

Table C1-62 Upland Crops Production in the Boribo River Basin in 2003 (1/2)

| Province/District | Commune | Corn | | | Mungbeans | | | Groundnut | | | Cassava | | | Sweet potato | | | Sesame | | | Total Cropped Area (ha.) | |
|-----------------------------|--------------------|--------------------|------------------|-------------------|--------------------|------------------|-------------------|--------------------|------------------|-------------------|--------------------|------------------|-------------------|--------------------|------------------|-------------------|--------------------|------------------|-------------------|--------------------------|-----|
| | | Cropped Area (ha.) | Yield (tons/ha.) | Production (tons) | Cropped Area (ha.) | Yield (tons/ha.) | Production (tons) | Cropped Area (ha.) | Yield (tons/ha.) | Production (tons) | Cropped Area (ha.) | Yield (tons/ha.) | Production (tons) | Cropped Area (ha.) | Yield (tons/ha.) | Production (tons) | Cropped Area (ha.) | Yield (tons/ha.) | Production (tons) | | |
| Kampong Chhuang Baribour | Anhchanh Rung | 0 | | 0 | 0 | | 0 | 1 | 0.6 | 1 | 5 | 5.9 | 28 | 4 | 7.5 | 29 | 3 | 1.1 | 3 | 13 | |
| | Chhnok Tru | 133 | 1.4 | 181 | 85 | 0.7 | 60 | 0 | | 0 | 0 | | 0 | 5 | 1.6 | 8 | 6 | 0.5 | 3 | 229 | |
| | Chak | 3 | 2.0 | 6 | 0 | | 0 | 6 | 2.0 | 12 | 6 | 7.1 | 41 | 5 | 3.7 | 18 | 1 | 4.4 | 4 | 20 | |
| | Khon Rang | 0 | | 0 | 0 | | 0 | 5 | 0.6 | 3 | 5 | 8.0 | 36 | 4 | 4.6 | 17 | 1 | 1.5 | 1 | 14 | |
| | Kampong Preah Kok | 160 | 1.4 | 228 | 95 | 0.8 | 76 | 0 | | 0 | 5 | 7.5 | 38 | 10 | 6.0 | 60 | 6 | 0.1 | 1 | 276 | |
| | Melum | 0 | | 0 | 0 | | 0 | 8 | 1.0 | 8 | 6 | 5.4 | 31 | 8 | 4.5 | 36 | 3 | 1.0 | 3 | 25 | |
| | Phsar | 0 | | 0 | 0 | | 0 | 4 | 2.2 | 9 | 4 | 9.6 | 36 | 4 | 8.5 | 34 | 0 | 0.0 | 0 | 12 | |
| | Pech Changvar | 0 | | 0 | 0 | | 0 | 6 | 1.0 | 6 | 5 | 5.1 | 25 | 5 | 7.3 | 33 | 1 | 0.8 | 1 | 17 | |
| | Popel | 0 | | 0 | 0 | | 0 | 4 | 2.5 | 10 | 4 | 1.3 | 5 | 0 | | 0 | 2 | 0.8 | 2 | 10 | |
| | Ponley | 0 | | 0 | 0 | | 0 | 5 | 1.6 | 8 | 2 | 3.7 | 7 | 3 | 1.1 | 3 | 0 | 1.0 | 0 | 10 | |
| | Trapeang Chan | 0 | | 0 | 0 | | 0 | 6 | 0.8 | 5 | 8 | 4.3 | 34 | 6 | 6.5 | 39 | 3 | 1.7 | 5 | 23 | |
| | Sub-total | 296 | 1.4 | 415 | 180 | 0.8 | 136 | 45 | 1.4 | 61 | 49 | 5.8 | 283 | 53 | 5.2 | 278 | 26 | 0.8 | 22 | 648 | |
| | Kampong Tralach | Ampil Tuek | 19 | 3.8 | 72 | 5 | 1.5 | 8 | 0 | | 0 | 5 | 3.5 | 18 | 5 | 3.5 | 18 | 0 | | 0 | 34 |
| Chhuk Sa | | 0 | 0.0 | 0 | 4 | 1.0 | 4 | 0 | | 0 | 5 | 3.5 | 18 | 5 | 3.5 | 18 | 0 | | 0 | 14 | |
| Chres | | 2 | 3.0 | 6 | 2 | 1.2 | 2 | 0 | | 0 | 5 | 4.5 | 22 | 5 | 4.5 | 23 | 0 | | 0 | 14 | |
| Kampong Tralach | | 9 | 3.3 | 30 | 5 | 1.3 | 7 | 0 | | 0 | 4 | 3.8 | 15 | 4 | 3.8 | 15 | 2 | 0.3 | 1 | 24 | |
| Longveak | | 2 | 3.5 | 7 | 3 | 1.5 | 5 | 0 | | 0 | 12 | 4.0 | 48 | 12 | 4.0 | 48 | 0 | | 0 | 29 | |
| Ou Russsei | | 1 | 3.0 | 3 | 2 | 1.0 | 2 | 0 | | 0 | 3 | 4.0 | 12 | 3 | 4.0 | 12 | 0 | | 0 | 9 | |
| Peani | | 0 | 0.0 | 0 | 2 | 1.5 | 3 | 0 | | 0 | 4 | 4.0 | 16 | 4 | 4.0 | 16 | 0 | | 0 | 10 | |
| Saeb | | 2 | 3.0 | 6 | 2 | 1.2 | 2 | 0 | | 0 | 3 | 3.5 | 11 | 3 | 3.5 | 11 | 0 | | 0 | 10 | |
| Ta Ches | | 3 | 3.5 | 11 | 3 | 1.5 | 5 | 0 | | 0 | 3 | 4.5 | 14 | 3 | 4.5 | 14 | 0 | | 0 | 12 | |
| Thma Edth | | 0 | 0.0 | 0 | 3 | 1.5 | 5 | 0 | | 0 | 4 | 3.5 | 14 | 4 | 3.5 | 14 | 0 | | 0 | 11 | |
| Sub-total | | 38 | 3.5 | 134 | 31 | 1.3 | 41 | 0 | | 0 | 48 | 3.9 | 186 | 48 | 3.9 | 187 | 2 | 0.3 | 1 | 167 | |
| Rolea B'ier | | Andoung Snay | 0 | | 0 | 0 | | 0 | 0 | | 0 | 15 | 7.0 | 105 | 48 | 3.0 | 144 | 0 | | 0 | 63 |
| | | Banteay Preal | 0 | | 0 | 0 | | 0 | 5 | 0.8 | 4 | 15 | 3.2 | 48 | 96 | 3.0 | 288 | 0 | | 0 | 116 |
| | Cheung Kreav | 0 | | 0 | 0 | | 0 | 0 | 0.0 | 0 | 7 | 4.2 | 29 | 21 | 3.1 | 65 | 0 | | 0 | 28 | |
| | Chrey Bak | 0 | | 0 | 0 | | 0 | 0 | | 3 | 4.1 | 12 | 2 | 3.2 | 6 | 0 | | 0 | 5 | | |
| | Kouk Banteay | 56 | 0.7 | 41 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 56 | |
| | Krang Leav | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| | Pongro | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| | Prasneb | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| | Prey Mul | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| | Rolea B'ier | 0 | | 0 | 0 | | 0 | 2 | 0.8 | 2 | 0 | | 0 | 47 | 3.2 | 150 | 0 | | 0 | 49 | |
| | Srae Thmei | 0 | | 0 | 0 | | 0 | 4 | 0.8 | 3 | 0 | | 0 | 0 | 0.0 | 0 | 0 | | 0 | 4 | |
| | Svay Chrum | 46 | 0.8 | 36 | 34 | 1.2 | 41 | 0 | | 0 | 0 | | 0 | 11 | 1.1 | 12 | 0 | | 0 | 91 | |
| | Tuek Hout | 11 | 1.5 | 16 | 0 | | 0 | 0 | | 4 | 4.2 | 17 | 45 | 3.2 | 144 | 0 | | 0 | 0 | 60 | |
| Sub-total | 113 | 0.8 | 93 | 34 | 1.2 | 41 | 11 | 0.8 | 9 | 44 | 4.8 | 212 | 270 | 3.0 | 810 | 0 | | 0 | 472 | | |
| Tuek Phos | Akphvoadth | 7 | 3.7 | 26 | 15 | 2.4 | 36 | 7 | 0.7 | 5 | 7 | 4.2 | 29 | 16 | 4.5 | 72 | 1 | 0.3 | 0 | 53 | |
| | Chieb | 9 | 3.0 | 27 | 7 | 2.5 | 18 | 4 | 2.0 | 8 | 8 | 4.0 | 32 | 16 | 4.5 | 72 | 2 | 0.3 | 1 | 46 | |
| | Chaong Maong | 9 | 3.5 | 32 | 6 | 2.1 | 13 | 5 | 0.8 | 4 | 9 | 4.5 | 41 | 15 | 4.3 | 65 | 1 | 0.3 | 0 | 45 | |
| | Kbal Tuek | 7 | 3.3 | 23 | 4 | 2.5 | 10 | 3 | 0.8 | 2 | 8 | 5.5 | 44 | 13 | 5.1 | 66 | 1 | 0.4 | 0 | 36 | |
| | Khlong Popok | 8 | 3.5 | 28 | 5 | 2.3 | 12 | 5 | 0.6 | 3 | 8 | 4.0 | 32 | 14 | 5.5 | 77 | 1 | 0.2 | 0 | 41 | |
| | Krang Skear | 9 | 2.2 | 19 | 5 | 2.3 | 12 | 9 | 0.7 | 6 | 11 | 4.8 | 53 | 18 | 4.4 | 79 | 2 | 0.2 | 0 | 54 | |
| | Tang Krasang | 5 | 2.2 | 11 | 5 | 2.5 | 13 | 6 | 0.7 | 4 | 9 | 5.5 | 50 | 18 | 4.5 | 81 | 1 | 0.3 | 0 | 44 | |
| | Toul Khpos | 6 | 2.5 | 15 | 4 | 2.0 | 8 | 3 | 0.7 | 2 | 7 | 4.5 | 32 | 12 | 4.0 | 48 | 1 | 0.4 | 0 | 33 | |
| | Sub-total | 60 | 3.0 | 181 | 51 | 2.3 | 120 | 42 | 0.8 | 33 | 67 | 4.7 | 312 | 122 | 4.6 | 560 | 10 | 0.3 | 3 | 352 | |
| | Sameakki Mean Chey | Chhean Laeung | 11 | 1.1 | 12 | 10 | 1.0 | 10 | 10 | 1.0 | 10 | 10 | 2.5 | 25 | 15 | 2.5 | 38 | 0 | | 0 | 56 |
| Khmar Chhmar | | 9 | 1.2 | 11 | 10 | 0.9 | 9 | 10 | 0.9 | 9 | 12 | 2.0 | 24 | 9 | 2.0 | 18 | 0 | | 0 | 50 | |
| Krang Lvea | | 10 | 1.2 | 12 | 9 | 0.9 | 8 | 9 | 0.9 | 8 | 12 | 2.0 | 24 | 18 | 2.0 | 36 | 0 | | 0 | 58 | |
| Peam | | 11 | 1.2 | 13 | 10 | 1.0 | 10 | 10 | 1.0 | 10 | 10 | 3.0 | 30 | 15 | 2.3 | 34 | 0 | | 0 | 56 | |
| Sedthei | | 8 | 1.0 | 8 | 10 | 0.9 | 9 | 10 | 0.9 | 9 | 8 | 2.0 | 16 | 11 | 2.0 | 22 | 0 | | 0 | 47 | |
| Svay | | 9 | 1.0 | 9 | 8 | 0.5 | 4 | 8 | 0.5 | 4 | 18 | 2.5 | 45 | 10 | 2.0 | 20 | 0 | | 0 | 53 | |
| Svay Chuk | | 7 | 0.2 | 1 | 10 | 1.0 | 10 | 10 | 1.0 | 10 | 11 | 0.0 | 0 | 14 | 2.5 | 35 | 0 | | 0 | 52 | |
| Tbaeng Khpos | | 8 | 2.0 | 16 | 7 | 1.0 | 7 | 7 | 1.0 | 7 | 11 | 3.0 | 33 | 14 | 2.0 | 28 | 0 | | 0 | 47 | |
| Thlok Vien | | 6 | 1.1 | 7 | 11 | 0.9 | 10 | 11 | 0.9 | 10 | 8 | 2.0 | 16 | 11 | 2.0 | 22 | 0 | | 0 | 47 | |
| Sub-total | | 79 | 1.1 | 89 | 85 | 0.9 | 77 | 85 | 0.9 | 77 | 100 | 2.1 | 213 | 117 | 2.2 | 252 | 0 | | 0 | 466 | |
| Province Total | 586 | 1.6 | 912 | 381 | 1.1 | 414 | 183 | 1.0 | 180 | 308 | 3.9 | 1205 | 610 | 3.4 | 2086 | 38 | 1 | 25 | 2,105 | | |
| Kampong Speu Aoral | Trapeang Chour | 45 | 0.9 | 43 | 0 | | 0 | 3 | 1.0 | 3 | 0 | | 0 | | 0 | 0 | | 0 | 0 | 48 | |
| | Odongk | 0 | | 0 | 3 | 0.9 | 2 | 0 | | 0 | 5 | 1.0 | 5 | 3 | 1.1 | 3 | 0 | | 0 | 11 | |
| Odongk | Cheung Roas | 0 | | 0 | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | |
| | Khsem Khisan | 0 | | 0 | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | 0 | |
| | Krang Chok | 3 | 0.9 | 2 | 120 | 1.0 | 120 | 32 | 1.0 | 32 | 0 | | 0 | 2 | 1.1 | 2 | 0 | | 0 | 157 | |
| | Mean Chey | 3 | 0.9 | 3 | 6 | 1.1 | 7 | 2 | 1.0 | 2 | 5 | 1.0 | 5 | 5 | 1.1 | 6 | 0 | | 0 | 21 | |
| | Preah Srae | 0 | | 0 | 3 | 0.5 | 2 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 3 | |
| | Prey Krasang | 22 | 0.9 | 19 | 10 | 1.0 | 10 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 32 | |
| | Trach Tong | 5 | 0.9 | 4 | 8 | 1.0 | 8 | 5 | 0.9 | 5 | 0 | | 0 | 2 | 1.5 | 2 | 0 | | 0 | 19 | |
| | Veal Pung | 0 | | 0 | 55 | 1.1 | 60 | 88 | 1.0 | 88 | 19 | 1.3 | 24 | 40 | 1.3 | 52 | 0 | | 0 | 201 | |

Table C1-62 Upland Crops Production in the Boribo River Basin in 2003 (2/2)

| Province/District | Commune | Corn | | | Mungbeans | | | Groundnut | | | Cassava | | | Sweet potato | | | Sesame | | | Total Cropped Area (ha.) |
|-----------------------|-------------------|--------------------|------------------|-------------------|--------------------|------------------|-------------------|--------------------|------------------|-------------------|--------------------|------------------|-------------------|--------------------|------------------|-------------------|--------------------|------------------|-------------------|--------------------------|
| | | Cropped Area (ha.) | Yield (tons/ha.) | Production (tons) | Cropped Area (ha.) | Yield (tons/ha.) | Production (tons) | Cropped Area (ha.) | Yield (tons/ha.) | Production (tons) | Cropped Area (ha.) | Yield (tons/ha.) | Production (tons) | Cropped Area (ha.) | Yield (tons/ha.) | Production (tons) | Cropped Area (ha.) | Yield (tons/ha.) | Production (tons) | |
| Odongk (continued) | Veang Chas | 0 | | 0 | 0 | | 0 | 0.0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 |
| | Yuth Sameakki | 0 | | 0 | 7 | 1.0 | 7 | 2 | 1.1 | 2 | 8 | 1.0 | 8 | 11 | 1.1 | 11 | 0 | | 0 | 28 |
| | Darnnak Reang | 0 | | 0 | 3 | 1.0 | 3 | 0 | | 0 | 8 | 1.1 | 8 | 5 | 1.3 | 7 | 0 | | 0 | 16 |
| | Peang Lvea | 4 | 0.8 | 3 | 3 | 1.1 | 3 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 7 |
| | Phnum Touch | 0 | | 0 | 8 | 1.1 | 8 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | 7 |
| | Sub-total | 36 | 0.8 | 30 | 225 | 1.0 | 229 | 129 | 1.0 | 128 | 45 | 1.1 | 49 | 68 | 1.2 | 83 | 0 | | 0 | 501 |
| Thpong | Amleang | 37 | 0.6 | 24 | 50 | 1.3 | 59 | 20 | 1.8 | 32 | 30 | 1.5 | 44 | 40 | 1.0 | 40 | 0 | | 0 | 177 |
| | Monouron | 0 | | 0 | 19 | 1.3 | 17 | 23 | 2.0 | 42 | 3 | 1.5 | 4 | 7 | 1.0 | 7 | 0 | | 0 | 52 |
| | Prambei Mom | 23 | 0.3 | 7 | 26 | 1.3 | 34 | 20 | 2.0 | 40 | 2 | 2.5 | 4 | 2 | 1.0 | 2 | 0 | | 0 | 73 |
| | Rung Roelang | 1 | 0.6 | 0 | 36 | 1.2 | 43 | 22 | 1.8 | 40 | 8 | 1.5 | 12 | 2 | 1.0 | 2 | 0 | | 0 | 69 |
| | Yea Pon | 0 | | 0 | 44 | 1.2 | 50 | 70 | 1.8 | 117 | 5 | 2.5 | 11 | 15 | 1.0 | 15 | 0 | | 0 | 134 |
| | Yea Angk | 50 | 0.5 | 26 | 20 | 1.8 | 34 | 3 | 1.8 | 5 | 2 | 1.5 | 3 | 2 | 1.0 | 2 | 0 | | 0 | 78 |
| | Sub-total | 111 | 0.5 | 57 | 195 | 1.2 | 237 | 158 | 1.7 | 276 | 50 | 1.5 | 77 | 68 | 1.0 | 68 | 0 | | 0 | 582 |
| Province Total | | 191 | 0.7 | 129 | 420 | 1.1 | 466 | 290 | 1.4 | 407 | 95 | 1.3 | 127 | 136 | 1.1 | 151 | 0 | | 0 | 1,131 |
| Kandal Angk Snuol | Baek Chan | 0 | | 0 | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| | Boeng Thum | 0 | | 0 | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| | Chhak Chheu Neang | 0 | | 0 | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| | Darnnak Ampil | 0 | | 0 | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| | Kamboul | 0 | | 0 | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| | Kantaok | 0 | | 0 | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| | Krang Mkak | 0 | | 0 | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| | Lumbach | 0 | | 0 | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| | Mkak | 0 | | 0 | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| | Ovlaok | 0 | | 0 | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| | Peuk | 0 | | 0 | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| | Ponsang | 0 | | 0 | 0 | | 0 | 0 | | 0 | 4 | 6.0 | 24 | 3 | 3.0 | 18 | 0 | | 0 | 7 |
| | Prey Puok | 0 | | 0 | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| | Samraong Leu | 0 | | 0 | 0 | | 0 | 0 | | 0 | 2 | 6.0 | 12 | 0 | | 0 | | 0 | 2 | |
| | Snao | 0 | | 0 | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| | Tuol Prech | 0 | | 0 | 0 | | 0 | 0 | | 0 | 2 | 5.0 | 10 | 1 | 1.0 | 4 | 0 | | 0 | 3 |
| | | Sub-total | 0 | | 0 | 0 | | 0 | 0 | | 8 | 5.8 | 46 | 4 | 4 | 22 | 0 | | 0 | 12 |
| Ponhea Lueu | Chhveang | 0 | | 0 | 0 | 0.0 | 0 | 0 | | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| | Chrey Loas | 0 | | 0 | 3 | 1.1 | 2 | 0 | | 0 | | 0 | 0 | | 0 | 0 | | 0 | 3 | |
| | Kampong Luong | 0 | | 0 | 0 | 0.0 | 0 | 0 | | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| | Kampong Os | 0 | | 0 | 12 | 0.8 | 10 | 0 | | 0 | | 0 | 0 | | 0 | 0 | | 0 | 12 | |
| | Kaoh Chen | 4 | 0.9 | 4 | 0 | 0.0 | 0 | 0 | | 0 | | 0 | 0 | | 0 | 0 | | 0 | 4 | |
| | Phnum Bat | 0 | | 0 | 20 | 1.2 | 24 | 0 | | 0 | 5 | 14.2 | 71 | 10 | 10.0 | 71 | 0 | | 0 | 35 |
| | Ponhea Lueu | 3 | 0.9 | 3 | 1 | 1.3 | 1 | 0 | | 0 | | 0 | 0 | | 0 | 0 | | 0 | 4 | |
| | Ponhea Pon | 0 | | 0 | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| | Preack Pnov | 0 | | 0 | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| | Preack Ta Tean | 6 | 2.0 | 12 | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | 0 | | 0 | 6 | |
| | Phsar Daek | 0 | | 0 | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| | Samraong | 0 | | 0 | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| | Tumnob Thum | 0 | | 0 | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| | Vihear Luong | 0 | | 0 | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| | Sub-total | 13 | 1.4 | 18 | 36 | 1.0 | 38 | 0 | | 0 | 5 | 14.2 | 71 | 10 | 7.1 | 71 | 0 | | 64 | |
| Province Total | | 13 | 1.4 | 18 | 36 | 1.0 | 38 | 0 | | 0 | 13 | 9.0 | 117 | 14 | 6.6 | 93 | 0 | | 76 | |
| Pursat Krakor | Anlong Tnaot | 0 | | 0 | 0 | | 0 | 0 | | 0 | 15 | 8.5 | 128 | 10 | 5.0 | 50 | 0 | | 0 | |
| | Ansa Chambak | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | 25 | |
| | Chheu Tom | 0 | | 0 | 0 | | 0 | 0 | | 0 | 13 | 8.5 | 111 | 10 | 5.0 | 50 | 0 | | 23 | |
| | Kbal Trach | 0 | | 0 | 0 | | 0 | 0 | | 0 | 10 | 8.5 | 85 | 10 | 5.0 | 50 | 0 | | 20 | |
| | Ou Sandan | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | 0 | |
| | Sna Ansa | 0 | | 0 | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| | Svay Sa | 0 | | 0 | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| | Tnaot Chum | 0 | | 0 | 0 | | 0 | 0 | | 0 | | 0 | 0 | | 0 | 0 | | 0 | 0 | |
| | | Sub-total | 0 | | 0 | 0 | | 0 | 0 | | 0 | 38 | 8.5 | 323 | 30 | 5.0 | 150 | 0 | | 68 |
| Phnum Kravanh | Prongil | 23 | 1.1 | 25 | 5 | 0.9 | 5 | 5 | 0.4 | 2 | 5 | 5.0 | 25 | 4 | 4.3 | 17 | 0 | | 42 | |
| Province Total | | 23 | 1.1 | 25 | 5 | 0.9 | 5 | 5 | 0.4 | 2 | 43 | 8.1 | 348 | 34 | 4.9 | 167 | 0 | | 110 | |
| Whole River Basin | | 813 | 1.3 | 1,085 | 842 | 1.1 | 922 | 478 | 1.2 | 589 | 458 | 3.9 | 1,797 | 794 | 3.1 | 2,498 | 38 | 0.7 | 25 | 3,422 |

1/: Data of all communes located in the Pursat River Basin
Source: Commune Survey on Crops and Livestock, 2003, MAFF

Table C1-63 Vegetable Production in the Boribo River Basin in 2003 (1/2) 1/

| Province/ District | Commune | Cultivated Area (ha) | | | Harvested Area (ha) | | | Yield (tons/ha) | | | Annual Production (Tons) | | |
|-----------------------------|---------------------|----------------------|--------|------|---------------------|--------|-----|-----------------|--------|-----|--------------------------|--------|-----|
| | | Total | Season | | Total | Season | | Total | Season | | Total | Season | |
| | | | Wet | Dry | | Wet | Dry | | Wet | Dry | | Wet | Dry |
| Kampong Chhnang Baribour | Anhchanh Rung | 14 | 14 | 0 | 14 | 14 | 0 | 2.2 | 2.2 | | 30 | 30 | 0 |
| | Chhnok Tru | 105 | 0 | 105 | 105 | 0 | 105 | 2.0 | | 2.0 | 210 | 0 | 210 |
| | Chak | 40 | 13 | 27 | 40 | 13 | 27 | 3.2 | 2.7 | 3.5 | 130 | 35 | 95 |
| | Khon Rang | 95 | 15 | 80 | 95 | 15 | 80 | 3.3 | 2.5 | 3.5 | 317 | 37 | 280 |
| | Kampong Preah Kokir | 110 | 0 | 110 | 110 | 0 | 110 | 2.5 | | 2.5 | 275 | 0 | 275 |
| | Melum | 15 | 15 | 0 | 15 | 15 | 0 | 2.3 | 2.3 | | 35 | 35 | 0 |
| | Phsar | 13 | 13 | 0 | 13 | 13 | 0 | 2.7 | 2.7 | | 35 | 35 | 0 |
| | Pech Changvar | 30.5 | 13.5 | 17 | 30.5 | 13.5 | 17 | 2.3 | 2.7 | 2.0 | 70 | 36 | 34 |
| | Popel | 38.5 | 14.5 | 24 | 38.5 | 14.5 | 24 | 3.5 | 3.5 | 3.5 | 133 | 50 | 83 |
| | Ponley | 24 | 14 | 10 | 24 | 14 | 10 | 2.9 | 2.4 | 3.5 | 69 | 34 | 35 |
| Trapeang Chan | 45.6 | 14.6 | 31 | 45.6 | 14.6 | 31 | 3.4 | 3.0 | 3.6 | 155 | 43 | 112 | |
| Kampong Tralach | Ampil Tuek | 18 | 0 | 18 | 18 | 0 | 18 | 3.0 | | 3.0 | 54 | 0 | 54 |
| | Chhuk Sa | 40 | 25 | 15 | 40 | 25 | 15 | 3.0 | 3.0 | 3.0 | 120 | 75 | 45 |
| | Chres | 13 | 9 | 4 | 13 | 9 | 4 | 2.7 | 2.5 | 3.0 | 35 | 23 | 12 |
| | Kampong Tralach | 19 | 7 | 12 | 19 | 7 | 12 | 3.0 | 3.0 | 3.0 | 57 | 21 | 36 |
| | Longveak | 10 | 6 | 4 | 10 | 6 | 4 | 3.0 | 3.0 | 3.0 | 30 | 18 | 12 |
| | Ou Ruessei | 11 | 6 | 5 | 11 | 6 | 5 | 3.0 | 3.0 | 3.0 | 33 | 18 | 15 |
| | Peani | 8 | 5 | 3 | 8 | 5 | 3 | 3.0 | 3.0 | 3.0 | 24 | 15 | 9 |
| | Saeb | 10 | 7 | 3 | 10 | 7 | 3 | 3.2 | 3.0 | 3.5 | 32 | 21 | 11 |
| | Ta Ches | 23 | 8 | 15 | 23 | 8 | 15 | 3.0 | 3.0 | 3.0 | 69 | 24 | 45 |
| | Thma Edth | 10 | 6 | 4 | 10 | 6 | 4 | 3.0 | 3.0 | 3.0 | 30 | 18 | 12 |
| Rolea B'ier | Andoung Snay | 29 | 10 | 19 | 26 | 7 | 19 | 1.7 | 2.5 | 1.4 | 44 | 18 | 27 |
| | Banteay Preal | 33 | 18 | 15 | 33 | 18 | 15 | 1.9 | 2.2 | 1.5 | 62 | 40 | 23 |
| | Cheung Kreav | 9 | 9 | 0 | 7 | 7 | 0 | 2.5 | 2.5 | | 18 | 18 | 0 |
| | Chrey Bak | 3 | 3 | 0 | 3 | 3 | 0 | 3.1 | 3.1 | | 9 | 9 | 0 |
| | Kouk Banteay | 188 | 3 | 185 | 188 | 3 | 185 | 1.6 | 2.5 | 1.5 | 292 | 8 | 285 |
| | Krang Leav | 1 | 1 | 0 | 1 | 1 | 0 | 2.1 | 2.1 | 0.0 | 2 | 2 | 0 |
| | Pongro | 32 | 15 | 17 | 32 | 15 | 17 | 1.9 | 2.2 | 1.6 | 60 | 33 | 27 |
| | Prasneb | 2 | 2 | 0 | 2 | 2 | 0 | 2.1 | 2.1 | | 4 | 4 | 0 |
| | Prey Mul | 1 | 1 | 0 | 1 | 1 | 0 | 3.2 | 3.2 | | 3 | 3 | 0 |
| | Rolea B'ier | 5 | 5 | 0 | 5 | 5 | 0 | 2.5 | 2.5 | | 13 | 13 | 0 |
| | Srae Thmei | 1 | 1 | 0 | 1 | 1 | 0 | 2.5 | 2.5 | | 3 | 3 | 0 |
| | Svay Chrum | 260 | 1 | 259 | 260 | 1 | 259 | 2.3 | 2.3 | 2.1 | 546 | 2 | 544 |
| | Tuek Hout | 28 | 13 | 15 | 26 | 11 | 15 | 3.2 | 3.2 | 1.8 | 62 | 35 | 27 |
| Sameakki Mean Ch | Chhean Laeung | 12 | 12 | 0 | 12 | 12 | 0 | 3.0 | 3.0 | | 36 | 36 | 0 |
| | Khmar Chhmar | 16 | 16 | 0 | 16 | 16 | 0 | 3.0 | 3.0 | | 48 | 48 | 0 |
| | Krang Lvea | 15 | 15 | 0 | 15 | 15 | 0 | 3.0 | 3.0 | | 45 | 45 | 0 |
| | Peam | 12 | 12 | 0 | 12 | 12 | 0 | 3.0 | 3.0 | | 36 | 36 | 0 |
| | Sedthei | 16 | 16 | 0 | 16 | 16 | 0 | 2.2 | 2.2 | | 35 | 35 | 0 |
| | Svay | 40 | 40 | 0 | 40 | 40 | 0 | 3.0 | 3.0 | | 120 | 120 | 0 |
| | Svay Chuk | 14 | 14 | 0 | 14 | 14 | 0 | 3.0 | 3.0 | | 42 | 42 | 0 |
| | Tbaeng Khpos | 12 | 12 | 0 | 12 | 12 | 0 | 2.6 | 2.6 | | 31 | 31 | 0 |
| | Thlok Vien | 17 | 17 | 0 | 17 | 17 | 0 | 2.5 | 2.5 | | 43 | 43 | 0 |
| Tuek Phos | Akphivoadth | 16 | 16 | 0 | 16 | 16 | 0 | 3.5 | 3.5 | | 56 | 56 | 0 |
| | Chieb | 14 | 14 | 0 | 14 | 14 | 0 | 3.5 | 3.5 | | 49 | 49 | 0 |
| | Chaong Maong | 14 | 14 | 0 | 14 | 14 | 0 | 3.0 | 3.0 | | 42 | 42 | 0 |
| | Kbal Tuek | 6 | 6 | 0 | 6 | 6 | 0 | 3.1 | 3.1 | | 19 | 19 | 0 |
| | Khlong Popok | 15 | 15 | 0 | 15 | 15 | 0 | 3.1 | 3.1 | | 47 | 47 | 0 |
| | Krang Skear | 12 | 12 | 0 | 12 | 12 | 0 | 2.1 | 2.1 | | 25 | 25 | 0 |
| | Tang Krasang | 12 | 12 | 0 | 12 | 12 | 0 | 2.4 | 2.4 | | 28 | 28 | 0 |
| | Toul Khpos | 9 | 9 | 0 | 9 | 9 | 0 | 2.5 | 2.5 | | 23 | 23 | 0 |
| Kampong Speu Aoral | Trapeang Chour | 21 | 21 | 0 | 21 | 21 | 0 | 1.9 | 1.9 | | 41 | 41 | 0 |
| | Sangkae Satob | 7 | 7 | 0 | 7 | 7 | 0 | 1.7 | 1.7 | | 12 | 12 | 0 |
| Odongk | Chant Saen | 5 | 5 | 0 | 5 | 5 | 0 | 5.0 | 5.0 | | 25 | 25 | 0 |
| | Cheung Roas | 13 | 13 | 0 | 13 | 13 | 0 | 5.0 | 5.0 | | 65 | 65 | 0 |
| | Khsem Khsan | 3.5 | 3.5 | 0 | 3.5 | 3.5 | 0 | 5.0 | 5.0 | | 18 | 18 | 0 |
| | Krang Chek | 14 | 3 | 11 | 14 | 3 | 11 | 1.0 | 1.0 | | 3 | 3 | 0 |
| | Mean Chey | 2 | 2 | 0 | 2 | 2 | 0 | 5.0 | 5.0 | | 10 | 10 | 0 |
| | Preah Srae | 10 | 10 | 0 | 10 | 10 | 0 | 5.0 | 5.0 | | 50 | 50 | 0 |
| | Prey Krasang | 6 | 6 | 0 | 6 | 6 | 0 | 4.0 | 4.0 | | 24 | 24 | 0 |
| | Trach Tong | 7.5 | 7.5 | 0 | 7.5 | 7.5 | 0 | 5.0 | 5.0 | | 38 | 38 | 0 |
| | Veal Pung | 45 | 45 | 0 | 45 | 45 | 0 | 5.0 | 5.0 | | 225 | 225 | 0 |
| | Veang Chas | 3 | 3 | 0 | 3 | 3 | 0 | 5.0 | 5.0 | | 15 | 15 | 0 |

Table C1-63 Vegetable Production in the Boribo River Basin in 2003 (2/2) 1/

| Province/ District | Commune | Cultivated Area (ha.) | | | Harvested Area (ha) | | | Yield (tons/ha) | | | Annual Production (Tons) | | |
|-------------------------------|-------------------|-----------------------|------------|--------------|---------------------|------------|--------------|-----------------|------------|------------|--------------------------|--------------|--------------|
| | | Total | Season | | Total | Season | | Total | Season | | Total | Season | |
| | | | Wet | Dry | | Wet | Dry | | Wet | Dry | | Wet | Dry |
| Kampong Speu Odongk | Yuth Sameakki | 2 | 2 | 0 | 2 | 2 | 0 | 4.0 | 4.0 | | 8 | 8 | 0 |
| | Damnak Reang | 7 | 7 | 0 | 7 | 7 | 0 | 1.2 | 1.2 | | 8 | 8 | 0 |
| | Peang Lvea | 3.5 | 3.5 | 0 | 3.5 | 3.5 | 0 | 5.0 | 5.0 | | 18 | 18 | 0 |
| | Phnum Touch | 5 | 5 | 0 | 5 | 5 | 0 | 5.0 | 5.0 | | 25 | 25 | 0 |
| Thpong | Amleang | 52 | 32 | 20 | 44 | 25 | 19 | 1.4 | 1.3 | 1.5 | 61 | 33 | 29 |
| | Monourom | 10 | 10 | 0 | 7 | 7 | 0 | 2.5 | 2.5 | | 18 | 18 | 0 |
| | Prambei Mom | 16 | 13 | 3 | 14 | 11 | 3 | 1.3 | 1.3 | 1.5 | 19 | 14 | 5 |
| | Rung Roeang | 3 | 3 | 0 | 3 | 3 | 0 | 1.3 | 1.3 | 0.0 | 4 | 4 | 0 |
| | Yeal Pon | 18 | 15 | 3 | 11.7 | 9 | 2.7 | 1.0 | 1.0 | 1.5 | 13 | 9 | 4 |
| | Yea Angk | 4 | 3 | 1 | 4 | 3 | 1 | 1.3 | 1.3 | 1.5 | 5 | 4 | 2 |
| Kandal Angk Snuol | Baek Chan | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| | Boeng Thum | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| | Chhak Chheu Neang | 5 | 5 | 0 | 5 | 5 | 0 | | 2.0 | | 10 | 10 | 0 |
| | Damnak Ampil | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| | Kamboul | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| | Kantaok | 2 | 2 | 0 | 2 | 2 | 0 | 3.0 | 3.0 | | 6 | 6 | 0 |
| | Krang Mkak | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| | Lumhach | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| | Mkak | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| | Ovlaok | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| | Peuk | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| | Ponsang | 11 | 6 | 5 | 11 | 6 | 5 | 4.0 | 4.0 | 4.0 | 44 | 24 | 20 |
| | Prey Puok | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| | Samraong Leu | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| Snao | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 | |
| Tuol Prech | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 | |
| Ponhea Lueu | Chhveang | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| | Chrey Loas | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| | Kampong Luong | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| | Kampong Os | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| | Kaoh Chen | 17 | 0 | 17 | 17 | 0 | 17 | 1.5 | | 1.5 | 26 | 0 | 26 |
| | Phnum Bat | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| | Ponhea Lueu | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| | Ponhea Pon | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| | Preack Pnov | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| | Preack Ta Tean | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| | Phsar Daek | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| | Samraong | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| | Turnob Thum | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| | Vihear Luong | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| Pursat Krakor | Anlong Tnaot | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| | Ansa Chambak | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| | Chheu Tom | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| | Kbal Trach | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| | Ou Sandan | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| | Sna Ansa | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| | Svay Sa | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 |
| Tnaot Chum | 0 | 0 | 0 | 0 | 0 | 0 | | | | 0 | 0 | 0 | |
| Phnum Kravanh | Prongil | 14 | 6 | 8 | 14 | 6 | 8 | 7.0 | 7.0 | 7.0 | 98 | 42 | 56 |
| Whole River Basin | | 1,843 | 778 | 1,065 | 1,817 | 753 | 1,064 | 2.6 | 3.0 | 2.3 | 4,669 | 2,223 | 2,446 |

