Technical Bulletin No. 79

VOLUME TABLES OF MISCELLANEOUS SPECIES FOR VARIOUS DIVISIONS OF MADHYA PRADESH

Dr. Dharmendra Verma
Director

Richa Seth
Senior Research Officer

Forest Mensuration and Statistics Branch
STATE FOREST RESEARCH INSTITUTE
JABALPUR (M.P.)
2018

State Forest Research Institute, Polipathar, Jabalpur - 482008 (M.P.)
(An Autonomous Institute of Department of Forests, Government of Madhya Pradesh)
Phone: 0761-2665540, 2666529 Fax: 0761-2661304
E-mail: sdfri@rediffmail.com; mpsfri@gmail.com
website: www.mpsfri.org

FOREWORD

Volume tables for the scientific management of forests are most essential. Although volume tables for miscellaneous species have earlier been prepared but, of late, it has been felt that at times and at varying places there is larger gap between estimated yield and actual yield. This gap invites audit objection for absolutely no physical loss. To minimize this problem volume tables of different miscellaneous species like Saja, Dhawa, Lendia, Haldu have been revised by this institute for Balaghat Circle, Betul, Dewas, Dindori, Harda, Mandla, Raisen, Sehore, Seoni and West Chhindwara forest divisions.

I hope that these revised volume tables for different Miscellaneous species will be useful to forest officers in the management of forests.

Jabalpur
2018

(Dr. Dharmendra Verma $_{IFS}$)
Director
State Forest Research Institute, Jabalpur

ACKNOWLEDGEMENT

The compilation of volume tables is a result of long term tedious work. I am thankful to the former director Dr. Ram Prakash, APCCF, Retd. for his guidance and encouragement in the preparation of these volume tables. I also thank former director, Dr. G. Krishanmurthy, APCCF, Retd. for giving facility and support for completion of this work.

I thank to former branch head Shri M.K. Parihar, ACF, Retd. and Shri S.K. Jain, ACF, Retd. for their continuous effort to complete this work. I thank the associates T.S. Sandeep Pillai, Sakshi Seth and Ranjana Haldkar also deserves thanks for impeccable computer works.

I thank branch head Shri Raghavendra Bisen, ACF for his guidance. Lastly I thank Dr. Dharmendra Verma, Director, State Forest Research Institute for giving his precious time and support to go through the compilation and suggesting necessary corrections. It is only he, who motivated the present compilation work to make presentable.

Richa Seth
Senior Research Officer

INDEX

S.No.	Content	Page No.
1.	Introduction	1
2.	Methodology	2
3.	Results and Discussion	3-4
4.	Site quality and girth class - wise Volume Tables of timber and fuel wood in Various Divisions	5-43

VOLUME TABLES OF MISCELLANEOUS SPECIES FOR VARIOUS DIVISIONS OF MADHYA PRADESH

1. Introduction

The utilization percent of all miscellaneous trees has increased substantially and even its small wood, which was, hitherto considered as useless, is now finding increasing demand in the markets. Therefore, assessment of estimates of the quantity of timber available from miscellaneous tree species in any of the specified girth, height class, within permissible reliance limits, is the paramount need for an efficient, systematic and scientific management of the forest.

Wide variations in the quantity of timber assessed in the standing crop and the actual quantity obtained after felling from the coupes, is a common experience. This variation is one of the major causes for obtaining a significant gap between the calculated upset price and the actual production from the coupes. Form factor tables for important miscellaneous tree species found in Madhya Pradesh for estimation of volume of standing trees and for yield regulation are not available so far in the state. Hence a study for preparation of form factors table for all grouped species i.e. Bija, Haldu, Saja, Dhawada, Salai and other miscellaneous tree species is essential in the present conditions of market demand and high economic value of timber.

In the meeting with the Additional Principal Chief Conservator of Forests (Production) Madhya Pradesh, held on 2.8.2004, it was decided that the form factors of teak species be prepared for various forest divisions. For this purpose, the data has been used from the registers of production coupes and that there would not be any necessity for taking measurements of trees separately. The data required for the analysis has been provided to the State Forest Research Institute (SFRI), Jabalpur, by concerned Divisional Forest Officers. The form factors/volume tables have been prepared by SFRI, for various girths and site qualities. After completion of teak volume tables for various divisions of Madhya Pradesh, it was decided that volume tables for different sal production divisions and remaining teak divisions should also be prepared. After completing above work it was decided that form factors of different miscellaneous species should also be prepared.

To prepare the local volume tables for different site qualities, the local volume equations based upon only one parameter, i.e. girth at breast height (GBH) has been taken into consideration. These volume tables based on one independent variable i.e. dbh or gbh, are derived from the measurements of trees growing in a restricted geographical area or locality, or more or less uniform crop. These are, therefore, applicable to such restricted range of locality or geographical areas, only where the assumption that the trees of the same diameter will have the same height, holds good.

2. Methodology

The different steps for calculating girth-wise volume for various divisions are being described as under.

2.1. Source of data

The data of miscellaneous species for different divisions for different site quality was provided by the concerned divisions. The analysis for volume calculations of timber and fuel content for sound, half sound and unsound tree was carried out on the available data

2.2 Regression equations used:

a) For estimation of timber content

The following types of regression equations are local volume equations (Volume equations for forests of India, Nepal and Bhutan. Forest Survey of India, 1996) with only one independent variable, i.e. girth at breast height (G) were tried to obtain timber content in sound trees. These are local volume equations with only one independent variable, i.e. girth at breast height (G.B.H.).

(i) $V = a + bG^2$

(ii) $V = a + bG + cG^2$

(iii) $V = a + bG + cG^2 + dG^3$

(iv) $V = a + b\sqrt{G} + cG^2$

(v) $\sqrt{V} = a + bG$

(vi) $\sqrt{V} = a + bG + c\sqrt{G}$

(vii) $\text{Log}_e V = a + b\text{Log}_e G$

Where

V = Under-bark volume (cmt) of timber.

G = Over-bark girth of standing trees at breast height (cm)

And **a, b, c** and **d** are statistical constants.

The best-fit regression equation was used to estimate the volume.

b) For estimation of fuel content

The following curve estimation models were tried for estimation of fuel content in sound trees on the basis of the curve estimation models given in SPSS software.

(i) $F = a + bG$ **(Linear)**

(ii) $F = a + b\text{Log}^G$ **(Logarithmic)**

(iii) $F = a + b/G$ **(Inverse)**

(iv) $F = a + bG + cG^2$ **(Quadratic)**

(v) $F = a + bG + cG^2 + dG^3$ **(Cubic)**

(vi) $F = EXP(a + b/G)$ **(S-curve)**

(vii) $F = EXP(a + bG)$ **(Growth)**

Where

F = Fuel content (cmt)

G = Over-bark girth of standing trees at breast height (cm)

And **a, b, c** and **d** are statistical constants.

The best-fit regression equation was used to estimate the volume.

Volume Tables

As per the instructions received from the APCCF (Production), mean value for girth classes with class interval of 10 cms have been worked out and are given in tables from 1(a) to X (a) for different species. However, it may be noted that the error is likely to increase if these mean values are used instead of the exact girths of the trees. The total volume for a coupe will be correctly calculated only when all the girths are uniformly distributed over the whole girth-class, otherwise with skewed distribution of girths of individual trees in a girth-class, we are likely to underestimate or overestimate the volume.

2.4 Volume Estimation

(a) Timber volume estimation

To estimate the timber volume content in sound half sound and unsound trees, the seven regression equations, as stated above, were tried on available data for various site qualities. It was found that most of the site qualities for sound trees follow the equation, $\mathbf{V = a + bG^2}$. In case the curve showing trend of volume versus girth showed abnormal behaviour inconsistent with the natural relationship between site quality and volume, the statistical coefficients were adjusted accordingly to maintain the least error and the best relationship. Estimated timber is liable to fall within the range of ±5% error using these tables.

(b) Fuel estimation

To estimate the fuel content of sound trees different curve estimation models were tried between girth and mean fuel for corresponding girth class using SPSS software. Out of different equations Sigmoid curve (S-curve) was found as the best fit for estimating the fuel content of sound trees for different site qualities. In case of abnormal behaviour of fuel content versus girth trend inconsistent with the natural relationship, the statistical coefficients were adjusted accordingly to maintain the least error and the best relationship. Estimated fuel content is liable to fall within the range of ±10% error using these tables.

Results and discussion

1. To estimate timber volume of standing trees, it was observed that it follows local volume equation $\mathbf{V = a + bG^2}$ where **V** is the Under-bark volume (cmt) of timber, **G** = Over-bark girth of standing trees at breast height (cm) and **a** and **b** are constants. Therefore, only equation $\mathbf{V = a + bG^2}$ was tried to estimate timber volume with the least possible error. During estimation of timber volume for sound timber, the efforts were made to minimize the error in total estimated volume. The possible reasons

for this difference are listed below:

i. The data, made available from statistical analysis point of view, for many girth classes are insufficient to establish significant correlation between volume and girth for any given particular girth class.

ii. The observed volume content in the field shows significant variations for the same girth and the same site quality of a tree. These variations may occur due to human errors, e.g. measurement error, writing error and volume estimating error etc. in the field.

iii. In some cases, it was also observed that the trees of higher girth show less timber volume content as compared to the timber volume of trees of lower girth within the same site quality, which may be possible due to wrong classification of the condition of the tree. In nature, sometimes it is observed that the hollowness starts to develop within the tree, as it grows older. If there is hollowness within the trunk of the tree but it appears sound from outside, then its status is likely to get wrong classification.

iv. The actual volume of a tree depends upon the girth, height and the tapering of the tree. But in the present case, the volume estimation is based only upon a single parameter, i.e. girth.

2. As per the instructions received from the APCCF (Production), mean values for girth classes with dia class interval of 10 cms have also been worked out. However, it may be noted that the error is likely to increase if these mean values are used instead of the exact girths of the trees. The total volume for a coupe can be correctly calculated only when all the girths are uniformly distributed over the whole girth-class, otherwise with skewed distribution of girths of individual trees in a girth-class, there is possibility of underestimation or overestimation of the volume.

Table I (a): Site quality and girth class-wise volume (cmt) of timber and fuelwood of Bija in Balaghat Circle

