

様式2

事業費集計表

事業名: 森林居住環境整備事業

岐阜県 (加茂東線)

地域 (地区) 名: 白川流域

(単位:千円)

| 年度  | 事業費     |          |         | 年度  | 事業費    |          |           |
|-----|---------|----------|---------|-----|--------|----------|-----------|
|     | 事業費     | 割引率      | 現在価値額   |     | 事業費    | 割引率      | 現在価値額     |
| H4  |         | × 2.2788 |         | H38 | 285    | × 0.6006 | 171       |
| H5  | 76,412  | × 2.1911 | 167,426 | H39 | 7,688  | × 0.5775 | 4,440     |
| H6  | 150,165 | × 2.1068 | 316,368 | H40 | 8,140  | × 0.5553 | 4,520     |
| H7  | 232,862 | × 2.0258 | 471,732 | H41 | 344    | × 0.5339 | 184       |
| H8  | 237,917 | × 1.9479 | 463,439 | H42 | 10,443 | × 0.5134 | 5,361     |
| H9  | 318,826 | × 1.8730 | 597,161 | H43 | 6,704  | × 0.4936 | 3,309     |
| H10 | 381,062 | × 1.8009 | 686,255 | H44 | 190    | × 0.4746 | 90        |
| H11 | 395,852 | × 1.7317 | 685,497 | H45 | 190    | × 0.4564 | 87        |
| H12 | 300,684 | × 1.6651 | 500,669 | H46 | 285    | × 0.4388 | 125       |
| H13 | 425,360 | × 1.6010 | 681,001 | H47 | 190    | × 0.4220 | 80        |
| H14 | 406,986 | × 1.5395 | 626,555 | H48 | 8,724  | × 0.4057 | 3,539     |
| H15 | 321,087 | × 1.4802 | 475,273 | H49 | 190    | × 0.3901 | 74        |
| H16 | 168,078 | × 1.4233 | 239,225 | H50 | 190    | × 0.3751 | 71        |
| H17 | 126,586 | × 1.3686 | 173,246 | H51 | 4,935  | × 0.3607 | 1,780     |
| H18 | 150,646 | × 1.3159 | 198,235 | H52 | 190    | × 0.3468 | 66        |
| H19 | 121,109 | × 1.2653 | 153,239 | H53 | 190    | × 0.3335 | 63        |
| H20 | 146,405 | × 1.2167 | 178,131 | H54 | 190    | × 0.3207 | 61        |
| H21 | 161,086 | × 1.1699 | 188,455 | H55 | 190    | × 0.3083 | 59        |
| H22 | 158,923 | × 1.1249 | 178,772 | H56 | 4,894  | × 0.2965 | 1,451     |
| H23 | 22,564  | × 1.0816 | 24,405  | H57 | 190    | × 0.2851 | 54        |
| H24 | 66,995  | × 1.0400 | 69,675  | H58 | 190    | × 0.2741 | 52        |
| H25 | 80,167  | × 1.0000 | 80,167  | H59 | 190    | × 0.2636 | 50        |
| H26 | 470,597 | × 0.9615 | 452,479 | H60 | 190    | × 0.2534 | 48        |
| H27 | 404,748 | × 0.9246 | 374,230 | H61 | 190    | × 0.2437 | 46        |
| H28 | 407,382 | × 0.8890 | 362,163 | H62 | 190    | × 0.2343 | 45        |
| H29 | 443,186 | × 0.8548 | 378,835 | H63 | 190    | × 0.2253 | 43        |
| H30 | 344     | × 0.8219 | 283     | H64 | 190    | × 0.2166 | 41        |
| H31 | 9,923   | × 0.7903 | 7,842   | H65 | 190    | × 0.2083 | 40        |
| H32 | 6,249   | × 0.7599 | 4,749   | H66 | 190    | × 0.2003 | 38        |
| H33 | 402     | × 0.7307 | 294     | H67 | 190    | × 0.1926 | 37        |
| H34 | 24,591  | × 0.7026 | 17,278  | H68 | 190    | × 0.1852 | 35        |
| H35 | 9,061   | × 0.6756 | 6,122   | H69 | 190    | × 0.1780 | 34        |
| H36 | 1,081   | × 0.6496 | 702     |     |        |          |           |
| H37 | 2,589   | × 0.6246 | 1,617   | 合計  |        |          | 8,787,614 |

事業実施計画期間事業費: H15~H19 674,856 千円 総費用(C) = 663410 ÷ 6010000 × 8787614

事業実施計画期間維持管理費: H15~H19 488 千円 内維持管理費 = 663410 ÷ 6010000 × 5800

事業実施計画期間森林整備費: H15~H19 10,958 千円

総事業費 : H15~H19 663,410 千円

全体計画総事業費: 6,010,000 千円

C= 970,015

様式2

事業費集計表

事業名: 森林居住環境整備事業

岐阜県  
(木材乾燥施設等)

地域(地区)名: 白川流域

(単位:千円)

| 年度  | 事業費    |          |        | 年度  | 事業費 |          |        |
|-----|--------|----------|--------|-----|-----|----------|--------|
|     | 事業費    | 割引率      | 現在価値額  |     | 事業費 | 割引率      | 現在価値額  |
| H14 |        | × 1.5395 |        | H48 | 534 | × 0.4057 | 217    |
| H15 | 21,300 | × 1.4802 | 31,528 | H49 | 534 | × 0.3901 | 208    |
| H16 | 534    | × 1.4233 | 760    | H50 | 534 | × 0.3751 | 200    |
| H17 | 534    | × 1.3686 | 731    | H51 | 534 | × 0.3607 | 193    |
| H18 | 534    | × 1.3159 | 703    | H52 | 534 | × 0.3468 | 185    |
| H19 | 534    | × 1.2653 | 676    | H53 | 534 | × 0.3335 | 178    |
| H20 | 534    | × 1.2167 | 650    | H54 | 534 | × 0.3207 | 171    |
| H21 | 534    | × 1.1699 | 625    | H55 | 534 | × 0.3083 | 165    |
| H22 | 534    | × 1.1249 | 601    |     |     |          |        |
| H23 | 534    | × 1.0816 | 578    |     |     |          |        |
| H24 | 534    | × 1.0400 | 555    |     |     |          |        |
| H25 | 534    | × 1.0000 | 534    |     |     |          |        |
| H26 | 534    | × 0.9615 | 513    |     |     |          |        |
| H27 | 534    | × 0.9246 | 494    |     |     |          |        |
| H28 | 534    | × 0.8890 | 475    |     |     |          |        |
| H29 | 534    | × 0.8548 | 456    |     |     |          |        |
| H30 | 534    | × 0.8219 | 439    |     |     |          |        |
| H31 | 534    | × 0.7903 | 422    |     |     |          |        |
| H32 | 534    | × 0.7599 | 406    |     |     |          |        |
| H33 | 534    | × 0.7307 | 390    |     |     |          |        |
| H34 | 534    | × 0.7026 | 375    |     |     |          |        |
| H35 | 534    | × 0.6756 | 361    |     |     |          |        |
| H36 | 534    | × 0.6496 | 347    |     |     |          |        |
| H37 | 534    | × 0.6246 | 334    |     |     |          |        |
| H38 | 534    | × 0.6006 | 321    |     |     |          |        |
| H39 | 534    | × 0.5775 | 308    |     |     |          |        |
| H40 | 534    | × 0.5553 | 297    |     |     |          |        |
| H41 | 534    | × 0.5339 | 285    |     |     |          |        |
| H42 | 534    | × 0.5134 | 274    |     |     |          |        |
| H43 | 534    | × 0.4936 | 264    |     |     |          |        |
| H44 | 534    | × 0.4746 | 253    |     |     |          |        |
| H45 | 534    | × 0.4564 | 244    |     |     |          |        |
| H46 | 534    | × 0.4388 | 234    |     |     |          |        |
| H47 | 534    | × 0.4220 | 225    | 合計  |     |          | 47,175 |

事業実施計画期間事業費: H15~H19 23,436 千円 総費用(C) = 21300 ÷ 21300 × 47175

事業実施計画期間維持管理費: H15~H19 2,136 千円 内維持管理費 = 21300 ÷ 21300 × 15647

総事業費: H15~H19 21,300 千円

全体計画総事業費: 21,300 千円

C= 47,175

様式2

事業費集計表

事業名: 森林居住環境整備事業

岐阜県 (笹尾線)

地域(地区)名: 白川流域

(単位:千円)

| 年度  | 事業費    |          |        | 年度  | 事業費 |          |        |
|-----|--------|----------|--------|-----|-----|----------|--------|
|     | 事業費    | 割引率      | 現在価値額  |     | 事業費 | 割引率      | 現在価値額  |
| H14 |        | × 1.5395 |        | H48 | 3   | × 0.4057 | 1      |
| H15 | 10,000 | × 1.4802 | 14,802 | H49 | 3   | × 0.3901 | 1      |
| H16 | 15,001 | × 1.4233 | 21,351 | H50 | 3   | × 0.3751 | 1      |
| H17 | 3      | × 1.3686 | 4      | H51 | 3   | × 0.3607 | 1      |
| H18 | 3      | × 1.3159 | 4      | H52 | 3   | × 0.3468 | 1      |
| H19 | 3      | × 1.2653 | 4      | H53 | 3   | × 0.3335 | 1      |
| H20 | 3      | × 1.2167 | 4      | H54 | 3   | × 0.3207 | 1      |
| H21 | 3      | × 1.1699 | 4      | H55 | 3   | × 0.3083 | 1      |
| H22 | 3      | × 1.1249 | 3      | H56 | 3   | × 0.2965 | 1      |
| H23 | 3      | × 1.0816 | 3      |     |     |          |        |
| H24 | 3      | × 1.0400 | 3      |     |     |          |        |
| H25 | 3      | × 1.0000 | 3      |     |     |          |        |
| H26 | 3      | × 0.9615 | 3      |     |     |          |        |
| H27 | 3      | × 0.9246 | 3      |     |     |          |        |
| H28 | 3      | × 0.8890 | 3      |     |     |          |        |
| H29 | 3      | × 0.8548 | 3      |     |     |          |        |
| H30 | 3      | × 0.8219 | 2      |     |     |          |        |
| H31 | 3      | × 0.7903 | 2      |     |     |          |        |
| H32 | 3      | × 0.7599 | 2      |     |     |          |        |
| H33 | 3      | × 0.7307 | 2      |     |     |          |        |
| H34 | 3      | × 0.7026 | 2      |     |     |          |        |
| H35 | 3      | × 0.6756 | 2      |     |     |          |        |
| H36 | 3      | × 0.6496 | 2      |     |     |          |        |
| H37 | 3      | × 0.6246 | 2      |     |     |          |        |
| H38 | 3      | × 0.6006 | 2      |     |     |          |        |
| H39 | 3      | × 0.5775 | 2      |     |     |          |        |
| H40 | 3      | × 0.5553 | 2      |     |     |          |        |
| H41 | 3      | × 0.5339 | 2      |     |     |          |        |
| H42 | 3      | × 0.5134 | 2      |     |     |          |        |
| H43 | 3      | × 0.4936 | 1      |     |     |          |        |
| H44 | 3      | × 0.4746 | 1      |     |     |          |        |
| H45 | 3      | × 0.4564 | 1      |     |     |          |        |
| H46 | 3      | × 0.4388 | 1      |     |     |          |        |
| H47 | 3      | × 0.4220 | 1      | 合計  |     |          | 36,237 |

事業実施計画期間事業費: H15~H19 25,010 千円 総費用(C) = 25000 ÷ 25000 × 36237

事業実施計画期間維持管理費: H15~H19 10 千円 内維持管理費 = 25000 ÷ 25000 × 85

総事業費: H15~H19 25,000 千円

全体計画総事業費: 25,000 千円

C= 36,237

様式2

事業費集計表

事業名:森林居住環境整備事業

岐阜県(宇津尾無渡線)

地域(地区)名:白川流域

(単位:千円)

| 年度  | 事業費    |         |        | 年度 | 事業費 |     |        |
|-----|--------|---------|--------|----|-----|-----|--------|
|     | 事業費    | 割引率     | 現在価値額  |    | 事業費 | 割引率 | 現在価値額  |
| H14 |        | ×1.5395 |        |    |     |     |        |
| H15 | 17,200 | ×1.4802 | 25,459 |    |     |     |        |
| H16 | 13     | ×1.4233 | 19     |    |     |     |        |
| H17 | 13     | ×1.3686 | 18     |    |     |     |        |
| H18 | 13     | ×1.3159 | 17     |    |     |     |        |
| H19 | 13     | ×1.2653 | 16     |    |     |     |        |
| H20 | 13     | ×1.2167 | 16     |    |     |     |        |
| H21 | 13     | ×1.1699 | 15     |    |     |     |        |
| H22 | 13     | ×1.1249 | 15     |    |     |     |        |
| H23 | 13     | ×1.0816 | 14     |    |     |     |        |
| H24 | 13     | ×1.0400 | 14     |    |     |     |        |
| H25 | 13     | ×1.0000 | 13     |    |     |     |        |
|     |        |         |        |    |     |     |        |
|     |        |         |        |    |     |     |        |
|     |        |         |        |    |     |     |        |
|     |        |         |        |    |     |     |        |
|     |        |         |        |    |     |     |        |
|     |        |         |        |    |     |     |        |
|     |        |         |        |    |     |     |        |
|     |        |         |        |    |     |     |        |
|     |        |         |        |    |     |     |        |
|     |        |         |        |    |     |     |        |
|     |        |         |        |    |     |     |        |
|     |        |         |        |    |     |     |        |
|     |        |         |        |    |     |     |        |
|     |        |         |        |    |     |     |        |
|     |        |         |        |    |     |     |        |
|     |        |         |        |    |     |     |        |
|     |        |         |        |    |     |     |        |
|     |        |         |        |    |     |     |        |
|     |        |         |        |    |     |     |        |
|     |        |         |        |    |     |     |        |
|     |        |         |        |    |     |     |        |
|     |        |         |        |    |     |     |        |
|     |        |         |        |    |     |     |        |
|     |        |         |        |    |     |     |        |
|     |        |         |        |    |     |     |        |
|     |        |         |        |    |     |     |        |
|     |        |         |        | 合計 |     |     | 25,616 |

事業実施計画期間事業費: H15~H19 17,252 千円 総費用(C) = 17200 ÷ 17200 × 25616

事業実施計画期間維持管理費: H15~H19 52 千円 内維持管理費 = 17200 ÷ 17200 × 157

総事業費: H15~H19 17,200 千円

全体計画総事業費: 17,200 千円 千円

C = 25,616

様式2

事業費集計表

事業名：森林居住環境整備事業

岐阜県（尾城山線）

地域（地区）名：白川流域しらかわゆいき

（単位：千円）

| 年度  | 事業費       |          |           | 年度  | 事業費   |          |           |
|-----|-----------|----------|-----------|-----|-------|----------|-----------|
|     | 事業費       | 割引率      | 現在価値額     |     | 事業費   | 割引率      | 現在価値額     |
| H7  |           | × 2.0258 |           | H41 | 823   | × 0.5339 | 439       |
| H8  |           | × 1.9479 |           | H42 | 5,296 | × 0.5134 | 2,719     |
| H9  | 133,400   | × 1.8730 | 249,858   | H43 | 3,163 | × 0.4936 | 1,561     |
| H10 | 327,104   | × 1.8009 | 589,082   | H44 | 199   | × 0.4746 | 94        |
| H11 | 450,411   | × 1.7317 | 779,977   | H45 | 310   | × 0.4564 | 141       |
| H12 | 231,537   | × 1.6651 | 385,532   | H46 | 199   | × 0.4388 | 87        |
| H13 | 534,082   | × 1.6010 | 855,065   | H47 | 199   | × 0.4220 | 84        |
| H14 | 482,545   | × 1.5395 | 742,878   | H48 | 1,577 | × 0.4057 | 640       |
| H15 | 80,059    | × 1.4802 | 118,503   | H49 | 703   | × 0.3901 | 274       |
| H16 | 221,742   | × 1.4233 | 315,605   | H50 | 375   | × 0.3751 | 141       |
| H17 | 150,870   | × 1.3686 | 206,481   | H51 | 989   | × 0.3607 | 357       |
| H18 | 246,303   | × 1.3159 | 324,110   | H52 | 199   | × 0.3468 | 69        |
| H19 | 208,686   | × 1.2653 | 264,050   | H53 | 245   | × 0.3335 | 82        |
| H20 | 274,232   | × 1.2167 | 333,658   | H54 | 199   | × 0.3207 | 64        |
| H21 | 176,460   | × 1.1699 | 206,441   | H55 | 199   | × 0.3083 | 61        |
| H22 | 185,594   | × 1.1249 | 208,775   | H56 | 302   | × 0.2965 | 90        |
| H23 | 155,174   | × 1.0816 | 167,836   | H57 | 199   | × 0.2851 | 57        |
| H24 | 172,430   | × 1.0400 | 179,327   | H58 | 199   | × 0.2741 | 55        |
| H25 | 180,195   | × 1.0000 | 180,195   | H59 | 254   | × 0.2636 | 67        |
| H26 | 253,380   | × 0.9615 | 243,625   | H60 | 199   | × 0.2534 | 50        |
| H27 | 2,733,866 | × 0.9246 | 2,527,733 | H61 | 199   | × 0.2437 | 48        |
| H28 | 12,687    | × 0.8890 | 11,279    | H62 | 199   | × 0.2343 | 47        |
| H29 | 606       | × 0.8548 | 518       | H63 | 199   | × 0.2253 | 45        |
| H30 | 701       | × 0.8219 | 576       | H64 | 199   | × 0.2166 | 43        |
| H31 | 1,760     | × 0.7903 | 1,391     | H65 | 199   | × 0.2083 | 41        |
| H32 | 8,121     | × 0.7599 | 6,171     | H66 | 199   | × 0.2003 | 40        |
| H33 | 674       | × 0.7307 | 492       | H67 | 199   | × 0.1926 | 38        |
| H34 | 19,621    | × 0.7026 | 13,786    |     |       |          |           |
| H35 | 2,904     | × 0.6756 | 1,962     |     |       |          |           |
| H36 | 4,619     | × 0.6496 | 3,001     |     |       |          |           |
| H37 | 262       | × 0.6246 | 164       |     |       |          |           |
| H38 | 375       | × 0.6006 | 225       |     |       |          |           |
| H39 | 357       | × 0.5775 | 206       |     |       |          |           |
| H40 | 2,097     | × 0.5553 | 1,164     | 合計  |       |          | 8,927,100 |