1/: Data of all communes located in the Boribo River Basin

Source: Commune Survey on Crops and Livestock, 2003, Kampong Chhnang, Pursat, Kampong Speu & Kandal, MAFF, 2004

Table C1-64 Fruit Tree Planted Area in the Boribo River Basin in 2003 (1/2) 1/

| Province/ District | Commune | Planted Areas of Fruit Trees | | | | | | | | | | | Total |
|-----------------------------|--------------------|------------------------------|--------|---------|--------|-------|---------------|---------------|---------|--------|-------|-----------|-------|
| | | Banana | Cashew | Coconut | Longan | Mango | Milk Fruit | Jack Fruit | Custard | Orange | Guava | Pineapple | |
| Kampong Chhnang Baribour | Anhchanh Rung | 6 | 1.5 | 7 | 0 | 1.3 | 1.1 | 0 | 0 | 0 | 0 | 1.5 | 18 |
| | Chhnok Tru | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - |
| | Chak | 5 | 3 | 6 | 0 | 2 | 1 | 0 | 0.5 | 0 | 0.5 | 5 | 23 |
| | Khon Rang | 51 | 0 | 25 | 0 | 9 | 7 | 0 | 1.5 | 0 | 1 | 0.8 | 95 |
| | Kampong Preah Ke | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - |
| | Melum | 5 | 8 | 3 | 0 | 1 | 1 | 0.5 | 0 | 0 | 0 | 2 | 21 |
| | Phsar | 17 | 0 | 15 | 0 | 2 | 1.5 | 0 | 0 | 0 | 0 | 0 | 36 |
| | Pech Changvar | 2.5 | 3 | 1 | 0 | 0.5 | 0.5 | 0.5 | 1 | 0 | 1.5 | 1 | 12 |
| | Popel | 2 | 2 | 1 | 0 | 5 | 1 | 1 | 0.5 | 0.6 | 1 | 0 | 14 |
| | Ponley | 5 | 1 | 6 | 0 | 2 | 3 | 0 | 1 | 0 | 1.5 | 1 | 21 |
| Trapeang Chan | 6 | 32 | 28 | 0 | 11 | 1 | 3 | 1 | 0 | 0.8 | 15 | 98 | |
| Kampong Tralach | Ampil Tuek | 2 | 0 | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| | Chhuk Sa | 0 | 14 | 18 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 34 |
| | Chres | 2 | 3 | 7 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 14 |
| | Kampong Tralach | 1 | 0 | 2 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 6 |
| | Longveack | 1 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| | Ou Ruessei | 2 | 8 | 6 | 0 | 3 | 0 | 2 | 0 | 0 | 0 | 0 | 21 |
| | Peani | 3 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| | Saeb | 12 | 3 | 4 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 24 |
| | Ta Ches | 5 | 10 | 15 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 39 |
| | Thma Edth | 2 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| Rolea B'ier | Andoung Snay | 5 | 3 | 5 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 15 |
| | Banteay Preal | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - |
| | Cheung Kreav | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - |
| | Chrey Bak | 7 | 5 | 5 | 1 | 3 | 1 | 0 | 1 | 0 | 0 | 0 | 23 |
| | Kouk Banteay | 3.4 | 2 | 3 | 0 | 2.5 | 0 | 1 | 1.5 | 0 | 0 | 0 | 13 |
| | Krang Leav | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - |
| | Pongro | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - |
| | Prasneb | 0 | 10 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 12 |
| | Prey Mul | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - |
| | Rolea B'ier | 0 | 5 | 0.8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| | Srae Thmei | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | Svay Chrum | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - |
| | Tuek Hout | 0 | 2 | 2 | 0 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 17 |
| | Sameakki Mean Chey | Chhean Laeung | 5 | 0 | 2 | 2.2 | 3 | 0.2 | 0.1 | 2 | 1 | 1 | 0 |
| Khmar Chhmar | | 2 | 1 | 2 | 0 | 1 | 0.3 | 0.1 | 1 | 0.5 | 1 | 0 | 9 |
| Krang Lvea | | 2 | 1 | 3.5 | 0 | 1.5 | 0.2 | 0.2 | 1.5 | 0.5 | 0.5 | 0 | 11 |
| Peam | | 6 | 0 | 5 | 0.5 | 2 | 1 | 0.2 | 2 | 0.8 | 0.5 | 0 | 19 |
| Sedthei | | 2 | 10 | 6 | 0 | 3 | 0 | 1 | 1 | 0.2 | 1 | 0 | 24 |
| Svay | | 7 | 0.1 | 5 | 0.8 | 5 | 1 | 0.2 | 4 | 0.5 | 0.5 | 0 | 26 |
| Svay Chuk | | 5 | 0.2 | 3 | 0 | 3 | 0.5 | 0.2 | 4 | 0.1 | 0.2 | 0 | 17 |
| Tbaeng Khpos | | 5 | 2 | 4 | 0.8 | 4 | 0.3 | 0 | 4 | 0.2 | 0.1 | 0 | 21 |
| Thlok Vien | | 3 | 2 | 5 | 0 | 2 | 0.2 | 0.3 | 2 | 0.4 | 0.5 | 0 | 15 |
| Tuek Phos | Akphivoath | 2.5 | 3.5 | 3 | 0 | 1.5 | 0 | 0 | 1.5 | 0 | 0 | 0 | 12 |
| | Chieb | 4.5 | 12 | 1.5 | 0 | 3 | 0 | 1 | 2 | 0 | 0 | 0 | 24 |
| | Chaong Maong | 6.5 | 2.5 | 1.5 | 0 | 2.5 | 0 | 0.5 | 0 | 0 | 0 | 0 | 14 |
| | Kbal Tuek | 7.5 | 2.5 | 1 | 0 | 4.5 | 0 | 0.5 | 0 | 3 | 0 | 0 | 19 |
| | Khlong Popok | 4 | 2 | 2 | 0 | 1.5 | 0 | 0.5 | 0.5 | 0 | 0 | 0 | 11 |
| | Krang Skear | 6.5 | 5 | 1.5 | 0 | 7 | 0.5 | 3 | 2 | 0 | 4 | 0 | 30 |
| | Tang Krasang | 5 | 1 | 2.5 | 0 | 4 | 2.5 | 0.5 | 0.5 | 0 | 0.5 | 0 | 17 |
| | Toul Khpos | 2.5 | 2 | 1.5 | 0 | 2 | 0 | 0.5 | 1 | 0 | 0 | 0 | 10 |
| Kampong Speu Aoral | Trapeang Chour | 42 | 0.5 | 3.5 | 0.85 | 2.31 | 0.97 | 3.05 | 2.25 | 1.35 | 2.48 | 0.3 | 60 |
| | Sangkhae Satob | 23 | 0 | 3 | 0 | 1.48 | 0 | 0.5 | 0.12 | 0.34 | 0 | 0.15 | 29 |
| Odongk | Chant Saen | 18 | 2.5 | 5 | 0 | 2 | 0 | 0 | 4 | 0 | 0 | 0 | 32 |
| | Cheung Roas | 8 | 0 | 5 | 0 | 4 | 0 | 0 | 1 | 0 | 0 | 0 | 18 |
| | Khsem Khsan | 3.5 | 0 | 3.5 | 0 | 2.5 | 0.5 | 1.5 | 4 | 0 | 0 | 0 | 16 |
| | Krang Chek | 12 | 0 | 12 | 0 | 2 | 0 | 0 | 2 | 0 | 1 | 0 | 29 |
| | Mean Chey | 3 | 0 | 2 | 0 | 4 | 0.5 | 0.5 | 1.5 | 0 | 0.5 | 0 | 12 |
| | Preah Srae | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0.5 | 0 | 11 |
| | Prey Krasang | 5 | 0 | 2.5 | 0 | 1.5 | 0 | 1.5 | 2.5 | 0 | 0 | 0 | 13 |
| | Trach Tong | 12 | 2 | 23 | 0 | 6 | 0.5 | 0.5 | 2 | 0 | 0 | 0 | 46 |
| | Veal Pung | 21 | 0 | 2 | 0 | 2 | 0.5 | 0.5 | 1.5 | 0 | 0.5 | 0 | 28 |
| | Veang Chas | 2.5 | 0 | 1.5 | 0 | 1.5 | 0.5 | 1.5 | 1.5 | 0 | 0.5 | 0 | 10 |
| | Yuth Sameakki | 10 | 0 | 7 | 0 | 2 | 0 | 1 | 1 | 0 | 0.5 | 0 | 22 |
| | Dannak Reang | 15 | 0 | 4.5 | 0 | 2.5 | 0 | 1.5 | 1.5 | 0 | 1.5 | 0 | 27 |
| | Peang Lvea | 3.5 | 0 | 3 | 0 | 0 | 1.5 | 1.5 | 3 | 0 | 0.5 | 0 | 13 |
| | Phnum Touch | 10 | 0 | 3.5 | 0 | 3 | 0 | 2.5 | 3.5 | 0 | 0 | 0 | 23 |

Table C1-64 Fruit Tree Planted Area in the Boribo River Basin in 2003 (1/2) 1/

| Province/ District | Commune | Planted Areas of Fruit Trees | | | | | | | | | | | Total |
|-----------------------|---------|------------------------------|--------|---------|--------|-------|---------------|---------------|---------|--------|-------|-----------|-------|
| | | Banana | Cashew | Coconut | Longan | Mango | Milk Fruit | Jack Fruit | Custard | Orange | Guava | Pineapple | |

Table C1-64 Fruit Tree Planted Area in the Boribo River Basin in 2003 (2/2) 1/

| Province/ District | Commune | Planted Areas of Fruit Trees | | | | | | | | | | | Total |
|--------------------------|------------------|------------------------------|------------|------------|----------|------------|---------------|---------------|-----------|-----------|-----------|-----------|--------------|
| | | Banana | Cashew | Coconut | Longan | Mango | Milk Fruit | Jack Fruit | Custard | Orange | Guava | Pineapple | |
| Thpong | Amleang | 12 | 0 | 10 | 0 | 3 | 2 | 2 | 1 | 0 | 2 | 0 | 32 |
| | Monourom | 3 | 0.5 | 2 | 0 | 1 | 1 | 0.3 | 0.5 | 0 | 0.5 | 0 | 9 |
| | Prambei Mom | 52 | 0 | 48 | 0 | 5 | 3 | 1 | 5 | 1 | 1 | 0 | 116 |
| | Rung Roeang | 3.58 | 0.88 | 5.4 | 0.4 | 0.7 | 0.5 | 1.6 | 1.6 | 0.3 | 0.3 | 0 | 15 |
| | Veal Pon | 8 | 0 | 4 | 0.4 | 2 | 1 | 0.2 | 3 | 0.2 | 0.5 | 0 | 19 |
| | Yea Angk | 3.5 | 0 | 2.5 | 0 | 2 | 0 | 1.5 | 0 | 0 | 0 | 0 | 10 |
| Kandal Angk Snuol | Baek Chan | 0 | 0 | 2 | 0 | 4 | 0 | 2 | 0 | 0 | 0 | 0 | 8 |
| | Boeng Thum | 0 | 0 | 15 | 0 | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 33 |
| | Chhak Chheu Near | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| | Damnak Ampil | 0 | 0 | 5 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| | Kamboul | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| | Kantaok | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - |
| | Krang Mkak | 0 | 0 | 4 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| | Lumhach | 0 | 0 | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| | Mkak | 5 | 0 | 5 | 0 | 15 | 0 | 0 | 0 | 0 | 0 | 0 | 25 |
| | Ovlaok | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - |
| | Peuk | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| | Ponsang | 7 | 3 | 15 | 0 | 10 | 0 | 1 | 5 | 0 | 0 | 0 | 41 |
| | Prey Puok | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - |
| | Samraong Leu | 3 | 0 | 1 | 0 | 1.5 | 0 | 1 | 0 | 0 | 0 | 0 | 7 |
| Snao | 0 | 0 | 0 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | |
| Tuol Prech | 0 | 0 | 5 | 0 | 50 | 0 | 0 | 0 | 0 | 0 | 0 | 55 | |
| Ponhea Lueu | Chhveang | 0 | 23 | 0 | 0 | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 37 |
| | Chrey Loas | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - |
| | Kampong Luong | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - |
| | Kampong Os | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - |
| | Kaoh Chen | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - |
| | Phnum Bat | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - |
| | Ponhea Lueu | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - |
| | Ponhea Pon | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| | Preaek Pnov | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - |
| | Preaek Ta Teaan | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - |
| | Phsar Daek | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - |
| | Samraong | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - |
| | Tumnob Thum | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - |
| | Vihear Luong | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - |
| Pursat Krakor | Anlong Tnaot | 0 | 380 | 0 | 0 | 5 | 0 | 3 | 0 | 0 | 0 | 0 | 388 |
| | Ansa Chambak | 0 | 24 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 24 |
| | Chheu Tom | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - |
| | Kbal Trach | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - |
| | Ou Sandan | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - |
| | Sna Ansa | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - |
| | Svay Sa | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - |
| | Tnaot Chum | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - |
| Phnum Kravanh | Prongil | 0 | 5 | 0 | 0 | 10 | 0 | 1 | 1 | 3 | 0 | 21 | |
| Whole River Basin | | 512 | 604 | 434 | 7 | 335 | 38 | 48 | 91 | 14 | 28 | 28 | 2,146 |

1/: Data of all communes located in the Boribo River Basin

Source: Commune Survey on Crops and Livestock, 2003, Kampong Chhnang, Pursat, Kampong Speu & Kandal, MAFF, 2004

Table C1-65 Livestock Population in the Boribo River Basin in 2003 (1/2) 1/

| Province/ District | Commune | Cattle Total | Cow | Draft Cattle | Buffalo Total | Buffalo Female | Draft Buffalo | Pig Total | Pig Female | Animal Units (A.U.) 2/ | Poultry | No. of Farm Families 3/ | |
|-------------------------------------|------------------------|-----------------|--------|-----------------|------------------|-------------------|------------------|--------------|---------------|------------------------------|---------|-------------------------------|-------|
| Kampung Chhunang Baribour | Anhchanh Rung | 563 | 165 | 93 | 1,866 | 621 | 1,270 | 1,728 | 49 | 2,532 | 16,568 | 981 | |
| | Chhnok Tru | 0 | 0 | 0 | 0 | 0 | 0 | 400 | 0 | 80 | 250 | 1,267 | |
| | Chak | 1,097 | 226 | 302 | 2,334 | 846 | 1,246 | 2,303 | 43 | 3,549 | 1,747 | 567 | |
| | Khon Rang | 1,220 | 317 | 419 | 2,130 | 677 | 1,380 | 2,334 | 41 | 3,482 | 10,847 | 1,230 | |
| | Kampong Preah Kokir | 0 | 0 | 0 | 0 | 0 | 0 | 460 | 20 | 92 | 1,820 | 338 | |
| | Melum | 922 | 241 | 274 | 1,229 | 482 | 743 | 1,760 | 30 | 2,288 | 11,219 | 776 | |
| | Phsar | 1,082 | 306 | 348 | 1,735 | 561 | 1,127 | 2,257 | 42 | 2,987 | 11,163 | 1,054 | |
| | Pech Changvar | 563 | 122 | 139 | 1,765 | 677 | 1,166 | 2,934 | 58 | 2,682 | 10,925 | 660 | |
| | Popel | 1,540 | 740 | 491 | 1,733 | 607 | 1,239 | 2,136 | 40 | 3,373 | 10,741 | 899 | |
| | Ponley | 945 | 182 | 393 | 1,112 | 267 | 578 | 2,154 | 37 | 2,282 | 17,647 | 1,104 | |
| | Trapeang Chan | 1,207 | 327 | 342 | 2,091 | 553 | 1,154 | 1,551 | 25 | 3,278 | 18,989 | 774 | |
| | Sub-total | 9,139 | 2,626 | 2,801 | 15,995 | 5,291 | 9,903 | 20,017 | 385 | 26,624 | 111,916 | 9,650 | |
| | Kampong Tralach | Ampil Tuek | 1,092 | 351 | 274 | 1,127 | 419 | 792 | 1,587 | 35 | 2,315 | 10,021 | 2,301 |
| | | Chhuk Sa | 9,578 | 894 | 2,288 | 44 | 13 | 39 | 253 | 1 | 8,710 | 7,440 | 1,485 |
| | | Chres | 4,093 | 934 | 2,090 | 520 | 148 | 343 | 1,719 | 45 | 4,496 | 7,211 | 1,730 |
| Kampong Tralach | | 1,237 | 447 | 323 | 647 | 316 | 376 | 1,278 | 30 | 1,951 | 9,084 | 1,109 | |
| Longveak | | 5,867 | 1,436 | 1,393 | 19 | 5 | 15 | 1,141 | 13 | 5,526 | 11,386 | 1,315 | |
| Ou Ruessei | | 4,199 | 1,174 | 1,316 | 218 | 38 | 126 | 939 | 18 | 4,163 | 18,116 | 1,295 | |
| Peani | | 2,913 | 579 | 1,516 | 199 | 44 | 92 | 1,054 | 20 | 3,012 | 8,104 | 1,342 | |
| Saeb | | 3,559 | 785 | 1,638 | 116 | 40 | 76 | 1,217 | 10 | 3,551 | 8,988 | 1,059 | |
| Ta Ches | | 4,610 | 1,313 | 1,583 | 409 | 161 | 260 | 1,588 | 90 | 4,835 | 10,809 | 20,736 | |
| Thma Edth | | 3,612 | 862 | 1,635 | 92 | 20 | 73 | 777 | 17 | 3,489 | 3,622 | 910 | |
| Sub-total | | 40,760 | 8,775 | 14,056 | 3,391 | 1,204 | 2,192 | 11,553 | 279 | 42,047 | 94,781 | 33,282 | |
| Rolea B'ier | | Andoung Snay | 2,901 | 801 | 1,494 | 0 | 0 | 0 | 1,742 | 51 | 2,959 | 4,594 | 1,002 |
| | | Banteay Preal | 2,470 | 745 | 913 | 557 | 176 | 442 | 1,777 | 50 | 3,080 | 4,757 | 877 |
| | | Cheung Kream | 3,223 | 838 | 1,568 | 0 | 0 | 0 | 2,323 | 44 | 3,365 | 5,146 | 1,189 |
| | Chrey Bak | 4,606 | 993 | 2,445 | 0 | 0 | 0 | 4,088 | 61 | 4,963 | 6,087 | 1,992 | |
| | Kouk Banteay | 2,914 | 776 | 1,536 | 0 | 0 | 0 | 1,769 | 29 | 2,976 | 4,793 | 1,038 | |
| | Krang Leav | 3,318 | 824 | 1,634 | 395 | 115 | 317 | 1,857 | 26 | 3,713 | 5,185 | 1,195 | |
| | Pongro | 2,494 | 514 | 1,549 | 110 | 36 | 64 | 1,086 | 171 | 2,561 | 4,985 | 1,455 | |
| | Prasneb | 2,322 | 522 | 1,360 | 994 | 296 | 809 | 1,537 | 20 | 3,296 | 3,488 | 946 | |
| | Prey Mul | 2,287 | 740 | 1,120 | 554 | 48 | 418 | 1,275 | 20 | 2,812 | 3,440 | 835 | |
| | Rolea B'ier | 2,750 | 700 | 1,557 | 0 | 0 | 0 | 1,703 | 26 | 2,816 | 3,828 | 1,527 | |
| | Srae Thmei | 3,978 | 889 | 2,317 | 0 | 0 | 0 | 1,575 | 45 | 3,895 | 4,648 | 1,797 | |
| | Svay Chrum | 3,867 | 888 | 1,560 | 10 | 10 | 10 | 2,709 | 200 | 4,031 | 5,407 | 2,756 | |
| | Tuek Hout | 2,668 | 69 | 1,530 | 0 | 0 | 0 | 1,381 | 32 | 2,677 | 5,011 | 1,138 | |
| | Sub-total | 39,798 | 9,299 | 20,583 | 2,620 | 681 | 2,060 | 24,842 | 775 | 43,145 | 61,369 | 17,747 | |
| | Sameakki Mean C | Chhean Laeung | 6,718 | 2,119 | 2,181 | 4 | 2 | 2 | 1,339 | 146 | 6,318 | 15,716 | 680 |
| Khnar Chhmar | | 2,723 | 662 | 1,323 | 1,418 | 269 | 644 | 6,666 | 1,168 | 5,060 | 14,101 | 1,292 | |
| Krang Lvea | | 16,595 | 4,760 | 8,363 | 708 | 213 | 266 | 5,386 | 98 | 16,650 | 8,468 | 1,549 | |
| Peam | | 3,739 | 1,069 | 1,188 | 0 | 0 | 0 | 1,201 | 130 | 3,605 | 3,911 | 1,419 | |
| Sedthei | | 2,814 | 750 | 1,287 | 56 | 16 | 14 | 492 | 22 | 2,681 | 11,736 | 1,262 | |
| Svay | | 5,610 | 1,110 | 3,109 | 3 | 1 | 1 | 351 | 19 | 5,122 | 19,078 | 1,809 | |
| Svay Chuk | | 4,131 | 1,014 | 1,840 | 0 | 0 | 0 | 1,163 | 78 | 3,951 | 8,595 | 1,600 | |
| Tbaeng Khpos | | 4,604 | 1,316 | 1,616 | 46 | 14 | 10 | 1,741 | 40 | 4,533 | 8,595 | 1,575 | |
| Thlok Vien | | 1,085 | 1,067 | 1,067 | 0 | 120 | 18 | 71 | 0 | 991 | 430 | 1,067 | |
| Sub-total | | 48,019 | 13,867 | 21,974 | 2,235 | 635 | 955 | 18,410 | 1,701 | 48,911 | 90,630 | 12,253 | |
| Tuek Phos | | Alkphivoadth | 1,767 | 641 | 507 | 2,527 | 871 | 1,753 | 1,383 | 166 | 4,141 | 9,258 | 1,427 |
| | Chieb | 2,178 | 596 | 949 | 2,319 | 438 | 1,651 | 1,943 | 700 | 4,436 | 4,331 | 1,247 | |
| | Chaong Maong | 1,281 | 424 | 336 | 1,664 | 472 | 1,882 | 1,495 | 134 | 2,950 | 2,680 | 1,230 | |
| | Kbal Tuek | 1,668 | 690 | 396 | 824 | 362 | 556 | 454 | 20 | 2,334 | 4,117 | 817 | |
| | Khlong Popok | 3,935 | 1,242 | 1,663 | 639 | 362 | 491 | 1,246 | 108 | 4,366 | 12,225 | 1,077 | |
| | Krang Skear | 3,806 | 1,272 | 1,337 | 1,002 | 325 | 630 | 2,313 | 527 | 4,790 | 13,419 | 2,096 | |
| | Tang Krasang | 1,217 | 389 | 341 | 866 | 323 | 577 | 981 | 63 | 2,071 | 2,390 | 1,544 | |
| | Toul Khpos | 2,281 | 627 | 692 | 2,263 | 545 | 1,083 | 1,121 | 60 | 4,314 | 9,560 | 702 | |
| | Sub-total | 18,133 | 5,881 | 6,221 | 12,104 | 3,698 | 8,623 | 10,936 | 1,778 | 29,401 | 57,980 | 10,140 | |
| | Province Total | 155,849 | 40,448 | 65,635 | 36,345 | 11,509 | 23,733 | 85,758 | 4,918 | 190,126 | 416,676 | 83,072 | |
| Kampung Speu Aoral | Trapeang Chour | 5,637 | 721 | 3,038 | 278 | 52 | 101 | 858 | 20 | 5,495 | 5,615 | 159 | |
| | Sangkae Satob | 4,504 | 641 | 2,554 | 0 | 0 | 0 | 1,076 | 35 | 4,269 | 3,066 | 902 | |
| | Sub-total | 10,141 | 1,362 | 5,592 | 278 | 52 | 101 | 1,934 | 55 | 9,764 | 8,681 | 1,061 | |
| Odongk | Chant Saen | 3,055 | 700 | 1,132 | 0 | 0 | 0 | 1,013 | 140 | 2,952 | 14,375 | 1,097 | |
| | Cheung Roas | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,148 | |
| | Khsem Khsan | 3,577 | 805 | 1,252 | 0 | 0 | 0 | 1,317 | 55 | 3,483 | 13,970 | 1,550 | |
| | Krang Chek | 4,517 | 1,045 | 2,604 | 0 | 0 | 0 | 1,632 | 116 | 4,392 | 12,718 | 2,105 | |
| | Mean Chey | 3,296 | 968 | 1,878 | 0 | 0 | 0 | 1,100 | 40 | 3,186 | 12,100 | 1,039 | |
| | Preah Srae | 3,157 | 1,300 | 1,286 | 0 | 0 | 0 | 1,503 | 70 | 3,142 | 19,310 | 1,318 | |
| | Prey Krasang | 4,857 | 1,103 | 1,140 | 0 | 0 | 0 | 1,750 | 107 | 4,721 | 18,107 | 1,483 | |
| | Trach Tong | 3,098 | 1,095 | 1,456 | 0 | 0 | 0 | 1,250 | 50 | 3,038 | 12,100 | 1,219 | |
| | Veal Pung | 52 | 1,050 | 1,992 | 0 | 0 | 0 | 1,102 | 110 | 267 | 16,570 | 2,222 | |
| | Veang Cbas | 1,950 | 100 | 534 | 0 | 0 | 0 | 950 | 15 | 1,945 | 37,530 | 1,150 | |
| | Yuth Sameakki | 2,320 | 620 | 1,800 | 0 | 0 | 0 | 550 | 15 | 2,198 | 11,500 | 1,206 | |
| | Damnak Reang | 2,628 | 1,900 | 1,112 | 0 | 0 | 0 | 1,335 | 134 | 2,632 | 13,455 | 1,057 | |
| | Peang Lvea | 5,615 | 1,017 | 1,780 | 0 | 0 | 0 | 3,507 | 190 | 5,755 | 14,570 | 1,241 | |
| | Phnum Touch | 3,168 | 1,350 | 1,772 | 0 | 0 | 0 | 1,503 | 150 | 3,152 | 18,870 | 1,547 | |
| | Sub-total | 41,290 | 13,053 | 19,738 | 0 | 0 | 0 | 18,512 | 1,192 | 40,863 | 215,175 | 19,382 | |

Table C1-65 Livestock Population in the Boribo River Basin in 2003 (2/2) 1/

| Province/ District | Commune | Cattle Total | Cow | Draft Cattle | Buffalo Total | Buffalo Female | Draft Buffalo | Pig Total | Pig Female | Animal Units (A.U.) 2/ | Poultry | No. of Farm Families 3/ | |
|-----------------------|-------------------|-----------------|--------|-----------------|------------------|-------------------|------------------|--------------|---------------|------------------------------|-----------|-------------------------------|--------|
| Thpong | Amleang | 6,749 | 1,904 | 1,999 | 51 | 21 | 24 | 1,573 | 130 | 6,435 | 4,477 | 1,779 | |
| | Monourom | 2,883 | 989 | 1,084 | 0 | 0 | 0 | 1,012 | 58 | 2,797 | 1,963 | 901 | |
| | Prambei Mom | 6,836 | 1,790 | 3,300 | 25 | 7 | 14 | 703 | 23 | 6,316 | 10,545 | 1,695 | |
| | Rung Roeang | 4,109 | 1,170 | 1,866 | 0 | 0 | 0 | 2,097 | 1,276 | 4,118 | 3,469 | 1,635 | |
| | Veal Pon | 3,328 | 953 | 1,519 | 0 | 0 | 0 | 1,163 | 82 | 3,228 | 3,956 | 1,415 | |
| | Yea Angk | 5,287 | 1,532 | 1,865 | 7 | 2 | 4 | 1,444 | 70 | 5,053 | 4,442 | 1,413 | |
| | Sub-total | 29,192 | 8,338 | 11,633 | 83 | 30 | 42 | 7,992 | 1,639 | 27,946 | 28,852 | 8,838 | |
| Province Total | | 80,623 | 22,753 | 36,963 | 361 | 82 | 143 | 28,438 | 2,886 | 78,573 | 252,708 | 29,281 | |
| Kandal Angk Snuol | Baek Chan | 1,280 | 432 | 398 | 0 | 0 | 0 | 829.00 | 25 | 1,318 | 5,130 | 962 | |
| | Boeng Thum | 1,835 | 1,210 | 625 | 0 | 0 | 0 | 744.00 | 12 | 1,800 | 4,281 | 1,023 | |
| | Chhak Chheu Neang | 860 | 271 | 344 | 0 | 0 | 0 | 325.00 | 11 | 839 | 2,715 | 553 | |
| | Dannak Ampil | 1,148 | 301 | 512 | 0 | 0 | 0 | 600.00 | 17 | 1,153 | 4,815 | 943 | |
| | Kamboul | 3,016 | 561 | 1,978 | 0 | 0 | 0 | 663.00 | 15 | 2,847 | 3,705 | 541 | |
| | Kantaok | 1,482 | 483 | 552 | 0 | 0 | 0 | 859.00 | 12 | 1,506 | 2,976 | 1,532 | |
| | Krang Mkak | 1,503 | 425 | 614 | 0 | 0 | 0 | 393.00 | 19 | 1,431 | 2,128 | 781 | |
| | Lumhach | 3,957 | 1,369 | 360 | 0 | 0 | 0 | 164.00 | 7 | 3,594 | 2,217 | 1,319 | |
| | Mkak | 3,958 | 1,296 | 1,420 | 0 | 0 | 0 | 767.00 | 7 | 3,716 | 7,377 | 1,314 | |
| | Ovlaok | 1,527 | 500 | 594 | 0 | 0 | 0 | 545.00 | 7 | 1,483 | 5,066 | 618 | |
| | Peuk | 1,575 | 508 | 646 | 0 | 0 | 0 | 955.00 | 12 | 1,609 | 7,915 | 884 | |
| | Ponsang | 3,420 | 1,109 | 2,148 | 0 | 0 | 0 | 682.00 | 8 | 3,214 | 7,144 | 1,390 | |
| | Prey Puok | 2,013 | 539 | 926 | 0 | 0 | 0 | 703.00 | 10 | 1,952 | 6,217 | 1,131 | |
| | Samraong Leu | 3,057 | 2,049 | 1,448 | 0 | 0 | 0 | 501.00 | 51 | 2,852 | 2,293 | 1,248 | |
| | Snao | 1,561 | 516 | 658 | 0 | 0 | 0 | 679.00 | 10 | 1,541 | 5,361 | 662 | |
| | Tuol Prech | 2,364 | 733 | 991 | 0 | 0 | 0 | 677.00 | 7 | 2,263 | 4,559 | 1,038 | |
| | Sub-total | 34,556 | 12,302 | 14,214 | 0 | 0 | 0 | 10,086 | 230 | 33,118 | 73,899 | 15,939 | |
| Ponhea Lueu | Chhveang | 3,754 | 1,206 | 1,677 | 0 | 0 | 0 | 250.00 | 7 | 3,429 | 1,128 | 1,307 | |
| | Chrey Loas | 3,533 | 1,015 | 1,183 | 3 | 1 | 2 | 899.00 | 35 | 3,362 | 7,963 | 1,237 | |
| | Kampong Luong | 317 | 108 | 60 | 15 | 7 | 8 | 494.00 | 24 | 398 | 7,554 | 720 | |
| | Kampong Os | 1,034 | 248 | 262 | 58 | 11 | 30 | 1,100.00 | 110 | 1,203 | 3,600 | 1,044 | |
| | Kaoh Chen | 561 | 154 | 299 | 179 | 65 | 72 | 1,397.00 | 23 | 945 | 4,397 | 1,599 | |
| | Phnum Bat | 3,266 | 949 | 1,280 | 0 | 0 | 0 | 1,393.00 | 18 | 3,218 | 18,494 | 1,715 | |
| | Ponhea Lueu | 356 | 103 | 109 | 26 | 6 | 14 | 222.00 | 1 | 388 | 1,428 | 668 | |
| | Ponhea Pon | 1,653 | 596 | 606 | 0 | 0 | 0 | 527.00 | 26 | 1,593 | 16,471 | 944 | |
| | Preak Pnov | 182 | 40 | 4 | 12 | 4 | 8 | 537.00 | 30 | 282 | 1,080 | 25 | |
| | Preak Ta Tean | 554 | 91 | 357 | 6 | 2 | 4 | 146.00 | 7 | 533 | 2,823 | 1,203 | |
| | Phsar Daek | 1,520 | 509 | 462 | 0 | 0 | 0 | 559.00 | 40 | 1,480 | 2,080 | 1,171 | |
| | Samraong | 550 | 176 | 280 | 92 | 51 | 46 | 917.00 | 127 | 761 | 17,005 | 1,128 | |
| | Turnob Thum | 4,490 | 687 | 1,152 | 0 | 0 | 0 | 1,136.00 | 10 | 4,268 | 9,025 | 1,176 | |
| | Vihear Luong | 1,064 | 328 | 323 | 10 | 4 | 6 | 408.00 | 35 | 1,048 | 1,268 | 1,206 | |
| | | Sub-total | 22,834 | 6,210 | 8,054 | 401 | 151 | 190 | 9,985 | 493 | 22,909 | 94,316 | 15,143 |
| | Province Total | | 57,390 | 18,512 | 22,268 | 401 | 151 | 190 | 20,071 | 723 | 56,026 | 168,215 | 31,082 |
| | Pursat Krakor | Anlong Tnaot | 1,322 | 486 | 422 | 1,291 | 520 | 908 | 966 | 25 | 2,545 | 63,320 | 1,439 |
| Ansa Chambak | | 523 | 80 | 63 | 1,948 | 330 | 698 | 1,165 | 32 | 2,457 | 26,549 | 1,015 | |
| Chheu Tom | | 888 | 277 | 262 | 3,477 | 856 | 2,251 | 1,969 | 68 | 4,322 | 358,102 | 2,095 | |
| Kbal Trach | | 517 | 56 | 160 | 1,320 | 420 | 760 | 2,099 | 33 | 2,073 | 142,944 | 1,322 | |
| Ou Sandan | | 1,737 | 510 | 411 | 1,394 | 512 | 882 | 706 | 183 | 2,959 | 40,113 | 821 | |
| Sna Ansa | | 2,074 | 538 | 379 | 1,766 | 435 | 733 | 867 | 40 | 3,629 | 63,328 | 863 | |
| Svay Sa | | 321 | 83 | 98 | 3,501 | 1,349 | 2,706 | 1,165 | 32 | 3,673 | 17,357 | 1,026 | |
| Tnaot Chum | | 1,583 | 472 | 507 | 2,832 | 726 | 1,814 | 3,022 | 231 | 4,578 | 27,095 | 1,633 | |
| | | Sub-total | 8,965 | 2,502 | 2,302 | 17,529 | 5,148 | 10,752 | 11,959 | 644 | 26,236 | 738,808 | 10,214 |
| Phnum Kravanh | | Prongil | 2,105 | 917 | 1,012 | 1,103 | 472 | 816 | 1,573 | 41 | 3,202 | 15,109 | 1,687 |
| Province Total | | 11,070 | 3,419 | 3,314 | 18,632 | 5,620 | 11,568 | 13,532 | 685 | 29,438 | 753,917 | 11,901 | |
| River Basin Total | Head | 304,932 | 85,132 | 128,180 | 55,739 | 17,362 | 35,634 | 147,799 | 9,212 | 354,164 | 1,591,516 | 155,336 | |
| | A.U. (No) | 274,439 | | | 50,165 | | | 29,560 | | 354,164 | | - | |
| | A.U. (%) | 77 | | | 14 | | | 8 | | 100 | | - | |
| Holding Size/Family | No./family | 2.0 | 0.5 | 0.8 | 0.4 | 0.1 | 0.2 | 1.0 | 0.1 | 2.3 | 10.2 | - | |

