	4
						Tankawati	5
				Dalu	4	Narischa	6
						Farong	7
		Chunati	15	Harbang	1	Goyalmara	1
						Harbang	2
						Tetlakata	3
				Chunati	2	Chunati	4
				Baraltali	3	Baraltali	5
				Bara Hatia	4	Chhota Hatia	6
						Bara Hatia	7
				Satgar	5	Satgar	8
		Jaldi	16	Jaldi	1	Jaldi	1
						Balichari	2
				Chambal	2	Chambal	3
				Napura	3	Napura	4
				Puichari	4	Pulchari	5
		Barabakia	17	Toitang	1	Toitang	1
				Barabakia	2	Barabakia	2
				Paharchanda	3	Paharchanda	3
		Kalipur (P.F.)	18	Kalipur	1	Kalipur	1
				Chechuria	2	Chechuria	2
				Shadhanpur	3	Shadhanpur	3
				Pukuria	4	Pukuria	4

DIVISION	CODE	RANGE	CODE	BEAT	CODE	BLOCK	CODE
		Madarsha (P.F.)	19	Madarsha	1	Madarsha	1
				Churamoni	2	Churamoni	2
				Baramadarsha	3	Baromadarsha	3
		Town	20	Town(P.F.)	1	Purba pahartali	1
						Kuilshi	2
						Purba Nasirabad	3
						Muradpur	4
Cox's Bazar	26	Fashia-khali	1	Halbila	1	Halbila	1
				Kakra	2	Kakra	2
				Manikpur	3	Manikpur	3
				Bamu	4	Bamu	4
				Fashiakhali	5	Fashiakhali	5
						Rangbhang	6
				Dulahazara	6	Dulahazara	7
						Hargaza	8
		Fulchari	2	Khuntakhali	1	Khuntakhali	1
						Medhakachapia	2
				Fulchari	2	Fulchari	3
				Napitkhali	3	Napitkhali	4
		Idgaon	3	Bhomar laghona	1	Bhomar laghona	1
				Idgarh	2	Idgarh	2
						Tulatai	3
		Meher-ghona	4	Manchuakhali	1	Machuakhali	1
				Kalirchara	2	Kalirchara	2
				Joarianala	3	Joarianala	3
						Bengdepa	4
						Jumchari	5
		Bagkhali	5	Bagkhali	1	Bagkhali	1
						Manirjhil	2
				Ghilatali	2	Ghilatali	3
						Barabil	4
				Kachapia	3	Kachapia	5
						Jungchara	6
				Rajarkul	4	Rajarkul	7
						Ramkol	8
		P.M.Khali	6	P.M. Khali	1	P.M. Khali North(P.F.)	1
				Dighirghona	2	P.M. Khali South(P.F.)	2
				Tutuk Khali	3	Tutuk Khali(P.F.)	3
				Khuruskul	4	Jaturya(P.F.)	4
		Panerchara	7	Panerchara	1	Panerchara	1
						Mithachara	2
		Cox's Bazar	8	Chainda	1	Chainda	1
				Kalatali	2	Bhangamura	2
				Jhilanga	3	Jhilanga West(P.F.)	3
				Link Road	4	Jhilanga East(P.F.)	4
		Dhoapa-long	9	Dhoapalong	1	Dhoapalong	1
				Khuniapalong	2	Khuniapalong	2
						Himchari	3
				Dariadighi	1	Dariadighi	4
				Upper Rezu	2	Upper Rezu	5
				Paglarbil	3	Paglarbil(P..F.)	6
				Marcha	4	Marchapalong(P.F.)	7

DIVISION	CODE	RANGE	CODE	BEAT	CODE	BLOCK	CODE
		Inani	10	Jaliapalong	1	Jaliapalong	1
				Rajapalong	2	Rajapalong	2
				Inoni	3	Bara Inoni	3
				Chota inoni	4	Chota Inoni	4
				Swankhali	5	Ruppati	5
						Swankhali	6
		Ukhia	11	Ukhia	1	Uhalapalong	1
						Kutupalong	2
				Dochari	2	Dochari	3
				Ukhirarghat	3	Ukhiarghat	4
				Thainkhali	4	Thainkhali	5
						Battali	6
						Palongkhali	7
				Walapalong	5	Walapalong(P.F.)	8
				Holudiapalong	6	Holudiapalong(P.F.)	9
				Bhalukia	7	Ratnapalong(P.F.)	10
		Whykhe-ong	12	Whykheong	1	Whykheong	1
				Raikheong	2	Raikheong	2
				Monkhali	3	Monkhali	3
				Saplapur	4	Saplapur	4
		Teknaf	13	Madhya Hnila	1	Madhya Hnila	1
				Hnila	2	Dakhin Hnila	2
				Rajarchara	3	Rajarchara	3
				Silkhali	4	Silkhali	4
				Mochoni	5	Ledha	5
						Dumdumia North	6
				Mathabhanga	6	Mathabhanga	7
				Teknaf	7	Dumdumia South	8
						Teknaf	9

APPENDIX 6

Tree Volume Equations

Tree Volume Equations Used in FDPP

Hereunder are the tree volume equations used in the Field Data Processing Program. These include the new equations for Akashmoni (*Acacia auriculiformis*) based on 219 observations with DBH data range from 3.9 to 32.8 cm, Mangium (*Acacia mangium*) based on 272 observations with DBH data range from 4.9 to 45.3 cm, and *Eucalyptus camaldulensis* with 550 observations with DBH range from 2.7 to 3.6cm. These new studies were done in collaboration with BFRI Researchers. The new equations were derived using a system of four simple (combined variable model) equations in each case. The equations provide consistent and very accurate tree volumes for the whole range of diameter classes for each of the three species.

The tree volume equations below also include the corrected equations for plantations of Dhakijam (*Syzygium grande*), Gamar (*Gmelina arborea*), Chapalish (*Artocarpus chapasha*) and Teligarjan (*Dipterocarpus turbinatus*) as well as Civit (*Swintonia floribunda*) and Bahera (*Terminalia belerica*) in natural stands.

Species		Species Code	Volume Equations and Conversion Factors
1.	Akashmoni (*Acacia auriculiformis*); Plantation	106	$V_{tob} = 0.000043645*(D-3)^2*H$ $V_{tub} = 0.85342*V_{tob}$ $V_{5ub} = 0.99416*V_{tub}$ $V_{10ub} = 0.89330*V_{5ub}$
2.	Mangium (*A. mangium*); Plantation	145	$V_{tob} = 0.000038834*(D-3)^2*H$ $V_{tub} = 0.85018*V_{tob}$ $V_{5ub} = 0.99945*V_{tub}$ $V_{10ub} = 0.99970*V_{5ub}$
3.	Minjiri (*Cassia siamea*); Plantation	146	$\ln(V_{3ub}) = -10.1767+2.0642\ \ln D+0.8291\ \ln H$
4.	Pine (*Pinus carribea*); Plantation	152	$\ln(V_{3ub}) = -9.7505+1.9354\ \ln D+0.8517\ \ln H$
5.	Gamar (*Gmelina arborea*); Plantation	126	$\ln V_{tob} = -8.46871+1.63502*\ln D+0.78487*\ln H$ $F_{tub} = 0.74986+0.0031724*D-0.000024319*D^2$ $F_{5ub} = 1/(1.00001+0.93292*e^(-0.1894*D))$ $F_{10ub} = 0.99337-2.77683*e^(-0.14116*D)$ $F_{20ub} = 0.91606*(1-e^(-0.20480*D))^186.5$
6.	Dhakijam (*Syzygium grande*); Plantation	122	$V_{tob} = 0.00018987+0.000029903*D^2+0.00024887*D*H+$ $0.000024466*D^2*H$ $F_{tub} = D/(-0.23531+1.28175*D-0.0028786*D^2)$ $F_{5ub} = 0.99798*(1-e^(-0.30202*D))^1.71151$ $F_{10ub} = 0.98404*(1-e^(-0.24184*D))^16.65$ $F_{20ub} = 0.94094*(1-e^(-0.17372*D))^66.244$

7.	TeliGarjan (*Dipterocarpus turbinatus*); Plantation	108	V_{tob} = 0.0025211+0.00010003*D^2+0.00014779*D*H+ 0.000024065*D^2*H F_{tub} = 0.75496+0.0030279*D-0.000019510*D^2) F_{5ub} = 0.99938-167.707*D^(-3.4686) F_{10ub} = 0.98176*(1-e^(-0.35582*D))^69.509 F_{20ub} = 0.92806*(1-e^(-0.27813*D))^1156.116 Note: For DBH>75 cm, use Factor for DBH=75 cm in all cases
8.	Chapalish (*Artocarpus chapasha*); Plantation	117	$\ln(V_{tob})$ = -8.94495+1.82851*lnD+0.73538*lnH F_{tub} = 0.76539+0.0035766*D-0.000032305*D^2; if D>50, F_{tub} = 0.864 F_{5ub} = 0.99939-(72.8549*D)^(-3.14844) F_{10ub} = 0.99400-(1556.2135*D)^(-3.23157) F_{20ub} = 0.92197*(1-e^(-0.26753*D))^604.5896
9.	Civit (*Swintonia floribunda*); Plantation	102	IF $D^2H<1200$, $V_{20ub} = 0.01059+0.00002887D^2H$ IF $D^2H \geq 1200$, $V_{20ub} = 0.09790+0.00002499D^2H$
10.	Teak (*Tectona grandis*) Plantation	159	$\ln V_{Tob}$ = -9.4808+1.6212lnD+1.1648lnH $V_{5ub} = 0.1217+0.2257D^2H$ $V_{10ub} = 0.0000465D^{1.58}H^{1.603}$ (??) $V_{20ub} = 0.0645+0.2322D^2H$
11.	*Eucalyptus camaldulensis*; Plantation	125	V_{tob} = 0.000042692*(D-3)^2*H V_{tub} = 0.83847*V_{tob} V_{5ub} = 0.95916*V_{tub} V_{10ub} = 0.89239*V_{5ub}
12.	Molluccana *(Paraserianthes falcataria);* Plantation	147	$\ln V_{tob}$ = -8.9942+1.4963lnD+1.1461lnH F_{tub}= 0.9130 - $0.6636e^{-0.3401D}$ $F_{15ub} = 0.9352\ (1-e^{-0.2742D})^{244.88}$ $F_{20ub} = 0.9329\ (1-e^{-0.2313D})^{502.64}$
13.	Keora (*Sonneratia apetala*); Plantation	221	<u>Noakhali/Bhola/Patuakhali</u> $V_{7ub} = 0.0041+0.00002463D^2H$ <u>Chittagong C/A</u> $V_{7ub} = -0.00088+0.0000297D^2H$
14.	Baen (*Avicenia officinalis*); Plantation	203	$V_{7ub} = -0.0012+0.00002580D^2H$
<u>Natural Forests</u>: Total volume, outside bark, excluding branches			
15.	Pitraj (*Aphanamixis polystachya*)	154	lnV = -8.9863+1.9328lnD+0.6992lnH $F_{vub} = 0.655+0.007937D-0.00005847D^2$ if D≤68cm othewise F_{vub}=0.924 $F_{v10} = 1.0001-24.8498D^{-2.4467}$ $F_{v20} = 0.9945-1.9156e^{-0.09406D}$
16.	Chapalish (*Artocarpus chapasha*)	117	lnV= -8.6639+2.1320lnD+0.2946lnH (??) $F_{vub} = 0.9849-3.8652D^{-0.9334}$ F_{v10} = 1.0 $F_{v20} = 1/(1.000084+0.6980e^{-0.05446D})$
17.	Simul (*Bombax ceiba*)	162	lnV = -9.1013+1.9419lnD+0.5276lnH (?) $F_{vub} = 0.9440-7.1054D^{-1.1609}$ F_{v10} = 1.0 $F_{v20} = 0.9984-89452.6D^{-3.865}$

