

## **APPENDICES**

**Appendix table 1** Social Accounting Matrix of Tambon Makhuea Chae in 2011

Unit: million baht

| Sector | 1    | 2    | 3     | 4    | 5    | 6    | 7    | 8    | 9    | 10   | 11   | 12   | 13   | 14   | 15   | 16   | 17   | 18   | 19   | 20   |
|--------|------|------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1      | 0.00 | 0.00 | 0.00  | 3.14 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2      | 0.00 | 0.00 | 23.59 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3      | 0.00 | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4      | 0.00 | 0.00 | 0.00  | 0.00 | 0.14 | 0.00 | 0.00 | 4.57 | 0.00 | 0.00 | 0.00 | 0.00 | 1.73 | 0.05 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5      | 0.00 | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6      | 0.00 | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.16 | 0.18 | 0.00 |
| 7      | 0.00 | 0.00 | 0.10  | 0.00 | 0.07 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8      | 0.21 | 1.25 | 1.36  | 0.00 | 0.38 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 |
| 9      | 0.51 | 4.18 | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 10     | 0.01 | 0.07 | 0.09  | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 11     | 0.02 | 0.05 | 0.06  | 0.00 | 0.17 | 0.00 | 0.00 | 0.39 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 |
| 12     | 0.00 | 0.00 | 0.09  | 0.00 | 0.01 | 0.00 | 0.01 | 0.07 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.13 | 0.00 |
| 13     | 0.01 | 0.15 | 0.01  | 0.00 | 2.52 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 14     | 0.04 | 0.01 | 0.03  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 15     | 0.06 | 1.42 | 1.71  | 0.00 | 0.05 | 1.00 | 0.00 | 1.55 | 0.43 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.48 | 0.15 | 0.93 | 0.05 |
| 16     | 0.00 | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 17     | 0.00 | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.26 | 0.00 | 0.00 | 0.00 | 0.00 | 5.83 | 1.03 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 18     | 0.00 | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 19     | 0.00 | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

**Appendix table 1** (continued)

| Sector | 1     | 2     | 3      | 4     | 5     | 6     | 7    | 8     | 9    | 10   | 11   | 12   | 13    | 14    | 15    | 16   | 17    | 18    | 19    | 20   |
|--------|-------|-------|--------|-------|-------|-------|------|-------|------|------|------|------|-------|-------|-------|------|-------|-------|-------|------|
| 20     | 0.00  | 0.00  | 0.00   | 0.00  | 0.00  | 0.00  | 0.00 | 0.62  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00  | 0.00  | 0.00 | 0.00  | 0.00  | 0.00  | 0.00 |
| 21     | 0.00  | 0.00  | 0.00   | 0.00  | 0.03  | 0.00  | 0.00 | 1.87  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00  | 0.00  | 0.00 | 0.00  | 0.00  | 0.00  | 0.00 |
| 22     | 0.00  | 0.00  | 0.00   | 0.00  | 0.08  | 0.00  | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00  | 0.00  | 0.00 | 0.00  | 0.00  | 0.00  | 0.00 |
| 23     | 0.44  | 3.36  | 14.62  | 0.64  | 0.86  | 0.86  | 0.46 | 1.02  | 0.43 | 0.29 | 0.00 | 0.25 | 3.07  | 0.15  | 0.18  | 0.05 | 0.25  | 5.97  | 11.40 | 0.03 |
| 24     | 2.53  | 4.50  | 0.00   | 0.00  | 0.00  | 0.00  | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00  | 0.00  | 0.00 | 0.00  | 0.00  | 0.00  | 0.00 |
| 25     | 0.00  | 0.00  | 23.25  | 0.00  | 0.05  | 0.66  | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00  | 0.00  | 0.00 | 0.00  | 0.33  | 0.24  | 0.11 |
| 26     | 0.00  | 0.00  | 0.00   | 0.00  | 0.24  | 0.00  | 0.00 | 0.00  | 0.00 | 0.15 | 0.32 | 0.00 | 0.00  | 0.00  | 0.22  | 0.00 | 0.51  | 0.95  | 0.00  | 0.00 |
| 27     | 0.00  | 0.00  | 6.59   | 0.00  | 0.03  | 0.00  | 0.00 | 0.62  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00  | 0.00  | 0.00 | 0.00  | 0.32  | 0.00  | 0.00 |
| 28     | 0.00  | 0.00  | 0.00   | 0.00  | 0.00  | 0.00  | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00  | 0.00  | 0.00 | 0.00  | 0.00  | 0.00  | 0.00 |
| 29     | 0.00  | 0.00  | 0.06   | 0.00  | 0.00  | 0.20  | 0.00 | 0.04  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00  | 0.00  | 0.00 | 0.00  | 0.01  | 0.00  | 0.00 |
| 30     | 0.00  | 0.00  | 0.00   | 0.00  | 0.00  | 0.04  | 0.00 | 0.01  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00  | 0.00  | 0.00 | 0.00  | 0.01  | 0.00  | 0.00 |
| 31     | 0.05  | 0.05  | 0.06   | 0.01  | 0.00  | 0.02  | 0.02 | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00  | 0.01  | 0.00 | 0.04  | 0.02  | 0.08  | 0.00 |
| 32     | 2.85  | 10.40 | 18.20  | 1.35  | 1.75  | 0.70  | 0.16 | 3.26  | 0.64 | 0.28 | 0.05 | 0.03 | 3.13  | 2.87  | 0.81  | 0.05 | 1.20  | 5.56  | 7.91  | 0.65 |
| 33     | 0.00  | 0.00  | 0.00   | 0.00  | 0.00  | 0.00  | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00  | 0.00  | 0.00 | 0.00  | 0.00  | 0.00  | 0.00 |
| 34     | 0.00  | 0.00  | 0.00   | 0.00  | 0.00  | 0.00  | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00  | 0.00  | 0.00 | 0.00  | 0.00  | 0.00  | 0.00 |
| 35     | 0.00  | 0.00  | 0.00   | 0.00  | 0.00  | 0.00  | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00  | 0.00  | 0.00 | 0.00  | 0.00  | 0.00  | 0.00 |
| import | 8.10  | 24.71 | 70.72  | 6.97  | 5.52  | 13.18 | 3.50 | 22.79 | 3.80 | 0.95 | 3.81 | 9.42 | 29.27 | 11.94 | 47.35 | 0.26 | 8.36  | 18.64 | 24.40 | 5.34 |
| Total  | 14.82 | 50.14 | 160.54 | 12.12 | 11.90 | 16.67 | 4.14 | 37.09 | 5.33 | 1.67 | 4.17 | 9.70 | 43.03 | 16.03 | 48.56 | 0.36 | 10.83 | 32.16 | 45.28 | 6.19 |