1/: Data of all communes located in the Boribo River Basin

2/: Animal units assumed as follows: cattle total & buffalo total x 0.9; pig total x 0.2

3/: Assuming crop production families as farm families

Source: Commune Survey on Crops and Livestock, 2003, Kampong Chhunang, Pursat, Kampong Speu & kandal, MAFF, 2004

Table CI-66 Financial Crop Budget per Ha under Present/Without-project Conditions

| Items | Unit | Unit Price (Riel 1000) | Early Wet/Dry Season Rice | | | | | | Wet Season Rice | | | | | | | | | | |
|-----------------------------|--------------|------------------------|---------------------------|-----------------|---------------|-----------------|-----|-----------------|-------------------|-----------------|---------------|-------------------------|-----|-----------------|---------------|-----------------|---------------|-----------------|--|
| | | | Normal Irrigation | | | Recession Field | | | Normal Irrigation | | | Supplemental Irrigation | | | Rainfed Field | | | | |
| | | | Transplanting | | Direct Sowing | Transplanting | | Direct Sowing | Transplanting | | Direct Sowing | Transplanting | | Direct Sowing | Transplanting | | Direct Sowing | Transplanting | |
| | | | Qty | Value (Riel000) | Qty | Value (Riel000) | Qty | Value (Riel000) | Qty | Value (Riel000) | Qty | Value (Riel000) | Qty | Value (Riel000) | Qty | Value (Riel000) | Qty | Value (Riel000) | |
| 1. Gross Return Paddy | (ton/ha) | | 3.0 | 560 | 2.0 | 560 | 3.0 | 560 | 2.0 | 560 | 1.5 | 560 | 2.0 | 560 | 1.0 | 560 | 1.5 | 560 | |
| Unit Yield | (ton/ha) | | | 560 | | 560 | | 560 | | 560 | | 560 | | 560 | | 560 | | 560 | |
| Unit Price | (Riel.000/t) | | | 1,680 | | 1,120 | | 1,120 | | 1,680 | | 840 | | 1,120 | | 840 | | 840 | |
| Gross Return of Paddy | (Riel.000) | | | 1,680 | | 1,120 | | 1,120 | | 1,680 | | 840 | | 1,120 | | 840 | | 840 | |
| By Product (straw) 1/ | (Riel.000) | | | 84 | | 56 | | 56 | | 84 | | 42 | | 56 | | 42 | | 42 | |
| Gross Return | (Riel.000) | | | 1,764 | | 1,176 | | 1,176 | | 1,764 | | 882 | | 1,176 | | 882 | | 882 | |
| 2. Production cost | | | | 769 | | 586 | | 753 | | 781 | | 716 | | 669 | | 483 | | 548 | |
| 2-1. Farm Inputs | (kg) | | 60 | 328 | 60 | 197 | 60 | 331 | 120 | 34 | 120 | 67 | 80 | 45 | 120 | 67 | 80 | 45 | |
| Seed 1/ | | | | 34 | | 34 | | 67 | | | | | | | | | | | |
| Fertilizers | | | | | | | | | | | | | | | | | | | |
| - Urea | (kg) | | 115 | 189 | 60 | 98 | 60 | 98 | 60 | 60 | 60 | 66 | 60 | 98 | 10 | 16 | 40 | 66 | |
| - DAP | (kg) | | 65 | 106 | 40 | 65 | 40 | 65 | 40 | 65 | 40 | 49 | 60 | 98 | 20 | 33 | 40 | 65 | |
| - KCl | (kg) | | | 155 | | | | | | | | | | | | | | | |
| - Compost | (ton) | | | 50 | | | | | | | | | | | | | | | |
| Agro-chemicals | (lit) | | | 5.2 | | | | | | | | | | | | | | | |
| - Agro-chemicals | (kg) | | | 8.6 | | | | | | | | | | | | | | | |
| 2-2. Labor Costs | | | | 64 | | 51 | | 77 | | 64 | | 77 | | 58 | | 64 | | 51 | |
| Labor Requirements 2/ | | | | | | | | | | | | | | | | | | | |
| - Hired Labor | (man-day) | | 10 | 64 | 8 | 51 | 12 | 77 | 10 | 64 | 12 | 77 | 9 | 58 | 10 | 64 | 8 | 51 | |
| - Family Labor | (man-day) | | 89 | | 75 | | 51 | | 89 | | 50 | | 75 | | 47 | | 73 | | |
| Total | (man-day) | | 99 | | 83 | | 63 | | 99 | | 62 | | 84 | | 57 | | 81 | | |
| 2-3. Land Preparation | (Riel.000) | | | 250 | | 250 | | 350 | | 250 | | 350 | | 250 | | 250 | | 250 | |
| - Draft Animal/Tractor | (Riel.000) | | | 250 | | 250 | | 350 | | 250 | | 350 | | 250 | | 250 | | 250 | |
| 2-4. Pumping Cost | (Riel.000) | | | | | | | | | | | | | | | | | | |
| 2-5. Transportation | (Riel.000/t) | | 30 | 90 | 2.0 | 60 | 2.0 | 60 | 3.0 | 90 | 1.5 | 45 | 2.0 | 60 | 1.0 | 30 | 1.5 | 45 | |
| - By Ox Cart | | | | | | | | | | | | | | | | | | | |
| 2-6. Miscellaneous Expenses | (L.S.) | | | 37 | | 28 | | 36 | | 37 | | 33 | | 30 | | 23 | | 26 | |
| (2-1 ~ 2-4 x 5%) | | | | | | | | | | | | | | | | | | | |
| 3. Net Return | Riel.000 | | | 995 | | 590 | | 423 | | 983 | | 166 | | 507 | | 105 | | 334 | |
| | % | | | 56 | | 50 | | 36 | | 56 | | 19 | | 43 | | 18 | | 38 | |
| | Rounded | | | 1,000 | | 590 | | 420 | | 980 | | 170 | | 510 | | 100 | | 330 | |

1/ By products/straw, assumed to be 5% of gross return of paddy & mungbeans to be 2% of gross return

2/ Hired Labor Requirements --- assumed to be 10% of total labor requirements in transplanting & 20% in case of direct sowing

Table C1-67 Farm Economy under the Present Condition: Boribo River Basin

Unit: 1000 riel

| Item | Typical Farm | | | | Amount | |
|---|--|-----------------|-------------------|---------------------|--------------------------|--|
| | Family with Rainfed Paddy Field: 1.2 ha 1/ | | | | Cropping Intensity: 100% | |
| | Cropped Area (ha) | Production (kg) | Unit Price (riel) | | | |
| | | | | (1000 riel) | (US\$) 2/ | |
| 1. Net Income | | | | <u>1,266</u> | <u>309</u> | |
| 1-1. Net Farm Income | | | | <u>723</u> | <u>176</u> | |
| (1) Rice Production 3/ Wet Season Rice | 1.2 | 1,800 | 560 | 1,008 | | |
| Gross Return | | | | 1,008 | | |
| Production Cost 4/ | | | | 580 | | |
| Net Return | | | | <u>428</u> | | |
| (2) Other Farm Products 5/ | | | | | | |
| Gross Return | | | | <u>422</u> | | |
| Livestock | | | | 292 | | |
| Fishery | | | | 24 | | |
| Other Crops | | | | 106 | | |
| Production Cost 6/ | | | | 127 | | |
| Net Return | | | | <u>295</u> | <u>72</u> | |
| 1-2. Net Non-farm Income 5/ | | | | | | |
| (1) Net Income | | | | <u>543</u> | <u>132</u> | |
| Wage & Salary | | | | 145 | | |
| Trade | | | | 99 | | |
| Remittance from Family Members | | | | 19 | | |
| Others | | | | 280 | | |
| 2. Expenditure 5/ | | | | <u>1,144</u> | <u>279</u> | |
| Food | | | | 714 | | |
| Health/Medical | | | | 161 | | |
| Education | | | | 60 | | |
| Clothes | | | | 62 | | |
| Fuel | | | | 69 | | |
| Others | | | | 78 | | |
| 3. Net Surplus (Capacity to Pay) | | | | <u>122</u> | <u>30</u> | |

1/: Land holding size: holding of 2.0 ha of rainfed paddy field

2/: Estimated by applying conversion rate of 1US\$ = Riel 4,100.-

3/: Transplanting assumed: yield = 1.5 t/ha

4/: Estimated based on the crop budget analysis by the JICA Study Team

5/: Estimated based on the results of the Socio-economic Survey conducted by JICA Study Team in 2007

6/: Assumed to be 30% of gross return

Table C1-68 Results of Socio-economic Survey on Farming Constraints & Expectations: Boribo River Basin (1/3)

1. Design of Sample Survey

| | | | | | |
|---------------|-------------|-----------------|------------|---------------|---------------------------------|
| Sample Number | 120 farmers | No. of communes | 2 communes | Survey method | Interview survey by enumerators |
|---------------|-------------|-----------------|------------|---------------|---------------------------------|

2. Farming Constraints and Improvement

2-1. Farming Constraints (agronomic & farm management)

Question | What are serious agronomic & farm management constraints for farming ? (select plural answer)

| Farming constraint (agronomic/farm management) | Degree of Constraints | | | | | | | | | | | | Total Score | Rating |
|---|--------------------------|-----|-------|-------------------------|-----|-------|-------------------------|-----|-------|-------------------------|-----|-------|----------------|--------|
| | Most Serious Score: 4 | | | 2nd Serious Score: 3 | | | 3rd Serious Score: 2 | | | 4th Serious Score: 1 | | | | |
| | No. | % | Score | No. | % | Score | No. | % | Score | No. | % | Score | | |
| Low yield of crops (paddy) | 39 | 41 | 156 | 10 | 9 | 30 | 2 | 2 | 4 | 10 | 16 | 10 | 200 | 1 |
| Crop losses due to pest & disease | 13 | 14 | 52 | 8 | 7 | 24 | 5 | 5 | 10 | 2 | 3 | 2 | 88 | |
| Weed problem | 2 | 2 | 8 | 18 | 17 | 54 | 7 | 7 | 14 | 4 | 6 | 4 | 80 | |
| Crop losses due to wild animal | 11 | 11 | 44 | 7 | 6 | 21 | 10 | 10 | 20 | 3 | 5 | 3 | 88 | |
| Difficulty for hiring draft animal/machinery | 3 | 3 | 12 | 5 | 5 | 15 | 2 | 2 | 4 | 2 | 3 | 2 | 33 | |
| Labor shortage | 9 | 9 | 36 | 19 | 18 | 57 | 8 | 8 | 16 | 8 | 13 | 8 | 117 | 3 |
| Insufficient extension services | 0 | 0 | 0 | 12 | 11 | 36 | 7 | 7 | 14 | 7 | 11 | 7 | 57 | |
| Shortage of farming capital | 6 | 6 | 24 | 8 | 7 | 24 | 11 | 11 | 22 | 7 | 11 | 7 | 77 | |
| Difficulty for obtaining quality seeds | 2 | 2 | 8 | 5 | 5 | 15 | 10 | 10 | 20 | 3 | 5 | 3 | 46 | |
| Difficulty for purchasing fertilizers | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 5 | 10 | 4 | 6 | 4 | 14 | |
| Expensive farm inputs | 0 | 0 | 0 | 1 | 1 | 3 | 9 | 9 | 18 | 0 | 0 | 0 | 21 | |
| Poor soil conditions | 11 | 11 | 44 | 15 | 14 | 45 | 10 | 10 | 20 | 14 | 22 | 14 | 123 | 2 |
| Marketing problems of products | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 9 | 18 | 0 | 0 | 0 | 18 | |
| Lack of farm credit | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 0 | 0 | 0 | 2 | |
| Total | 96 | 100 | 384 | 108 | 100 | 324 | 96 | 100 | 192 | 64 | 100 | 64 | 964 | |

2-2. Farming Constraints (physical)

Question | What are serious physical constraints for farming ? (select plural answer)

| Farming Constraints/Physical (Answer) | Degree of Constraints | | | | | | | | | Total Score | Rating |
|---|--------------------------|-----|-------|-------------------------|-----|-------|-------------------------|-------|-------|----------------|--------|
| | Most Serious Score: 3 | | | 2nd Serious Score: 2 | | | 3rd Serious Score: 1 | | | | |
| | No. | % | Score | No. | % | Score | No. | % | Score | | |
| Irrigation water shortage in wet season | 93 | 78 | 279 | 12 | 10 | 24 | 6 | 7 | 6 | 309 | 1 |
| Irrigation water shortage in dry season | 12 | 10 | 36 | 35 | 29 | 70 | 1 | 1 | 1 | 107 | 2 |
| Inundation/flooding | 0 | 0 | 0 | 1 | 1 | 2 | 5 | 6 | 5 | 7 | |
| Drainage problem | 5 | 4 | 15 | 38 | 32 | 76 | 27 | 31 | 27 | 15 | |
| Lack of farm road | 3 | 3 | 9 | 5 | 4 | 10 | 11 | 13 | 11 | 30 | |
| Lack of transportation means | 2 | 2 | 6 | 9 | 8 | 18 | 12 | 14 | 12 | 36 | 3 |
| Leveling problem of paddy field | 0 | 0 | 0 | 7 | 6 | 14 | 4 | 5 | 4 | 18 | |
| Others | 5 | 4 | 15 | 13 | 11 | 26 | 20 | 23.26 | 20 | 61 | |
| Total | 120 | 100 | 360 | 120 | 100 | 164 | 86 | 100 | 59 | 583 | |

2-3. Marketing constraints

| Marketing Constraints (Answer) | Degree of Constraints | | | | | | | | | Total Score | Rating |
|---------------------------------------|--------------------------|-----|-------|-------------------------|-----|-------|-------------------------|-----|-------|----------------|--------|
| | Most Serious Score: 3 | | | 2nd Serious Score: 2 | | | 3rd Serious Score: 1 | | | | |
| | No. | % | Score | No. | % | Score | No. | % | Score | | |
| Unstable market prices of paddy/rice | 63 | 58 | 189 | 8 | 8 | 16 | 3 | 5 | 3 | 208 | 1 |
| Low market prices of paddy/rice | 16 | 15 | 48 | 17 | 17 | 34 | 1 | 2 | 1 | 83 | 2 |
| Limitation of market of paddy/rice | 4 | 4 | 12 | 6 | 6 | 12 | 2 | 3 | 2 | 26 | |
| Unstable market prices of other crops | 6 | 6 | 18 | 16 | 16 | 32 | 11 | 17 | 11 | 61 | |
| Low market prices of other crops | 4 | 4 | 12 | 11 | 11 | 22 | 7 | 11 | 7 | 41 | |
| Limitation of market of other crops | 0 | 0 | 0 | 1 | 1 | 2 | 0 | 0 | 0 | 2 | |
| Unstable market prices of livestock | 4 | 4 | 12 | 13 | 13 | 26 | 17 | 26 | 17 | 55 | |
| Low market prices of livestock | 5 | 5 | 15 | 14 | 14 | 28 | 20 | 30 | 20 | 63 | 3 |
| Limitation of market of livestock | 3 | 3 | 9 | 5 | 5 | 10 | 1 | 2 | 1 | 20 | |
| Lack of or poor farm to market road | 4 | 4 | 12 | 8 | 8 | 16 | 4 | 6 | 4 | 32 | |
| Total | 109 | 100 | 327 | 99 | 100 | 198 | 66 | 100 | 66 | 591 | |

2-4. Reasons for limited productivity of crops in the rice field of interviewee (not specific to last year)

| Reasons for Limited Productivity (Answer) | Degree of Constraints | | | | | | | | | Total Score | Rating |
|---|--------------------------|-----|-------|-------------------------|-----|-------|-------------------------|-------|-------|----------------|--------|
| | Most Serious Score: 3 | | | 2nd Serious Score: 2 | | | 3rd Serious Score: 1 | | | | |
| | No. | % | Score | No. | % | Score | No. | % | Score | | |
| Drought in wet season | 87 | 73 | 261 | 18 | 15 | 36 | 2 | 1.667 | 2 | 299 | 1 |
| Water shortage in dry season | 11 | 9 | 33 | 26 | 22 | 52 | 3 | 2.5 | 3 | 88 | 2 |
| Shortage of farming capital | 3 | 3 | 9 | 15 | 13 | 30 | 9 | 7.5 | 9 | 48 | |
| Poor seed quality | 3 | 3 | 9 | 16 | 13 | 32 | 13 | 10.83 | 13 | 54 | |
| Poor soil | 6 | 5 | 18 | 22 | 18 | 44 | 26 | 21.67 | 26 | 88 | 2 |
| Limited application of fertilizer | 0 | 0 | 0 | 1 | 1 | 2 | 4 | 3.333 | 4 | 6 | |
| Damages caused by wild animal (rat) | 5 | 4 | 15 | 11 | 9 | 22 | 11 | 9.167 | 11 | 48 | |
| Poor drainage | 0 | 0 | 0 | 5 | 4 | 10 | 11 | 9.167 | 11 | 21 | |
| Flooding/inundation | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0.833 | 1 | 1 | |
| Inadequate farming technologies | 0 | 0 | 0 | 2 | 2 | 4 | 11 | 9.167 | 11 | 15 | |
| Damages caused by pest & disease | 1 | 1 | 3 | 2 | 2 | 4 | 8 | 6.667 | 8 | 15 | |
| Others | 4 | 3 | 12 | 2 | 2 | 4 | 21 | 17.5 | 21 | 37 | |
| Total | 120 | 100 | 360 | 120 | 100 | 240 | 120 | 100 | 120 | 720 | |

Table C1-68 Results of Socio-economic Survey on Farming Constraints & Expectations: Boribo River Basin (2/3)

2-5. Activities/practices to improve rice productivity implemented by the interviewee in the past 3 years (plural answer)

| Activities Implemented | No. & Proportion of Respondents Implemented Activities/Practices | | Remarks |
|---|--|------------|--|
| | No. | % | |
| Increased fertilization doses | 71 | 15 | No. of respondents : 120 Maximum 4 activities selected/respondent Total answers: 480 |
| Applied of compost/manure | 79 | 16 | |
| Used quality seed (local variety) | 62 | 13 | |
| Used quality seed (high yielding variety) | 61 | 13 | |
| Constructed of farm pond | 5 | 1 | |
| Started to use water pump for irrigation | 16 | 3 | |
| Improved farming practices | 44 | 9 | |
| Improved post-harvest practices | 10 | 2 | |
| Changed marketing methods | 5 | 1 | |
| Others | 127 | 26 | |
| Total | 480 | 100 | |

2-6. Necessary activities to improve rice productivity in the field of the interviewee (farming & farm management; plural answer)

| Necessary Activities | Degree of Necessity of Activity | | | | | | | | | | | | Total Score | Rating |
|---|---------------------------------|------------|------------|----------------------------|------------|------------|----------------------------|------------|------------|----------------------------|------------|------------|-------------|--------|
| | Most Required Score: 4 | | | 2nd Most Required Score: 3 | | | 3rd Most Required Score: 2 | | | 4th Most Required Score: 1 | | | | |
| | No. | % | Score | No. | % | Score | No. | % | Score | No. | % | Score | | |
| Improvement of farming practices | 51 | 43 | 204 | 11 | 9 | 33 | 7 | 6 | 14 | 5 | 5 | 5 | 256 | 1 |
| Use of quality seed (local variety) | 19 | 16 | 76 | 22 | 18 | 66 | 12 | 10 | 24 | 8 | 8 | 8 | 174 | 3 |
| Use of quality seed (high yielding variety) | 17 | 14 | 68 | 27 | 23 | 81 | 25 | 22 | 50 | 2 | 2 | 2 | 201 | 2 |
| Use of adequate doses of fertilizer | 10 | 8 | 40 | 20 | 17 | 60 | 15 | 13 | 30 | 7 | 7 | 7 | 137 | |
| Improved leveling of paddy field | 0 | 0 | 0 | 3 | 3 | 9 | 6 | 5 | 12 | 7 | 7 | 7 | 28 | |
| Planting at proper time | 6 | 5 | 24 | 12 | 10 | 36 | 12 | 10 | 24 | 10 | 9 | 10 | 94 | |
| Intensive weeding | 5 | 4 | 20 | 11 | 9 | 33 | 12 | 10 | 24 | 12 | 11 | 12 | 89 | |
| Formation/strengthening of farmers organization | 2 | 2 | 8 | 4 | 3 | 12 | 7 | 6 | 14 | 8 | 8 | 8 | 42 | |
| Others | 9 | 8 | 36 | 9 | 7.563 | 27 | 20 | 17 | 40 | 47 | 44 | 47 | 150 | |
| Total | 119 | 100 | 476 | 119 | 100 | 357 | 116 | 100 | 232 | 106 | 100 | 106 | 1171 | |

2-7. Necessary physical works to improve rice productivity in the field of the interviewee (plural answer)

| Necessary Physical Works | Degree of Necessity of Activity | | | | | | | | | | | | Total Score | Rating |
|--|---------------------------------|------------|------------|----------------------------|------------|------------|----------------------------|------------|------------|----------------------------|------------|-----------|-------------|--------|
| | Most Required Score: 3 | | | 2nd Most Required Score: 2 | | | 3rd Most Required Score: 1 | | | 4th Most Required Score: 1 | | | | |
| | No. | % | Score | No. | % | Score | No. | % | Score | No. | % | Score | | |
| Irrigation water supply for wet season | 96 | 80 | 288 | 14 | 12 | 28 | 5 | 4 | 5 | 0 | 0 | 0 | 321 | 1 |
| Irrigation water supply for dry season | 15 | 13 | 45 | 50 | 42 | 100 | 5 | 4 | 5 | 0 | 0 | 0 | 150 | 2 |
| Mitigation of inundation/flooding | 0 | 0 | 0 | 6 | 5 | 12 | 4 | 3 | 4 | 2 | 18 | 2 | 18 | |
| Drainage improvement | 4 | 3 | 12 | 32 | 27 | 64 | 35 | 29 | 35 | 7 | 64 | 7 | 118 | 3 |
| Others | 5 | 4 | 15 | 18 | 15 | 36 | 71 | 59 | 71 | 2 | 18 | 2 | 124 | |
| Total | 120 | 100 | 360 | 120 | 100 | 240 | 120 | 100 | 120 | 11 | 100 | 11 | 731 | |

3. Livestock Constraints

| Livestock Constraints | Degree of Constraints | | | | | | | | | Total Score | Rating |
|------------------------------------|-----------------------|------------|------------|----------------------|------------|------------|----------------------|------------|------------|-------------|--------|
| | Most Serious Score: 3 | | | 2nd Serious Score: 2 | | | 3rd Serious Score: 1 | | | | |
| | No. | % | Score | No. | % | Score | No. | % | Score | | |
| Low productivity | 32 | 27 | 96 | 13 | 11 | 26 | 8 | 7 | 8 | 130 | 2 |
| Shortage of feed | 19 | 16 | 57 | 18 | 15 | 36 | 9 | 8 | 9 | 102 | 3 |
| Low or unstable market prices | 8 | 7 | 24 | 12 | 10 | 24 | 15 | 13 | 15 | 63 | |
| Market availability | 1 | 1 | 3 | 2 | 2 | 4 | 0 | 0 | 0 | 7 | |
| Losses due to diseases | 52 | 43 | 156 | 30 | 25 | 60 | 17 | 14 | 17 | 233 | 1 |
| Insufficient veterinary services | 6 | 5 | 18 | 27 | 23 | 54 | 25 | 21 | 25 | 97 | |
| Insufficient extension services | 0 | 0 | 0 | 9 | 8 | 18 | 9 | 8 | 9 | 27 | |
| Difficulty in obtaining good breed | 0 | 0 | 0 | 2 | 2 | 4 | 4 | 3 | 4 | 8 | |
| Others | 2 | 2 | 6 | 7 | 6 | 14 | 33 | 28 | 33 | 53 | |
| Total | 120 | 100 | 360 | 120 | 100 | 240 | 120 | 100 | 120 | 720 | |

4. Expectations for Improvement

4-1. Farming (agronomic & farm management)

| Expectations for Improvement | Degree of Expectation | | | | | | | | | Total Score | Rating |
|--|------------------------|------------|------------|----------------------------|------------|------------|----------------------------|------------|------------|-------------|--------|
| | Most Expected Score: 3 | | | 2nd Most Expected Score: 2 | | | 3rd Most Expected Score: 1 | | | | |
| | No. | % | Score | No. | % | Score | No. | % | Score | | |
| Productivity improvement of wet season rice | 100 | 83 | 300 | 15 | 13 | 30 | 2 | 2 | 2 | 332 | 1 |
| Productivity improvement of dry season rice | 11 | 9 | 33 | 19 | 16 | 38 | 6 | 5 | 6 | 77 | 3 |
| Productivity improvement of field crops | 3 | 3 | 9 | 33 | 28 | 66 | 16 | 13 | 16 | 91 | 2 |
| Productivity improvement of vegetables | 1 | 1 | 3 | 15 | 13 | 30 | 10 | 8 | 10 | 43 | |
| Productivity improvement of livestock/poultry | 0 | 0 | 0 | 11 | 9 | 22 | 16 | 13 | 16 | 38 | |
| Increasing livestock holding size & production | 2 | 2 | 6 | 19 | 16 | 38 | 17 | 14 | 17 | 61 | |
| Increasing poultry holding size & production | 0 | 0 | 0 | 2 | 2 | 4 | 9 | 8 | 9 | 13 | |
| Strengthening/formation of farmers organizations | 0 | 0 | 0 | 4 | 3 | 8 | 14 | 12 | 14 | 22 | |
| Improvement of post-harvest operation | 1 | 1 | 3 | 1 | 1 | 2 | 4 | 3 | 4 | 9 | |
| Others | 2 | 2 | 6 | 1 | 1 | 2 | 26 | 22 | 26 | 34 | |
| Total | 120 | 100 | 360 | 120 | 100 | 240 | 120 | 100 | 120 | 720 | |

Table C1-68 Results of Socio-economic Survey on Farming Constraints & Expectations: Boribo River Basin (3/3)

4-2. Farming (farming system)

| Farming System | Degree of Expectation | | | | | | | | | Total Score | Rating |
|--|--------------------------------|------------|------------|--------------------------------|------------|------------|------------------------------|------------|-----------|-------------|--------|
| | Primarily Intended Score: 3 | | | Secondary Intended Score: 2 | | | Thirdly Intended Score: 1 | | | | |
| | No. | % | Score | No. | % | Score | No. | % | Score | | |
| Double cropping of rice | 88 | 75 | 264 | 11 | 11 | 22 | 4 | 6 | 4 | 290 | 1 |
| Stable single cropping of rice | 21 | 18 | 63 | 22 | 23 | 44 | 13 | 20 | 13 | 120 | |
| Multiple farming (crop + livestock etc.) | 7 | 6 | 21 | 49 | 51 | 98 | 16 | 25 | 16 | 135 | 2 |
| Crop diversification | 2 | 2 | 6 | 15 | 15 | 30 | 31 | 48 | 31 | 67 | |
| Total | 118 | 100 | 354 | 97 | 100 | 194 | 64 | 100 | 64 | 612 | |

4-3. Farming (physical)

| Farming (physical) | Degree of Expectation | | | | | | | | | Total Score | Rating |
|--|--------------------------------|------------|------------|--------------------------------|------------|------------|------------------------------|------------|------------|-------------|--------|
| | Primarily Expected Score: 3 | | | Secondary Expected Score: 2 | | | Thirdly Expected Score: 1 | | | | |
| | No. | % | Score | No. | % | Score | No. | % | Score | | |
| Adequate irrigation water supply in wet season | 96 | 80 | 288 | 11 | 9 | 22 | 5 | 4 | 5 | 315 | 1 |
| Adequate irrigation water supply in dry season | 7 | 6 | 21 | 53 | 44 | 106 | 10 | 8 | 10 | 137 | 2 |
| Mitigation of inundation & flooding | 1 | 1 | | 4 | 3 | 8 | 1 | 1 | 1 | 9 | |
| Construction/rehabilitation of farm road | 2 | 2 | | 4 | 3 | 8 | 9 | 8 | 9 | 17 | |
| Construction/rehabilitation of farm to market road | 2 | 2 | | 5 | 4 | 10 | 8 | 7 | 8 | 18 | |
| Drainage improvement | 6 | 5 | 18 | 24 | 20 | 48 | 26 | 22 | 26 | 92 | 3 |
| Leveling of paddy field | 1 | 1 | | 8 | 7 | 16 | 12 | 10 | 12 | 28 | |
| Others (specify) | 5 | 4 | | 11 | 9 | 22 | 49 | 41 | 49 | 71 | |
| Total | 120 | 100 | 327 | 120 | 100 | 240 | 120 | 100 | 120 | 687 | |

4-4. Agricultural support services

| Agricultural Support Required | Degree of Necessity of Support | | | | | | | | | Total Score | Rating |
|--|--------------------------------|------------|------------|-------------------------------|------------|------------|-------------------------------|------------|------------|-------------|--------|
| | Most Required Score: 3 | | | 2nd Most Required Score: 2 | | | 3rd Most Required Score: 1 | | | | |
| | No. | % | Score | No. | % | Score | No. | % | Score | | |
| Field Extension services (demonstration / field guidance) | 77 | 64 | 231 | 15 | 13 | 30 | 9 | 8 | 9 | 270 | 1 |
| Provision of quality seed | 24 | 20 | 72 | 55 | 46 | 110 | 8 | 7 | 8 | 190 | 2 |
| Farmer training (technical & post-harvest operation) | 14 | 12 | 42 | 31 | 26 | 62 | 33 | 28 | 33 | 137 | 3 |
| Farmer training (organization, marketing, farm management) | 3 | 3 | | 5 | 4 | 10 | 13 | 11 | 13 | 23 | |
| Support to organize farmers | 0 | 0 | | 0 | 0 | 0 | 8 | 7 | 8 | 8 | |
| Provision of market information | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 5 | 6 | 6 | |
| Provision of farm credit | 1 | 1 | | 3 | 3 | 6 | 4 | 3 | 4 | 10 | |
| Provision of fertilizer | 1 | 1 | 3 | 5 | 4 | 10 | 16 | 13 | 16 | 29 | |
| Others (specify) | 0 | 0 | | 6 | 5 | 12 | 23 | 19 | 23 | 35 | |
| Total | 120 | 100 | 360 | 120 | 100 | 360 | 120 | 100 | 360 | 1080 | |

Note: Target irrigation systems of the Survey were Taram & Khvet in Teuk Phos District and Lum Hach in Boribo District.

Table C2-1 Constraints for Agricultural Development and Proposed Development Directions (1/2)

1. Agronomic & Agro-economic Issues

The captioned issues in this text include the aspects of production and farm economy. The primary agronomic constraint in the basins is the unstable and low productivity of rice adversely affected by various factors. Major problems or constraints and proposed development directions to be taken are discussed by categorizing them into issues common in all basins and basin specific issues as follows;

(1) Issues Common to All Basins

Major problems and constraints for agricultural development common to all river basins include:

- Primary constraint that is attributed to the unstable and low productivity of rice is limited and unstable availability of water because of limitation of irrigation water supply. Most rice fields in the four basins are under rainfed conditions characterized by poor and unstable productivity. Further, wet season supplemental irrigation where only a single cropping of rice is ensured is almost exclusive current irrigation status even in the irrigated fields;

which should be addressed through the development and efficient utilization of available water resources to an extent possible. The priority target of the present Study will be the stabilization and increase of wet season rice production through the sufficient supply of irrigation water and expansion of irrigation command area by way of water resources development and efficient use.

- Prevailing farming practices characterized by use of traditional varieties, continuous use of self produced seeds, excessive seeding rate both in direct sowing and nursery, aged seedlings, random planting, limited application of fertilizer, inadequate post-harvest practices, etc., are also serious problems attributed to low productivity. However, a number of factors are involved in circumstances where such practices prevail;

which should be addressed through the strengthening of agricultural support services introduced in a well integrated manner and implemented in a farmer participatory manner (because of financial constraints of government institutions). Further, such situations will be improved through the introduction of contract growing or partnership arrangement between farmers and a commercial sector.

- Single cropping of rice is almost exclusive cropping pattern in the basins and annual land use intensity or cropping intensity in paddy fields as a whole is as low as nearly 100%. Further, production of upland crops in paddy fields is not practiced;

which should be addressed by introducing rice cultivation in the early wet season from end April to July by shifting a start of cropping season of rice toward the middle of the season.

which should also be addressed by envisaging introduction of upland crops to a possible extent. Chances for introduction of upland crops or vegetables appear to exist in the early wet season by shifting a start of cropping season of rice. For the introduction of upland crops, however, there exist several issues to be solved such as wet injury, drought and adequate seed supply. Field based technology development and extension activities are essential for the promotion of upland crops production in the season.

- Farmers preference for medium or late traditional varieties brings about prolonged cropping season, higher water requirements and only a single cropping of rice almost entire rice fields. The release of promising medium varieties by CARDI is providing chances to improve such situations, but the realization of curtailing cropping season is still limited;

which should be addressed through the strengthening of agricultural support services introduced in a well integrated manner, although a number of factors to be tackled are involved in circumstances where such practices prevail.

- Farmers practical knowledge on the importance of post-harvest practices and product quality is still limited; which should be addressed through the strengthening of agricultural support services and organization of farmers.

- Because of low productivity of rice, farm economic situations of majority of farm households are at marginal level, which should be addressed through the intervention for productivity improvement as discussed earlier in agronomic or technical issue.