Girth (cm)	Site Quality III								
	Sound			Half sound			Unsound		
	Timber	Fuel	Total	Timber	Fuel	Total	Timber	Fuel	Total
21-30	0.031	0.001	0.032	0.020	0.001	0.021	0.007	0.003	0.010
31-40	0.060	0.005	0.065	0.039	0.006	0.045	0.012	0.018	0.030
41-50	0.099	0.019	0.118	0.063	0.022	0.085	0.020	0.053	0.073
51-60	0.147	0.046	0.193	0.094	0.051	0.146	0.029	0.108	0.137
61-70	0.204	0.086	0.290	0.131	0.094	0.224	0.041	0.177	0.218
71-80	0.271	0.135	0.406	0.174	0.146	0.320	0.054	0.255	0.308
81-90	0.348	0.192	0.539	0.223	0.205	0.428	0.069	0.336	0.405
91-100	0.434	0.253	0.686	0.278	0.268	0.546	0.086	0.419	0.505
101-110	0.529	0.316	0.845	0.339	0.334	0.673	0.105	0.502	0.606
111-120	0.634	0.381	1.015	0.406	0.400	0.806	0.125	0.582	0.707
121-130	0.748	0.445	1.193	0.479	0.465	0.945	0.148	0.659	0.806
131-140	0.872	0.508	1.380	0.558	0.530	1.088	0.172	0.732	0.905
141-150	1.006	0.570	1.575	0.644	0.592	1.236	0.198	0.803	1.001
151-160	1.149	0.629	1.778	0.735	0.653	1.388	0.227	0.869	1.096
161-170	1.301	0.687	1.988	0.833	0.711	1.544	0.257	0.932	1.189
171-180	1.463	0.743	2.206	0.937	0.767	1.704	0.288	0.992	1.280
181-190	1.635	0.796	2.431	1.046	0.821	1.867	0.322	1.049	1.371
191-200	1.816	0.847	2.663	1.162	0.872	2.035	0.358	1.102	1.460
201-210	2.006	0.896	2.902	1.284	0.922	2.206	0.395	1.153	1.548
211-220	2.206	0.943	3.149	1.412	0.969	2.381	0.435	1.201	1.635
221-230	2.415	0.988	3.404	1.546	1.014	2.560	0.476	1.246	1.722
231-240	2.634	1.031	3.665	1.686	1.056	2.743	0.519	1.289	1.808
241-250	2.863	1.072	3.935	1.833	1.097	2.930	0.564	1.330	1.894
251-260	3.101	1.111	4.212	1.985	1.137	3.122	0.611	1.369	1.979
261-270	3.348	1.149	4.497	2.143	1.174	3.317	0.659	1.406	2.065
271-280	3.605	1.185	4.790	2.308	1.210	3.518	0.710	1.441	2.151
281-290	3.871	1.220	5.091	2.478	1.244	3.723	0.762	1.474	2.237
291-300	4.147	1.253	5.400	2.655	1.277	3.932	0.817	1.506	2.323
301-310	4.433	1.285	5.717	2.838	1.309	4.146	0.873	1.537	2.409
311-320	4.728	1.315	6.043	3.026	1.339	4.365	0.931	1.566	2.496
321-330	5.032	1.344	6.376	3.221	1.368	4.589	0.991	1.593	2.584
331-340	5.346	1.372	6.718	3.422	1.396	4.818	1.052	1.620	2.672
341-350	5.669	1.399	7.069	3.629	1.423	5.052	1.116	1.645	2.761
351-360	6.002	1.425	7.428	3.842	1.449	5.291	1.182	1.670	2.851
361-370	6.345	1.450	7.795	4.061	1.473	5.535	1.249	1.693	2.942
371-380	6.697	1.474	8.171	4.287	1.497	5.784	1.318	1.715	3.034
381-390	7.058	1.498	8.556	4.518	1.520	6.038	1.389	1.737	3.126
391-400	7.429	1.520	8.949	4.755	1.542	6.298	1.462	1.758	3.220
401-410	7.809	1.542	9.351	4.999	1.564	6.563	1.537	1.777	3.315
411-420	8.199	1.562	9.762	5.249	1.584	6.833	1.614	1.797	3.410

Note:-. Data outside the box is either intrapolated or extrapolated.

Table I (a): Site quality and girth class-wise volume (cmt) of timber and fuelwood of Bija in Balaghat Circle

Girth (cm)	Site Quality IVa								
	Sound			Half sound			Unsound		
	Timber	Fuel	Total	Timber	Fuel	Total	Timber	Fuel	Total
21-30	0.028	0.001	0.029	0.020	0.001	0.021	0.006	0.003	0.009
31-40	0.055	0.005	0.061	0.039	0.006	0.045	0.011	0.019	0.030
41-50	0.089	0.020	0.110	0.063	0.022	0.085	0.017	0.056	0.073
51-60	0.133	0.049	0.182	0.094	0.052	0.146	0.025	0.112	0.138
61-70	0.185	0.089	0.274	0.130	0.095	0.225	0.035	0.182	0.218
71-80	0.246	0.140	0.386	0.173	0.148	0.321	0.047	0.261	0.308
81-90	0.315	0.198	0.512	0.222	0.207	0.429	0.060	0.344	0.404
91-100	0.393	0.260	0.652	0.277	0.271	0.548	0.075	0.428	0.503
101-110	0.479	0.324	0.803	0.338	0.337	0.675	0.091	0.511	0.602
111-120	0.574	0.389	0.963	0.405	0.403	0.808	0.109	0.592	0.701
121-130	0.678	0.454	1.132	0.478	0.469	0.947	0.128	0.669	0.798
131-140	0.790	0.518	1.308	0.557	0.534	1.090	0.150	0.743	0.893
141-150	0.911	0.580	1.491	0.642	0.596	1.238	0.172	0.814	0.986
151-160	1.040	0.640	1.680	0.733	0.657	1.390	0.197	0.880	1.077
161-170	1.178	0.698	1.876	0.830	0.715	1.546	0.223	0.944	1.167
171-180	1.325	0.754	2.079	0.934	0.772	1.705	0.251	1.003	1.254
181-190	1.480	0.807	2.287	1.043	0.825	1.868	0.280	1.060	1.340
191-200	1.644	0.859	2.503	1.158	0.877	2.035	0.311	1.113	1.424
201-210	1.816	0.908	2.724	1.280	0.926	2.206	0.343	1.164	1.507
211-220	1.997	0.955	2.952	1.407	0.973	2.380	0.378	1.212	1.589
221-230	2.187	1.000	3.187	1.541	1.018	2.559	0.413	1.257	1.671
231-240	2.385	1.043	3.428	1.681	1.061	2.742	0.451	1.300	1.751
241-250	2.592	1.084	3.676	1.827	1.102	2.928	0.490	1.341	1.831
251-260	2.807	1.123	3.93.4	1.978	1.141	3.119	0.531	1.380	1.910
261-270	3.032	1.160	4.192	2.136	1.178	3.315	0.573	1.416	1.989
271-280	3.264	1.196	4.641	2.300	1.214	3.514	0.617	1.451	2.068
281-290	3.505	1.231	4.736	2.470	1.249	3.719	0.662	1.485	2.147
291-300	3.755	1.264	5.019	2.646	1.281	3.928	0.710	1.516	2.226
301-310	4.014	1.296	5.309	2.828	1.313	4.141	0.758	1.547	2.305
311-320	4.281	1.326	5.607	3.016	1.343	4.360	0.809	1.576	2.384
321-330	4.556	1.355	5.911	3.211	1.372	4.583	0.861	1.603	2.464
331-340	4.841	1.383	6.224	3.411	1.400	4.811	0.915	1.630	2.544
341-350	5.133	1.410	6.543	3.617	1.427	5.044	0.970	1.655	2.625
351-360	5.435	1.436	6.871	3.830	1.452	5.282	1.027	1.679	2.706
361-370	5.745	1.461	7.206	4.048	1.477	5.525	1.085	1.702	2.788
371-380	6.063	1.485	7.548	4.273	1.501	5.774	1.146	1.724	2.870
381-390	6.391	1.508	7.899	4.503	1.524	6.027	1.207	1.746	2.953
391-400	6.727	1.530	8.257	4.740	1.546	6.286	1.271	1.766	3.037
401-410	7.071	1.552	8.622	4.983	1.567	6.550	1.336	1.786	3.122
411-420	7.424	1.572	8.996	5.231	1.588	6.819	1.402	1.805	3.208

Note:-. Data outside the box is either intrapolated or extrapolated.

Table I (b): Site quality and girth class-wise volume (cmt) of timber and fuelwood of Dhawa in Balaghat Circle

Girth (cm)	Site Quality III						Site Quality IVb		
	Sound Tree Volume(cmt)			Half sound Tree Volume(cmt)			Sound Tree Volume(cmt)		
	Timber	Fuel	Total	Timber	Fuel	Total	Timber	Fuel	Total
31-40	0.066	0.009	0.075	0.052	0.020	0.072	0.060	0.009	0.069
41-50	0.095	0.024	0.119	0.072	0.046	0.118	0.085	0.025	0.110
51-60	0.131	0.045	0.176	0.097	0.079	0.176	0.117	0.047	0.164
61-70	0.175	0.071	0.246	0.127	0.114	0.241	0.155	0.074	0.228
71-80	0.226	0.100	0.326	0.163	0.150	0.313	0.199	0.102	0.301
81-90	0.284	0.129	0.413	0.203	0.184	0.387	0.249	0.132	0.381
91-100	0.350	0.158	0.508	0.248	0.217	0.465	0.306	0.161	0.467
101-110	0.422	0.186	0.608	0.298	0.249	0.547	0.369	0.190	0.559
111-120	0.502	0.213	0.715	0.354	0.278	0.632	0.438	0.217	0.655
121-130	0.589	0.239	0.828	0.414	0.305	0.719	0.513	0.243	0.756
131-140	0.683	0.264	0.947	0.479	0.330	0.809	0.595	0.267	0.862
141-150	0.785	0.287	1.072	0.549	0.354	0.903	0.683	0.290	0.973
151-160	0.893	0.308	1.201	0.625	0.375	1.000	0.777	0.312	1.089
161-170	1.009	0.329	1.338	0.705	0.396	1.101	0.877	0.333	1.210
171-180	1.132	0.348	1.480	0.790	0.414	1.204	0.984	0.352	1.336
181-190	1.263	0.366	1.629	0.880	0.432	1.312	1.097	0.370	1.467
191-200	1.400	0.384	1.784	0.976	0.448	1.424	1.216	0.387	1.603
201-210	1.545	0.400	1.945	1.076	0.464	1.540	1.342	0.403	1.745
211-220	1.697	0.415	2.112	1.181	0.478	1.659	1.473	0.419	1.892
221-230	1.856	0.429	2.285	1.291	0.492	1.783	1.611	0.433	2.044
231-240	2.022	0.443	2.465	1.407	0.504	1.911	1.756	0.447	2.203
241-250	2.196	0.456	2.652	1.527	0.516	2.043	1.906	0.459	2.365

Note:- Data outside the box is either intrapolated or extrapolated.

Table I (c): Site quality and girth class-wise volume (cmt) of timber and fuelwood of Lendia in Balaghat Circle

Girth (cm)	Site Quality											
	III									IVb		
	Sound			Half sound			Unsound			Sound		
	Timber	Fuel	Total	Timber	Fuel	Total	Timber	Fuel	Total	Timber	Fuel	Total
41-50	0.041	0.011	0.052	0.032	0.018	0.050	0.020	0.032	0.052	0.038	0.011	0.049
51-60	0.071	0.024	0.095	0.057	0.037	0.094	0.030	0.060	0.090	0.068	0.026	0.094
61-70	0.108	0.043	0.151	0.087	0.061	0.148	0.042	0.093	0.135	0.103	0.045	0.148
71-80	0.150	0.066	0.216	0.123	0.088	0.211	0.057	0.127	0.184	0.144	0.068	0.212
81-90	0.199	0.091	0.290	0.163	0.118	0.281	0.073	0.163	0.236	0.190	0.093	0.283
91-100	0.253	0.117	0.370	0.208	0.148	0.356	0.091	0.198	0.289	0.243	0.120	0.363
101-110	0.314	0.144	0.458	0.258	0.178	0.436	0.111	0.231	0.342	0.301	0.147	0.448
111-120	0.381	0.170	0.551	0.314	0.207	0.521	0.134	0.263	0.397	0.365	0.174	0.539
121-130	0.453	0.197	0.650	0.374	0.236	0.610	0.158	0.294	0.452	0.435	0.200	0.635
131-140	0.532	0.222	0.754	0.439	0.263	0.702	0.185	0.322	0.507	0.511	0.226	0.737
141-150	0.617	0.247	0.864	0.509	0.289	0.798	0.213	0.349	0.562	0.592	0.251	0.843
151-160	0.708	0.271	0.979	0.585	0.313	0.898	0.243	0.374	0.617	0.679	0.275	0.954
161-170	0.805	0.294	1.099	0.665	0.337	1.002	0.276	0.398	0.674	0.773	0.298	1.071
171-180	0.907	0.315	1.222	0.750	0.359	1.109	0.310	0.421	0.731	0.871	0.320	1.191
181-190	1.016	0.336	1.352	0.840	0.380	1.220	0.347	0.442	0.789	0.976	0.341	1.317
191-200	1.131	0.356	1.487	0.936	0.400	1.336	0.385	0.461	0.846	1.087	0.360	1.447
201-210	1.252	0.375	1.627	1.036	0.419	1.455	*	*	*	1.203	0.379	1.582
211-220	1.379	0.393	1.772	1.141	0.437	1.578	*	*	*	1.325	0.397	1.722
221-230	1.512	0.410	1.922	1.251	0.454	1.705	*	*	*	1.453	0.415	1.868
231-240	1.651	0.427	2.078	1.367	0.471	1.838	*	*	*	1.587	0.431	2.018

Note:- 1. (*) Indicates that data was not available for these girth classes.
2. Data outside the box is either intrapolated or extrapolated.