事業実施計画期間事業費： H15～H19 688,555 千円 総費用(C) = 659991 ÷ 6992000 × 8927100

事業実施計画期間維持管理費： H15～H19 337 千円 内維持管理費 = 659991 ÷ 6992000 × 5150

事業実施計画期間森林整備費： H15～H19 28,227 千円

総事業費： H15～H19 659,991 千円

全体計画総事業費：6,992,000 千円

C= 842,650

|      |            |       |     |      |           |
|------|------------|-------|-----|------|-----------|
| 事業名  | 森林居住環境整備事業 | 都道府県名 | 岐阜県 | 計画区名 | 白川流域      |
| 路線名等 | 尾城山線       |       |     | 計画期間 | H15 ~ H19 |

| 区分          | 項目               | 効果額(事業全体)    |            | 効果額(計画期間)    |           | 備考     |  |
|-------------|------------------|--------------|------------|--------------|-----------|--------|--|
|             |                  | 現在価格<br>(千円) |            | 現在価格<br>(千円) |           |        |  |
| 水源かん養便益     | 洪水防止便益           |              |            |              |           |        |  |
|             | 流域貯水便益           |              |            |              |           |        |  |
|             | 水質浄化便益           |              |            |              |           |        |  |
|             | 小計               |              |            |              |           |        |  |
| 山地保全便益      | 土砂流出防止便益         |              |            |              |           |        |  |
|             | 土砂崩壊防止便益         |              |            |              |           |        |  |
|             | 小計               |              |            |              |           |        |  |
| 環境保全便益      | 炭素固定便益           |              |            |              |           |        |  |
|             | 気候緩和便益           |              |            |              |           |        |  |
|             | 騒音軽減便益           |              |            |              |           |        |  |
|             | 飛砂軽減便益           |              |            |              |           |        |  |
|             | 風害軽減便益           |              |            |              |           |        |  |
|             | 大気浄化便益           |              |            |              |           |        |  |
|             | 霧害軽減便益           |              |            |              |           |        |  |
|             | 火災防備便益           |              |            |              |           |        |  |
|             | 漁場保全便益           |              |            |              |           |        |  |
|             | 生物多様性の保全便益       |              |            |              |           |        |  |
|             | 保健休養便益           |              |            |              |           |        |  |
|             | 小計               |              |            |              |           |        |  |
| 木材生産便益      | 生産等経費縮減便益        |              | 71,134     |              | 6,714     |        |  |
|             | 利用増進便益           |              | 231,950    |              | 21,894    |        |  |
|             | 生産確保・促進便益        | 森林整備分        |            | 490,304      |           | 46,280 |  |
|             |                  | 路網整備による増進分   |            | 490,304      |           | 46,280 |  |
|             | 小計               |              | 793,388    |              | 74,888    |        |  |
| 森林整備経費縮減等便益 | 造林作業経費縮減便益       | 歩行時間等経費縮減便益  | 6,873      |              | 648       |        |  |
|             |                  | 作業道作設経費縮減便益  | 6,873      |              | 648       |        |  |
|             |                  |              |            |              |           |        |  |
|             | 治山経費縮減便益         |              | 5,845,465  |              | 551,767   |        |  |
|             | 森林管理等経費縮減便益      |              | 886,581    |              | 83,686    |        |  |
|             | 森林整備促進便益         |              | 1,414,936  |              | 133,559   |        |  |
|             | 小計               |              | 8,153,855  |              | 769,660   |        |  |
| 一般交通便益      | 走行時間短縮便益         |              |            |              |           |        |  |
|             | 走行経費減少便益         |              |            |              |           |        |  |
|             | 小計               |              |            |              |           |        |  |
| 森林の総合利用便益   | アクセス時間短縮等便益      | アクセス時間短縮便益   |            |              |           |        |  |
|             |                  | アクセス経費減少便益   |            |              |           |        |  |
|             |                  |              |            |              |           |        |  |
|             | ふれあい機会創出便益       |              | 106,872    |              | 10,087    |        |  |
|             | フォレストアメニティ施設利用便益 |              |            |              |           |        |  |
|             | 利用確保便益           |              |            |              |           |        |  |
|             | 施設滞在便益           |              |            |              |           |        |  |
|             | 副産物増大便益          |              |            |              |           |        |  |
|             | 小計               |              | 106,872    |              | 10,087    |        |  |
| 災害等軽減便益     | 災害時迂回路等確保便益      |              | 1,450,973  |              | 136,960   |        |  |
|             | 防火帯便益            |              |            |              |           |        |  |
|             | 災害復旧経費縮減便益       |              | 60,925     |              | 5,750     |        |  |
|             | 小計               |              | 1,511,898  |              | 142,710   |        |  |
|             | 維持管理費縮減便益        |              | 123,271    |              | 11,635    |        |  |
| 山村環境整備便益    | 生活用水確保便益         | 生活排水浄化便益     |            |              |           |        |  |
|             |                  | し尿処理経費等縮減便益  |            |              |           |        |  |
|             |                  | 浄化槽設置経費縮減便益  |            |              |           |        |  |
|             |                  | 集落内臭気防止便益    |            |              |           |        |  |
|             | 集落内除雪便益          |              |            |              |           |        |  |
|             | 土地創出便益           |              |            |              |           |        |  |
|             | 生活安定確保便益         |              |            |              |           |        |  |
|             | 小計               |              |            |              |           |        |  |
| その他の便益      | 通行安全確保便益         |              |            |              |           |        |  |
|             | 環境保全確保便益         |              |            |              |           |        |  |
|             | 森林内施設管理経費縮減便益    |              |            |              |           |        |  |
|             | ボランティア誘発便益       |              |            |              |           |        |  |
|             | 小計               |              |            |              |           |        |  |
|             | 合計               |              | 10,689,284 |              | 1,008,980 | 総便益(B) |  |

$$B = \sum_{t=1}^T \frac{t \times (C_o - C_T) \times V_t}{T \times (1+i)^t} + \sum_{t=T+1}^Y \frac{(C_o - C_T) \times V_t}{(1+i)^t}$$

|     |  |                                  |   |
|-----|--|----------------------------------|---|
| T:  | 整備期間(年)  |                                  | 20  |
| Y:  | 評価期間   |                                  | 60  |
| Co: | 整備前の伐採・搬出等経費(円/m3)<br>林内路網密度と搬出経費の関係及び一般貨物輸送事業の貸切り運賃等から算出。 | スギ<br>ヒノキ<br>その他広葉樹(1)<br>0<br>0 | 11,080<br>11,080<br>11,080                            |
| CT: | 整備後の伐採・搬出等経費(円/m3)<br>林内路網密度と搬出経費の関係及び一般貨物輸送事業の貸切り運賃等から算出。 | スギ<br>ヒノキ<br>その他広葉樹(1)<br>0<br>0 | 6,098<br>6,098<br>6,098                               |
| Vt: | 路網整備前からの利用区域の t 年後における伐採材積(m3)<br>林分収穫表(H4.3 岐阜県林政部)       | スギ<br>ヒノキ<br>その他広葉樹(1)<br>0<br>0 | 0.00 ~ 5,780.65<br>0.00 ~ 2,771.68<br>0.00 ~ 2,015.13 |

| 年度   | 社会的割引率 | t/T    | スギ       |        | ヒノキ      |       | その他広葉樹(1) |       | 合計     |       |
|------|--------|--------|----------|--------|----------|-------|-----------|-------|--------|-------|
|      |        |        | 事業効果材積   | 効果額    | 事業効果材積   | 効果額   | 事業効果材積    | 効果額   | 事業効果材積 | 効果額   |
| 1995 | 2.0258 |        |          |        |          |       |           |       |        |       |
| 1996 | 1.9479 | 0.0500 | 0.00     | 0      | 0.00     | 0     | 0.00      | 0     | 0      | 0     |
| 1997 | 1.8730 | 0.1000 | 0.00     | 0      | 0.00     | 0     | 0.00      | 0     | 0      | 0     |
| 1998 | 1.8009 | 0.1500 | 0.00     | 0      | 0.00     | 0     | 0.00      | 0     | 0      | 0     |
| 1999 | 1.7317 | 0.2000 | 0.00     | 0      | 0.00     | 0     | 0.00      | 0     | 0      | 0     |
| 2000 | 1.6651 | 0.2500 | 631.03   | 786    | 0.00     | 0     | 0.00      | 0     | 786    | 1,309 |
| 2001 | 1.6010 | 0.3000 | 0.00     | 0      | 0.00     | 0     | 0.00      | 0     | 0      | 0     |
| 2002 | 1.5395 | 0.3500 | 0.00     | 0      | 0.00     | 0     | 0.00      | 0     | 0      | 0     |
| 2003 | 1.4802 | 0.4000 | 0.00     | 0      | 0.00     | 0     | 0.00      | 0     | 0      | 0     |
| 2004 | 1.4233 | 0.4500 | 0.00     | 0      | 0.00     | 0     | 0.00      | 0     | 0      | 0     |
| 2005 | 1.3686 | 0.5000 | 0.00     | 0      | 0.00     | 0     | 0.00      | 0     | 0      | 0     |
| 2006 | 1.3159 | 0.5500 | 120.20   | 329    | 0.00     | 0     | 0.00      | 0     | 329    | 433   |
| 2007 | 1.2653 | 0.6000 | 0.00     | 0      | 0.00     | 0     | 0.00      | 0     | 0      | 0     |
| 2008 | 1.2167 | 0.6500 | 0.00     | 0      | 0.00     | 0     | 0.00      | 0     | 0      | 0     |
| 2009 | 1.1699 | 0.7000 | 93.90    | 327    | 0.00     | 0     | 0.00      | 0     | 327    | 383   |
| 2010 | 1.1249 | 0.7500 | 0.00     | 0      | 0.00     | 0     | 0.00      | 0     | 0      | 0     |
| 2011 | 1.0816 | 0.8000 | 0.00     | 0      | 0.00     | 0     | 0.00      | 0     | 0      | 0     |
| 2012 | 1.0400 | 0.8500 | 0.00     | 0      | 0.00     | 0     | 0.00      | 0     | 0      | 0     |
| 2013 | 1.0000 | 0.9000 | 0.00     | 0      | 647.54   | 2,903 | 0.00      | 0     | 2,903  | 2,903 |
| 2014 | 0.9615 | 0.9500 | 0.00     | 0      | 0.00     | 0     | 0.00      | 0     | 0      | 0     |
| 2015 | 0.9246 | 1.0000 | 33.80    | 168    | 0.00     | 0     | 0.00      | 0     | 168    | 155   |
| 2016 | 0.8890 | 1.0000 | 0.00     | 0      | 10.84    | 54    | 144.83    | 722   | 776    | 690   |
| 2017 | 0.8548 | 1.0000 | 0.00     | 0      | 0.00     | 0     | 0.00      | 0     | 0      | 0     |
| 2018 | 0.8219 | 1.0000 | 676.10   | 3,368  | 0.00     | 0     | 0.00      | 0     | 3,368  | 2,768 |
| 2019 | 0.7903 | 1.0000 | 0.00     | 0      | 0.00     | 0     | 0.00      | 0     | 0      | 0     |
| 2020 | 0.7599 | 1.0000 | 0.00     | 0      | 0.00     | 0     | 0.00      | 0     | 0      | 0     |
| 2021 | 0.7307 | 1.0000 | 18.78    | 94     | 0.00     | 0     | 0.00      | 0     | 94     | 69    |
| 2022 | 0.7026 | 1.0000 | 0.00     | 0      | 251.97   | 1,255 | 83.25     | 415   | 1,670  | 1,173 |
| 2023 | 0.6756 | 1.0000 | 0.00     | 0      | 0.00     | 0     | 0.00      | 0     | 0      | 0     |
| 2024 | 0.6496 | 1.0000 | 792.54   | 3,948  | 0.00     | 0     | 0.00      | 0     | 3,948  | 2,565 |
| 2025 | 0.6246 | 1.0000 | 0.00     | 0      | 35.22    | 175   | 110.62    | 551   | 726    | 453   |
| 2026 | 0.6006 | 1.0000 | 0.00     | 0      | 0.00     | 0     | 0.00      | 0     | 0      | 0     |
| 2027 | 0.5775 | 1.0000 | 0.00     | 0      | 0.00     | 0     | 0.00      | 0     | 0      | 0     |
| 2028 | 0.5553 | 1.0000 | 0.00     | 0      | 1,449.51 | 7,221 | 270.28    | 1,347 | 8,568  | 4,758 |
| 2029 | 0.5339 | 1.0000 | 0.00     | 0      | 0.00     | 0     | 0.00      | 0     | 0      | 0     |
| 2030 | 0.5134 | 1.0000 | 127.71   | 636    | 0.00     | 0     | 0.00      | 0     | 636    | 327   |
| 2031 | 0.4936 | 1.0000 | 0.00     | 0      | 856.16   | 4,265 | 69.57     | 347   | 4,612  | 2,276 |
| 2032 | 0.4746 | 1.0000 | 0.00     | 0      | 0.00     | 0     | 0.00      | 0     | 0      | 0     |
| 2033 | 0.4564 | 1.0000 | 465.76   | 2,320  | 0.00     | 0     | 0.00      | 0     | 2,320  | 1,059 |
| 2034 | 0.4388 | 1.0000 | 0.00     | 0      | 10.84    | 54    | 42.20     | 210   | 264    | 116   |
| 2035 | 0.4220 | 1.0000 | 0.00     | 0      | 0.00     | 0     | 0.00      | 0     | 0      | 0     |
| 2036 | 0.4057 | 1.0000 | 1,344.69 | 6,699  | 0.00     | 0     | 0.00      | 0     | 6,699  | 2,718 |
| 2037 | 0.3901 | 1.0000 | 0.00     | 0      | 1,376.35 | 6,857 | 1,148.41  | 5,721 | 12,578 | 4,907 |
| 2038 | 0.3751 | 1.0000 | 0.00     | 0      | 0.00     | 0     | 0.00      | 0     | 0      | 0     |
| 2039 | 0.3607 | 1.0000 | 3,639.67 | 18,133 | 0.00     | 0     | 0.00      | 0     | 18,133 | 6,541 |
| 2040 | 0.3468 | 1.0000 | 0.00     | 0      | 739.66   | 3,685 | 467.57    | 2,329 | 6,014  | 2,086 |
| 2041 | 0.3335 | 1.0000 | 0.00     | 0      | 0.00     | 0     | 0.00      | 0     | 0      | 0     |
| 2042 | 0.3207 | 1.0000 | 4,022.79 | 20,042 | 0.00     | 0     | 0.00      | 0     | 20,042 | 6,427 |
| 2043 | 0.3083 | 1.0000 | 0.00     | 0      | 1,639.16 | 8,166 | 520.03    | 2,591 | 10,757 | 3,316 |
| 2044 | 0.2965 | 1.0000 | 0.00     | 0      | 0.00     | 0     | 0.00      | 0     | 0      | 0     |
| 2045 | 0.2851 | 1.0000 | 5,780.65 | 28,799 | 0.00     | 0     | 0.00      | 0     | 28,799 | 8,211 |
| 2046 | 0.2741 | 1.0000 | 0.00     | 0      | 490.39   | 2,443 | 1,684.41  | 8,392 | 10,835 | 2,970 |
| 2047 | 0.2636 | 1.0000 | 0.00     | 0      | 0.00     | 0     | 0.00      | 0     | 0      | 0     |





$$B = \sum_{t=1}^Y \frac{(RT - Ro) / 100 \times Vt \times @}{(1 + i)^t}$$

T: 整備期間(年) 20  
 Y: 評価期間 60  
 Ro: 整備前の利用間伐の割合(%) 18%  
 RT: 整備後の利用間伐の割合(%) 50%

Vt: 林道整備前からの利用区域の t 年後における間伐採材積(m3)  
 林分収穫表(H4.3 岐阜県林政部)

|           |                 |
|-----------|-----------------|
| スギ        | 0.00 ~ 2,536.73 |
| ヒノキ       | 0.00 ~ 3,453.95 |
| その他広葉樹(1) | 0.00 ~ 550.86   |
| 0         |                 |
| 0         |                 |

@: 間伐材の木材市場価格(円/m3)  
 森のたより・木材市場

|           |        |
|-----------|--------|
| スギ        | 12,667 |
| ヒノキ       | 21,422 |
| その他広葉樹(1) | 8,600  |
| 0         |        |
| 0         |        |