18.	Garjan (NF) (*Dipterocarpus spp.*)	108	$\ln V = -9.1872+1.6485\ln D+1.1306\ln H$ $F_{vub} = 0.8994-0.0004973+0.000006729D^2$ $F_{v10} = 1/(0.9997+0.1012e^{-0.06447D})$ $F_{v20} = 1.0002-1609.2425D^{-2.7472}$
19.	Dhali Garjan (*Dipterocarpus gracilis*)	168	$\ln V = -9.4406+1.8660\ln D+0.9648\ln H$ $F_{vub} = 0.8493+0.001308D-0.000007031D^2$ if D≤92cm otherwise, $F_{vub} = 0.910$ $F_{v10} = 1.000-0.03310e^{-0.05676D}$ $F_{v20} = 0.9975-0.1477e^{-0.06433D}$
20.	Baita Garjan (*Dipterocarpus costatus*)	169	$\ln V=-9.1693+1.7651\ln D+1.0011\ln H$ $F_{vub} = 0.9115-0.2543e^{-0.03883D}$ $F_{v10} = 1.0$ $F_{v20} = 0.9978-1.0016e^{-0.07375D}$
21.	Teli Garjan (*Dipterocarpus turbinatus*)	170	$\ln V= -9.1872+1.6485\ln D+1.1306\ln H$ $F_{vub} = 0.8994-0.0004973+0.000006729D^2$ $F_{v10} = 1/(0.9997+0.1012e^{-0.06447D})$ $F_{v20} = 1.0002-1609.2425D^{-2.7472}$
22.	Banderhola (*Duabanga grandiflora*)	109	$V = -0.5127+0.0004129D^2+0.001298H+0.0000247D^2H$ $F_{vub} = 0.8116+0.001650D-0.000004651D^2$ if D≤178cm, otherwise $F_{vub} = 0.958$ $F_{v10} = 1.0$ $F_{v20} = 0.9986+0.9808e^{-0.07870D}$
23.	Uriam (*Mangifera sylvatica*)	167	$\ln V=-8.9048+2.0808\ln D+0.6926\ln H$ $F_{vub}=0.9556-16.5862D^{-1.4465}$ $F_{v10}=1.0008-0.01859e^{-0.03721D}$ $F_{v20} = 0.9960-1.9569e^{-0.09610D}$
24.	Bonak (*Schima wallichii*)	114	$V=0.05978-0.00003151D^2+0.01648H+0.00002781D^2H$ $F_{vub}=1/(1.1935+0.3931e^{-0.04512D})$ $F_{v10} = 1.0005-0.02896e^{-0.04055D}$ $F_{v20}= 1.0050-0.4304e^{-0.03969D}$
25.	Civit (*Swintonia floribunda*)	102	$\ln V=-8.8621+1.8148\ln D+0.8280\ln H$ $F_{vub}=0.8245+0.002289D-0.00001045D^2$, if D≤109 otherwise $F_{vub}=0.958$ $F_{v10}=0.9997-(2634.8723D)^{-0.3637}$ $F_{v20} = 1.004114-216.8436D^{-2.2260}$
26.	Dhakijam (*Syzygium grande*)	122	$V=0.08566+0.0002378D^2+0.01194H+0.00002365D^2H$ $F_{vub}=1/(1.0740+0.2996e^{-0.03586D})$ $F_{v10}= 1.0$ $F_{v20}=1/(1.003997+1.5662e^{-0.08216D})$
27.	Bahera (*Terminalia belerica*)	107	$\ln V=-8.3245+1.7826\ln D+0.6257\ln H$ $F_{vub} = 1.0$ $F_{v10} = 1.0$ $F_{v20}=0.9998-0.5266e^{-0.05224D}$
28.	Chundul (*Tetrameles nudiflora*)	121	$\ln V=-8.4925+1.8522\ln D+0.6879\ln H$ $F_{vub}=0.8316+0.002165D-0.00001211D^2$, if D≤89, otherwise, $F_{vub}=0.928$ $F_{v10}=1.0$ $F_{v20}=1/(0.9986+0.3712e^{-0.04786D})$
29.	Mixed species	199	$\ln V=-8.3367+1.5932\ln D+0.9400\ln H$ $F_{vub}=0.8401+0.002192D-0.00001404D^2$, if D≤80, otherwise, $F_{vub}=0.926$ $F_{v10} = 0.9899+0.0001877D-0.0000008710D^2$, if D≤110, otherwise, $F_{vub}=1.0$ $F_{v20} = 0.8438+0.003104D-0.00001553D^2$, if D≤100, otherwise, $F_{vub}=0.999$

APPENDIX 7

Detailed Stand and Stock Tables (per Hectare Estimates)

Stand and Stock Tables by Species Group, Stratum and Forest Division :
NT (No. of Trees/ha), BA (Basal Area in sqm/ha), Vol(Volume in cu m/ha) .

Division : Sylhet (11)

Date: 02/04/1998

Species Group : 1. Special class 2. Class A 3. Class B 4. Class C 5. Class D

Natural forest : Stratum 1/2 (HF/LF)

No. of plot clusters : 104

Trees by Diameter Class

Species Group	20-30			30-40			40-50			50-60		
	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol
Sp. class	0.47	0.02	0.12	0.20	0.02	0.14	0.10	0.02	0.12	0.10	0.02	0.18
Class A	9.52	0.45	3.97	7.04	0.64	6.12	4.76	0.68	7.04	2.44	0.56	5.78
Class B	3.16	0.15	1.44	2.92	0.27	2.70	1.77	0.26	2.50	0.82	0.19	2.05
Class C	3.72	0.18	1.63	4.77	0.45	3.99	4.41	0.66	5.55	1.42	0.31	2.84
Class D	27.66	1.24	12.34	14.73	1.31	13.63	7.14	1.05	11.29	2.55	0.59	6.10
TOTAL	44.53	2.03	19.49	29.66	2.69	26.59	18.18	2.67	26.50	7.34	1.67	16.95

Trees by Diameter Class

Species Group	60-70			70-80			80+			Total			
	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	S.E%
Sp. class	-	-	-	-	-	-	-	-	-	0.87	0.07	0.56	66.3
Class A	0.94	0.29	2.95	0.76	0.33	3.22	0.70	0.44	4.44	26.16	3.39	33.51	9.4
Class B	0.40	0.13	1.11	0.15	0.06	0.66	0.10	0.07	0.46	9.33	1.12	10.92	12.5
Class C	1.06	0.33	2.95	0.15	0.06	0.49	0.05	0.03	0.33	15.59	2.02	17.78	12.7
Class D	1.16	0.37	3.48	0.35	0.15	1.67	0.40	0.29	2.49	54.00	5.00	51.01	7.8
TOTAL	3.58	1.11	10.50	1.42	0.61	6.04	1.25	0.83	7.71	106.0	11.60	113.8	5.9

NOTE : NT - No. of trees
Vol - Volume in cu m/ha
Sp. Class - Special class
BA - Basal area in sqm/ha
S.E. - Sampling Error
HF - Large crown high forest, >50% crown closure
LF - Small crown high forest, >50% crown closure
ST - Scattered trees, about 20% crown closure
B/BO/OB - Bamboo (>80% stocking)/Bamboo (<80% stocking)
/Bamboo (dominant) with other species

Natural forest : Stratum 3 (ST)

No. of plot clusters : 16

Species Group	Trees by Diameter Class											
	20-30			30-40			40-50			50-60		
	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol
Sp. class	3.29	0.18	1.50	1.23	0.10	0.82	0.41	0.05	0.32	-	-	-
Class A	2.47	0.11	0.43	1.23	0.11	1.34	0.41	0.05	0.02	0.41	0.11	0.58
Class B	0.41	0.03	0.01	0.41	0.05	0.02	-	-	-	-	-	-
Class C	3.34	0.16	0.91	3.70	0.35	2.94	2.06	0.31	3.46	0.41	0.09	0.94
Class D	3.15	0.17	0.18	1.37	0.14	0.62	0.41	0.07	0.03	0.41	0.09	0.50
TOTAL	12.66	0.64	3.04	7.95	0.75	5.74	3.29	0.48	3.83	1.23	0.29	2.01

Species Group	Trees by Diameter Class												
	60-70			70-80			80+			Total			
	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	S.E%
Sp. class	-	-	-	-	-	-	-	-	-	4.93	0.33	2.64	87.9
Class A	0.41	0.13	0.86	0.41	0.16	0.07	-	-	-	5.34	0.67	3.30	61.7
Class B	0.41	0.12	0.99	-	-	-	-	-	-	1.23	0.19	1.02	96.5
Class C	-	-	-	-	-	-	0.55	0.39	0.17	10.06	1.31	8.41	97.1
Class D	0.55	0.15	0.06	-	-	-	-	-	-	5.89	0.61	1.39	85.4
TOTAL	1.37	0.40	1.91	0.41	0.16	0.07	0.55	0.39	0.17	27.46	3.11	16.76	71.3

Natural forest : Stratum 4 (B/BO/OB)

No. of plot clusters : 159

Species Group	Trees by Diameter Class											
	20-30			30-40			40-50			50-60		
	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol
Sp. class	0.40	0.02	0.18	0.03	0.00	0.02	-	-	-	-	-	-
Class A	6.85	0.33	2.87	4.29	0.39	3.39	1.50	0.21	1.98	0.46	0.11	1.09
Class B	3.13	0.15	1.73	2.47	0.21	2.12	0.71	0.11	1.11	0.29	0.07	0.68
Class C	2.86	0.14	1.44	1.34	0.12	0.98	0.74	0.11	0.96	0.83	0.19	1.64
Class D	15.29	0.65	7.65	4.55	0.40	4.29	1.75	0.27	3.00	0.57	0.13	1.44
TOTAL	28.52	1.29	13.88	12.67	1.13	10.80	4.70	0.70	7.06	2.16	0.50	4.85