Table C2-1 Constraints for Agricultural Development and Proposed Development Directions (2/2)

| 1. Agronomic & Agro-economic Issues (continued) |
|--|
| <p>(2) Basin Specific Issues</p> <ul style="list-style-type: none"> - Direct sowing is prevailing rice cultivation method in the Battambang and Pursat River Basin attributed to larger holding size of paddy fields per family than the other basins. Compared with transplanting method, yield levels of paddy in direct sowing is 0.5 to 1.0 ton/ha lower than those in transplanting; <ul style="list-style-type: none"> which should be addressed by the technology development for productivity improvement of direct sowing and the extension of results/findings to farming communities. Technical development activities for direct sowing has been started by BRAND (Battambang Rural Area Nurture and Development Project), JICA. The results/findings of the same should better be verified at farmers levels and disseminated to the communities. - Extensive distribution of sandy soils in the Kampong Chhnang River Basin was identified; <ul style="list-style-type: none"> which dictate the need of field based technology development such as split application of fertilizer and compost application and extension activities for improvement of rice production in the Basin. |
| 2. Marketing Issues |
| <p>The four basins individually and as a whole are a rice surplus areas, production increase under the Master Plan will call for integrated approaches for marketing issues.</p> <ul style="list-style-type: none"> - Major paddy marketing constraints identified in the present Study are low market price of paddy and unstable market price. Further, farmers practical knowledge on the importance of post-harvest practices and product quality is still limited; <ul style="list-style-type: none"> which could be addressed by ways of: i) production of quality products through improvement of farming and post-harvest practices, ii) formation of farmer groups and seeking for possibilities to introduce contract growing or partnership arrangement as an economic activity of the groups, iii) cooperative shipment, cooperative marketing and formation of cooperatives. <p>Further, as a long term direction, a national framework for the development of export market and the promotion of rice export should better be established participated by all the stakeholders involved in rice production and marketing.</p> |
| 3. Agricultural Support Services |
| <p>Major constraints on the agricultural support issues are related with financial constraints of PDAs and implementation of support activities under weak ownership of PDAs. The strengthening of agricultural support services introduced in a well integrated manner and implemented in a farmer participatory manner should be sought.</p> <ul style="list-style-type: none"> - Practical skills of extension staffs appear to be still limited; might be attributed to limited chances for them to be involved in practical extension activities or chances for them to operate extension activities individually; <ul style="list-style-type: none"> which should be addressed through the empowerment of extension staffs by way of learning through doing. Enhancement of confident of them should be seriously sought. - Agricultural support activities have been implemented by a number of donor agencies and NGOs or by the support of them and current agricultural extension or support services are basically limited to those programs because of financial constraints of PDAs. Further, efficient utilization of available human resources is yet to be seriously sought; <ul style="list-style-type: none"> which to be addressed through further promotion of farmers participatory approach (farmer-to-farmer extension and farmer-led trial) and empowerment of extension personnel and their fielding for the efficient use of such resources. |

Table C3-1 Present & With-project Land Use of the Project Areas in the Battambang River Basin

Kong Hort Rehabilitation Project: Phase I

| Land Use Sub-category | I. Present | | | II. With Project | | Increment (II - I) Area (ha) |
|-------------------------------------|---------------|------|------------|------------------|------------|------------------------------------|
| | Area | | | Area | | |
| | (ha) | (%) | (%) | (ha) | (%) | |
| 1. Irrigation Area | 7,035 | 100 | 60 | 10,040 | 85 | 3,005 |
| Normal Irrigation Paddy Field | | | | 10,040 | 85 | 10,040 |
| Supplemental Irrigation Paddy Field | 9 | 0.1 | 0 | | | -9 |
| Field under Rainfed Condition | 7,026 | 99.9 | 60 | | | -7,026 |
| Recession Paddy Field | | | | | | |
| 2. Rainfed Paddy Field | 3,525 | | 30 | | | -3,525 |
| 3. Right-of-ways | 1,240 | | 11 | 1,760 | 15 | 520 |
| Total | 11,800 | | 100 | 11,800 | 100 | 0 |

Kong Hort Rehabilitation Project: Phase II

| Land Use Sub-category | I. Present | | | II. With Project | | Increment (II - I) Area (ha) |
|-------------------------------------|--------------|-----|------------|------------------|------------|------------------------------------|
| | Area | | | Area | | |
| | (ha) | (%) | (%) | (ha) | (%) | |
| 1. Irrigation Area | 2,140 | 100 | 70 | 2,733 | 89 | 593 |
| Normal Irrigation Paddy Field | 236 | 11 | 8 | 2,685 | 88 | 2,449 |
| Supplemental Irrigation Paddy Field | 574 | 27 | 19 | | | -574 |
| Field under Rainfed Condition | 1,282 | 60 | 42 | | | -1,282 |
| Recession Paddy Field | 48 | 2.2 | 2 | 48 | 2 | 0 |
| 2. Rainfed Paddy Field | 744 | | 24 | | | -744 |
| 3. Right-of-ways | 182 | | 6 | 333 | 11 | 151 |
| Total | 3,066 | | 100 | 3,066 | 100 | 0 |

Kong Hort Rehabilitation Project: Overall

| Land Use Sub-category | I. Present | | | II. With Project | | Increment (II - I) Area (ha) |
|-------------------------------------|---------------|-----|------------|------------------|------------|------------------------------------|
| | Area | | | Area | | |
| | (ha) | (%) | (%) | (ha) | (%) | |
| 1. Irrigation Area | 9,175 | 100 | 62 | 12,773 | 86 | 3,598 |
| Normal Irrigation Paddy Field | 236 | 3 | 2 | 12,725 | 86 | 12,489 |
| Supplemental Irrigation Paddy Field | 583 | 6 | 4 | | | -583 |
| Field under Rainfed Condition | 8,308 | 91 | 56 | | | -8,308 |
| Recession Paddy Field | 48 | 0.5 | 0.3 | 48 | 0.3 | 0 |
| 2. Rainfed Paddy Field | 4,269 | | 29 | | | -4,269 |
| 3. Right-of-ways | 1,422 | | 10 | 2,093 | 14 | 671 |
| Total | 14,866 | | 100 | 14,866 | 100 | 0 |

Sala Ton Weir Rehabilitation Project

| Land Use Sub-category | I. Present | | | II. With Project | | Increment (II - I) Area (ha) |
|-------------------------------------|---------------|-----|------------|------------------|------------|------------------------------------|
| | Area | | | Area | | |
| | (ha) | (%) | (%) | (ha) | (%) | |
| 1. Irrigation Area | 7,995 | 100 | 66 | 10,400 | 85 | 2,405 |
| Normal Irrigation Paddy Field | 117 | 1 | 1 | 10,400 | 85 | 10,283 |
| Supplemental Irrigation Paddy Field | 2,345 | 29 | 19 | | | -2,345 |
| Field under Rainfed Condition | 5,533 | 69 | 45 | | | -5,533 |
| Recession Paddy Field | | | | | | |
| 2. Rainfed Paddy Field | 2,818 | | 23 | | | -2,818 |
| 3. Right-of-ways | 1,393 | | 11 | 1,806 | 15 | 413 |
| Total | 12,206 | | 100 | 12,206 | 100 | 0 |

Ratanak-Battambang Water Harvesting Rehabilitation Project

| Land Use Sub-category | I. Present | | | II. With Project | | Increment (II - I) Area (ha) |
|-------------------------------------|------------|-----|------------|------------------|------------|------------------------------------|
| | Area | | | Area | | |
| | (ha) | (%) | (%) | (ha) | (%) | |
| 1. Irrigation Area | 308 | 100 | 52 | 580 | 98 | 272 |
| Normal Irrigation Paddy Field | | | | 580 | 98 | 580 |
| Supplemental Irrigation Paddy Field | 25 | 8 | 4 | | | -25 |
| Field under Rainfed Condition | 283 | 92 | 48 | | | -283 |
| Recession Paddy Field | | | | | | |
| 2. Rainfed Paddy Field | 286 | | 48 | | | -286 |
| 3. Right-of-ways | | | | 14 | 2 | 14 |
| Total | 594 | | 100 | 594 | 100 | 0 |

Whole River Basin

| Land Use Sub-category | I. Present | | | II. With Project | | Increment (II - I) Area (ha) |
|-------------------------------------|---------------|-----|------------|------------------|------------|------------------------------------|
| | Area | | | Area | | |
| | (ha) | (%) | (%) | (ha) | (%) | |
| 1. Irrigation Area | 17,478 | 100 | 63 | 23,753 | 86 | 6,275 |
| Normal Irrigation Paddy Field | 353 | 2 | 1 | 23,705 | 86 | 23,352 |
| Supplemental Irrigation Paddy Field | 2,953 | 17 | 11 | | | -2,953 |
| Field under Rainfed Condition | 14,124 | 81 | 51 | | | -14,124 |
| Recession Paddy Field | 48 | 0.3 | 0.2 | 48 | 0.2 | 0 |
| 2. Rainfed Paddy Field | 7,373 | | 27 | | | -7,373 |
| 3. Right-of-ways | 2,815 | | 10 | 3,913 | 14 | 1,098 |
| Total | 27,666 | | 100 | 27,666 | 100 | 0 |

Source: JICA Study Team

Table C3-2 Present/Without & With-project Detail Land Use of the Project Areas in the Battambang River Basin (1/2)

| Sub Code | I. Present & Without-project Land Use (ha) | | | | | | | | | | II. With-project Land Use (ha) | | | | | | | | | | Balance (II-I) | | | | | | |
|---|--|-----------------------|-----------------------------|-----------------|--------------|----------------------------------|---------------|-------------------------|---------------|-------------------------|--------------------------------|---------------|-------------------|-----------------|-------------------|---------------|------------|-------------------|-----------------------|-----------------|----------------|-------------------|---------------|------------|----------|-------------------------|-------|
| | Paddy Field in Existing Irrigated Area | | | | | Recessed Field in Potential Area | | | | | Right of Ways | Gross Area | Normal Irr. Field | Recession Field | Paddy Field Total | Right of Ways | Gross Area | Normal Irr. Field | Supplement Irr. Field | Recession Field | Rainfed Field | Paddy Field Total | Right of Ways | Gross Area | | | |
| | Normal Irr. Field | Supplement Irr. Field | Field in Rainfed Conditions | Recession Field | Total | Field in Potential Area | Total | Field in Potential Area | Total | Field in Potential Area | | | | | | | | | | | | | | | Total | Field in Potential Area | Total |
| Kong Hort Rehabilitation Project | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Phase I | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BAN-001 | 0 | 7,000 | | | 7,000 | 3,520 | | 10,520 | 1,240 | 11,760 | 10,000 | | 10,000 | 1,760 | 11,760 | | | | | | | | | | | | |
| BAN-001 | 5 | 15 | | | 20 | | 20 | 20 | 0 | 20 | 20 | | 20 | 0 | 20 | | | | | | | | | | | | |
| BAN-008 | 4 | 11 | | | 15 | 5 | 20 | 20 | 0 | 20 | 20 | | 20 | 0 | 20 | | | | | | | | | | | | |
| Sub-total | 0 | 7,026 | 0 | 0 | 7,026 | 3,525 | 10,560 | 1,240 | 11,800 | 10,040 | 10,040 | 0 | 10,040 | 1,760 | 11,800 | 10,040 | -9 | 0 | 0 | 0 | -10,551 | 520 | 0 | 0 | 0 | 0 | |
| Phase II | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BAN-002 | 400 | | | | 800 | 240 | 1,040 | 140 | 1,180 | 1,000 | | 1,000 | 180 | 1,180 | | | | | | | | | | | | | |
| BAN-001 | 0 | 150 | | | 150 | 82 | 232 | 8 | 240 | 200 | | 200 | 40 | 240 | | | | | | | | | | | | | |
| BAN-003 | 0 | 150 | | | 150 | 82 | 232 | 8 | 240 | 200 | | 200 | 40 | 240 | | | | | | | | | | | | | |
| SNK-002 | 21 | 20 | 59 | | 100 | 135 | 235 | 5 | 240 | 200 | | 200 | 40 | 240 | | | | | | | | | | | | | |
| SNK-013 | 0 | 35 | | | 35 | 49 | 84 | 0 | 84 | 80 | | 80 | 4 | 84 | | | | | | | | | | | | | |
| SNK-012 | 5 | 15 | | | 20 | 20 | 20 | 0 | 20 | 20 | | 20 | 0 | 20 | | | | | | | | | | | | | |
| SNK-018 | 0 | 13 | | | 13 | 10 | 23 | 0 | 23 | 10 | | 10 | 13 | 23 | | | | | | | | | | | | | |
| SNK-020 | 5 | 5 | | | 10 | 10 | 10 | 0 | 10 | 10 | | 10 | 0 | 10 | | | | | | | | | | | | | |
| SNK-021 | 0 | 20 | | | 20 | 20 | 43 | 63 | 60 | 60 | | 60 | 3 | 63 | | | | | | | | | | | | | |
| BAN-004 | 26 | 79 | | | 105 | 47 | 152 | 6 | 158 | 150 | | 150 | 8 | 158 | | | | | | | | | | | | | |
| SNK-003 | 50 | 15 | | | 65 | 80 | 145 | 4 | 149 | 100 | | 100 | 5 | 105 | | | | | | | | | | | | | |
| SNK-004 | 100 | 6 | 19 | | 125 | 26 | 151 | 7 | 158 | 150 | | 150 | 8 | 158 | | | | | | | | | | | | | |
| BAN-008 | 0 | 30 | | | 30 | 10 | 20 | 0 | 20 | 20 | | 20 | 0 | 20 | | | | | | | | | | | | | |
| BTB-01 | 0 | 16 | | | 16 | 4 | 20 | 0 | 20 | 20 | | 20 | 0 | 20 | | | | | | | | | | | | | |
| SNK-019 | 20 | 58 | | | 78 | 23 | 101 | 4 | 105 | 100 | | 100 | 5 | 105 | | | | | | | | | | | | | |
| SNK-023 | 17 | 18 | | | 35 | 5 | 30 | 0 | 30 | 30 | | 30 | 0 | 30 | | | | | | | | | | | | | |
| SNK-024 | 0 | 32 | | | 32 | 2 | 30 | 0 | 30 | 30 | | 30 | 0 | 30 | | | | | | | | | | | | | |
| SNK-002 | 5 | 15 | | | 20 | 20 | 20 | 0 | 20 | 20 | | 20 | 0 | 20 | | | | | | | | | | | | | |
| SNK-003 | 0 | 20 | | | 20 | 0 | 20 | 0 | 20 | 20 | | 20 | 0 | 20 | | | | | | | | | | | | | |
| SNK-004 | 8 | 23 | 10 | | 41 | -1 | 40 | 0 | 40 | 30 | | 30 | 10 | 40 | | | | | | | | | | | | | |
| SNK-005 | 12 | 38 | | | 50 | 50 | 50 | 0 | 50 | 50 | | 50 | 0 | 50 | | | | | | | | | | | | | |
| SNK-007 | 5 | 15 | | | 20 | 0 | 20 | 0 | 20 | 20 | | 20 | 0 | 20 | | | | | | | | | | | | | |
| SNK-009 | 0 | 25 | | | 25 | 25 | 25 | 0 | 25 | 25 | | 25 | 0 | 25 | | | | | | | | | | | | | |
| SNK-010 | 1 | 4 | | | 5 | 0 | 5 | 0 | 5 | 5 | | 5 | 0 | 5 | | | | | | | | | | | | | |
| SNK-011 | 5 | 1 | | | 6 | 10 | 15 | 0 | 15 | 15 | | 15 | 0 | 15 | | | | | | | | | | | | | |
| SNK-014 | 7 | 20 | | | 27 | 3 | 30 | 0 | 30 | 30 | | 30 | 0 | 30 | | | | | | | | | | | | | |
| SNK-015 | 6 | 19 | | | 25 | 0 | 25 | 0 | 25 | 25 | | 25 | 0 | 25 | | | | | | | | | | | | | |
| SNK-016 | 3 | 8 | | | 11 | -1 | 10 | 0 | 10 | 10 | | 10 | 0 | 10 | | | | | | | | | | | | | |
| SNK-017 | 4 | 11 | | | 15 | 5 | 20 | 0 | 20 | 20 | | 20 | 0 | 20 | | | | | | | | | | | | | |
| SNK-022 | 8 | 24 | | | 32 | -2 | 30 | 0 | 30 | 30 | | 30 | 0 | 30 | | | | | | | | | | | | | |
| Sub-total | 236 | 574 | 1,282 | 48 | 2,140 | 744 | 2,884 | 182 | 3,066 | 2,685 | 48 | 2,733 | 333 | 3,066 | 2,449 | -574 | -48 | 0 | -2,026 | 151 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Project Total | 236 | 583 | 8,308 | 48 | 9,175 | 4,269 | 13,444 | 1,422 | 14,866 | 12,725 | 48 | 12,773 | 2,093 | 14,866 | 12,489 | -583 | -48 | 0 | -12,577 | 671 | 0 | 0 | 0 | 0 | 0 | 0 | |

Table C3-2 Present/Without & With-project Detail Land Use of the Project Areas in the Battambang River Basin (2/2)

| Sub-Code | I. Present & Without-project Land Use (ha) | | | | | | | | | | | II. With-project Land Use (ha) | | | | | | | | | | | Balance (II-I) | | | |
|---|--|-----------------------|-----------------------------|-----------------|---------------|---------------------------------|---------------------------------|---------------|---------------|-------------------|-----------------|--------------------------------|---------------|-------------------|-----------------|-------------------|---------------|---------------|-------------------|-----------------|-----------------------|-------------------|----------------|------------|-------------------|---------------|
| | Paddy Field in Existing Irrigated Area | | | | | | Rainfed Field in Potential Area | | | | | Right of Ways | Gross Area | Normal Irr. Field | Recession Field | Paddy Field Total | Right of Ways | Gross Area | Normal Irr. Field | Recession Field | Supplement Irr. Field | Paddy Field Total | Right of Ways | Gross Area | | |
| | Normal Irr. Field | Supplement Irr. Field | Field in Rainfed Conditions | Recession Field | Total | Rainfed Field in Potential Area | Paddy Field Total | Right of Ways | Gross Area | Normal Irr. Field | Recession Field | | | | | | | | | | | | | | Paddy Field Total | Right of Ways |
| Sala Ton Weir Rehabilitation Project | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AKP-001 | 0 | 450 | | | 450 | 180 | 630 | 0 | 0 | 0 | 80 | 710 | 600 | 600 | 600 | 110 | 710 | | | | | | | | | |
| AKP-002 | 725 | 2,175 | | | 2,900 | 120 | 3,020 | | | | 510 | 3,530 | 3,000 | 3,000 | 3,000 | 530 | 3,530 | | | | | | | | | |
| AKP-003 | 25 | 75 | | | 150 | 0 | 150 | 150 | 150 | 150 | 8 | 158 | 150 | 150 | 150 | 8 | 158 | | | | | | | | | |
| AKP-004 | 14 | 653 | | | 1,320 | 570 | 1,890 | 230 | 2,120 | 1,800 | 230 | 2,120 | 1,800 | 1,800 | 1,800 | 320 | 2,120 | | | | | | | | | |
| SNK-005 | 165 | 165 | | | 330 | 232 | 562 | 8 | 570 | 562 | 60 | 630 | 150 | 150 | 150 | 8 | 158 | | | | | | | | | |
| AKP-006 | 8 | 96 | | | 200 | 0 | 200 | 200 | 200 | 200 | 40 | 240 | 200 | 200 | 200 | 40 | 240 | | | | | | | | | |
| AKP-007 | 45 | 365 | | | 1,504 | 1,520 | 3,024 | 266 | 3,290 | 2,800 | 266 | 3,290 | 2,800 | 2,800 | 480 | 3,290 | | | | | | | | | | |
| AKP-01 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AKP-02 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AKP-03 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AKP-04 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AKP-05 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AKP-06 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AKP-07 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AKP-08 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AKP-09 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BTB-002 | 215 | 645 | | | 860 | 640 | 1,500 | | | | 150 | 1,650 | 1,400 | 1,400 | 250 | 1,650 | | | | | | | | | | |
| Project Total | 117 | 2,345 | 5,533 | 0 | 7,995 | 2,818 | 10,813 | 0 | 10,813 | 10,400 | 1,393 | 12,206 | 10,400 | 10,400 | 1,806 | 12,206 | 10,283 | 10,283 | -2,345 | 0 | -2,818 | -413 | 413 | 0 | 0 | |
| Ratanak-Battambang Water Harvesting Rehabilitation Project | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BAN-005 | 0 | 15 | | | 15 | 30 | 30 | 0 | 0 | 0 | 0 | 30 | 30 | 30 | 0 | 30 | | | | | | | | | | |
| BAN-006 | 5 | 10 | | | 15 | 10 | 20 | 0 | 0 | 0 | 0 | 20 | 20 | 20 | 0 | 20 | | | | | | | | | | |
| BAN-007 | 0 | 15 | | | 15 | 30 | 30 | 0 | 0 | 0 | 0 | 30 | 30 | 30 | 0 | 30 | | | | | | | | | | |
| BAN-009 | 0 | 15 | | | 15 | 15 | 30 | 0 | 0 | 0 | 0 | 30 | 30 | 30 | 0 | 30 | | | | | | | | | | |
| BAN-010 | 0 | 20 | | | 20 | 20 | 40 | 0 | 0 | 0 | 0 | 40 | 40 | 40 | 0 | 40 | | | | | | | | | | |
| BAN-011 | 6 | 17 | | | 23 | 27 | 50 | 0 | 0 | 0 | 0 | 50 | 50 | 50 | 0 | 50 | | | | | | | | | | |
| BAN-014 | 0 | 25 | | | 25 | 25 | 50 | 0 | 0 | 0 | 0 | 50 | 50 | 50 | 0 | 50 | | | | | | | | | | |
| BAN-016 | 0 | 40 | | | 40 | 44 | 84 | 0 | 0 | 0 | 0 | 84 | 80 | 80 | 4 | 84 | | | | | | | | | | |
| RTM-002 | 1 | 5 | | | 6 | 10 | 10 | 0 | 0 | 0 | 0 | 10 | 10 | 10 | 0 | 10 | | | | | | | | | | |
| RTM-004 | 0 | 15 | | | 15 | 15 | 30 | 0 | 0 | 0 | 0 | 30 | 30 | 30 | 0 | 30 | | | | | | | | | | |
| RTM-008 | 13 | 37 | | | 50 | 45 | 95 | 0 | 0 | 0 | 0 | 95 | 90 | 90 | 5 | 95 | | | | | | | | | | |
| RTM-009 | 0 | 25 | | | 25 | 5 | 30 | 0 | 0 | 0 | 0 | 30 | 30 | 30 | 0 | 30 | | | | | | | | | | |
| RTM-010 | 0 | 50 | | | 50 | 45 | 95 | 0 | 0 | 0 | 0 | 95 | 90 | 90 | 5 | 95 | | | | | | | | | | |
| Project Total | 0 | 25 | 283 | 0 | 308 | 286 | 594 | 0 | 594 | 580 | 0 | 594 | 580 | 580 | 14 | 594 | 580 | 580 | -25 | 0 | -286 | -14 | 14 | 0 | 0 | |
| Basin Total | 353 | 2,953 | 14,124 | 48 | 17,478 | 7,373 | 24,851 | 48 | 23,705 | 23,705 | 48 | 23,753 | 23,705 | 23,705 | 3,913 | 27,666 | 23,352 | 23,352 | -2953 | 0 | -7373 | -1098 | 1098 | 0 | 0 | |

Source: JICA Study Team

Table C3-3 Prevailing Cropping Patterns in Irrigation Systems in the Battambang River Basin

| Sub Code | System | 1/ | 2/ | 3/ | Cropping Calendar | | | | | | | | | | | | Cropping Calendar 4/ |
|---|---------------------|-----------|----|-------|-------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------------------|
| | | | | | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | |
| Kong Hort Rehabilitation Project: Phase I | | | | | | | | | | | | | | | | | |
| BAN-001 | Banan | Wet 2 | D | 7,000 | | | | | | | | | | | | | D 5/6-12/1 |
| BAN-001 | Tourl Thnong Moury | Wet 2 | T | 20 | | | | | | | | | | | | | N 6/7-12/1 |
| SNK-008 | Kampong Kor | Wet 2 | D | 15 | | | | | | | | | | | | | D 5/6-12/1 |
| Kong Hort Rehabilitation Project: Phase II | | | | | | | | | | | | | | | | | |
| BAN-002 | Sor Kheng | Wet 2 | D | 800 | | | | | | | | | | | | | D 5/6-12/1 |
| SNK-001 | Rang Kessei | Wet 2 | D | 150 | | | | | | | | | | | | | D 5/6 - 12/1 |
| BAN-003 | Kou | Wet 2 | D | 150 | | | | | | | | | | | | | D 5/6-12/1 |
| SNK-002 | Anglong Reusse | Wet 2 | | 100 | | | | | | | | | | | | | D 5/6 - 12/1 |
| | | Dry | | 21 | | | | | | | | | | | | | N 6-7/8-12/2 |
| SNK-013 | Sras Kev | Wet 2 | D | 35 | | | | | | | | | | | | | D 5/6-12/1 |
| SNK-012 | Ream Chakrei | Wet 2 | D | 20 | | | | | | | | | | | | | D 5/6 - 12/1 |
| SNK-018 | Ta Krouch | Recession | D | 13 | | | | | | | | | | | | | D 11/12-2/3 |
| SNK-020 | Ta Toel | Wet 2 | D | 50 | | | | | | | | | | | | | D 5/6-12/1 |
| SNK-021 | Changor Kragh | Wet 2 | D | 20 | | | | | | | | | | | | | D 5/6-12/1 |
| BAN-004 | Bot Sala | Wet 2 | D | 105 | | | | | | | | | | | | | D 5/6-12/1 |
| SNK-004 | Tmat Poug | Wet 2 | T | 125 | | | | | | | | | | | | | N 6/7-12/1 |
| | | D | | | | | | | | | | | | | | | D 5/6 -12/1 |
| | | Dry | T | 100 | | | | | | | | | | | | | N 2-5 |
| BAN-008 | Kampong Stromor | Wet 2 | T | 20 | | | | | | | | | | | | | N 6-12 |
| | | Dry | T | 10 | | | | | | | | | | | | | N 6-12 |
| BTB-01 | Khsach Pouy | Wet 2 | T | 16 | | | | | | | | | | | | | N 6-12 |
| SNK-023 | Or Kcheay | Wet 2 | D | 35 | | | | | | | | | | | | | D 5/6-12/1 |
| SNK-002 | Beung Teum | Wet 2 | D | 20 | | | | | | | | | | | | | D 5/6 - 12/1 |
| SNK-003 | Bor Sert | Wet 2 | D | 20 | | | | | | | | | | | | | D 5/6-12/1 |
| SNK-004 | Brasat Sangker | Wet 2 | D | 30 | | | | | | | | | | | | | D 5/6-12/1 |
| SNK-005 | Changor Tmat | Wet 2 | D | 50 | | | | | | | | | | | | | D 5/6-12/1 |
| SNK-007 | Chhoung Trordork | Wet 2 | D | 20 | | | | | | | | | | | | | D 5/6-12/1 |
| SNK-009 | Or Longor | Recession | D | | | | | | | | | | | | | | D 11/12-1/2 |
| SNK-010 | Or Krarsang | Wet 2 | D | 5 | | | | | | | | | | | | | D 5/6-12/1 |
| SNK-011 | Or Sandach | Wet 1 | D | 5 | | | | | | | | | | | | | D 4-7 |
| | | Wet 2 | D | 10 | | | | | | | | | | | | | D 5/6 - 12/1 |
| SNK-014 | Svay Sor Beung Teum | Wet 2 | D | 27 | | | | | | | | | | | | | D 5/6-12/1 |
| SNK-015 | Svay Sor | Wet 2 | D | 25 | | | | | | | | | | | | | D 5/6-12/1 |
| SNK-016 | Ta Hern | Wet 2 | D | 10 | | | | | | | | | | | | | D 5/6-12/1 |
| SNK-017 | Ta Kdam | Wet 2 | D | 15 | | | | | | | | | | | | | D 5/6-12/1 |
| SNK-022 | Spong | Wet 2 | D | 32 | | | | | | | | | | | | | D 5/6-12/1 |
| Sala Ton Weir Rehabilitation Project | | | | | | | | | | | | | | | | | |
| AKP-001 | Nor Rea | Wet 2 | T | 450 | | | | | | | | | | | | | D 5/6-12/1 |
| AKP-002 | Or Daun Teav | Wet 2 | D | 2,900 | | | | | | | | | | | | | D 5/6-12/1 |
| AKP-003 | Or Samrong Knong | Wet 2 | T | 150 | | | | | | | | | | | | | D 5/6-12/1 |
| AKP-004 | Or Snaor | Wet 2 | T | 1,320 | | | | | | | | | | | | | N 5/6-12/1 |
| | | D | | | | | | | | | | | | | | | D 6/7-12/1 |
| SNK-005 | Vat Balat | Wet 2 | T | 330 | | | | | | | | | | | | | N 5/6-12/1 |
| | | Dry | T | | | | | | | | | | | | | | D 2/3-5/6 |
| AKP-006 | Or Svay Chrom | Wet 2 | T | 200 | | | | | | | | | | | | | N 5/6-12/1 |
| | | D | | | | | | | | | | | | | | | D 6/7-12/1 |
| | | Dry | D | 8 | | | | | | | | | | | | | N 5/6-12/1 |
| AKP-007 | Prek Khpob | Wet 2 | T | 1,505 | | | | | | | | | | | | | N 5/6-12/1 |
| | | D | | | | | | | | | | | | | | | D 6/7-12/1 |
| AKP-01 | Or Anderng | Wet 2 | D | 30 | | | | | | | | | | | | | D 5/6-12/1 |
| AKP-02 | Or Bak Angrer | Wet 2 | D | | | | | | | | | | | | | | D 5/6-12/1 |
| AKP-03 | Or Kvit | Wet 2 | D | 40 | | | | | | | | | | | | | D 5/6-12/1 |
| AKP-04 | Preak Ambil | Dry | D | 30 | | | | | | | | | | | | | D 2/3-5/6 |
| | | Recession | D | | | | | | | | | | | | | | D 11/12-2/3 |
| AKP-05 | Preak Loung | Wet 2 | D | | | | | | | | | | | | | | D 5/6-12/1 |
| AKP-06 | Or Sdei | Wet 2 | D | 50 | | | | | | | | | | | | | D 5/6-12/1 |
| AKP-07 | Or Dourng Mea | Wet 2 | D | | | | | | | | | | | | | | D 5/6-12/1 |
| AKP-08 | Or Damrei Slab | Wet 2 | D | 35 | | | | | | | | | | | | | D 5/6-12/1 |
| AKP-09 | Preak Norin | Wet 2 | T | | | | | | | | | | | | | | N 6-12/1 |
| | | D | | | | | | | | | | | | | | | D 5/6-12/1 |
| BTB-002 | O Kdol | Wet 2 | T | 860 | | | | | | | | | | | | | N 6/7-12/1 |
| | | D | | | | | | | | | | | | | | | D 5-12/1 |
| Ratanak-Battambang Water harvesting Rehabilitation Project | | | | | | | | | | | | | | | | | |
| BAN-005 | Beung Anlork Dam | Wet 2 | D | 15 | | | | | | | | | | | | | D 5/6-12/1 |
| BAN-006 | Beung Snourl | Wet 2 | D | 10 | | | | | | | | | | | | | D 5/6-12/1 |
| BAN-007 | Or Ta Kdourch | Wet 2 | D | 15 | | | | | | | | | | | | | D 5/6-12/1 |
| BAN-009 | Anlong Mean | Wet 2 | D | 15 | | | | | | | | | | | | | D 5/6-12/1 |
| BAN-010 | Kbal Krabei | Wet 2 | D | 20 | | | | | | | | | | | | | D 5/6-12/1 |
| BAN-011 | Beung Anlork Canal | Wet 2 | D | 23 | | | | | | | | | | | | | D 5/6-12/1 |
| BAN-014 | Pai Lam | Wet 2 | D | 25 | | | | | | | | | | | | | D 5/6-12/1 |
| RTM-002 | Svay Choir | Wet 2 | D | 5 | | | | | | | | | | | | | D 5/6-12/1 |
| RTM-004 | Beung Borrei | Wet 2 | D | 15 | | | | | | | | | | | | | N 6/7-12/1 |
| RTM-010 | Rum Lech | Wet 2 | D | 50 | | | | | | | | | | | | | D 5/6-12/1 |

1/: Cropping season: wet 1 --- early wet season; wet 2 --- wet season
 2/: Planting method: D --- direct sowing; T --- transplanting
 3/: Cropped area (ha)
 4/: From sowing to harvest; D --- direct sowing, N ---- transplanting
 Source: Inventory Survey, JICA, 2006