| 年度   | 社会的割引率 | スギ       |        | ヒノキ      |        | その他広葉樹(1) |       | 合計     |        |
|------|--------|----------|--------|----------|--------|-----------|-------|--------|--------|
|      |        | 事業効果材積   | 効果額    | 事業効果材積   | 効果額    | 事業効果材積    | 効果額   | 事業効果材積 | 効果額    |
| 1995 | 2.0258 |          |        |          |        |           |       |        |        |
| 1996 | 1.9479 | 301.69   | 1,223  | 0.00     | 0      | 0.00      | 0     | 1,223  | 2,382  |
| 1997 | 1.8730 | 0.00     | 0      | 0.00     | 0      | 30.38     | 84    | 84     | 157    |
| 1998 | 1.8009 | 296.69   | 1,202  | 543.09   | 3,723  | 313.93    | 864   | 5,789  | 10,425 |
| 1999 | 1.7317 | 816.58   | 3,310  | 0.00     | 0      | 0.00      | 0     | 3,310  | 5,732  |
| 2000 | 1.6651 | 0.00     | 0      | 0.00     | 0      | 0.00      | 0     | 0      | 0      |
| 2001 | 1.6010 | 8.24     | 33     | 745.84   | 5,113  | 127.82    | 352   | 5,498  | 8,802  |
| 2002 | 1.5395 | 902.53   | 3,658  | 0.00     | 0      | 0.00      | 0     | 3,658  | 5,631  |
| 2003 | 1.4802 | 0.00     | 0      | 0.00     | 0      | 17.47     | 48    | 48     | 71     |
| 2004 | 1.4233 | 347.79   | 1,410  | 1,135.69 | 7,785  | 142.16    | 391   | 9,586  | 13,644 |
| 2005 | 1.3686 | 1,296.92 | 5,256  | 0.00     | 0      | 0.00      | 0     | 5,256  | 7,193  |
| 2006 | 1.3159 | 0.00     | 0      | 0.00     | 0      | 23.21     | 64    | 64     | 84     |
| 2007 | 1.2653 | 0.00     | 0      | 1,182.46 | 8,106  | 460.45    | 1,267 | 9,373  | 11,860 |
| 2008 | 1.2167 | 382.59   | 1,551  | 0.00     | 0      | 0.00      | 0     | 1,551  | 1,887  |
| 2009 | 1.1699 | 0.00     | 0      | 0.00     | 0      | 56.70     | 156   | 156    | 183    |
| 2010 | 1.1249 | 56.04    | 227    | 2,117.46 | 14,515 | 121.89    | 335   | 15,077 | 16,960 |
| 2011 | 1.0816 | 101.97   | 413    | 0.00     | 0      | 0.00      | 0     | 413    | 447    |
| 2012 | 1.0400 | 0.00     | 0      | 0.00     | 0      | 14.59     | 40    | 40     | 42     |
| 2013 | 1.0000 | 204.39   | 828    | 1,459.81 | 10,007 | 462.95    | 1,274 | 12,109 | 12,109 |
| 2014 | 0.9615 | 9.27     | 38     | 0.00     | 0      | 0.00      | 0     | 38     | 37     |
| 2015 | 0.9246 | 0.00     | 0      | 0.00     | 0      | 8.85      | 24    | 24     | 22     |
| 2016 | 0.8890 | 590.09   | 2,392  | 2,918.41 | 20,006 | 550.86    | 1,516 | 23,914 | 21,260 |
| 2017 | 0.8548 | 48.03    | 195    | 0.00     | 0      | 0.00      | 0     | 195    | 167    |
| 2018 | 0.8219 | 0.00     | 0      | 0.00     | 0      | 240.92    | 663   | 663    | 545    |
| 2019 | 0.7903 | 1,597.20 | 6,473  | 2,175.58 | 14,914 | 317.05    | 873   | 22,260 | 17,592 |
| 2020 | 0.7599 | 74.16    | 301    | 0.00     | 0      | 0.00      | 0     | 301    | 229    |
| 2021 | 0.7307 | 0.00     | 0      | 0.00     | 0      | 98.09     | 270   | 270    | 197    |
| 2022 | 0.7026 | 1,765.33 | 7,155  | 2,461.74 | 16,875 | 152.45    | 420   | 24,450 | 17,179 |
| 2023 | 0.6756 | 27.81    | 113    | 0.00     | 0      | 0.00      | 0     | 113    | 76     |
| 2024 | 0.6496 | 0.00     | 0      | 0.00     | 0      | 109.10    | 300   | 300    | 195    |
| 2025 | 0.6246 | 2,536.73 | 10,281 | 2,408.28 | 16,509 | 56.12     | 154   | 26,944 | 16,829 |
| 2026 | 0.6006 | 0.00     | 0      | 0.00     | 0      | 0.00      | 0     | 0      | 0      |
| 2027 | 0.5775 | 0.00     | 0      | 0.00     | 0      | 353.37    | 972   | 972    | 561    |
| 2028 | 0.5553 | 748.33   | 3,033  | 3,453.95 | 23,677 | 49.88     | 137   | 26,847 | 14,908 |
| 2029 | 0.5339 | 0.00     | 0      | 0.00     | 0      | 0.00      | 0     | 0      | 0      |
| 2030 | 0.5134 | 0.00     | 0      | 0.00     | 0      | 93.55     | 257   | 257    | 132    |
| 2031 | 0.4936 | 199.44   | 808    | 2,636.60 | 18,074 | 9.35      | 26    | 18,908 | 9,333  |
| 2032 | 0.4746 | 0.00     | 0      | 0.00     | 0      | 0.00      | 0     | 0      | 0      |
| 2033 | 0.4564 | 0.00     | 0      | 0.00     | 0      | 355.29    | 978   | 978    | 446    |
| 2034 | 0.4388 | 18.13    | 73     | 2,689.24 | 18,435 | 2.18      | 6     | 18,514 | 8,124  |
| 2035 | 0.4220 | 4.21     | 17     | 0.00     | 0      | 0.00      | 0     | 17     | 7      |
| 2036 | 0.4057 | 0.00     | 0      | 0.00     | 0      | 422.75    | 1,163 | 1,163  | 472    |
| 2037 | 0.3901 | 93.95    | 381    | 2,343.32 | 16,063 | 0.00      | 0     | 16,444 | 6,415  |
| 2038 | 0.3751 | 0.00     | 0      | 0.00     | 0      | 0.00      | 0     | 0      | 0      |
| 2039 | 0.3607 | 0.00     | 0      | 0.00     | 0      | 243.32    | 670   | 670    | 242    |
| 2040 | 0.3468 | 145.05   | 588    | 3,062.27 | 20,992 | 0.62      | 2     | 21,582 | 7,485  |
| 2041 | 0.3335 | 0.00     | 0      | 0.00     | 0      | 0.00      | 0     | 0      | 0      |
| 2042 | 0.3207 | 0.00     | 0      | 0.00     | 0      | 116.99    | 322   | 322    | 103    |
| 2043 | 0.3083 | 54.39    | 220    | 1,828.26 | 12,533 | 0.00      | 0     | 12,753 | 3,932  |
| 2044 | 0.2965 | 0.00     | 0      | 0.00     | 0      | 0.00      | 0     | 0      | 0      |
| 2045 | 0.2851 | 0.00     | 0      | 0.00     | 0      | 43.07     | 119   | 119    | 34     |
| 2046 | 0.2741 | 0.00     | 0      | 1,252.58 | 8,586  | 0.00      | 0     | 8,586  | 2,353  |
| 2047 | 0.2636 | 0.00     | 0      | 0.00     | 0      | 0.00      | 0     | 0      | 0      |
| 2048 | 0.2534 | 0.00     | 0      | 0.00     | 0      | 38.28     | 105   | 105    | 27     |
| 2049 | 0.2437 | 0.00     | 0      | 1,415.41 | 9,703  | 0.00      | 0     | 9,703  | 2,365  |
| 2050 | 0.2343 | 0.00     | 0      | 0.00     | 0      | 0.00      | 0     | 0      | 0      |



$$B = \sum_{t=1}^Y \frac{V_t \times @}{(1+i)^t}$$

|      |   |                                  |   |
|------|---|----------------------------------|---|
| Y:   | 評価期間  |                                  | 60  |
| Vt主: | 主伐量 林道を整備した場合の t 年後における伐採材積(m3)<br>林分収穫表(H4.3 岐阜県林政部) | スギ<br>ヒノキ<br>その他広葉樹(1)<br>0<br>0 | 0.00 ~ 5,482.51<br>0.00 ~ 4,816.79<br>0.00 ~ 519.74 |
| Vt間: | 間伐量 林道を整備した場合の t 年後における伐採材積(m3)<br>林分収穫表(H4.3 岐阜県林政部) | スギ<br>ヒノキ<br>その他広葉樹(1)<br>0<br>0 | 0.00 ~ 686.34<br>0.00 ~ 3,950.14<br>0.00 ~ 53.21    |
| @:   | 主伐材 木材市場価格(円/m3)<br>森のたより・木材市場                        | スギ<br>ヒノキ<br>その他広葉樹(1)<br>0<br>0 | 16,138<br>30,887<br>8,600                           |
| @:   | 間伐材 木材市場価格(円/m3)<br>森のたより・木材市場                        | スギ<br>ヒノキ<br>その他広葉樹(1)<br>0<br>0 | 12,667<br>21,422<br>8,600                           |

| 年度   | 社会的割引率 | 主        |        |          |        |           |       | 伐    |     |      |     |
|------|--------|----------|--------|----------|--------|-----------|-------|------|-----|------|-----|
|      |        | スギ       |        | ヒノキ      |        | その他広葉樹(1) |       | 伐採材積 |     | 効果額  |     |
|      |        | 伐採材積     | 効果額    | 伐採材積     | 効果額    | 伐採材積      | 効果額   | 伐採材積 | 効果額 | 伐採材積 | 効果額 |
| 1995 | 2.0258 |          |        |          |        |           |       |      |     |      |     |
| 1996 | 1.9479 | 80.28    | 1,296  | 0.00     | 0      | 0.00      | 0     |      |     |      |     |
| 1997 | 1.8730 | 0.00     | 0      | 0.00     | 0      | 0.00      | 0     |      |     |      |     |
| 1998 | 1.8009 | 0.00     | 0      | 0.00     | 0      | 0.00      | 0     |      |     |      |     |
| 1999 | 1.7317 | 0.00     | 0      | 0.00     | 0      | 0.00      | 0     |      |     |      |     |
| 2000 | 1.6651 | 103.29   | 1,667  | 0.00     | 0      | 0.00      | 0     |      |     |      |     |
| 2001 | 1.6010 | 0.00     | 0      | 0.00     | 0      | 0.00      | 0     |      |     |      |     |
| 2002 | 1.5395 | 0.00     | 0      | 0.00     | 0      | 0.00      | 0     |      |     |      |     |
| 2003 | 1.4802 | 0.00     | 0      | 0.00     | 0      | 0.00      | 0     |      |     |      |     |
| 2004 | 1.4233 | 32.87    | 530    | 0.00     | 0      | 0.00      | 0     |      |     |      |     |
| 2005 | 1.3686 | 0.00     | 0      | 0.00     | 0      | 0.00      | 0     |      |     |      |     |
| 2006 | 1.3159 | 0.00     | 0      | 0.00     | 0      | 0.00      | 0     |      |     |      |     |
| 2007 | 1.2653 | 0.00     | 0      | 0.00     | 0      | 0.00      | 0     |      |     |      |     |
| 2008 | 1.2167 | 312.22   | 5,039  | 0.00     | 0      | 0.00      | 0     |      |     |      |     |
| 2009 | 1.1699 | 0.00     | 0      | 0.00     | 0      | 0.00      | 0     |      |     |      |     |
| 2010 | 1.1249 | 0.00     | 0      | 0.00     | 0      | 0.00      | 0     |      |     |      |     |
| 2011 | 1.0816 | 0.00     | 0      | 0.00     | 0      | 0.00      | 0     |      |     |      |     |
| 2012 | 1.0400 | 115.03   | 1,856  | 0.00     | 0      | 0.00      | 0     |      |     |      |     |
| 2013 | 1.0000 | 0.00     | 0      | 0.00     | 0      | 0.00      | 0     |      |     |      |     |
| 2014 | 0.9615 | 0.00     | 0      | 0.00     | 0      | 0.00      | 0     |      |     |      |     |
| 2015 | 0.9246 | 0.00     | 0      | 215.74   | 6,664  | 23.43     | 201   |      |     |      |     |
| 2016 | 0.8890 | 214.09   | 3,455  | 0.00     | 0      | 0.00      | 0     |      |     |      |     |
| 2017 | 0.8548 | 0.00     | 0      | 0.00     | 0      | 0.00      | 0     |      |     |      |     |
| 2018 | 0.8219 | 0.00     | 0      | 0.00     | 0      | 0.00      | 0     |      |     |      |     |
| 2019 | 0.7903 | 0.00     | 0      | 317.09   | 9,794  | 25.87     | 222   |      |     |      |     |
| 2020 | 0.7599 | 167.14   | 2,697  | 0.00     | 0      | 0.00      | 0     |      |     |      |     |
| 2021 | 0.7307 | 0.00     | 0      | 0.00     | 0      | 0.00      | 0     |      |     |      |     |
| 2022 | 0.7026 | 0.00     | 0      | 0.00     | 0      | 0.00      | 0     |      |     |      |     |
| 2023 | 0.6756 | 0.00     | 0      | 315.03   | 9,730  | 30.81     | 265   |      |     |      |     |
| 2024 | 0.6496 | 189.68   | 3,061  | 0.00     | 0      | 0.00      | 0     |      |     |      |     |
| 2025 | 0.6246 | 0.00     | 0      | 0.00     | 0      | 0.00      | 0     |      |     |      |     |
| 2026 | 0.6006 | 0.00     | 0      | 0.00     | 0      | 0.00      | 0     |      |     |      |     |
| 2027 | 0.5775 | 0.00     | 0      | 809.05   | 24,989 | 97.40     | 838   |      |     |      |     |
| 2028 | 0.5553 | 140.86   | 2,273  | 0.00     | 0      | 0.00      | 0     |      |     |      |     |
| 2029 | 0.5339 | 0.00     | 0      | 0.00     | 0      | 0.00      | 0     |      |     |      |     |
| 2030 | 0.5134 | 0.00     | 0      | 0.00     | 0      | 0.00      | 0     |      |     |      |     |
| 2031 | 0.4936 | 0.00     | 0      | 451.42   | 13,943 | 8.66      | 74    |      |     |      |     |
| 2032 | 0.4746 | 245.56   | 3,963  | 0.00     | 0      | 0.00      | 0     |      |     |      |     |
| 2033 | 0.4564 | 0.00     | 0      | 0.00     | 0      | 0.00      | 0     |      |     |      |     |
| 2034 | 0.4388 | 0.00     | 0      | 0.00     | 0      | 0.00      | 0     |      |     |      |     |
| 2035 | 0.4220 | 0.00     | 0      | 1,020.68 | 31,526 | 214.56    | 1,845 |      |     |      |     |
| 2036 | 0.4057 | 1,029.65 | 16,616 | 0.00     | 0      | 0.00      | 0     |      |     |      |     |
| 2037 | 0.3901 | 0.00     | 0      | 0.00     | 0      | 0.00      | 0     |      |     |      |     |
| 2038 | 0.3751 | 0.00     | 0      | 0.00     | 0      | 0.00      | 0     |      |     |      |     |
| 2039 | 0.3607 | 0.00     | 0      | 790.85   | 24,427 | 110.53    | 951   |      |     |      |     |
| 2040 | 0.3468 | 2,087.92 | 33,695 | 0.00     | 0      | 0.00      | 0     |      |     |      |     |
| 2041 | 0.3335 | 0.00     | 0      | 0.00     | 0      | 0.00      | 0     |      |     |      |     |
| 2042 | 0.3207 | 0.00     | 0      | 0.00     | 0      | 0.00      | 0     |      |     |      |     |
| 2043 | 0.3083 | 0.00     | 0      | 656.53   | 20,278 | 84.95     | 731   |      |     |      |     |
| 2044 | 0.2965 | 5,482.51 | 88,477 | 0.00     | 0      | 0.00      | 0     |      |     |      |     |





$$B = \sum_{t=1}^T \frac{t \times (C_o - C_T) \times V_t}{T \times (1+i)^t} + \sum_{t=T+1}^Y \frac{(C_o - C_T) \times V_t}{(1+i)^t}$$

T: 整備期間(年) 20

Y: 評価期間 60

Co: 整備前の造林等経費(円/ha)  
 森林造成事業標準単価積算表を基に算出

|        | 植栽        | その他(2)  | 下刈(全刈)  | その他(1)  | 枝打(1)   |
|--------|-----------|---------|---------|---------|---------|
| スギ     | 1,224,532 | 551,115 | 423,565 | 571,595 | 352,481 |
| ヒノキ    | 1,224,532 | 551,115 | 423,565 | 571,595 | 352,481 |
| その他広葉樹 | 0         | 551,115 | 423,565 | 571,595 | 352,481 |
| 0      |           |         |         |         |         |
| 0      |           |         |         |         |         |

CT: 整備後の造林等経費(円/ha)  
 森林造成事業標準単価積算表を基に算出

|        | 植栽      | その他(2)  | 下刈(全刈)  | その他(1)  | 枝打(1)  |
|--------|---------|---------|---------|---------|--------|
| スギ     | 880,970 | 274,894 | 160,099 | 293,326 | 96,124 |
| ヒノキ    | 880,970 | 274,894 | 160,099 | 293,326 | 96,124 |
| その他広葉樹 | 0       | 274,894 | 160,099 | 293,326 | 96,124 |
| 0      |         |         |         |         |        |
| 0      |         |         |         |         |        |