Species Group	Trees by Diameter Class												
	60-70			70-80			80+			Total			
	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	S.E%
Sp. class	-	-	-	-	-	-	-	-	-	0.43	0.02	0.21	101.6
Class A	0.34	0.11	1.02	0.34	0.14	1.29	0.15	0.10	0.93	13.93	1.39	12.56	11.2
Class B	0.10	0.03	0.28	0.27	0.11	1.19	-	-	-	6.98	0.68	7.11	11.8
Class C	0.37	0.11	1.02	0.37	0.15	1.28	0.05	0.02	0.23	6.54	0.85	7.56	22.0
Class D	0.53	0.17	1.86	0.14	0.06	0.71	-	-	-	22.83	1.68	18.94	10.5
TOTAL	1.34	0.42	4.18	1.12	0.46	4.46	0.20	0.12	1.16	50.71	4.62	46.38	9.3

Natural Forest : All strata

Total No. of plot clusters : 279

Species Group	Trees by Diameter Class											
	20-30			30-40			40-50			50-60		
	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol
Sp. class	0.51	0.02	0.22	0.10	0.01	0.07	0.03	0.00	0.03	0.01	0.00	0.02
Class A	7.00	0.34	2.91	4.50	0.41	3.63	1.84	0.26	2.50	0.69	0.16	1.63
Class B	3.04	0.14	1.63	2.44	0.21	2.11	0.81	0.12	1.24	0.35	0.08	0.82
Class C	2.98	0.15	1.45	1.83	0.17	1.41	1.22	0.18	1.59	0.88	0.20	1.76
Class D	16.29	0.70	7.93	5.62	0.50	5.25	2.33	0.35	3.86	0.80	0.18	1.95
TOTAL	29.82	1.35	14.14	14.50	1.30	12.47	6.23	0.92	9.22	2.73	0.63	6.17

Species Group	Trees by Diameter Class												
	60-70			70-80			80+			Total			
	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	S.E%
Sp. class	-	-	-	-	-	-	-	-	-	0.65	0.04	0.34	59.6
Class A	0.42	0.13	1.24	0.39	0.16	1.47	0.21	0.13	1.31	15.05	1.60	14.68	8.5
Class B	0.14	0.05	0.40	0.25	0.10	1.08	0.01	0.01	0.05	7.04	0.71	7.33	10.0
Class C	0.44	0.13	1.21	0.33	0.13	1.14	0.06	0.04	0.24	7.73	1.00	8.79	16.7
Class D	0.61	0.19	1.98	0.16	0.07	0.79	0.05	0.03	0.29	25.86	2.03	22.06	7.9
TOTAL	1.61	0.50	4.83	1.13	0.47	4.49	0.33	0.21	1.89	56.34	5.39	53.20	7.1

Simple random sample mean : 52.65
Variance of mean : 4.12
Simple random sample sampling error : 7.83

Stand and Stock Tables by Species Group, Stratum and Forest Division :
NT (No. of Trees/ha), BA (Basal Area in sqm/ha), Vol(Volume in cu m/ha) .

Division : Sylhet (11)

Date: 02/08/1998

Species Group : 1. Special Class 2. Class A 3. Class B 4. Class C 5. Class D

Plantation forest : Stratum 5 (T/OT, up to 1959)

No. of plot clusters : 159

Species Group	Trees by Diameter Class											
	15-20			20-30			30-40			40-50		
	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol
Sp. class	25.91	0.60	4.91	43.27	2.02	14.96	20.90	1.89	14.14	8.65	1.29	9.81
Class A	10.67	0.25	0.64	19.67	0.92	2.56	9.08	0.82	2.95	4.83	0.72	4.44
Class B	1.95	0.04	0.04	2.98	0.14	0.25	2.19	0.20	0.31	0.75	0.12	0.12
Class C	1.70	0.04	0.02	1.72	0.08	0.04	0.92	0.08	0.04	0.69	0.11	0.05
Class D	10.19	0.23	0.12	14.60	0.68	0.53	7.09	0.65	0.60	2.59	0.39	0.16
TOTAL	50.42	1.16	5.74	82.25	3.84	18.35	40.18	3.64	18.04	17.52	2.63	14.57

Species Group	Trees by Diameter Class												
	50-60			60-70			70+			Total			
	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	S.E%
Sp. class	2.37	0.54	4.22	0.70	0.22	1.81	0.13	0.07	0.58	101.9	6.64	50.45	7.7
Class A	2.29	0.51	3.59	1.02	0.33	2.24	0.63	0.34	2.56	48.19	3.89	18.97	9.8
Class B	0.26	0.06	0.02	0.15	0.05	0.02	0.10	0.04	0.02	8.37	0.65	0.78	39.4
Class C	0.26	0.06	0.03	0.19	0.06	0.03	0.13	0.07	0.03	5.62	0.50	0.22	17.0
Class D	1.49	0.34	0.14	0.38	0.12	0.05	0.60	0.31	0.13	36.95	2.72	1.74	7.0
TOTAL	6.67	1.51	8.01	2.45	0.78	4.15	1.59	0.83	3.32	201.1	14.40	72.16	5.6

NOTE : NT - No. of trees
Vol - Volume in cu m/ha
Sp. Class - Special Class
BA - Basal area in sqm/ha
S.E. - Sampling Error
T - Teak
OT - Teak with other species
LRS - Long Rotation Species
Mo - Moluccana
Eu - Eucalyptus spp.
Am - Acacia mangium
Ac - Acacia auriculiformis
Kd - Anthocephalus cadamba (chinensis)

Plantation forest : Stratum 6 (T/OT, 1960-1979)

No. of plot clusters : 237

Species Group	Trees by Diameter Class											
	15-20			20-30			30-40			40-50		
	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol
Sp. class	33.68	0.77	6.54	41.90	1.87	13.95	10.13	0.88	6.35	1.89	0.28	2.11
Class A	6.60	0.15	0.42	10.85	0.50	2.24	4.32	0.37	1.73	1.33	0.21	1.35
Class B	2.29	0.05	0.07	4.00	0.18	0.75	1.46	0.13	0.28	0.57	0.09	0.12
Class C	1.78	0.04	0.02	2.78	0.13	0.20	0.94	0.08	0.24	0.56	0.08	0.31
Class D	11.63	0.26	0.14	14.43	0.64	1.61	4.60	0.42	1.32	1.56	0.23	0.79
TOTAL	55.99	1.28	7.19	73.96	3.31	18.74	21.44	1.89	9.92	5.92	0.88	4.68

Species Group	Trees by Diameter Class												
	50-60			60-70			70+			Total			
	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	S.E%
Sp. class	0.49	0.11	0.79	0.13	0.04	0.33	0.06	0.02	0.17	88.28	3.97	30.24	7.1
Class A	0.45	0.10	0.68	0.23	0.08	0.61	0.13	0.07	0.54	23.91	1.47	7.57	12.4
Class B	0.25	0.05	0.14	0.04	0.01	0.01	0.09	0.05	0.08	8.70	0.56	1.45	19.6
Class C	0.39	0.09	0.44	0.02	0.01	0.00	0.04	0.03	0.11	6.52	0.46	1.33	38.5
Class D	0.32	0.07	0.10	0.16	0.05	0.02	0.23	0.16	1.07	32.93	1.84	5.05	12.7
TOTAL	1.90	0.43	2.15	0.58	0.19	0.97	0.54	0.33	1.97	160.3	8.31	45.63	5.2

Plantation forest : Stratum 7/8 (T/OT, 1980 and up)

No. of plot clusters : 117

Species Group	Trees by Diameter Class											
	15-20			20-30			30-40			40-50		
	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol
Sp. class	41.17	0.92	7.61	21.68	0.92	7.08	2.90	0.24	1.69	0.34	0.05	0.35
Class A	11.71	0.26	0.77	8.73	0.38	1.36	1.99	0.17	0.85	0.97	0.14	0.64
Class B	2.47	0.05	0.22	1.55	0.07	0.13	0.31	0.03	0.03	0.05	0.01	0.00
Class C	1.49	0.03	0.02	1.59	0.07	0.12	0.30	0.03	0.01	0.08	0.01	0.01
Class D	9.02	0.20	0.10	8.04	0.36	0.36	2.02	0.18	0.62	0.76	0.11	0.31
TOTAL	65.86	1.47	8.71	41.59	1.79	9.05	7.50	0.65	3.21	2.21	0.32	1.30

Species Group	Trees by Diameter Class												
	50-60			60-70			70+			Total			
	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	S.E%
Sp. class	0.17	0.04	0.24	-	-	-	-	-	-	66.26	2.17	16.95	13.3
Class A	0.47	0.11	0.82	0.23	0.08	0.63	0.14	0.07	0.59	24.23	1.21	5.65	24.9
Class B	0.04	0.01	0.00	-	-	-	-	-	-	4.42	0.17	0.39	33.1
Class C	0.08	0.02	0.01	-	-	-	-	-	-	3.54	0.16	0.17	50.5
Class D	0.13	0.03	0.01	0.24	0.08	0.03	0.08	0.04	0.02	20.29	1.00	1.46	63.4
TOTAL	0.89	0.20	1.08	0.47	0.16	0.66	0.22	0.11	0.61	118.8	4.70	24.62	11.4

Plantation forest : Stratum 9/10 (Other LRS)

No. of plot clusters : 95

Species Group	Trees by Diameter Class											
	15-20			20-30			30-40			40-50		
	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol
Sp. class	13.81	0.32	2.78	8.56	0.39	3.06	1.30	0.11	0.77	0.46	0.07	0.53
Class A	8.91	0.20	0.85	7.03	0.31	1.38	1.69	0.15	0.77	2.27	0.34	2.46
Class B	13.36	0.31	2.37	12.37	0.54	5.39	2.37	0.21	2.08	0.27	0.04	0.23
Class C	6.22	0.14	0.49	1.24	0.05	0.19	0.10	0.01	0.01	0.10	0.02	0.01
Class D	4.38	0.10	0.06	4.31	0.19	0.24	1.56	0.15	0.11	0.72	0.11	0.29
TOTAL	46.68	1.07	6.55	33.51	1.48	10.27	7.03	0.63	3.73	3.83	0.58	3.52

Species Group	Trees by Diameter Class												
	50-60			60-70			70+			Total			
	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	S.E%
Sp. class	0.21	0.04	0.32	-	-	-	-	-	-	24.35	0.94	7.46	17.8
Class A	0.93	0.20	1.91	0.10	0.03	0.14	-	-	-	20.93	1.24	7.51	16.6
Class B	0.06	0.01	0.01	0.15	0.05	0.22	-	-	-	28.59	1.17	10.30	34.1
Class C	-	-	-	-	-	-	-	-	-	7.66	0.22	0.69	46.9
Class D	0.31	0.07	0.08	0.05	0.02	0.01	0.05	0.03	0.01	11.39	0.66	0.82	48.8
TOTAL	1.51	0.33	2.32	0.31	0.10	0.36	0.05	0.03	0.01	92.91	4.23	26.78	14.5