Table C3-4 Present/Without-project Crop Production in the Project Areas of the Battambang River Basin

| Project/Field | Rice: Earth Wet Season (Transplanting) | | | | | | Rice: Wet Season (Transplanting) | | | | | | Rice: Dry Season (Direct Sowing) | | | | | | Rice: Wet Season (Direct Sowing) | | | | | | Rice: Dry Season | | | | | | | | | | | |
|---|--|---------------|------------------------|------------------|----------------|---------------|----------------------------------|------------------|-------------------|---------------|------------------------|------------------|----------------------------------|---------------|------------------|------------------|-------------------|---------------|----------------------------------|------------------|----------------|---------------|------------------|------------------|-------------------|---------------|------------------------|------------------|----------------|---------------|------------------|------------------|---------------|--|---------------|--|
| | Cropped Area (ha) | | Cropping Intensity (%) | | Yield (ton/ha) | | Production (ton) | | Cropped Area (ha) | | Cropping Intensity (%) | | Yield (ton/ha) | | Production (ton) | | Cropped Area (ha) | | Cropping Intensity (%) | | Yield (ton/ha) | | Production (ton) | | Cropped Area (ha) | | Cropping Intensity (%) | | Yield (ton/ha) | | Production (ton) | | | | | |
| | Area (ha) | Intensity (%) | Yield (ton/ha) | Production (ton) | Area (ha) | Intensity (%) | Yield (ton/ha) | Production (ton) | Area (ha) | Intensity (%) | Yield (ton/ha) | Production (ton) | Area (ha) | Intensity (%) | Yield (ton/ha) | Production (ton) | Area (ha) | Intensity (%) | Yield (ton/ha) | Production (ton) | Area (ha) | Intensity (%) | Yield (ton/ha) | Production (ton) | Area (ha) | Intensity (%) | Yield (ton/ha) | Production (ton) | Area (ha) | Intensity (%) | Yield (ton/ha) | Production (ton) | | | | |
| Kong Hort Rehabilitation Project: Phase I | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Land Use Sub-category | 9 | | 0 | | 2.0 | | 4 | | 7 | | 0 | | 1.5 | | 11 | | 0 | | 0 | | 9 | | 0 | | 0 | | 10,551 | | 100 | | 11,448 | | 100 | | 11,463 | |
| Normal Irrigation Paddy Field | 9 | | 0 | | 2.0 | | 4 | | 7 | | 0 | | 1.5 | | 11 | | 0 | | 0 | | 9 | | 0 | | 0 | | 10,551 | | 100 | | 11,448 | | 100 | | 11,463 | |
| Supplemental Irrigation Paddy Field | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | |
| Rainfed Paddy Field | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | |
| Total | 9 | | 0 | | 2.0 | | 4 | | 7 | | 0 | | 1.5 | | 11 | | 0 | | 0 | | 9 | | 0 | | 10,551 | | 100 | | 11,448 | | 100 | | 11,463 | | | |
| Kong Hort Rehabilitation Project: Phase II | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Land Use Sub-category | 236 | | 5 | | 3.0 | | 15 | | 40 | | 1 | | 120 | | 392 | | 236 | | 8 | | 3.0 | | 708 | | 477 | | 10,560 | | 100 | | 11,463 | | 100 | | 11,463 | |
| Normal Irrigation Paddy Field | 236 | | 5 | | 3.0 | | 15 | | 40 | | 1 | | 120 | | 392 | | 236 | | 8 | | 3.0 | | 708 | | 477 | | 10,560 | | 100 | | 11,463 | | 100 | | 11,463 | |
| Supplemental Irrigation Paddy Field | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | |
| Rainfed Paddy Field | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | |
| Recession Paddy Field | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | |
| Total | 236 | | 5 | | 3.0 | | 15 | | 40 | | 1 | | 120 | | 392 | | 236 | | 8 | | 3.0 | | 708 | | 477 | | 10,560 | | 100 | | 11,463 | | 100 | | 11,463 | |
| Kong Hort Rehabilitation Project: Overall | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Land Use Sub-category | 236 | | 5 | | 3.0 | | 15 | | 40 | | 1 | | 120 | | 392 | | 236 | | 8 | | 3.0 | | 708 | | 477 | | 10,560 | | 100 | | 11,448 | | 100 | | 11,463 | |
| Normal Irrigation Paddy Field | 236 | | 5 | | 3.0 | | 15 | | 40 | | 1 | | 120 | | 392 | | 236 | | 8 | | 3.0 | | 708 | | 477 | | 10,560 | | 100 | | 11,448 | | 100 | | 11,463 | |
| Supplemental Irrigation Paddy Field | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | |
| Rainfed Paddy Field | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | |
| Recession Paddy Field | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | |
| Total | 236 | | 5 | | 3.0 | | 15 | | 40 | | 1 | | 120 | | 392 | | 236 | | 8 | | 3.0 | | 708 | | 477 | | 10,560 | | 100 | | 11,448 | | 100 | | 11,463 | |
| Sala Ton Weir Rehabilitation Project | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Land Use Sub-category | 117 | | 5 | | 0.04 | | 3.0 | | 15 | | 40 | | 120 | | 392 | | 236 | | 8 | | 3.0 | | 708 | | 477 | | 10,560 | | 100 | | 11,448 | | 100 | | 11,463 | |
| Normal Irrigation Paddy Field | 117 | | 5 | | 0.04 | | 3.0 | | 15 | | 40 | | 120 | | 392 | | 236 | | 8 | | 3.0 | | 708 | | 477 | | 10,560 | | 100 | | 11,448 | | 100 | | 11,463 | |
| Supplemental Irrigation Paddy Field | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | |
| Rainfed Paddy Field | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | |
| Recession Paddy Field | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | |
| Total | 117 | | 5 | | 0.04 | | 3.0 | | 15 | | 40 | | 120 | | 392 | | 236 | | 8 | | 3.0 | | 708 | | 477 | | 10,560 | | 100 | | 11,448 | | 100 | | 11,463 | |
| Sala Ton Weir Rehabilitation Project | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Land Use Sub-category | 117 | | 5 | | 0.04 | | 3.0 | | 15 | | 40 | | 120 | | 392 | | 236 | | 8 | | 3.0 | | 708 | | 477 | | 10,560 | | 100 | | 11,448 | | 100 | | 11,463 | |
| Normal Irrigation Paddy Field | 117 | | 5 | | 0.04 | | 3.0 | | 15 | | 40 | | 120 | | 392 | | 236 | | 8 | | 3.0 | | 708 | | 477 | | 10,560 | | 100 | | 11,448 | | 100 | | 11,463 | |
| Supplemental Irrigation Paddy Field | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | |
| Rainfed Paddy Field | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | |
| Recession Paddy Field | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | |
| Total | 117 | | 5 | | 0.04 | | 3.0 | | 15 | | 40 | | 120 | | 392 | | 236 | | 8 | | 3.0 | | 708 | | 477 | | 10,560 | | 100 | | 11,448 | | 100 | | 11,463 | |
| Ratanak-Battambang Water harvesting Rehabilitation Project | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Land Use Sub-category | 2,345 | | 101 | | 1.6 | | 3.0 | | 15 | | 48 | | 154 | | 493 | | 1,571 | | 48 | | 1.6 | | 3,527 | | 2,345 | | 101 | | 1,571 | | 4,654 | | 101 | | 13,483 | |
| Normal Irrigation Paddy Field | 2,345 | | 101 | | 1.6 | | 3.0 | | 15 | | 48 | | 154 | | 493 | | 1,571 | | 48 | | 1.6 | | 3,527 | | 2,345 | | 101 | | 1,571 | | 4,654 | | 101 | | 13,483 | |
| Supplemental Irrigation Paddy Field | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | |
| Rainfed Paddy Field | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | |
| Recession Paddy Field | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | |
| Total | 2,345 | | 101 | | 1.6 | | 3.0 | | 15 | | 48 | | 154 | | 493 | | 1,571 | | 48 | | 1.6 | | 3,527 | | 2,345 | | 101 | | 1,571 | | 4,654 | | 101 | | 13,483 | |
| Ratanak-Battambang Water harvesting Rehabilitation Project | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Land Use Sub-category | 2,345 | | 101 | | 1.6 | | 3.0 | | 15 | | 48 | | 154 | | 493 | | 1,571 | | 48 | | 1.6 | | 3,527 | | 2,345 | | 101 | | 1,571 | | 4,654 | | 101 | | 13,483 | |
| Normal Irrigation Paddy Field | 2,345 | | 101 | | 1.6 | | 3.0 | | 15 | | 48 | | 154 | | 493 | | 1,571 | | 48 | | 1.6 | | 3,527 | | 2,345 | | 101 | | 1,571 | | 4,654 | | 101 | | 13,483 | |
| Supplemental Irrigation Paddy Field | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | |
| Rainfed Paddy Field | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | |
| Recession Paddy Field | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | |
| Total | 2,345 | | 101 | | 1.6 | | 3.0 | | 15 | | 48 | | 154 | | 493 | | 1,571 | | 48 | | 1.6 | | 3,527 | | 2,345 | | 101 | | 1,571 | | 4,654 | | 101 | | 13,483 | |
| River Basin Overall | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Land Use Sub-category | 24,851 | | 5 | | 0.02 | | 3.0 | | 15 | | 4,218 | | 17 | | 6,669 | | 20,585 | | 83 | | 1.1 | | 22,103 | | 24,851 | | 5 | | 0.02 | | 3,366 | | 102 | | 30,366 | |
| Normal Irrigation Paddy Field | 24,851 | | 5 | | 0.02 | | 3.0 | | 15 | | 4,218 | | 17 | | 6,669 | | 20,585 | | 83 | | 1.1 | | 22,103 | | 24,851 | | 5 | | 0.02 | | 3,366 | | 102 | | 30,366 | |
| Supplemental Irrigation Paddy Field | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | |
| Rainfed Paddy Field | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | |
| Recession Paddy Field | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | |
| Total | 24,851 | | 5 | | 0.02 | | 3.0 | | 15 | | 4,218 | | 17 | | 6,669 | | 20,585 | | 83 | | 1.1 | | 22,103 | | 24,851 | | 5 | | 0.02 | | 3,366 | | 102 | | 30,366 | |

Table C3-5 Present/Without-project & With-project Crop Production: Kong Hort Rehabilitation Project: Phase I

Kong Hort Rehabilitation Project: Phase I

A. Present/Without-project Crop Production

| | Rice: Earli Wet Season (Transplanting) | | | Rice: Wet Season (Transplanting) | | | Rice: Wet Season (Direct Sowing) | | | Rice: Dry Season | | | Annual | | | Upland Crops: Early Wet Season | | | | |
|-------------------------------------|--|------------------------|----------------|----------------------------------|------------------------|----------------|----------------------------------|------------------------|----------------|-------------------|------------------------|----------------|-------------------|------------------------|------------------|--------------------------------|------------------------|----------------|------------------|----------|
| | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | |
| Land Use Sub-category | | | | | | | | | | | | | | | | | | | | |
| Normal Irrigation Paddy Field | 9 | | | 2 | 0 | 2.0 | 4 | 7 | 0 | 1.5 | 11 | | | | 0 | 0 | | | | |
| Supplemental Irrigation Paddy Field | | | | 1,794 | 17 | 1.5 | 2,691 | 8,757 | 83 | 1.0 | 8,757 | | | | 10,551 | 100 | | | 11,448 | |
| Rainfed Paddy Field | | | | | | | | | | | | | | | | | | | | |
| Recession Paddy Field | | | | | | | | | | | | | | | | | | | | |
| Total | 10,560 | 0 | | 1,796 | 17 | 1.5 | 2,695 | 8,764 | 83 | 1.0 | 8,768 | 0 | 0 | 0 | 10,560 | 100 | 0 | 0 | 11,463 | 0 |

B. With-project Crop Production

| | Rice: Earli Wet Season (Transplanting) | | | Rice: Wet Season (Transplanting) | | | Rice: Wet Season (Direct Sowing) | | | Rice: Dry Season | | | Annual | | | Upland Crops: Early Wet Season | | | | |
|-------------------------------------|--|------------------------|----------------|----------------------------------|------------------------|----------------|----------------------------------|------------------------|----------------|-------------------|------------------------|----------------|-------------------|------------------------|------------------|--------------------------------|------------------------|----------------|------------------|-----------|
| | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | |
| Land Use Sub-category | | | | | | | | | | | | | | | | | | | | |
| Normal Irrigation Paddy Field | 10,040 | | | 1,707 | 17 | 3.5 | 5,975 | 8,333 | 83 | 2.8 | 23,332 | | | | 10,040 | 100 | | | 29,307 | |
| Supplemental Irrigation Paddy Field | | | | | | | | | | | | | | | | | | | | |
| Rainfed Paddy Field | | | | | | | | | | | | | | | | | | | | |
| Recession Paddy Field | | | | | | | | | | | | | | | | | | | | |
| Total | 10,040 | 0 | | 1,707 | 17 | 3.5 | 5,975 | 8,333 | 83 | 2.8 | 23,332 | 0 | 0 | 0 | 10,040 | 100 | 0 | 0 | 29,307 | 45 |

C. Increment: With-project - Present/Without-project

| | Rice: Earli Wet Season (Transplanting) | | | Rice: Wet Season (Transplanting) | | | Rice: Wet Season (Direct Sowing) | | | Rice: Dry Season | | | Annual | | | Upland Crops: Early Wet Season | | | | |
|-------------------------------------|--|------------------------|----------------|----------------------------------|------------------------|----------------|----------------------------------|------------------------|----------------|-------------------|------------------------|----------------|-------------------|------------------------|------------------|--------------------------------|------------------------|----------------|------------------|--|
| | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | |
| Land Use Sub-category | | | | | | | | | | | | | | | | | | | | |
| Normal Irrigation Paddy Field | 10,040 | | | 1,707 | 17 | 5,975 | 8,333 | 83 | | 23,332 | | | | | 10,040 | 100 | | | 29,307 | |
| Supplemental Irrigation Paddy Field | -9 | | | -2 | 0 | -4 | -7 | 0 | | -11 | | | | | -9 | 0 | | | -15 | |
| Rainfed Paddy Field | -10,551 | | | -1,794 | -17 | -2,691 | -8,757 | -83 | | -8,757 | | | | | -10,551 | -100 | | | -11,448 | |
| Recession Paddy Field | 0 | | | | | | | | | | | | | | | | | | | |
| Total | -520 | 0 | | -89 | 0 | 2.0 | 3,280 | -431 | 0 | 1.8 | 14,565 | 0 | 0 | -520 | 0 | 0 | 0 | 17,844 | 45 | |

Table C3-7 Present/Without-project & With-project Crop Production: Kong Hort Rehabilitation Project: Phase II

Kong Hort Rehabilitation Project: Phase II

A. Present/Without-project Crop Production

| Land Use Sub-category | Rice: Early Wet Season (Transplanting) | | | Rice: Wet Season (Transplanting) | | | Rice: Wet Season (Direct Sowing) | | | Rice: Dry Season | | | Annual | | | Upland Crops: Early Wet Season | | | | | | | | |
|-------------------------------------|--|------------------------|----------------|----------------------------------|-------------------|------------------------|----------------------------------|------------------|-------------------|------------------------|----------------|------------------|-------------------|------------------------|----------------|--------------------------------|-------------------|------------------------|----------------|------------------|----------|----------|----------|----------|
| | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | | | | |
| Normal Irrigation Paddy Field | 236 | 5 | 0 | 3.0 | 15 | 40 | 1 | 3.0 | 120 | 196 | 7 | 2.0 | 392 | 236 | 8 | 3.0 | 708 | 477 | 17 | 1,235 | | | | |
| Supplemental Irrigation Paddy Field | 574 | | | 2.0 | 98 | 3 | 2.0 | 196 | 476 | 17 | 1.5 | 71.4 | 50 | 2 | 2.5 | 125 | 624 | 22 | 1,035 | | | | | |
| Rainfed Paddy Field | 2,026 | | | | 344 | 12 | 1.5 | 516 | 1,682 | 58 | 1.0 | 1,682 | 50 | 2 | 2.0 | 100 | 2,076 | 72 | 2,298 | | | | | |
| Recession Paddy Field | 48 | | | | | | | | | | | | 48 | 2 | 2.0 | 96 | 48 | 2 | 96 | | | | | |
| Total | 2,884 | 5 | 0 | 3.0 | 15 | 482 | 17 | 1.7 | 832 | 2,354 | 82 | 1.2 | 2,788 | 384 | 13 | 2.7 | 1,029 | 3,225 | 112 | 4,664 | 0 | 0 | 0 | 0 |

B. With-project Crop Production

| Land Use Sub-category | Rice: Early Wet Season (Transplanting) | | | Rice: Wet Season (Transplanting) | | | Rice: Wet Season (Direct Sowing) | | | Rice: Dry Season | | | Annual | | | Upland Crops: Early Wet Season | | | | | | | | |
|-------------------------------------|--|------------------------|----------------|----------------------------------|-------------------|------------------------|----------------------------------|------------------|-------------------|------------------------|----------------|------------------|-------------------|------------------------|----------------|--------------------------------|-------------------|------------------------|----------------|------------------|----------|------------|-----------|-----------|
| | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | | | | |
| Normal Irrigation Paddy Field | 2,685 | | | 3.5 | 456 | 17 | 3.5 | 1,596 | 2,229 | 82 | 2.8 | 6,241 | | | | | 2,685 | | 98 | 7,837 | | | | |
| Supplemental Irrigation Paddy Field | | | | | | | | | | | | | | | | | | | | | | | | |
| Rainfed Paddy Field | 48 | | | | | | | | | | | | 48 | 2 | 2.5 | 120 | 48 | 2 | 120 | 20 | 1 | 0.5 | 10 | |
| Recession Paddy Field | | | | | | | | | | | | | | | | | | | | | | | | |
| Total | 2,733 | 0 | 0 | 3.5 | 456 | 17 | 3.5 | 1,596 | 2,229 | 82 | 2.8 | 6,241 | 48 | 2 | 2.5 | 120 | 2,733 | 100 | 7,957 | 20 | 1 | 0.5 | 10 | 10 |

C. Increment: With-project - Present/Without-project

| Land Use Sub-category | Rice: Early Wet Season (Transplanting) | | | Rice: Wet Season (Transplanting) | | | Rice: Wet Season (Direct Sowing) | | | Rice: Dry Season | | | Annual | | | Upland Crops: Early Wet Season | | | | | | | | |
|-------------------------------------|--|------------------------|----------------|----------------------------------|-------------------|------------------------|----------------------------------|------------------|-------------------|------------------------|----------------|------------------|-------------------|------------------------|----------------|--------------------------------|-------------------|------------------------|----------------|------------------|----------|----------|----------|----------|
| | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | | | | |
| Normal Irrigation Paddy Field | 2,449 | | | 416 | 15 | 1.476 | 2,033 | 75 | 5,849 | -236 | -8 | -708 | 2,208 | 82 | 6,602 | | | | | | | | | |
| Supplemental Irrigation Paddy Field | -574 | | | -98 | -3 | -1.96 | -476 | -17 | -714 | -50 | -2 | -125 | -624 | -22 | -1,035 | | | | | | | | | |
| Rainfed Paddy Field | -2,026 | | | -344 | -12 | -516 | -1,682 | -58 | -1,682 | -50 | -2 | -100 | -2,076 | -72 | -2,298 | | | | | | | | | |
| Recession Paddy Field | 0 | | | | | | | | | | | | | | | | | | | | | | | |
| Total | -151 | -5 | -0.2 | -15 | -26 | 0 | 1.8 | 764 | -125 | -336 | -12 | -909 | -492 | -12 | 3,293 | 20 | 1 | 10 | 10 | 0 | 0 | 0 | 0 | 0 |

Table C3-8 Cost Estimates for Agricultural Support Services for Kong Hort Rehabilitation Project: Phase II 1/

| Activities | | Project Area: 2,733 ha | | | | | | | | | | | | | | | | | |
|---|-------|------------------------|---------------------|--------|---------------|------------|---------------|------------|---------------|--------|---------------|------------|---------------|--------------|---------------|--------|--------|----------------|--|
| | | 1st | | | 2nd | | | 3rd | | | 4th | | | Overall | | | | | |
| | | Unit | Program Cost (US\$) | Volume | Amount (US\$) | Volume | Amount (US\$) | Volume | Amount (US\$) | Volume | Amount (US\$) | Volume | Amount (US\$) | Volume | Amount (US\$) | | | | |
| | | Dry Season | Wet Season | Annual | Dry Season | Wet Season | Annual | Dry Season | Wet Season | Annual | Dry Season | Wet Season | Annual | Dry Season | Wet Season | Annual | | | |
| 1. Field Programs | | | | | | | | | | | | | | | | | | | |
| 1.1 Field Adaptability Test | unit | 550 | 1 | 1 | 550 | 1 | 1 | 550 | 1 | 1 | 550 | 1 | 1 | 550 | 0 | 0 | 0 | | |
| 1.2 Demonstration Plot (0.1ha) | unit | 50 | 3 | 3 | 150 | 4 | 4 | 200 | 3 | 3 | 150 | 3 | 3 | 150 | 3 | 3 | 650 | | |
| - Irrigated Rice | unit | 50 | | | | 1 | 50 | 0 | | | 0 | | | | 1 | 0 | 50 | | |
| 1.2 Demonstration Plot (1.0ha) | unit | 400 | 1 | 1 | 400 | 2 | 2 | 800 | 2 | 2 | 800 | 2 | 2 | 800 | 2 | 2 | 2,800 | | |
| - Irrigated Rice | unit | 400 | | | 0 | 0 | 0 | 0 | 1 | 1 | 400 | 0 | 0 | 0 | 1 | 0 | 400 | | |
| - Upland Crops/vegetables | unit | 1,000 | | | 0 | 0 | 0 | 1,000 | 1 | 1 | 1,000 | 1 | 1 | 1,000 | 0 | 0 | 3,000 | | |
| 1.3 Demonstration Farm (5.0ha) | unit | 2,500 | | | 0 | 0 | 0 | 0 | | | 0 | | | 0 | | | 2,500 | | |
| - Irrigated Rice | unit | 360 | | | 0 | 0 | 0 | 0 | | | 0 | | | 0 | | | 360 | | |
| - Irrigated Rice | unit | | | | 0 | 0 | 0 | 0 | | | 0 | | | 0 | | | 0 | | |
| - Irrigated Rice | unit | | | | 0 | 0 | 0 | 0 | | | 0 | | | 0 | | | 0 | | |
| 1.5 Seed Multiplication | unit | | 5 | 5 | 1,100 | 1 | 9 | 10 | 2,960 | 1 | 8 | 9 | 3,260 | 0 | 8 | 8 | 4,810 | | |
| Sub-total | | | | | | | | | | | | | | | | | 12,130 | | |
| 2. Farmer/Farmer Group Training Programs | | | | | | | | | | | | | | | | | | | |
| 2.1 Training Course | unit | 370 | 1 | 1 | 370 | 2 | 2 | 740 | 1 | 1 | 370 | 1 | 1 | 370 | 1 | 1 | 1,850 | | |
| - 5 Days (30 participants) | unit | 850 | | | 0 | 0 | 0 | 0 | 1 | 1 | 850 | 1 | 1 | 850 | 1 | 1 | 2,550 | | |
| 2.2 FFS/IPM (50 participants) | unit | 330 | 1 | 1 | 330 | 1 | 1 | 330 | 1 | 1 | 330 | 1 | 1 | 330 | 0 | 0 | 990 | | |
| 2.3 Study Tour | unit | | | | | | | | | | | | | | | | | | |
| 2.4 VEA Training | unit | 2,200 | 1 | 1 | 2,200 | | | | | | | | | | | | 2,200 | | |
| - 10 Participants | unit | | 3 | 3 | 700 | 0 | 4 | 4 | 1,920 | 0 | 3 | 3 | 1,550 | 0 | 2 | 2 | 1,220 | | |
| Sub-total | | | | | | | | | | | | | | | | | 23,300 | | |
| 3. Mass Guidance/Workshop | | | | | | | | | | | | | | | | | | | |
| 3.1 50 Participants | unit | 120 | 1 | 1 | 120 | 2 | 2 | 240 | 1 | 1 | 120 | 1 | 1 | 120 | 0 | 0 | 44,100 | | |
| 4. Support Fund for Extension Staff | | | | | | | | | | | | | | | | | | | |
| Farmer-to-farmer Extension Support | VEA | 360 | 5 | 5 | 1,800 | | | | | | 5 | 5 | 1,800 | | | | 7,200 | | |
| Field Guidance Staff | staff | 600 | 1 | 1 | 600 | 1 | 1 | 600 | 1 | 1 | 600 | 1 | 1 | 600 | 1 | 1 | 2,400 | | |
| Sub-total | | | | | | | | | | | | | | | | | 4,600 | | |
| 5. Staff Empowerment | unit | 550 | 1 | 1 | 550 | | | | | | 1 | 1 | 550 | | | | 2,200 | | |
| 6. Provision of Transportation Means | | | | | | | | | | | | | | | | | | | |
| - Bicycle | unit | 100 | | | 5 | 5 | 500 | | | | | | | | | | 500 | | |
| - Motorcycle | unit | 1,000 | | | 1 | 1 | 1,000 | | | | | | | | | | 1,000 | | |
| Sub-total | | | | | | | | | | | | | | | | | 1,500 | | |
| Total | | | | | | | | | | | | | | | | | 31,420 | | |
| 1/ Program direct cost | | | | | | | | | | | | | | 9,100 | | | | 31,420 | |
| | | | | | | | | | | | | | | 7,880 | | | | 31,000 | |
| | | | | | | | | | | | | | | 0 | | | | rounded | |

Table C3-11 Present/Without-project & With-project Crop Production: Ratanak-Battambang Water Harvesting Rehabilitation Project
Ratanak-Battambang Water harvesting Rehabilitation Project

| A. Present/Without-project Crop Production | | | | | | | | | | | | | | | | | | |
|---|--|------------------------|----------------|----------------------------------|------------------------|----------------|----------------------------------|-------------------|------------------------|------------------|------------------|-------------------|--------------------------------|----------------|------------------|------------|------------|------------|
| Land Use Sub-category | Rice: Earlt Wet Season (Transplanting) | | | Rice: Wet Season (Transplanting) | | | Rice: Wet Season (Direct Sowing) | | | Rice: Dry Season | | | Upland Crops: Early Wet Season | | | | | |
| | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | | | |
| Normal Irrigation Paddy Field | 25 | | | 4 | 1 | 2.0 | 8 | 21 | 4 | 1.5 | 32 | 25 | 4 | 2.5 | 63 | 50 | 8 | 102 |
| Supplemental Irrigation Paddy Field | | | | 97 | 16 | 1.5 | 146 | 472 | 79 | 1.0 | 472 | 15 | 3 | 2.5 | 37 | 584 | 98 | 655 |
| Rainfed Paddy Field | | | | | | | | | | | | | | | | | | |
| Recession Paddy Field | | | | | | | | | | | | | | | | | | |
| Total | 594 | 0 | | 101 | 17 | 1.5 | 154 | 493 | 83 | 1.0 | 504 | 40 | 7 | 2.5 | 100 | 634 | 107 | 757 |

| B. With-project Crop Production | | | | | | | | | | | | | | | | | | |
|--|--|------------------------|----------------|----------------------------------|------------------------|----------------|----------------------------------|-------------------|------------------------|------------------|------------------|-------------------|--------------------------------|----------------|------------------|------------|------------|--------------|
| Land Use Sub-category | Rice: Earlt Wet Season (Transplanting) | | | Rice: Wet Season (Transplanting) | | | Rice: Wet Season (Direct Sowing) | | | Rice: Dry Season | | | Upland Crops: Early Wet Season | | | | | |
| | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | | | |
| Normal Irrigation Paddy Field | 580 | | | 99 | 17 | 3.5 | 347 | 481 | 83 | 2.8 | 1,347 | | | | | 580 | 100 | 1,693 |
| Supplemental Irrigation Paddy Field | | | | | | | | | | | | | | | | | | |
| Rainfed Paddy Field | | | | | | | | | | | | | | | | | | |
| Recession Paddy Field | | | | | | | | | | | | | | | | | | |
| Total | 580 | 0 | | 99 | 17 | 3.5 | 347 | 481 | 83 | 2.8 | 1,347 | 0 | 0 | 0 | 0 | 580 | 100 | 1,693 |

| C. Increment: With-project - Present/Without-project | | | | | | | | | | | | | | | | | | |
|---|--|------------------------|----------------|----------------------------------|------------------------|----------------|----------------------------------|-------------------|------------------------|------------------|------------------|-------------------|--------------------------------|----------------|------------------|----------|----------|------------|
| Land Use Sub-category | Rice: Earlt Wet Season (Transplanting) | | | Rice: Wet Season (Transplanting) | | | Rice: Wet Season (Direct Sowing) | | | Rice: Dry Season | | | Upland Crops: Early Wet Season | | | | | |
| | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | | | |
| Normal Irrigation Paddy Field | 580 | | | 99 | 17 | 3.5 | 347 | 481 | 83 | 2.8 | 1,347 | | | | | 580 | 100 | 1,693 |
| Supplemental Irrigation Paddy Field | -25 | | | -4 | -1 | -8 | -8 | -21 | -4 | -32 | -32 | -25 | -4 | -4 | -63 | -50 | -8 | -102 |
| Rainfed Paddy Field | -569 | | | -97 | -16 | -146 | -146 | -472 | -79 | -472 | -472 | -15 | -3 | -37 | -584 | -98 | -655 | |
| Recession Paddy Field | 0 | | | | | | | | | | | | | | | | | |
| Total | -14 | 0 | | -2 | 0 | 2.0 | 193 | -12 | 0 | 1.8 | 843 | -40 | -7 | -100 | -54 | 5 | 1 | 937 |

Table C3-13 Present/Without-project & With-project Crop Production: Overall Battambang River Basin

River Basin Overall

A. Present/Without-project Crop Production

| | Rice: Earlt Wet Season (Transplanting) | | | Rice: Wet Season (Transplanting) | | | Rice: Wet Season (Direct Sowing) | | | Rice: Dry Season | | | Annual | | | Upland Crops: Early Wet Season | | | | |
|-------------------------------------|--|------------------------|----------------|----------------------------------|------------------------|----------------|----------------------------------|------------------------|----------------|-------------------|------------------------|----------------|-------------------|------------------------|------------------|--------------------------------|------------------------|----------------|------------------|--|
| | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | |
| Land Use Sub-category | 353 | 5 | 0.02 | 60 | 0 | 3.0 | 180 | 293 | 1 | 2.0 | 586 | 353 | 1 | 3.0 | 1,059 | 711 | 3 | 1,840 | 0 | |
| Normal Irrigation Paddy Field | 2,953 | 0 | 0 | 503 | 2 | 2.0 | 1,006 | 2,450 | 10 | 1.5 | 3,675 | 115 | 0.5 | 2.5 | 288 | 3,068 | 12 | 4,969 | 0 | |
| Supplemental Irrigation Paddy Field | 21,497 | 0 | 0 | 3,655 | 15 | 1.5 | 5,483 | 17,842 | 72 | 1.0 | 17,842 | 65 | 0 | 0 | 137 | 21,562 | 87 | 23,462 | 0 | |
| Rainfed Paddy Field | 48 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 48 | 0 | 0.2 | 96 | 0 | |
| Recession Paddy Field | 24,851 | 5 | 0.02 | 4,218 | 17 | 1.6 | 6,669 | 20,585 | 83 | 1.1 | 22,103 | 581 | 2 | 2.7 | 1,580 | 25,389 | 102 | 30,366 | 0 | |
| Total | | | | | | | | | | | | | | | | | | | | |

B. With-project Crop Production

| | Rice: Earlt Wet Season (Transplanting) | | | Rice: Wet Season (Transplanting) | | | Rice: Wet Season (Direct Sowing) | | | Rice: Dry Season | | | Annual | | | Upland Crops: Early Wet Season | | | | |
|-------------------------------------|--|------------------------|----------------|----------------------------------|------------------------|----------------|----------------------------------|------------------------|----------------|-------------------|------------------------|----------------|-------------------|------------------------|------------------|--------------------------------|------------------------|----------------|------------------|--|
| | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | |
| Land Use Sub-category | 23,705 | 0 | 0 | 4,030 | 17 | 3.5 | 14,105 | 19,675 | 83 | 2.8 | 55,090 | 0 | 0 | 0 | 23,705 | 100 | 0 | 69,195 | 0 | |
| Normal Irrigation Paddy Field | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Supplemental Irrigation Paddy Field | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Rainfed Paddy Field | 48 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 48 | 0.2 | 2.5 | 120 | 205 | |
| Recession Paddy Field | 23,753 | 0 | 0 | 4,030 | 17 | 3.5 | 14,105 | 19,675 | 83 | 2.8 | 55,090 | 48 | 0 | 0 | 23,753 | 100 | 0.2 | 120 | 205 | |
| Total | | | | | | | | | | | | | | | | | | | | |

C. Increment: With-project - Present/Without-project

| | Rice: Earlt Wet Season (Transplanting) | | | Rice: Wet Season (Transplanting) | | | Rice: Wet Season (Direct Sowing) | | | Rice: Dry Season | | | Annual | | | Upland Crops: Early Wet Season | | | | |
|-------------------------------------|--|------------------------|----------------|----------------------------------|------------------------|----------------|----------------------------------|------------------------|----------------|-------------------|------------------------|----------------|-------------------|------------------------|------------------|--------------------------------|------------------------|----------------|------------------|--|
| | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | |
| Land Use Sub-category | 23,352 | -5 | -0.02 | 3,970 | 17 | 13,925 | 19,382 | 82 | -353 | -1 | -1,059 | 22,994 | 97 | 67,355 | 0 | 0 | 0 | 0 | 0 | |
| Normal Irrigation Paddy Field | -2,953 | 0 | 0 | -503 | -2 | -1,006 | -2,450 | -10 | -115 | 0 | -288 | -3,068 | -12 | -4,969 | 0 | 0 | 0 | 0 | 0 | |
| Supplemental Irrigation Paddy Field | -21,497 | 0 | 0 | -3,655 | -15 | -5,483 | -17,842 | -72 | -65 | 0 | -137 | -21,562 | -87 | -23,462 | 0 | 0 | 0 | 0 | 0 | |
| Rainfed Paddy Field | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Recession Paddy Field | -1,098 | -5 | -0.02 | -188 | 0 | 1.9 | 7,437 | -910 | 0 | 1.7 | 32,987 | -533 | -2 | -1,460 | -1,636 | -2 | 38,949 | 205 | 103 | |
| Total | | | | | | | | | | | | | | | | | | | | |

Table C3-14 Present & With-project Land Use of the Project Areas in the Moung Ruessei River Basin

Bassac Irrigation System Rehabilitation Project

| Land Use Sub-category | I. Present | | | II. With Project | | Increment (II - I) Area (ha) |
|-------------------------------------|------------|-----|-----|------------------|-----|------------------------------------|
| | Area | | | Area | | |
| | (ha) | (%) | (%) | (ha) | (%) | |
| 1. Irrigation Area | 0 | | 0 | 3,500 | 85 | 3,500 |
| Normal Irrigation Paddy Field | | | | 3,500 | 85 | 3,500 |
| Supplemental Irrigation Paddy Field | | | | | | |
| Field under Rainfed Condition | | | | | | |
| Recession Paddy Field | | | | | | |
| 2. Rainfed Paddy Field | 4,120 | | 100 | | | -4,120 |
| 3. Right-of-ways | | | 0 | 620 | 15 | 620 |
| Total | 4,120 | | 100 | 4,120 | 100 | 0 |

Ream Kon Rehabilitation Project

| Land Use Sub-category | I. Present | | | II. With Project | | Increment (II - I) Area (ha) |
|-------------------------------------|------------|-----|-----|------------------|-----|------------------------------------|
| | Area | | | Area | | |
| | (ha) | (%) | (%) | (ha) | (%) | |
| 1. Irrigation Area | 200 | 100 | 7 | 2,300 | 85 | 2,100 |
| Normal Irrigation Paddy Field | | | | 2,290 | 85 | 2,290 |
| Supplemental Irrigation Paddy Field | 40 | 20 | 1 | | | -40 |
| Field under Rainfed Condition | 150 | 75 | 6 | | | -150 |
| Recession Paddy Field | 10 | 5 | 0.4 | 10 | 0.4 | 0 |
| 2. Rainfed Paddy Field | 2,470 | | 91 | | | -2,470 |
| 3. Right-of-ways | 40 | | 1 | 410 | 15 | 370 |
| Total | 2,710 | | 100 | 2,710 | 100 | 0 |

Por Canal Rehabilitation Project

| Land Use Sub-category | I. Present | | | II. With Project | | Increment (II - I) Area (ha) |
|-------------------------------------|------------|-----|-----|------------------|-----|------------------------------------|
| | Area | | | Area | | |
| | (ha) | (%) | (%) | (ha) | (%) | |
| 1. Irrigation Area | 400 | 100 | 28 | 1,200 | 85 | 800 |
| Normal Irrigation Paddy Field | | | | 1,200 | 85 | 1,200 |
| Supplemental Irrigation Paddy Field | 100 | 25 | 7 | | | -100 |
| Field under Rainfed Condition | 300 | 75 | 21 | | | -300 |
| Recession Paddy Field | | | | | | |
| 2. Rainfed Paddy Field | 940 | | 67 | | | -940 |
| 3. Right-of-ways | 70 | | 5 | 210 | 15 | 140 |
| Total | 1,410 | | 100 | 1,410 | 100 | 0 |

Nikom Le/Dai Ta Chan Rehabilitation Project

| Land Use Sub-category | I. Present | | | II. With Project | | Increment (II - I) Area (ha) |
|-------------------------------------|------------|-----|-----|------------------|-----|------------------------------------|
| | Area | | | Area | | |
| | (ha) | (%) | (%) | (ha) | (%) | |
| 1. Irrigation Area | 50 | 100 | 7 | 600 | 86 | 550 |
| Normal Irrigation Paddy Field | | | | 600 | 86 | 600 |
| Supplemental Irrigation Paddy Field | 13 | 26 | 2 | | | -13 |
| Field under Rainfed Condition | 37 | 74 | 5 | | | -37 |
| Recession Paddy Field | | | | | | |
| 2. Rainfed Paddy Field | 650 | | 93 | | | -650 |
| 3. Right-of-ways | | | 0 | 100 | 14 | 100 |
| Total | 700 | | 100 | 700 | 100 | 0 |

