Table S1. Potential development of attributes, characterizing Lithuanian forests and forestry, during the period from 2020 until 2120, depending on future scenarios

| **Years** | **Climate change scenario and forest ownership (all forests or state forests)** | | | | | |
| --- | --- | --- | --- | --- | --- | --- |
| **NO POLICY** | **REFERENCE** | **EU BIOENERGY** | **NO POLICY (State)** | **REFERENCE (State)** | **EU BIOENERGY (State)** |
| Standing volume in 1 ha, m3 | | | | | | |
| 2020 | 222.5 | 232.9 | 232.9 | 221.7 | 227.7 | 227.7 |
| 2030 | 238.5 | 241.9 | 241.9 | 235.3 | 240.2 | 240.2 |
| 2040 | 248.1 | 252.4 | 251.3 | 250.4 | 257.0 | 255.7 |
| 2050 | 249.2 | 260.7 | 258.2 | 256.5 | 270.5 | 267.8 |
| 2060 | 257.5 | 274.0 | 270.0 | 263.6 | 283.2 | 278.9 |
| 2070 | 261.0 | 283.6 | 278.2 | 262.2 | 287.2 | 281.5 |
| 2080 | 263.7 | 292.0 | 285.2 | 259.1 | 289.1 | 282.1 |
| 2090 | 260.2 | 294.6 | 286.4 | 253.8 | 289.0 | 280.7 |
| 2100 | 256.5 | 296.7 | 287.0 | 252.4 | 292.4 | 282.9 |
| 2110 | 255.0 | 301.0 | 289.9 | 253.6 | 299.2 | 288.2 |
| 2120 | 256.9 | 308.7 | 296.0 | 255.2 | 305.7 | 293.3 |
| Average age of all stands, years | | | | | | |
| 2020 | 52.92 |  |  | 52.99 |  |  |
| 2030 | 53.06 |  |  | 52.98 |  |  |
| 2040 | 52.96 |  |  | 53.42 |  |  |
| 2050 | 52.59 |  |  | 53.65 |  |  |
| 2060 | 53.06 |  |  | 54.26 |  |  |
| 2070 | 53.64 |  |  | 54.25 |  |  |
| 2080 | 54.26 |  |  | 54.14 |  |  |
| 2090 | 54.17 |  |  | 53.83 |  |  |
| 2100 | 53.65 |  |  | 53.83 |  |  |
| 2110 | 53.52 |  |  | 54.01 |  |  |
| 2120 | 53.64 |  |  | 53.85 |  |  |
| Average diameter of all forest stands, m | | | | | | |
| 2020 | 0.198 | 0.202 | 0.202 | 0.191 | 0.195 | 0.195 |
| 2030 | 0.190 | 0.195 | 0.195 | 0.185 | 0.190 | 0.190 |
| 2040 | 0.183 | 0.188 | 0.188 | 0.181 | 0.187 | 0.187 |
| 2050 | 0.179 | 0.187 | 0.185 | 0.180 | 0.189 | 0.187 |
| 2060 | 0.180 | 0.189 | 0.187 | 0.181 | 0.191 | 0.190 |
| 2070 | 0.181 | 0.192 | 0.190 | 0.180 | 0.192 | 0.190 |
| 2080 | 0.182 | 0.195 | 0.192 | 0.179 | 0.192 | 0.190 |
| 2090 | 0.182 | 0.195 | 0.193 | 0.178 | 0.192 | 0.190 |
| 2100 | 0.182 | 0.197 | 0.194 | 0.180 | 0.196 | 0.192 |
| 2110 | 0.182 | 0.200 | 0.195 | 0.182 | 0.200 | 0.195 |
| 2120 | 0.184 | 0.203 | 0.198 | 0.184 | 0.203 | 0.198 |