Table I (d): Site quality and girth class-wise volume (cmt) of timber and fuelwood of Other Species in Balaghat Circle

Girth (cm)	Site Quality III					
	Sound Tree Volume(cmt)			Unsound Tree Volume(cmt)		
	Timber	Fuel	Total	Timber	Fuel	Total
31-40	0.013	0.007	0.020	0.008	0.009	0.017
41-50	0.039	0.023	0.062	0.025	0.028	0.053
51-60	0.072	0.048	0.120	0.046	0.057	0.103
61-70	0.112	0.082	0.194	0.071	0.095	0.166
71-80	0.158	0.120	0.278	0.101	0.138	0.239
81-90	0.211	0.161	0.372	0.135	0.184	0.319
91-100	0.270	0.203	0.473	0.173	0.231	0.404
101-110	0.336	0.245	0.581	0.215	0.278	0.493
111-120	0.409	0.287	0.696	0.261	0.324	0.585
121-130	0.488	0.327	0.815	0.312	0.368	0.680
131-140	0.573	0.366	0.939	0.367	0.411	0.778
141-150	0.666	0.403	1.069	0.426	0.451	0.877
151-160	0.764	0.438	1.202	0.473	0.481	0.954
161-170	0.870	0.472	1.342	*	*	*
171-180	0.982	0.504	1.486	*	*	*
181-190	1.100	0.534	1.634	*	*	*
191-200	1.225	0.563	1.788	*	*	*
201-210	1.356	0.590	1.946	*	*	*
211-220	1.495	0.616	2.111	*	*	*
221-230	1.639	0.641	2.280	*	*	*
231-240	1.790	0.664	2.454	*	*	*
241-250	1.948	0.686	2.634	*	*	*
251-260	2.112	0.708	2.820	*	*	*
261-270	2.283	0.728	3.011	*	*	*
271-280	2.461	0.747	3.208	*	*	*

Note:-(*) Indicates that data was not available for these girth classes.

Table I (d): Site quality and girth class-wise volume (cmt) of timber and fuelwood of Other Species in Balaghat Circle

Girth (cm)	Site Quality IVa					
	Sound Tree Volume(cmt)			Unsound Tree Volume(cmt)		
	Timber	Fuel	Total	Timber	Fuel	Total
31-40	0.011	0.007	0.018	0.006	0.009	0.015
41-50	0.037	0.023	0.060	0.018	0.028	0.046
51-60	0.069	0.049	0.118	0.033	0.056	0.089
61-70	0.107	0.082	0.189	0.051	0.092	0.143
71-80	0.152	0.120	0.272	0.072	0.133	0.205
81-90	0.203	0.161	0.364	0.096	0.177	0.273
91-100	0.261	0.203	0.464	0.123	0.221	0.344
101-110	0.325	0.246	0.571	0.153	0.265	0.418
111-120	0.395	0.287	0.682	0.185	0.308	0.493
121-130	0.471	0.327	0.798	0.221	0.349	0.570
131-140	0.554	0.366	0.920	0.260	0.388	0.648
141-150	0.643	0.403	1.046	0.302	0.426	0.728
151-160	0.739	0.439	1.178	0.346	0.462	0.808
161-170	0.841	0.472	1.313	0.394	0.496	0.890
171-180	0.949	0.504	1.453	0.445	0.528	0.973
181-190	1.063	0.535	1.598	0.498	0.558	1.056
191-200	1.184	0.564	1.748	0.555	0.587	1.142
201-210	1.312	0.591	1.903	0.599	0.608	1.207
211-220	1.445	0.617	2.062	*	*	*
221-230	1.585	0.642	2.227	*	*	*
231-240	1.732	0.665	2.397	*	*	*
241-250	1.884	0.687	2.571	*	*	*
251-260	2.043	0.708	2.751	*	*	*
261-270	2.209	0.729	2.938	*	*	*
271-280	2.380	0.748	3.128	*	*	*

Note:-(*) Indicates that data was not available for these girth classes.

Table I (d): Site quality and girth class-wise volume (cmt) of timber and fuelwood of Other Species in Balaghat Circle

Girth (cm)	Site Quality IVb					
	Sound Tree Volume(cmt)			Unsound Tree Volume(cmt)		
	Timber	Fuel	Total	Timber	Fuel	Total
31-40	0.010	0.008	0.018	0.005	0.010	0.015
41-50	0.031	0.025	0.056	0.016	0.028	0.044
51-60	0.058	0.051	0.109	0.031	0.058	0.089
61-70	0.091	0.085	0.176	0.048	0.095	0.143
71-80	0.128	0.125	0.253	0.067	0.136	0.203
81-90	0.171	0.167	0.338	0.090	0.180	0.270
91-100	0.219	0.210	0.429	0.116	0.225	0.341
101-110	0.273	0.252	0.525	0.144	0.269	0.413
111-120	0.332	0.294	0.626	0.175	0.312	0.487
121-130	0.396	0.335	0.731	0.209	0.353	0.562
131-140	0.465	0.374	0.839	0.246	0.393	0.639
141-150	0.540	0.411	0.951	0.285	0.431	0.716
151-160	0.620	0.447	1.067	0.328	0.466	0.794
161-170	0.706	0.481	1.187	0.373	0.500	0.873
171-180	0.797	0.513	1.310	0.421	0.532	0.953
181-190	0.893	0.543	1.436	0.472	0.563	1.035
191-200	0.994	0.572	1.566	0.526	0.592	1.118
201-210	1.101	0.599	1.700	0.582	0.619	1.201
211-220	1.213	0.625	1.838	0.629	0.640	1.269
221-230	1.331	0.650	1.981	*	*	*
231-240	1.454	0.673	2.127	*	*	*
241-250	1.582	0.695	2.277	*	*	*
251-260	1.715	0.716	2.431	*	*	*
261-270	1.854	0.736	2.590	*	*	*
271-280	1.998	0.755	2.753	*	*	*

Note:- (*) Indicates that data was not available for these girth classes.

Table I (e): Site quality and girth class-wise volume (cmt) of timber and fuelwood of Saja in Balaghat Circle

Girth (cm)	Site Quality					
	III					
	Sound			Half sound		
	Timber	Fuel	Total	Timber	Fuel	Total
51-60	0.230	0.060	0.290	0.217	0.067	0.284
61-70	0.269	0.106	0.375	0.251	0.117	0.368
71-80	0.315	0.162	0.477	0.291	0.176	0.467
81-90	0.366	0.223	0.589	0.336	0.242	0.578
91-100	0.425	0.287	0.712	0.387	0.311	0.698
101-110	0.489	0.353	0.842	0.443	0.381	0.824
111-120	0.560	0.419	0.979	0.505	0.451	0.956
121-130	0.638	0.484	1.122	0.573	0.520	1.093
131-140	0.722	0.547	1.269	0.647	0.586	1.233
141-150	0.812	0.607	1.419	0.726	0.651	1.377
151-160	0.909	0.666	1.575	0.810	0.713	1.523
161-170	1.012	0.722	1.734	0.900	0.772	1.672
171-180	1.122	0.776	1.898	0.996	0.828	1.824
181-190	1.238	0.827	2.065	1.098	0.882	1.980
191-200	1.360	0.876	2.236	1.205	0.934	2.139
201-210	1.489	0.922	2.411	1.318	0.983	2.301
211-220	1.625	0.967	2.592	1.436	1.029	2.465
221-230	1.767	1.009	2.776	1.560	1.074	2.634
231-240	1.915	1.049	2.964	1.690	1.116	2.806
241-250	2.070	1.088	3.158	1.825	1.157	2.982
251-260	2.231	1.125	3.356	1.966	1.195	3.161
261-270	2.398	1.160	3.558	2.112	1.232	3.344
271-280	2.572	1.193	3.765	2.265	1.267	3.532
281-290	2.753	1.225	3.978	2.422	1.300	3.722
291-300	2.939	1.256	4.195	2.586	1.332	3.918

Note:- Data outside the box is either intrapolated or extrapolated.

Table II(a): Site quality and girth class-wise volume (cmt) of timber and fuelwood of Dhawa in Betul division

Girth class (cm)	Site Quality III						Site Quality IVa					
	Sound			Unsound			Sound			Unsound		
	Timber	Fuel	Total	Timber	Fuel	Total	Timber	Fuel	Total	Timber	Fuel	Total
31-40	0.052	0.009	0.061	0.007	0.017	0.024	0.048	0.010	0.058	0.007	0.017	0.024
41-50	0.078	0.022	0.100	0.018	0.040	0.058	0.071	0.024	0.095	0.017	0.041	0.058
51-60	0.110	0.040	0.150	0.032	0.069	0.101	0.099	0.042	0.141	0.031	0.070	0.101
61-70	0.148	0.060	0.208	0.048	0.101	0.149	0.132	0.063	0.195	0.047	0.103	0.150
71-80	0.193	0.082	0.275	0.067	0.134	0.201	0.171	0.085	0.256	0.065	0.136	0.201
81-90	0.243	0.103	0.346	0.089	0.167	0.256	0.216	0.107	0.323	0.087	0.169	0.256
91-100	0.301	0.124	0.425	0.113	0.198	0.311	0.266	0.128	0.394	0.110	0.200	0.310
101-110	0.364	0.145	0.509	0.140	0.228	0.368	0.322	0.149	0.471	0.137	0.230	0.367
111-120	0.434	0.164	0.598	0.170	0.256	0.426	0.383	0.168	0.551	0.166	0.258	0.424
121-130	0.510	0.182	0.692	0.203	0.281	0.484	0.450	0.186	0.636	0.198	0.284	0.482
131-140	0.593	0.199	0.792	0.238	0.306	0.544	0.522	0.203	0.725	0.232	0.308	0.540
141-150	0.682	0.214	0.896	0.276	0.328	0.604	0.600	0.219	0.819	0.270	0.330	0.600
151-160	0.777	0.229	1.006	0.317	0.349	0.666	0.684	0.234	0.915	0.309	0.351	0.660
161-170	0.878	0.243	1.121	0.349	0.364	0.713	0.772	0.248	1.020	0.341	0.366	0.707
171-180	0.986	0.256	1.242	*	*	*	0.867	0.261	1.128	*	*	*
181-190	1.100	0.268	1.368	*	*	*	0.967	0.273	1.240	*	*	*
191-200	1.221	0.280	1.501	*	*	*	1.073	0.284	1.357	*	*	*
201-210	1.348	0.291	1.639	*	*	*	1.184	0.295	1.479	*	*	*
211-220	1.481	0.301	1.782	*	*	*	1.301	0.305	1.606	*	*	*
221-230	1.620	0.310	1.930	*	*	*	1.423	0.314	1.737	*	*	*
231-240	1.766	0.319	2.085	*	*	*	1.551	0.323	1.874	*	*	*
241-250	1.918	0.328	2.246	*	*	*	1.684	0.332	2.016	*	*	*

Note:- 1. (*) Indicates that data was not available for these girth classes.
2. Data outside the box is either intrapolated or extrapolated.