Whole River Basin

| Land Use Sub-category | I. Present | | | II. With Project | | Increment (II - I) Area (ha) |
|-------------------------------------|------------|-----|-----|------------------|-----|------------------------------------|
| | Area | | | Area | | |
| | (ha) | (%) | (%) | (ha) | (%) | |
| 1. Irrigation Area | 650 | 100 | 7 | 7,600 | 85 | 6,950 |
| Normal Irrigation Paddy Field | 0 | | | 7,590 | 85 | 7,590 |
| Supplemental Irrigation Paddy Field | 153 | 24 | 2 | | | -153 |
| Field under Rainfed Condition | 487 | 75 | 5 | | | -487 |
| Recession Paddy Field | 10 | 2 | 0.1 | 10 | 0.1 | 0 |
| 2. Rainfed Paddy Field | 8,180 | | 92 | 0 | | -8,180 |
| 3. Right-of-ways | 110 | | 1 | 1,340 | 15 | 1,230 |
| Total | 8,940 | | 100 | 8,940 | 100 | 0 |

Source: JICA Study Team

Table C3-15 Present/With-out & With-project Detail Land Use of the Project Areas in the Moung Ruessei River Basin

| Sub Code | I. Present & Without-project Land Use (ha) | | | | | | | | | | II. With-project Land Use (ha) | | | | | | | | | | Balance (II - I) | | | | |
|--|--|-----------------------|-----------------------------|-----------------|------------|---------------------------------|-------------------|---------------|--------------|--------------|--------------------------------|------------|-------------------|-----------------|-------------------|---------------|-------------|-------------------|-----------------------|-----------------|------------------|-------------------|---------------|------------|--|
| | Paddy Field in Existing Irrigated Area | | | | | Rainfed Field in Potential Area | | | | | Right of Ways | Gross Area | Normal Irr. Field | Recession Field | Paddy Field Total | Right of Ways | Gross Area | Normal Irr. Field | Supplement Irr. Field | Recession Field | Rainfed Field | Paddy Field Total | Right of Ways | Gross Area | |
| | Normal Irr. Field | Supplement Irr. Field | Field in Rainfed Conditions | Recession Field | Total | Rainfed Field in Potential Area | Paddy Field Total | Right of Ways | Gross Area | | | | | | | | | | | | | | | | |
| Bassac Irrigation System Rehabilitation Project | | | | | | | | | | | | | | | | | | | | | | | | | |
| MRS-001 | | | | | 0 | 4,120 | 4,120 | 0 | 4,120 | 3,500 | 3,500 | | 3,500 | 620 | 4,120 | 3,500 | 0 | 0 | 0 | -4,120 | -620 | 620 | 0 | | |
| Ream Kon Rehabilitation Project | | | | | | | | | | | | | | | | | | | | | | | | | |
| MRS-006 | 40 | | 150 | 10 | 200 | 2,470 | 2,670 | 40 | 2,710 | 2,290 | 2,290 | 10 | 2,300 | 410 | 2,710 | 2,290 | -40 | 0 | 0 | -2,470 | -370 | 370 | 0 | | |
| Por Canal Rehabilitation Project | | | | | | | | | | | | | | | | | | | | | | | | | |
| MRS-005 | 100 | | 300 | | 400 | 940 | 1,340 | 70 | 1,410 | 1,200 | 1,200 | | 1,200 | 210 | 1,410 | 1,200 | -100 | 0 | 0 | -940 | -140 | 140 | 0 | | |
| Nikom Le/Dai Ta Cban Rehabilitation Project | | | | | | | | | | | | | | | | | | | | | | | | | |
| MRS-017 | | | | | 0 | 350 | 350 | 0 | 350 | 300 | 300 | | 300 | 50 | 350 | 300 | 0 | 0 | 0 | -350 | -50 | 50 | 0 | | |
| MRS-018 | 13 | | 37 | | 50 | 300 | 350 | 0 | 350 | 300 | 300 | | 300 | 50 | 350 | 300 | -13 | 0 | 0 | -300 | -50 | 50 | 0 | | |
| Project Total | 0 | | 37 | 0 | 50 | 650 | 700 | 0 | 700 | 600 | 600 | 0 | 600 | 100 | 700 | 600 | -13 | 0 | 0 | -650 | -100 | 100 | 0 | | |
| Basin Total | 0 | | 487 | 10 | 650 | 8,180 | 8,830 | 110 | 8,940 | 7,590 | 7,590 | 10 | 7,600 | 1,340 | 8,940 | 7,590 | -153 | 0 | 0 | -8,180 | -1,230 | 1,230 | 0 | | |

Source: JICA Study Team

Table C3-17 Present/Without-project Crop Production in the Project Areas of the Moung Ruessei River Basin

| Area (ha) | Rice: Wet Season (Transplanting) | | | | | | Rice: Dry Season | | | | | | Annual | | | | |
|-------------------------------------|----------------------------------|------------------------|----------------|------------------|-------------------|------------------------|-------------------|------------------------|----------------|------------------|-------------------|------------------------|----------------|------------------|-------------------|------------------------|------------------|
| | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Production (ton) |
| | | | | | | | | | | | | | | | | | |
| Land Use Sub-category | | | | | | | | | | | | | | | | | |
| Normal Irrigation Paddy Field | | | | | | | | | | | | | | | | | |
| Supplemental Irrigation Paddy Field | | | | | | | | | | | | | | | | | |
| Rainfed Paddy Field | | | | | | | | | | | | | | | | | |
| Recession Paddy Field | | | | | | | | | | | | | | | | | |
| Total | 4,120 | 31 | 1.5 | 1,916 | 2,843 | 69 | 2,843 | 1.0 | 2,843 | 0 | 4,120 | 100 | 4,759 | | | | |

| Area (ha) | Rice: Wet Season (Transplanting) | | | | | | Rice: Dry Season | | | | | | Annual | | | | |
|-------------------------------------|----------------------------------|------------------------|----------------|------------------|-------------------|------------------------|-------------------|------------------------|----------------|------------------|-------------------|------------------------|----------------|------------------|-------------------|------------------------|------------------|
| | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Production (ton) |
| | | | | | | | | | | | | | | | | | |
| Land Use Sub-category | | | | | | | | | | | | | | | | | |
| Normal Irrigation Paddy Field | | | | | | | | | | | | | | | | | |
| Supplemental Irrigation Paddy Field | | | | | | | | | | | | | | | | | |
| Rainfed Paddy Field | | | | | | | | | | | | | | | | | |
| Recession Paddy Field | | | | | | | | | | | | | | | | | |
| Total | 2,670 | 31 | 1.5 | 1,242 | 1,836 | 69 | 1,850 | 1.0 | 1,850 | 10 | 2,670 | 100 | 3,112 | | | | |

| Area (ha) | Rice: Wet Season (Transplanting) | | | | | | Rice: Dry Season | | | | | | Annual | | | | |
|-------------------------------------|----------------------------------|------------------------|----------------|------------------|-------------------|------------------------|-------------------|------------------------|----------------|------------------|-------------------|------------------------|----------------|------------------|-------------------|------------------------|------------------|
| | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Production (ton) |
| | | | | | | | | | | | | | | | | | |
| Land Use Sub-category | | | | | | | | | | | | | | | | | |
| Normal Irrigation Paddy Field | | | | | | | | | | | | | | | | | |
| Supplemental Irrigation Paddy Field | | | | | | | | | | | | | | | | | |
| Rainfed Paddy Field | | | | | | | | | | | | | | | | | |
| Recession Paddy Field | | | | | | | | | | | | | | | | | |
| Total | 1,340 | 31 | 1.5 | 638 | 925 | 69 | 960 | 1.0 | 960 | 0 | 1,340 | 100 | 1,598 | | | | |

| Area (ha) | Rice: Wet Season (Transplanting) | | | | | | Rice: Dry Season | | | | | | Annual | | | | |
|-------------------------------------|----------------------------------|------------------------|----------------|------------------|-------------------|------------------------|-------------------|------------------------|----------------|------------------|-------------------|------------------------|----------------|------------------|-------------------|------------------------|------------------|
| | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Production (ton) |
| | | | | | | | | | | | | | | | | | |
| Land Use Sub-category | | | | | | | | | | | | | | | | | |
| Normal Irrigation Paddy Field | | | | | | | | | | | | | | | | | |
| Supplemental Irrigation Paddy Field | | | | | | | | | | | | | | | | | |
| Rainfed Paddy Field | | | | | | | | | | | | | | | | | |
| Recession Paddy Field | | | | | | | | | | | | | | | | | |
| Total | 700 | 31 | 1.5 | 328 | 483 | 69 | 488 | 1.0 | 488 | 0 | 700 | 100 | 815 | | | | |

| Area (ha) | Rice: Wet Season (Transplanting) | | | | | | Rice: Dry Season | | | | | | Annual | | | | |
|-------------------------------------|----------------------------------|------------------------|----------------|------------------|-------------------|------------------------|-------------------|------------------------|----------------|------------------|-------------------|------------------------|----------------|------------------|-------------------|------------------------|------------------|
| | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Production (ton) |
| | | | | | | | | | | | | | | | | | |
| Land Use Sub-category/ | | | | | | | | | | | | | | | | | |
| Normal Irrigation Paddy Field | | | | | | | | | | | | | | | | | |
| Supplemental Irrigation Paddy Field | | | | | | | | | | | | | | | | | |
| Rainfed Paddy Field | | | | | | | | | | | | | | | | | |
| Recession Paddy Field | | | | | | | | | | | | | | | | | |
| Total | 8,830 | 2,733 | 31 | 1.5 | 4,123 | 6,087 | 69 | 6,140 | 1.0 | 6,140 | 10 | 8,830 | 100 | 10,283 | | | |

Table C3-18 Present/Without-project & With-project Crop Production: Bassac Reservoir Rehabilitation Project

Bassac Irrigation System Rehabilitation Project

A. Present/Without-project Crop Production

| Land Use Sub-category | Rice: Earli Wet Season (Transplanting) | | | Rice: Wet Season (Transplanting) | | | Rice: Wet Season (Direct Sowing) | | | Rice: Dry Season | | | Annual | | | | | | |
|-------------------------------------|--|------------------------|----------------|----------------------------------|------------------------|----------------|----------------------------------|------------------------|----------------|-------------------|------------------------|----------------|-------------------|------------------------|------------------|-------------------|------------------------|----------------|------------------|
| | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) |
| Normal Irrigation Paddy Field | | | | | | | | | | | | | | | | | | | |
| Supplemental Irrigation Paddy Field | | | | | | | | | | | | | | | | | | | |
| Rainfed Paddy Field | 4,120 | | | 1,277 | 31 | 1.5 | 1,916 | 69 | 1.0 | 2,843 | | | | | 4,120 | 100 | | 4,759 | |
| Recession Paddy Field | | | | | | | | | | | | | | | | | | | |
| Total | 4,120 | 0 | | 1,277 | 31 | 1.5 | 1,916 | 69 | 1.0 | 2,843 | 0 | | | 4,120 | 100 | | | 4,759 | 0 |

B. With-project Crop Production

| Land Use Sub-category | Rice: Earli Wet Season (Transplanting) | | | Rice: Wet Season (Transplanting) | | | Rice: Wet Season (Direct Sowing) | | | Rice: Dry Season | | | Annual | | | | | | |
|-------------------------------------|--|------------------------|----------------|----------------------------------|------------------------|----------------|----------------------------------|------------------------|----------------|-------------------|------------------------|----------------|-------------------|------------------------|------------------|-------------------|------------------------|----------------|------------------|
| | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) |
| Normal Irrigation Paddy Field | 3,500 | | | 1,085 | 81 | 3.5 | 3,798 | 69 | 2.8 | 6,762 | | | | | 3,500 | 100 | | 10,560 | |
| Supplemental Irrigation Paddy Field | | | | | | | | | | | | | | | | | | | |
| Rainfed Paddy Field | | | | | | | | | | | | | | | | | | | |
| Recession Paddy Field | | | | | | | | | | | | | | | | | | | |
| Total | 3,500 | 0 | | 1,085 | 81 | 3.5 | 3,798 | 69 | 2.8 | 6,762 | 0 | | | 3,500 | 100 | | | 10,560 | 30 |

C. Increment: With-project - Present/Without-project

| Land Use Sub-category | Rice: Earli Wet Season (Transplanting) | | | Rice: Wet Season (Transplanting) | | | Rice: Wet Season (Direct Sowing) | | | Rice: Dry Season | | | Annual | | | | | | |
|-------------------------------------|--|------------------------|----------------|----------------------------------|------------------------|----------------|----------------------------------|------------------------|----------------|-------------------|------------------------|----------------|-------------------|------------------------|------------------|-------------------|------------------------|----------------|------------------|
| | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) |
| Normal Irrigation Paddy Field | 3,500 | | | 1,085 | 81 | 3.798 | 6,762 | | | | | | | | 3,500 | 100 | | 10,560 | |
| Supplemental Irrigation Paddy Field | 0 | | | | | | | | | | | | | | | | | | |
| Rainfed Paddy Field | -4,120 | | | -1,277 | -31 | -1,916 | -2,843 | -69 | | | | | | | -4,120 | -100 | | -4,759 | |
| Recession Paddy Field | 0 | | | | | | | | | | | | | | | | | | |
| Total | -620 | 0 | | -192 | 0 | 1,882 | -428 | 0 | 1.8 | 3,919 | 0 | | | -620 | 0 | | | 5,801 | 30 |

Table C3-19 Cost Estimates for Agricultural Support Services for Bassac Reservoir Rehabilitation Project 1/

| Activities | | Project Area: 3,500 ha | | | | | | | | | | | | Overall | | | | | | |
|--|-------|------------------------|---------------------|---------------|--------|------------|---------------------|---------------|------------|------------|---------------------|---------------|------------|---------|------------|------------|---------------------|---------------|--------|----------------|
| | | 1st | | | 2nd | | | 3rd | | | 4th | | | | | | | | | |
| | | Unit | Program Cost (US\$) | Amount (US\$) | Volume | Unit | Program Cost (US\$) | Amount (US\$) | Volume | Unit | Program Cost (US\$) | Amount (US\$) | Volume | | | Unit | Program Cost (US\$) | Amount (US\$) | Volume | |
| | | | Dry Season | Wet Season | Annual | Dry Season | Wet Season | Annual | Dry Season | Wet Season | Annual | Dry Season | Wet Season | Annual | Dry Season | Wet Season | Annual | | | |
| 1. Field Programs | | | | | | | | | | | | | | | | | | | | |
| 1.1 Field Adaptability Test | unit | 550 | 1 | 1 | 550 | 1 | 1 | 550 | 1 | 1 | 550 | 1 | 1 | 550 | 1 | 1 | 550 | 4 | 4 | 2,200 |
| 1.2 Demonstration Plot (0.1ha) | unit | 50 | 4 | 4 | 200 | 5 | 5 | 250 | 5 | 5 | 250 | 4 | 4 | 200 | 4 | 4 | 200 | 18 | 18 | 900 |
| - Irrigated Rice | unit | 50 | | | | 1 | 1 | 50 | | | | | | | | | | 2 | 0 | 100 |
| - Upland Crops/vegetables | unit | 400 | 2 | 2 | 800 | 3 | 3 | 1,200 | 3 | 3 | 1,200 | 2 | 2 | 800 | 2 | 2 | 800 | 9 | 9 | 3,600 |
| 1.2 Demonstration Plot (1.0ha) | unit | 400 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 400 | 1 | 1 | 400 | 2 | 0 | 800 |
| - Irrigated Rice | unit | 1,000 | 0 | 0 | 0 | 1 | 1 | 1,000 | 1 | 1 | 1,000 | 2 | 2 | 2,000 | 2 | 2 | 2,000 | 0 | 4 | 4,000 |
| - Upland Crops/vegetables | unit | 2,500 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2,500 | 1 | 1 | 2,500 |
| 1.3 Demonstration Farm (5.0ha) | unit | 360 | 1 | 1 | 360 | 1 | 1 | 360 | 1 | 1 | 360 | 1 | 1 | 360 | 1 | 1 | 360 | 4 | 4 | 1,440 |
| - Irrigated Rice | unit | | 0 | 8 | 1,910 | 1 | 11 | 12 | 3,410 | 2 | 10 | 12 | 3,410 | 1 | 11 | 12 | 6,810 | 4 | 44 | 15,540 |
| 1.5 Seed Multiplication | unit | | 0 | 8 | 1,910 | 1 | 11 | 12 | 3,410 | 2 | 10 | 12 | 3,410 | 1 | 11 | 12 | 6,810 | 4 | 44 | 15,540 |
| 2. Farmer/Farmer Group Training Programs | | | | | | | | | | | | | | | | | | | | |
| 2.1 Training Course | unit | 370 | 2 | 2 | 740 | 2 | 2 | 740 | 2 | 2 | 740 | 1 | 1 | 370 | 1 | 1 | 370 | 7 | 7 | 2,590 |
| - 5 Days (30 participants) | unit | 850 | 1 | 1 | 850 | 1 | 1 | 850 | 1 | 1 | 850 | 1 | 1 | 850 | 1 | 1 | 850 | 4 | 4 | 3,400 |
| 2.2 PFS/IPM (50 participants) | unit | 330 | 1 | 1 | 330 | 1 | 1 | 330 | 1 | 1 | 330 | 1 | 1 | 330 | 1 | 1 | 330 | 4 | 4 | 1,320 |
| 2.3 Study Tour | unit | 2,200 | 1 | 1 | 2,200 | 1 | 1 | 2,200 | 1 | 1 | 2,200 | 1 | 1 | 2,200 | 1 | 1 | 2,200 | 1 | 1 | 2,200 |
| 2.4 VEA Training | unit | | 0 | 5 | 1,920 | 0 | 4 | 4 | 1,920 | 0 | 4 | 4 | 1,920 | 0 | 3 | 3 | 1,550 | 0 | 16 | 28,990 |
| - 10 Participants | unit | | 0 | 5 | 1,920 | 0 | 4 | 4 | 1,920 | 0 | 4 | 4 | 1,920 | 0 | 3 | 3 | 1,550 | 0 | 16 | 28,990 |
| Sub-total | | | | | | | | | | | | | | | | | | | | |
| 3. Mass Guidance/Workshop | | | | | | | | | | | | | | | | | | | | |
| 3.1 50 Participants | | 120 | 2 | 2 | 240 | 2 | 2 | 240 | 2 | 2 | 240 | 1 | 1 | 120 | 1 | 1 | 120 | 0 | 7 | 55,480 |
| 4. Support Fund for Extension Staff | VEA | 360 | | 7 | 2,520 | | 7 | 2,520 | | 7 | 2,520 | | 7 | 2,520 | | 7 | 2,520 | | 28 | 10,080 |
| Farmer-to-farmer Extension Support | staff | 600 | | 2 | 1,200 | | 2 | 1,200 | | 2 | 1,200 | | 2 | 1,200 | | 2 | 1,200 | | 8 | 4,800 |
| Field Guidance Staff | staff | 550 | | 9 | 3,720 | | 9 | 3,720 | | 9 | 3,720 | | 9 | 3,720 | | 9 | 3,720 | | 36 | 108,860 |
| Sub-total | unit | | | 1 | 550 | | 1 | 550 | | 1 | 550 | | 1 | 550 | | 1 | 550 | | 2 | 1,100 |
| 5. Staff Empowerment | | | | | | | | | | | | | | | | | | | | |
| 6. Provision of Transportation Means | unit | 100 | | 7 | 700 | | 7 | 700 | | 7 | 700 | | 7 | 700 | | 7 | 700 | | 7 | 700 |
| - Bicycle | unit | 1,000 | | 2 | 2,000 | | 2 | 2,000 | | 2 | 2,000 | | 2 | 2,000 | | 2 | 2,000 | | 2 | 2,000 |
| - Motorcycle | unit | | | 9 | 2,700 | | 9 | 2,700 | | 9 | 2,700 | | 9 | 2,700 | | 9 | 2,700 | | 9 | 183,020 |
| Sub-total | | | | 9 | 2,700 | | 9 | 2,700 | | 9 | 2,700 | | 9 | 2,700 | | 9 | 2,700 | | 9 | 183,020 |
| Total | | | | | 11,040 | | | 9,290 | | | 9,840 | | | 12,200 | | | 12,200 | | | 42,370 |
| 1/ Program direct cost | | | | | | | | | | | | | | | | | | | | rounded 42,000 |

Table C3-20 Present/Without-project & With-project Crop Production: Ream Kon Rehabilitation Project

Ream Kon Rehabilitation Project

A. Present/Without-project Crop Production

| | Rice: Earit Wet Season (Transplanting) | | | Rice: Wet Season (Transplanting) | | | Rice: Wet Season (Direct Sowing) | | | Rice: Dry Season | | | Annual | | | | |
|-------------------------------------|--|------------------------|----------------|----------------------------------|------------------------|----------------|----------------------------------|------------------------|----------------|-------------------|------------------------|----------------|-------------------|------------------------|------------------|------------|--------------|
| | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Production (ton) | | |
| Land Use Sub-category | | | | | | | | | | | | | | | | | |
| Normal Irrigation Paddy Field | | | | | | | | | | | | | | | | | |
| Supplemental Irrigation Paddy Field | 40 | | | 12 | 0 | 2.0 | 24 | 28 | 1 | 1.5 | 42 | | | 40 | 1 | 66 | |
| Rainfed Paddy Field | 2,620 | | | 812 | 30 | 1.5 | 1,218 | 1,808 | 68 | 1.0 | 1,808 | | | 2,620 | 98 | 3,026 | |
| Recession Paddy Field | 10 | | | | | | | | | | | 10 | 0.4 | 20 | 10 | 0.4 | 20 |
| Total | 2,670 | 0 | | 824 | 31 | 1.5 | 1,242 | 1,836 | 69 | 1.0 | 1,850 | 10 | 0 | 20 | 2,670 | 100 | 3,112 |

B. With-project Crop Production

| | Rice: Earit Wet Season (Transplanting) | | | Rice: Wet Season (Transplanting) | | | Rice: Wet Season (Direct Sowing) | | | Rice: Dry Season | | | Annual | | | | |
|-------------------------------------|--|------------------------|----------------|----------------------------------|------------------------|----------------|----------------------------------|------------------------|----------------|-------------------|------------------------|----------------|-------------------|------------------------|------------------|------------|--------------|
| | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Production (ton) | | |
| Land Use Sub-category | | | | | | | | | | | | | | | | | |
| Normal Irrigation Paddy Field | 2,290 | | | 710 | 53 | 3.5 | 2,485 | 1,580 | 69 | 2.8 | 4,424 | | | 2,290 | 100 | 6,909 | |
| Supplemental Irrigation Paddy Field | | | | | | | | | | | | | | | | | |
| Rainfed Paddy Field | 10 | | | | | | | | | | | 10 | 0.4 | 25 | 10 | 0.4 | 25 |
| Recession Paddy Field | | | | | | | | | | | | 10 | 0 | 2.5 | 25 | 0 | 2.5 |
| Total | 2,300 | 0 | | 710 | 31 | 3.5 | 2,485 | 1,580 | 69 | 2.8 | 4,424 | 10 | 0 | 25 | 2,300 | 100 | 6,934 |

C. Increment: With-project - Present/Without-project

| | Rice: Earit Wet Season (Transplanting) | | | Rice: Wet Season (Transplanting) | | | Rice: Wet Season (Direct Sowing) | | | Rice: Dry Season | | | Annual | | | | |
|-------------------------------------|--|------------------------|----------------|----------------------------------|------------------------|----------------|----------------------------------|------------------------|----------------|-------------------|------------------------|----------------|-------------------|------------------------|------------------|----------|--------------|
| | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Production (ton) | | |
| Land Use Sub-category | | | | | | | | | | | | | | | | | |
| Normal Irrigation Paddy Field | 2,290 | | | 710 | 53 | 3.5 | 2,485 | 1,580 | 69 | 2.8 | 4,424 | | | 2,290 | 100 | 6,909 | |
| Supplemental Irrigation Paddy Field | -40 | | | -12 | 0 | -24 | -24 | -28 | -1 | -42 | -42 | | | -40 | -1 | -66 | |
| Rainfed Paddy Field | -2,620 | | | -812 | -30 | -1,218 | -1,218 | -1,808 | -68 | -1,808 | -1,808 | | | -2,620 | -98 | -3,026 | |
| Recession Paddy Field | 0 | | | | | | | | | | | 10 | 0.4 | 20 | 10 | 0.4 | 20 |
| Total | -370 | 0 | | -114 | 0 | 2.0 | 1,243 | -256 | 0 | 1.8 | 2,574 | 0 | 0 | 5 | -370 | 0 | 3,822 |

Table C3-21 Cost Estimates for Agricultural Support Services for Ream Kon Rehabilitation Project 1/

| 2. Ream Kon Rehabilitation Project | | Project Area: 2,300 ha | | | | | | | | | | | | Overall | | | | | | | | | | | |
|--|-------|------------------------|---------------------|---------------|--------|------------|------------------|------------|--------|---------------|--------|------------|------------------|---------|-------|------------|--------|---------------|------------|------------------|------------|--------|---------------|-------|--------|
| | | 1st | | | 2nd | | | 3rd | | | 4th | | | | | Volume | | Amount (US\$) | | | | | | | |
| | | Unit | Program Cost (US\$) | Amount (US\$) | Volume | Dry Season | Early Wet Season | Wet Season | Annual | Amount (US\$) | Volume | Dry Season | Early Wet Season | | | Wet Season | Annual | | Dry Season | Early Wet Season | Wet Season | Annual | Amount (US\$) | | |
| 1. Field Programs | unit | 550 | 1 | 1 | 1 | 550 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 1,100 | |
| 1.1 Field Adaptability Test | unit | 550 | 1 | 1 | 1 | 550 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,100 |
| 1.2 Demonstration Plot (0.1ha) | unit | 50 | 2 | 2 | 100 | 3 | 150 | 3 | 150 | 3 | 150 | 3 | 150 | 3 | 150 | 3 | 150 | 3 | 150 | 3 | 150 | 11 | 11 | 550 | |
| - Irrigated Rice | unit | 50 | | | | 1 | 50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 50 |
| - Upland Crops/vegetables | unit | 400 | 2 | 2 | 800 | 2 | 800 | 2 | 800 | 2 | 800 | 2 | 800 | 2 | 800 | 2 | 800 | 2 | 800 | 2 | 800 | 6 | 6 | 2,400 | |
| 1.2 Demonstration Plot (1.0ha) | unit | 400 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 400 |
| - Irrigated Rice | unit | 1,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2,000 |
| - Upland Crops/vegetables | unit | 2,500 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2,500 |
| 1.3 Demonstration Farm (5.0ha) | unit | 360 | 0 | 0 | 0 | 0 | 360 | 1 | 360 | 1 | 360 | 1 | 360 | 1 | 360 | 1 | 360 | 1 | 360 | 1 | 360 | 2 | 2 | 720 | |
| - Irrigated Rice | unit | 2,200 | 1 | 1 | 2,200 | 1 | 2,200 | 1 | 2,200 | 1 | 2,200 | 1 | 2,200 | 1 | 2,200 | 1 | 2,200 | 1 | 2,200 | 1 | 2,200 | 2 | 2 | 9,720 | |
| - Upland Crops/vegetables | unit | 2,200 | 1 | 1 | 2,200 | 1 | 2,200 | 1 | 2,200 | 1 | 2,200 | 1 | 2,200 | 1 | 2,200 | 1 | 2,200 | 1 | 2,200 | 1 | 2,200 | 2 | 2 | 9,720 | |
| 1.4 Demonstration Area (20ha) | unit | 2,500 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2,500 |
| - Irrigated Rice | unit | 360 | 0 | 0 | 0 | 0 | 360 | 1 | 360 | 1 | 360 | 1 | 360 | 1 | 360 | 1 | 360 | 1 | 360 | 1 | 360 | 2 | 2 | 720 | |
| - Upland Crops/vegetables | unit | 2,200 | 1 | 1 | 2,200 | 1 | 2,200 | 1 | 2,200 | 1 | 2,200 | 1 | 2,200 | 1 | 2,200 | 1 | 2,200 | 1 | 2,200 | 1 | 2,200 | 2 | 2 | 9,720 | |
| 1.5 Seed Multiplication | unit | 2,200 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2,200 |
| Sub-total | | | 0 | 5 | 1,450 | 1 | 7 | 8 | 1,910 | 1 | 7 | 8 | 2,710 | 0 | 5 | 5 | 3,650 | 2 | 26 | 26 | 26 | 26 | 26 | 26 | 9,720 |
| 2. Farmer/Farmer Group Training Programs | unit | 370 | 2 | 2 | 740 | 1 | 370 | 1 | 370 | 1 | 370 | 1 | 370 | 1 | 370 | 1 | 370 | 1 | 370 | 1 | 370 | 0 | 0 | 0 | 19,350 |
| 2.1 Training Course | unit | 850 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 850 |
| - 5 Days (50 participants) | unit | 330 | 1 | 1 | 330 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 330 |
| 2.2 FFS/IPM (50 participants) | unit | 2,200 | 1 | 1 | 2,200 | 1 | 2,200 | 1 | 2,200 | 1 | 2,200 | 1 | 2,200 | 1 | 2,200 | 1 | 2,200 | 1 | 2,200 | 1 | 2,200 | 1 | 1 | 1 | 2,200 |
| 2.3 Study Tour | unit | 2,200 | 1 | 1 | 2,200 | 1 | 2,200 | 1 | 2,200 | 1 | 2,200 | 1 | 2,200 | 1 | 2,200 | 1 | 2,200 | 1 | 2,200 | 1 | 2,200 | 1 | 1 | 1 | 2,200 |
| 2.4 VEA Training | unit | 2,200 | 1 | 1 | 2,200 | 1 | 2,200 | 1 | 2,200 | 1 | 2,200 | 1 | 2,200 | 1 | 2,200 | 1 | 2,200 | 1 | 2,200 | 1 | 2,200 | 1 | 1 | 1 | 2,200 |
| - 10 Participants | unit | 2,200 | 1 | 1 | 2,200 | 1 | 2,200 | 1 | 2,200 | 1 | 2,200 | 1 | 2,200 | 1 | 2,200 | 1 | 2,200 | 1 | 2,200 | 1 | 2,200 | 1 | 1 | 1 | 2,200 |
| Sub-total | | | 0 | 4 | 1,070 | 0 | 2 | 2 | 1,220 | 0 | 3 | 3 | 1,550 | 0 | 1 | 1 | 370 | 0 | 10 | 10 | 10 | 10 | 10 | 10 | 19,350 |
| 3. Mass Guidance/Workshop | unit | 120 | 2 | 2 | 240 | 1 | 120 | 1 | 120 | 1 | 120 | 1 | 120 | 1 | 120 | 1 | 120 | 1 | 120 | 1 | 120 | 0 | 0 | 0 | 36,200 |
| 3.1 50 Participants | unit | 360 | 5 | 5 | 1,800 | 5 | 1,800 | 5 | 1,800 | 5 | 1,800 | 5 | 1,800 | 5 | 1,800 | 5 | 1,800 | 5 | 1,800 | 5 | 1,800 | 0 | 0 | 0 | 7,200 |
| Support Fund for Extension Staff | VEA | 600 | 1 | 1 | 600 | 1 | 600 | 1 | 600 | 1 | 600 | 1 | 600 | 1 | 600 | 1 | 600 | 1 | 600 | 1 | 600 | 0 | 0 | 0 | 2,400 |
| Farmer-to-farmer Extension Support | staff | 550 | 6 | 6 | 2,400 | 6 | 2,400 | 6 | 2,400 | 6 | 2,400 | 6 | 2,400 | 6 | 2,400 | 6 | 2,400 | 6 | 2,400 | 6 | 2,400 | 0 | 0 | 0 | 71,560 |
| Field Guidance Staff | unit | 550 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 550 |
| 5. Staff Empowerment | unit | 100 | 5 | 5 | 500 | 5 | 500 | 5 | 500 | 5 | 500 | 5 | 500 | 5 | 500 | 5 | 500 | 5 | 500 | 5 | 500 | 0 | 0 | 0 | 500 |
| 6. Provision of Transportation Means | unit | 1,000 | 1 | 1 | 1,000 | 1 | 1,000 | 1 | 1,000 | 1 | 1,000 | 1 | 1,000 | 1 | 1,000 | 1 | 1,000 | 1 | 1,000 | 1 | 1,000 | 0 | 0 | 0 | 1,000 |
| - Bicycle | unit | 1,000 | 6 | 6 | 6,000 | 6 | 6,000 | 6 | 6,000 | 6 | 6,000 | 6 | 6,000 | 6 | 6,000 | 6 | 6,000 | 6 | 6,000 | 6 | 6,000 | 0 | 0 | 0 | 6,000 |
| - Motorcycle | unit | 1,000 | 1 | 1 | 1,000 | 1 | 1,000 | 1 | 1,000 | 1 | 1,000 | 1 | 1,000 | 1 | 1,000 | 1 | 1,000 | 1 | 1,000 | 1 | 1,000 | 0 | 0 | 0 | 1,000 |
| Sub-total | | | 6 | 6 | 6,660 | 6 | 6,660 | 6 | 6,660 | 6 | 6,660 | 6 | 6,780 | 0 | 0 | 0 | 6,540 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 25,630 |
| Total | | | | | 6,660 | | 6,660 | | 6,780 | | 6,780 | | 6,780 | | 6,540 | | 6,540 | | 0 | | | | | | 25,630 |
| 1/: Program direct cost | | | | | 6,660 | | 6,660 | | 6,780 | | 6,780 | | 6,780 | | 6,540 | | 6,540 | | 0 | | | | | | 26,000 |

Table C3-22 Present/Without-project & With-project Crop Production: Por Canal Rehabilitation Project

Por Canal Rehabilitation Project

A. Present/Without-project Crop Production

| | Rice: Earli Wet Season (Transplanting) | | | Rice: Wet Season (Direct Sowing) | | | Rice: Dry Season | | | Annual | | | | |
|-------------------------------------|--|------------------------|------------------|----------------------------------|------------------------|------------------|-------------------|------------------------|----------------|------------------|-------------------|------------------------|----------------|------------------|
| | Area (ha) | Cropped Area (ha) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) |
| | | Cropping Intensity (%) | Production (ton) | | | | | | | | | | | |
| Land Use Sub-category | | | | | | | | | | | | | | |
| Normal Irrigation Paddy Field | 1,00 | 31 | 2.0 | 62 | 69 | 1.5 | 104 | | | | 100 | 7 | 166 | |
| Supplemental Irrigation Paddy Field | | | | | | | | | | | | | | |
| Rainfed Paddy Field | 1,240 | 384 | 29 | 576 | 856 | 1.0 | 856 | | | | 1,240 | 93 | 1,432 | |
| Recession Paddy Field | | | | | | | | | | | | | | |
| Total | 1,340 | 0 | 31 | 638 | 925 | 1.0 | 960 | 0 | 0 | 0 | 1,340 | 100 | 1,598 | 0 |

B. With-project Crop Production

| | Rice: Earli Wet Season (Transplanting) | | | Rice: Wet Season (Direct Sowing) | | | Rice: Dry Season | | | Annual | | | | |
|-------------------------------------|--|------------------------|------------------|----------------------------------|------------------------|------------------|-------------------|------------------------|----------------|------------------|-------------------|------------------------|----------------|------------------|
| | Area (ha) | Cropped Area (ha) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) |
| | | Cropping Intensity (%) | Production (ton) | | | | | | | | | | | |
| Land Use Sub-category | | | | | | | | | | | | | | |
| Normal Irrigation Paddy Field | 1,200 | 372 | 31 | 1,302 | 828 | 2.8 | 2,318 | | | | 1,200 | 100 | 3,620 | |
| Supplemental Irrigation Paddy Field | | | | | | | | | | | | | | |
| Rainfed Paddy Field | | | | | | | | | | | | | | |
| Recession Paddy Field | | | | | | | | | | | | | | |
| Total | 1,200 | 0 | 31 | 1,302 | 828 | 2.8 | 2,318 | 0 | 0 | 0 | 1,200 | 100 | 3,620 | 20 |
| | | | | | | | | | | | | | | 2 |
| | | | | | | | | | | | | | | 0.5 |
| | | | | | | | | | | | | | | 10 |