| Relative share of broadleaved tree species in the standing volume, percent | | | | | | |
| 2020 | 37.82 | 36.78 | 36.78 | 31.36 | 30.60 | 30.60 |
| 2030 | 36.74 | 35.14 | 35.14 | 31.38 | 30.06 | 30.06 |
| 2040 | 35.62 | 33.66 | 33.75 | 31.20 | 29.50 | 29.58 |
| 2050 | 34.91 | 32.76 | 32.94 | 31.51 | 29.57 | 29.74 |
| 2060 | 34.50 | 31.94 | 32.22 | 31.64 | 29.24 | 29.51 |
| 2070 | 34.49 | 31.60 | 31.98 | 31.82 | 29.08 | 29.44 |
| 2080 | 35.16 | 31.87 | 32.35 | 33.04 | 29.84 | 30.31 |
| 2090 | 35.70 | 31.89 | 32.48 | 33.79 | 30.10 | 30.67 |
| 2100 | 36.14 | 31.87 | 32.56 | 34.54 | 30.44 | 31.10 |
| 2110 | 36.39 | 31.72 | 32.52 | 35.00 | 30.53 | 31.29 |
| 2120 | 36.30 | 31.33 | 32.21 | 35.81 | 30.96 | 31.81 |
| Tree species diversity, Shannon diversity index | | | | | | |
| 2020 | 1.645 | 1.632 | 1.632 | 1.537 | 1.525 | 1.524 |
| 2030 | 1.649 | 1.632 | 1.632 | 1.559 | 1.543 | 1.543 |
| 2040 | 1.647 | 1.626 | 1.627 | 1.569 | 1.548 | 1.549 |
| 2050 | 1.657 | 1.630 | 1.633 | 1.590 | 1.562 | 1.565 |
| 2060 | 1.663 | 1.630 | 1.634 | 1.604 | 1.568 | 1.572 |
| 2070 | 1.675 | 1.636 | 1.641 | 1.623 | 1.581 | 1.587 |
| 2080 | 1.691 | 1.646 | 1.654 | 1.652 | 1.605 | 1.612 |
| 2090 | 1.709 | 1.656 | 1.665 | 1.677 | 1.625 | 1.633 |
| 2100 | 1.722 | 1.663 | 1.673 | 1.699 | 1.642 | 1.652 |
| 2110 | 1.738 | 1.670 | 1.683 | 1.714 | 1.653 | 1.664 |
| 2120 | 1.738 | 1.670 | 1.683 | 1.730 | 1.667 | 1.679 |
| Probability of mortality due to competition | | | | | | |
| 2020 | 0.177 | 0.169 | 0.169 | 0.148 | 0.140 | 0.140 |
| 2030 | 0.184 | 0.173 | 0.173 | 0.160 | 0.150 | 0.150 |
| 2040 | 0.193 | 0.181 | 0.181 | 0.172 | 0.159 | 0.160 |
| 2050 | 0.203 | 0.185 | 0.188 | 0.181 | 0.163 | 0.166 |
| 2060 | 0.205 | 0.184 | 0.186 | 0.181 | 0.160 | 0.162 |
| 2070 | 0.204 | 0.178 | 0.182 | 0.177 | 0.152 | 0.156 |
| 2080 | 0.201 | 0.172 | 0.177 | 0.172 | 0.146 | 0.150 |
| 2090 | 0.198 | 0.167 | 0.171 | 0.168 | 0.141 | 0.145 |
| 2100 | 0.195 | 0.160 | 0.167 | 0.164 | 0.135 | 0.141 |
| 2110 | 0.192 | 0.155 | 0.163 | 0.161 | 0.131 | 0.137 |
| 2120 | 0.189 | 0.149 | 0.159 | 0.159 | 0.124 | 0.134 |
| Probability of mortality due to wind | | | | | | |
| 2020 | 0.141 | 0.137 | 0.137 | 0.117 | 0.114 | 0.114 |