Vt: 林道が整備されない場合の t 年後の造林面積(ha) 0.00 ~ 17.56

| 年度   | 社会的割引率 | t/T    | 植栽   |     |      |     |           |     |      |     |      |     |
|------|--------|--------|------|-----|------|-----|-----------|-----|------|-----|------|-----|
|      |        |        | スギ   |     | ヒノキ  |     | その他広葉樹(1) |     | 造林面積 |     | 効果額  |     |
|      |        |        | 造林面積 | 効果額 | 造林面積 | 効果額 | 造林面積      | 効果額 | 造林面積 | 効果額 | 造林面積 | 効果額 |
| 1995 | 2.0258 |        |      |     |      |     |           |     |      |     |      |     |
| 1996 | 1.9479 | 0.0500 | 0.00 | 0   | 0.00 | 0   | 0.00      | 0   |      |     |      |     |
| 1997 | 1.8730 | 0.1000 | 0.00 | 0   | 0.00 | 0   | 0.00      | 0   |      |     |      |     |
| 1998 | 1.8009 | 0.1500 | 0.00 | 0   | 0.24 | 12  | 0.00      | 0   |      |     |      |     |
| 1999 | 1.7317 | 0.2000 | 0.00 | 0   | 0.00 | 0   | 0.00      | 0   |      |     |      |     |
| 2000 | 1.6651 | 0.2500 | 0.00 | 0   | 0.00 | 0   | 0.00      | 0   |      |     |      |     |
| 2001 | 1.6010 | 0.3000 | 0.00 | 0   | 0.00 | 0   | 0.00      | 0   |      |     |      |     |
| 2002 | 1.5395 | 0.3500 | 0.00 | 0   | 0.00 | 0   | 0.00      | 0   |      |     |      |     |
| 2003 | 1.4802 | 0.4000 | 0.00 | 0   | 0.00 | 0   | 0.00      | 0   |      |     |      |     |
| 2004 | 1.4233 | 0.4500 | 0.00 | 0   | 0.87 | 135 | 0.00      | 0   |      |     |      |     |
| 2005 | 1.3686 | 0.5000 | 0.00 | 0   | 0.00 | 0   | 0.00      | 0   |      |     |      |     |
| 2006 | 1.3159 | 0.5500 | 0.00 | 0   | 0.00 | 0   | 0.00      | 0   |      |     |      |     |
| 2007 | 1.2653 | 0.6000 | 0.00 | 0   | 0.00 | 0   | 0.00      | 0   |      |     |      |     |
| 2008 | 1.2167 | 0.6500 | 0.00 | 0   | 0.00 | 0   | 0.00      | 0   |      |     |      |     |
| 2009 | 1.1699 | 0.7000 | 0.00 | 0   | 0.00 | 0   | 0.00      | 0   |      |     |      |     |
| 2010 | 1.1249 | 0.7500 | 0.00 | 0   | 0.00 | 0   | 0.00      | 0   |      |     |      |     |
| 2011 | 1.0816 | 0.8000 | 0.00 | 0   | 0.00 | 0   | 0.00      | 0   |      |     |      |     |
| 2012 | 1.0400 | 0.8500 | 0.00 | 0   | 0.00 | 0   | 0.00      | 0   |      |     |      |     |
| 2013 | 1.0000 | 0.9000 | 0.00 | 0   | 0.00 | 0   | 0.00      | 0   |      |     |      |     |
| 2014 | 0.9615 | 0.9500 | 0.00 | 0   | 0.00 | 0   | 0.00      | 0   |      |     |      |     |
| 2015 | 0.9246 | 1.0000 | 0.00 | 0   | 0.00 | 0   | 0.00      | 0   |      |     |      |     |
| 2016 | 0.8890 | 1.0000 | 0.00 | 0   | 0.00 | 0   | 0.00      | 0   |      |     |      |     |
| 2017 | 0.8548 | 1.0000 | 0.00 | 0   | 0.00 | 0   | 0.00      | 0   |      |     |      |     |
| 2018 | 0.8219 | 1.0000 | 0.00 | 0   | 0.00 | 0   | 0.00      | 0   |      |     |      |     |
| 2019 | 0.7903 | 1.0000 | 0.00 | 0   | 0.00 | 0   | 0.00      | 0   |      |     |      |     |
| 2020 | 0.7599 | 1.0000 | 0.00 | 0   | 0.00 | 0   | 0.00      | 0   |      |     |      |     |
| 2021 | 0.7307 | 1.0000 | 0.00 | 0   | 0.00 | 0   | 0.00      | 0   |      |     |      |     |
| 2022 | 0.7026 | 1.0000 | 0.00 | 0   | 0.00 | 0   | 0.00      | 0   |      |     |      |     |
| 2023 | 0.6756 | 1.0000 | 0.00 | 0   | 0.00 | 0   | 0.00      | 0   |      |     |      |     |
| 2024 | 0.6496 | 1.0000 | 0.00 | 0   | 0.00 | 0   | 0.00      | 0   |      |     |      |     |
| 2025 | 0.6246 | 1.0000 | 0.00 | 0   | 0.00 | 0   | 0.00      | 0   |      |     |      |     |
| 2026 | 0.6006 | 1.0000 | 0.00 | 0   | 0.00 | 0   | 0.00      | 0   |      |     |      |     |
| 2027 | 0.5775 | 1.0000 | 0.00 | 0   | 0.00 | 0   | 0.00      | 0   |      |     |      |     |
| 2028 | 0.5553 | 1.0000 | 0.00 | 0   | 0.00 | 0   | 0.00      | 0   |      |     |      |     |
| 2029 | 0.5339 | 1.0000 | 0.00 | 0   | 0.00 | 0   | 0.00      | 0   |      |     |      |     |
| 2030 | 0.5134 | 1.0000 | 0.00 | 0   | 0.00 | 0   | 0.00      | 0   |      |     |      |     |
| 2031 | 0.4936 | 1.0000 | 0.00 | 0   | 0.00 | 0   | 0.00      | 0   |      |     |      |     |
| 2032 | 0.4746 | 1.0000 | 0.00 | 0   | 0.00 | 0   | 0.00      | 0   |      |     |      |     |
| 2033 | 0.4564 | 1.0000 | 0.00 | 0   | 0.00 | 0   | 0.00      | 0   |      |     |      |     |
| 2034 | 0.4388 | 1.0000 | 0.00 | 0   | 0.00 | 0   | 0.00      | 0   |      |     |      |     |
| 2035 | 0.4220 | 1.0000 | 0.00 | 0   | 0.00 | 0   | 0.00      | 0   |      |     |      |     |
| 2036 | 0.4057 | 1.0000 | 0.00 | 0   | 0.00 | 0   | 0.00      | 0   |      |     |      |     |
| 2037 | 0.3901 | 1.0000 | 0.00 | 0   | 0.00 | 0   | 0.00      | 0   |      |     |      |     |
| 2038 | 0.3751 | 1.0000 | 0.00 | 0   | 0.00 | 0   | 0.00      | 0   |      |     |      |     |
| 2039 | 0.3607 | 1.0000 | 0.00 | 0   | 0.00 | 0   | 0.00      | 0   |      |     |      |     |
| 2040 | 0.3468 | 1.0000 | 0.00 | 0   | 0.00 | 0   | 0.00      | 0   |      |     |      |     |
| 2041 | 0.3335 | 1.0000 | 0.00 | 0   | 0.00 | 0   | 0.00      | 0   |      |     |      |     |
| 2042 | 0.3207 | 1.0000 | 0.00 | 0   | 0.00 | 0   | 0.00      | 0   |      |     |      |     |
| 2043 | 0.3083 | 1.0000 | 0.00 | 0   | 0.00 | 0   | 0.00      | 0   |      |     |      |     |
| 2044 | 0.2965 | 1.0000 | 0.00 | 0   | 0.00 | 0   | 0.00      | 0   |      |     |      |     |
| 2045 | 0.2851 | 1.0000 | 0.00 | 0   | 0.00 | 0   | 0.00      | 0   |      |     |      |     |
| 2046 | 0.2741 | 1.0000 | 0.00 | 0   | 0.00 | 0   | 0.00      | 0   |      |     |      |     |
| 2047 | 0.2636 | 1.0000 | 0.00 | 0   | 0.00 | 0   | 0.00      | 0   |      |     |      |     |
| 2048 | 0.2534 | 1.0000 | 0.00 | 0   | 0.00 | 0   | 0.00      | 0   |      |     |      |     |
| 2049 | 0.2437 | 1.0000 | 0.00 | 0   | 0.00 | 0   | 0.00      | 0   |      |     |      |     |
| 2050 | 0.2343 | 1.0000 | 0.00 | 0   | 0.00 | 0   | 0.00      | 0   |      |     |      |     |
| 2051 | 0.2253 | 1.0000 | 0.00 | 0   | 0.00 | 0   | 0.00      | 0   |      |     |      |     |



$$B = \sum_{t=1}^T \frac{t \times (C_0 - C_1)}{T \times (1+i)^t} + \sum_{t=T+1}^Y \frac{(C_0 - C_1)}{(1+i)^t}$$

- T: 整備期間(年) 20
- Y: 評価期間 60
- Co: 林道が整備されない場合に必要経費  
林道開設延長\*作業道開設単価の想定値 269,007,680
- C1: 林道を整備した場合の経費  
箇所、延長を仮定した場合の想定値 80,304,000

| 年度   | 社会的割引率 | t/T    | 効果額     | 現在価値化     |
|------|--------|--------|---------|-----------|
| 1995 | 2.0258 |        |         |           |
| 1996 | 1.9479 | 0.0500 | 9,435   | 18,378    |
| 1997 | 1.8730 | 0.1000 | 18,870  | 35,344    |
| 1998 | 1.8009 | 0.1500 | 28,306  | 50,976    |
| 1999 | 1.7317 | 0.2000 | 37,741  | 65,356    |
| 2000 | 1.6651 | 0.2500 | 47,176  | 78,553    |
| 2001 | 1.6010 | 0.3000 | 56,611  | 90,634    |
| 2002 | 1.5395 | 0.3500 | 66,046  | 101,678   |
| 2003 | 1.4802 | 0.4000 | 75,481  | 111,727   |
| 2004 | 1.4233 | 0.4500 | 84,917  | 120,862   |
| 2005 | 1.3686 | 0.5000 | 94,352  | 129,130   |
| 2006 | 1.3159 | 0.5500 | 103,787 | 136,573   |
| 2007 | 1.2653 | 0.6000 | 113,222 | 143,260   |
| 2008 | 1.2167 | 0.6500 | 122,657 | 149,237   |
| 2009 | 1.1699 | 0.7000 | 132,093 | 154,536   |
| 2010 | 1.1249 | 0.7500 | 141,528 | 159,205   |
| 2011 | 1.0816 | 0.8000 | 150,963 | 163,282   |
| 2012 | 1.0400 | 0.8500 | 160,398 | 166,814   |
| 2013 | 1.0000 | 0.9000 | 169,833 | 169,833   |
| 2014 | 0.9615 | 0.9500 | 179,268 | 172,366   |
| 2015 | 0.9246 | 1.0000 | 188,704 | 174,476   |
| 2016 | 0.8890 | 1.0000 | 188,704 | 167,758   |
| 2017 | 0.8548 | 1.0000 | 188,704 | 161,304   |
| 2018 | 0.8219 | 1.0000 | 188,704 | 155,096   |
| 2019 | 0.7903 | 1.0000 | 188,704 | 149,133   |
| 2020 | 0.7599 | 1.0000 | 188,704 | 143,396   |
| 2021 | 0.7307 | 1.0000 | 188,704 | 137,886   |
| 2022 | 0.7026 | 1.0000 | 188,704 | 132,583   |
| 2023 | 0.6756 | 1.0000 | 188,704 | 127,488   |
| 2024 | 0.6496 | 1.0000 | 188,704 | 122,582   |
| 2025 | 0.6246 | 1.0000 | 188,704 | 117,865   |
| 2026 | 0.6006 | 1.0000 | 188,704 | 113,336   |
| 2027 | 0.5775 | 1.0000 | 188,704 | 108,977   |
| 2028 | 0.5553 | 1.0000 | 188,704 | 104,787   |
| 2029 | 0.5339 | 1.0000 | 188,704 | 100,749   |
| 2030 | 0.5134 | 1.0000 | 188,704 | 96,881    |
| 2031 | 0.4936 | 1.0000 | 188,704 | 93,144    |
| 2032 | 0.4746 | 1.0000 | 188,704 | 89,559    |
| 2033 | 0.4564 | 1.0000 | 188,704 | 86,125    |
| 2034 | 0.4388 | 1.0000 | 188,704 | 82,803    |
| 2035 | 0.4220 | 1.0000 | 188,704 | 79,633    |
| 2036 | 0.4057 | 1.0000 | 188,704 | 76,557    |
| 2037 | 0.3901 | 1.0000 | 188,704 | 73,613    |
| 2038 | 0.3751 | 1.0000 | 188,704 | 70,783    |
| 2039 | 0.3607 | 1.0000 | 188,704 | 68,066    |
| 2040 | 0.3468 | 1.0000 | 188,704 | 65,443    |
| 2041 | 0.3335 | 1.0000 | 188,704 | 62,933    |
| 2042 | 0.3207 | 1.0000 | 188,704 | 60,517    |
| 2043 | 0.3083 | 1.0000 | 188,704 | 58,177    |
| 2044 | 0.2965 | 1.0000 | 188,704 | 55,951    |
| 2045 | 0.2851 | 1.0000 | 188,704 | 53,800    |
| 2046 | 0.2741 | 1.0000 | 188,704 | 51,724    |
| 2047 | 0.2636 | 1.0000 | 188,704 | 49,742    |
| 2048 | 0.2534 | 1.0000 | 188,704 | 47,818    |
| 2049 | 0.2437 | 1.0000 | 188,704 | 45,987    |
| 2050 | 0.2343 | 1.0000 | 188,704 | 44,213    |
| 2051 | 0.2253 | 1.0000 | 188,704 | 42,515    |
| 2052 | 0.2166 | 1.0000 | 188,704 | 40,873    |
| 2053 | 0.2083 | 1.0000 | 188,704 | 39,307    |
| 2054 | 0.2003 | 1.0000 | 188,704 | 37,797    |
| 2055 | 0.1926 | 1.0000 | 188,704 | 36,344    |
| 合計   |        |        |         | 5,845,465 |



$$B = \sum_{t=1}^T \frac{t \times (T_0 - T_t) \times M \times @}{T \times (1+i)^t} \times 60 + \sum_{t=T+1}^Y \frac{(T_0 - T_t) \times M \times @}{(1+i)^t} \times 60$$

- T: 整備期間(年) 20  
 Y: 評価期間 60  
 T0: 林道を整備する前における森林への往復所要時間(分) 1,940  
 Tt: 林道を整備した場合の森林への往復所要時間(分) 128  
 M: 管理等の延べ人口数(人/年) 324  
 3人/日×3日/月×12ヵ月×3町村  
 @: 賃金単価(円/h・人) 2,925  
 推定森林組合平均賃金  
 60: 単位合わせのための調整値

| 年度   | 社会的割引率 | t/T    | 効果額    | 現在価値化   |
|------|--------|--------|--------|---------|
| 1995 | 2.0258 |        |        |         |
| 1996 | 1.9479 | 0.0500 | 1,431  | 2,787   |
| 1997 | 1.8730 | 0.1000 | 2,862  | 5,361   |
| 1998 | 1.8009 | 0.1500 | 4,293  | 7,731   |
| 1999 | 1.7317 | 0.2000 | 5,724  | 9,912   |
| 2000 | 1.6651 | 0.2500 | 7,155  | 11,914  |
| 2001 | 1.6010 | 0.3000 | 8,586  | 13,746  |
| 2002 | 1.5395 | 0.3500 | 10,017 | 15,421  |
| 2003 | 1.4802 | 0.4000 | 11,448 | 16,945  |
| 2004 | 1.4233 | 0.4500 | 12,879 | 18,331  |
| 2005 | 1.3686 | 0.5000 | 14,310 | 19,585  |
| 2006 | 1.3159 | 0.5500 | 15,741 | 20,714  |
| 2007 | 1.2653 | 0.6000 | 17,172 | 21,728  |
| 2008 | 1.2167 | 0.6500 | 18,603 | 22,634  |
| 2009 | 1.1699 | 0.7000 | 20,034 | 23,438  |
| 2010 | 1.1249 | 0.7500 | 21,465 | 24,146  |
| 2011 | 1.0816 | 0.8000 | 22,896 | 24,764  |
| 2012 | 1.0400 | 0.8500 | 24,327 | 25,300  |
| 2013 | 1.0000 | 0.9000 | 25,758 | 25,758  |
| 2014 | 0.9615 | 0.9500 | 27,190 | 26,143  |
| 2015 | 0.9246 | 1.0000 | 28,621 | 26,463  |
| 2016 | 0.8890 | 1.0000 | 28,621 | 25,444  |
| 2017 | 0.8548 | 1.0000 | 28,621 | 24,465  |
| 2018 | 0.8219 | 1.0000 | 28,621 | 23,524  |
| 2019 | 0.7903 | 1.0000 | 28,621 | 22,619  |
| 2020 | 0.7599 | 1.0000 | 28,621 | 21,749  |
| 2021 | 0.7307 | 1.0000 | 28,621 | 20,913  |
| 2022 | 0.7026 | 1.0000 | 28,621 | 20,109  |
| 2023 | 0.6756 | 1.0000 | 28,621 | 19,336  |
| 2024 | 0.6496 | 1.0000 | 28,621 | 18,592  |
| 2025 | 0.6246 | 1.0000 | 28,621 | 17,877  |
| 2026 | 0.6006 | 1.0000 | 28,621 | 17,190  |
| 2027 | 0.5775 | 1.0000 | 28,621 | 16,529  |
| 2028 | 0.5553 | 1.0000 | 28,621 | 15,893  |
| 2029 | 0.5339 | 1.0000 | 28,621 | 15,281  |
| 2030 | 0.5134 | 1.0000 | 28,621 | 14,694  |
| 2031 | 0.4936 | 1.0000 | 28,621 | 14,127  |
| 2032 | 0.4746 | 1.0000 | 28,621 | 13,584  |
| 2033 | 0.4564 | 1.0000 | 28,621 | 13,063  |
| 2034 | 0.4388 | 1.0000 | 28,621 | 12,559  |
| 2035 | 0.4220 | 1.0000 | 28,621 | 12,078  |
| 2036 | 0.4057 | 1.0000 | 28,621 | 11,612  |
| 2037 | 0.3901 | 1.0000 | 28,621 | 11,165  |
| 2038 | 0.3751 | 1.0000 | 28,621 | 10,736  |
| 2039 | 0.3607 | 1.0000 | 28,621 | 10,324  |
| 2040 | 0.3468 | 1.0000 | 28,621 | 9,926   |
| 2041 | 0.3335 | 1.0000 | 28,621 | 9,545   |
| 2042 | 0.3207 | 1.0000 | 28,621 | 9,179   |
| 2043 | 0.3083 | 1.0000 | 28,621 | 8,824   |
| 2044 | 0.2965 | 1.0000 | 28,621 | 8,486   |
| 2045 | 0.2851 | 1.0000 | 28,621 | 8,160   |
| 2046 | 0.2741 | 1.0000 | 28,621 | 7,845   |
| 2047 | 0.2636 | 1.0000 | 28,621 | 7,544   |
| 2048 | 0.2534 | 1.0000 | 28,621 | 7,253   |
| 2049 | 0.2437 | 1.0000 | 28,621 | 6,975   |
| 2050 | 0.2343 | 1.0000 | 28,621 | 6,706   |
| 2051 | 0.2253 | 1.0000 | 28,621 | 6,448   |
| 2052 | 0.2166 | 1.0000 | 28,621 | 6,199   |
| 2053 | 0.2083 | 1.0000 | 28,621 | 5,962   |
| 2054 | 0.2003 | 1.0000 | 28,621 | 5,733   |
| 2055 | 0.1926 | 1.0000 | 28,621 | 5,512   |
| 合計   |        |        |        | 886,581 |

$$B = \sum_{t=1}^{T-1} \frac{t}{T \times (1+i)^t} + \sum_{t=T}^Y \frac{1}{(1+i)^t} \times \frac{(f1-f2) \times \alpha \times A \times U}{360}$$

- U: 治水ダムの単位雨量流出量当たりの年間減価償却費(円/m<sup>3</sup>/sec) 3,520,000  
出典:「ダム年鑑2011」
- f1: 事業実施前の流出係数 

|      |   |           |
|------|---|-----------|
| 浸透能中 | 緩 | 要整備森林(疎林) |
|------|---|-----------|

 0.55  
出典:「治山設計」(山口伊佐夫著,1979)
- f2: 事業実施後、T年経過後の流出係数 

|      |   |       |
|------|---|-------|
| 浸透能中 | 緩 | 整備済森林 |
|------|---|-------|