Table II(a): Site quality and girth class-wise volume (cmt) of timber and fuelwood of Dhawa in Betul division

Girth class (cm)	Site Quality IVb								
	Sound			Halfsound			Unsound		
	Timber	Fuel	Total	Timber	Fuel	Total	Timber	Fuel	Total
31-40	0.044	0.010	0.054	0.037	0.014	0.051	0.004	0.018	0.022
41-50	0.065	0.025	0.090	0.054	0.032	0.086	0.013	0.042	0.055
51-60	0.091	0.044	0.135	0.074	0.056	0.130	0.024	0.071	0.095
61-70	0.122	0.066	0.188	0.098	0.081	0.179	0.037	0.104	0.141
71-80	0.158	0.089	0.247	0.126	0.107	0.233	0.053	0.138	0.191
81-90	0.199	0.111	0.310	0.158	0.133	0.291	0.071	0.171	0.242
91-100	0.245	0.132	0.377	0.195	0.158	0.353	0.090	0.202	0.292
101-110	0.296	0.153	0.449	0.235	0.181	0.416	0.113	0.232	0.345
111-120	0.352	0.172	0.524	0.279	0.202	0.481	0.137	0.260	0.397
121-130	0.414	0.191	0.605	0.327	0.223	0.550	0.163	0.286	0.449
131-140	0.480	0.208	0.688	0.379	0.242	0.621	0.192	0.310	0.502
141-150	0.552	0.223	0.775	0.436	0.259	0.695	0.223	0.333	0.556
151-160	0.629	0.238	0.867	0.496	0.275	0.771	0.256	0.354	0.610
161-170	0.711	0.252	0.963	0.560	0.291	0.851	0.291	0.373	0.664
171-180	0.798	0.265	1.063	0.628	0.305	0.933	0.329	0.391	0.720
181-190	0.890	0.277	1.167	0.700	0.318	1.018	0.369	0.408	0.777
191-200	0.987	0.289	1.276	0.777	0.330	1.107	0.411	0.424	0.835
201-210	1.089	0.299	1.388	0.857	0.342	1.199	*	*	*
211-220	1.196	0.309	1.505	0.941	0.353	1.294	*	*	*
221-230	1.309	0.318	1.627	1.029	0.363	1.392	*	*	*
231-240	1.426	0.327	1.753	1.121	0.373	1.494	*	*	*
241-250	1.549	0.336	1.885	1.218	0.382	1.600	*	*	*

Note:- 1. (*) Indicates that data was not available for these girth classes.
2. Data outside the box is either intrapolated or extrapolated.

Table II(b): Site quality and girth class-wise volume (cmt) of timber and fuelwood of Lendia in Betul division

Girth class (cm)	Site Quality III						Site Quality IVa					
	Sound			Unsound			Sound			Unsound		
	Timber	Fuel	Total	Timber	Fuel	Total	Timber	Fuel	Total	Timber	Fuel	Total
21-30	0.043	0.002	0.045	0.010	0.010	0.021	0.038	0.003	0.041	0.010	0.011	0.021
31-40	0.067	0.012	0.079	0.020	0.037	0.057	0.056	0.013	0.069	0.019	0.038	0.057
41-50	0.098	0.031	0.129	0.034	0.077	0.111	0.081	0.034	0.115	0.032	0.079	0.111
51-60	0.137	0.059	0.196	0.051	0.124	0.175	0.111	0.063	0.174	0.048	0.126	0.174
61-70	0.184	0.091	0.275	0.071	0.172	0.243	0.148	0.096	0.244	0.068	0.175	0.243
71-80	0.238	0.125	0.363	0.095	0.220	0.315	0.190	0.132	0.322	0.090	0.223	0.313
81-90	0.300	0.160	0.460	0.122	0.265	0.387	0.239	0.168	0.407	0.116	0.268	0.384
91-100	0.370	0.195	0.565	0.153	0.307	0.460	0.294	0.203	0.497	0.145	0.310	0.455
101-110	0.448	0.228	0.676	0.187	0.346	0.533	0.354	0.237	0.591	0.177	0.349	0.526
111-120	0.533	0.260	0.793	0.224	0.382	0.606	0.421	0.269	0.690	0.213	0.385	0.598
121-130	0.626	0.290	0.916	0.264	0.415	0.679	0.494	0.300	0.794	0.251	0.418	0.669
131-140	0.727	0.319	1.046	0.308	0.445	0.753	0.573	0.328	0.901	0.293	0.449	0.742
141-150	0.835	0.346	1.181	0.356	0.473	0.829	0.658	0.355	1.013	0.338	0.477	0.815
151-160	0.951	0.371	1.322	0.406	0.499	0.905	0.748	0.380	1.128	0.386	0.502	0.888
161-170	1.075	0.394	1.469	0.460	0.523	0.983	0.845	0.404	1.249	0.437	0.526	0.963
171-180	1.207	0.417	1.624	0.518	0.545	1.063	0.948	0.426	1.374	0.492	0.548	1.040
181-190	1.346	0.438	1.784	*	*	*	1.057	0.447	1.504	0.550	0.569	1.119
191-200	1.493	0.457	1.950	*	*	*	1.173	0.467	1.640	*	*	*
201-210	1.648	0.476	2.124	*	*	*	1.294	0.485	1.779	*	*	*
211-220	1.810	0.493	2.303	*	*	*	1.421	0.503	1.924	*	*	*
221-230	1.980	0.510	2.490	*	*	*	1.554	0.519	2.073	*	*	*
231-240	2.158	0.525	2.683	*	*	*	1.693	0.534	2.227	*	*	*

Note:- 1. (*) Indicates that data was not available for these girth classes.
2. Data outside the box is either intrapolated or extrapolated.

Table II(b): Site quality and girth class-wise volume (cmt) of timber and fuelwood of Lendia in Betul division

Girth class (cm)	Site Quality IVb					
	Sound			Unsound		
	Timber	Fuel	Total	Timber	Fuel	Total
21-30	0.034	0.003	0.037	0.009	0.011	0.020
31-40	0.052	0.014	0.066	0.018	0.039	0.057
41-50	0.075	0.036	0.111	0.030	0.081	0.111
51-60	0.105	0.065	0.170	0.045	0.128	0.173
61-70	0.140	0.099	0.239	0.063	0.178	0.241
71-80	0.181	0.136	0.317	0.085	0.226	0.311
81-90	0.228	0.172	0.400	0.109	0.271	0.380
91-100	0.281	0.207	0.488	0.136	0.313	0.449
101-110	0.339	0.241	0.580	0.166	0.352	0.518
111-120	0.403	0.274	0.677	0.199	0.388	0.587
121-130	0.473	0.304	0.777	0.235	0.421	0.656
131-140	0.549	0.333	0.882	0.275	0.452	0.727
141-150	0.631	0.360	0.991	0.317	0.480	0.797
151-160	0.719	0.385	1.104	0.362	0.506	0.868
161-170	0.812	0.409	1.221	0.410	0.529	0.939
171-180	0.911	0.431	1.342	0.461	0.551	1.012
181-190	1.016	0.452	1.468	0.515	0.572	1.087
191-200	1.127	0.472	1.599	0.572	0.591	1.163
201-210	*	*	*	*	*	*
211-220	*	*	*	*	*	*
221-230	*	*	*	*	*	*
231-240	*	*	*	*	*	*

Note:- 1. (*) Indicates that data was not available for these girth classes.
2. Data outside the box is either intrapolated or extrapolated.

Table II(c): Site quality and girth class-wise volume (cmt) of timber and fuel wood of Other Species in Betul division

Girth class (cm)	Site Quality III						Site QualityIVa					
	Sound			Unsound			Sound			Unsound		
	Timber	Fuel	Total	Timber	Fuel	Total	Timber	Fuel	Total	Timber	Fuel	Total
31-40	0.013	0.007	0.020	0.008	0.009	0.017	0.011	0.007	0.018	0.006	0.009	0.015
41-50	0.039	0.023	0.062	0.025	0.028	0.053	0.037	0.023	0.060	0.018	0.028	0.046
51-60	0.072	0.048	0.120	0.046	0.057	0.103	0.069	0.049	0.118	0.033	0.056	0.089
61-70	0.112	0.082	0.194	0.071	0.095	0.166	0.107	0.082	0.189	0.051	0.092	0.143
71-80	0.158	0.120	0.278	0.101	0.138	0.239	0.152	0.120	0.272	0.072	0.133	0.205
81-90	0.211	0.161	0.372	0.135	0.184	0.319	0.203	0.161	0.364	0.096	0.177	0.273
91-100	0.270	0.203	0.473	0.173	0.231	0.404	0.261	0.203	0.464	0.123	0.221	0.344
101-110	0.336	0.245	0.581	0.215	0.278	0.493	0.325	0.246	0.571	0.153	0.265	0.418
111-120	0.409	0.287	0.696	0.261	0.324	0.585	0.395	0.287	0.682	0.185	0.308	0.493
121-130	0.488	0.327	0.815	0.312	0.368	0.680	0.471	0.327	0.798	0.221	0.349	0.570
131-140	0.573	0.366	0.939	0.367	0.411	0.778	0.554	0.366	0.920	0.260	0.388	0.648
141-150	0.666	0.403	1.069	0.426	0.451	0.877	0.643	0.403	1.046	0.302	0.426	0.728
151-160	0.764	0.438	1.202	0.473	0.481	0.954	0.739	0.439	1.178	0.346	0.462	0.808
161-170	0.870	0.472	1.342	*	*	*	0.841	0.472	1.313	0.394	0.496	0.890
171-180	0.982	0.504	1.486	*	*	*	0.949	0.504	1.453	0.445	0.528	0.973
181-190	1.100	0.534	1.634	*	*	*	1.063	0.535	1.598	0.498	0.558	1.056
191-200	1.225	0.563	1.788	*	*	*	1.184	0.564	1.748	0.555	0.587	1.142
201-210	1.356	0.590	1.946	*	*	*	1.312	0.591	1.903	0.599	0.608	1.207
211-220	1.495	0.616	2.111	*	*	*	1.445	0.617	2.062	*	*	*
221-230	1.639	0.641	2.280	*	*	*	1.585	0.642	2.227	*	*	*
231-240	1.790	0.664	2.454	*	*	*	1.732	0.665	2.397	*	*	*
241-250	1.948	0.686	2.634	*	*	*	1.884	0.687	2.571	*	*	*
251-260	2.112	0.708	2.820	*	*	*	2.043	0.708	2.751	*	*	*
261-270	2.283	0.728	3.011	*	*	*	2.209	0.729	2.938	*	*	*
271-280	2.461	0.747	3.208	*	*	*	2.380	0.748	3.128	*	*	*

Note:- 1. (*) Indicates that data was not available for these girth classes.
2. Data outside the box is either intrapolated or extrapolated.

Table II(c): Site quality and girth class-wise volume (cmt) of timber and fuel wood of Other Species in Betul division

Girth class (cm)	Site QualityIVb					
	Sound			Unsound		
	Timber	Fuel	Total	Timber	Fuel	Total
31-40	0.010	0.008	0.018	0.005	0.010	0.015
41-50	0.031	0.025	0.056	0.016	0.028	0.044
51-60	0.058	0.051	0.109	0.031	0.058	0.089
61-70	0.091	0.085	0.176	0.048	0.095	0.143
71-80	0.128	0.125	0.253	0.067	0.136	0.203
81-90	0.171	0.167	0.338	0.090	0.180	0.270
91-100	0.219	0.210	0.429	0.116	0.225	0.341
101-110	0.273	0.252	0.525	0.144	0.269	0.413
111-120	0.332	0.294	0.626	0.175	0.312	0.487
121-130	0.396	0.335	0.731	0.209	0.353	0.562
131-140	0.465	0.374	0.839	0.246	0.393	0.639
141-150	0.540	0.411	0.951	0.285	0.431	0.716
151-160	0.620	0.447	1.067	0.328	0.466	0.794
161-170	0.706	0.481	1.187	0.373	0.500	0.873
171-180	0.797	0.513	1.310	0.421	0.532	0.953
181-190	0.893	0.543	1.436	0.472	0.563	1.035
191-200	0.994	0.572	1.566	0.526	0.592	1.118
201-210	1.101	0.599	1.700	0.582	0.619	1.201
211-220	1.213	0.625	1.838	0.629	0.640	1.269
221-230	1.331	0.650	1.981	*	*	*
231-240	1.454	0.673	2.127	*	*	*
241-250	1.582	0.695	2.277	*	*	*
251-260	1.715	0.716	2.431	*	*	*
261-270	1.854	0.736	2.590	*	*	*
271-280	1.998	0.755	2.753	*	*	*

Note:- 1. (*) Indicates that data was not available for these girth classes.
2. Data outside the box is either intrapolated or extrapolated.