Plantation forest : Stratum 11 (Mo, up to 1989)

No. of plot clusters : 26

Species Group	Trees by Diameter Class											
	15-20			20-30			30-40			40-50		
	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol
Sp. class	0.20	0.01	0.04	0.40	0.02	0.11	0.61	0.06	0.49	0.40	0.06	0.55
Class A	5.26	0.12	0.66	2.88	0.13	0.61	-	-	-	-	-	-
Class B	56.51	1.29	11.54	52.01	2.23	21.29	4.76	0.42	4.25	1.37	0.20	2.02
Class C	1.62	0.04	0.15	-	-	-	-	-	-	-	-	-
Class D	1.21	0.03	0.02	0.20	0.01	0.01	-	-	-	-	-	-
TOTAL	64.81	1.48	12.41	55.50	2.39	22.02	5.36	0.48	4.74	1.77	0.26	2.57

Species Group	Trees by Diameter Class												
	50-60			60-70			70+			Total			
	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	S.E%
Sp. class	-	-	-	-	-	-	-	-	-	1.62	0.15	1.19	100.0
Class A	-	-	-	-	-	-	-	-	-	8.14	0.25	1.28	56.1
Class B	-	-	-	-	-	-	-	-	-	114.6	4.14	39.10	21.8
Class C	-	-	-	-	-	-	-	-	-	1.62	0.04	0.15	98.4
Class D	0.20	0.05	0.02	-	-	-	-	-	-	1.62	0.09	0.04	52.5
TOTAL	0.20	0.05	0.02	-	-	-	-	-	-	127.6	4.66	41.76	20.0

Plantation forest : Stratum 12/13 (Eu/Am/Ac/Kd/Others)

No. of plot clusters : 92

Species Group	Trees by Diameter Class											
	15-20			20-30			30-40			40-50		
	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol
Sp. class	1.94	0.04	0.38	0.80	0.03	0.24	0.11	0.01	0.07	0.06	0.01	0.07
Class A	8.29	0.19	0.65	2.67	0.11	0.30	0.19	0.02	0.07	-	-	-
Class B	13.10	0.28	1.47	2.76	0.11	0.62	0.80	0.07	0.34	0.17	0.02	0.06
Class C	8.92	0.20	0.79	2.76	0.10	0.48	-	-	-	0.11	0.02	0.01
Class D	0.92	0.02	0.02	1.24	0.06	0.12	0.34	0.03	0.04	0.23	0.03	0.08
TOTAL	33.17	0.73	3.31	10.24	0.41	1.75	1.44	0.13	0.53	0.57	0.09	0.21

Species Group	Trees by Diameter Class												
	50-60			60-70			70+			Total			
	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	S.E%
Sp. class	0.06	0.01	0.07	-	-	-	-	-	-	2.97	0.11	0.83	33.4
Class A	0.11	0.03	0.15	-	-	-	-	-	-	11.27	0.33	1.18	26.8
Class B	-	-	-	-	-	-	-	-	-	16.83	0.48	2.50	21.6
Class C	-	-	-	0.07	0.02	0.11	-	-	-	11.87	0.34	1.37	25.8
Class D	-	-	-	-	-	-	0.06	0.03	0.01	2.79	0.17	0.26	59.7
TOTAL	0.17	0.04	0.23	0.07	0.02	0.11	0.06	0.03	0.01	45.72	1.44	6.14	14.0

Plantation forest : Stratum 14/15 (EN/FP)

No. of plot clusters : 79

Species Group	Trees by Diameter Class											
	15-20			20-30			30-40			40-50		
	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol
Sp. class	2.27	0.06	0.40	3.34	0.15	0.95	0.93	0.09	0.51	0.15	0.02	0.18
Class A	1.77	0.04	0.08	2.09	0.10	0.40	1.09	0.10	0.47	0.44	0.06	0.49
Class B	1.24	0.03	0.10	1.72	0.08	0.70	0.64	0.05	0.52	0.17	0.02	0.10
Class C	1.97	0.04	0.15	0.74	0.03	0.15	0.20	0.02	0.07	0.15	0.02	0.05
Class D	1.03	0.02	0.02	5.56	0.27	2.21	1.77	0.16	0.96	0.82	0.13	1.01
TOTAL	8.29	0.19	0.73	13.45	0.63	4.41	4.63	0.42	2.53	1.73	0.26	1.83

Species Group	Trees by Diameter Class												
	50-60			60-70			70+			Total			
	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	S.E%
Sp. class	0.05	0.01	0.07	0.10	0.03	0.26	-	-	-	6.85	0.36	2.36	47.6
Class A	0.44	0.10	0.60	0.25	0.08	0.55	0.34	0.17	1.36	6.43	0.67	3.93	36.1
Class B	0.20	0.04	0.47	0.10	0.03	0.21	0.10	0.05	0.17	4.17	0.31	2.27	28.9
Class C	0.05	0.01	0.09	0.10	0.03	0.23	0.05	0.03	0.01	3.25	0.18	0.75	53.8
Class D	0.43	0.10	0.59	0.44	0.14	1.22	0.39	0.21	1.79	10.44	1.03	7.79	26.9
TOTAL	1.16	0.27	1.81	0.98	0.31	2.46	0.89	0.46	3.33	31.13	2.54	17.10	19.6

Plantation Forest : All strata (Except 14/15) Total No. of plot clusters : 726

Species Group	Trees by Diameter Class											
	15-20			20-30			30-40			40-50		
	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol
Sp. class	26.31	0.60	5.04	27.42	1.23	9.21	7.46	0.66	4.78	2.03	0.30	2.28
Class A	8.58	0.19	0.61	9.89	0.45	1.73	3.53	0.31	1.35	1.71	0.26	1.63
Class B	6.37	0.14	0.85	5.56	0.24	1.71	1.49	0.13	0.62	0.42	0.06	0.15
Class C	3.30	0.07	0.19	2.13	0.09	0.19	0.56	0.05	0.10	0.36	0.05	0.13
Class D	8.33	0.19	0.10	9.85	0.44	0.82	3.39	0.31	0.73	1.23	0.18	0.44
TOTAL	52.89	1.20	6.80	54.85	2.45	13.66	16.42	1.46	7.58	5.74	0.86	4.63

Species Group	Trees by Diameter Class												
	50-60			60-70			70+			Total			
	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	S.E%
Sp. class	0.57	0.13	0.97	0.14	0.04	0.36	0.04	0.02	0.14	63.97	2.98	22.79	4.8
Class A	0.73	0.16	1.22	0.28	0.09	0.66	0.16	0.08	0.65	24.88	1.55	7.86	7.0
Class B	0.15	0.03	0.06	0.06	0.02	0.04	0.05	0.02	0.03	14.10	0.66	3.46	18.1
Class C	0.20	0.05	0.18	0.04	0.01	0.02	0.03	0.02	0.05	6.62	0.35	0.86	24.8
Class D	0.40	0.09	0.07	0.16	0.05	0.02	0.20	0.12	0.45	23.56	1.39	2.63	11.6
TOTAL	2.05	0.46	2.50	0.69	0.22	1.11	0.47	0.27	1.32	133.1	6.92	37.60	3.6

Simple random sample mean : 40.69
Variance of mean : 1.62
Simple random sample sampling error : 3.97

Stand Tables by Species, Stratum and Division for Seedlings, Saplings and Poles
(No. of stems/ha) .

Division : Sylhet (11) Date : 02/04/1998

Species Group : 1. Special Class 2. Class A 3. Class B 4. Class C 5. Class D

Natural Forest : Stratum 1/2 (HF/LF) No. of plot Clusters : 104

Species group	Seedlings		Saplings		Poles by Diameter Class (in cm)				
					5-10	10-15	15-20	Total	
	No./ha	S.E%	No./ha	S.E%	No./ha	No./ha	No./ha	No./ha	S.E%
Sp. class	12.25	100.0	5.74	100.0	8.57	2.94	-	11.51	47.6
Class A	2442.12	17.3	218.95	20.2	34.44	31.65	10.65	76.74	13.0
Class B	189.86	46.7	22.20	30.3	20.45	9.30	2.75	32.50	35.4
Class C	146.99	48.9	25.26	38.3	8.02	6.92	5.69	20.63	15.7
Class D	5797.30	13.5	840.71	10.1	139.10	103.70	30.73	273.52	7.0
TOTAL	8588.52	11.4	1112.87	9.5	210.58	154.50	49.83	414.91	6.7

NOTE: S.E.% -> Sampling error

Natural Forest : Stratum 3 (ST) No. of plot Clusters : 16

Species group	Seedlings		Saplings		Poles by Diameter Class (in cm)				
					5-10	10-15	15-20	Total	
	No./ha	S.E%	No./ha	S.E%	No./ha	No./ha	No./ha	No./ha	S.E%
Sp. class	607.09	35.2	84.60	45.0	7.16	1.99	-	9.15	71.8
Class A	1174.36	66.2	57.23	50.0	7.96	-	-	7.96	81.2
Class B	-	-	79.62	77.5	30.24	14.32	-	44.56	60.3
Class C	-	-	-	-	5.17	-	-	5.17	54.1
Class D	79.62	100.0	129.38	58.3	10.35	3.58	-	13.93	37.4
TOTAL	1861.07	49.6	350.82	30.4	60.88	19.89	-	80.77	38.8

Natural Forest : Stratum 4 (B/BO/OB) No. of plot Clusters : 159

Species group	Seedlings		Saplings		Poles by Diameter Class (in cm)				
					5-10	10-15	15-20	Total	
	No./ha	S.E%	No./ha	S.E%	No./ha	No./ha	No./ha	No./ha	S.E%
Sp. class	-	-	1.38	579.7	0.29	1.13	0.06	1.47	282.2
Class A	784.61	27.5	67.82	17.7	16.62	17.54	2.26	36.43	15.3
Class B	45.59	44.2	7.43	68.4	5.50	8.33	1.03	14.86	26.5
Class C	140.93	27.9	22.11	28.2	4.06	6.66	2.04	12.76	18.6
Class D	4602.06	12.8	603.01	11.3	80.21	70.20	7.93	158.34	7.7
TOTAL	5573.18	11.5	701.74	10.2	106.68	103.86	13.33	223.86	8.9

Natural Forest : All strata Total No. of Plot clusters : 279

Species group	Seedlings		Saplings		Poles by Diameter Class (in cm)				
					5-10	10-15	15-20	Total	
	No./ha	S.E%	No./ha	S.E%	No./ha	No./ha	No./ha	No./ha	S.E%
Sp. class	23.78	33.6	4.96	140.3	1.51	1.38	0.05	2.93	122.1
Class A	993.54	19.2	85.17	13.4	18.39	18.55	3.17	40.11	12.1
Class B	60.85	32.8	11.82	41.7	8.17	8.66	1.19	18.02	20.7
Class C	136.45	25.1	21.66	24.9	4.57	6.44	2.40	13.40	15.2
Class D	4575.97	11.0	613.49	9.6	84.55	71.68	10.32	166.55	6.3
TOTAL	5790.60	9.6	737.09	8.4	117.19	106.71	17.12	241.02	7.1

Simple random sample sampling errors of Seedlings, Saplings and Poles are :
9.1, 7.9 and 6.8

Stand Tables by Species, Stratum and Division for Seedlings, Saplings and Poles
(No. of stems/ha) .