 0.45  
出典:「治山設計」(山口伊佐夫著,1979)
- T: 事業実施後、流出係数が安定するのに必要な年数 15
- α: 100年確率時雨量(mm/h) 197  
岐阜県治山必携
- A: 事業対象区域面積(ha) 8.19 ~ 116.26
- 360: 単位合わせのための調整値
- Y: 評価期間 60

| 年度   | 社会的割引率 | 事業対象区域面積 | 事業効果面積 | 効果額    | 現在価値化   |
|------|--------|----------|--------|--------|---------|
| 1995 | 2.0258 |          |        |        |         |
| 1996 | 1.9479 | 8.19     | 0.55   | 106    | 206     |
| 1997 | 1.8730 | 8.19     | 1.09   | 210    | 393     |
| 1998 | 1.8009 | 8.19     | 1.64   | 315    | 567     |
| 1999 | 1.7317 | 8.19     | 2.18   | 419    | 726     |
| 2000 | 1.6651 | 102.19   | 8.99   | 1,728  | 2,877   |
| 2001 | 1.6010 | 102.19   | 15.83  | 3,043  | 4,872   |
| 2002 | 1.5395 | 102.19   | 22.62  | 4,348  | 6,694   |
| 2003 | 1.4802 | 102.19   | 29.43  | 5,657  | 8,373   |
| 2004 | 1.4233 | 116.26   | 37.19  | 7,149  | 10,175  |
| 2005 | 1.3686 | 116.26   | 44.93  | 8,637  | 11,821  |
| 2006 | 1.3159 | 116.26   | 52.70  | 10,131 | 13,331  |
| 2007 | 1.2653 | 116.26   | 60.43  | 11,617 | 14,699  |
| 2008 | 1.2167 | 116.26   | 68.19  | 13,108 | 15,949  |
| 2009 | 1.1699 | 116.26   | 75.93  | 14,596 | 17,076  |
| 2010 | 1.1249 | 116.26   | 83.69  | 16,088 | 18,097  |
| 2011 | 1.0816 | 116.26   | 90.90  | 17,474 | 18,900  |
| 2012 | 1.0400 | 116.26   | 98.08  | 18,854 | 19,608  |
| 2013 | 1.0000 | 116.26   | 105.31 | 20,244 | 20,244  |
| 2014 | 0.9615 | 116.26   | 112.51 | 21,628 | 20,795  |
| 2015 | 0.9246 | 116.26   | 113.44 | 21,807 | 20,163  |
| 2016 | 0.8890 | 116.26   | 114.39 | 21,989 | 19,548  |
| 2017 | 0.8548 | 116.26   | 115.32 | 22,168 | 18,949  |
| 2018 | 0.8219 | 116.26   | 116.26 | 22,349 | 18,369  |
| 2019 | 0.7903 | 116.26   | 116.26 | 22,349 | 17,662  |
| 2020 | 0.7599 | 116.26   | 116.26 | 22,349 | 16,983  |
| 2021 | 0.7307 | 115.53   | 115.53 | 22,208 | 16,227  |
| 2022 | 0.7026 | 115.53   | 115.53 | 22,208 | 15,603  |
| 2023 | 0.6756 | 115.53   | 115.53 | 22,208 | 15,004  |
| 2024 | 0.6496 | 115.53   | 115.53 | 22,208 | 14,426  |
| 2025 | 0.6246 | 107.34   | 107.34 | 20,634 | 12,888  |
| 2026 | 0.6006 | 107.34   | 107.34 | 20,634 | 12,393  |
| 2027 | 0.5775 | 107.34   | 107.34 | 20,634 | 11,916  |
| 2028 | 0.5553 | 103.98   | 103.98 | 19,988 | 11,099  |
| 2029 | 0.5339 | 103.98   | 103.98 | 19,988 | 10,672  |
| 2030 | 0.5134 | 103.98   | 103.98 | 19,988 | 10,262  |
| 2031 | 0.4936 | 103.98   | 103.98 | 19,988 | 9,866   |
| 2032 | 0.4746 | 98.10    | 98.10  | 18,858 | 9,950   |
| 2033 | 0.4564 | 98.10    | 98.10  | 18,858 | 8,607   |
| 2034 | 0.4388 | 98.10    | 98.10  | 18,858 | 8,275   |
| 2035 | 0.4220 | 98.10    | 98.10  | 18,858 | 7,958   |
| 2036 | 0.4057 | 98.10    | 98.10  | 18,858 | 7,651   |
| 2037 | 0.3901 | 98.10    | 98.10  | 18,858 | 7,357   |
| 2038 | 0.3751 | 98.10    | 98.10  | 18,858 | 7,074   |
| 2039 | 0.3607 | 98.10    | 98.10  | 18,858 | 6,802   |
| 2040 | 0.3468 | 84.24    | 84.24  | 16,194 | 5,616   |
| 2041 | 0.3335 | 78.55    | 78.55  | 15,100 | 5,036   |
| 2042 | 0.3207 | 78.55    | 78.55  | 15,100 | 4,843   |
| 2043 | 0.3083 | 78.55    | 78.55  | 15,100 | 4,655   |
| 2044 | 0.2965 | 78.55    | 78.55  | 15,100 | 4,477   |
| 2045 | 0.2851 | 78.55    | 78.55  | 15,100 | 4,305   |
| 2046 | 0.2741 | 78.55    | 78.55  | 15,100 | 4,139   |
| 2047 | 0.2636 | 78.55    | 78.55  | 15,100 | 3,980   |
| 2048 | 0.2534 | 78.55    | 78.55  | 15,100 | 3,826   |
| 2049 | 0.2437 | 78.55    | 78.55  | 15,100 | 3,680   |
| 2050 | 0.2343 | 78.55    | 78.55  | 15,100 | 3,538   |
| 2051 | 0.2253 | 78.55    | 78.55  | 15,100 | 3,402   |
| 2052 | 0.2166 | 78.55    | 78.55  | 15,100 | 3,271   |
| 2053 | 0.2083 | 78.55    | 78.55  | 15,100 | 3,145   |
| 2054 | 0.2003 | 69.17    | 69.17  | 13,297 | 2,663   |
| 2055 | 0.1926 | 69.17    | 69.17  | 13,297 | 2,561   |
| 合計   |        |          |        |        | 583,244 |

$$B = \left[ \sum_{t=1}^{T-1} \frac{t}{T \times (1+i)^t} + \sum_{t=T}^Y \frac{1}{(1+i)^t} \right] \times \frac{(D2-D1) \times A \times P \times U \times 10}{365 \times 86400}$$

- A: 事業対象区域面積(ha) 8.19 ~ 116.26
- P: 年間平均降雨量(mm/年) 2,109  
気象資料(気象庁HP 黒川観測所(1998~2010)統計データ)
- D1: 事業実施前の貯留率 0.51  
出典:「森林の間伐と水収支」(近嵐ら、1987)
- D2: 事業実施後、T年経過後の貯留率 0.56  
出典:「森林の間伐と水収支」(近嵐ら、1987)
- T: 事業実施後、流出係数が安定するのに必要な年数 15
- U: 開発流量当りの利水ダム年間減価償却費(円/m<sup>3</sup>/S) 1,038,000,000  
出典:「ダム年鑑2011」
- Y: 評価期間 60
- 10: 単位合わせのための調整値 10
- 365: 1年間の日数 365
- 86400: 1日の秒数 86,400

| 年度    | 社会的割引率 | 事業対象区域面積 | 事業効果面積 | 効果額   | 現在価値化 |
|-------|--------|----------|--------|-------|-------|
| 1,995 | 2.0258 |          |        |       |       |
| 1,996 | 1.9479 | 8.19     | 0.55   | 19    | 37    |
| 1,997 | 1.8730 | 8.19     | 1.09   | 38    | 71    |
| 1,998 | 1.8009 | 8.19     | 1.64   | 57    | 103   |
| 1,999 | 1.7317 | 8.19     | 2.18   | 76    | 132   |
| 2,000 | 1.6651 | 102.19   | 8.99   | 312   | 520   |
| 2,001 | 1.6010 | 102.19   | 15.83  | 549   | 879   |
| 2,002 | 1.5395 | 102.19   | 22.62  | 785   | 1,209 |
| 2,003 | 1.4802 | 102.19   | 29.43  | 1,021 | 1,511 |
| 2,004 | 1.4233 | 116.26   | 37.19  | 1,291 | 1,837 |
| 2,005 | 1.3686 | 116.26   | 44.93  | 1,559 | 2,134 |
| 2,006 | 1.3159 | 116.26   | 52.70  | 1,829 | 2,407 |
| 2,007 | 1.2653 | 116.26   | 60.43  | 2,097 | 2,653 |
| 2,008 | 1.2167 | 116.26   | 68.19  | 2,367 | 2,880 |
| 2,009 | 1.1699 | 116.26   | 75.93  | 2,635 | 3,083 |
| 2,010 | 1.1249 | 116.26   | 83.69  | 2,905 | 3,268 |
| 2,011 | 1.0816 | 116.26   | 90.90  | 3,155 | 3,412 |
| 2,012 | 1.0400 | 116.26   | 98.08  | 3,404 | 3,540 |
| 2,013 | 1.0000 | 116.26   | 105.31 | 3,655 | 3,655 |
| 2,014 | 0.9615 | 116.26   | 112.51 | 3,905 | 3,755 |
| 2,015 | 0.9246 | 116.26   | 113.44 | 3,937 | 3,640 |
| 2,016 | 0.8890 | 116.26   | 114.39 | 3,970 | 3,529 |
| 2,017 | 0.8548 | 116.26   | 115.32 | 4,003 | 3,422 |
| 2,018 | 0.8219 | 116.26   | 116.26 | 4,035 | 3,316 |
| 2,019 | 0.7903 | 116.26   | 116.26 | 4,035 | 3,189 |
| 2,020 | 0.7599 | 116.26   | 116.26 | 4,035 | 3,066 |
| 2,021 | 0.7307 | 115.53   | 115.53 | 4,010 | 2,930 |
| 2,022 | 0.7026 | 115.53   | 115.53 | 4,010 | 2,817 |
| 2,023 | 0.6756 | 115.53   | 115.53 | 4,010 | 2,709 |
| 2,024 | 0.6496 | 115.53   | 115.53 | 4,010 | 2,605 |
| 2,025 | 0.6246 | 107.34   | 107.34 | 3,726 | 2,327 |
| 2,026 | 0.6006 | 107.34   | 107.34 | 3,726 | 2,238 |
| 2,027 | 0.5775 | 107.34   | 107.34 | 3,726 | 2,152 |
| 2,028 | 0.5553 | 103.98   | 103.98 | 3,609 | 2,004 |
| 2,029 | 0.5339 | 103.98   | 103.98 | 3,609 | 1,927 |
| 2,030 | 0.5134 | 103.98   | 103.98 | 3,609 | 1,853 |
| 2,031 | 0.4936 | 103.98   | 103.98 | 3,609 | 1,781 |
| 2,032 | 0.4746 | 98.10    | 98.10  | 3,405 | 1,616 |
| 2,033 | 0.4564 | 98.10    | 98.10  | 3,405 | 1,554 |
| 2,034 | 0.4388 | 98.10    | 98.10  | 3,405 | 1,494 |
| 2,035 | 0.4220 | 98.10    | 98.10  | 3,405 | 1,437 |
| 2,036 | 0.4057 | 98.10    | 98.10  | 3,405 | 1,381 |
| 2,037 | 0.3901 | 98.10    | 98.10  | 3,405 | 1,328 |
| 2,038 | 0.3751 | 98.10    | 98.10  | 3,405 | 1,277 |
| 2,039 | 0.3607 | 98.10    | 98.10  | 3,405 | 1,228 |
| 2,040 | 0.3468 | 84.24    | 84.24  | 2,924 | 1,014 |
| 2,041 | 0.3335 | 78.55    | 78.55  | 2,726 | 909   |
| 2,042 | 0.3207 | 78.55    | 78.55  | 2,726 | 874   |
| 2,043 | 0.3083 | 78.55    | 78.55  | 2,726 | 840   |
| 2,044 | 0.2965 | 78.55    | 78.55  | 2,726 | 808   |
| 2,045 | 0.2851 | 78.55    | 78.55  | 2,726 | 777   |
| 2,046 | 0.2741 | 78.55    | 78.55  | 2,726 | 747   |
| 2,047 | 0.2636 | 78.55    | 78.55  | 2,726 | 719   |
| 2,048 | 0.2534 | 78.55    | 78.55  | 2,726 | 691   |
| 2,049 | 0.2437 | 78.55    | 78.55  | 2,726 | 664   |
| 2,050 | 0.2343 | 78.55    | 78.55  | 2,726 | 639   |
| 2,051 | 0.2253 | 78.55    | 78.55  | 2,726 | 614   |
| 2,052 | 0.2166 | 78.55    | 78.55  | 2,726 | 590   |
| 2,053 | 0.2083 | 78.55    | 78.55  | 2,726 | 568   |

| 年度    | 社会的割引率 | 事業対象区域面積 | 事業効果面積 | 効果額   | 現在価値化   |
|-------|--------|----------|--------|-------|---------|
| 2,054 | 0.2003 | 69.17    | 69.17  | 2,401 | 481     |
| 2,055 | 0.1926 | 69.17    | 69.17  | 2,401 | 462     |
| 合計    |        |          |        |       | 105,303 |

$$B = \sum_{t=1}^{T-1} \frac{t}{T \times (1+i)^t} + \sum_{t=T}^Y \frac{1}{(1+i)^t} \times (D2-D1) \times A \times P \times u \times 10$$

$$u = \frac{U_x \times Q_x + U_y \times Q_y}{Q_x + Q_y}$$

- Qx: 全貯留量のうち生活用水使用相当量 7.23 億  
出典:「日本の水資源(H24)」から算出
- Qy: 全貯留量 - Qx 80.20 億
- A: 事業対象区域面積(ha) 8.19 ~ 116.26
- P: 年間平均降雨量(mm/年) 2,109  
気象資料(気象庁HP 黒川観測所(1998~2010)統計データ)
- T: 事業実施後、貯留率が安定するのに必要な年数 15
- D1: 事業実施前の貯留率 0.51  
出典:「森林の間伐と水収支」(近嵐ら、1987)
- D2: 事業実施後、T年経過後の貯留率 0.56  
出典:「森林の間伐と水収支」(近嵐ら、1987)
- Ux: 単位当たりの上水道給水原価(円/m3) 132.25  
出典:「平成23年度市町村財政の状況(地方公営企業編)」
- Uy: 単位当たりの雨水浄化費(円/m3) 68.60  
出典:「地球環境・人間生活にかかる農業及び森林の多面的な機能の評価に関する調査研究報告書」(三菱総合研究所,H13.11)「雨水利用ハンドブック」
- u: 単位当たりの水質浄化費(UxとUyを用いてQxとQyで比例按分して算出) 73.86
- Y: 評価期間 60
- 10: 単位合わせのための調整値

| 年度   | 社会的割引率 | 事業対象区域面積 | 事業効果面積 | 効果額   | 現在価値化 |
|------|--------|----------|--------|-------|-------|
| 1995 | 2.0258 |          |        |       |       |
| 1996 | 1.9479 | 8.19     | 0.55   | 43    | 84    |
| 1997 | 1.8730 | 8.19     | 1.09   | 85    | 159   |
| 1998 | 1.8009 | 8.19     | 1.64   | 128   | 231   |
| 1999 | 1.7317 | 8.19     | 2.18   | 170   | 294   |
| 2000 | 1.6651 | 102.19   | 8.99   | 700   | 1,166 |
| 2001 | 1.6010 | 102.19   | 15.83  | 1,233 | 1,974 |
| 2002 | 1.5395 | 102.19   | 22.62  | 1,762 | 2,713 |
| 2003 | 1.4802 | 102.19   | 29.43  | 2,292 | 3,393 |
| 2004 | 1.4233 | 116.26   | 37.19  | 2,897 | 4,123 |
| 2005 | 1.3686 | 116.26   | 44.93  | 3,499 | 4,789 |
| 2006 | 1.3159 | 116.26   | 52.70  | 4,105 | 5,402 |
| 2007 | 1.2653 | 116.26   | 60.43  | 4,707 | 5,956 |
| 2008 | 1.2167 | 116.26   | 68.19  | 5,311 | 6,462 |
| 2009 | 1.1699 | 116.26   | 75.93  | 5,914 | 6,919 |
| 2010 | 1.1249 | 116.26   | 83.69  | 6,518 | 7,332 |
| 2011 | 1.0816 | 116.26   | 90.90  | 7,080 | 7,658 |
| 2012 | 1.0400 | 116.26   | 98.08  | 7,639 | 7,945 |
| 2013 | 1.0000 | 116.26   | 105.31 | 8,202 | 8,202 |
| 2014 | 0.9615 | 116.26   | 112.51 | 8,763 | 8,426 |
| 2015 | 0.9246 | 116.26   | 113.44 | 8,835 | 8,169 |
| 2016 | 0.8890 | 116.26   | 114.39 | 8,909 | 7,920 |
| 2017 | 0.8548 | 116.26   | 115.32 | 8,982 | 7,678 |
| 2018 | 0.8219 | 116.26   | 116.26 | 9,055 | 7,442 |
| 2019 | 0.7903 | 116.26   | 116.26 | 9,055 | 7,156 |
| 2020 | 0.7599 | 116.26   | 116.26 | 9,055 | 6,881 |
| 2021 | 0.7307 | 115.53   | 115.53 | 8,998 | 6,575 |
| 2022 | 0.7026 | 115.53   | 115.53 | 8,998 | 6,322 |
| 2023 | 0.6756 | 115.53   | 115.53 | 8,998 | 6,079 |
| 2024 | 0.6496 | 115.53   | 115.53 | 8,998 | 5,845 |
| 2025 | 0.6246 | 107.34   | 107.34 | 8,360 | 5,222 |
| 2026 | 0.6006 | 107.34   | 107.34 | 8,360 | 5,021 |
| 2027 | 0.5775 | 107.34   | 107.34 | 8,360 | 4,828 |
| 2028 | 0.5553 | 103.98   | 103.98 | 8,098 | 4,497 |
| 2029 | 0.5339 | 103.98   | 103.98 | 8,098 | 4,324 |
| 2030 | 0.5134 | 103.98   | 103.98 | 8,098 | 4,158 |
| 2031 | 0.4936 | 103.98   | 103.98 | 8,098 | 3,997 |
| 2032 | 0.4746 | 98.10    | 98.10  | 7,641 | 3,626 |
| 2033 | 0.4564 | 98.10    | 98.10  | 7,641 | 3,487 |
| 2034 | 0.4388 | 98.10    | 98.10  | 7,641 | 3,353 |
| 2035 | 0.4220 | 98.10    | 98.10  | 7,641 | 3,225 |
| 2036 | 0.4057 | 98.10    | 98.10  | 7,641 | 3,100 |
| 2037 | 0.3901 | 98.10    | 98.10  | 7,641 | 2,981 |
| 2038 | 0.3751 | 98.10    | 98.10  | 7,641 | 2,866 |
| 2039 | 0.3607 | 98.10    | 98.10  | 7,641 | 2,756 |
| 2040 | 0.3468 | 84.24    | 84.24  | 6,561 | 2,275 |
| 2041 | 0.3335 | 78.55    | 78.55  | 6,118 | 2,040 |
| 2042 | 0.3207 | 78.55    | 78.55  | 6,118 | 1,962 |
| 2043 | 0.3083 | 78.55    | 78.55  | 6,118 | 1,886 |
| 2044 | 0.2965 | 78.55    | 78.55  | 6,118 | 1,814 |
| 2045 | 0.2851 | 78.55    | 78.55  | 6,118 | 1,744 |

| 年度   | 社会的割引率 | 事業対象区域面積 | 事業効果面積 | 効果額   | 現在価値化   |
|------|--------|----------|--------|-------|---------|
| 2046 | 0.2741 | 78.55    | 78.55  | 6,118 | 1,677   |
| 2047 | 0.2636 | 78.55    | 78.55  | 6,118 | 1,613   |
| 2048 | 0.2534 | 78.55    | 78.55  | 6,118 | 1,550   |
| 2049 | 0.2437 | 78.55    | 78.55  | 6,118 | 1,491   |
| 2050 | 0.2343 | 78.55    | 78.55  | 6,118 | 1,433   |
| 2051 | 0.2253 | 78.55    | 78.55  | 6,118 | 1,378   |
| 2052 | 0.2166 | 78.55    | 78.55  | 6,118 | 1,325   |
| 2053 | 0.2083 | 78.55    | 78.55  | 6,118 | 1,274   |
| 2054 | 0.2003 | 69.17    | 69.17  | 5,387 | 1,079   |
| 2055 | 0.1926 | 69.17    | 69.17  | 5,387 | 1,038   |
| 合計   |        |          |        |       | 236,315 |

$$B = \sum_{t=1}^{T-1} \frac{t}{T \times (1+i)^t} + \sum_{t=T}^Y \frac{1}{(1+i)^t} \times \frac{(V1-V2) \times A \times U}{1.0}$$