| 2030 | 0.139 | 0.135 | 0.135 | 0.121 | 0.116 | 0.116 |
| 2040 | 0.138 | 0.133 | 0.133 | 0.126 | 0.120 | 0.120 |
| 2050 | 0.139 | 0.132 | 0.133 | 0.131 | 0.123 | 0.124 |
| 2060 | 0.139 | 0.131 | 0.132 | 0.132 | 0.123 | 0.125 |
| 2070 | 0.138 | 0.129 | 0.130 | 0.130 | 0.120 | 0.122 |
| 2080 | 0.139 | 0.128 | 0.130 | 0.128 | 0.117 | 0.119 |
| 2090 | 0.138 | 0.126 | 0.128 | 0.125 | 0.114 | 0.115 |
| 2100 | 0.137 | 0.123 | 0.126 | 0.123 | 0.110 | 0.113 |
| 2110 | 0.135 | 0.120 | 0.124 | 0.122 | 0.108 | 0.111 |
| 2120 | 0.134 | 0.120 | 0.122 | 0.122 | 0.108 | 0.111 |
| Probability of mortality due to diseases | | | | | | |
| 2020 | 0.112 | 0.107 | 0.107 | 0.102 | 0.096 | 0.096 |
| 2030 | 0.115 | 0.108 | 0.108 | 0.106 | 0.100 | 0.100 |
| 2040 | 0.117 | 0.110 | 0.110 | 0.112 | 0.106 | 0.106 |
| 2050 | 0.120 | 0.111 | 0.112 | 0.118 | 0.109 | 0.111 |
| 2060 | 0.122 | 0.111 | 0.112 | 0.122 | 0.111 | 0.113 |
| 2070 | 0.122 | 0.111 | 0.112 | 0.122 | 0.111 | 0.112 |
| 2080 | 0.122 | 0.109 | 0.111 | 0.121 | 0.108 | 0.110 |
| 2090 | 0.120 | 0.107 | 0.109 | 0.119 | 0.106 | 0.108 |
| 2100 | 0.117 | 0.104 | 0.107 | 0.117 | 0.103 | 0.106 |
| 2110 | 0.115 | 0.101 | 0.104 | 0.116 | 0.102 | 0.105 |
| 2120 | 0.114 | 0.101 | 0.103 | 0.115 | 0.102 | 0.104 |
| Annual natural mortality, m3/ha | | | | | | |
| 2020–2030 | 1.552 | 1.623 | 1.623 | 1.424 | 1.455 | 1.455 |
| 2030–2040 | 1.636 | 1.646 | 1.646 | 1.530 | 1.555 | 1.555 |
| 2040–2050 | 1.690 | 1.710 | 1.703 | 1.649 | 1.688 | 1.681 |
| 2050–2060 | 1.728 | 1.796 | 1.781 | 1.731 | 1.818 | 1.801 |
| 2060–2070 | 1.724 | 1.821 | 1.798 | 1.739 | 1.857 | 1.832 |
| 2070–2080 | 1.759 | 1.895 | 1.863 | 1.762 | 1.916 | 1.881 |
| 2080–2090 | 1.836 | 2.011 | 1.969 | 1.805 | 1.990 | 1.948 |
| 2090–2100 | 1.853 | 2.064 | 2.013 | 1.800 | 2.014 | 1.964 |
| 2100–2110 | 1.811 | 2.052 | 1.993 | 1.771 | 2.008 | 1.950 |
| 2120–2120 | 1.814 | 2.089 | 2.021 | 1.789 | 2.059 | 1.993 |
| Annual wood volume increment, m3/ha | | | | | | |
| 2020–2030 | 7.535 | 7.137 | 7.136 | 7.281 | 7.334 | 7.333 |
| 2030–2040 | 7.939 | 8.146 | 8.016 | 8.231 | 8.551 | 8.408 |
| 2040–2050 | 7.530 | 8.419 | 8.248 | 7.783 | 8.792 | 8.602 |
| 2050–2060 | 8.347 | 9.138 | 8.985 | 8.342 | 9.267 | 9.104 |