C. Increment: With-project - Present/Without-project

| | Rice: Earli Wet Season (Transplanting) | | | Rice: Wet Season (Direct Sowing) | | | Rice: Dry Season | | | Annual | | | | |
|-------------------------------------|--|------------------------|------------------|----------------------------------|------------------------|------------------|-------------------|------------------------|----------------|------------------|-------------------|------------------------|----------------|------------------|
| | Area (ha) | Cropped Area (ha) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) |
| | | Cropping Intensity (%) | Production (ton) | | | | | | | | | | | |
| Land Use Sub-category | | | | | | | | | | | | | | |
| Normal Irrigation Paddy Field | 1,200 | 372 | 31 | 1,302 | 828 | 2.8 | 2,318 | | | | 1,200 | 100 | 3,620 | |
| Supplemental Irrigation Paddy Field | -100 | -31 | -2 | -62 | -69 | -5 | -104 | | | | -100 | -7 | -166 | |
| Rainfed Paddy Field | -1,240 | -384 | -29 | -576 | -856 | -64 | -856 | | | | -1,240 | -93 | -1,432 | |
| Recession Paddy Field | 0 | | | | | | | | | | | | | |
| Total | -140 | 0 | 0 | 664 | -97 | 1.8 | 1,359 | 0 | 0 | 0 | -140 | 0 | 2,023 | 2 |
| | | | | | | | | | | | | | | 0.5 |
| | | | | | | | | | | | | | | 10 |

Table C3-23 Cost Estimates for Agricultural Support Services for Por Canal Rehabilitation Project 1/

| Activities | | Project Area: 1,200 ha | | | | | | | | | | | | |
|--|-------|------------------------|---------------------|--------|---------------|------------------|---------------|--------------|------------------|--------|---------------|------------------|---------------|---------------|
| | | 1st | | | 2nd | | | 3rd | | | Overall | | | |
| | | Unit | Program Cost (US\$) | Volume | Amount (US\$) | Volume | Amount (US\$) | Volume | Amount (US\$) | Volume | Amount (US\$) | Volume | Amount (US\$) | |
| | | Dry Season | Early Wet Season | Annual | Dry Season | Early Wet Season | Annual | Dry Season | Early Wet Season | Annual | Dry Season | Early Wet Season | Annual | |
| 1. Field Programs | | | | | | | | | | | | | | |
| 1.1 Field Adaptability Test | unit | 550 | 1 | 1 | 550 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 550 |
| 1.2 Demonstration Plot (0.1ha) | | | | | | | | | | | | | | |
| - Irrigated Rice | unit | 50 | 2 | 2 | 100 | 2 | 2 | 100 | 2 | 2 | 100 | 6 | 300 | |
| - Upland Crops/vegetables | unit | 50 | | | 50 | 1 | 1 | 50 | | | 50 | 0 | 50 | |
| 1.2 Demonstration Plot (1.0ha) | | | | | | | | | | | | | | |
| - Irrigated Rice | unit | 400 | 1 | 1 | 400 | 1 | 1 | 400 | 1 | 1 | 400 | 3 | 1,200 | |
| - Upland Crops/vegetables | unit | 400 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 400 | 0 | 400 | |
| 1.3 Demonstration Farm (5.0ha) | | | | | | | | | | | | | | |
| - Irrigated Rice | unit | 1,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,000 | 0 | 1,000 | |
| 1.4 Demonstration Area (20ha) | | | | | | | | | | | | | | |
| - Irrigated Rice | unit | 2,500 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 1.5 Seed Multiplication | unit | 360 | 0 | 4 | 1,050 | 1 | 4 | 5 | 1 | 4 | 5 | 1 | 360 | |
| Sub-total | | | 0 | 4 | 4 | 1,050 | 1 | 4 | 5 | 910 | 1 | 4 | 5 | 1,900 |
| 2. Farmer/Farmer Group Training Programs | | | | | | | | | | | | | | |
| 2.1 Training Course | | | | | | | | | | | | | | |
| - 5 Days (30 participants) | unit | 370 | 1 | 1 | 370 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 370 | |
| 2.2 FFS/PPM (50 participants) | unit | 850 | 0 | 0 | 0 | 1 | 1 | 850 | 0 | 0 | 0 | 0 | 850 | |
| 2.3 Study Tour | unit | 330 | 1 | 1 | 330 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 330 | |
| 2.4 VEA Training | | | | | | | | | | | | | | |
| - 10 Participants | unit | 2,200 | 1 | 1 | 2,200 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2,200 | |
| Sub-total | | | 0 | 3 | 3 | 700 | 0 | 1 | 1 | 850 | 0 | 1 | 1 | 370 |
| 3. Mass Guidance/Workshop | | | | | | | | | | | | | | |
| 3.1 50 Participants | | | | | | | | | | | | | | |
| | | 120 | 1 | 1 | 120 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 120 | |
| 4. Support Fund for Extension Staff | VEA | 360 | | 4 | 1,440 | | 4 | 1,440 | | 4 | 1,440 | | 12 | 4,320 |
| Farmer-to-farmer Extension Support | | | | | | | | | | | | | | |
| Field Guidance Staff | staff | 600 | 2 | 2 | 1,200 | | 1 | 600 | | 1 | 600 | | 4 | 2,400 |
| Sub-total | | | 6 | 6 | 2,640 | | 5 | 2,040 | | 5 | 2,040 | | 16 | 35,860 |
| 5. Staff Empowerment | unit | 550 | | | 0 | | | 0 | | | 0 | | 0 | 0 |
| 6. Provision of Transportation Means | | | | | | | | | | | | | | |
| - Bicycle | unit | 100 | | 3 | 300 | | | | | | | | 3 | 300 |
| - Motorcycle | unit | 1,000 | | 1 | 1,000 | | | | | | | | 1 | 1,000 |
| Sub-total | | | | 4 | 1,300 | | | 0 | | | 0 | | 4 | 60,560 |
| Total | | | | | 5,810 | | | 3,800 | | | 4,430 | | 14,000 | 14,000 |

1/: Program direct cost rounded

Table C3-24 Present/Without-project & With-project Crop Production: Nikom Le/Dai Ta Chan Rehabilitation Project

Nikom Le/Dai Ta Chan Rehabilitation Project

A. Present/Without-project Crop Production

| Land Use Sub-category | Rice: Earli Wet Season (Transplanting) | | | Rice: Wet Season (Transplanting) | | | Rice: Wet Season (Direct Sowing) | | | Rice: Dry Season | | | Annual | | |
|-------------------------------------|--|------------------------|----------------|----------------------------------|------------------------|----------------|----------------------------------|------------------------|----------------|-------------------|------------------------|----------------|-------------------|------------------------|------------------|
| | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Production (ton) |
| Normal Irrigation Paddy Field | 13 | | | 4 | 1 | 2.0 | 8 | 1 | 1.5 | 14 | | | 13 | 2 | 22 |
| Supplemental Irrigation Paddy Field | 687 | | | 213 | 30 | 1.5 | 320 | 68 | 1.0 | 474 | | | 687 | 98 | 794 |
| Rainfed Paddy Field | | | | | | | | | | | | | | | |
| Recession Paddy Field | | | | | | | | | | | | | | | |
| Total | 700 | 0 | 0 | 217 | 31 | 1.5 | 328 | 69 | 1.0 | 488 | 0 | 0 | 700 | 100 | 815 |

B. With-project Crop Production

| Land Use Sub-category | Rice: Earli Wet Season (Transplanting) | | | Rice: Wet Season (Transplanting) | | | Rice: Wet Season (Direct Sowing) | | | Rice: Dry Season | | | Annual | | |
|-------------------------------------|--|------------------------|----------------|----------------------------------|------------------------|----------------|----------------------------------|------------------------|----------------|-------------------|------------------------|----------------|-------------------|------------------------|------------------|
| | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Production (ton) |
| Normal Irrigation Paddy Field | 600 | 10 | 3.5 | 186 | 14 | 3.5 | 651 | 69 | 2.8 | 1,159 | | | 660 | 110 | 2,020 |
| Supplemental Irrigation Paddy Field | | | | | | | | | | | | | | | |
| Rainfed Paddy Field | | | | | | | | | | | | | | | |
| Recession Paddy Field | | | | | | | | | | | | | | | |
| Total | 600 | 10 | 3.5 | 186 | 31 | 3.5 | 651 | 69 | 2.8 | 1,159 | 0 | 0 | 660 | 110 | 2,020 |

C. Increment: With-project - Present/Without-project

| Land Use Sub-category | Rice: Earli Wet Season (Transplanting) | | | Rice: Wet Season (Transplanting) | | | Rice: Wet Season (Direct Sowing) | | | Rice: Dry Season | | | Annual | | |
|-------------------------------------|--|------------------------|----------------|----------------------------------|------------------------|----------------|----------------------------------|------------------------|----------------|-------------------|------------------------|----------------|-------------------|------------------------|------------------|
| | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Production (ton) |
| Normal Irrigation Paddy Field | 600 | 10 | 3.5 | 186 | 14 | 3.5 | 651 | 69 | 2.8 | 1,159 | | | 660 | 110 | 2,020 |
| Supplemental Irrigation Paddy Field | -13 | | | -4 | -1 | -8 | -8 | -1 | -14 | -14 | | | -13 | -2 | -22 |
| Rainfed Paddy Field | -687 | | | -213 | -30 | -320 | -320 | -68 | -474 | -474 | | | -687 | -98 | -794 |
| Recession Paddy Field | 0 | | | | | | | | | | | | | | |
| Total | -100 | 10 | 3.5 | -31 | 0 | 2.0 | 324 | 0 | 1.8 | 672 | 0 | 0 | -40 | 10 | 1,205 |

Table C3-25 Cost Estimates for Agricultural Support Services for Nikom Le/Dai Ta Chan Rehabilitation Project 1/

| 4. Nikom Le/Dai Ta Chan Rehabilitation Project | | Project Area: 660 ha | | 1st | | | 2nd | | | 3rd | | | Overall | | |
|---|-------|----------------------|----------------------|------------|--------|---------------|----------------------|------------|--------|---------------|----------------------|------------|---------|---------------|--|
| Activities | Unit | Program Cost (US\$) | Volume | | | Amount (US\$) | Volume | | | Amount (US\$) | Volume | | | Amount (US\$) | |
| | | | Dry Early Wet Season | Wet Season | Annual | | Dry Early Wet Season | Wet Season | Annual | | Dry Early Wet Season | Wet Season | Annual | | |
| 1. Field Programs | | | | | | | | | | | | | | | |
| 1.1 Field Adaptability Test | unit | 550 | 1 | 1 | 1 | 550 | | | | | | | | | |
| 1.2 Demonstration Plot (0.1ha) | | | | | | | | | | | | | | | |
| - Irrigated Rice | unit | 50 | 1 | 1 | 1 | 50 | | | | | | | | | |
| - Upland Crops/vegetables | unit | 50 | | | | 50 | 1 | 1 | 1 | 50 | 1 | 1 | 1 | 150 | |
| 1.2 Demonstration Plot (1.0ha) | | | | | | | | | | | | | | | |
| - Irrigated Rice | unit | 400 | 1 | 1 | 1 | 400 | | | | | | | | | |
| - Upland Crops/vegetables | unit | 400 | | | | 0 | 1 | 1 | 1 | 400 | 1 | 1 | 1 | 800 | |
| 1.3 Demonstration Farm (5.0ha) | | | | | | | | | | | | | | | |
| - Irrigated Rice | unit | 1,000 | | | | 0 | | | | 1,000 | 0 | 1 | 1 | 1,000 | |
| - Upland Crops/vegetables | unit | 2,500 | | | | 0 | | | | 0 | 0 | 0 | 0 | 0 | |
| 1.4 Demonstration Area (20ha) | | | | | | | | | | | | | | | |
| - Irrigated Rice | unit | 360 | | | | 0 | | | | 360 | 0 | 1 | 1 | 360 | |
| 1.5 Seed Multiplication | unit | | 0 | 3 | 3 | 1,000 | 1 | 3 | 4 | 860 | 1 | 2 | 3 | 1,450 | |
| Sub-total | | | | | | | | | | | | | | | |
| 2. Farmer/Farmer Group Training Programs | | | | | | | | | | | | | | | |
| 2.1 Training Course | | | | | | | | | | | | | | | |
| - 5 Days (30 participants) | unit | 370 | 1 | 1 | 1 | 370 | | | | | | | | | |
| 2.2 FFS/IPM (50 participants) | unit | 850 | | | | 0 | | | | 0 | | | | 0 | |
| 2.3 Study Tour | unit | 330 | | | | 0 | | | | 850 | 1 | 1 | 1 | 850 | |
| 2.4 VEA Training | | | | | | | | | | | | | | | |
| - 10 Participants | unit | 2,200 | | | | 0 | | | | 0 | | | | 0 | |
| Sub-total | | | 0 | 2 | 2 | 370 | 0 | 1 | 1 | 850 | 0 | 1 | 1 | 330 | |
| 3. Mass Guidance/Workshop | | | | | | | | | | | | | | | |
| 3.1 50 Participants | | | | | | | | | | | | | | | |
| Support Fund for Extension Staff | | 120 | 1 | 1 | 1 | 120 | | | | | | | | | |
| 4. Support Fund for Extension Staff | | | | | | | | | | | | | | | |
| Farmer-to-farmer Extension Support | VEA | 360 | | | | 720 | | | | | | | | | |
| Field Guidance Staff | staff | 600 | | | | 600 | | | | | | | | | |
| Sub-total | | | | | | | | | | | | | | | |
| 5. Staff Empowerment | unit | 550 | | | | 0 | | | | 3 | 1,320 | 0 | 0 | 3,960 | |
| 6. Provision of Transportation Means | | | | | | | | | | | | | | | |
| - Bicycle | unit | 100 | | | | 200 | | | | | | | | | |
| - Motorcycle | unit | 1,000 | | | | 1,000 | | | | | | | | | |
| Sub-total | | | | | | | | | | | | | | | |
| Total | | | | | | 4,010 | | | | 3,030 | | | | 3,100 | |
| 1/ Program direct cost | | | | | | | | | | | | | | 10,140 | |
| | | | | | | | | | | | | | | 10,000 | |

Table C3-26 Present/Without-project & With-project Crop Production: Overall Moung Ruessei River Basin

Whole River Basin

A. Present/Without-project Crop Production

| Land Use Sub-category/ | Rice: Earlt Wet Season (Transplanting) | | | Rice: Wet Season (Transplanting) | | | Rice: Wet Season (Direct Sowing) | | | Rice: Dry Season | | | Annual | | | Upland Crops: Early Wet Season | | | | |
|-------------------------------------|--|------------------------|----------------|----------------------------------|-------------------|------------------------|----------------------------------|------------------|-------------------|------------------------|----------------|------------------|-------------------|------------------------|----------------|--------------------------------|-------------------|------------------------|----------------|------------------|
| | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) |
| Normal Irrigation Paddy Field | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Supplemental Irrigation Paddy Field | 153 | 0 | 0 | 47 | 1 | 2.0 | 94 | 106 | 1 | 1.5 | 159 | 0 | 153 | 2 | 253 | 0 | 0 | 0 | 0 | 0 |
| Rainfed Paddy Field | 8,667 | 0 | 0 | 2,686 | 30 | 1.5 | 4,029 | 5,981 | 68 | 1.0 | 5,981 | 0 | 8,667 | 98 | 10,010 | 0 | 0 | 0 | 0 | 0 |
| Recession Paddy Field | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 0.1 | 2.0 | 20 | 0 | 0 | 0 | 0 |
| Total | 8,830 | 0 | 0 | 2,733 | 31 | 1.5 | 4,123 | 6,087 | 69 | 1.0 | 6,140 | 20 | 8,830 | 100 | 10,283 | 0 | 0 | 0 | 0 | 0 |

B. With-project Crop Production

| Land Use Sub-category/ Irrigation Method/Crops | Rice: Earlt Wet Season (Transplanting) | | | Rice: Wet Season (Transplanting) | | | Rice: Wet Season (Direct Sowing) | | | Rice: Dry Season | | | Annual | | | Upland Crops: Early Wet Season | | | | | |
|--|--|------------------------|----------------|----------------------------------|-------------------|------------------------|----------------------------------|------------------|-------------------|------------------------|----------------|------------------|-------------------|------------------------|----------------|--------------------------------|-------------------|------------------------|----------------|------------------|-----------|
| | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | |
| Normal Irrigation Paddy Field | 7,590 | 60 | 1 | 3.5 | 210 | 2,353 | 31 | 3.5 | 8,236 | 5,237 | 69 | 2.8 | 14,664 | 0 | 7,650 | 101 | 23,109 | 0 | 0 | 0 | |
| Supplemental Irrigation Paddy Field | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Rainfed Paddy Field | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Recession Paddy Field | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 0.1 | 2.5 | 25 | 10 | 0.1 | 2.5 | 25 | 65 |
| Total | 7,600 | 60 | 1 | 3.5 | 210 | 2,353 | 31 | 3.5 | 8,236 | 5,237 | 69 | 2.8 | 14,664 | 10 | 7,660 | 101 | 23,134 | 130 | 2 | 0.5 | 65 |

C. Increment: With-project - Present/Without-project

| Land Use Sub-category/ Irrigation Method/Crops | Rice: Earlt Wet Season (Transplanting) | | | Rice: Wet Season (Transplanting) | | | Rice: Wet Season (Direct Sowing) | | | Rice: Dry Season | | | Annual | | | Upland Crops: Early Wet Season | | | | |
|--|--|------------------------|----------------|----------------------------------|-------------------|------------------------|----------------------------------|------------------|-------------------|------------------------|----------------|------------------|-------------------|------------------------|----------------|--------------------------------|-------------------|------------------------|----------------|------------------|
| | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) |
| Normal Irrigation Paddy Field | 7,590 | 60 | 1 | 210 | 2,353 | 31 | 8,236 | 5,237 | 69 | 14,664 | 0 | 7,650 | 101 | 23,109 | 0 | 0 | 0 | 0 | 0 | 0 |
| Supplemental Irrigation Paddy Field | -153 | 0 | 0 | -47 | -106 | -1 | -94 | -159 | -1 | -159 | 0 | 0 | -2 | -253 | 0 | 0 | 0 | 0 | 0 | 0 |
| Rainfed Paddy Field | -8,667 | 0 | 0 | -2,686 | -5,981 | -68 | -4,029 | -5,981 | -68 | -5,981 | 0 | 0 | -8,667 | -98 | -10,010 | 0 | 0 | 0 | 0 | 0 |
| Recession Paddy Field | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | -1,230 | 60 | 1 | 210 | -380 | 0 | 4,113 | 8,524 | 0 | 1.8 | 8,524 | 5 | -1,170 | 1 | 12,851 | 130 | 2 | 0 | 0.5 | 65 |

Table C3-27 Present & With-project Land Use of the Project Areas in the Pursat River Basin

Beoung Preah Rehabilitation Project

| Land Use Sub-category | I. Present | | | II. With Project | | Increment (II - I) Area (ha) |
|-------------------------------------|------------|-----|-----|------------------|-----|------------------------------------|
| | Area | | | Area | | |
| | (ha) | (%) | (%) | (ha) | (%) | |
| 1. Irrigation Area | 7,703 | 100 | 77 | 8,500 | 85 | 797 |
| Normal Irrigation Paddy Field | 30 | 0.4 | 0 | 8,500 | 85 | 8,470 |
| Supplemental Irrigation Paddy Field | 1,138 | 15 | 11 | | | -1,138 |
| Field under Rainfed Condition | 6,535 | 85 | 65 | | | -6,535 |
| Recession Paddy Field | | | | | | |
| 2. Rainfed Paddy Field | 940 | | 9 | | | -940 |
| 3. Right-of-ways | 1,357 | | 14 | 1,500 | 15 | 143 |
| Total | 10,000 | | 100 | 10,000 | 100 | 0 |

Damnak Ampil Extension Project

| Land Use Sub-category | I. Present | | | II. With Project | | Increment (II - I) Area (ha) |
|-------------------------------------|------------|------|-----|------------------|-----|------------------------------------|
| | Area | | | Area | | |
| | (ha) | (%) | (%) | (ha) | (%) | |
| 1. Irrigation Area | 7,700 | 100 | 82 | 8,000 | 85 | 300 |
| Normal Irrigation Paddy Field | 1,170 | 15.2 | 12 | 8,000 | 85 | 6,830 |
| Supplemental Irrigation Paddy Field | 1,632 | 21 | 17 | | | -1,632 |
| Field under Rainfed Condition | 4,898 | 64 | 52 | | | -4,898 |
| Recession Paddy Field | | | | | | |
| 2. Rainfed Paddy Field | 350 | | 4 | | | -350 |
| 3. Right-of-ways | 1,360 | | 14 | 1,410 | 15 | 50 |
| Total | 9,410 | | 100 | 9,410 | 100 | 0 |

Wat Loung Rehabilitation Project

| Land Use Sub-category | I. Present | | | II. With Project | | Increment (II - I) Area (ha) |
|-------------------------------------|------------|-----|-----|------------------|-----|------------------------------------|
| | Area | | | Area | | |
| | (ha) | (%) | (%) | (ha) | (%) | |
| 1. Irrigation Area | 1,800 | 100 | 39 | 3,940 | 85 | 2,140 |
| Normal Irrigation Paddy Field | 45 | 2.5 | 1 | 3,940 | 85 | 3,895 |
| Supplemental Irrigation Paddy Field | 410 | 23 | 9 | | | -410 |
| Field under Rainfed Condition | 1,345 | 75 | 29 | | | -1,345 |
| Recession Paddy Field | | | | | | |
| 2. Rainfed Paddy Field | 2,535 | | 55 | | | -2,535 |
| 3. Right-of-ways | 305 | | 7 | 700 | 15 | 395 |
| Total | 4,640 | | 100 | 4,640 | 100 | 0 |

Wat Chre Rehabilitation Project

| Land Use Sub-category | I. Present | | | II. With Project | | Increment (II - I) Area (ha) |
|-------------------------------------|------------|-----|-----|------------------|-----|------------------------------------|
| | Area | | | Area | | |
| | (ha) | (%) | (%) | (ha) | (%) | |
| 1. Irrigation Area | 1,000 | 100 | 85 | 1,000 | 85 | 0 |
| Normal Irrigation Paddy Field | 20 | 2.0 | 2 | 1,000 | 85 | 980 |
| Supplemental Irrigation Paddy Field | 98 | 10 | 8 | | | -98 |
| Field under Rainfed Condition | 882 | 88 | 75 | | | -882 |
| Recession Paddy Field | | | | | | |
| 2. Rainfed Paddy Field | | | | | | |
| 3. Right-of-ways | 180 | | 15 | 180 | 15 | 0 |
| Total | 1,180 | | 100 | 1,180 | 100 | 0 |

Anlong Khouch, Wat Leap, Kosh Khsach Water Harvesting & Recession Rice Rehabilitation Project

| Land Use Sub-category | I. Present | | | II. With Project | | Increment (II - I) Area (ha) |
|-------------------------------------|------------|-----|-----|------------------|-----|------------------------------------|
| | Area | | | Area | | |
| | (ha) | (%) | (%) | (ha) | (%) | |
| 1. Irrigation Area | 2,514 | 100 | 82 | 2,602 | 85 | 88 |
| Normal Irrigation Paddy Field | | | | 1,231 | 40 | 1,231 |
| Supplemental Irrigation Paddy Field | 226 | 9 | 7 | | | -226 |
| Field under Rainfed Condition | 917 | 36 | 30 | | | -917 |
| Recession Paddy Field | 1,371 | 55 | 55 | 1,371 | 45 | 0 |
| 2. Rainfed Paddy Field | 100 | | 3 | | | -100 |
| 3. Right-of-ways | 446 | | 15 | 458 | 15 | 12 |
| Total | 3,060 | | 100 | 3,060 | 100 | 0 |

Whole River Basin

| Land Use Sub-category | I. Present | | | II. With Project | | Increment (II - I) Area (ha) |
|-------------------------------------|------------|-----|-----|------------------|-----|------------------------------------|
| | Area | | | Area | | |
| | (ha) | (%) | (%) | (ha) | (%) | |
| 1. Irrigation Area | 20,717 | 100 | 73 | 24,042 | 85 | 3,325 |
| Normal Irrigation Paddy Field | 1,265 | 6 | 4 | 22,671 | 80 | 21,406 |
| Supplemental Irrigation Paddy Field | 3,504 | 17 | 12 | 0 | | -3,504 |
| Field under Rainfed Condition | 14,577 | 70 | 52 | 0 | | -14,577 |
| Recession Paddy Field | 1,371 | 7 | 5 | 1,371 | 5 | 0 |
| 2. Rainfed Paddy Field | 3,925 | | 14 | 0 | | -3,925 |
| 3. Right-of-ways | 3,648 | | 13 | 4,248 | 15 | 600 |
| Total | 28,290 | | 100 | 28,290 | 100 | 0 |

Source: JICA Study Team

Table C3-28 Present/Without-project & With-project Detail Land Use of the Pursat River Basin

| Sub Code | I. Present & With-project Land Use (ha) | | | | | | | | | | II. With-project Land Use (ha) | | | | | | | | | | Balance (II - I) | | | | | | | | | |
|--|---|-----------------------|-----------------------------|-----------------|--------------|---------------------------------|-------------------|---------------|---------------|-------------------|--------------------------------|--------------|---------------|-------------------|-----------------|-------------------|--------------|---------------|-------------------|-----------------|-------------------|-------------|---------------|-------------------|-----------------|-------------------|------------|---------------|------------|---------------|
| | Paddy Field in Existing Irrigated Area | | | | | Rainfed Field in Potential Area | | | | | Normal Irr. Field | Gross Area | Right of Ways | Paddy Field Total | Recession Field | Normal Irr. Field | Gross Area | Right of Ways | Paddy Field Total | Recession Field | Normal Irr. Field | Gross Area | Right of Ways | Paddy Field Total | Recession Field | Normal Irr. Field | Gross Area | Right of Ways | | |
| | Normal Irr. Field | Supplement Irr. Field | Field in Rainfed Conditions | Recession Field | Total | Rainfed Field in Potential Area | Paddy Field Total | Right of Ways | Gross Area | Normal Irr. Field | | | | | | | | | | | | | | | | | | | Gross Area | Right of Ways |
| Beoung Preah Rehabilitation Project | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PKV-004 | 30 | 1,138 | 6,535 | | 7,703 | 940 | 8,643 | 1,357 | 10,000 | 8,500 | 8,500 | 8,500 | 10,000 | 1,500 | 8,500 | 10,000 | 1,500 | 8,500 | 8,470 | -1,138 | 0 | -940 | -143 | 143 | 0 | | | | | |
| PKV-005 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Project Total | 30 | 1,138 | 6,535 | 0 | 7,703 | 940 | 8,643 | 1,357 | 10,000 | 8,500 | 8,500 | 8,500 | 10,000 | 1,500 | 8,500 | 10,000 | 1,500 | 8,470 | -1,138 | 0 | -940 | -143 | 143 | 0 | | | | | | |
| Damnak Ampil Extension Project | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SPM-003 | 1,170 | 1,632 | 4,898 | | 7,700 | 350 | 8,050 | 1,360 | 9,410 | 8,000 | 8,000 | 8,000 | 9,410 | 1,410 | 8,000 | 9,410 | 1,410 | 6,850 | -1,632 | 0 | -350 | -50 | 50 | 0 | | | | | | |
| Wat Loung Rehabilitation Project | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SPM-004 | 20 | 20 | 60 | | 100 | 2,245 | 2,345 | 5 | 2,350 | 2,000 | 2,000 | 2,000 | 2,350 | 350 | 2,000 | 2,350 | 350 | 1,980 | -20 | 0 | -2,245 | -345 | 345 | 0 | | | | | | |
| BAK-001 | 20 | 112 | 1,008 | | 1,140 | 110 | 1,250 | 200 | 1,450 | 1,230 | 1,230 | 1,230 | 1,450 | 220 | 1,210 | 1,450 | 220 | 1,210 | -112 | 0 | -110 | -20 | 20 | 0 | | | | | | |
| BAK-002 | 5 | 278 | 277 | | 560 | 180 | 740 | 100 | 840 | 710 | 710 | 710 | 840 | 130 | 705 | 840 | 130 | 705 | -278 | 0 | -180 | -30 | 30 | 0 | | | | | | |
| Project Total | 45 | 410 | 1,345 | 0 | 1,800 | 2,535 | 4,335 | 305 | 4,640 | 3,940 | 3,940 | 3,940 | 4,640 | 700 | 3,940 | 4,640 | 700 | 3,895 | -410 | 0 | -2,535 | -395 | 395 | 0 | | | | | | |
| Wat Chre Rehabilitation Project | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BAK-008 | 20 | 98 | 882 | | 1,000 | 0 | 1,000 | 180 | 1,180 | 1,000 | 1,000 | 1,000 | 1,180 | 180 | 980 | 1,180 | 180 | 980 | -98 | 0 | 0 | 0 | 0 | 0 | | | | | | |
| Anlong Khouch, Wat Leap, Kosh Khsach Water Harvesting and Recession Rice Rehabilitation Project | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BAK-011 | 40 | 359 | 366 | 765 | 40 | 805 | 135 | 940 | 434 | 366 | 800 | 140 | 940 | 434 | 434 | 940 | 140 | 434 | -40 | 0 | -40 | -5 | 5 | 0 | | | | | | |
| BAK-013 | 56 | 169 | 344 | 569 | 0 | 569 | 101 | 670 | 225 | 344 | 569 | 101 | 670 | 225 | 225 | 670 | 101 | 225 | -56 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | |
| BAK-014 | 130 | 389 | 661 | 1,180 | 60 | 1,240 | 210 | 1,450 | 572 | 661 | 1,233 | 217 | 1,450 | 572 | 572 | 1,450 | 217 | 572 | -130 | 0 | -60 | -7 | 7 | 0 | | | | | | |
| Project Total | 0 | 226 | 917 | 2,514 | 100 | 2,614 | 446 | 3,060 | 1,231 | 1,371 | 2,602 | 458 | 3,060 | 1,231 | 1,231 | 3,060 | 458 | 1,231 | -226 | 0 | -100 | -12 | 12 | 0 | | | | | | |
| Basin Total | 1,265 | 3,504 | 14,577 | 20,717 | 3,925 | 24,642 | 3,648 | 28,290 | 22,671 | 1,371 | 24,042 | 4,248 | 28,290 | 4,248 | 21,406 | 28,290 | 4,248 | 21,406 | -3,504 | 0 | -3,925 | -600 | 600 | 0 | | | | | | |

Source: Inventory Survey, JICA, 2006

Table C3-29 Prevailing Cropping Patterns in Irrigation Systems in the Pursat River Basin

| Sub Code | System | 1/ | 2/ | 3/ | Cropping Calendar | | | | | | | | | | | | Cropping Calendar 4/ |
|--|--------------------------|-----------|----|-------|-------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------------|----------------------|
| | | | | | Apr. | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | |
| Beoung Preah Rehabilitation Project | | | | | | | | | | | | | | | | | |
| PKV-004 | Domnak Chheu Kram | Wet 2 | T | 5,333 | | | | | | | | | | | | | N5/6-11/12 |
| | | Dry | T | | | | | | | | | | | | | | N1/2-4/5 |
| PKV-005 | Beoung Preah Ponley Res. | Wet 2 | T | 2,450 | | | | | | | | | | | | | N7/8-12 |
| | | D | D | | | | | | | | | | | | | D4/6-12 | |
| | | Wet 2 | T | 30 | | | | | | | | | | | | | N5/6-11/12 |
| | | D | D | | | | | | | | | | | | | | N1/2-4/5 |
| Damnak Ampil Extension Project | | | | | | | | | | | | | | | | | |
| SPM-003 | Damnak Ampil | Wet 1 | T | 650 | | | | | | | | | | | | | N5/7-11/12 |
| | | D | D | | | | | | | | | | | | | D4/6-11/12 | |
| | | Wet 2 | T | 7,050 | | | | | | | | | | | | | N7/8-2 |
| | | D | D | | | | | | | | | | | | | | D4/6-2 |
| | | Wet 2 | T | 1,170 | | | | | | | | | | | | | N7/8-2 |
| | | D | D | | | | | | | | | | | | | | D4/6-2 |
| Wat Loung Rehabilitation Project | | | | | | | | | | | | | | | | | |
| SPM-004 | Wat Loung | Wet 2 | T | 75 | | | | | | | | | | | | | N7/8-12/3 |
| | | D | D | | | | | | | | | | | | | | D4/6-12/3 |
| | | Dry | T | 20 | | | | | | | | | | | | | N10/11-1/3 |
| | | D | D | | | | | | | | | | | | | | D10/11-1/3 |
| BAK-001 | Thnos Tachap | Wet 2 | T | 30 | | | | | | | | | | | | | N5/7-11/12 |
| | | D | D | | | | | | | | | | | | | D4/6-11/12 | |
| | | Wet 2 | T | 1,110 | | | | | | | | | | | | | N5/7-12/3 |
| | | D | D | | | | | | | | | | | | | | D4/6-12/3 |
| | | Dry | T | 843 | | | | | | | | | | | | | N10/11-1/3 |
| | | D | D | | | | | | | | | | | | | | D10/11-1/3 |
| BAK-002 | Bakan | Wet 2 | T | 210 | | | | | | | | | | | | | N5/7-11/12 |
| | | Wet 2 | T | 350 | | | | | | | | | | | | | N 5/7-12/2 |
| | | Dry | T | 5 | | | | | | | | | | | | | N10/11-2/3 |
| Wat Chre Rehabilitation Project | | | | | | | | | | | | | | | | | |
| BAK-008 | Wat Chre | Wet 2 | T | 510 | | | | | | | | | | | | | N4/6-10/11 |
| | | D | D | | | | | | | | | | | | | D4/6-10/11 | |
| | | Wet 2 | T | 490 | | | | | | | | | | | | | N4/6-11/2 |
| | | D | D | | | | | | | | | | | | | | D4/6-11/2 |
| | | Dry | T | 20 | | | | | | | | | | | | | N10/11-1/3 |
| | | D | D | | | | | | | | | | | | | | D10/11-1/3 |
| Anlong Khouch, Wat Leap, Kosh Khsach Water Harvesting and Recession Rice Rehabilitation Project | | | | | | | | | | | | | | | | | |
| BAK-011 | Anlong Khouch | Wet 2 | T | 104 | | | | | | | | | | | | | N4/6-10/11 |
| | | D | D | | | | | | | | | | | | | D4/6-10/11 | |
| | | Wet 2 | T | 265 | | | | | | | | | | | | | N4/6-11/12 |
| | | D | D | | | | | | | | | | | | | | D4/6-11/12 |
| BAK-013 | Wat Leap | Dry | T | 32 | | | | | | | | | | | | | N10/11-1/3 |
| | | D | D | | | | | | | | | | | | | D10/11-1/3 | |
| | | Wet 2 | T | 75 | | | | | | | | | | | | | N4/6-11/12 |
| | | D | D | | | | | | | | | | | | | | N5/7-11/12 |
| | | Wet 2 | T | 90 | | | | | | | | | | | | | D5/7-12/3 |
| | | D | D | | | | | | | | | | | | | | D4/6-12/3 |
| | | Dry | T | 60 | | | | | | | | | | | | | N10/11-2/4 |
| | | D | D | | | | | | | | | | | | | | D10/11-2/4 |
| BAK-014 | Kosh Khsach | Recession | T | 344 | | | | | | | | | | | | | D10/11-1/3 |
| | | D | D | | | | | | | | | | | | | N5/7-11/12 | |
| | | Wet 2 | T | 357 | | | | | | | | | | | | | N5/7-12/3 |
| | | D | D | | | | | | | | | | | | | | D4/6-12/3 |
| | | Dry | T | 83 | | | | | | | | | | | | | N10/11-2/4 |
| | | D | D | | | | | | | | | | | | | | D10/11-2/4 |
| | | Recession | T | 661 | | | | | | | | | | | | | D10/11-1/3 |
| | | D | D | | | | | | | | | | | | | | D4/6-1/3 |