**Appendix table 1** (continued)

| Sector | 21   | 22   | 23   | 24   | 25   | 26   | 27    | 28   | 29   | 30   | 31   | 32    | 33   | 34    | 35    | export | Total  |
|--------|------|------|------|------|------|------|-------|------|------|------|------|-------|------|-------|-------|--------|--------|
| 1      | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 2.85  | 0.08 | 3.34  | 1.45  | 3.95   | 14.82  |
| 2      | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 10.40 | 0.00 | 0.00  | 0.00  | 16.16  | 50.14  |
| 3      | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 25.63 | 0.00 | 0.00 | 0.00 | 0.00 | 18.20 | 0.00 | 0.00  | 0.00  | 116.71 | 160.54 |
| 4      | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 1.35  | 0.05 | 0.61  | 1.80  | 1.82   | 12.12  |
| 5      | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 1.75  | 0.19 | 5.47  | 4.39  | 0.10   | 11.90  |
| 6      | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00 | 0.68 | 0.35 | 0.00 | 0.70  | 0.00 | 4.00  | 9.86  | 0.74   | 16.67  |
| 7      | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.16  | 0.08 | 2.16  | 1.58  | 0.00   | 4.14   |
| 8      | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.59  | 0.00 | 0.00 | 0.00 | 0.00 | 3.26  | 3.05 | 12.57 | 14.40 | 0.00   | 37.09  |
| 9      | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.64  | 0.00 | 0.00  | 0.00  | 0.00   | 5.33   |
| 10     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.28  | 0.02 | 0.25  | 0.25  | 0.67   | 1.67   |
| 11     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00 | 0.04 | 0.00 | 0.54 | 0.05  | 0.15 | 1.23  | 1.43  | 0.00   | 4.17   |
| 12     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.03  | 0.19 | 4.49  | 4.66  | 0.00   | 9.70   |
| 13     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00 | 0.00 | 1.61 | 0.00 | 3.13  | 0.00 | 27.49 | 8.10  | 0.00   | 43.03  |
| 14     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 2.87  | 0.15 | 8.48  | 4.46  | 0.00   | 16.03  |
| 15     | 0.27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00 | 0.15 | 0.00 | 0.00 | 0.81  | 0.31 | 18.45 | 20.74 | 0.00   | 48.56  |
| 16     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 0.05  | 0.02 | 0.09  | 0.14  | 0.07   | 0.36   |
| 17     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 1.20  | 0.00 | 0.00  | 0.00  | 2.52   | 10.83  |
| 18     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 8.26  | 0.00 | 0.00 | 0.00 | 0.00 | 5.56  | 0.00 | 0.00  | 0.40  | 17.93  | 32.16  |
| 19     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 12.39 | 0.00 | 0.00 | 0.00 | 0.00 | 7.91  | 0.00 | 0.00  | 0.76  | 24.22  | 45.28  |
| 20     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00  | 0.00 | 0.00 | 0.00 | 0.00 | 1.31  | 0.00 | 0.60  | 0.21  | 3.46   | 6.19   |

**Appendix table 1** (continued)

| Sector | 21   | 22   | 23    | 24   | 25    | 26    | 27    | 28   | 29    | 30   | 31    | 32     | 33    | 34     | 35     | export | Total    |
|--------|------|------|-------|------|-------|-------|-------|------|-------|------|-------|--------|-------|--------|--------|--------|----------|
| 21     | 0.00 | 0.00 | 0.00  | 0.00 | 0.00  | 0.00  | 0.00  | 0.00 | 0.00  | 0.00 | 0.00  | 2.09   | 0.00  | 0.00   | 0.00   | 2.23   | 6.22     |
| 22     | 0.00 | 0.00 | 0.00  | 0.00 | 0.00  | 0.00  | 0.00  | 0.00 | 0.00  | 0.00 | 0.00  | 0.00   | 0.00  | 0.46   | 1.53   | 0.00   | 2.06     |
| 23     | 0.09 | 0.00 | 0.00  | 0.00 | 0.00  | 0.00  | 0.00  | 0.00 | 0.00  | 0.00 | 0.00  | 0.00   | 1.16  | 12.30  | 7.48   | 0.00   | 65.37    |
| 24     | 0.00 | 0.00 | 0.00  | 0.00 | 0.00  | 0.00  | 0.00  | 0.00 | 0.00  | 0.00 | 0.00  | 0.00   | 0.00  | 0.00   | 0.00   | 0.00   | 7.02     |
| 25     | 0.00 | 0.00 | 0.00  | 0.00 | 0.00  | 0.00  | 0.00  | 0.00 | 0.00  | 0.00 | 0.00  | 0.00   | 0.00  | 0.00   | 0.00   | 0.64   | 25.27    |
| 26     | 0.00 | 0.00 | 0.00  | 0.00 | 0.00  | 0.00  | 0.00  | 0.00 | 0.00  | 0.33 | 0.62  | 0.00   | 0.00  | 0.00   | 0.00   | 10.00  | 13.34    |
| 27     | 0.00 | 0.00 | 0.00  | 0.00 | 0.00  | 0.00  | 0.00  | 0.00 | 0.00  | 0.00 | 0.20  | 0.00   | 0.51  | 19.32  | 17.74  | 17.26  | 62.58    |
| 28     | 0.00 | 0.00 | 0.00  | 0.00 | 0.00  | 0.00  | 0.00  | 0.00 | 0.00  | 0.00 | 0.00  | 0.00   | 0.05  | 1.54   | 3.70   | 0.00   | 5.29     |
| 29     | 0.00 | 0.00 | 0.00  | 0.00 | 0.00  | 0.00  | 0.00  | 0.00 | 0.00  | 0.00 | 2.04  | 0.00   | 0.40  | 6.30   | 6.70   | 0.00   | 15.74    |
| 30     | 0.00 | 0.00 | 0.00  | 0.00 | 0.00  | 0.00  | 0.00  | 0.00 | 0.00  | 0.00 | 3.45  | 0.00   | 0.06  | 0.16   | 0.08   | 0.00   | 3.80     |
| 31     | 0.00 | 0.00 | 0.00  | 0.00 | 0.00  | 0.00  | 0.00  | 0.00 | 0.00  | 0.00 | 0.00  | 0.00   | 0.08  | 4.35   | 4.42   | 44.64  | 53.84    |
| 32     | 2.09 | 0.00 | 0.00  | 0.00 | 0.00  | 0.00  | 0.00  | 0.00 | 0.00  | 0.00 | 0.00  | 0.00   | 0.94  | 48.47  | 48.47  | 0.00   | 161.81   |
| 33     | 0.00 | 0.00 | 1.90  | 0.24 | 0.03  | 0.00  | 0.46  | 0.53 | 0.00  | 0.00 | 0.16  | 7.36   | 0.00  | 0.00   | 0.00   | 0.63   | 11.30    |
| 34     | 0.00 | 1.19 | 34.31 | 3.91 | 12.69 | 12.00 | 6.47  | 1.06 | 0.00  | 0.00 | 2.06  | 45.70  | 0.00  | 0.00   | 0.00   | 191.40 | 310.79   |
| 35     | 0.00 | 0.88 | 29.15 | 2.88 | 12.55 | 1.34  | 8.78  | 3.70 | 0.00  | 0.00 | 0.95  | 44.17  | 0.00  | 0.00   | 0.00   | 139.99 | 244.39   |
| import | 3.77 | 0.00 | 0.00  | 0.00 | 0.00  | 0.00  | 0.00  | 0.00 | 14.87 | 1.51 | 43.82 | 0.00   | 3.83  | 128.68 | 79.64  | 0.00   | 595.13   |
| Total  | 6.22 | 2.06 | 65.37 | 7.02 | 25.27 | 13.34 | 62.58 | 5.29 | 15.74 | 3.80 | 53.84 | 161.81 | 11.30 | 310.79 | 244.39 | 595.13 | 2,114.68 |

Source: Survey, 2012

**Appendix table 2** The A matrix (fixed proportion of total output on demand-side) of Tambon Makhuea Chae

| Sector | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 10   | 11   | 12   | 13   | 14   | 15   | 16   | 17   | 18   |
|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1      | 0.00 | 0.00 | 0.00 | 0.26 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2      | 0.00 | 0.00 | 0.15 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3      | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4      | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.12 | 0.00 | 0.00 | 0.00 | 0.00 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5      | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6      | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 7      | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8      | 0.01 | 0.03 | 0.01 | 0.00 | 0.03 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 9      | 0.03 | 0.08 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 10     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 11     | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 12     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 13     | 0.00 | 0.00 | 0.00 | 0.00 | 0.21 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 14     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 15     | 0.00 | 0.03 | 0.01 | 0.00 | 0.00 | 0.06 | 0.00 | 0.04 | 0.08 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.04 | 0.00 |
| 16     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 17     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.14 | 0.06 | 0.00 | 0.00 | 0.00 | 0.00 |
| 18     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 19     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 20     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 21     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.05 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