- U: 1m3の土砂を保全するために要する単位当たりの砂防ダム建設コスト(円/m3) 5,600  
出典:「砂防便覧」平成20年版
- V1: 事業実施前における1ha当りの年間浸食土砂量(m3) 

|      |  |
|------|--|
| 荒廢地等 |  |
|------|--|

 20.00  
出典:「治山全体調査の考え方進め方」

|                   |        |
|-------------------|--------|
| 森林の公益的機能に関する文献要約集 | 「森林水文」 |
|-------------------|--------|
- V2: 事業実施後における1ha当りの年間浸食土砂量(m3) 

|       |  |
|-------|--|
| 整備済森林 |  |
|-------|--|

 1.30  
出典:「治山全体調査の考え方進め方」

|                   |        |
|-------------------|--------|
| 森林の公益的機能に関する文献要約集 | 「森林水文」 |
|-------------------|--------|
- A: 事業対象区域面積(ha) 8.19 ~ 116.26
- T: 事業実施後、流出係数が安定するのに必要な年数 15
- Y: 評価期間 60

| 年度   | 社会的割引率 | 事業対象区域面積 | 事業効果面積 | 効果額    | 現在価値化   |
|------|--------|----------|--------|--------|---------|
| 1995 | 2.0258 |          |        |        |         |
| 1996 | 1.9479 | 8.19     | 0.55   | 58     | 113     |
| 1997 | 1.8730 | 8.19     | 1.09   | 114    | 214     |
| 1998 | 1.8009 | 8.19     | 1.64   | 172    | 310     |
| 1999 | 1.7317 | 8.19     | 2.18   | 228    | 395     |
| 2000 | 1.6651 | 102.19   | 8.99   | 941    | 1,567   |
| 2001 | 1.6010 | 102.19   | 15.83  | 1,658  | 2,654   |
| 2002 | 1.5395 | 102.19   | 22.62  | 2,369  | 3,647   |
| 2003 | 1.4802 | 102.19   | 29.43  | 3,082  | 4,562   |
| 2004 | 1.4233 | 116.26   | 37.19  | 3,895  | 5,544   |
| 2005 | 1.3686 | 116.26   | 44.93  | 4,705  | 6,439   |
| 2006 | 1.3159 | 116.26   | 52.70  | 5,519  | 7,262   |
| 2007 | 1.2653 | 116.26   | 60.43  | 6,328  | 8,007   |
| 2008 | 1.2167 | 116.26   | 68.19  | 7,141  | 8,688   |
| 2009 | 1.1699 | 116.26   | 75.93  | 7,951  | 9,302   |
| 2010 | 1.1249 | 116.26   | 83.69  | 8,764  | 9,859   |
| 2011 | 1.0816 | 116.26   | 90.90  | 9,519  | 10,296  |
| 2012 | 1.0400 | 116.26   | 98.08  | 10,271 | 10,682  |
| 2013 | 1.0000 | 116.26   | 105.31 | 11,028 | 11,028  |
| 2014 | 0.9615 | 116.26   | 112.51 | 11,782 | 11,328  |
| 2015 | 0.9246 | 116.26   | 113.44 | 11,879 | 10,983  |
| 2016 | 0.8890 | 116.26   | 114.39 | 11,979 | 10,649  |
| 2017 | 0.8548 | 116.26   | 115.32 | 12,076 | 10,323  |
| 2018 | 0.8219 | 116.26   | 116.26 | 12,175 | 10,007  |
| 2019 | 0.7903 | 116.26   | 116.26 | 12,175 | 9,622   |
| 2020 | 0.7599 | 116.26   | 116.26 | 12,175 | 9,252   |
| 2021 | 0.7307 | 115.53   | 115.53 | 12,098 | 8,840   |
| 2022 | 0.7026 | 115.53   | 115.53 | 12,098 | 8,500   |
| 2023 | 0.6756 | 115.53   | 115.53 | 12,098 | 8,173   |
| 2024 | 0.6496 | 115.53   | 115.53 | 12,098 | 7,859   |
| 2025 | 0.6246 | 107.34   | 107.34 | 11,241 | 7,021   |
| 2026 | 0.6006 | 107.34   | 107.34 | 11,241 | 6,751   |
| 2027 | 0.5775 | 107.34   | 107.34 | 11,241 | 6,492   |
| 2028 | 0.5553 | 103.98   | 103.98 | 10,889 | 6,047   |
| 2029 | 0.5339 | 103.98   | 103.98 | 10,889 | 5,814   |
| 2030 | 0.5134 | 103.98   | 103.98 | 10,889 | 5,590   |
| 2031 | 0.4936 | 103.98   | 103.98 | 10,889 | 5,375   |
| 2032 | 0.4746 | 98.10    | 98.10  | 10,273 | 4,876   |
| 2033 | 0.4564 | 98.10    | 98.10  | 10,273 | 4,689   |
| 2034 | 0.4388 | 98.10    | 98.10  | 10,273 | 4,508   |
| 2035 | 0.4220 | 98.10    | 98.10  | 10,273 | 4,335   |
| 2036 | 0.4057 | 98.10    | 98.10  | 10,273 | 4,168   |
| 2037 | 0.3901 | 98.10    | 98.10  | 10,273 | 4,007   |
| 2038 | 0.3751 | 98.10    | 98.10  | 10,273 | 3,853   |
| 2039 | 0.3607 | 98.10    | 98.10  | 10,273 | 3,705   |
| 2040 | 0.3468 | 84.24    | 84.24  | 8,822  | 3,059   |
| 2041 | 0.3335 | 78.55    | 78.55  | 8,226  | 2,743   |
| 2042 | 0.3207 | 78.55    | 78.55  | 8,226  | 2,638   |
| 2043 | 0.3083 | 78.55    | 78.55  | 8,226  | 2,536   |
| 2044 | 0.2965 | 78.55    | 78.55  | 8,226  | 2,439   |
| 2045 | 0.2851 | 78.55    | 78.55  | 8,226  | 2,345   |
| 2046 | 0.2741 | 78.55    | 78.55  | 8,226  | 2,255   |
| 2047 | 0.2636 | 78.55    | 78.55  | 8,226  | 2,168   |
| 2048 | 0.2534 | 78.55    | 78.55  | 8,226  | 2,084   |
| 2049 | 0.2437 | 78.55    | 78.55  | 8,226  | 2,005   |
| 2050 | 0.2343 | 78.55    | 78.55  | 8,226  | 1,927   |
| 2051 | 0.2253 | 78.55    | 78.55  | 8,226  | 1,853   |
| 2052 | 0.2166 | 78.55    | 78.55  | 8,226  | 1,782   |
| 2053 | 0.2083 | 78.55    | 78.55  | 8,226  | 1,713   |
| 2054 | 0.2003 | 69.17    | 69.17  | 7,243  | 1,451   |
| 2055 | 0.1926 | 69.17    | 69.17  | 7,243  | 1,395   |
| 合計   |        |          |        |        | 317,729 |

$$B = \sum_{t=11}^Y \frac{V \times U}{(1+i)^t}$$

$$V = 0.01 \times A \times R \times N \times H \times 10,000$$

- U: 1m3の土砂を保全するために要する単位当たりの砂防ダム建設コスト(円/m3) 5,600  
出典:「砂防便覧」平成20年版
- V: 崩壊見込み量(m3/年) 0.00 ~ 206.28
- A: 事業対象区域面積(ha) 8.19 ~ 116.26
- R: 流域内崩壊率 92 | 木曾川 0.0189  
出典:「治山全体調査」S42からS46
- N: 雨量比=50年確率日雨量/既往最大日雨量 0.9388  
岐阜県砂防事業設計要領/気象資料(気象庁HP 黒川観測所(1998~2010)統計データ)
- H: 平均崩壊深(m) 1.0  
治山技術基準解説 P.89
- Y: 評価期間 60
- 10,000: 単位合わせのための調整値

| 年度   | 社会的割引率 | 事業対象区域面積 | 崩壊見込み量 | 効果額   | 現在価値化 |
|------|--------|----------|--------|-------|-------|
| 1995 | 2.0258 |          |        |       |       |
| 1996 | 1.9479 | 8.19     | 0.00   | 0     | 0     |
| 1997 | 1.8730 | 8.19     | 0.00   | 0     | 0     |
| 1998 | 1.8009 | 8.19     | 0.00   | 0     | 0     |
| 1999 | 1.7317 | 8.19     | 0.00   | 0     | 0     |
| 2000 | 1.6651 | 102.19   | 0.00   | 0     | 0     |
| 2001 | 1.6010 | 102.19   | 0.00   | 0     | 0     |
| 2002 | 1.5395 | 102.19   | 0.00   | 0     | 0     |
| 2003 | 1.4802 | 102.19   | 0.00   | 0     | 0     |
| 2004 | 1.4233 | 116.26   | 0.00   | 0     | 0     |
| 2005 | 1.3686 | 116.26   | 0.00   | 0     | 0     |
| 2006 | 1.3159 | 116.26   | 14.53  | 81    | 107   |
| 2007 | 1.2653 | 116.26   | 14.53  | 81    | 102   |
| 2008 | 1.2167 | 116.26   | 14.53  | 81    | 99    |
| 2009 | 1.1699 | 116.26   | 14.53  | 81    | 95    |
| 2010 | 1.1249 | 116.26   | 181.32 | 1,015 | 1,142 |
| 2011 | 1.0816 | 116.26   | 181.32 | 1,015 | 1,098 |
| 2012 | 1.0400 | 116.26   | 181.32 | 1,015 | 1,056 |
| 2013 | 1.0000 | 116.26   | 181.32 | 1,015 | 1,015 |
| 2014 | 0.9615 | 116.26   | 206.28 | 1,155 | 1,111 |
| 2015 | 0.9246 | 116.26   | 206.28 | 1,155 | 1,068 |
| 2016 | 0.8890 | 116.26   | 206.28 | 1,155 | 1,027 |
| 2017 | 0.8548 | 116.26   | 206.28 | 1,155 | 987   |
| 2018 | 0.8219 | 116.26   | 206.28 | 1,155 | 949   |
| 2019 | 0.7903 | 116.26   | 206.28 | 1,155 | 913   |
| 2020 | 0.7599 | 116.26   | 206.28 | 1,155 | 878   |
| 2021 | 0.7307 | 115.53   | 204.98 | 1,148 | 839   |
| 2022 | 0.7026 | 115.53   | 204.98 | 1,148 | 807   |
| 2023 | 0.6756 | 115.53   | 204.98 | 1,148 | 776   |
| 2024 | 0.6496 | 115.53   | 204.98 | 1,148 | 746   |
| 2025 | 0.6246 | 107.34   | 190.45 | 1,067 | 666   |
| 2026 | 0.6006 | 107.34   | 190.45 | 1,067 | 641   |
| 2027 | 0.5775 | 107.34   | 190.45 | 1,067 | 616   |
| 2028 | 0.5553 | 103.98   | 184.49 | 1,033 | 574   |
| 2029 | 0.5339 | 103.98   | 184.49 | 1,033 | 552   |
| 2030 | 0.5134 | 103.98   | 184.49 | 1,033 | 530   |
| 2031 | 0.4936 | 103.98   | 184.49 | 1,033 | 510   |
| 2032 | 0.4746 | 98.10    | 174.06 | 975   | 463   |
| 2033 | 0.4564 | 98.10    | 174.06 | 975   | 445   |
| 2034 | 0.4388 | 98.10    | 174.06 | 975   | 428   |
| 2035 | 0.4220 | 98.10    | 174.06 | 975   | 411   |
| 2036 | 0.4057 | 98.10    | 174.06 | 975   | 396   |
| 2037 | 0.3901 | 98.10    | 174.06 | 975   | 380   |
| 2038 | 0.3751 | 98.10    | 174.06 | 975   | 366   |
| 2039 | 0.3607 | 98.10    | 174.06 | 975   | 352   |
| 2040 | 0.3468 | 84.24    | 149.47 | 837   | 290   |
| 2041 | 0.3335 | 78.55    | 139.37 | 780   | 260   |
| 2042 | 0.3207 | 78.55    | 139.37 | 780   | 250   |
| 2043 | 0.3083 | 78.55    | 139.37 | 780   | 240   |
| 2044 | 0.2965 | 78.55    | 139.37 | 780   | 231   |
| 2045 | 0.2851 | 78.55    | 139.37 | 780   | 222   |
| 2046 | 0.2741 | 78.55    | 139.37 | 780   | 214   |
| 2047 | 0.2636 | 78.55    | 139.37 | 780   | 206   |
| 2048 | 0.2534 | 78.55    | 139.37 | 780   | 198   |
| 2049 | 0.2437 | 78.55    | 139.37 | 780   | 190   |
| 2050 | 0.2343 | 78.55    | 139.37 | 780   | 183   |
| 2051 | 0.2253 | 78.55    | 139.37 | 780   | 176   |
| 2052 | 0.2166 | 78.55    | 139.37 | 780   | 169   |
| 2053 | 0.2083 | 78.55    | 139.37 | 780   | 162   |

| 年度   | 社会的割引率 | 事業対象区域面積 | 崩壊見込み量 | 効果額 | 現在価値化  |
|------|--------|----------|--------|-----|--------|
| 2054 | 0.2003 | 69.17    | 122.73 | 687 | 138    |
| 2055 | 0.1926 | 69.17    | 122.73 | 687 | 132    |
| 合計   |        |          |        |     | 25,406 |

$$B = \sum_{t=1}^Y \frac{V2 - V1}{Y \times (1+i)^t} \times D \times BEF \times (1 + R) \times 0.5 \times \frac{44}{12} \times U$$

|        |  |                                      |                                  |                      |
|--------|--|--------------------------------------|----------------------------------|----------------------|
| U:     | 二酸化炭素に関する原単位(円/CO2-ton)<br>出典:「二酸化炭素地中貯留技術研究開発成果報告書」(財)地球環境産業技術研究機構(平成18年3月)                     |                                      | 6,046                            |                      |
| V1:    | 事業を実施しない場合の評価最終年の当該森林の見込蓄積量(m3)<br>林分収穫表(H4.3 岐阜県林政部)  | スギ<br>ヒノキ<br>その他広葉樹(1)<br>0<br>0     | 別途<br>別途<br>別途                   |                      |
| V2:    | 事業を実施する場合の評価最終年の当該森林の見込蓄積量(m3)<br>林分収穫表(H4.3 岐阜県林政部)   | スギ<br>ヒノキ<br>その他広葉樹(1)<br>0<br>0     | 別途<br>別途<br>別途                   |                      |
| Y:     | 評価期間   |                                      | 60                               |                      |
| D:     | 容積密度(t/m <sup>3</sup> )<br>出典:「日本国温室効果ガスインベントリ報告書」(2011年4月)(国立環境研究所温室効果ガスインベントリオフィス編)            | スギ<br>ヒノキ<br>その他広葉樹(1)<br>0<br>0     | 0.314<br>0.407<br>0.469          |                      |
| BEF:   | バイオマス拡大係数(地上部バイオマス量/幹バイオマス量)<br>出典:「日本国温室効果ガスインベントリ報告書」(2011年4月)(国立環境研究所温室効果ガスインベントリオフィス編)       | 樹齢20年越<br>樹齢20年越<br>樹齢20年越<br>0<br>0 | スギ<br>ヒノキ<br>その他広葉樹(1)<br>0<br>0 | 1.23<br>1.24<br>1.37 |
| R:     | 地上部に対する地下部の比率(地下部バイオマス量/地上部バイオマス量)<br>出典:「日本国温室効果ガスインベントリ報告書」(2011年4月)(国立環境研究所温室効果ガスインベントリオフィス編) | スギ<br>ヒノキ<br>その他広葉樹(1)<br>0<br>0     | 0.25<br>0.26<br>0.26             |                      |
| 0.5:   | 植物中の炭素含有率  |                                      |                                  |                      |
| 44/12: | 炭素から二酸化炭素への換算係数  |                                      |                                  |                      |

