

Land Degradation in Southeast Asia

Team

| | Year 1 (\$) | Year 2 | Year 3 | Year 4 |
|--|--------------------|-------------------|-------------------|-------------------|
| Benefit | 3,830,000 | 4,729,000 | 6,093,000 | 7,098,000 |
| Timber \$200*1000 hectares | 200,000 | 200,000 | 200,000 | 200,000 |
| Off-shore Fisheries | 10,000 | 9,000 | 8,000 | 8,000 |
| Shellfish \$2000 * 1000 hectares | 2,000,000 | 2,000,000 | 1,500,000 | 1,500,000 |
| Shrimp \$190 * 1000 hectares | 190,000 | 190,000 | 140,000 | 140,000 |
| Clam cultivation | 1,000,000 | 900,000 | 800,000 | 800,000 |
| Rice | 340,000 | 340,000 | 300,000 | 300,000 |
| Honey | 30,000 | 30,000 | 20,000 | 20,000 |
| mangrove forest | | | | |
| carbon sequestration \$30*2000 hectare | 60,000 | 60,000 | 60,000 | 60,000 |
| Eco-tourism | 0 | 0 | 65,000 | 70,000 |
| organic agriculture | 0 | 1,000,000 | 3,000,000 | 4,000,000 |
| Cost | 14,658,000 | 14,658,000 | 14,658,000 | 14,658,000 |
| cost of relief measure | 3,000,000 | 3,000,000 | 3,000,000 | 3,000,000 |
| sewage treatment \$5829 * 2000 hectare | 11,658,000 | 11,658,000 | 11,658,000 | 11,658,000 |
| Net Benefit | -10,828,000 | -9,929,000 | -8,565,000 | -7,560,000 |
| Discount Rate in % (25%) | 0.10 | 0.10 | 0.10 | 0.10 |
| Discount Factor | 1 | 0.9091 | 0.8264 | 0.7513 |
| Present value | -10828000 | -9026364 | -7078512 | -5679940 |

Land Degradation in Southeast Asia

Team

| | Year 1 (\$) | Year 2 | Year 3 | Year 4 |
|---|-------------|------------|------------|------------|
| Benefit | 3,830,000 | 4,325,000 | 6,320,000 | 6,730,000 |
| Timber \$200*1000 hectares | 200,000 | 100,000 | 100,000 | 50,000 |
| Off-shore Fisheries | 10,000 | 15,000 | 20,000 | 20,000 |
| Shellfish \$2000 * 1000 hectares | 2,000,000 | 1,500,000 | 1,500,000 | 1,000,000 |
| Shrimp \$190 * 1000 hectares | 190,000 | 300,000 | 350,000 | 400,000 |
| Clam cultivation | 1,000,000 | 900,000 | 800,000 | 700,000 |
| Rice | 340,000 | 340,000 | 340,000 | 340,000 |
| Honey | 30,000 | 30,000 | 30,000 | 30,000 |
| mangrove forest | | | | |
| carbon sequestration \$30*2000 hectare | 60,000 | 75,000 | 90,000 | 90,000 |
| Eco-tourism | 0 | 65,000 | 90,000 | 100,000 |
| organic agriculture | 0 | 1,000,000 | 3,000,000 | 4,000,000 |
| Cost | 15,921,000 | 14,025,200 | 12,574,600 | 10,966,500 |
| re-stocking of mangrove forest | 500,000 | 600,000 | 800,000 | 800,000 |
| maintenance of habitat \$30x 7100 hectares | 213,000 | 183,000 | 15,300 | 123,000 |
| sewage treatment \$5829 * 2000 hectares | 11,658,000 | 10,492,200 | 9,909,300 | 8,743,500 |
| cost of relief measure | 3,000,000 | 2,000,000 | 1,000,000 | 500,000 |
| soil erosion prevention | 300000 | 400000 | 500000 | 600000 |
| Eco-tourism and organic agriculture & aquaculture | 250000 | 350000 | 350000 | 200000 |
| Net Benefit | -12,091,000 | -9,700,200 | -6,254,600 | -4,236,500 |

Land Degradation in Southeast Asia

Team

WITHOUT PROJECT SCENARIO

| | Year 1 (\$) | Year 2 | Year 3 | Year 4 |
|--|-------------|------------|------------|-------------|
| Benefit | 3,800,000 | 2,991,000 | 2,321,000 | 2,049,000 |
| Timber \$200* 1000 hectares | 200,000 | 160,000 | 140,000 | 120,000 |
| Off-shore Fisheries | 10,000 | 8,000 | 5,000 | 5,000 |
| Shellfish \$2000 * 1000 hectares | 2,000,000 | 1,500,000 | 1,000,000 | 1,000,000 |
| Shrimp \$190 * 1000 hectares | 190,000 | 171,000 | 152,000 | 133,000 |
| Clam cultivation | 1,000,000 | 800,000 | 700,000 | 500,000 |
| Rice | 340,000 | 300,000 | 280,000 | 250,000 |
| Honey | 30,000 | 25,000 | 20,000 | 20,000 |
| mangrove forest | | | | |
| carbon sequestration \$30*1000 hectare | 30,000 | 27,000 | 24,000 | 21,000 |
| Cost | 9,042,000 | 10,624,900 | 12,207,800 | 14,956,500 |
| sewage treatment \$5829 * 1000 hectares | 5,829,000 | 6,411,900 | 6,994,800 | 8,743,500 |
| cost of relief measure from disaster | 3,000,000 | 4,000,000 | 5,000,000 | 6,000,000 |
| maintenance of habitat \$30x 7100 hectares | 213,000 | 213,000 | 213,000 | 213,000 |
| Net Benefit | -5,242,000 | -7,633,900 | -9,886,800 | -12,907,500 |

Land Degradation in Southeast Asia

Team

| | Year 1 (\$) | Year 2 | Year 3 | Year 4 |
|--|------------------|------------|-----------|-----------|
| Incremental net benefit (with project benefit - without project benefit) | -6,624,000 | -1,751,300 | 3,947,200 | 8,851,000 |
| Present value of incremental net benefit | -6,624,000 | -1,592,091 | 3,262,149 | 6,649,887 |
| NPV | 1,695,945 | | | |