Division : Sylhet (11) Date : 02/04/1998

Species Group : 1. Special Class 2. Class A 3. Class B 4. Class C 5. Class D

Plantation forest : Stratum 5 (T/OT, up to 1959) No. of plot Clusters: 159

Species group	Seedlings		Saplings		Poles by Diameter Class (in cm)			
					2.5-5	5-10	10-15	Total
	No./ha	S.E%	No./ha	S.E%	No./ha	No./ha	No./ha	No./ha S.E%
Sp. class	42.21	44.9	17.19	41.9	15.63	32.53	32.47	80.64 12.4
Class A	1552.39	21.4	166.27	18.4	27.42	32.84	27.14	87.40 11.7
Class B	31.98	52.8	9.27	34.6	3.40	7.22	4.03	14.65 17.6
Class C	19.19	46.1	7.35	39.6	7.75	8.32	4.22	20.29 20.8
Class D	1846.88	16.7	431.74	16.9	76.50	69.61	31.40	177.50 8.5
TOTAL	3492.63	15.0	631.83	14.8	130.70	150.53	99.25	380.48 5.6

NOTE: S.E.% -> Sampling error

Plantation forest : Stratum 6 (T/OT, 1960-1979) No. of plot Clusters: 237

Species group	Seedlings		Saplings		Poles by Diameter Class (in cm)			
					2.5-5	5-10	10-15	Total
	No./ha	S.E%	No./ha	S.E%	No./ha	No./ha	No./ha	No./ha S.E%
Sp. class	54.44	32.5	32.20	42.5	20.28	56.51	60.85	137.65 8.4
Class A	673.04	25.8	94.16	16.2	16.99	31.58	26.03	74.60 10.2
Class B	118.26	48.4	21.51	31.8	6.41	9.21	5.52	21.14 12.8
Class C	78.84	48.6	16.78	41.0	8.28	9.61	6.11	24.00 15.4
Class D	1812.48	11.4	506.10	14.0	86.44	104.96	49.43	240.83 7.5
TOTAL	2737.06	11.7	670.75	12.3	138.40	211.87	147.94	498.22 5.4

Plantation forest : Stratum 7/8 (T/OT, 1980 and up) No. of plot Clusters: 117

Species group	Seedlings		Saplings		Poles by Diameter Class (in cm)				
					2.5-5	5-10	10-15	Total	
	No./ha	S.E%	No./ha	S.E%	No./ha	No./ha	No./ha	No./ha	S.E%
Sp. class	35.96	58.1	26.97	30.1	48.19	130.39	125.34	303.92	8.8
Class A	970.82	39.7	108.51	18.8	41.33	82.74	49.39	173.46	11.9
Class B	30.82	49.2	17.98	35.9	11.23	28.65	22.80	62.67	20.4
Class C	133.55	43.4	19.26	34.1	9.81	9.50	5.96	25.26	21.2
Class D	2140.69	17.9	607.94	15.3	175.43	167.11	39.45	381.99	12.0
TOTAL	3311.84	18.4	780.66	13.2	285.98	418.39	242.93	947.30	7.0

Plantation forest : Stratum 9/10 (Other LRS) No. of plot Clusters: 95

Species group	Seedlings		Saplings		Poles by Diameter Class (in cm)				
					2.5-5	5-10	10-15	Total	
	No./ha	S.E%	No./ha	S.E%	No./ha	No./ha	No./ha	No./ha	S.E%
Sp. class	159.24	38.4	43.71	32.3	12.48	30.02	32.27	74.77	20.5
Class A	686.90	30.0	72.20	26.6	28.86	37.74	27.15	93.75	14.4
Class B	93.67	35.7	23.81	34.0	21.84	88.48	54.80	165.13	13.5
Class C	124.89	35.7	14.05	41.8	8.24	20.56	7.86	36.66	18.9
Class D	2870.92	21.3	361.40	19.5	71.13	82.45	11.98	165.56	13.9
TOTAL	3935.61	17.2	515.18	16.7	142.55	259.25	134.07	535.87	7.9

Plantation forest : Stratum 11 (Mo, up to 1989) No. of plot Clusters: 26

Species group	Seedlings		Saplings		Poles by Diameter Class (in cm)				
					2.5-5	5-10	10-15	Total	
	No./ha	S.E%	No./ha	S.E%	No./ha	No./ha	No./ha	No./ha	S.E%
Sp. class	24.50	100.0	-	-	2.94	5.88	1.96	10.77	100.0
Class A	226.61	66.4	93.40	35.8	22.28	24.49	12.98	59.74	27.2
Class B	40.83	100.0	105.65	58.6	32.08	34.77	72.23	139.08	22.7
Class C	226.61	62.6	27.56	61.9	8.08	10.77	8.81	27.67	32.3
Class D	2155.81	37.5	330.72	41.5	103.82	77.13	17.14	198.09	30.0
TOTAL	2674.34	33.5	557.33	26.6	169.20	153.03	113.12	435.35	19.7

Plantation forest : Stratum 12/13 (Eu/Am/Ac/Kd/Others) No. of plot Clusters: 92

Species group	Seedlings		Saplings		Poles by Diameter Class (in cm)				
					2.5-5	5-10	10-15	Total	
	No./ha	S.E%	No./ha	S.E%	No./ha	No./ha	No./ha	No./ha	S.E%
Sp. class	41.54	70.3	13.85	63.2	4.98	5.54	4.15	14.67	30.7
Class A	200.20	27.7	46.73	31.0	61.66	145.18	23.04	229.88	21.8
Class B	27.69	60.7	36.35	42.9	78.08	197.61	79.76	355.45	11.0
Class C	6.92	100.0	13.85	49.2	18.61	35.73	33.56	87.90	20.0
Class D	814.06	25.7	136.59	20.8	65.32	58.56	9.41	133.30	11.9
TOTAL	1090.42	21.6	247.37	16.9	228.65	442.61	149.93	821.20	6.8

Plantation forest : Stratum 14/15 (EN/FP)

No. of plot Clusters: 79

Species group	Seedlings		Saplings		Poles by Diameter Class (in cm)				
					2.5-5	5-10	10-15	Total	
	No./ha	S.E%	No./ha	S.E%	No./ha	No./ha	No./ha	No./ha	S.E%
Sp. class	-	-	4.47	135.4	16.90	8.45	4.11	29.45	71.0
Class A	350.71	54.6	58.78	45.7	12.30	18.03	7.68	38.00	38.7
Class B	5.95	135.4	30.14	19.1	13.86	29.03	11.07	53.96	35.5
Class C	-	-	10.42	87.9	5.47	7.52	10.95	23.94	48.3
Class D	1220.32	19.4	215.29	19.6	16.22	33.20	6.90	56.32	21.3
TOTAL	1576.99	19.9	319.10	17.1	64.75	96.23	40.70	201.68	18.3

Plantation Forest : All strata (Except 14/15)

Total No. of Plot clusters : 726

Species group	Seedlings		Saplings		Poles by Diameter Class (in cm)				
					2.5-5	5-10	10-15	Total	
	No./ha	S.E%	No./ha	S.E%	No./ha	No./ha	No./ha	No./ha	S.E%
Sp. class	65.26	20.9	28.56	21.7	21.10	54.84	55.82	131.76	5.4
Class A	778.54	14.2	96.80	9.1	29.88	54.78	29.82	114.48	6.9
Class B	75.76	31.1	22.92	16.9	18.28	48.14	26.48	92.89	6.9
Class C	82.50	24.0	15.37	21.0	9.67	14.34	9.39	33.40	8.9
Class D	1941.55	8.0	443.35	8.1	95.80	101.39	33.79	230.98	5.1
TOTAL	2943.62	7.3	607.00	6.9	174.72	273.49	155.30	603.51	3.1

Simple random sample sampling errors of Seedlings, Saplings and Poles are :
7.15, 6.68 and 3.25

Stand Tables by Stratum and Division for Bamboo, Rattan and Medicinal Plants ;
No. of stems/ha

Division : Sylhet (11) Date : 02/04/1998

Natural Forest :

Stratum	No. of Plot Cluster	SST Bamboo(303) No. of Im. Stems	SST Bamboo(303) NO. of mat stems	SST Bamboo(303) Total No of stems	SST Bamboo(303) S.E. (%)	Other Bamboo(301,302,304-39) NO. of Im. stems	Other Bamboo(301,302,304-39) No. of mat stems	Other Bamboo(301,302,304-39) Total No of stems	Other Bamboo(301,302,304-39) S.E. (%)
1/2	104	0.73	-	0.73	100.0	4503.30	858.01	5361.31	8.0
3	16	-	-	-	-	1285.68	-	1285.68	76.1
4	159	6155.44	5089.99	11245.42	5.4	4568.40	3371.79	7940.19	13.3
All strata	279	3508.21	2900.75	6408.96	8.0	4355.87	2241.39	6597.27	13.6

Stratum	No. of Plot Cluster	Rattan No. of Stems <3	Rattan NO. of stems>=3	Rattan Total No of stems	Rattan S.E. (%)	Medicinal Plants
1/2	104	131.61	13.71	145.32	50.6	4.59
3	16	24.87	-	24.87	100.0	-
4	159	5.52	0.14	5.66	72.0	52.48
All strata	279	53.63	5.19	58.82	15.9	31.62

NOTE: Stratum : 1. HF - large crown high forest, >50% crown closure
2. LF - small crown high forest, >50% crown closure
3. ST - scattered trees, about 20% crown closure
4. B/BO/OB - Bamboo (>80% stocking)/Bamboo (<80% stocking) /Bamboo (dominant) with other species

Im stems - Immature stems
Mat stems - Mature stems
SST Bamboo - Solitary stem Bamboo
S.E.% - Sampling error

Stand Tables by Stratum and Division for Bamboo, Rattan and Medicinal Plants ;
No. of stems/ha

Division : Sylhet (11) Date : 02/08/1998

Plantation Forest :