| 年度   | 社会的割引率 | スギ     |       | ヒノキ    |       | その他広葉樹(1) |     |        |     |        |     | 効果額   | 現在価値化 |
|------|--------|--------|-------|--------|-------|-----------|-----|--------|-----|--------|-----|-------|-------|
|      |        | 事業効果蓄積 | 効果額   | 事業効果蓄積 | 効果額   | 事業効果蓄積    | 効果額 | 事業効果蓄積 | 効果額 | 事業効果蓄積 | 効果額 |       |       |
| 1995 | 2.0258 |        |       |        |       |           |     |        |     |        |     |       |       |
| 1996 | 1.9479 | 0.00   | 0     | 0.00   | 0     | 11.11     | 100 |        |     |        |     | 100   | 195   |
| 1997 | 1.8730 | 0.00   | 0     | 0.00   | 0     | 11.11     | 100 |        |     |        |     | 100   | 187   |
| 1998 | 1.8009 | 0.00   | 0     | 0.00   | 0     | 11.11     | 100 |        |     |        |     | 100   | 180   |
| 1999 | 1.7317 | 0.00   | 0     | 0.00   | 0     | 11.11     | 100 |        |     |        |     | 100   | 173   |
| 2000 | 1.6651 | 61.50  | 329   | 360.01 | 2,538 | 19.85     | 178 |        |     |        |     | 3,045 | 5,070 |
| 2001 | 1.6010 | 61.50  | 329   | 360.01 | 2,538 | 19.85     | 178 |        |     |        |     | 3,045 | 4,875 |
| 2002 | 1.5395 | 61.50  | 329   | 360.01 | 2,538 | 19.85     | 178 |        |     |        |     | 3,045 | 4,688 |
| 2003 | 1.4802 | 61.50  | 329   | 360.01 | 2,538 | 19.85     | 178 |        |     |        |     | 3,045 | 4,507 |
| 2004 | 1.4233 | 199.70 | 1,068 | 413.69 | 2,917 | 19.85     | 178 |        |     |        |     | 4,163 | 5,925 |
| 2005 | 1.3686 | 199.70 | 1,068 | 413.69 | 2,917 | 19.85     | 178 |        |     |        |     | 4,163 | 5,697 |
| 2006 | 1.3159 | 199.70 | 1,068 | 413.69 | 2,917 | 19.85     | 178 |        |     |        |     | 4,163 | 5,478 |
| 2007 | 1.2653 | 199.70 | 1,068 | 413.69 | 2,917 | 19.85     | 178 |        |     |        |     | 4,163 | 5,267 |
| 2008 | 1.2167 | 199.70 | 1,068 | 413.69 | 2,917 | 19.85     | 178 |        |     |        |     | 4,163 | 5,065 |
| 2009 | 1.1699 | 199.70 | 1,068 | 413.69 | 2,917 | 19.85     | 178 |        |     |        |     | 4,163 | 4,870 |
| 2010 | 1.1249 | 199.70 | 1,068 | 413.69 | 2,917 | 19.85     | 178 |        |     |        |     | 4,163 | 4,683 |
| 2011 | 1.0816 | 199.70 | 1,068 | 413.69 | 2,917 | 19.85     | 178 |        |     |        |     | 4,163 | 4,503 |
| 2012 | 1.0400 | 199.70 | 1,068 | 413.69 | 2,917 | 19.85     | 178 |        |     |        |     | 4,163 | 4,330 |
| 2013 | 1.0000 | 199.70 | 1,068 | 413.69 | 2,917 | 19.85     | 178 |        |     |        |     | 4,163 | 4,163 |
| 2014 | 0.9615 | 199.70 | 1,068 | 413.69 | 2,917 | 19.85     | 178 |        |     |        |     | 4,163 | 4,003 |
| 2015 | 0.9246 | 199.70 | 1,068 | 413.69 | 2,917 | 19.85     | 178 |        |     |        |     | 4,163 | 3,849 |
| 2016 | 0.8890 | 199.70 | 1,068 | 413.69 | 2,917 | 19.85     | 178 |        |     |        |     | 4,163 | 3,701 |
| 2017 | 0.8548 | 199.70 | 1,068 | 413.69 | 2,917 | 19.85     | 178 |        |     |        |     | 4,163 | 3,559 |
| 2018 | 0.8219 | 199.70 | 1,068 | 413.69 | 2,917 | 19.85     | 178 |        |     |        |     | 4,163 | 3,422 |
| 2019 | 0.7903 | 199.70 | 1,068 | 413.69 | 2,917 | 19.85     | 178 |        |     |        |     | 4,163 | 3,290 |
| 2020 | 0.7599 | 199.70 | 1,068 | 413.69 | 2,917 | 19.85     | 178 |        |     |        |     | 4,163 | 3,163 |
| 2021 | 0.7307 | 187.38 | 1,002 | 413.69 | 2,917 | 19.85     | 178 |        |     |        |     | 4,097 | 2,994 |
| 2022 | 0.7026 | 187.38 | 1,002 | 413.69 | 2,917 | 19.85     | 178 |        |     |        |     | 4,097 | 2,879 |
| 2023 | 0.6756 | 187.38 | 1,002 | 413.69 | 2,917 | 19.85     | 178 |        |     |        |     | 4,097 | 2,768 |
| 2024 | 0.6496 | 187.38 | 1,002 | 413.69 | 2,917 | 19.85     | 178 |        |     |        |     | 4,097 | 2,661 |
| 2025 | 0.6246 | 49.18  | 263   | 413.69 | 2,917 | 19.85     | 178 |        |     |        |     | 3,358 | 2,097 |
| 2026 | 0.6006 | 49.18  | 263   | 413.69 | 2,917 | 19.85     | 178 |        |     |        |     | 3,358 | 2,017 |
| 2027 | 0.5775 | 49.18  | 263   | 413.69 | 2,917 | 19.85     | 178 |        |     |        |     | 3,358 | 1,939 |
| 2028 | 0.5553 | 49.18  | 263   | 383.02 | 2,700 | 19.85     | 178 |        |     |        |     | 3,141 | 1,744 |
| 2029 | 0.5339 | 49.18  | 263   | 383.02 | 2,700 | 19.85     | 178 |        |     |        |     | 3,141 | 1,677 |
| 2030 | 0.5134 | 49.18  | 263   | 383.02 | 2,700 | 19.85     | 178 |        |     |        |     | 3,141 | 1,613 |
| 2031 | 0.4936 | 49.18  | 263   | 383.02 | 2,700 | 19.85     | 178 |        |     |        |     | 3,141 | 1,550 |
| 2032 | 0.4746 | 49.18  | 263   | 329.34 | 2,322 | 19.85     | 178 |        |     |        |     | 2,763 | 1,311 |
| 2033 | 0.4564 | 49.18  | 263   | 329.34 | 2,322 | 19.85     | 178 |        |     |        |     | 2,763 | 1,261 |





$$B = \sum_{t=1}^{T-1} \frac{t}{T \times (1+i)^t} + \sum_{t=T}^Y \frac{1}{(1+i)^t} \times (C1 - C2) \times A \times 0.3 \times \frac{44}{12} \times U$$

$$C1 = \frac{s \times e1}{30}$$

$$C2 = \frac{s \times e2}{30}$$

- U: 二酸化炭素に関する原単位(円/t-CO2) 6,046  
出典:「二酸化炭素地中貯留技術研究開発成果報告書」(財)地球環境産業技術研究機構(平成18年3月)
- C1: 事業を実施しない場合の年間流出土砂量に含まれる炭素量(t-C/ha) ①事業対象区域 0.57
- C2: 事業を実施した場合の年間流出土砂量に含まれる炭素量(t-C/ha) ①事業対象区域 0.04
- T: 事業実施後、流出係数が安定するのに必要な年数 15
- Y: ①侵食深が30cmに達するまでの年数(To) 又は ①事業対象区域 60.00  
②評価期間内に侵食深が30cmに達しない場合は評価期間
- A: ①事業対象区域面積(ha) 又は 8.19 ~ 116.26  
②保全効果区域面積(ha)
- s: 単位面積当たりの土壌平均炭素蓄積量(t-C/ha) 85.31  
出典:「日本国温室効果ガスインベントリ報告書」(2011年4月)(国立環境研究所温室効果ガスインベントリオフィス編)
- 44/12: 炭素から二酸化炭素への換算係数
- e1:: 事業を実施しない場合の侵食深(cm/年) ①事業対象区域 

|      |  |
|------|--|
| 荒廃地等 |  |
| 荒廃地等 |  |

 0.200  
出典:「治山全体調査の考え方進め方」「森林の公益的機能に関する文献要約集」「森林水文」
- e2:: 事業を実施した場合の侵食深(cm/年) ①事業対象区域 

|       |  |
|-------|--|
| 整備済森林 |  |
| 整備済森林 |  |

 0.013  
出典:「治山全体調査の考え方進め方」「森林の公益的機能に関する文献要約集」「森林水文」
- 30: 土壌炭素の測定深度(cm)
- 0.3: 流出土砂排出炭素係数

| 年度   | 社会的割引率 | 事業対象区域   |        |     |       | 効果対象面積 | 効果額 | 現在価値化 |
|------|--------|----------|--------|-----|-------|--------|-----|-------|
|      |        | 事業対象区域面積 | 効果対象面積 | 効果額 | 現在価値化 |        |     |       |
| 1995 | 2.0258 |          |        |     |       |        |     |       |
| 1996 | 1.9479 | 8.19     | 0.55   | 2   | 4     |        |     |       |
| 1997 | 1.8730 | 8.19     | 1.09   | 4   | 7     |        |     |       |
| 1998 | 1.8009 | 8.19     | 1.64   | 6   | 11    |        |     |       |
| 1999 | 1.7317 | 8.19     | 2.18   | 8   | 14    |        |     |       |
| 2000 | 1.6651 | 102.19   | 9.00   | 32  | 53    |        |     |       |
| 2001 | 1.6010 | 102.19   | 15.81  | 56  | 90    |        |     |       |
| 2002 | 1.5395 | 102.19   | 22.62  | 80  | 123   |        |     |       |
| 2003 | 1.4802 | 102.19   | 29.43  | 104 | 154   |        |     |       |
| 2004 | 1.4233 | 116.26   | 37.19  | 131 | 186   |        |     |       |
| 2005 | 1.3686 | 116.26   | 44.94  | 158 | 216   |        |     |       |
| 2006 | 1.3159 | 116.26   | 52.69  | 186 | 245   |        |     |       |
| 2007 | 1.2653 | 116.26   | 60.44  | 213 | 270   |        |     |       |
| 2008 | 1.2167 | 116.26   | 68.19  | 240 | 292   |        |     |       |
| 2009 | 1.1699 | 116.26   | 75.94  | 268 | 314   |        |     |       |
| 2010 | 1.1249 | 116.26   | 83.69  | 295 | 332   |        |     |       |
| 2011 | 1.0816 | 116.26   | 90.89  | 320 | 346   |        |     |       |
| 2012 | 1.0400 | 116.26   | 98.10  | 346 | 360   |        |     |       |
| 2013 | 1.0000 | 116.26   | 105.30 | 371 | 371   |        |     |       |
| 2014 | 0.9615 | 116.26   | 112.51 | 397 | 382   |        |     |       |
| 2015 | 0.9246 | 116.26   | 113.45 | 400 | 370   |        |     |       |
| 2016 | 0.8890 | 116.26   | 114.38 | 403 | 358   |        |     |       |
| 2017 | 0.8548 | 116.26   | 115.32 | 407 | 348   |        |     |       |
| 2018 | 0.8219 | 116.26   | 116.26 | 410 | 337   |        |     |       |
| 2019 | 0.7903 | 116.26   | 116.26 | 410 | 324   |        |     |       |
| 2020 | 0.7599 | 116.26   | 116.26 | 410 | 312   |        |     |       |
| 2021 | 0.7307 | 115.53   | 115.53 | 407 | 297   |        |     |       |
| 2022 | 0.7026 | 115.53   | 115.53 | 407 | 286   |        |     |       |
| 2023 | 0.6756 | 115.53   | 115.53 | 407 | 275   |        |     |       |
| 2024 | 0.6496 | 115.53   | 115.53 | 407 | 264   |        |     |       |
| 2025 | 0.6246 | 107.34   | 107.34 | 378 | 236   |        |     |       |
| 2026 | 0.6006 | 107.34   | 107.34 | 378 | 227   |        |     |       |
| 2027 | 0.5775 | 107.34   | 107.34 | 378 | 218   |        |     |       |
| 2028 | 0.5553 | 103.98   | 103.98 | 367 | 204   |        |     |       |
| 2029 | 0.5339 | 103.98   | 103.98 | 367 | 196   |        |     |       |
| 2030 | 0.5134 | 103.98   | 103.98 | 367 | 188   |        |     |       |
| 2031 | 0.4936 | 103.98   | 103.98 | 367 | 181   |        |     |       |
| 2032 | 0.4746 | 98.10    | 98.10  | 346 | 164   |        |     |       |
| 2033 | 0.4564 | 98.10    | 98.10  | 346 | 158   |        |     |       |
| 2034 | 0.4388 | 98.10    | 98.10  | 346 | 152   |        |     |       |

|      |        |       |       |     |        |  |  |   |
|------|--------|-------|-------|-----|--------|--|--|---|
| 2035 | 0.4220 | 98.10 | 98.10 | 346 | 146    |  |  |   |
| 2036 | 0.4057 | 98.10 | 98.10 | 346 | 140    |  |  |   |
| 2037 | 0.3901 | 98.10 | 98.10 | 346 | 135    |  |  |   |
| 2038 | 0.3751 | 98.10 | 98.10 | 346 | 130    |  |  |   |
| 2039 | 0.3607 | 98.10 | 98.10 | 346 | 125    |  |  |   |
| 2040 | 0.3468 | 84.24 | 84.24 | 297 | 103    |  |  |   |
| 2041 | 0.3335 | 78.55 | 78.55 | 277 | 92     |  |  |   |
| 2042 | 0.3207 | 78.55 | 78.55 | 277 | 89     |  |  |   |
| 2043 | 0.3083 | 78.55 | 78.55 | 277 | 85     |  |  |   |
| 2044 | 0.2965 | 78.55 | 78.55 | 277 | 82     |  |  |   |
| 2045 | 0.2851 | 78.55 | 78.55 | 277 | 79     |  |  |   |
| 2046 | 0.2741 | 78.55 | 78.55 | 277 | 76     |  |  |   |
| 2047 | 0.2636 | 78.55 | 78.55 | 277 | 73     |  |  |   |
| 2048 | 0.2534 | 78.55 | 78.55 | 277 | 70     |  |  |   |
| 2049 | 0.2437 | 78.55 | 78.55 | 277 | 68     |  |  |   |
| 2050 | 0.2343 | 78.55 | 78.55 | 277 | 65     |  |  |   |
| 2051 | 0.2253 | 78.55 | 78.55 | 277 | 62     |  |  |   |
| 2052 | 0.2166 | 78.55 | 78.55 | 277 | 60     |  |  |   |
| 2053 | 0.2083 | 78.55 | 78.55 | 277 | 58     |  |  |   |
| 2054 | 0.2003 | 69.17 | 69.17 | 244 | 49     |  |  |   |
| 2055 | 0.1926 | 69.17 | 69.17 | 244 | 47     |  |  |   |
| 合計   |        |       |       |     | 10,699 |  |  | 0 |

$$B = \sum_{t=T+1}^Y \frac{T_t \times Q_t \times @1}{(1+i)^t} + \sum_{t=T+1}^Y \frac{K_t \times Q_t \times @2}{(1+i)^t}$$

|     |  |   |  |
|-----|--|---|--|
| T:  | 整備期間(年)  |   | 20   |
| Y:  | 評価期間   |   | 60   |
| Tt: | 林道を整備した場合の森林への到達時間(分)  |   | 58   |
| @1: | 車種別の時間価値原単価(円/台・分)<br>出典:「費用便益分析マニュアル」国土交通省道路局 都市・地域整備局(平成20年11月)  | 乗用車<br>バス<br>乗用車類<br>小型貨物 <sup>1</sup><br>普通貨物 <sup>1</sup> | 40.10<br>374.27<br>45.78<br>47.91<br>64.18 |
| Kt: | 林道を整備した場合の森林への到達距離(km)   |   | 37.1                                       |
| @2: | 車種別の走行経費原単価(円/台・km)<br>出典:「費用便益分析マニュアル」国土交通省道路局 都市・地域整備局(平成20年11月) | 乗用車<br>バス<br>乗用車類<br>小型貨物 <sup>1</sup><br>普通貨物 <sup>1</sup> | 16.32<br>57.84<br>17.02<br>18.65<br>36.92  |
| Qt: | 森林等を利用する者の交通量(台/年)<br>想定値  | 乗用車<br>バス<br>乗用車類<br>小型貨物 <sup>1</sup><br>普通貨物 <sup>1</sup> | 2,000<br>0<br>0<br>0<br>0                  |

| 年度   | 社会的割引率 | 1<br>効果額(1) | 2<br>効果額(2) | 3<br>効果額(3) | 4<br>効果額(4) | 5<br>効果額(5) | 現在価値化 |
|------|--------|-------------|-------------|-------------|-------------|-------------|-------|
| 1995 | 2.0258 |             |             |             |             |             |       |
| 1996 | 1.9479 |             |             |             |             |             | 0     |
| 1997 | 1.8730 |             |             |             |             |             | 0     |
| 1998 | 1.8009 |             |             |             |             |             | 0     |
| 1999 | 1.7317 |             |             |             |             |             | 0     |
| 2000 | 1.6651 |             |             |             |             |             | 0     |
| 2001 | 1.6010 |             |             |             |             |             | 0     |
| 2002 | 1.5395 |             |             |             |             |             | 0     |
| 2003 | 1.4802 |             |             |             |             |             | 0     |
| 2004 | 1.4233 |             |             |             |             |             | 0     |
| 2005 | 1.3686 |             |             |             |             |             | 0     |
| 2006 | 1.3159 |             |             |             |             |             | 0     |
| 2007 | 1.2653 |             |             |             |             |             | 0     |
| 2008 | 1.2167 |             |             |             |             |             | 0     |
| 2009 | 1.1699 |             |             |             |             |             | 0     |
| 2010 | 1.1249 |             |             |             |             |             | 0     |
| 2011 | 1.0816 |             |             |             |             |             | 0     |
| 2012 | 1.0400 |             |             |             |             |             | 0     |
| 2013 | 1.0000 |             |             |             |             |             | 0     |
| 2014 | 0.9615 |             |             |             |             |             | 0     |
| 2015 | 0.9246 |             |             |             |             |             | 0     |
| 2016 | 0.8890 | 5,840       | 0           | 0           | 0           | 0           | 5,192 |
| 2017 | 0.8548 | 5,840       | 0           | 0           | 0           | 0           | 4,992 |
| 2018 | 0.8219 | 5,840       | 0           | 0           | 0           | 0           | 4,800 |
| 2019 | 0.7903 | 5,840       | 0           | 0           | 0           | 0           | 4,615 |
| 2020 | 0.7599 | 5,840       | 0           | 0           | 0           | 0           | 4,438 |
| 2021 | 0.7307 | 5,840       | 0           | 0           | 0           | 0           | 4,267 |
| 2022 | 0.7026 | 5,840       | 0           | 0           | 0           | 0           | 4,103 |
| 2023 | 0.6756 | 5,840       | 0           | 0           | 0           | 0           | 3,946 |
| 2024 | 0.6496 | 5,840       | 0           | 0           | 0           | 0           | 3,794 |
| 2025 | 0.6246 | 5,840       | 0           | 0           | 0           | 0           | 3,648 |
| 2026 | 0.6006 | 5,840       | 0           | 0           | 0           | 0           | 3,508 |
| 2027 | 0.5775 | 5,840       | 0           | 0           | 0           | 0           | 3,373 |
| 2028 | 0.5553 | 5,840       | 0           | 0           | 0           | 0           | 3,243 |
| 2029 | 0.5339 | 5,840       | 0           | 0           | 0           | 0           | 3,118 |
| 2030 | 0.5134 | 5,840       | 0           | 0           | 0           | 0           | 2,998 |
| 2031 | 0.4936 | 5,840       | 0           | 0           | 0           | 0           | 2,883 |
| 2032 | 0.4746 | 5,840       | 0           | 0           | 0           | 0           | 2,772 |
| 2033 | 0.4564 | 5,840       | 0           | 0           | 0           | 0           | 2,665 |
| 2034 | 0.4388 | 5,840       | 0           | 0           | 0           | 0           | 2,563 |
| 2035 | 0.4220 | 5,840       | 0           | 0           | 0           | 0           | 2,464 |
| 2036 | 0.4057 | 5,840       | 0           | 0           | 0           | 0           | 2,369 |
| 2037 | 0.3901 | 5,840       | 0           | 0           | 0           | 0           | 2,278 |
| 2038 | 0.3751 | 5,840       | 0           | 0           | 0           | 0           | 2,191 |
| 2039 | 0.3607 | 5,840       | 0           | 0           | 0           | 0           | 2,106 |
| 2040 | 0.3468 | 5,840       | 0           | 0           | 0           | 0           | 2,025 |
| 2041 | 0.3335 | 5,840       | 0           | 0           | 0           | 0           | 1,948 |
| 2042 | 0.3207 | 5,840       | 0           | 0           | 0           | 0           | 1,873 |
| 2043 | 0.3083 | 5,840       | 0           | 0           | 0           | 0           | 1,800 |
| 2044 | 0.2965 | 5,840       | 0           | 0           | 0           | 0           | 1,732 |
| 2045 | 0.2851 | 5,840       | 0           | 0           | 0           | 0           | 1,665 |
| 2046 | 0.2741 | 5,840       | 0           | 0           | 0           | 0           | 1,601 |
| 2047 | 0.2636 | 5,840       | 0           | 0           | 0           | 0           | 1,539 |