| 2060–2070 | 8.065 | 9.194 | 8.923 | 7.936 | 9.111 | 8.829 |
| 2070–2080 | 7.990 | 9.239 | 8.927 | 7.719 | 9.001 | 8.686 |
| 2080–2090 | 7.624 | 9.066 | 8.720 | 7.441 | 8.861 | 8.518 |
| 2090–2100 | 7.740 | 9.299 | 8.908 | 7.661 | 9.169 | 8.785 |
| 2100–2110 | 7.747 | 9.452 | 9.022 | 7.747 | 9.405 | 8.981 |
| 2120–2120 | 7.957 | 9.843 | 9.355 | 7.927 | 9.751 | 9.276 |
| Volume of sawlogs harvested annually, m3/ha | | | | | | |
| 2020–2030 | 2.112 | 2.226 | 2.226 | 2.279 | 2.354 | 2.354 |
| 2030–2040 | 2.550 | 2.616 | 2.610 | 2.587 | 2.663 | 2.657 |
| 2040–2050 | 2.748 | 2.847 | 2.828 | 2.756 | 2.882 | 2.861 |
| 2050–2060 | 2.814 | 2.934 | 2.939 | 2.936 | 3.081 | 3.087 |
| 2060–2070 | 2.937 | 3.158 | 3.106 | 3.147 | 3.411 | 3.352 |
| 2070–2080 | 2.978 | 3.261 | 3.192 | 3.161 | 3.490 | 3.412 |
| 2080–2090 | 3.114 | 3.459 | 3.372 | 3.127 | 3.494 | 3.402 |
| 2090–2100 | 3.185 | 3.596 | 3.489 | 3.018 | 3.441 | 3.334 |
| 2100–2110 | 3.070 | 3.538 | 3.417 | 2.943 | 3.399 | 3.282 |
| 2120–2120 | 2.983 | 3.523 | 3.386 | 3.015 | 3.576 | 3.434 |
| Volume of pulpwood harvested annually, m3/ha | | | | | | |
| 2020–2030 | 1.499 | 1.572 | 1.571 | 1.422 | 1.458 | 1.458 |
| 2030–2040 | 1.845 | 1.868 | 1.864 | 1.691 | 1.726 | 1.722 |
| 2040–2050 | 1.959 | 1.999 | 1.987 | 1.804 | 1.868 | 1.856 |
| 2050–2060 | 1.956 | 2.022 | 2.025 | 1.932 | 2.020 | 2.023 |
| 2060–2070 | 1.995 | 2.128 | 2.096 | 2.077 | 2.245 | 2.208 |
| 2070–2080 | 1.932 | 2.105 | 2.063 | 2.010 | 2.217 | 2.169 |
| 2080–2090 | 1.952 | 2.153 | 2.103 | 1.968 | 2.190 | 2.136 |
| 2090–2100 | 1.973 | 2.214 | 2.153 | 1.928 | 2.188 | 2.124 |
| 2100–2110 | 1.945 | 2.219 | 2.149 | 1.882 | 2.153 | 2.084 |
| 2120–2120 | 1.927 | 2.247 | 2.166 | 1.919 | 2.248 | 2.164 |
| Annual volume of harvesting residues, m3/ha | | | | | | |
| 2020–2030 | 0.735 | 0.770 | 0.769 | 0.744 | 0.765 | 0.765 |
| 2030–2040 | 0.894 | 0.908 | 0.906 | 0.862 | 0.880 | 0.878 |
| 2040–2050 | 0.959 | 0.980 | 0.974 | 0.914 | 0.946 | 0.940 |
| 2050–2060 | 0.966 | 0.998 | 0.999 | 0.975 | 1.016 | 1.018 |
| 2060–2070 | 0.997 | 1.060 | 1.045 | 1.047 | 1.125 | 1.107 |
| 2070–2080 | 0.985 | 1.067 | 1.047 | 1.027 | 1.124 | 1.101 |
| 2080–2090 | 1.017 | 1.116 | 1.090 | 1.019 | 1.126 | 1.099 |