Stratum	No. of Plot Cluster	SST Bamboo(303) No. of Im. Stems	SST Bamboo(303) NO. of mat stems	SST Bamboo(303) Total No of stems	SST Bamboo(303) S.E. (%)	Other Bamboo(301,302,304-39) NO. of Im. stems	Other Bamboo(301,302,304-39) No. of mat stems	Other Bamboo(301,302,304-39) Total No of stems	Other Bamboo(301,302,304-39) S.E. (%)
5	159	436.90	701.99	1138.90	13.1	3035.38	949.50	3984.89	11.0
6	237	470.64	711.35	1181.99	11.5	3510.11	1349.02	4859.12	9.6
7/8	117	31.01	21.36	52.37	83.5	2478.15	1295.39	3773.54	11.6
9/10	95	61.17	98.61	159.78	106.4	3280.25	274.62	3554.87	10.5
11	26	19.59	-	19.59	81.7	2687.29	-	2687.29	17.6
12/13	92	-	-	-	-	2003.72	-	2003.72	13.0
14/15	79	313.20	153.03	466.23	18.0	2176.11	68.42	2244.53	17.6
All strata	726	297.11	418.96	716.07	9.6	3226.19	900.47	4126.66	5.9

Stratum	No. of Plot Cluster	Rattan No. of Stems <3	Rattan NO. of stems>=3	Rattan Total No of stems	Rattan S.E.%	Medicinal Plants
5	159	79.58	10.89	90.47	35.1	21.09
6	237	61.44	4.03	65.46	48.5	11.12
7/8	117	47.49	3.29	50.78	57.5	7.70
9/10	95	53.05	5.24	58.30	55.9	26.53
11	26	-	-	-	-	-
12/13	92	1.73	-	1.73	100.0	24.22
14/15	79	5.95	-	5.95	135.4	-
All strata	726	52.95	4.92	57.86	26.4	16.03

Legend: Stratum :
5. T/OT, up to 1959
6. T/OT, 1960-1979
7. T/OT, 1980 and up
10. Other LRS
11. Mo, up to 1989
12. Eu/Am/Ac/Kd/Others, up to 1989
13. Eu/Am/Ac/Kd/Others, 1990 & up
15. Others

Im stems - Immature stems
Mat stems - Mature stems
SST Bamboo - Solitary stem Bamboo
S.E.% - Sampling error
All strata - All strata (Except 14/15)

APPENDIX 8

Detailed Forest Statistics (Division-Wide Estimates)

Forest Statistics by Species Group, Stratum and Forest Division :
No. of Trees (nearest 10), Basal Area (nearest 10 sqm) and Volume (nearest 10 cu m)].

Division : Sylhet (11) Date : 02/04/1998

Species Group : 1. Special Class 2. Class A 3. Class B 4. Class C 5. Class D

Natural Forest : Stratum 1/2 (HF/LF)

Stratum Area : 2781.60 Ha

Trees by Diameter Class

Species Group	20-30			30-40			40-50			50-60		
	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol
Sp. clas	1300	50	330	560	50	390	280	50	340	280	60	500
Class A	26480	1240	11030	19600	1780	17030	13230	1900	19580	6790	1550	16080
Class B	8800	410	3990	8120	750	7510	4930	710	6960	2290	530	5710
Class C	10340	490	4540	13280	1260	11100	12280	1840	15440	3940	870	7890
Class D	76950	3450	34310	40960	3640	37920	19850	2930	31400	7110	1640	16970
TOTAL	123870	5640	54210	82510	7480	73950	50570	7420	73720	20410	4640	47150

Trees by Diameter Class

Species Group	60-70			70-80			80+			Total			
	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	S.E%
Sp. clas	-	-	-	-	-	-	-	-	-	2430	200	1560	66.3
Class A	2630	810	8210	2110	920	8940	1940	1210	12350	72760	9420	93220	9.4
Class B	1130	350	3080	420	180	1840	280	180	1280	25950	3110	30370	12.5
Class C	2960	910	8210	420	170	1370	140	100	910	43350	5630	49450	12.7
Class D	3240	1020	9690	990	430	4660	1130	800	6910	150220	13910	141880	7.8
TOTAL	9940	3100	29200	3940	1690	16800	3480	2300	21450	294720	32270	316480	5.9

Natural Forest : Stratum 3 (ST)

Stratum Area : 871.80 Ha

Species Group	Trees by Diameter Class											
	20-30			30-40			40-50			50-60		
	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol
Sp. clas	2870	160	1310	1080	90	710	360	50	280	-	-	-
Class A	2150	90	380	1080	100	1170	360	50	20	360	100	500
Class B	360	20	10	360	40	20	-	-	-	-	-	-
Class C	2920	140	790	3230	310	2560	1790	270	3020	360	80	820
Class D	2750	150	160	1190	120	540	360	60	20	360	80	430
TOTAL	11040	560	2650	6930	660	5000	2870	420	3340	1080	250	1750

Species Group	Trees by Diameter Class												
	60-70			70-80			80+			Total			
	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	S.E%
Sp. clas	-	-	-	-	-	-	-	-	-	4300	290	2300	87.9
Class A	360	120	750	360	140	60	-	-	-	4660	590	2870	61.7
Class B	360	100	860	-	-	-	-	-	-	1080	170	890	96.5
Class C	-	-	-	-	-	-	480	340	140	8770	1140	7340	97.1
Class D	480	130	60	-	-	-	-	-	-	5140	530	1210	85.4
TOTAL	1190	350	1670	360	140	60	480	340	140	23940	2710	14610	71.3

Natural Forest : Stratum 4 (B/BO/OB)

Stratum Area : 20039.60 . Ha

Trees by Diameter Class

Species Group	20-30			30-40			40-50			50-60		
	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol
Sp. clas	7970	370	3670	690	60	440	-	-	-	-	-	-
Class A	-	6620	57470	85900	7870	67830	30040	4270	39720	9230	2200	21920
Class B	62770	2930	34610	49400	4290	42520	14320	2120	22320	5910	1360	13630
Class C	57240	2850	28940	26900	2380	19680	14750	2260	19260	16580	3870	32890
Class D	-	13040	-	91110	8100	85950	34980	5410	60120	11480	2590	28760
TOTAL	571590	25810	278050	254000	22700	216450	94100	14060	141420	43200	10020	97190

Trees by Diameter Class

Species Group	60-70			70-80			80+			Total			
	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	S.E%
Sp. clas	-	-	-	-	-	-	-	-	-	8650	430	4110	101.6
Class A	6860	2250	20340	6780	2790	25830	3000	1920	18600	279100	27920	251720	11.2
Class B	1940	640	5590	5490	2300	23770	-	-	-	139840	13640	142440	11.8
Class C	7430	2240	20480	7320	2950	25690	920	460	4630	131140	17010	151560	22.0
Class D	10690	3340	37250	2860	1190	14150	-	-	-	457450	33660	379570	10.5
TOTAL	26930	8480	83670	22440	9230	89440	3920	2380	23230	1016180	92670	929440	9.3

Natural Forest : All strata

Total Area : 23693.00 Ha

Trees by Diameter Class

Species Group	20-30			30-40			40-50			50-60		
	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol
Sp. clas	12140	570	5310	2320	200	1550	640	90	620	280	60	500
Class A	165930	7960	68880	106570	9750	86030	43620	6210	59320	16370	3850	38510
Class B	71930	3360	38610	57880	5090	50050	19250	2830	29290	8200	1890	19340
Class C	70490	3480	34270	43400	3940	33340	28820	4380	37710	20880	4810	41590
Class D	386020	16630	187810	133270	11860	124410	55200	8400	91550	18950	4300	46160
TOTAL	706500	32010	334900	343440	30840	295400	147530	21910	218480	64680	14910	146100

Trees by Diameter Class

Species Group	60-70			70-80			80+			Total			
	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	S.E%
Sp. clas	-	-	-	-	-	-	-	-	-	15380	930	7970	59.6
Class A	9850	3180	29310	9250	3840	34830	4940	3130	30950	356530	37930	347820	8.5
Class B	3430	1090	9530	5910	2480	25610	280	180	1280	166860	16910	173710	10.0
Class C	10390	3160	28690	7740	3120	27060	1530	900	5680	183260	23780	208340	16.7
Class D	14410	4500	47000	3840	1620	18810	1130	800	6910	612810	48110	522660	7.9
TOTAL	38070	11920	114530	26740	11060	106300	7880	5020	44820	1334830	127650	1260520	7.1

Simple random sample sampling error : 7.83

Forest Statistics by Species Group, Stratum and Forest Division :
No. of Trees (nearest 10), Basal Area (nearest 10 sqm) and Volume (nearest 10 cu m)].

Division : Sylhet (11) Date : 02/08/1998

Species Group : 1. Special Class 2. Class A 3. Class B 4. Class C 5. Class D

Plantation Forest : Stratum 5 (T/OT, up to 1959)

Stratum Area : 2326.30 Ha

Trees by Diameter Class

Species Group	15-20			20-30			30-40			40-50		
	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol
Sp. clas	60280	1390	11430	100670	4710	34810	48630	4410	32900	20120	3010	22830
Class A	24820	590	1490	45770	2130	5950	21110	1900	6860	11240	1680	10320
Class B	4540	100	100	6930	330	590	5090	470	710	1750	280	270
Class C	3960	80	40	4000	180	90	2140	200	90	1620	250	110
Class D	23710	540	280	33970	1580	1230	16500	1500	1400	6030	900	380
TOTAL	117300	2700	13340	191330	8930	42680	93460	8480	41960	40760	6120	33900

Trees by Diameter Class

Species Group	50-60			60-70			70+			Total			
	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	S.E%
Sp. clas	5510	1250	9820	1630	520	4220	310	170	1350	237150	15440	117350	7.7
Class A	5320	1200	8340	2380	760	5210	1480	800	5950	112120	9050	44130	9.8
Class B	610	130	60	340	110	50	220	90	40	19480	1520	1810	39.4
Class C	610	150	60	440	150	60	300	150	70	13070	1160	520	17.0
Class D	3480	800	340	890	280	120	1390	730	310	85950	6320	4050	7.0
TOTAL	15530	3520	18620	5690	1810	9650	3690	1940	7710	467760	33490	167860	5.6

Plantation Forest : Stratum 6 (T/OT, 1960-1979)

Stratum Area : 7007.40 Ha

Trees by Diameter Class

Species Group	15-20			20-30			30-40			40-50		
	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol
Sp. clas	236030	5420	45850	293600	13110	97760	70990	6160	44470	13270	1930	14810
Class A	46240	1060	2940	76010	3490	15710	30240	2630	12120	9340	1440	9430
Class B	16030	370	500	28060	1250	5220	10220	900	1980	3970	610	850
Class C	12500	280	150	19510	880	1380	6560	590	1690	3950	600	2190
Class D	81520	1850	980	101120	4460	11250	32200	2950	9220	10950	1610	5560
TOTAL	392320	8980	50410	518290	23190	131330	150220	13210	69490	41480	6190	32820