Table II(d): Site quality and girth class-wise volume (cmt) of timber and fuelwood of Saja in Betul division

Girth class (cm)	Site Quality III						Site Quality IVa					
	Sound			Unsound			Sound			Unsound		
	Timber	Fuel	Total	Timber	Fuel	Total	Timber	Fuel	Total	Timber	Fuel	Total
31-40	0.076	0.008	0.084	0.041	0.030	0.071	0.058	0.010	0.068	0.036	0.032	0.068
41-50	0.103	0.025	0.128	0.052	0.069	0.121	0.080	0.028	0.108	0.047	0.072	0.119
51-60	0.137	0.052	0.189	0.066	0.119	0.185	0.107	0.057	0.164	0.061	0.123	0.184
61-70	0.178	0.087	0.265	0.083	0.173	0.256	0.138	0.093	0.231	0.077	0.178	0.255
71-80	0.226	0.126	0.352	0.103	0.229	0.332	0.176	0.134	0.310	0.097	0.234	0.331
81-90	0.280	0.167	0.447	0.125	0.283	0.408	0.218	0.178	0.396	0.119	0.289	0.408
99-100	0.342	0.210	0.552	0.150	0.335	0.485	0.266	0.221	0.487	0.144	0.342	0.486
101-100	0.409	0.252	0.661	0.178	0.384	0.562	0.319	0.265	0.584	0.172	0.391	0.563
111-120	0.484	0.293	0.777	0.209	0.430	0.639	0.377	0.307	0.684	0.202	0.437	0.639
121-130	0.566	0.333	0.899	0.243	0.473	0.716	0.441	0.348	0.789	0.235	0.480	0.715
131-140	0.654	0.371	1.025	0.279	0.513	0.792	0.510	0.387	0.897	0.271	0.520	0.791
141-150	0.749	0.408	1.157	0.318	0.550	0.868	0.584	0.424	1.008	0.310	0.557	0.867
151-160	0.851	0.443	1.294	0.360	0.585	0.945	0.663	0.459	1.122	0.352	0.592	0.944
161-170	0.959	0.476	1.435	0.405	0.617	1.022	0.748	0.492	1.240	0.396	0.624	1.020
171-180	1.074	0.507	1.581	0.453	0.647	1.100	0.838	0.524	1.362	0.443	0.654	1.097
181-190	1.196	0.536	1.732	0.503	0.675	1.178	0.933	0.553	1.486	0.493	0.681	1.174
191-200	1.325	0.565	1.890	0.556	0.701	1.257	1.034	0.582	1.616	0.546	0.707	1.253
201-210	1.461	0.591	2.052	0.612	0.725	1.337	1.140	0.608	1.748	0.601	0.732	1.333
211-220	1.603	0.616	2.219	0.671	0.748	1.419	1.251	0.633	1.884	0.659	0.755	1.414
221-230	1.752	0.640	2.392	0.732	0.770	1.502	1.367	0.657	2.024	0.720	0.776	1.496
231-240	1.908	0.663	2.571	*	*	*	1.489	0.680	2.169	0.783	0.796	1.579
241-250	2.070	0.684	2.754	*	*	*	1.616	0.702	2.318	*	*	*
251-260	2.240	0.705	2.945	*	*	*	1.748	0.722	2.470	*	*	*
261-270	2.416	0.724	3.140	*	*	*	1.885	0.742	2.627	*	*	*
271-280	2.599	0.743	3.342	*	*	*	2.028	0.760	2.788	*	*	*

Note:- 1. (*) Indicates that data was not available for these girth classes.
2. Data outside the box is either intrapolated or extrapolated.

Table II(d): Site quality and girth class-wise volume (cmt) of timber and fuelwood of Saja in Betul division

Girth class (cm)	Site Quality IVb					
	Sound			Unsound		
	Timber	Fuel	Total	Timber	Fuel	Total
31-40	0.053	0.010	0.063	0.029	0.035	0.064
41-50	0.074	0.029	0.103	0.037	0.079	0.116
51-60	0.100	0.058	0.158	0.048	0.133	0.181
61-70	0.132	0.095	0.227	0.061	0.191	0.252
71-80	0.168	0.136	0.304	0.077	0.250	0.327
81-90	0.210	0.180	0.390	0.094	0.308	0.402
99-100	0.257	0.224	0.481	0.113	0.362	0.475
101-100	0.310	0.267	0.577	0.135	0.413	0.548
111-120	0.367	0.310	0.677	0.159	0.461	0.620
121-130	0.430	0.350	0.780	0.185	0.506	0.691
131-140	0.498	0.389	0.887	0.213	0.547	0.760
141-150	0.571	0.426	0.997	0.243	0.585	0.828
151-160	0.649	0.462	1.111	0.276	0.621	0.897
161-170	0.732	0.495	1.227	0.310	0.654	0.964
171-180	0.821	0.526	1.347	0.347	0.684	1.031
181-190	0.915	0.556	1.471	0.386	0.713	1.099
191-200	1.014	0.585	1.599	0.427	0.740	1.167
201-210	1.118	0.611	1.729	0.470	0.765	1.235
211-220	1.228	0.636	1.864	0.516	0.788	1.304
221-230	1.342	0.660	2.002	0.563	0.810	1.373
231-240	1.462	0.683	2.145	0.613	0.830	1.443
241-250	1.587	0.705	2.292	*	*	*
251-260	1.718	0.725	2.443	*	*	*
261-270	1.853	0.744	2.597	*	*	*
271-280	1.994	0.763	2.757	*	*	*

Note:- 1. (*) Indicates that data was not available for these girth classes.
2. Data outside the box is either intrapolated or extrapolated.

Table III (a): Site quality and girth class wise volume (cmt) of timber and fuelwood of Dhawa in Dewas division

Girth class (cm)	Site Quality								
	IVa			IVb					
	Sound Tree Volume(cmt)			Sound Tree Volume(cmt)			HalfSound Tree Volume(cmt)		
	Timber	Fuel	Total	Timber	Fuel	Total	Timber	Fuel	Total
31-40	0.044	0.003	0.047	0.043	0.003	0.046	0.026	0.006	0.032
41-50	0.078	0.013	0.091	0.077	0.013	0.090	0.049	0.023	0.072
51-60	0.122	0.032	0.154	0.120	0.033	0.153	0.079	0.051	0.130
61-70	0.174	0.061	0.235	0.172	0.063	0.235	0.114	0.091	0.205
71-80	0.234	0.100	0.334	0.232	0.101	0.333	0.155	0.140	0.295
81-90	0.304	0.144	0.448	0.300	0.146	0.446	0.201	0.194	0.395
91-100	0.382	0.194	0.576	0.377	0.196	0.573	0.254	0.251	0.505
101-110	0.468	0.246	0.714	0.462	0.248	0.710	0.312	0.310	0.622
111-120	0.563	0.300	0.863	0.556	0.302	0.858	0.376	0.369	0.745
121-130	0.667	0.354	1.021	0.659	0.356	1.015	0.446	0.427	0.873
131-140	0.779	0.407	1.186	0.770	0.410	1.180	0.522	0.483	1.005
141-150	0.900	0.460	1.360	0.889	0.463	1.352	0.603	0.538	1.141
151-160	1.029	0.512	1.541	1.017	0.514	1.531	0.690	0.591	1.281
161-170	1.167	0.562	1.729	1.153	0.565	1.718	0.784	0.641	1.425
171-180	1.314	0.610	1.924	1.298	0.613	1.911	0.882	0.690	1.572
181-190	1.469	0.657	2.126	1.452	0.660	2.112	0.987	0.736	1.723

Note:- Data outside the box is either intrapolated or extrapolated.

Table III (a): Site quality and girth class wise volume (cmt) of timber and fuelwood of Dhawa in Dewas division

Girth class (cm)	Va			Vb					
	Sound Tree Volume(cmt)			Sound Tree Volume(cmt)			HalfSound Tree Volume(cmt)		
	Timber	Fuel	Total	Timber	Fuel	Total	Timber	Fuel	Total
	0.042	0.004	0.046	0.038	0.004	0.042	0.026	0.006	0.032
31-40	0.076	0.015	0.091	0.070	0.016	0.086	0.049	0.022	0.071
41-50	0.119	0.038	0.157	0.109	0.039	0.148	0.078	0.050	0.128
51-60	0.170	0.071	0.241	0.157	0.072	0.229	0.113	0.090	0.203
61-70	0.229	0.113	0.342	0.212	0.113	0.325	0.153	0.137	0.290
71-80	0.296	0.161	0.457	0.274	0.160	0.434	0.200	0.190	0.390
81-90	0.372	0.214	0.586	0.345	0.210	0.555	0.252	0.245	0.497
91-100	0.457	0.269	0.726	0.423	0.263	0.686	0.310	0.302	0.612
101-110	0.550	0.325	0.875	0.510	0.316	0.826	0.373	0.359	0.732
111-120	0.651	0.381	1.032	0.604	0.369	0.973	0.443	0.416	0.859
121-130	0.760	0.437	1.197	0.705	0.422	1.127	0.518	0.471	0.989
131-140	0.878	0.491	1.369	0.815	0.473	1.288	0.599	0.524	1.123
141-150	1.005	0.543	1.548	0.932	0.523	1.455	0.686	0.575	1.261
151-160	1.140	0.594	1.734	1.058	0.570	1.628	0.778	0.624	1.402
161-170	1.283	0.644	1.927	1.191	0.616	1.807	0.876	0.671	1.547
171-180	1.435	0.691	2.126	1.331	0.661	1.992	0.980	0.716	1.696
181-190	1.435	0.691	2.126	1.331	0.661	1.992	0.980	0.716	1.696

Note:- Data outside the box is either intrapolated or extrapolated.

Table III(b): Site quality and girth class wise volume (cmt) of timber and fuelwood of Lendia/ Sejla in Dewas division

Girth class (cm)	Site Quality								
	IVa			IVb					
	Sound Tree Volume(cmt)			Sound Tree Volume(cmt)			Half Sound Tree Volume(cmt)		
	Timber	Fuel	Total	Timber	Fuel	Total	Timber	Fuel	Total
31-40	0.044	0.012	0.056	0.042	0.013	0.055	0.023	0.019	0.042
41-50	0.077	0.029	0.106	0.074	0.029	0.103	0.044	0.041	0.085
51-60	0.118	0.050	0.168	0.114	0.050	0.164	0.069	0.066	0.135
61-70	0.168	0.073	0.241	0.162	0.073	0.235	0.099	0.092	0.191
71-80	0.226	0.097	0.323	0.217	0.096	0.313	0.134	0.118	0.252
81-90	0.292	0.121	0.413	0.281	0.119	0.400	0.173	0.143	0.316
91-100	0.366	0.144	0.510	0.352	0.141	0.493	0.218	0.166	0.384
101-110	0.448	0.165	0.613	0.431	0.162	0.593	0.268	0.187	0.455
111-120	0.538	0.185	0.723	0.519	0.181	0.700	0.323	0.207	0.530
121-130	0.637	0.204	0.841	0.614	0.199	0.813	0.383	0.225	0.608
131-140	0.744	0.222	0.966	0.717	0.216	0.933	0.448	0.242	0.690
141-145	0.829	0.234	1.063	0.799	0.228	1.027	0.499	0.254	0.753

Note:- Data outside the box is either intrapolated or extrapolated.

Table III(b): Site quality and girth class wise volume (cmt) of timber and fuelwood of Lendia/ Sejla in Dewas division

Girth class (cm)	Site Quality								
	Va			Vb					
	Sound Tree Volume(cmt)			Sound Tree Volume(cmt)			HalfSound Tree Volume(cmt)		
	Timber	Fuel	Total	Timber	Fuel	Total	Timber	Fuel	Total
31-40	0.041	0.014	0.054	0.025	0.014	0.039	0.018	0.015	0.033
41-50	0.072	0.031	0.103	0.046	0.031	0.077	0.035	0.033	0.068
51-60	0.110	0.053	0.163	0.072	0.053	0.125	0.056	0.055	0.111
61-70	0.156	0.076	0.232	0.104	0.076	0.180	0.081	0.079	0.160
71-80	0.210	0.100	0.310	0.140	0.100	0.240	0.111	0.103	0.214
81-90	0.272	0.124	0.396	0.182	0.123	0.305	0.144	0.126	0.270
91-100	0.341	0.146	0.487	0.229	0.145	0.374	0.182	0.149	0.331
101-110	0.418	0.167	0.585	0.282	0.166	0.448	0.223	0.169	0.392
111-120	0.503	0.187	0.690	0.339	0.186	0.525	0.269	0.189	0.458
121-130	0.595	0.205	0.800	0.402	0.204	0.606	0.319	0.207	0.526
131-140	0.695	0.223	0.918	0.470	0.220	0.690	0.374	0.224	0.598
141-145	0.774	0.235	1.009	0.524	0.232	0.756	0.417	0.236	0.653

Note:- Data outside the box is either intrapolated or extrapolated.