**Appendix table 2** (Continued)

| <b>Sector</b> | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> | <b>6</b> | <b>7</b> | <b>8</b> | <b>9</b> | <b>10</b> | <b>11</b> | <b>12</b> | <b>13</b> | <b>14</b> | <b>15</b> | <b>16</b> | <b>17</b> | <b>18</b> |
|---------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| <b>22</b>     | 0.00     | 0.00     | 0.00     | 0.00     | 0.01     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      |
| <b>23</b>     | 0.03     | 0.07     | 0.09     | 0.05     | 0.07     | 0.05     | 0.11     | 0.03     | 0.08     | 0.17      | 0.00      | 0.03      | 0.07      | 0.01      | 0.00      | 0.14      | 0.02      | 0.19      |
| <b>24</b>     | 0.17     | 0.09     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      |
| <b>25</b>     | 0.00     | 0.00     | 0.14     | 0.00     | 0.00     | 0.04     | 0.00     | 0.00     | 0.00     | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.01      |
| <b>26</b>     | 0.00     | 0.00     | 0.00     | 0.00     | 0.02     | 0.00     | 0.00     | 0.00     | 0.00     | 0.09      | 0.08      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.05      | 0.03      |
| <b>27</b>     | 0.00     | 0.00     | 0.04     | 0.00     | 0.00     | 0.00     | 0.00     | 0.02     | 0.00     | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.01      |
| <b>28</b>     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      |
| <b>29</b>     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.01     | 0.00     | 0.00     | 0.00     | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      |
| <b>30</b>     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      |
| <b>31</b>     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      |
| <b>32</b>     | 0.19     | 0.21     | 0.11     | 0.11     | 0.15     | 0.04     | 0.04     | 0.09     | 0.12     | 0.17      | 0.01      | 0.00      | 0.07      | 0.18      | 0.02      | 0.13      | 0.11      | 0.17      |
| <b>33</b>     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      |
| <b>34</b>     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      |
| <b>35</b>     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      |
| <b>36</b>     | 0.55     | 0.49     | 0.44     | 0.58     | 0.46     | 0.79     | 0.85     | 0.61     | 0.71     | 0.57      | 0.91      | 0.97      | 0.68      | 0.74      | 0.98      | 0.73      | 0.77      | 0.58      |

**Appendix table 2** (continue)

| Sector | 19   | 20   | 21   | 22   | 23   | 24   | 25   | 26   | 27   | 28   | 29   | 30   | 31   | 32   | 33   | 34   | 35   | 36   |
|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1      | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.01 | 0.01 | 0.01 | 0.01 |
| 2      | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.06 | 0.00 | 0.00 | 0.00 | 0.03 |
| 3      | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.41 | 0.00 | 0.00 | 0.00 | 0.00 | 0.11 | 0.00 | 0.00 | 0.00 | 0.20 |
| 4      | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.01 | 0.00 |
| 5      | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.02 | 0.02 | 0.02 | 0.00 |
| 6      | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.04 | 0.09 | 0.00 | 0.00 | 0.00 | 0.01 | 0.04 | 0.00 |
| 7      | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.01 | 0.00 |
| 8      | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.27 | 0.04 | 0.06 | 0.00 |
| 9      | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 10     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 11     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.01 | 0.00 | 0.01 | 0.00 |
| 12     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.01 | 0.02 | 0.00 |
| 13     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.42 | 0.00 | 0.02 | 0.00 | 0.09 | 0.03 | 0.00 |
| 14     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.01 | 0.03 | 0.02 | 0.00 |
| 15     | 0.02 | 0.01 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.03 | 0.06 | 0.08 | 0.00 |
| 16     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 17     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 18     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.13 | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.00 | 0.00 | 0.00 | 0.03 |

**Appendix table 2 (Continued)**

| Sector | 19   | 20   | 21   | 22   | 23   | 24   | 25   | 26   | 27   | 28   | 29   | 30   | 31   | 32   | 33   | 34   | 35   | 36   |
|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 19     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.20 | 0.00 | 0.00 | 0.00 | 0.00 | 0.05 | 0.00 | 0.00 | 0.00 | 0.04 |
| 20     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.01 |
| 21     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| 22     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 |
| 23     | 0.25 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.10 | 0.04 | 0.03 | 0.00 |
| 24     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 25     | 0.01 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 26     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.09 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 |
| 27     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.04 | 0.06 | 0.07 | 0.03 |
| 28     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.00 |
| 29     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.04 | 0.00 | 0.04 | 0.02 | 0.03 | 0.00 |
| 30     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.06 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 |
| 31     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.02 | 0.08 |
| 32     | 0.17 | 0.11 | 0.34 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.08 | 0.16 | 0.20 | 0.00 |
| 33     | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.03 | 0.00 | 0.00 | 0.01 | 0.10 | 0.00 | 0.00 | 0.00 | 0.05 | 0.00 | 0.00 | 0.00 | 0.00 |
| 34     | 0.00 | 0.00 | 0.00 | 0.58 | 0.52 | 0.56 | 0.50 | 0.90 | 0.10 | 0.20 | 0.00 | 0.00 | 0.04 | 0.28 | 0.00 | 0.00 | 0.00 | 0.32 |
| 35     | 0.00 | 0.00 | 0.00 | 0.42 | 0.45 | 0.41 | 0.50 | 0.10 | 0.14 | 0.70 | 0.00 | 0.00 | 0.02 | 0.27 | 0.00 | 0.00 | 0.00 | 0.24 |
| 36     | 0.54 | 0.86 | 0.61 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.94 | 0.40 | 0.81 | 0.00 | 0.34 | 0.41 | 0.33 | 0.00 |

**Source:** Survey, 2012

**Appendix table 3** The B matrix (fixed proportion of total output on supply-side) of Tambon Makhuea Chae

| Sector | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 10   | 11   | 12   | 13   | 14   | 15   | 16   | 17   | 18   | 19   | 20   |
|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1      | 0.00 | 0.00 | 0.00 | 0.21 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 2      | 0.00 | 0.00 | 0.47 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3      | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4      | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.38 | 0.00 | 0.00 | 0.00 | 0.00 | 0.14 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 5      | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 6      | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 |
| 7      | 0.00 | 0.00 | 0.02 | 0.00 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8      | 0.01 | 0.03 | 0.04 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 9      | 0.09 | 0.78 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 10     | 0.01 | 0.04 | 0.05 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 11     | 0.01 | 0.01 | 0.02 | 0.00 | 0.04 | 0.00 | 0.00 | 0.09 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 12     | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 |
| 13     | 0.00 | 0.00 | 0.00 | 0.00 | 0.06 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 14     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 15     | 0.00 | 0.03 | 0.04 | 0.00 | 0.00 | 0.02 | 0.00 | 0.03 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.02 | 0.00 |
| 16     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 17     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.54 | 0.10 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 18     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 19     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 20     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.10 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