Trees by Diameter Class

Species Group	50-60			60-70			70+			Total			
	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	S.E%
Sp. clas	3410	760	5540	880	280	2280	410	170	1180	618590	27840	211890	7.1
Class A	3190	710	4790	1630	530	4280	900	470	3760	167550	10320	53030	12.4
Class B	1760	380	1000	270	90	40	630	350	550	60940	3930	10130	19.6
Class C	2750	630	3080	140	40	10	270	180	800	45680	3190	9300	38.5
Class D	2240	520	690	1130	380	160	1580	1150	7520	230730	12920	35380	12.7
TOTAL	13340	3000	15090	4040	1310	6780	3800	2310	13810	1123490	58200	319710	5.2

Plantation Forest : Stratum 7/8 (T/OT, 1980 and up)

Stratum Area : 3083.00 Ha

Trees by Diameter Class

Species Group	15-20			20-30			30-40			40-50		
	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol
Sp. clas	126930	2840	23450	66850	2830	21820	8930	750	5200	1050	160	1060
Class A	36100	800	2370	26920	1170	4190	6130	530	2630	2990	440	1960
Class B	7620	170	680	4780	210	400	950	90	100	160	30	10
Class C	4580	110	50	4910	210	380	920	80	40	260	40	20
Class D	27820	620	310	24790	1100	1110	6210	570	1920	2340	340	940
TOTAL	203050	4530	26870	128230	5520	27900	23130	2000	9890	6800	1000	4000

Trees by Diameter Class

Species Group	50-60			60-70			70+			Total			
	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	S.E%
Sp. clas	520	120	740	-	-	-	-	-	-	204270	6690	52270	13.3
Class A	1440	330	2520	720	230	1930	430	210	1820	74720	3720	17420	24.9
Class B	130	30	10	-	-	-	-	-	-	13640	510	1210	33.1
Class C	260	60	30	-	-	-	-	-	-	10920	490	510	50.5
Class D	390	80	30	740	250	110	260	140	60	62560	3080	4490	63.4
TOTAL	2750	620	3330	1460	480	2040	690	350	1870	366110	14500	75890	11.4

Plantation Forest : Stratum 9/10 (Other LRS)

Stratum Area : 3001.80 Ha

Trees by Diameter Class

Species Group	15-20			20-30			30-40			40-50		
	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol
Sp. clas	41460	970	8340	25700	1180	9200	3910	340	2300	1390	200	1590
Class A	26750	590	2560	21100	930	4150	5070	460	2300	6810	1040	7380
Class B	40100	930	7110	37120	1630	16190	7120	630	6260	810	130	700
Class C	18660	430	1470	3720	140	570	310	40	20	310	50	20
Class D	13150	300	190	12940	580	730	4680	440	340	2170	340	880
TOTAL	140120	3210	19650	100580	4460	30830	21100	1900	11210	11500	1740	10580

Trees by Diameter Class

Species Group	50-60			60-70			70+			Total			
	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	S.E%
Sp. clas	620	140	970	-	-	-	-	-	-	73090	2810	22400	17.8
Class A	2790	600	5740	310	100	420	-	-	-	62830	3720	22530	16.6
Class B	190	40	20	470	160	650	-	-	-	85820	3520	30930	34.1
Class C	-	-	-	-	-	-	-	-	-	22990	650	2070	46.9
Class D	930	210	250	160	50	20	160	90	40	34180	1990	2450	48.8
TOTAL	4530	990	6980	930	300	1090	160	90	40	278900	12690	80380	14.5

Plantation Forest : Stratum 11 (Mo, up to 1989)

Stratum Area : 316.70 Ha

Species Group	Trees by Diameter Class											
	15-20			20-30			30-40			40-50		
	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol
Sp. clas	60	-	10	130	10	30	190	20	160	130	20	180
Class A	1670	40	210	910	40	190	-	-	-	-	-	-
Class B	17900	410	3650	16470	710	6740	1510	130	1350	430	60	640
Class C	510	10	50	-	-	-	-	-	-	-	-	-
Class D	390	10	10	60	-	-	-	-	-	-	-	-
TOTAL	20520	470	3930	17580	760	6970	1700	150	1500	560	80	820

Species Group	Trees by Diameter Class												
	50-60			60-70			70+			Total			
	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	S.E%
Sp. clas	-	-	-	-	-	-	-	-	-	510	50	380	100.0
Class A	-	-	-	-	-	-	-	-	-	2580	80	400	56.1
Class B	-	-	-	-	-	-	-	-	-	36310	1310	12380	21.8
Class C	-	-	-	-	-	-	-	-	-	510	10	50	98.4
Class D	60	20	10	-	-	-	-	-	-	510	30	10	52.5
TOTAL	60	20	10	-	-	-	-	-	-	40420	1480	13230	20.0

Plantation Forest : Stratum 12/13 (Eu/Am/Ac/Kd/Others)

Stratum Area : 2081.50 Ha

Trees by Diameter Class

Species Group	15-20			20-30			30-40			40-50		
	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol
Sp. clas	4050	90	790	1670	70	500	240	30	150	120	20	140
Class A	17260	390	1360	5570	220	620	390	30	150	-	-	-
Class B	27260	580	3060	5740	220	1290	1670	140	710	360	50	130
Class C	18570	410	1640	5740	220	990	-	-	-	240	40	20
Class D	1910	40	40	2590	120	240	710	60	80	480	70	160
TOTAL	69040	1520	6890	21310	850	3640	3010	270	1090	1190	180	450

Trees by Diameter Class

Species Group	50-60			60-70			70+			Total			
	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	S.E%
Sp. clas	120	20	150	-	-	-	-	-	-	6190	230	1730	33.4
Class A	240	60	320	-	-	-	-	-	-	23450	700	2450	26.8
Class B	-	-	-	-	-	-	-	-	-	35030	1000	5190	21.6
Class C	-	-	-	150	40	220	-	-	-	24700	720	2860	25.8
Class D	-	-	-	-	-	-	120	70	30	5800	360	550	59.7
TOTAL	360	80	470	150	40	220	120	70	30	95170	3000	12790	14.0

Plantation Forest : All strata (Except 14/15)

Total Area : 17816.70 Ha

Trees by Diameter Class

Species Group	15-20			20-30			30-40			40-50		
	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol
Sp. clas	468810	10710	89860	488610	21910	164120	132890	11700	85180	36080	5340	40610
Class A	152840	3460	10920	176270	7990	30810	62930	5550	24060	30380	4600	29090
Class B	113450	2560	15110	99090	4340	30440	26550	2360	11100	7480	1150	2600
Class C	58790	1320	3390	37870	1630	3410	9930	900	1830	6380	980	2350
Class D	148480	3360	1810	175470	7840	14570	60310	5520	12970	21970	3250	7920
TOTAL	942360	21400	121090	977310	43700	243340	292610	26020	135130	102290	15310	82560

Trees by Diameter Class

Species Group	50-60			60-70			70+			Total			
	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	NT	BA	Vol	S.E%
Sp. clas	10180	2280	17230	2520	790	6500	720	340	2530	1139800	53070	406020	4.8
Class A	12970	2890	21710	5040	1620	11840	2800	1480	11520	443230	27590	139960	7.0
Class B	2700	590	1080	1080	360	740	850	440	590	251210	11780	61640	18.1
Class C	3620	830	3160	730	230	290	570	330	860	117880	6220	15300	24.8
Class D	7100	1630	1310	2910	950	400	3510	2170	7950	419740	24700	46930	11.6
TOTAL	36560	8220	44490	12270	3950	19770	8450	4760	23460	2371860	123360	669850	3.6

Simple random sample sampling error : 3.97

Statistics by Species group, Stratum and Division for Seedlings, Saplings and Poles;
No of stems (nearest 10)

Division : Sylhet (11) Date : 02/04/1998

Species Group : 1. Special Class 2. class A 3. Class B 4. Class C 5. Class D

Natural Forest : Stratum 1/2 (HF/LF) Stratum Area : 2781.60 Ha

Species group	Seedlings		Saplings		Poles by Diameter Class (in cm)				
					5-10	10-15	15-20	Total	
	No. stems	S.E%	No. stems	S.E%	No. stems	No. stems	No. stems	No. stems	S.E%
Sp. class	34070	100.0	15970	100.0	23840	8170	-	32010	47.6
Class A	6793010	17.3	609030	20.2	95810	88030	29630	213470	13.0
Class B	528110	46.7	61750	30.3	56870	25880	7660	90420	35.4
Class C	408860	48.9	70270	38.3	22310	19240	15840	57380	15.7
Class D	16125770	13.5	2338520	10.1	386920	288440	85480	760830	7.0
TOTAL	23889820	11.4	3095550	9.5	585740	429770	138600	1154110	6.7

Natural Forest : Stratum 3 (ST) Stratum Area : 871.80 Ha

Species group	Seedlings		Saplings		Poles by Diameter Class (in cm)				
					5-10	10-15	15-20	Total	
	No. stems	S.E%	No. stems	S.E%	No. stems	No. stems	No. stems	No. stems	S.E%
Sp. class	529260	35.2	73750	45.0	6240	1730	-	7980	71.8
Class A	1023810	66.2	49890	50.0	6940	-	-	6940	81.2
Class B	-	-	69410	77.5	26360	12490	-	38850	60.3
Class C	-	-	-	-	4510	-	-	4510	54.1
Class D	69410	100.0	112790	58.3	9020	3120	-	12140	37.4
TOTAL	1622480	49.6	305850	30.4	53070	17340	-	70420	38.8

Natural Forest : Stratum 4 (B/BO/OB) Stratum Area : 20039.60 Ha

Species group	Seedlings		Saplings		Poles by Diameter Class (in cm)				
					5-10	10-15	15-20	Total	
	No. stems	S.E%	No. stems	S.E%	No. stems	No. stems	No. stems	No. stems	S.E%
Sp. class	-	-	27700	579.7	5720	22690	1110	29520	282.2
Class A	15723190	27.5	1359030	17.7	333060	351550	45390	729990	15.3
Class B	913690	44.2	148810	68.4	110280	166870	20620	297770	26.5
Class C	2824160	27.9	443020	28.2	81360	133390	40960	255710	18.6
Class D	92223340	12.8	12084000	11.3	1607390	1406710	158990	3173090	7.7
TOTAL	111684380	11.5	14062550	10.2	2137810	2081220	267050	4486080	8.9

Natural Forest : All strata Total Area : 23693.00 Ha

Species group	Seedlings		Saplings		Poles by Diameter Class (in cm)				
					5-10	10-15	15-20	Total	
	No. stems	S.E%	No. stems	S.E%	No. stems	No. stems	No. stems	No. stems	S.E%
Sp. class	563330	33.6	117420	140.3	35800	32600	1110	69510	122.1
Class A	23540010	19.2	2017950	13.4	435800	439580	75010	950390	12.1
Class B	1441800	32.8	279980	41.7	193510	205240	28280	427040	20.7
Class C	3233020	25.1	513290	24.9	108180	152630	56790	317600	15.2
Class D	108418520	11.0	14535310	9.6	2003330	1698280	244460	3946070	6.3
TOTAL	137196680	9.6	17463950	8.4	2776620	2528330	405660	5710600	7.1