Table III (c): Site quality and girthclass-wise volume (cmt) of timber and fuelwood of Saja in Dewas division

Girth (cm)	Site Quality IVa			Site Quality IVb						Site Quality Va		
	Condition											
	Sound			Sound			HalfSound			Sound		
	Timber	Fuel	Total	Timber	Fuel	Total	Timber	Fuel	Total	Timber	Fuel	Total
31-40	0.025	0.006	0.031	0.023	0.007	0.030	0.021	0.007	0.028	0.022	0.008	0.030
41-50	0.059	0.022	0.081	0.057	0.023	0.080	0.053	0.025	0.078	0.055	0.026	0.081
51-60	0.103	0.051	0.154	0.100	0.050	0.150	0.094	0.054	0.148	0.097	0.055	0.152
61-70	0.155	0.090	0.245	0.151	0.087	0.238	0.142	0.094	0.236	0.146	0.095	0.241
71-80	0.215	0.139	0.354	0.210	0.132	0.342	0.198	0.140	0.338	0.204	0.142	0.346
81-90	0.285	0.193	0.478	0.277	0.181	0.458	0.263	0.191	0.454	0.270	0.192	0.462
91-100	0.363	0.251	0.614	0.353	0.232	0.585	0.335	0.244	0.579	0.344	0.245	0.589
101-110	0.449	0.310	0.759	0.438	0.284	0.722	0.416	0.298	0.714	0.427	0.298	0.725
111-120	0.544	0.370	0.914	0.531	0.335	0.866	0.504	0.351	0.855	0.517	0.351	0.868
121-130	0.648	0.428	1.076	0.632	0.386	1.018	0.600	0.403	1.003	0.616	0.403	1.019
131-140	0.760	0.486	1.246	0.741	0.435	1.176	0.705	0.454	1.159	0.723	0.452	1.175
141-150	0.881	0.541	1.422	0.859	0.482	1.341	0.817	0.502	1.319	0.838	0.500	1.338
151-160	1.010	0.595	1.605	0.986	0.528	1.514	0.938	0.549	1.487	0.962	0.546	1.508
161-170	1.148	0.646	1.794	1.121	0.571	1.692	1.066	0.593	1.659	1.093	0.590	1.683
171-180	1.295	0.695	1.990	1.264	0.613	1.877	1.202	0.636	1.838	1.233	0.631	1.864
181-190	1.450	0.743	2.193	1.416	0.652	2.068	1.347	0.676	2.023	1.381	0.671	2.052
191-200	1.614	0.788	2.402	1.576	0.690	2.266	1.499	0.714	2.213	1.537	0.709	2.246

Note:- Data outside the box is either intrapolated or extrapolated.

Table IV (a): Site quality and girth class-wise volume (cmt) of timber and fuelwood of Miscellaneous Species in Dindori division

Girth class (cm)	Site quality IVa (Sound tree)		
	Timber	Fuel	Total
21-30	0.011	0.003	0.014
31-40	0.031	0.014	0.045
41-50	0.057	0.038	0.095
51-60	0.089	0.073	0.162
61-70	0.128	0.114	0.242
71-80	0.174	0.160	0.334
81-90	0.226	0.206	0.432
91-100	0.284	0.253	0.537
101-110	0.349	0.298	0.647
111-120	0.420	0.341	0.761
121-130	0.497	0.383	0.880
131-140	0.581	0.422	1.003
141-150	0.672	0.459	1.131
151-160	0.769	0.494	1.263
161-170	0.872	0.526	1.398
171-180	0.982	0.557	1.539
181-190	1.098	0.586	1.684
191-200	1.221	0.614	1.835
201-210	1.350	0.640	1.990
211-220	1.486	0.664	2.150
221-230	1.628	0.687	2.315
231-240	1.776	0.709	2.485
241-250	1.931	0.730	2.661
251-260	2.092	0.749	2.841
261-270	2.260	0.768	3.028
271-280	2.434	0.785	3.219
281-290	2.615	0.802	3.417
291-300	2.802	0.818	3.620

Table V (a): Site quality and girthclass wise volume (cmt) of timber and fuelwood of Miscllaneous species in Harda division.

Girth (cm)	Site Quality III/IVa					
	Sound Tree Volume(cmt)			Unsound Tree Volume(cmt)		
	Timber	Fuel	Total	Timber	Fuel	Total
81-90	*	*	*	0.094	0.154	0.248
91-100	0.519	0.128	0.647	0.104	0.173	0.277
101-110	0.555	0.149	0.704	0.125	0.206	0.331
111-120	0.607	0.177	0.784	0.148	0.238	0.386
121-130	0.664	0.205	0.869	0.173	0.269	0.442
131-140	0.725	0.232	0.957	0.200	0.298	0.498
141-150	0.791	0.258	1.049	0.229	0.326	0.555
151-160	0.862	0.283	1.145	0.260	0.352	0.612
161-170	0.937	0.307	1.244	0.293	0.377	0.670
171-180	1.017	0.330	1.347	0.328	0.401	0.729
181-190	1.102	0.352	1.454	0.366	0.423	0.789
191-200	1.191	0.373	1.564	0.405	0.444	0.849
201-210	1.285	0.394	1.679	0.446	0.464	0.910
211-220	1.384	0.413	1.797	*	*	*
221-230	1.488	0.431	1.919	*	*	*
231-240	1.596	0.448	2.044	*	*	*
241-250	1.709	0.465	2.174	*	*	*
251-260	1.826	0.481	2.307	*	*	*
261-270	1.949	0.496	2.445	*	*	*
271-280	2.076	0.511	2.587	*	*	*
281-290	2.207	0.524	2.731	*	*	*
291-300	2.344	0.538	2.882	*	*	*
301-310	2.485	0.550	3.035	*	*	*
311-320	2.630	0.563	3.193	*	*	*
321-330	2.781	0.574	3.355	*	*	*
331-340	2.936	0.585	3.521	*	*	*
341-350	3.096	0.596	3.692	*	*	*

Note:- 1 (*) Indicates that data was not available for these girth classes.
2 Data outside the box is either intrapolated or extrapolated.

Table VI (a): Site quality and girth class-wise volume (cmt) of timber and fuelwood of Dhari for Mandla Division

Girth (cm)	Site Quality IVa		
	Half Sound Tree Volume(cmt)		
	Timber	Fuel	Total
81-90	0.201	0.119	0.320
91-100	0.233	0.144	0.377
101-110	0.269	0.169	0.438
111-120	0.309	0.192	0.501
121-130	0.352	0.214	0.566
131-140	0.399	0.235	0.634
141-150	0.449	0.254	0.703
151-160	0.503	0.272	0.775
161-170	0.560	0.290	0.850
171-180	0.621	0.306	0.927
181-190	0.686	0.321	1.007
191-200	0.754	0.335	1.089
201-210	0.826	0.348	1.174
211-220	0.901	0.361	1.262
221-230	0.980	0.373	1.353

Table VI (b): Site quality and girth class-wise volume (cmt) of timber and fuelwood of Haldu for Mandla Division

Girth (cm)	Site Quality IVa		
	Sound Tree Volume(cmt)		
	Timber	Fuel	Total
111-120	0.516	0.022	0.538
121-130	0.596	0.027	0.623
131-140	0.687	0.033	0.720
141-150	0.786	0.038	0.824
151-160	0.891	0.044	0.935
161-170	1.004	0.050	1.054
171-180	1.123	0.056	1.179
181-190	1.250	0.062	1.312
191-200	1.383	0.068	1.451
201-210	1.524	0.073	1.597
211-220	1.671	0.079	1.750
221-230	1.826	0.084	1.910
231-240	1.987	0.089	2.076
241-250	2.156	0.094	2.250
251-260	2.331	0.099	2.430
261-270	2.514	0.104	2.618
271-280	2.703	0.109	2.812
281-290	2.900	0.113	3.013
291-300	3.103	0.117	3.220
301-310	3.314	0.122	3.436
311-320	3.531	0.126	3.657
321-330	3.756	0.130	3.886
331-340	3.987	0.134	4.121
341-350	4.226	0.137	4.363
351-360	4.471	0.141	4.612
361-370	4.724	0.145	4.869
371-380	4.984	0.148	5.132
381-390	5.250	0.151	5.401
391-400	5.524	0.154	5.678

Table VI (c): Site quality and girth class-wise volume (cmt) of timber and fuelwood of Saja for Mandla Division.

Girth (cm)	Site Quality IVa					
	Sound Tree Volume(cmt)			HalfSound Tree Volume(cmt)		
	Timber	Fuel	Total	Timber	Fuel	Total
71-80	0.412	0.026	0.438	*	*	*
81-90	0.454	0.036	0.490	0.453	0.056	0.509
91-100	0.504	0.047	0.551	0.465	0.064	0.529
101-100	0.560	0.059	0.619	0.489	0.078	0.567
111-120	0.621	0.071	0.692	0.515	0.092	0.607
121-130	0.688	0.082	0.770	0.544	0.106	0.650
131-140	0.760	0.093	0.853	0.574	0.120	0.694
141-150	0.838	0.104	0.942	0.608	0.133	0.741
151-160	0.921	0.115	1.036	0.643	0.146	0.789
161-170	1.010	0.125	1.135	0.681	0.158	0.839
171-180	1.104	0.135	1.239	0.722	0.170	0.892
181-190	1.204	0.145	1.349	0.765	0.181	0.946
191-200	1.309	0.154	1.463	0.810	0.191	1.001
201-210	1.420	0.162	1.582	0.857	0.202	1.059
211-220	1.537	0.171	1.708	0.907	0.211	1.118
221-230	1.659	0.178	1.837	0.959	0.220	1.179
231-240	1.786	0.186	1.972	1.014	0.229	1.243
241-250	1.919	0.193	2.112	1.071	0.237	1.308
251-260	2.058	0.200	2.258	1.118	0.244	1.362
261-270	2.202	0.207	2.409	*	*	*
271-280	2.352	0.213	2.565	*	*	*
281-290	2.507	0.219	2.726	*	*	*
291-300	2.668	0.225	2.893	*	*	*
301-310	2.791	0.229	3.020	*	*	*

Note:- 1 (*) Indicates that data was not available for these girth classes.
2 Data outside the box is either intrapolated or extrapolated.

Table VI (d): Site quality and girth class-wise volume (cmt) of timber and fuelwood of Lendia for Mandla Division

Girth (cm)	Site Quality					
	III					
	Sound Tree Volume(cmt)			Half Sound Tree Volume(cmt)		
	Timber	Fuel	Total	Timber	Fuel	Total
21-30	*	*	*	*	*	*
31-40	*	*	*	*	*	*
41-50	*	*	*	*	*	*
51-60	*	*	*	*	*	*
61-70	0.119	0.026	0.145	0.101	0.044	0.145
71-80	0.157	0.038	0.195	0.134	0.058	0.192
81-90	0.203	0.051	0.254	0.178	0.075	0.253
91-100	0.254	0.064	0.318	0.226	0.091	0.317
101-110	0.310	0.077	0.387	0.281	0.107	0.388
111-120	0.373	0.091	0.464	0.340	0.122	0.462
121-130	0.441	0.104	0.545	0.405	0.137	0.542
131-140	0.514	0.116	0.630	0.476	0.151	0.627
141-150	0.594	0.128	0.722	0.552	0.163	0.715
151-160	0.679	0.139	0.818	0.633	0.176	0.809
161-170	0.769	0.150	0.919	0.702	0.185	0.887
171-180	0.865	0.160	1.025	*	*	*
181-190	0.967	0.170	1.137	*	*	*
191-200	*	*	*	*	*	*
201-210	*	*	*	*	*	*
211-220	*	*	*	*	*	*
221-230	*	*	*	*	*	*
231-240	*	*	*	*	*	*
241-250	*	*	*	*	*	*
251-260	*	*	*	*	*	*
261-270	*	*	*	*	*	*

Note:- 1. (*) Indicates that data was not available for these girth classes.