**Appendix table 3 (Continued)**

| <b>Sector</b> | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> | <b>6</b> | <b>7</b> | <b>8</b> | <b>9</b> | <b>10</b> | <b>11</b> | <b>12</b> | <b>13</b> | <b>14</b> | <b>15</b> | <b>16</b> | <b>17</b> | <b>18</b> | <b>19</b> | <b>20</b> |
|---------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| <b>21</b>     | 0.00     | 0.00     | 0.00     | 0.00     | 0.01     | 0.00     | 0.00     | 0.30     | 0.00     | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      |
| <b>22</b>     | 0.00     | 0.00     | 0.00     | 0.00     | 0.04     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      |
| <b>23</b>     | 0.01     | 0.05     | 0.22     | 0.01     | 0.01     | 0.01     | 0.01     | 0.02     | 0.01     | 0.00      | 0.00      | 0.00      | 0.05      | 0.00      | 0.00      | 0.00      | 0.00      | 0.09      | 0.17      | 0.00      |
| <b>24</b>     | 0.36     | 0.64     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      |
| <b>25</b>     | 0.00     | 0.00     | 0.92     | 0.00     | 0.00     | 0.03     | 0.00     | 0.00     | 0.00     | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.01      | 0.01      | 0.00      |
| <b>26</b>     | 0.00     | 0.00     | 0.00     | 0.00     | 0.02     | 0.00     | 0.00     | 0.00     | 0.00     | 0.01      | 0.02      | 0.00      | 0.00      | 0.00      | 0.02      | 0.00      | 0.04      | 0.07      | 0.00      | 0.00      |
| <b>27</b>     | 0.00     | 0.00     | 0.11     | 0.00     | 0.00     | 0.00     | 0.00     | 0.01     | 0.00     | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.01      | 0.00      | 0.00      |
| <b>28</b>     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      |
| <b>29</b>     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.01     | 0.00     | 0.00     | 0.00     | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      |
| <b>30</b>     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.01     | 0.00     | 0.00     | 0.00     | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      |
| <b>31</b>     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      |
| <b>32</b>     | 0.02     | 0.06     | 0.11     | 0.01     | 0.01     | 0.00     | 0.00     | 0.02     | 0.00     | 0.00      | 0.00      | 0.00      | 0.02      | 0.02      | 0.00      | 0.00      | 0.01      | 0.03      | 0.05      | 0.00      |
| <b>33</b>     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      |
| <b>34</b>     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      |
| <b>35</b>     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      |
| <b>36</b>     | 0.01     | 0.04     | 0.12     | 0.01     | 0.01     | 0.02     | 0.01     | 0.04     | 0.01     | 0.00      | 0.01      | 0.02      | 0.05      | 0.02      | 0.08      | 0.00      | 0.01      | 0.03      | 0.04      | 0.01      |

**Appendix table 3 (continued)**

| Sector | 21   | 22   | 23   | 24   | 25   | 26   | 27   | 28   | 29   | 30   | 31   | 32   | 33   | 34   | 35   | 36   |
|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1      | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.19 | 0.01 | 0.23 | 0.10 | 0.27 |
| 2      | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.21 | 0.00 | 0.00 | 0.00 | 0.32 |
| 3      | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.16 | 0.00 | 0.00 | 0.00 | 0.00 | 0.11 | 0.00 | 0.00 | 0.00 | 0.73 |
| 4      | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.11 | 0.00 | 0.05 | 0.15 | 0.15 |
| 5      | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.15 | 0.02 | 0.46 | 0.37 | 0.01 |
| 6      | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.04 | 0.02 | 0.00 | 0.04 | 0.00 | 0.24 | 0.59 | 0.04 |
| 7      | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.04 | 0.02 | 0.52 | 0.38 | 0.00 |
| 8      | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.09 | 0.08 | 0.34 | 0.39 | 0.00 |
| 9      | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.12 | 0.00 | 0.00 | 0.00 | 0.00 |
| 10     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.17 | 0.01 | 0.15 | 0.15 | 0.40 |
| 11     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.13 | 0.01 | 0.04 | 0.29 | 0.34 | 0.00 |
| 12     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.46 | 0.48 | 0.00 |
| 13     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.04 | 0.00 | 0.07 | 0.00 | 0.64 | 0.19 | 0.00 |
| 14     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.18 | 0.01 | 0.53 | 0.28 | 0.00 |
| 15     | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.01 | 0.38 | 0.43 | 0.00 |
| 16     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.13 | 0.04 | 0.24 | 0.40 | 0.19 |
| 17     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.11 | 0.00 | 0.00 | 0.00 | 0.23 |
| 18     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.26 | 0.00 | 0.00 | 0.00 | 0.00 | 0.17 | 0.00 | 0.00 | 0.01 | 0.56 |
| 19     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.17 | 0.00 | 0.00 | 0.02 | 0.53 |
| 20     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.21 | 0.00 | 0.10 | 0.03 | 0.56 |

**Appendix table 3 (Continued)**

| Sector | 21   | 22   | 23   | 24   | 25   | 26   | 27   | 28   | 29   | 30   | 31   | 32   | 33   | 34   | 35   | 36   |
|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 21     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.34 | 0.00 | 0.00 | 0.00 | 0.36 |
| 22     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.22 | 0.74 | 0.00 |
| 23     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.19 | 0.11 | 0.00 |
| 24     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 25     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 |
| 26     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.05 | 0.00 | 0.00 | 0.00 | 0.00 | 0.75 |
| 27     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.31 | 0.28 | 0.28 |
| 28     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.29 | 0.70 | 0.00 |
| 29     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.13 | 0.00 | 0.03 | 0.40 | 0.43 | 0.00 |
| 30     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.91 | 0.00 | 0.02 | 0.04 | 0.02 | 0.00 |
| 31     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.08 | 0.08 | 0.83 |
| 32     | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.30 | 0.30 | 0.00 |
| 33     | 0.00 | 0.00 | 0.17 | 0.02 | 0.00 | 0.00 | 0.04 | 0.05 | 0.00 | 0.00 | 0.01 | 0.65 | 0.00 | 0.00 | 0.00 | 0.06 |
| 34     | 0.00 | 0.00 | 0.11 | 0.01 | 0.04 | 0.04 | 0.02 | 0.00 | 0.00 | 0.00 | 0.01 | 0.15 | 0.00 | 0.00 | 0.00 | 0.62 |
| 35     | 0.00 | 0.00 | 0.12 | 0.01 | 0.05 | 0.01 | 0.04 | 0.02 | 0.00 | 0.00 | 0.00 | 0.18 | 0.00 | 0.00 | 0.00 | 0.57 |
| 36     | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.00 | 0.07 | 0.00 | 0.01 | 0.22 | 0.13 | 0.00 |