| 2090–2100 | 1.033 | 1.152 | 1.120 | 0.989 | 1.113 | 1.081 |
| 2100–2110 | 1.008 | 1.143 | 1.108 | 0.970 | 1.102 | 1.067 |
| 2120–2120 | 0.989 | 1.146 | 1.105 | 0.985 | 1.147 | 1.105 |
| Volume of logs remaining annually in the forest after harvesting, m3/ha | | | | | | |
| 2020–2030 | 0.044 | 0.046 | 0.046 | 0.045 | 0.046 | 0.046 |
| 2030–2040 | 0.053 | 0.054 | 0.054 | 0.052 | 0.053 | 0.053 |
| 2040–2050 | 0.057 | 0.059 | 0.058 | 0.055 | 0.058 | 0.057 |
| 2050–2060 | 0.058 | 0.060 | 0.060 | 0.059 | 0.062 | 0.062 |
| 2060–2070 | 0.060 | 0.064 | 0.063 | 0.063 | 0.069 | 0.067 |
| 2070–2080 | 0.060 | 0.065 | 0.064 | 0.063 | 0.069 | 0.067 |
| 2080–2090 | 0.061 | 0.068 | 0.066 | 0.062 | 0.069 | 0.067 |
| 2090–2100 | 0.063 | 0.070 | 0.068 | 0.060 | 0.068 | 0.066 |
| 2100–2110 | 0.061 | 0.070 | 0.067 | 0.059 | 0.067 | 0.065 |
| 2120–2120 | 0.060 | 0.070 | 0.067 | 0.060 | 0.070 | 0.068 |
| Profit from forestry activities, Eur/ha | | | | | | |
| 2020–2030 | 6.593 | 6.707 | 6.683 | 7.130 | 7.248 | 7.235 |
| 2030–2040 | 7.847 | 8.392 | 8.355 | 8.012 | 8.614 | 8.574 |
| 2040–2050 | 8.791 | 15.678 | 9.278 | 8.821 | 15.971 | 9.442 |
| 2050–2060 | 8.843 | 16.084 | 12.475 | 9.325 | 17.090 | 13.247 |
| 2060–2070 | 9.260 | 17.379 | 15.151 | 10.084 | 19.064 | 16.595 |
| 2070–2080 | 9.530 | 20.364 | 18.703 | 10.332 | 22.208 | 20.359 |
| 2080–2090 | 10.209 | 23.716 | 21.712 | 10.292 | 24.008 | 21.946 |
| 2090–2100 | 10.475 | 25.948 | 24.553 | 9.934 | 24.777 | 23.400 |
| 2100–2110 | 10.109 | 26.630 | 25.928 | 9.609 | 25.429 | 24.743 |
| 2120–2120 | 9.853 | 27.668 | 27.627 | 9.893 | 28.047 | 27.975 |
| Felling rate, percent | | | | | | |
| 2020–2030 | 58.26 | 64.64 | 64.63 | 61.67 | 63.05 | 63.05 |
| 2030–2040 | 67.30 | 66.86 | 67.80 | 63.07 | 62.24 | 63.15 |
| 2040–2050 | 76.00 | 69.90 | 70.89 | 71.05 | 65.45 | 66.42 |
| 2050–2060 | 69.42 | 65.82 | 67.04 | 70.76 | 66.68 | 67.98 |
| 2060–2070 | 74.27 | 69.73 | 70.72 | 79.82 | 75.18 | 76.29 |
| 2070–2080 | 74.53 | 70.33 | 71.31 | 81.10 | 76.65 | 77.70 |
| 2080–2090 | 80.59 | 74.96 | 76.04 | 83.00 | 77.63 | 78.71 |
| 2090–2100 | 80.80 | 75.62 | 76.67 | 78.26 | 74.27 | 75.19 |
| 2100–2110 | 78.54 | 73.74 | 74.72 | 75.56 | 71.47 | 72.35 |
| 2120–2120 | 74.88 | 70.97 | 71.88 | 75.43 | 72.22 | 73.00 |