2. Data outside the box is either intrapolated or extrapolated.

Table VI (d): Site quality and girth class-wise volume (cmt) of timber and fuelwood of Lendia for Mandla Division

Girth (cm)	IVa								
	Sound Tree Volume(cmt)			Half Sound Tree Volume(cmt)			Un Sound Tree Volume(cmt)		
	Timber	Fuel	Total	Timber	Fuel	Total	Timber	Fuel	Total
	*	*	*	*	*	*	0.009	0.006	0.015
21-30	*	*	*	*	*	*	0.015	0.012	0.027
31-40	*	*	*	*	*	*	0.027	0.028	0.055
41-50	*	*	*	0.070	0.038	0.108	0.043	0.047	0.090
51-60	0.118	0.026	0.144	0.084	0.048	0.132	0.062	0.068	0.130
61-70	0.156	0.038	0.194	0.113	0.066	0.179	0.084	0.090	0.174
71-80	0.201	0.051	0.252	0.146	0.084	0.230	0.109	0.111	0.220
81-90	0.252	0.064	0.316	0.183	0.102	0.285	0.138	0.132	0.270
91-100	0.308	0.078	0.386	0.224	0.120	0.344	0.169	0.151	0.320
101-110	0.370	0.091	0.461	0.270	0.137	0.407	0.204	0.169	0.373
111-120	0.437	0.104	0.541	0.319	0.153	0.472	0.241	0.185	0.426
121-130	0.510	0.116	0.626	0.373	0.168	0.541	0.282	0.201	0.483
131-140	0.589	0.128	0.717	0.430	0.182	0.512	0.326	0.215	0.541
141-150	0.673	0.139	0.812	0.492	0.196	0.688	*	*	*
151-160	0.763	0.150	0.913	0.558	0.208	0.766	*	*	*
161-170	0.859	0.160	1.019	0.628	0.220	0.848	*	*	*
171-180	0.960	0.169	1.129	0.702	0.231	0.933	*	*	*
181-190	1.066	0.178	1.244	0.780	0.242	1.022	*	*	*
191-200	1.179	0.187	1.366	0.841	0.249	1.090	*	*	*
201-210	1.297	0.195	1.492	*	*	*	*	*	*
211-220	1.420	0.203	1.623	*	*	*	*	*	*
221-230	1.549	0.211	1.760	*	*	*	*	*	*
231-240	1.684	0.218	1.902	*	*	*	*	*	*
241-250	1.824	0.224	2.048	*	*	*	*	*	*
251-260	1.970	0.231	2.201	*	*	*	*	*	*
261-270									

Note:- 1. (*) Indicates that data was not available for these girth classes.
2. Data outside the box is either intrapolated or extrapolated.

Table VI (e): Site quality and girth class-wise volume (cmt) of timber and fuelwood of Dhawa for Mandla Division.

Site Quality III						
Girth (cm)	Sound Tree Volume(cmt)			Half Sound Tree Volume(cmt)		
	Timber	Fuel	Total	Timber	Fuel	Total
51-60	0.085	0.044	0.129	*	*	*
61-70	0.127	0.059	0.186	*	*	*
71-80	0.184	0.077	0.261			
81-90	0.249	0.094	0.343	0.257	0.126	0.383
91-100	0.322	0.111	0.433	0.283	0.134	0.417
101-110	0.403	0.126	0.529	0.334	0.149	0.483
111-120	0.493	0.141	0.634	0.390	0.163	0.553
121-130	0.590	0.154	0.744	0.452	0.175	0.627
131-140	0.696	0.166	0.862	0.518	0.186	0.704
141-150	0.809	0.178	0.987	0.590	0.197	0.787
151-160	0.931	0.189	1.120	0.667	0.206	0.873
161-170	1.061	0.199	1.260	0.749	0.215	0.964
171-180	1.199	0.208	1.407	0.836	0.223	1.059
181-190	1.345	0.216	1.561	0.928	0.230	1.158
191-200	1.499	0.224	1.723	1.025	0.237	1.262
201-210	1.661	0.232	1.893	1.085	0.241	1.326
211-220	*	*	*	*	*	*
221-230	*	*	*	*	*	*
231-240	*	*	*	*	*	*

Note:- 1. (*) Indicates that data was not available for these girth classes.
2. Data outside the box is either intrapolated or extrapolated.

Table VI (e): Site quality and girth class-wise volume (cmt) of timber and fuelwood of Dhawa for Mandla Division.

Girth (cm)	IVa						IVb		
	Sound Tree Volume(cmt)			Half Sound Tree Volume(cmt)			Sound Tree Volume(cmt)		
	Timber	Fuel	Total	Timber	Fuel	Total	Timber	Fuel	Total
51-60	*	*	*	*	*	*	*	*	*
61-70	*	*	*	0.163	0.092	0.255	*	*	*
71-80				0.190	0.107	0.297	0.184	0.093	0.277
81-90	0.276	0.105	0.381	0.229	0.125	0.354	0.218	0.104	0.322
91-100	0.317	0.114	0.431	0.274	0.142	0.416	0.280	0.123	0.403
101-110	0.398	0.130	0.528	0.323	0.157	0.480	0.348	0.141	0.489
111-120	0.486	0.144	0.630	0.377	0.171	0.548	0.424	0.158	0.582
121-130	0.582	0.158	0.740	0.436	0.184	0.620	0.506	0.173	0.679
131-140	0.687	0.170	0.857	0.500	0.195	0.695	0.594	0.187	0.781
141-150	0.799	0.182	0.981	0.569	0.206	0.775	0.690	0.200	0.890
151-160	0.920	0.193	1.113	0.643	0.216	0.859	0.793	0.213	1.006
161-170	1.048	0.203	1.251	0.721	0.224	0.945	0.902	0.224	1.126
171-180	1.184	0.212	1.396	0.805	0.233	1.038	1.018	0.234	1.252
181-190	1.329	0.221	1.550	0.893	0.240	1.133	1.141	0.244	1.385
191-200	1.481	0.229	1.710	0.987	0.247	1.234	1.271	0.253	1.524
201-210	1.642	0.236	1.878	1.085	0.253	1.338	1.407	0.262	1.669
211-220	1.810	0.243	2.053	*	*	*	1.507	0.268	1.775
221-230	1.986	0.250	2.236	*	*	*	*	*	*
231-240	2.171	0.256	2.427	*	*	*	*	*	*

Note:- 1. (*) Indicates that data was not available for these girth classes.
2. Data outside the box is either intrapolated or extrapolated.

Table VII (a): Site quality and girthclass-wise volume (cmt) of miscellaneous species timber and fuelwood in Raisen Division

Girth (cm)	Site Quality											
	IVb						Va					
	Sound Tree Volume(cmt)			HalfSound Tree Volume(cmt)			Sound Tree Volume(cmt)			HalfSound Tree Volume(cmt)		
	Timber	Fuel	Total	Timber	Fuel	Total	Timber	Fuel	Total	Timber	Fuel	Total
21-30	*	*	*	*	*	*	0.067	0.003	0.070	*	*	*
31-40	*	*	*	*	*	*	0.075	0.007	0.082	*	*	*
41-50	*	*	*	*	*	*	0.092	0.014	0.106	0.053	0.023	0.076
51-60	*	*	*	*	*	*	0.112	0.023	0.135	0.070	0.036	0.106
61-70	*	*	*	*	*	*	0.136	0.033	0.169	0.090	0.050	0.140
71-80	0.187	0.038	0.225	0.138	0.049	0.187	0.165	0.042	0.207	0.114	0.063	0.177
81-90	0.230	0.048	0.278	0.163	0.063	0.226	0.197	0.051	0.248	0.141	0.076	0.217
91-100	0.298	0.062	0.360	0.195	0.080	0.275	0.233	0.060	0.293	0.172	0.088	0.260
101-110	0.373	0.076	0.449	0.231	0.096	0.327	0.274	0.068	0.342	*	*	*
111-120	0.456	0.091	0.547	0.270	0.112	0.382	0.318	0.075	0.393	*	*	*
121-130	0.546	0.105	0.651	0.313	0.128	0.441	0.366	0.082	0.448	*	*	*
131-140	0.644	0.119	0.763	0.360	0.143	0.503	0.419	0.088	0.507	*	*	*
141-150	0.749	0.132	0.881	0.410	0.157	0.567	0.475	0.094	0.569	*	*	*
151-160	0.862	0.145	1.007	0.438	0.165	0.603	0.535	0.100	0.635	*	*	*
161-170	0.951	0.155	1.106	*	*	*	0.600	0.105	0.705	*	*	*
171-180	*	*	*	*	*	*	0.668	0.109	0.777	*	*	*
181-190	*	*	*	*	*	*	0.741	0.113	0.854	*	*	*
191-200	*	*	*	*	*	*	0.782	0.116	0.898	*	*	*

Note:- (*) Indicates that data was not available for these girth classes.

Table VIII (a): Site quality and girth class-wise volume (cmt) of timber and fuelwood of Saja in Sehore division

Girth (cm)	Site Quality					
	IVb					
	Sound			Halfsound		
	Timber	Fuel	Total	Timber	Fuel	Total
31-40	0.049	0.035	0.084	0.046	0.038	0.084
41-50	0.075	0.057	0.132	0.068	0.062	0.130
51-60	0.106	0.078	0.184	0.096	0.084	0.180
61-70	0.143	0.098	0.241	0.130	0.104	0.234
71-80	0.187	0.115	0.302	0.168	0.122	0.290
81-90	0.237	0.130	0.367	0.213	0.138	0.351
91-100	0.293	0.143	0.436	0.263	0.152	0.415
101-110	0.355	0.155	0.510	0.318	0.164	0.482
111-120	0.424	0.166	0.590	0.379	0.175	0.554
121-130	0.499	0.175	0.674	0.445	0.184	0.629
131-140	0.580	0.183	0.763	0.517	0.193	0.710
141-150	0.667	0.191	0.858	0.595	0.201	0.796
151-160	0.760	0.198	0.958	0.678	0.208	0.886
161-170	0.859	0.204	1.063	0.766	0.214	0.980
171-180	0.965	0.210	1.175	0.860	0.220	1.080
181-190	1.077	0.215	1.292	0.960	0.225	1.185
191-200	1.195	0.220	1.415	1.065	0.230	1.295
201-210	1.319	0.224	1.543	1.176	0.235	1.411
211-220	1.450	0.228	1.678	1.292	0.239	1.531
221-230	1.587	0.232	1.819	1.413	0.243	1.656
231-240	1.730	0.236	1.966	1.540	0.246	1.786
241-250	1.879	0.239	2.118	1.673	0.250	1.923
251-260	2.034	0.242	2.276	1.811	0.253	2.064
261-270	2.196	0.245	2.441	1.955	0.256	2.211
271-280	2.363	0.248	2.611	2.104	0.259	2.363

Note:- Data outside the box is either intrapolated or extrapolated.