**Source:** Survey, 2012

**Appendix table 4** The Leontief Inverse Matrix of Tambon Makhuea Chae

| Sector | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 10   | 11   | 12   | 13   | 14   | 15   | 16   | 17   | 18   |
|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1      | 1.01 | 0.01 | 0.01 | 0.27 | 0.02 | 0.00 | 0.00 | 0.04 | 0.01 | 0.01 | 0.00 | 0.00 | 0.02 | 0.01 | 0.00 | 0.01 | 0.01 | 0.01 |
| 2      | 0.03 | 1.03 | 0.17 | 0.02 | 0.02 | 0.01 | 0.01 | 0.02 | 0.02 | 0.03 | 0.00 | 0.00 | 0.01 | 0.02 | 0.00 | 0.02 | 0.01 | 0.03 |
| 3      | 0.05 | 0.05 | 1.06 | 0.04 | 0.04 | 0.01 | 0.01 | 0.03 | 0.03 | 0.05 | 0.01 | 0.00 | 0.02 | 0.03 | 0.00 | 0.03 | 0.02 | 0.05 |
| 4      | 0.01 | 0.01 | 0.01 | 1.01 | 0.03 | 0.00 | 0.00 | 0.13 | 0.01 | 0.01 | 0.00 | 0.00 | 0.05 | 0.01 | 0.00 | 0.01 | 0.00 | 0.01 |
| 5      | 0.01 | 0.01 | 0.01 | 0.01 | 1.01 | 0.00 | 0.00 | 0.01 | 0.01 | 0.01 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.01 | 0.01 | 0.01 |
| 6      | 0.01 | 0.01 | 0.02 | 0.01 | 0.01 | 1.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.01 | 0.01 | 0.02 |
| 7      | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 8      | 0.05 | 0.06 | 0.05 | 0.03 | 0.06 | 0.01 | 0.01 | 1.02 | 0.02 | 0.04 | 0.01 | 0.00 | 0.02 | 0.02 | 0.00 | 0.02 | 0.02 | 0.04 |
| 9      | 0.04 | 0.09 | 0.02 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 10     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 11     | 0.01 | 0.00 | 0.00 | 0.00 | 0.02 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 12     | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.00 | 0.00 | 0.01 | 0.00 | 0.01 | 0.00 | 1.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.01 |
| 13     | 0.04 | 0.04 | 0.04 | 0.02 | 0.24 | 0.01 | 0.01 | 0.02 | 0.02 | 0.04 | 0.01 | 0.00 | 1.02 | 0.02 | 0.00 | 0.02 | 0.02 | 0.04 |
| 14     | 0.02 | 0.02 | 0.02 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.02 | 0.00 | 0.00 | 0.01 | 1.01 | 0.00 | 0.01 | 0.01 | 0.02 |
| 15     | 0.05 | 0.07 | 0.06 | 0.03 | 0.04 | 0.07 | 0.02 | 0.06 | 0.10 | 0.04 | 0.01 | 0.00 | 0.02 | 0.02 | 1.00 | 0.03 | 0.06 | 0.04 |
| 16     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 |
| 17     | 0.01 | 0.01 | 0.01 | 0.01 | 0.04 | 0.00 | 0.00 | 0.01 | 0.00 | 0.01 | 0.00 | 0.00 | 0.14 | 0.07 | 0.00 | 0.01 | 1.00 | 0.01 |
| 18     | 0.02 | 0.02 | 0.02 | 0.01 | 0.01 | 0.00 | 0.00 | 0.01 | 0.01 | 0.02 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.01 | 0.01 | 1.02 |
| 19     | 0.02 | 0.02 | 0.03 | 0.02 | 0.02 | 0.01 | 0.01 | 0.02 | 0.01 | 0.02 | 0.00 | 0.00 | 0.01 | 0.02 | 0.00 | 0.01 | 0.01 | 0.02 |
| 20     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 21     | 0.01 | 0.01 | 0.01 | 0.00 | 0.01 | 0.00 | 0.00 | 0.05 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 |

**Appendix table 4 (Continued)**

| <b>Sector</b> | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> | <b>6</b> | <b>7</b> | <b>8</b> | <b>9</b> | <b>10</b> | <b>11</b> | <b>12</b> | <b>13</b> | <b>14</b> | <b>15</b> | <b>16</b> | <b>17</b> | <b>18</b> |
|---------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| <b>22</b>     | 0.00     | 0.00     | 0.00     | 0.00     | 0.01     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      |
| <b>23</b>     | 0.07     | 0.12     | 0.15     | 0.09     | 0.12     | 0.07     | 0.12     | 0.06     | 0.10     | 0.21      | 0.01      | 0.03      | 0.10      | 0.03      | 0.01      | 0.17      | 0.04      | 0.23      |
| <b>24</b>     | 0.18     | 0.09     | 0.02     | 0.05     | 0.00     | 0.00     | 0.00     | 0.01     | 0.00     | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      |
| <b>25</b>     | 0.01     | 0.01     | 0.16     | 0.01     | 0.01     | 0.04     | 0.00     | 0.01     | 0.00     | 0.01      | 0.00      | 0.00      | 0.00      | 0.01      | 0.00      | 0.01      | 0.00      | 0.02      |
| <b>26</b>     | 0.00     | 0.00     | 0.00     | 0.00     | 0.02     | 0.00     | 0.00     | 0.00     | 0.00     | 0.09      | 0.08      | 0.00      | 0.01      | 0.00      | 0.00      | 0.00      | 0.05      | 0.03      |
| <b>27</b>     | 0.03     | 0.03     | 0.08     | 0.02     | 0.03     | 0.01     | 0.01     | 0.03     | 0.02     | 0.04      | 0.01      | 0.00      | 0.01      | 0.01      | 0.00      | 0.02      | 0.01      | 0.04      |
| <b>28</b>     | 0.00     | 0.00     | 0.01     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      |
| <b>29</b>     | 0.01     | 0.01     | 0.01     | 0.01     | 0.01     | 0.02     | 0.00     | 0.01     | 0.01     | 0.01      | 0.00      | 0.00      | 0.01      | 0.01      | 0.00      | 0.01      | 0.01      | 0.01      |
| <b>30</b>     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00     | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      |
| <b>31</b>     | 0.01     | 0.01     | 0.01     | 0.01     | 0.01     | 0.00     | 0.01     | 0.00     | 0.00     | 0.01      | 0.00      | 0.00      | 0.00      | 0.00      | 0.00      | 0.01      | 0.01      | 0.01      |
| <b>32</b>     | 0.32     | 0.33     | 0.28     | 0.24     | 0.26     | 0.08     | 0.08     | 0.18     | 0.18     | 0.29      | 0.04      | 0.01      | 0.15      | 0.24      | 0.02      | 0.20      | 0.16      | 0.29      |
| <b>33</b>     | 0.02     | 0.02     | 0.02     | 0.02     | 0.02     | 0.01     | 0.01     | 0.01     | 0.01     | 0.02      | 0.00      | 0.00      | 0.01      | 0.01      | 0.00      | 0.01      | 0.01      | 0.02      |
| <b>34</b>     | 0.24     | 0.22     | 0.26     | 0.15     | 0.18     | 0.08     | 0.09     | 0.10     | 0.11     | 0.29      | 0.08      | 0.02      | 0.10      | 0.10      | 0.01      | 0.16      | 0.12      | 0.25      |
| <b>35</b>     | 0.20     | 0.19     | 0.24     | 0.13     | 0.15     | 0.08     | 0.08     | 0.09     | 0.10     | 0.20      | 0.02      | 0.02      | 0.09      | 0.09      | 0.01      | 0.14      | 0.07      | 0.21      |
| <b>Total</b>  | 2.50     | 2.53     | 2.80     | 2.23     | 2.41     | 1.56     | 1.54     | 1.96     | 1.81     | 2.52      | 1.30      | 1.10      | 1.83      | 1.78      | 1.09      | 1.96      | 1.69      | 2.46      |