Simple random sample sampling errors of Seedlings, Saplings and Poles are :
9.1, 7.9 and 6.8

Statistics by Species group, Stratum and Division for Seedlings, Saplings and Poles;
No of stems (nearest 10)

Division : Sylhet (11) Date : 02/08/1998

Species Group : 1. Special Class 2. class A 3. Class B 4. Class C 5. Class D

Plantation Forest : Stratum 5 (T/OT, up to 1959) Stratum Area: 2326.30 Ha

Species group	Seedlings		Saplings		Poles by Diameter Class (in cm)				
					2.5-5	5-10	10-15	Total	
	No. stems	S.E%	No. stems	S.E%	No. stems	No. stems	No. stems	No. stems	S.E%
Sp. class	98190	44.9	39980	41.9	36370	75680	75540	187590	12.4
Class A	3611320	21.4	386800	18.4	63790	76400	63140	203320	11.7
Class B	74380	52.8	21570	34.6	7910	16800	9370	34080	17.6
Class C	44630	46.1	17110	39.6	18020	19360	9810	47200	20.8
Class D	4296390	16.7	1004370	16.9	177960	161930	73040	412920	8.5
TOTAL	8124900	15.0	1469820	14.8	304050	350170	230890	885110	5.6

Plantation Forest : Stratum 6 (T/OT, 1960-1979) Stratum Area: 7007.40 Ha

Species group	Seedlings		Saplings		Poles by Diameter Class (in cm)				
					2.5-5	5-10	10-15	Total	
	No. stems	S.E%	No. stems	S.E%	No. stems	No. stems	No. stems	No. stems	S.E%
Sp. class	381510	32.5	225620	42.5	142140	395970	426430	964540	8.4
Class A	4716270	25.8	659800	16.2	119070	221300	182380	522760	10.2
Class B	828660	48.4	150760	31.8	44880	64570	38710	148160	12.8
Class C	552440	48.6	117600	41.0	58010	67350	42810	168170	15.4
Class D	12700770	11.4	3546450	14.0	605740	735480	346390	1687610	7.5
TOTAL	19179650	11.7	4700220	12.3	969840	1484670	1036710	3491220	5.4

Plantation Forest : Stratum 7/8 (T/OT, 1980 and up) Stratum Area: 3083.00 Ha

Species group	Seedlings		Saplings		Poles by Diameter Class (in cm)				
					2.5-5	5-10	10-15	Total	
	No. stems	S.E%	No. stems	S.E%	No. stems	No. stems	No. stems	No. stems	S.E%
Sp. class	110850	58.1	83140	30.1	148580	401990	386420	936980	8.8
Class A	2993040	39.7	334540	18.8	127420	255100	152270	534790	11.9
Class B	95020	49.2	55430	35.9	34610	88320	70280	193210	20.4
Class C	411740	43.4	59390	34.1	30230	29280	18360	77880	21.2
Class D	6599740	17.9	1874290	15.3	540850	515210	121610	1177680	12.0
TOTAL	10210400	18.4	2406780	13.2	881690	1289900	748940	2920530	7.0

Plantation Forest : Stratum 9/10 (Other LRS) Stratum Area: 3001.80 Ha

Species group	Seedlings		Saplings		Poles by Diameter Class (in cm)				
					2.5-5	5-10	10-15	Total	
	No. stems	S.E%	No. stems	S.E%	No. stems	No. stems	No. stems	No. stems	S.E%
Sp. class	477990	38.4	131220	32.3	37470	90120	96860	224450	20.5
Class A	2061930	30.0	216740	26.6	86620	113290	81500	281410	14.4
Class B	281170	35.7	71470	34.0	65570	265610	164500	495680	13.5
Class C	374900	35.7	42180	41.8	24730	61700	23610	110040	18.9
Class D	8617920	21.3	1084860	19.5	213520	247500	35970	496990	13.9
TOTAL	11813910	17.2	1546460	16.7	427920	778210	402440	1608560	7.9

Plantation Forest : Stratum 11 (Mo, up to 1989) Stratum Area: 316.70 Ha

Species group	Seedlings		Saplings		Poles by Diameter Class (in cm)				
					2.5-5	5-10	10-15	Total	
	No. stems	S.E%	No. stems	S.E%	No. stems	No. stems	No. stems	No. stems	S.E%
Sp. class	7760	100.0	-	-	930	1860	620	3410	100.0
Class A	71770	66.4	29580	35.8	7060	7760	4110	18920	27.2
Class B	12930	100.0	33460	58.6	10160	11010	22880	44050	22.7
Class C	71770	62.6	8730	61.9	2560	3410	2790	8760	32.3
Class D	682740	37.5	104740	41.5	32880	24430	5430	62730	30.0
TOTAL	846960	33.5	176510	26.6	53580	48470	35830	137880	19.7

Plantation Forest : Stratum 12/13 (Eu/Am/Ac/Kd/Others) Stratum Area: 2081.50 Ha

Species group	Seedlings		Saplings		Poles by Diameter Class (in cm)				
					2.5-5	5-10	10-15	Total	
	No. stems	S.E%	No. stems	S.E%	No. stems	No. stems	No. stems	No. stems	S.E%
Sp. class	86470	70.3	28820	63.2	10370	11520	8640	30540	30.7
Class A	416710	27.7	97280	31.0	128340	302190	47960	478490	21.8
Class B	57640	60.7	75660	42.9	162520	411320	166030	739870	11.0
Class C	14410	100.0	28820	49.2	38750	74370	69860	182970	20.0
Class D	1694470	25.7	284310	20.8	135970	121900	19590	277460	11.9
TOTAL	2269700	21.6	514890	16.9	475940	921300	312080	1709330	6.8

Plantation Forest : All strata (Except 14/15) Total Area : 17816.70 Ha

Species group	Seedlings		Saplings		Poles by Diameter Class (in cm)				
					2.5-5	5-10	10-15	Total	
	No. stems	S.E%	No. stems	S.E%	No. stems	No. stems	No. stems	No. stems	S.E%
Sp. class	1162760	20.9	508790	21.7	375860	977150	994510	2347510	5.4
Class A	13871030	14.2	1724730	9.1	532290	976030	531360	2039680	6.9
Class B	1349810	31.1	408340	16.9	325660	857630	471750	1655040	6.9
Class C	1469890	24.0	273820	21.0	172290	255480	167240	595010	8.9
Class D	34592030	8.0	7899010	8.1	1706920	1806440	602030	4115390	5.1
TOTAL	52445520	7.3	10814680	6.9	3113020	4872720	2766880	10752620	3.1

Simple random sample sampling errors of Seedlings, Saplings and Poles are :
7.15, 6.68 and 3.25

Statistics by Stratum and division for Bamboo, Rattan and Medicinal plants ;
No. of stems(nearest 10)

Division : Sylhet (11) Date : 02/04/1998

Natural Forest :

Stratum	Area (Ha)	SST Bamboo(303) No. of Im. Stems	SST Bamboo(303) NO. of mat stems	SST Bamboo(303) Total No of stems	SST Bamboo(303) S.E. (%)	Other Bamboo(301,302,304-39) NO. of Im. stems	Other Bamboo(301,302,304-39) No. of mat stems	Other Bamboo(301,302,304-39) Total No of stems	Other Bamboo(301,302,304-39) S.E. (%)
1/2	2781.6	2040	-	2040	100.0	12526370	2386650	14913020	8.0
3	871.8	-	-	-	-	1120860	-	1120860	76.1
4	20039.6	123352470	102001300	225353770	5.4	91548860	67569350	159118210	13.3
All strata	23693.0	83120030	68727360	151847380	8.0	103203730	53105290	156309020	13.6

Stratum	Area (Ha)	Rattan No. of Stems <3	Rattan NO. of stems>=3	Rattan Total No of stems	Rattan S.E. (%)	Medicinal Plants
1/2	2781.6	366090	38140	404230	50.6	12770
3	871.8	21680	-	21680	100.0	-
4	20039.6	110700	2770	113460	72.0	1051610
All strata	23693.0	1270730	122970	1393690	15.9	749110

Legend: Stratum : 1. HF - large crown high forest, >50% crown closure
2. LF - small crown high forest, >50% crown closure
3. ST - scattered trees, about 20% crown closure
4. B/BO/OB - Bamboo (>80% stocking)/Bamboo (<80% stocking) /Bamboo (dominant) with other species

Im stems - Immature stems
Mat stems - Mature stems
SST Bamboo - Solitary stem Bamboo
S.E.% - Sampling error

Statistics by Stratum and division for Bamboo, Rattan and Medicinal plants ;
No. of stems(nearest 10)

Division : Sylhet (11) Date : 02/08/1998

Plantation Forest :

Stratum	Area (Ha)	SST Bamboo(303) No. of Im. Stems	SST Bamboo(303) NO. of mat stems	SST Bamboo(303) Total No of stems	SST Bamboo(303) S.E. (%)	Other Bamboo(301,302,304-39) NO. of Im. stems	Other Bamboo(301,302,304-39) No. of mat stems	Other Bamboo(301,302,304-39) Total No of stems	Other Bamboo(301,302,304-39) S.E. (%)
5	2326.3	1016370	1633050	2649420	13.1	7061210	2208830	9270040	11.0
6	7007.4	3297990	4984700	8282680	11.5	24596710	9453120	34049830	9.6
7/8	3083.0	95600	65850	161450	83.5	7640120	3993690	11633820	11.6
9/10	3001.8	183610	296020	479630	106.4	9846660	824360	10671020	10.5
11	316.7	6200	-	6200	81.7	851060	-	851060	17.6
12/13	2081.5	-	-	-	-	4170750	-	4170750	13.0
All strata	17816.7	5293510	7464440	12757930	9.6	57480020	16043460	73523480	5.9

Stratum	Area (Ha)	Rattan No. of Stems <3	Rattan NO. of stems>=3	Rattan Total No of stems	Rattan S.E.%	Medicinal Plants
5	2326.3	185120	25340	210460	35.1	49070
6	7007.4	430530	28210	458730	48.5	77910
7/8	3083.0	146410	10130	156540	57.5	23740
9/10	3001.8	159250	15740	174990	55.9	79630
11	316.7	-	-	-	-	-
12/13	2081.5	3600	-	3600	100.0	50410
All strata	17816.7	943340	87570	1030910	26.4	285600

Legend: Stratum : 5. T/OT, up to 1959
6. T/OT, 1960-1979
7. T/OT, 1980 and up
10. Other LRS
11. Mo, up to 1989
12. Eu/Am/Ac/Kd/Others, up to 1989
13. Eu/Am/Ac/Kd/Others, 1990 & up
15. Others

Im stems - Immature stems
Mat stems - Mature stems
SST Bamboo - Solitary stem Bamboo
S.E.% - Sampling error
All strata - All strata (Except 14/15)