|      |        |       |   |   |   |   |         |
|------|--------|-------|---|---|---|---|---------|
| 2048 | 0.2534 | 5,840 | 0 | 0 | 0 | 0 | 1,480   |
| 2049 | 0.2437 | 5,840 | 0 | 0 | 0 | 0 | 1,423   |
| 2050 | 0.2343 | 5,840 | 0 | 0 | 0 | 0 | 1,368   |
| 2051 | 0.2253 | 5,840 | 0 | 0 | 0 | 0 | 1,316   |
| 2052 | 0.2166 | 5,840 | 0 | 0 | 0 | 0 | 1,265   |
| 2053 | 0.2083 | 5,840 | 0 | 0 | 0 | 0 | 1,216   |
| 2054 | 0.2003 | 5,840 | 0 | 0 | 0 | 0 | 1,170   |
| 2055 | 0.1926 | 5,840 | 0 | 0 | 0 | 0 | 1,125   |
| 合計   |        |       |   |   |   |   | 106,872 |

$$B = \sum_{t=T+1}^Y \frac{(T_o - T_t) \times Q_t \times @1}{(1+i)^t} + \sum_{t=T+1}^Y \frac{(K_o - K_t) \times Q_t \times @2}{(1+i)^t}$$

|                  |  |   |  |
|------------------|--|---|--|
| T:               | 整備期間(年)  |   | 20   |
| Y:               | 評価期間   |   | 60   |
| T <sub>o</sub> : | 林道を整備せずに既設の迂回路を利用した場合の到達時間(分)  |   | 50   |
| T <sub>t</sub> : | 林道を整備した場合の到達時間(分)  |   | 28   |
| @1:              | 車種別の時間価値原単価(円/台・分)<br>出典:「費用便益分析マニュアル」国土交通省道路局 都市・地域整備局(平成20年11月)  | 乗用車<br>バス<br>乗用車類<br>小型貨物 <sup>Ⅰ</sup><br>普通貨物 <sup>Ⅰ</sup> | 40.10<br>374.27<br>45.78<br>47.91<br>64.18 |
| K <sub>o</sub> : | 林道を整備せずに既設の迂回路を利用した場合の到達距離(km)   |   | 41.8                                       |
| K <sub>t</sub> : | 林道を整備した場合の到達距離(km)   |   | 16.0                                       |
| @2:              | 車種別の走行経費原単価(円/台・km)<br>出典:「費用便益分析マニュアル」国土交通省道路局 都市・地域整備局(平成20年11月)   | 乗用車<br>バス<br>乗用車類<br>小型貨物 <sup>Ⅰ</sup><br>普通貨物 <sup>Ⅰ</sup> | 16.27<br>58.02<br>16.96<br>18.21<br>32.53  |
| Q <sub>t</sub> : | 迂回路等として利用する交通量(台/公道等の通行止め期間・年)<br><span style="border: 1px solid black; display: inline-block; width: 50px; height: 15px; vertical-align: middle;"></span> | 乗用車<br>バス<br>乗用車類<br>小型貨物 <sup>Ⅰ</sup><br>普通貨物 <sup>Ⅰ</sup> | 45,990<br>0<br>0<br>0<br>8,118             |

| 年度   | 社会的割引率 | 1      | 2 | 3 | 4 | 5      | 現在価値化  |
|------|--------|--------|---|---|---|--------|--------|
| 1995 | 2.0258 |        |   |   |   |        |        |
| 1996 | 1.9479 |        |   |   |   |        | 0      |
| 1997 | 1.8730 |        |   |   |   |        | 0      |
| 1998 | 1.8009 |        |   |   |   |        | 0      |
| 1999 | 1.7317 |        |   |   |   |        | 0      |
| 2000 | 1.6651 |        |   |   |   |        | 0      |
| 2001 | 1.6010 |        |   |   |   |        | 0      |
| 2002 | 1.5395 |        |   |   |   |        | 0      |
| 2003 | 1.4802 |        |   |   |   |        | 0      |
| 2004 | 1.4233 |        |   |   |   |        | 0      |
| 2005 | 1.3686 |        |   |   |   |        | 0      |
| 2006 | 1.3159 |        |   |   |   |        | 0      |
| 2007 | 1.2653 |        |   |   |   |        | 0      |
| 2008 | 1.2167 |        |   |   |   |        | 0      |
| 2009 | 1.1699 |        |   |   |   |        | 0      |
| 2010 | 1.1249 |        |   |   |   |        | 0      |
| 2011 | 1.0816 |        |   |   |   |        | 0      |
| 2012 | 1.0400 |        |   |   |   |        | 0      |
| 2013 | 1.0000 |        |   |   |   |        | 0      |
| 2014 | 0.9615 |        |   |   |   |        | 0      |
| 2015 | 0.9246 |        |   |   |   |        | 0      |
| 2016 | 0.8890 | 60,763 | 0 | 0 | 0 | 18,526 | 70,488 |
| 2017 | 0.8548 | 60,763 | 0 | 0 | 0 | 18,526 | 67,776 |
| 2018 | 0.8219 | 60,763 | 0 | 0 | 0 | 18,526 | 65,168 |
| 2019 | 0.7903 | 60,763 | 0 | 0 | 0 | 18,526 | 62,662 |
| 2020 | 0.7599 | 60,763 | 0 | 0 | 0 | 18,526 | 60,252 |
| 2021 | 0.7307 | 60,763 | 0 | 0 | 0 | 18,526 | 57,936 |
| 2022 | 0.7026 | 60,763 | 0 | 0 | 0 | 18,526 | 55,708 |
| 2023 | 0.6756 | 60,763 | 0 | 0 | 0 | 18,526 | 53,568 |
| 2024 | 0.6496 | 60,763 | 0 | 0 | 0 | 18,526 | 51,506 |
| 2025 | 0.6246 | 60,763 | 0 | 0 | 0 | 18,526 | 49,524 |
| 2026 | 0.6006 | 60,763 | 0 | 0 | 0 | 18,526 | 47,621 |
| 2027 | 0.5775 | 60,763 | 0 | 0 | 0 | 18,526 | 45,789 |
| 2028 | 0.5553 | 60,763 | 0 | 0 | 0 | 18,526 | 44,029 |
| 2029 | 0.5339 | 60,763 | 0 | 0 | 0 | 18,526 | 42,332 |
| 2030 | 0.5134 | 60,763 | 0 | 0 | 0 | 18,526 | 40,707 |
| 2031 | 0.4936 | 60,763 | 0 | 0 | 0 | 18,526 | 39,137 |
| 2032 | 0.4746 | 60,763 | 0 | 0 | 0 | 18,526 | 37,631 |
| 2033 | 0.4564 | 60,763 | 0 | 0 | 0 | 18,526 | 36,187 |
| 2034 | 0.4388 | 60,763 | 0 | 0 | 0 | 18,526 | 34,792 |
| 2035 | 0.4220 | 60,763 | 0 | 0 | 0 | 18,526 | 33,460 |
| 2036 | 0.4057 | 60,763 | 0 | 0 | 0 | 18,526 | 32,168 |
| 2037 | 0.3901 | 60,763 | 0 | 0 | 0 | 18,526 | 30,931 |
| 2038 | 0.3751 | 60,763 | 0 | 0 | 0 | 18,526 | 29,741 |
| 2039 | 0.3607 | 60,763 | 0 | 0 | 0 | 18,526 | 28,600 |
| 2040 | 0.3468 | 60,763 | 0 | 0 | 0 | 18,526 | 27,497 |
| 2041 | 0.3335 | 60,763 | 0 | 0 | 0 | 18,526 | 26,443 |
| 2042 | 0.3207 | 60,763 | 0 | 0 | 0 | 18,526 | 25,428 |
| 2043 | 0.3083 | 60,763 | 0 | 0 | 0 | 18,526 | 24,445 |

|      |        |        |   |   |   |        |           |
|------|--------|--------|---|---|---|--------|-----------|
| 2044 | 0.2965 | 60,763 | 0 | 0 | 0 | 18,526 | 23,509    |
| 2045 | 0.2851 | 60,763 | 0 | 0 | 0 | 18,526 | 22,605    |
| 2046 | 0.2741 | 60,763 | 0 | 0 | 0 | 18,526 | 21,733    |
| 2047 | 0.2636 | 60,763 | 0 | 0 | 0 | 18,526 | 20,901    |
| 2048 | 0.2534 | 60,763 | 0 | 0 | 0 | 18,526 | 20,092    |
| 2049 | 0.2437 | 60,763 | 0 | 0 | 0 | 18,526 | 19,323    |
| 2050 | 0.2343 | 60,763 | 0 | 0 | 0 | 18,526 | 18,577    |
| 2051 | 0.2253 | 60,763 | 0 | 0 | 0 | 18,526 | 17,864    |
| 2052 | 0.2166 | 60,763 | 0 | 0 | 0 | 18,526 | 17,174    |
| 2053 | 0.2083 | 60,763 | 0 | 0 | 0 | 18,526 | 16,516    |
| 2054 | 0.2003 | 60,763 | 0 | 0 | 0 | 18,526 | 15,882    |
| 2055 | 0.1926 | 60,763 | 0 | 0 | 0 | 18,526 | 15,271    |
| 合計   |        |        |   |   |   |        | 1,450,973 |

$$B = \sum_{t=1}^Y \frac{(C_0 - C_t) \times L_t}{(1 + i)^t}$$

Y: 評価期間 60

C0: 林道舗装等を実施しない場合の災害復旧経費(円/km・年) 868,000

Ct: 林道舗装等を実施した場合の災害復旧経費(円/km・年) 56,000

Lt: 災害復旧経費の縮減の対象となる林道の延長(km) 6.300

| 年度   | 社会的割引率 | 林道の延長 | 効果額   | 現在価値化  |
|------|--------|-------|-------|--------|
| 1995 | 2.0258 |       |       |        |
| 1996 | 1.9479 |       | 0     | 0      |
| 1997 | 1.8730 | 0.332 | 270   | 506    |
| 1998 | 1.8009 | 0.664 | 539   | 971    |
| 1999 | 1.7317 | 0.996 | 809   | 1,401  |
| 2000 | 1.6651 | 1.328 | 1,078 | 1,795  |
| 2001 | 1.6010 | 1.660 | 1,348 | 2,158  |
| 2002 | 1.5395 | 1.992 | 1,618 | 2,491  |
| 2003 | 1.4802 | 2.324 | 1,887 | 2,793  |
| 2004 | 1.4233 | 2.656 | 2,157 | 3,070  |
| 2005 | 1.3686 | 2.988 | 2,426 | 3,320  |
| 2006 | 1.3159 | 3.320 | 2,696 | 3,548  |
| 2007 | 1.2653 | 3.652 | 2,965 | 3,752  |
| 2008 | 1.2167 | 3.984 | 3,235 | 3,936  |
| 2009 | 1.1699 | 4.316 | 3,505 | 4,100  |
| 2010 | 1.1249 | 4.648 | 3,774 | 4,245  |
| 2011 | 1.0816 | 4.980 | 4,044 | 4,374  |
| 2012 | 1.0400 | 5.312 | 4,313 | 4,486  |
| 2013 | 1.0000 | 5.644 | 4,583 | 4,583  |
| 2014 | 0.9615 | 5.976 | 4,853 | 4,666  |
| 2015 | 0.9246 | 6.300 | 5,116 | 4,730  |
| 2016 | 0.8890 |       | 0     | 0      |
| 2017 | 0.8548 |       | 0     | 0      |
| 2018 | 0.8219 |       | 0     | 0      |
| 2019 | 0.7903 |       | 0     | 0      |
| 2020 | 0.7599 |       | 0     | 0      |
| 2021 | 0.7307 |       | 0     | 0      |
| 2022 | 0.7026 |       | 0     | 0      |
| 2023 | 0.6756 |       | 0     | 0      |
| 2024 | 0.6496 |       | 0     | 0      |
| 2025 | 0.6246 |       | 0     | 0      |
| 2026 | 0.6006 |       | 0     | 0      |
| 2027 | 0.5775 |       | 0     | 0      |
| 2028 | 0.5553 |       | 0     | 0      |
| 2029 | 0.5339 |       | 0     | 0      |
| 2030 | 0.5134 |       | 0     | 0      |
| 2031 | 0.4936 |       | 0     | 0      |
| 2032 | 0.4746 |       | 0     | 0      |
| 2033 | 0.4564 |       | 0     | 0      |
| 2034 | 0.4388 |       | 0     | 0      |
| 2035 | 0.4220 |       | 0     | 0      |
| 2036 | 0.4057 |       | 0     | 0      |
| 2037 | 0.3901 |       | 0     | 0      |
| 2038 | 0.3751 |       | 0     | 0      |
| 2039 | 0.3607 |       | 0     | 0      |
| 2040 | 0.3468 |       | 0     | 0      |
| 2041 | 0.3335 |       | 0     | 0      |
| 2042 | 0.3207 |       | 0     | 0      |
| 2043 | 0.3083 |       | 0     | 0      |
| 2044 | 0.2965 |       | 0     | 0      |
| 2045 | 0.2851 |       | 0     | 0      |
| 2046 | 0.2741 |       | 0     | 0      |
| 2047 | 0.2636 |       | 0     | 0      |
| 2048 | 0.2534 |       | 0     | 0      |
| 2049 | 0.2437 |       | 0     | 0      |
| 2050 | 0.2343 |       | 0     | 0      |
| 2051 | 0.2253 |       | 0     | 0      |
| 2052 | 0.2166 |       | 0     | 0      |
| 2053 | 0.2083 |       | 0     | 0      |
| 2054 | 0.2003 |       | 0     | 0      |
| 2055 | 0.1926 |       | 0     | 0      |
| 合計   |        |       |       | 60,925 |

$$B = \sum_{t=1}^Y \frac{(C_o - C_t) \times L_t}{(1 + i)^t}$$

- Y: 評価期間 60
- Co: 林道舗装等を実施しない場合の維持管理費(円/m・年) 1,649
- Ct: 林道舗装等を実施した場合の維持管理費(円/m・年) 6
- Lt: 維持管理費の縮減の対象となる林道の延長(m) 332 ~ 6,300

| 年度   | 社会的割引率 | 林道の延長 | 効果額    | 現在価値化   |
|------|--------|-------|--------|---------|
| 1995 | 2.0258 |       |        |         |
| 1996 | 1.9479 |       | 0      | 0       |
| 1997 | 1.8730 | 332   | 545    | 1,021   |
| 1998 | 1.8009 | 664   | 1,091  | 1,965   |
| 1999 | 1.7317 | 996   | 1,636  | 2,833   |
| 2000 | 1.6651 | 1,328 | 2,182  | 3,633   |
| 2001 | 1.6010 | 1,660 | 2,727  | 4,366   |
| 2002 | 1.5395 | 1,992 | 3,273  | 5,039   |
| 2003 | 1.4802 | 2,324 | 3,818  | 5,651   |
| 2004 | 1.4233 | 2,656 | 4,364  | 6,211   |
| 2005 | 1.3686 | 2,988 | 4,909  | 6,718   |
| 2006 | 1.3159 | 3,320 | 5,455  | 7,178   |
| 2007 | 1.2653 | 3,652 | 6,000  | 7,592   |
| 2008 | 1.2167 | 3,984 | 6,546  | 7,965   |
| 2009 | 1.1699 | 4,316 | 7,091  | 8,296   |
| 2010 | 1.1249 | 4,648 | 7,637  | 8,591   |
| 2011 | 1.0816 | 4,980 | 8,182  | 8,850   |
| 2012 | 1.0400 | 5,312 | 8,728  | 9,077   |
| 2013 | 1.0000 | 5,644 | 9,273  | 9,273   |
| 2014 | 0.9615 | 5,976 | 9,819  | 9,441   |
| 2015 | 0.9246 | 6,300 | 10,351 | 9,571   |
| 2016 | 0.8890 |       | 0      | 0       |
| 2017 | 0.8548 |       | 0      | 0       |
| 2018 | 0.8219 |       | 0      | 0       |
| 2019 | 0.7903 |       | 0      | 0       |
| 2020 | 0.7599 |       | 0      | 0       |
| 2021 | 0.7307 |       | 0      | 0       |
| 2022 | 0.7026 |       | 0      | 0       |
| 2023 | 0.6756 |       | 0      | 0       |
| 2024 | 0.6496 |       | 0      | 0       |
| 2025 | 0.6246 |       | 0      | 0       |
| 2026 | 0.6006 |       | 0      | 0       |
| 2027 | 0.5775 |       | 0      | 0       |
| 2028 | 0.5553 |       | 0      | 0       |
| 2029 | 0.5339 |       | 0      | 0       |
| 2030 | 0.5134 |       | 0      | 0       |
| 2031 | 0.4936 |       | 0      | 0       |
| 2032 | 0.4746 |       | 0      | 0       |
| 2033 | 0.4564 |       | 0      | 0       |
| 2034 | 0.4388 |       | 0      | 0       |
| 2035 | 0.4220 |       | 0      | 0       |
| 2036 | 0.4057 |       | 0      | 0       |
| 2037 | 0.3901 |       | 0      | 0       |
| 2038 | 0.3751 |       | 0      | 0       |
| 2039 | 0.3607 |       | 0      | 0       |
| 2040 | 0.3468 |       | 0      | 0       |
| 2041 | 0.3335 |       | 0      | 0       |
| 2042 | 0.3207 |       | 0      | 0       |
| 2043 | 0.3083 |       | 0      | 0       |
| 2044 | 0.2965 |       | 0      | 0       |
| 2045 | 0.2851 |       | 0      | 0       |
| 2046 | 0.2741 |       | 0      | 0       |
| 2047 | 0.2636 |       | 0      | 0       |
| 2048 | 0.2534 |       | 0      | 0       |
| 2049 | 0.2437 |       | 0      | 0       |
| 2050 | 0.2343 |       | 0      | 0       |
| 2051 | 0.2253 |       | 0      | 0       |
| 2052 | 0.2166 |       | 0      | 0       |
| 2053 | 0.2083 |       | 0      | 0       |
| 2054 | 0.2003 |       | 0      | 0       |
| 2055 | 0.1926 |       | 0      | 0       |
| 合計   |        |       |        | 123,271 |