**Appendix table 4** (Continued)

| Sector | 19   | 20   | 21   | 22   | 23   | 24   | 25   | 26   | 27   | 28   | 29   | 30   | 31   | 32   | 33   | 34   | 35   |
|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1      | 0.01 | 0.00 | 0.01 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.00 | 0.01 | 0.00 | 0.04 | 0.03 | 0.02 | 0.02 |
| 2      | 0.03 | 0.01 | 0.04 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.09 | 0.03 | 0.00 | 0.01 | 0.00 | 0.11 | 0.02 | 0.03 | 0.03 |
| 3      | 0.05 | 0.02 | 0.06 | 0.07 | 0.07 | 0.07 | 0.07 | 0.07 | 0.47 | 0.07 | 0.00 | 0.02 | 0.01 | 0.17 | 0.05 | 0.07 | 0.08 |
| 4      | 0.01 | 0.00 | 0.01 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.03 | 0.00 | 0.02 | 0.00 | 0.03 | 0.05 | 0.02 | 0.03 |
| 5      | 0.01 | 0.00 | 0.01 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.02 | 0.03 | 0.00 | 0.00 | 0.00 | 0.03 | 0.03 | 0.03 | 0.03 |
| 6      | 0.02 | 0.00 | 0.01 | 0.04 | 0.04 | 0.04 | 0.04 | 0.03 | 0.02 | 0.04 | 0.04 | 0.10 | 0.01 | 0.03 | 0.01 | 0.02 | 0.05 |
| 7      | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.01 | 0.01 |
| 8      | 0.04 | 0.01 | 0.03 | 0.08 | 0.09 | 0.09 | 0.08 | 0.07 | 0.06 | 0.11 | 0.00 | 0.01 | 0.01 | 0.09 | 0.30 | 0.07 | 0.09 |
| 9      | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.00 | 0.00 | 0.00 |
| 10     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 11     | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.00 | 0.00 | 0.01 | 0.01 | 0.02 | 0.01 | 0.01 |
| 12     | 0.01 | 0.00 | 0.01 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.01 | 0.02 | 0.00 | 0.00 | 0.00 | 0.02 | 0.02 | 0.02 | 0.03 |
| 13     | 0.04 | 0.01 | 0.03 | 0.10 | 0.09 | 0.09 | 0.09 | 0.11 | 0.05 | 0.07 | 0.00 | 0.44 | 0.04 | 0.09 | 0.03 | 0.12 | 0.07 |
| 14     | 0.02 | 0.01 | 0.02 | 0.04 | 0.04 | 0.04 | 0.04 | 0.04 | 0.02 | 0.03 | 0.00 | 0.01 | 0.00 | 0.04 | 0.02 | 0.04 | 0.03 |
| 15     | 0.06 | 0.02 | 0.08 | 0.10 | 0.10 | 0.10 | 0.11 | 0.09 | 0.07 | 0.11 | 0.01 | 0.02 | 0.01 | 0.09 | 0.07 | 0.09 | 0.12 |
| 16     | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 17     | 0.01 | 0.00 | 0.01 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.01 | 0.02 | 0.00 | 0.06 | 0.01 | 0.02 | 0.01 | 0.02 | 0.01 |
| 18     | 0.02 | 0.01 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.15 | 0.02 | 0.00 | 0.01 | 0.00 | 0.05 | 0.02 | 0.02 | 0.03 |
| 19     | 1.02 | 0.01 | 0.03 | 0.03 | 0.03 | 0.03 | 0.04 | 0.03 | 0.23 | 0.04 | 0.00 | 0.01 | 0.00 | 0.08 | 0.03 | 0.03 | 0.04 |
| 20     | 0.00 | 1.00 | 0.00 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.01 | 0.01 |
| 21     | 0.01 | 0.00 | 1.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.02 | 0.02 | 0.01 | 0.01 |

**Appendix table 4** (Continued)

| Sector       | 19   | 20   | 21   | 22   | 23   | 24   | 25   | 26   | 27   | 28   | 29   | 30   | 31   | 32   | 33   | 34   | 35   |
|--------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 22           | 0.00 | 0.00 | 0.00 | 1.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 |
| 23           | 0.30 | 0.02 | 0.05 | 0.09 | 1.09 | 0.09 | 0.09 | 0.09 | 0.17 | 0.09 | 0.00 | 0.05 | 0.01 | 0.11 | 0.15 | 0.09 | 0.09 |
| 24           | 0.00 | 0.00 | 0.01 | 0.01 | 0.01 | 1.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.02 | 0.01 | 0.01 | 0.01 |
| 25           | 0.01 | 0.02 | 0.01 | 0.01 | 0.01 | 0.01 | 1.01 | 0.01 | 0.07 | 0.01 | 0.00 | 0.01 | 0.00 | 0.03 | 0.01 | 0.01 | 0.01 |
| 26           | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.01 | 0.00 | 0.00 | 0.09 | 0.02 | 0.01 | 0.00 | 0.00 | 0.00 |
| 27           | 0.04 | 0.01 | 0.03 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 1.07 | 0.10 | 0.00 | 0.02 | 0.01 | 0.07 | 0.07 | 0.09 | 0.10 |
| 28           | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 1.02 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.01 | 0.02 |
| 29           | 0.01 | 0.00 | 0.01 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.02 | 0.04 | 1.00 | 0.01 | 0.04 | 0.02 | 0.04 | 0.03 | 0.04 |
| 30           | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 | 0.06 | 0.00 | 0.01 | 0.00 | 0.00 |
| 31           | 0.01 | 0.00 | 0.01 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.01 | 0.02 | 0.00 | 0.00 | 1.00 | 0.02 | 0.01 | 0.02 | 0.02 |
| 32           | 0.30 | 0.14 | 0.44 | 0.30 | 0.30 | 0.29 | 0.30 | 0.28 | 0.29 | 0.31 | 0.00 | 0.09 | 0.03 | 1.29 | 0.22 | 0.27 | 0.33 |
| 33           | 0.02 | 0.01 | 0.02 | 0.02 | 0.05 | 0.05 | 0.02 | 0.02 | 0.03 | 0.12 | 0.00 | 0.01 | 0.00 | 0.06 | 1.02 | 0.02 | 0.02 |
| 34           | 0.26 | 0.06 | 0.17 | 0.73 | 0.68 | 0.72 | 0.66 | 1.05 | 0.33 | 0.37 | 0.00 | 0.14 | 0.07 | 0.46 | 0.16 | 1.15 | 0.17 |
| 35           | 0.23 | 0.06 | 0.16 | 0.58 | 0.60 | 0.56 | 0.65 | 0.24 | 0.35 | 0.86 | 0.00 | 0.07 | 0.04 | 0.44 | 0.15 | 0.14 | 1.17 |
| <b>Total</b> | 2.57 | 1.46 | 2.28 | 3.57 | 3.57 | 3.57 | 3.58 | 3.49 | 3.65 | 3.64 | 1.08 | 2.22 | 1.40 | 3.51 | 2.60 | 2.47 | 2.70 |

**Source:** Survey, 2012

**Appendix table 5** The Output Inverse Matrix of Tambon Makhuea Chae

| sectors | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 10   | 11   | 12   | 13   | 14   | 15   | 16   | 17   | 18   |
|---------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1       | 1.05 | 0.10 | 0.11 | 0.23 | 0.01 | 0.00 | 0.00 | 0.10 | 0.00 | 0.00 | 0.00 | 0.00 | 0.04 | 0.01 | 0.00 | 0.00 | 0.00 | 0.02 |
| 2       | 0.02 | 1.05 | 0.54 | 0.01 | 0.01 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.01 |
| 3       | 0.02 | 0.04 | 1.05 | 0.01 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 |
| 4       | 0.06 | 0.13 | 0.14 | 1.02 | 0.03 | 0.00 | 0.00 | 0.40 | 0.00 | 0.00 | 0.00 | 0.00 | 0.15 | 0.01 | 0.00 | 0.00 | 0.01 | 0.02 |
| 5       | 0.06 | 0.13 | 0.13 | 0.02 | 1.01 | 0.00 | 0.00 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.01 | 0.02 |
| 6       | 0.06 | 0.12 | 0.11 | 0.02 | 0.01 | 1.00 | 0.00 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.03 |
| 7       | 0.06 | 0.12 | 0.14 | 0.02 | 0.02 | 0.00 | 1.00 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.02 |
| 8       | 0.07 | 0.16 | 0.18 | 0.02 | 0.02 | 0.00 | 0.00 | 1.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.01 | 0.02 |
| 9       | 0.13 | 0.86 | 0.47 | 0.03 | 0.01 | 0.00 | 0.00 | 0.02 | 1.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.02 |
| 10      | 0.04 | 0.12 | 0.16 | 0.01 | 0.01 | 0.00 | 0.00 | 0.03 | 0.00 | 1.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.02 |
| 11      | 0.07 | 0.14 | 0.15 | 0.02 | 0.05 | 0.00 | 0.00 | 0.11 | 0.01 | 0.00 | 1.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.01 | 0.02 |
| 12      | 0.06 | 0.12 | 0.12 | 0.02 | 0.01 | 0.00 | 0.00 | 0.02 | 0.00 | 0.00 | 0.00 | 1.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.02 |
| 13      | 0.06 | 0.12 | 0.12 | 0.02 | 0.07 | 0.00 | 0.00 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 1.01 | 0.01 | 0.00 | 0.00 | 0.01 | 0.02 |
| 14      | 0.06 | 0.13 | 0.14 | 0.02 | 0.01 | 0.00 | 0.00 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 1.01 | 0.00 | 0.00 | 0.01 | 0.02 |
| 15      | 0.06 | 0.15 | 0.16 | 0.02 | 0.01 | 0.02 | 0.00 | 0.05 | 0.01 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 1.00 | 0.00 | 0.01 | 0.02 |
| 16      | 0.05 | 0.11 | 0.11 | 0.01 | 0.01 | 0.00 | 0.00 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 1.00 | 0.00 | 0.02 |
| 17      | 0.03 | 0.06 | 0.07 | 0.01 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 1.00 | 0.01 |
| 18      | 0.03 | 0.07 | 0.08 | 0.01 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 1.01 |
| 19      | 0.03 | 0.07 | 0.08 | 0.01 | 0.01 | 0.00 | 0.00 | 0.11 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.01 |
| 20      | 0.04 | 0.11 | 0.14 | 0.01 | 0.02 | 0.00 | 0.00 | 0.32 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.01 | 0.02 |
| 21      | 0.04 | 0.08 | 0.18 | 0.01 | 0.00 | 0.00 | 0.00 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 |