Table IX (a): Site quality and girth class-wise volume (cmt) of timber and fuelwood of Dhawa in Seoni division

Girth class (cm)	Site Quality II			Site Quality III					
	Sound			Sound			HalfSound		
	Timber	Fuel	Total	Timber	Fuel	Total	Timber	Fuel	Total
41-50	0.093	0.031	0.124	0.080	0.032	0.112	0.051	0.039	0.090
51-60	0.134	0.054	0.188	0.115	0.055	0.170	0.073	0.065	0.138
61-70	0.183	0.079	0.262	0.157	0.081	0.238	0.100	0.093	0.193
71-80	0.240	0.104	0.344	0.206	0.107	0.313	0.131	0.120	0.251
81-90	0.306	0.130	0.436	0.261	0.132	0.393	0.166	0.147	0.313
91-100	0.379	0.154	0.533	0.324	0.157	0.481	0.206	0.172	0.378
101-110	0.461	0.177	0.638	0.394	0.180	0.574	0.250	0.196	0.446
111-120	0.551	0.199	0.750	0.470	0.202	0.672	0.299	0.218	0.517
121-130	0.649	0.219	0.868	0.554	0.222	0.776	0.352	0.238	0.590
131-140	0.755	0.238	0.993	0.644	0.241	0.885	0.409	0.257	0.666
141-150	0.869	0.256	1.125	0.741	0.258	0.999	0.471	0.275	0.746
151-160	0.992	0.272	1.264	0.845	0.275	1.120	0.537	0.291	0.828
161-170	1.122	0.287	1.409	0.957	0.290	1.247	0.608	0.306	0.914
171-180	1.261	0.301	1.562	1.075	0.304	1.379	0.683	0.320	1.003
181-190	1.407	0.315	1.722	1.200	0.317	1.517	0.762	0.333	1.095
191-200	1.562	0.327	1.889	1.331	0.330	1.661	0.846	0.345	1.191
201-210	1.725	0.339	2.064	1.470	0.341	1.811	0.934	0.357	1.291
211-220	1.897	0.350	2.247	1.616	0.352	1.968	1.027	0.367	1.394
221-230	2.076	0.360	2.436	1.769	0.362	2.131	1.124	0.377	1.501

Note:- Data outside the box is either intrapolated or extrapolated.

Table IX (a): Site quality and girth class-wise volume (cmt) of timber and fuelwood of Dhawa in Seoni division

Girth class (cm)	Site Quality IVa			Site Quality IVb					
	Sound			Sound			HalfSound		
	Timber	Fuel	Total	Timber	Fuel	Total	Timber	Fuel	Total
41-50	0.079	0.033	0.112	0.066	0.034	0.100	0.049	0.040	0.089
51-60	0.114	0.056	0.170	0.094	0.058	0.152	0.070	0.066	0.136
61-70	0.155	0.082	0.237	0.128	0.084	0.212	0.095	0.094	0.189
71-80	0.204	0.108	0.312	0.167	0.111	0.278	0.125	0.122	0.247
81-90	0.259	0.134	0.393	0.212	0.137	0.349	0.159	0.149	0.308
91-100	0.321	0.158	0.479	0.262	0.162	0.424	0.197	0.174	0.371
101-110	0.390	0.182	0.572	0.318	0.185	0.503	0.239	0.198	0.437
111-120	0.466	0.203	0.669	0.380	0.207	0.587	0.285	0.220	0.505
121-130	0.549	0.224	0.773	0.447	0.227	0.674	0.336	0.240	0.576
131-140	0.638	0.243	0.881	0.520	0.246	0.766	0.391	0.259	0.650
141-150	0.734	0.260	0.994	0.598	0.264	0.862	0.450	0.277	0.727
151-160	0.838	0.276	1.114	0.682	0.280	0.962	0.513	0.293	0.806
161-170	0.948	0.292	1.240	0.771	0.295	1.066	0.580	0.308	0.888
171-180	1.065	0.306	1.371	0.866	0.309	1.175	0.652	0.322	0.974
181-190	1.189	0.319	1.508	0.967	0.322	1.289	0.728	0.335	1.063
191-200	1.319	0.331	1.650	1.073	0.335	1.408	0.808	0.347	1.155
201-210	1.457	0.343	1.800	1.184	0.346	1.530	0.892	0.358	1.250
211-220	1.601	0.354	1.955	1.302	0.357	1.659	0.980	0.369	1.349
221-230	1.752	0.364	2.116	1.424	0.367	1.791	1.073	0.379	1.452

Note:-sData outside the box is either intrapolated or extrapolated.

Table IX(b): Site quality and girth class-wise volume (cmt) of timber and fuelwood of Lendia in Seoni division

Girth class (cm)	Site Quality II			Site Quality III					
	Sound			Sound			Halfsound		
	Timber	Fuel	Total	Timber	Fuel	Total	Timber	Fuel	Total
41-50	0.032	0.003	0.035	0.031	0.004	0.035	0.016	0.012	0.028
51-60	0.069	0.009	0.078	0.068	0.010	0.078	0.038	0.027	0.065
61-70	0.115	0.018	0.133	0.112	0.020	0.132	0.065	0.047	0.112
71-80	0.167	0.031	0.198	0.164	0.033	0.197	0.096	0.071	0.167
81-90	0.228	0.046	0.274	0.224	0.049	0.s273	0.132	s0.097	0.229
91-100	0.295	0.064	0.359	0.290	0.068	0.358	0.172	0.124	0.296
101-110	0.370	0.084	0.454	0.365	0.088	0.453	0.217	0.152	0.369
111-120	0.453	0.104	0.557	0.446	0.108	0.554	0.266	0.179	0.445
121-130	0.543	0.125	0.668	0.535	0.130	0.665	0.319	0.206	0.525
131-140	0.641	0.146	0.787	0.631	0.151	0.782	0.377	0.232	0.609
141-150	0.746	0.167	0.913	0.735	0.173	0.908	0.439	0.257	0.696
151-160	0.858	0.188	1.046	0.846	0.194	1.040	0.506	0.281	0.787
161-170	0.978	0.208	1.186	0.964	0.214	1.178	0.577	0.304	0.881
171-180	1.106	0.228	1.334	1.090	0.234	1.324	0.652	0.326	0.978
181-190	1.241	0.247	1.488	1.223	0.254	1.477	0.732	0.347	1.079
191-200	1.383	0.266	1.649	1.363	0.273	1.636	0.817	0.367	1.184

Note:- Data outside the box is either intrapolated or extrapolated.

Table IX(b): Site quality and girth class-wise volume (cmt) of timber and fuelwood of Lendia in Seoni division

Girth class (cm)	Site Quality IVa			Site Quality IVb					
	Sound			Sound			Halfsound		
	Timber	Fuel	Total	Timber	Fuel	Total	Timber	Fuel	Total
41-50	0.029	0.004	0.033	0.028	0.005	0.033	0.012	0.014	0.026
51-60	0.065	0.012	0.077	0.064	0.013	0.077	0.032	0.031	0.063
61-70	0.109	0.023	0.132	0.107	0.025	0.132	0.056	0.052	0.108
71-80	0.160	0.038	0.198	0.157	0.040	0.197	0.084	0.078	0.162
81-90	0.217	0.055	0.272	0.215	0.059	0.274	0.116	0.105	0.221
91-100	0.283	0.075	0.358	0.279	0.079	0.358	0.153	0.134	0.287
101-110	0.355	0.096	0.451	0.351	0.101	0.452	0.193	0.162	0.355
111-120	0.435	0.118	0.553	0.429	0.124	0.553	0.237	0.190	0.427
121-130	0.521	0.141	0.662	0.515	0.146	0.661	0.285	0.218	0.503
131-140	0.615	0.163	0.778	0.608	0.169	0.777	0.337	0.244	0.581
141-150	0.716	0.185	0.901	0.708	0.191	0.899	0.394	0.270	0.664
151-160	0.825	0.207	1.032	0.815	0.213	1.028	0.454	0.294	0.748
161-170	0.940	0.228	1.168	0.929	0.235	1.164	0.518	0.317	0.835
171-180	1.063	0.248	1.311	1.051	0.255	1.306	0.586	0.339	0.925
181-190	1.193	0.268	1.461	1.179	0.275	1.454	0.658	0.360	1.018
191-200	1.330	0.287	1.617	1.315	0.295	1.610	0.735	0.380	1.115

Note:- Data outside the box is either intrapolated or extrapolated.

Table IX(c): Site quality and girth class-wise volume (cmt) of timber and fuelwood of Other Species in Seoni division

Girth class (cm)	Site Quality II		
	sound		
	Timber	Fuel	Total
61-70	0.038	0.020	0.058
71-80	0.095	0.034	0.129
81-90	0.160	0.051	0.211
91-100	0.233	0.069	0.302
101-110	0.314	0.089	0.403
111-120	0.403	0.110	0.513
121-130	0.500	0.131	0.631
131-140	0.605	0.152	0.757
141-150	0.719	0.173	0.892
151-160	0.840	0.194	1.034
161-170	0.969	0.214	1.183
171-180	1.107	0.234	1.341
181-190	1.252	0.253	1.505
191-200	1.406	0.272	1.678
201-210	1.568	0.290	1.858

Note:- Data outside the box is either intrapolated or extrapolated.

Table IX(d): Site quality and girth class-wise volume (cmt) of timber and fuelwood of Saja in Seoni division

Girth class(cm)	Site Quality II			Site Quality IVa		
	Condition					
	sound			sound		
	Timber	Fuel	Total	Timber	Fuel	Total
41-50	0.068	0.023	0.091	0.057	0.034	0.091
51-60	0.099	0.050	0.149	0.077	0.068	0.145
61-70	0.136	0.085	0.221	0.101	0.111	0.212
71-80	0.179	0.127	0.306	0.129	0.159	0.288
81-90	0.228	0.173	0.401	0.162	0.210	0.372
91-100	0.283	0.220	0.503	0.198	0.262	0.460
101-110	0.344	0.268	0.612	0.238	0.314	0.552
111-120	0.411	0.316	0.727	0.282	0.364	0.646
121-130	0.485	0.362	0.847	0.331	0.412	0.743
131-140	0.564	0.407	0.971	0.383	0.458	0.841
141-150	0.649	0.450	1.099	0.439	0.502	0.941
151-160	0.741	0.491	1.232	0.499	0.543	0.042
161-170	0.839	0.530	1.369	0.564	0.583	1.147
171-180	0.943	0.568	1.511	0.632	0.620	1.252
181-190	1.052	0.603	1.655	0.704	0.655	1.359
191-200	1.168	0.637	1.805	0.781	0.689	1.470
201-210	1.290	0.669	1.960	0.861	0.720	1.581
211-220	1.418	0.700	2.118	0.945	0.750	1.695
221-230	1.553	0.729	2.282	1.034	0.779	1.813

Note:- Data outside the box is either intrapolated or extrapolated.

Table X(a): Site quality and girthclass-wise volume (cmt) of Miscellaneous species (timber and fuelwood) in West Chhindwara division

Girth	Site Quality					
	IVa			IVb		
	Sound Tree Volume(cmt)			Sound Tree Volume(cmt)		
	Timber	Fuel	Total	Timber	Fuel	Total
21-30	*	*	*	0.0283	0.0032	0.0315
31-40	*	*	*	0.0453	0.0162	0.0615
41-50	*	*	*	0.0678	0.0421	0.1099
51-60	0.1290	0.0940	0.2220	0.0959	0.0784	0.1743
61-70	0.1519	0.1174	0.2693	0.1295	0.1211	0.2506
71-80	0.1984	0.1626	0.3610	0.1687	0.1667	0.3354
81-90	0.2515	0.2086	0.4601	0.2135	0.2131	0.4266
91-100	0.3112	0.2542	0.5654	0.2638	0.2588	0.5226
101-110	0.3776	0.2983	0.6759	0.3197	0.3029	0.6226
111-120	0.4505	0.3406	0.7911	0.3811	0.3451	0.7262
121-130	0.5300	0.3807	0.9107	0.4481	0.3850	0.8331
131-140	0.6162	0.4186	1.0348	0.5206	0.4227	0.9433
141-150	0.7089	0.4543	1.1632	0.5988	0.4581	1.0569
151-160	0.8082	0.4879	1.2961	0.6824	0.4914	1.1738
161-170	0.9142	0.5194	1.4336	0.7717	0.5226	1.2943
171-180	1.0267	0.5491	1.5758	0.8665	0.5520	1.4185
181-190	1.1458	0.5770	1.7228	0.9668	0.5796	1.5464
191-200	1.2715	0.6033	1.8748	1.0728	0.6055	1.6783
201-210	1.4039	0.6280	2.0319	1.1842	0.6299	1.8141
211-220	1.5428	0.6513	2.1941	1.3013	0.6529	1.9542
221-230	1.6511	0.6680	2.3191	1.4239	0.6746	2.0985
231-240	*	*	*	1.5520	0.6950	2.2470

Note:- (*) Indicates that data was not available for these girth classes.