**Appendix table 5 (Continued)**

| sectors | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 10   | 11   | 12   | 13   | 14   | 15   | 16   | 17   | 18   |
|---------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 22      | 0.05 | 0.14 | 0.34 | 0.02 | 0.02 | 0.02 | 0.01 | 0.05 | 0.01 | 0.01 | 0.00 | 0.00 | 0.06 | 0.01 | 0.00 | 0.00 | 0.01 | 0.11 |
| 23      | 0.39 | 0.71 | 0.39 | 0.09 | 0.01 | 0.00 | 0.00 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.01 | 0.00 | 0.00 | 0.00 | 0.02 |
| 24      | 0.02 | 0.04 | 0.97 | 0.01 | 0.01 | 0.03 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 |
| 25      | 0.01 | 0.02 | 0.02 | 0.00 | 0.02 | 0.00 | 0.00 | 0.01 | 0.00 | 0.01 | 0.02 | 0.00 | 0.00 | 0.00 | 0.02 | 0.00 | 0.04 | 0.07 |
| 26      | 0.07 | 0.17 | 0.25 | 0.03 | 0.02 | 0.01 | 0.00 | 0.05 | 0.01 | 0.00 | 0.00 | 0.00 | 0.03 | 0.02 | 0.01 | 0.00 | 0.01 | 0.05 |
| 27      | 0.06 | 0.12 | 0.11 | 0.02 | 0.01 | 0.00 | 0.00 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.02 |
| 28      | 0.06 | 0.12 | 0.12 | 0.02 | 0.01 | 0.01 | 0.00 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.02 |
| 29      | 0.06 | 0.13 | 0.11 | 0.02 | 0.04 | 0.01 | 0.00 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.02 |
| 30      | 0.01 | 0.02 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 31      | 0.06 | 0.12 | 0.11 | 0.02 | 0.04 | 0.00 | 0.00 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.02 |
| 32      | 0.07 | 0.17 | 0.25 | 0.03 | 0.02 | 0.01 | 0.00 | 0.05 | 0.01 | 0.00 | 0.00 | 0.00 | 0.03 | 0.02 | 0.01 | 0.00 | 0.01 | 0.05 |
| 33      | 0.12 | 0.24 | 0.26 | 0.03 | 0.01 | 0.01 | 0.00 | 0.04 | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.02 | 0.01 | 0.00 | 0.01 | 0.04 |
| 34      | 0.06 | 0.12 | 0.11 | 0.02 | 0.01 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.02 |
| 35      | 0.06 | 0.13 | 0.11 | 0.02 | 0.01 | 0.00 | 0.00 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.01 | 0.02 |

**Appendix table 5 (Continued)**

| Sector | 19   | 20   | 21   | 22   | 23   | 24   | 25   | 26   | 27   | 28   | 29   | 30   | 31   | 32   | 33   | 34   | 35   | Total |
|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|
| 1      | 0.02 | 0.00 | 0.01 | 0.00 | 0.10 | 0.01 | 0.04 | 0.02 | 0.05 | 0.01 | 0.00 | 0.00 | 0.01 | 0.44 | 0.02 | 0.48 | 0.38 | 3.26  |
| 2      | 0.02 | 0.00 | 0.00 | 0.00 | 0.04 | 0.00 | 0.02 | 0.01 | 0.10 | 0.00 | 0.00 | 0.00 | 0.00 | 0.36 | 0.00 | 0.17 | 0.21 | 2.64  |
| 3      | 0.01 | 0.00 | 0.00 | 0.00 | 0.04 | 0.00 | 0.02 | 0.01 | 0.18 | 0.00 | 0.00 | 0.00 | 0.00 | 0.20 | 0.00 | 0.13 | 0.20 | 1.94  |
| 4      | 0.02 | 0.00 | 0.01 | 0.00 | 0.13 | 0.01 | 0.05 | 0.02 | 0.07 | 0.01 | 0.00 | 0.01 | 0.01 | 0.43 | 0.04 | 0.49 | 0.56 | 3.81  |
| 5      | 0.02 | 0.00 | 0.01 | 0.00 | 0.15 | 0.02 | 0.06 | 0.03 | 0.06 | 0.01 | 0.00 | 0.00 | 0.01 | 0.44 | 0.02 | 0.67 | 0.60 | 3.54  |
| 6      | 0.03 | 0.00 | 0.00 | 0.00 | 0.14 | 0.01 | 0.06 | 0.02 | 0.06 | 0.01 | 0.04 | 0.02 | 0.05 | 0.32 | 0.01 | 0.42 | 0.81 | 3.40  |
| 7      | 0.02 | 0.00 | 0.00 | 0.00 | 0.15 | 0.02 | 0.06 | 0.03 | 0.07 | 0.01 | 0.00 | 0.00 | 0.01 | 0.33 | 0.02 | 0.70 | 0.58 | 3.45  |
| 8      | 0.02 | 0.00 | 0.01 | 0.00 | 0.15 | 0.02 | 0.06 | 0.03 | 0.09 | 0.02 | 0.00 | 0.00 | 0.01 | 0.43 | 0.09 | 0.56 | 0.64 | 3.66  |
| 9      | 0.02 | 0.00 | 0.01 | 0.00 | 0.06 | 0.01 | 0.02 | 0.01 | 0.10 | 0.01 | 0.00 | 0.00 | 0.00 | 0.48 | 0.01 | 0.24 | 0.26 | 3.80  |
| 10     | 0.02 | 0.00 | 0.00 | 0.00 | 0.08 | 0.01 | 0.03 | 0.01 | 0.05 | 0.01 | 0.00 | 0.00 | 0.01 | 0.35 | 0.02 | 0.31 | 0.33 | 2.64  |
| 11     | 0.02 | 0.00 | 0.00 | 0.00 | 0.15 | 0.02 | 0.06 | 0.03 | 0.07 | 0.01 | 0.01 | 0.00 | 0.15 | 0.34 | 0.05 | 0.56 | 0.70 | 3.79  |
| 12     | 0.03 | 0.00 | 0.00 | 0.00 | 0.15 | 0.02 | 0.06 | 0.03 | 0.06 | 0.01 | 0.00 | 0.00 | 0.01 | 0.30 | 0.03 | 0.63 | 0.67 | 3.42  |
| 13     | 0.02 | 0.00 | 0.00 | 0.00 | 0.14 | 0.02 | 0.06 | 0.03 | 0.06 | 0.01 | 0.00 | 0.04 | 0.01 | 0.35 | 0.01 | 0.85 | 0.41 | 3.46  |
| 14     | 0.03 | 0.00 | 0.01 | 0.00 | 0.15 | 0.02 | 0.06 | 0.03 | 0.06 | 0.01 | 0.00 | 0.00 | 0.01 | 0.47 | 0.02 | 0.75 | 0.52 | 3.57  |
| 15     | 0.04 | 0.00 | 0.01 | 0.00 | 0.14 | 0.02 | 0.06 | 0.03 | 0.07 | 0.01 | 0.00 | 0.00 | 0.01 | 0.32 | 0.01 | 0.57 | 0.65 | 3.49  |
| 16     | 0.02 | 0.00 | 0.01 | 0.00 | 0.13 | 0.01 | 0.05 | 0.02 | 0.06 | 0.01 | 0.00 | 0.00 | 0.01 | 0.39 | 0.05 | 0.42 | 0.60 | 3.15  |
| 17     | 0.02 | 0.00 | 0.00 | 0.00 | 0.06 | 0.01 | 0.03 | 0.01 | 0.29 | 0.01 | 0.00 | 0.00 | 0.00 | 0.31 | 0.01 | 0.21 | 0.33 | 2.51  |
| 18     | 0.02 | 0.00 | 0.00 | 0.00 | 0.07 | 0.01 | 0.03 | 0.01 | 0.31 | 0.01 | 0.00 | 0.00 | 0.01 | 0.31 | 0.01 | 0.22 | 0.35 | 2.59  |
| 19     | 1.02 | 0.00 | 0.00 | 0.00 | 0.06 | 0.01 | 0.02 | 0.01 | 0.04 | 0.01 | 0.00 | 0.00 | 0.00 | 0.35 | 0.01 | 0.28 | 0.23 | 2.41  |
| 20     | 0.03 | 1.00 | 0.01 | 0.00 | 0.09 | 0.01 | 0.03 | 0.02 | 0.06 | 0.01 | 0.00 | 0.00 | 0.01 | 0.57 | 0.03 | 0.35 | 0.38 | 3.30  |
| 21     | 0.01 | 0.00 | 1.00 | 0.00 | 0.10 | 0.01 | 0.04 | 0.02 | 0.06 | 0.01 | 0.00 | 0.00 | 0.01 | 0.20 | 0.01 | 0.43 | 0.42 | 2.70  |
| 22     | 0.19 | 0.00 | 0.01 | 1.00 | 0.10 | 0.01 | 0.04 | 0.02 | 0.11 | 0.01 | 0.00 | 0.00 | 0.01 | 0.31 | 0.03 | 0.44 | 0.38 | 3.50  |

**Appendix table 5 (Continued)**

| Sector | 19   | 20   | 21   | 22   | 23   | 24   | 25   | 26   | 27   | 28   | 29   | 30   | 31   | 32   | 33   | 34   | 35   | Total |
|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|
| 23     | 0.02 | 0.00 | 0.01 | 0.00 | 1.06 | 0.01 | 0.03 | 0.01 | 0.08 | 0.01 | 0.00 | 0.00 | 0.01 | 0.39 | 0.01 | 0.28 | 0.27 | 3.86  |
| 24     | 0.02 | 0.01 | 0.00 | 0.00 | 0.04 | 1.00 | 0.02 | 0.01 | 0.17 | 0.00 | 0.00 | 0.00 | 0.00 | 0.20 | 0.00 | 0.14 | 0.22 | 2.95  |
| 25     | 0.00 | 0.00 | 0.00 | 0.00 | 0.02 | 0.00 | 1.01 | 0.00 | 0.04 | 0.00 | 0.00 | 0.03 | 0.05 | 0.07 | 0.00 | 0.08 | 0.13 | 1.72  |
| 26     | 0.07 | 0.01 | 0.02 | 0.00 | 0.12 | 0.01 | 0.05 | 1.02 | 0.09 | 0.01 | 0.00 | 0.00 | 0.01 | 0.30 | 0.01 | 0.52 | 0.53 | 3.50  |
| 27     | 0.02 | 0.00 | 0.00 | 0.00 | 0.16 | 0.02 | 0.06 | 0.02 | 1.07 | 0.02 | 0.00 | 0.00 | 0.01 | 0.30 | 0.01 | 0.45 | 0.88 | 3.41  |
| 28     | 0.02 | 0.00 | 0.00 | 0.00 | 0.16 | 0.02 | 0.06 | 0.03 | 0.06 | 1.01 | 0.00 | 0.00 | 0.14 | 0.30 | 0.03 | 0.60 | 0.72 | 3.58  |
| 29     | 0.02 | 0.00 | 0.00 | 0.00 | 0.16 | 0.02 | 0.06 | 0.02 | 0.07 | 0.02 | 1.00 | 0.00 | 0.92 | 0.31 | 0.02 | 0.43 | 0.90 | 4.39  |
| 30     | 0.00 | 0.00 | 0.00 | 0.00 | 0.03 | 0.00 | 0.01 | 0.00 | 0.01 | 0.00 | 0.00 | 1.00 | 0.00 | 0.05 | 0.00 | 0.11 | 0.11 | 1.41  |
| 31     | 0.02 | 0.00 | 0.00 | 0.00 | 0.16 | 0.02 | 0.06 | 0.02 | 0.07 | 0.02 | 0.00 | 0.00 | 1.01 | 0.30 | 0.01 | 0.40 | 0.94 | 3.45  |
| 32     | 0.07 | 0.01 | 0.02 | 0.00 | 0.12 | 0.01 | 0.05 | 0.02 | 0.09 | 0.01 | 0.00 | 0.00 | 0.01 | 1.30 | 0.01 | 0.52 | 0.53 | 3.50  |
| 33     | 0.05 | 0.00 | 0.01 | 0.00 | 0.28 | 0.03 | 0.05 | 0.02 | 0.12 | 0.06 | 0.00 | 0.00 | 0.03 | 0.95 | 1.01 | 0.44 | 0.48 | 4.35  |
| 34     | 0.02 | 0.00 | 0.00 | 0.00 | 0.15 | 0.02 | 0.06 | 0.05 | 0.05 | 0.01 | 0.00 | 0.00 | 0.01 | 0.26 | 0.00 | 1.15 | 0.17 | 2.30  |
| 35     | 0.02 | 0.00 | 0.00 | 0.00 | 0.16 | 0.02 | 0.07 | 0.01 | 0.07 | 0.02 | 0.00 | 0.00 | 0.01 | 0.31 | 0.00 | 0.16 | 1.19 | 2.44  |

**Source:** Survey, 2012

**Appendix table 6** Detail of improved oven expenditure per oven

Unit: baht

| Item                                           | Quantity  | Price per unit(baht) | Total (baht) |
|------------------------------------------------|-----------|----------------------|--------------|
| 1. Thermostat                                  | 1 set     | 5,000                | 5,000        |
| 2. Heat insulating material                    | 10 sheets | 300                  | 3,000        |
| 3. Wire mesh for placing fuel wood             | 2 pieces  | 500                  | 1,000        |
| 4. Steel door to close oven cavity             | 2 doors   | 1,000                | 2,000        |
| 5. Machanist square                            | 2 blades  | 150                  | 300          |
| 6. Motor for driving fan                       | 1 set     | 1,350                | 1,350        |
| 7. Rubber for sealing oven door                | 1 sheet   | 600                  | 600          |
| 8. Cement                                      | 3 bag     | 100                  | 300          |
| 9. Centrifugal fan                             | 1 set     | 4,500                | 4,500        |
| 10. Labor payment (oven construction contract) | 1 oven    | 9,000                | 9,000        |
| Total expenditure                              |           |                      | 27,050       |

**Source:** Survey, 2012

## **CURRICULUM VITAE**

|                               |                                                                                                                                                                                                                              |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
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