1/: Cropping season: wet 1 --- early wet season; wet 2 --- wet season 2/: Planting method: D --- direct sowing; T --- transplanting

3/: Cropped area (ha)

4/: From sowing to harvest; D --- direct sowing, N ---- transplanting

Source: Inventory Survey, JICA, 2006

Table C3-30 Present/Without-project Crop Production in the Project Areas of the Pursat River Basin

| Beoung Preah Ponleay Rehabilitation Project | | | | | | | | | | | | | | | | |
|---|----------------------------------|------------------------|----------------|----------------------------------|-------------------|------------------------|------------------|------------------|-------------------|------------------------|------------------|-----|-------|--------|--------|--------|
| Area (ha) | Rice: Wet Season (Transplanting) | | | Rice: Wet Season (Direct Sowing) | | | Rice: Dry Season | | | Annual | | | | | | |
| | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Production (ton) | | | | | |
| Land Use Sub-category | 30 | 23 | 0 | 3.0 | 69 | 7 | 0 | 2.0 | 14 | 30 | 0.3 | 3.0 | 90 | 60 | 1 | 173 |
| Normal Irrigation Paddy Field | 1,138 | 876 | 10 | 2.0 | 1,752 | 262 | 3 | 1.5 | 393 | | | | 1,138 | 13 | 2,145 | |
| Supplemental Irrigation Paddy Field | 7,475 | 5,756 | 67 | 1.5 | 8,634 | 1,719 | 20 | 1.0 | 1,719 | | | | 7,475 | 86 | 10,353 | |
| Rainfed Paddy Field | 8,643 | 6,655 | 77 | 1.6 | 10,455 | 1,988 | 23 | 1.1 | 2,126 | 30 | 0.3 | 3.0 | 90 | 8,673 | 100 | 12,671 |
| Total | | | | | | | | | | | | | | | | |
| Dannak Ampj Extension Project | | | | | | | | | | | | | | | | |
| Area (ha) | Rice: Wet Season (Transplanting) | | | Rice: Wet Season (Direct Sowing) | | | Rice: Dry Season | | | Annual | | | | | | |
| | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Production (ton) | | | | | |
| Land Use Sub-category | 1,170 | 901 | 11 | 3.0 | 2,703 | 269 | 3 | 2.0 | 538 | 1,170 | 15 | 3.0 | 3,510 | 2,340 | 29 | 6,751 |
| Normal Irrigation Paddy Field | 1,632 | 1,257 | 16 | 2.0 | 2,314 | 375 | 5 | 1.5 | 563 | | | | 1,632 | 20 | 3,077 | |
| Supplemental Irrigation Paddy Field | 5,248 | 4,041 | 50 | 1.5 | 6,062 | 1,207 | 15 | 1.0 | 1,207 | | | | 5,248 | 65 | 7,269 | |
| Rainfed Paddy Field | 8,050 | 6,199 | 77 | 1.8 | 11,279 | 1,851 | 23 | 1.2 | 2,308 | 1,170 | 15 | 3.0 | 3,510 | 9,220 | 115 | 17,096 |
| Total | | | | | | | | | | | | | | | | |
| Wat Loung Rehabilitation Project | | | | | | | | | | | | | | | | |
| Area (ha) | Rice: Wet Season (Transplanting) | | | Rice: Wet Season (Direct Sowing) | | | Rice: Dry Season | | | Annual | | | | | | |
| | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Production (ton) | | | | | |
| Land Use Sub-category | 45 | 35 | 1 | 3.0 | 104 | 10 | 0 | 2.0 | 21 | 45 | 1 | 3.0 | 135 | 90 | 2 | 260 |
| Normal Irrigation Paddy Field | 410 | 316 | 7 | 2.0 | 632 | 94 | 2 | 1.5 | 141 | | | | 410 | 6 | 773 | |
| Supplemental Irrigation Paddy Field | 3,880 | 2,988 | 69 | 1.5 | 4,482 | 892 | 21 | 1.0 | 892 | | | | 3,880 | 90 | 5,374 | |
| Rainfed Paddy Field | 4,335 | 3,339 | 77 | 1.6 | 5,218 | 996 | 23 | 1.1 | 1,054 | 45 | 1 | 3.0 | 135 | 4,380 | 101 | 6,407 |
| Total | | | | | | | | | | | | | | | | |
| Wat Chre Rehabilitation Project | | | | | | | | | | | | | | | | |
| Area (ha) | Rice: Wet Season (Transplanting) | | | Rice: Wet Season (Direct Sowing) | | | Rice: Dry Season | | | Annual | | | | | | |
| | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Production (ton) | | | | | |
| Land Use Sub-category | 20 | 15 | 2 | 3.0 | 46 | 5 | 0 | 2.0 | 9 | 20 | 2 | 3.0 | 60 | 40 | 4 | 115 |
| Normal Irrigation Paddy Field | 98 | 75 | 8 | 2.0 | 150 | 23 | 2 | 1.5 | 34 | | | | 98 | 10 | 184 | |
| Supplemental Irrigation Paddy Field | 882 | 679 | 68 | 1.5 | 1,019 | 203 | 20 | 1.0 | 203 | | | | 882 | 88 | 1,222 | |
| Rainfed Paddy Field | 1,000 | 770 | 77 | 1.6 | 1,215 | 230 | 23 | 1.1 | 246 | 20 | 2 | 3.0 | 60 | 1,020 | 102 | 1,521 |
| Total | | | | | | | | | | | | | | | | |
| Along Khouch, Wat Leap, Kosh Khssach Water harvesting & Recession Rice Rehabilitation Project | | | | | | | | | | | | | | | | |
| Area (ha) | Rice: Wet Season (Transplanting) | | | Rice: Wet Season (Direct Sowing) | | | Rice: Dry Season | | | Annual | | | | | | |
| | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Production (ton) | | | | | |
| Land Use Sub-category | 226 | 174 | 7 | 2.0 | 348 | 52 | 2 | 1.5 | 78 | 72 | 3 | 2.5 | 180 | 298 | 11 | 606 |
| Normal Irrigation Paddy Field | 1,017 | 783 | 30 | 1.5 | 1,175 | 234 | 9 | 1.0 | 234 | 103 | 4 | 2.0 | 206 | 1,120 | 43 | 1,615 |
| Supplemental Irrigation Paddy Field | 1,371 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,371 | 52 | 2.0 | 2,742 | 1,371 | 88 | 1,222 |
| Rainfed Paddy Field | 2,614 | 957 | 37 | 1.6 | 1,523 | 286 | 11 | 1.1 | 312 | 1,546 | 59 | 2.0 | 3,128 | 2,789 | 107 | 4,963 |
| Total | | | | | | | | | | | | | | | | |
| Whole River Basin | | | | | | | | | | | | | | | | |
| Area (ha) | Rice: Wet Season (Transplanting) | | | Rice: Wet Season (Direct Sowing) | | | Rice: Dry Season | | | Annual | | | | | | |
| | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Production (ton) | | | | | |
| Land Use Sub-category | 1,265 | 974 | 4 | 3.0 | 2,922 | 291 | 1 | 2.0 | 582 | 1,265 | 5 | 3.0 | 3,795 | 2,530 | 10 | 7,299 |
| Normal Irrigation Paddy Field | 3,504 | 2,698 | 11 | 2.0 | 5,396 | 806 | 3 | 1.5 | 1,208 | 72 | 0 | 2.5 | 180 | 3,376 | 15 | 6,784 |
| Supplemental Irrigation Paddy Field | 18,502 | 14,247 | 58 | 1.5 | 21,371 | 4,255 | 17 | 1.0 | 4,255 | 103 | 0 | 2.0 | 206 | 18,605 | 76 | 25,832 |
| Rainfed Paddy Field | 1,371 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,371 | 6 | 2.0 | 2,742 | 1,371 | 6 | 2,742 |
| Recession Paddy Field | 24,642 | 17,919 | 73 | 1.7 | 29,689 | 5,351 | 22 | 1.1 | 6,045 | 2,811 | 11 | 2.5 | 6,923 | 26,082 | 106 | 42,657 |
| Total | | | | | | | | | | | | | | | | |

Table C3-31 Present/Without-project & With-project Crop Production: Beoun Preah Rehabilitation Project

Beoung Preah Rehabilitation Project

A. Present/Without-project Crop Production

| Land Use Sub-category | Rice: Earit Wet Season (Transplanting) | | | | | | Rice: Wet Season (Transplanting) | | | | | | Rice: Wet Season (Direct Sowing) | | | | | | Rice: Dry Season | | | | | | Annual | | | | | | Upland Crops: Early Wet Season | | | | | |
|-------------------------------------|--|---------------|------------------------|------------------|----------------|---------------|----------------------------------|------------------|-------------------|---------------|------------------------|------------------|----------------------------------|---------------|------------------|------------------|-------------------|---------------|------------------------|------------------|----------------|---------------|------------------|------------------|-------------------|---------------|------------------------|------------------|----------------|---------------|--------------------------------|------------------|--|--|--|--|
| | Cropped Area (ha) | | Cropping Intensity (%) | | Yield (ton/ha) | | Production (ton) | | Cropped Area (ha) | | Cropping Intensity (%) | | Yield (ton/ha) | | Production (ton) | | Cropped Area (ha) | | Cropping Intensity (%) | | Yield (ton/ha) | | Production (ton) | | Cropped Area (ha) | | Cropping Intensity (%) | | Yield (ton/ha) | | Production (ton) | | | | | |
| | Area (ha) | Intensity (%) | Yield (ton/ha) | Production (ton) | Area (ha) | Intensity (%) | Yield (ton/ha) | Production (ton) | Area (ha) | Intensity (%) | Yield (ton/ha) | Production (ton) | Area (ha) | Intensity (%) | Yield (ton/ha) | Production (ton) | Area (ha) | Intensity (%) | Yield (ton/ha) | Production (ton) | Area (ha) | Intensity (%) | Yield (ton/ha) | Production (ton) | Area (ha) | Intensity (%) | Yield (ton/ha) | Production (ton) | Area (ha) | Intensity (%) | Yield (ton/ha) | Production (ton) | | | | |
| Normal Irrigation Paddy Field | 30 | | | | 23 | 0 | 3.0 | 69 | 7 | 0 | 2.0 | 14 | 30 | 0.3 | 3.0 | 90 | 60 | | | | | | | | | | | | | | | | | | | |
| Supplemental Irrigation Paddy Field | 1,138 | | | | 876 | 10 | 2.0 | 1,752 | 262 | 3 | 1.5 | 393 | | | | | 1,138 | | | | | | | | | | | | | | | | | | | |
| Rainfed Paddy Field | 7,475 | | | | 5,756 | 67 | 1.5 | 8,634 | 1,719 | 20 | 1.0 | 1,719 | | | | | 7,475 | | | | | | | | | | | | | | | | | | | |
| Recession Paddy Field | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total | 8,643 | 0 | | | 6,655 | 77 | 1.6 | 10,455 | 1,988 | 23 | 1.1 | 2,126 | 30 | 0.3 | 3.0 | 90 | 8,673 | 100 | | | | | | | 0 | | | | | | 0 | | | | | |

B. With-project Crop Production

| Land Use Sub-category | Rice: Earit Wet Season (Transplanting) | | | | | | Rice: Wet Season (Transplanting) | | | | | | Rice: Wet Season (Direct Sowing) | | | | | | Rice: Dry Season | | | | | | Annual | | | | | | Upland Crops: Early Wet Season | | | | | |
|-------------------------------------|--|---------------|------------------------|------------------|----------------|---------------|----------------------------------|------------------|-------------------|---------------|------------------------|------------------|----------------------------------|---------------|------------------|------------------|-------------------|---------------|------------------------|------------------|----------------|---------------|------------------|------------------|-------------------|---------------|------------------------|------------------|----------------|---------------|--------------------------------|------------------|--|--|--|--|
| | Cropped Area (ha) | | Cropping Intensity (%) | | Yield (ton/ha) | | Production (ton) | | Cropped Area (ha) | | Cropping Intensity (%) | | Yield (ton/ha) | | Production (ton) | | Cropped Area (ha) | | Cropping Intensity (%) | | Yield (ton/ha) | | Production (ton) | | Cropped Area (ha) | | Cropping Intensity (%) | | Yield (ton/ha) | | Production (ton) | | | | | |
| | Area (ha) | Intensity (%) | Yield (ton/ha) | Production (ton) | Area (ha) | Intensity (%) | Yield (ton/ha) | Production (ton) | Area (ha) | Intensity (%) | Yield (ton/ha) | Production (ton) | Area (ha) | Intensity (%) | Yield (ton/ha) | Production (ton) | Area (ha) | Intensity (%) | Yield (ton/ha) | Production (ton) | Area (ha) | Intensity (%) | Yield (ton/ha) | Production (ton) | Area (ha) | Intensity (%) | Yield (ton/ha) | Production (ton) | Area (ha) | Intensity (%) | Yield (ton/ha) | Production (ton) | | | | |
| Normal Irrigation Paddy Field | 8,500 | 9 | 3.5 | 2,765 | 6,545 | 77 | 3.5 | 22,908 | 1,955 | 23 | 2.8 | 5,474 | 10 | 0.1 | 3.5 | 35 | 9,300 | | | | | | | | | | | | | | | | | | | |
| Supplemental Irrigation Paddy Field | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Rainfed Paddy Field | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Recession Paddy Field | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total | 8,500 | 9 | 3.5 | 2,765 | 6,545 | 77 | 3.5 | 22,908 | 1,955 | 23 | 2.8 | 5,474 | 10 | 0.1 | 3.5 | 35 | 9,300 | 109 | | | | | | | 10 | 0.1 | 0.7 | 7 | | | 10 | | | | | |

C. Increment: With-project - Present/Without-project

| Land Use Sub-category | Rice: Earit Wet Season (Transplanting) | | | | | | Rice: Wet Season (Transplanting) | | | | | | Rice: Wet Season (Direct Sowing) | | | | | | Rice: Dry Season | | | | | | Annual | | | | | | Upland Crops: Early Wet Season | | | | | |
|-------------------------------------|--|---------------|------------------------|------------------|----------------|---------------|----------------------------------|------------------|-------------------|---------------|------------------------|------------------|----------------------------------|---------------|------------------|------------------|-------------------|---------------|------------------------|------------------|----------------|---------------|------------------|------------------|-------------------|---------------|------------------------|------------------|----------------|---------------|--------------------------------|------------------|--|--|--|--|
| | Cropped Area (ha) | | Cropping Intensity (%) | | Yield (ton/ha) | | Production (ton) | | Cropped Area (ha) | | Cropping Intensity (%) | | Yield (ton/ha) | | Production (ton) | | Cropped Area (ha) | | Cropping Intensity (%) | | Yield (ton/ha) | | Production (ton) | | Cropped Area (ha) | | Cropping Intensity (%) | | Yield (ton/ha) | | Production (ton) | | | | | |
| | Area (ha) | Intensity (%) | Yield (ton/ha) | Production (ton) | Area (ha) | Intensity (%) | Yield (ton/ha) | Production (ton) | Area (ha) | Intensity (%) | Yield (ton/ha) | Production (ton) | Area (ha) | Intensity (%) | Yield (ton/ha) | Production (ton) | Area (ha) | Intensity (%) | Yield (ton/ha) | Production (ton) | Area (ha) | Intensity (%) | Yield (ton/ha) | Production (ton) | Area (ha) | Intensity (%) | Yield (ton/ha) | Production (ton) | Area (ha) | Intensity (%) | Yield (ton/ha) | Production (ton) | | | | |
| Normal Irrigation Paddy Field | 8,470 | 9 | 3.5 | 2,765 | 6,522 | 77 | 3.5 | 22,839 | 1,948 | 23 | 2.8 | 5,460 | -20 | -0.2 | 0.5 | -55 | 9,240 | | | | | | | | | | | | | | | | | | | |
| Supplemental Irrigation Paddy Field | -1,138 | | | | -876 | -10 | -1,752 | -393 | -262 | -3 | -1.5 | -393 | | | | | -1,138 | | | | | | | | | | | | | | | | | | | |
| Rainfed Paddy Field | -7,475 | | | | -5,756 | -67 | -8,634 | -1,719 | -20 | -1.0 | -1,719 | | | | | -7,475 | | | | | | | | | | | | | | | | | | | | |
| Recession Paddy Field | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total | -1,143 | 9 | 3.5 | 2,765 | -110 | 0 | 1.9 | 12,453 | -33 | 0 | 1.7 | 3,348 | -20 | -0.2 | -55 | 9 | 18,511 | 9 | | | | | | 30 | 0.4 | 0.6 | 17 | | | 30 | | | | | | |

Table C3-33 Present/Without-project & With-project Crop Production: Damnak Ampil Extension Project

Damnak Ampil Extension Project

A. Present/Without-project Crop Production

| | Rice: Earit Wet Season (Transplanting) | | | | | | Rice: Wet Season (Direct Sowing) | | | | | | Rice: Dry Season | | | | | | Annual | | | | | |
|-------------------------------------|--|---------------|------------------------|------------------|-------------------|---------------|----------------------------------|------------------|-------------------|---------------|------------------------|------------------|-------------------|---------------|------------------|------------------|-------------------|---------------|------------------------|------------------|-------------------|---------------|------------------|------------------|
| | Cropped Area (ha) | | Cropping Intensity (%) | | Yield (ton/ha) | | Production (ton) | | Cropped Area (ha) | | Cropping Intensity (%) | | Yield (ton/ha) | | Production (ton) | | Cropped Area (ha) | | Cropping Intensity (%) | | Yield (ton/ha) | | Production (ton) | |
| | Area (ha) | Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Intensity (%) | Yield (ton/ha) | Production (ton) |
| Land Use Sub-category | 1,170 | | | | 901 | 11 | 3.0 | 2,703 | 269 | 3 | 2.0 | 538 | 3,510 | 29 | 6,751 | | | | | | | | | |
| Normal Irrigation Paddy Field | 1,632 | | | | 1,257 | 16 | 2.0 | 2,514 | 375 | 5 | 1.5 | 563 | 1,632 | 20 | 3,077 | | | | | | | | | |
| Supplemental Irrigation Paddy Field | 5,248 | | | | 4,041 | 50 | 1.5 | 6,062 | 1,207 | 15 | 1.0 | 1,207 | 5,248 | 65 | 7,269 | | | | | | | | | |
| Rainfed Paddy Field | | | | | | | | | | | | | | | | | | | | | | | | |
| Recession Paddy Field | | | | | | | | | | | | | | | | | | | | | | | | |
| Total | 8,050 | 0 | | | 6,199 | 77 | 1.8 | 11,279 | 1,851 | 23 | 1.2 | 2,308 | 3,510 | 115 | 17,096 | 0 | | | | | | | | 0 |

B. With-project Crop Production

| | Rice: Earit Wet Season (Transplanting) | | | | | | Rice: Wet Season (Direct Sowing) | | | | | | Rice: Dry Season | | | | | | Annual | | | | | | |
|-------------------------------------|--|---------------|------------------------|------------------|-------------------|---------------|----------------------------------|------------------|-------------------|---------------|------------------------|------------------|-------------------|---------------|------------------|------------------|-------------------|---------------|------------------------|------------------|-------------------|---------------|------------------|------------------|--|
| | Cropped Area (ha) | | Cropping Intensity (%) | | Yield (ton/ha) | | Production (ton) | | Cropped Area (ha) | | Cropping Intensity (%) | | Yield (ton/ha) | | Production (ton) | | Cropped Area (ha) | | Cropping Intensity (%) | | Yield (ton/ha) | | Production (ton) | | |
| | Area (ha) | Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Intensity (%) | Yield (ton/ha) | Production (ton) | |
| Land Use Sub-category | 8,000 | | | | 740 | 9 | 3.5 | 2,590 | 6,160 | 71 | 3.5 | 21,560 | 1,840 | 23 | 2.8 | 5,152 | 53 | 8,755 | 109 | 29,355 | | | | | |
| Normal Irrigation Paddy Field | | | | | | | | | | | | | | | | | | | | | | | | | |
| Supplemental Irrigation Paddy Field | | | | | | | | | | | | | | | | | | | | | | | | | |
| Rainfed Paddy Field | | | | | | | | | | | | | | | | | | | | | | | | | |
| Recession Paddy Field | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total | 8,000 | 740 | 9 | 3.5 | 2,590 | 77 | 3.5 | 21,560 | 1,840 | 23 | 2.8 | 5,152 | 15 | 0 | 3.5 | 53 | 8,755 | 109 | 29,355 | 15 | 0.2 | 0.7 | 10.5 | 155 | |

C. Increment: With-project - Present/Without-project

| | Rice: Earit Wet Season (Transplanting) | | | | | | Rice: Wet Season (Direct Sowing) | | | | | | Rice: Dry Season | | | | | | Annual | | | | | |
|-------------------------------------|--|---------------|------------------------|------------------|-------------------|---------------|----------------------------------|------------------|-------------------|---------------|------------------------|------------------|-------------------|---------------|------------------|------------------|-------------------|---------------|------------------------|------------------|-------------------|---------------|------------------|------------------|
| | Cropped Area (ha) | | Cropping Intensity (%) | | Yield (ton/ha) | | Production (ton) | | Cropped Area (ha) | | Cropping Intensity (%) | | Yield (ton/ha) | | Production (ton) | | Cropped Area (ha) | | Cropping Intensity (%) | | Yield (ton/ha) | | Production (ton) | |
| | Area (ha) | Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Intensity (%) | Yield (ton/ha) | Production (ton) |
| Land Use Sub-category | 6,830 | 740 | 9 | 3.5 | 2,590 | 60 | 3.5 | 18,857 | 1,571 | 20 | 4.614 | 4,614 | -1,155 | -14 | -3,458 | 80 | 22,604 | 6,415 | 80 | 22,604 | | | | |
| Normal Irrigation Paddy Field | -1,632 | | | | -1,257 | -16 | -2,514 | -375 | -5 | -563 | | | | | | | | | | | | | | |
| Supplemental Irrigation Paddy Field | -5,248 | | | | -4,041 | -50 | -6,062 | -1,207 | -15 | -1,207 | | | | | | | | | | | | | | |
| Rainfed Paddy Field | 0 | | | | | | | | | | | | | | | | | | | | | | | |
| Recession Paddy Field | | | | | | | | | | | | | | | | | | | | | | | | |
| Total | -50 | 740 | 9 | 3.5 | 2,590 | -39 | 10,282 | -11 | 0 | 1.6 | 2,845 | -14 | -1,155 | -14 | -3,458 | -5 | 12,259 | -465 | -5 | 12,259 | 310 | 4 | 155 | 166 |

Table C3-35 Present/Without-project & With-project Crop Production: Wat Loung Rehabilitation Project

Wat Loung Rehabilitation Project

A. Present/Without-project Crop Production

| | Rice: Earit Wet Season (Transplanting) | | | Rice: Wet Season (Transplanting) | | | Rice: Wet Season (Direct Sowing) | | | Rice: Dry Season | | | Annual | | | Upland Crops: Early Wet Season | | | |
|-------------------------------------|--|------------------------|----------------|----------------------------------|------------------------|----------------|----------------------------------|------------------------|----------------|-------------------|------------------------|----------------|-------------------|------------------------|------------------|--------------------------------|------------------------|----------------|------------------|
| | Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) |
| | | | | | | | | | | | | | | | | | | | |
| Land Use Sub-category | 45 | | | | | | | | | | | | | | | | | | |
| Normal Irrigation Paddy Field | | | | 35 | 1 | 3.0 | 104 | 10 | 0 | 2.0 | 21 | 45 | 1 | 3.0 | 135 | 90 | 2 | 260 | |
| Supplemental Irrigation Paddy Field | 410 | | | 316 | 7 | 2.0 | 632 | 94 | 2 | 1.5 | 141 | | | | 410 | 9 | 773 | | |
| Rainfed Paddy Field | 3,880 | | | 2,988 | 69 | 1.5 | 4,482 | 892 | 21 | 1.0 | 892 | | | | 3,880 | 90 | 5,374 | | |
| Recession Paddy Field | | | | | | | | | | | | | | | | | | | |
| Total | 4,335 | 0 | | 3,339 | 77 | 1.6 | 5,218 | 996 | 23 | 1.1 | 1,054 | 45 | 1 | 3.0 | 135 | 101 | 6,407 | 0 | 0 |

B. With-project Crop Production

| | Rice: Earit Wet Season (Transplanting) | | | Rice: Wet Season (Transplanting) | | | Rice: Wet Season (Direct Sowing) | | | Rice: Dry Season | | | Annual | | | Upland Crops: Early Wet Season | | | | | | | | | | | | | | | | | | | |
|-------------------------------------|--|------------------------|----------------|----------------------------------|------------------------|----------------|----------------------------------|------------------------|----------------|-------------------|------------------------|----------------|-------------------|------------------------|------------------|--------------------------------|------------------------|----------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------|------------|----------|------------|-----------|---------------|------------|----------|------------|-----------|
| | Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | Production (ton) | Production (ton) | Production (ton) | Production (ton) | Production (ton) | Production (ton) | | | | | | | | | | |
| Land Use Sub-category | 3,940 | | | 240 | 6 | 3.5 | 840 | 3,034 | 35 | 3.5 | 10,619 | 906 | 23 | 2.8 | 2,537 | 10 | 0.3 | 3.5 | 35 | 3.5 | 106 | 14,031 | | | | | | | | | | | | | |
| Normal Irrigation Paddy Field | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Supplemental Irrigation Paddy Field | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Rainfed Paddy Field | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Recession Paddy Field | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total | 3,940 | 240 | 6 | 3,034 | 77 | 3.5 | 10,619 | 906 | 23 | 2.8 | 2,537 | 10 | 0 | 3.5 | 35 | 4,190 | 106 | 14,031 | 150 | 4 | 0.5 | 7 | 150 | 4 | 0.5 | 75 | 160 | 4 | 0.5 | 82 | 14,031 | 160 | 4 | 0.5 | 82 |

C. Increment: With-project - Present/Without-project

| | Rice: Earit Wet Season (Transplanting) | | | Rice: Wet Season (Transplanting) | | | Rice: Wet Season (Direct Sowing) | | | Rice: Dry Season | | | Annual | | | Upland Crops: Early Wet Season | | | | | | | | | | | | | | | | | | | | |
|-------------------------------------|--|------------------------|----------------|----------------------------------|------------------------|----------------|----------------------------------|------------------------|----------------|-------------------|------------------------|----------------|-------------------|------------------------|------------------|--------------------------------|------------------------|----------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------|------------|----------|------------|-----------|---------------|------------|----------|------------|-----------|--|
| | Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | Production (ton) | Production (ton) | Production (ton) | Production (ton) | Production (ton) | Production (ton) | | | | | | | | | | | |
| Land Use Sub-category | 3,895 | | | 240 | 6 | 3.5 | 840 | 2,999 | 34 | 3.5 | 10,515 | 896 | 23 | 2,516 | -35 | 4,100 | 104 | 13,771 | | | | | | | | | | | | | | | | | | |
| Normal Irrigation Paddy Field | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Supplemental Irrigation Paddy Field | -410 | | | | | | | -316 | -7 | -632 | -94 | -2 | -141 | | | | | | | | | | | | | | | | | | | | | | | |
| Rainfed Paddy Field | -3,880 | | | | | | | -2,988 | -69 | -4,482 | -892 | -21 | -892 | | | | | | | | | | | | | | | | | | | | | | | |
| Recession Paddy Field | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total | -395 | 240 | 6 | 3,034 | 77 | 3.5 | 10,515 | 840 | 34 | 1.9 | 5,401 | -90 | 0 | 1,483 | -35 | -190 | 5 | 7,624 | 150 | 4 | 0.5 | 75 | 150 | 4 | 0.5 | 82 | 160 | 4 | 0.5 | 82 | 14,031 | 160 | 4 | 0.5 | 82 | |

Table C3-36 Cost Estimates for Agricultural Support Services for Wat Loung Rehabilitation Project 1/

| Activities | | | Project Area: 3,940 ha | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------|---------------------------------------|-------|------------------------|------------|---------------|------------------|------------|---------------|------------------|------------|---------------|------------------|------------|---------------|------------------|------------|---------------|------------------|------------|---------------|------------------|------------|------------------|------------|------------------|------------|-------|---|---|-------|----|--------|---------|
| | | | 1st | | | | 2nd | | | | 3rd | | | | 4th | | | | Overall | | | | | | | | | | | | | | |
| Unit | Program Cost (US\$) | Unit | Volume | | Amount (US\$) | Volume | | Amount (US\$) | Volume | | Amount (US\$) | Volume | | Amount (US\$) | Volume | | Amount (US\$) | Volume | | Amount (US\$) | | | | | | | | | | | | | |
| | | | Dry Early Season | Wet Season | | Dry Early Season | Wet Season | | Dry Early Season | Wet Season | | Dry Early Season | Wet Season | | Dry Early Season | Wet Season | | Dry Early Season | Wet Season | | Dry Early Season | Wet Season | Dry Early Season | Wet Season | Dry Early Season | Wet Season | | | | | | | |
| 1. | Field Programs | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 1.1 Field Adaptability Test | unit | 550 | 1 | 1 | 550 | 1 | 1 | 550 | 1 | 1 | 550 | 1 | 1 | 550 | 1 | 1 | 550 | 1 | 1 | 550 | 1 | 1 | 550 | 1 | 1 | 550 | 4 | 4 | 2,200 | | | |
| | 1.2 Demonstration Plot (0.1ha) | unit | 50 | 6 | 6 | 300 | 6 | 6 | 300 | 6 | 6 | 300 | 6 | 6 | 300 | 6 | 6 | 300 | 6 | 6 | 300 | 6 | 6 | 300 | 6 | 6 | 300 | 4 | 4 | 1,000 | | | |
| | - Irrigated Rice | unit | 50 | 1 | 1 | 50 | 1 | 1 | 50 | 1 | 1 | 50 | 1 | 1 | 50 | 1 | 1 | 50 | 1 | 1 | 50 | 1 | 1 | 50 | 1 | 1 | 50 | 4 | 4 | 100 | | | |
| | - Upland Crops/vegetables | unit | 400 | 3 | 3 | 1,200 | 3 | 3 | 1,200 | 3 | 3 | 1,200 | 3 | 3 | 1,200 | 3 | 3 | 1,200 | 3 | 3 | 1,200 | 3 | 3 | 1,200 | 3 | 3 | 1,200 | 2 | 2 | 800 | | | |
| | 1.2 Demonstration Plot (1.0ha) | unit | 400 | 0 | 0 | 0 | 1 | 1 | 400 | 1 | 1 | 400 | 1 | 1 | 400 | 1 | 1 | 400 | 1 | 1 | 400 | 1 | 1 | 400 | 1 | 1 | 400 | 2 | 2 | 800 | | | |
| | - Irrigated Rice | unit | 1,000 | 1 | 1 | 1,000 | 1 | 1 | 1,000 | 1 | 1 | 1,000 | 1 | 1 | 1,000 | 1 | 1 | 1,000 | 1 | 1 | 1,000 | 1 | 1 | 1,000 | 1 | 1 | 1,000 | 0 | 0 | 4,000 | | | |
| | - Upland Crops/vegetables | unit | 2,500 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,600 | | | |
| | 1.3 Demonstration Farm (5.0ha) | unit | 360 | 1 | 1 | 360 | 1 | 1 | 360 | 1 | 1 | 360 | 1 | 1 | 360 | 1 | 1 | 360 | 1 | 1 | 360 | 1 | 1 | 360 | 1 | 1 | 360 | 1 | 1 | 360 | 4 | 4 | 1,440 |
| | - Irrigated Rice | unit | | 1 | 1 | 360 | 1 | 1 | 360 | 1 | 1 | 360 | 1 | 1 | 360 | 1 | 1 | 360 | 1 | 1 | 360 | 1 | 1 | 360 | 1 | 1 | 360 | 1 | 1 | 360 | 1 | 1 | 720 |
| | 1.5 Seed Multiplication | unit | | 1 | 12 | 13 | 2 | 2 | 3,410 | 2 | 2 | 3,410 | 2 | 2 | 3,410 | 2 | 2 | 3,410 | 2 | 2 | 3,410 | 2 | 2 | 3,410 | 2 | 2 | 3,410 | 2 | 2 | 3,410 | 11 | 11 | 3,360 |
| | Sub-total | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 16,840 | |
| 2. | Farmer/Farmer Group Training Programs | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2.1 Training Course | unit | 370 | 2 | 2 | 740 | 2 | 2 | 740 | 2 | 2 | 740 | 2 | 2 | 740 | 2 | 2 | 740 | 2 | 2 | 740 | 2 | 2 | 740 | 2 | 2 | 740 | 2 | 2 | 740 | 8 | 8 | 2,960 |
| | - 5 Days (30 participants) | unit | 850 | 1 | 1 | 850 | 1 | 1 | 850 | 1 | 1 | 850 | 1 | 1 | 850 | 1 | 1 | 850 | 1 | 1 | 850 | 1 | 1 | 850 | 1 | 1 | 850 | 1 | 1 | 850 | 4 | 4 | 3,400 |
| | 2.2 FFS/IPM (50 participants) | unit | 330 | 1 | 1 | 330 | 1 | 1 | 330 | 1 | 1 | 330 | 1 | 1 | 330 | 1 | 1 | 330 | 1 | 1 | 330 | 1 | 1 | 330 | 1 | 1 | 330 | 1 | 1 | 330 | 4 | 4 | 1,320 |
| | 2.3 Study Tour | unit | 2,200 | 1 | 1 | 2,200 | 1 | 1 | 2,200 | 1 | 1 | 2,200 | 1 | 1 | 2,200 | 1 | 1 | 2,200 | 1 | 1 | 2,200 | 1 | 1 | 2,200 | 1 | 1 | 2,200 | 1 | 1 | 2,200 | 1 | 1 | 2,200 |
| | 2.4 VEA Training | unit | | 0 | 5 | 5 | 0 | 0 | 1,920 | 0 | 0 | 1,920 | 0 | 0 | 1,920 | 0 | 0 | 1,920 | 0 | 0 | 1,920 | 0 | 0 | 1,920 | 0 | 0 | 1,920 | 0 | 0 | 1,920 | 17 | 17 | 30,660 |
| | - 10 Participants | unit | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Sub-total | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 58,820 |
| 3. | Mass Guidance/Workshop | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 3.1 50 Participants | unit | 120 | 2 | 2 | 240 | 2 | 2 | 240 | 2 | 2 | 240 | 2 | 2 | 240 | 2 | 2 | 240 | 2 | 2 | 240 | 2 | 2 | 240 | 2 | 2 | 240 | 2 | 2 | 240 | 8 | 8 | 58,820 |
| 4. | Support Fund for Extension Staff | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Farmer-to-farmer Extension Support | VEA | 360 | 8 | 8 | 2,880 | | | 2,880 | | | 2,880 | | | 2,880 | | | 2,880 | | | 2,880 | | | 2,880 | | | 2,880 | 8 | 8 | 2,880 | 32 | 32 | 11,520 |
| | Field Guidance Staff | staff | 600 | 2 | 2 | 1,200 | 2 | 2 | 1,200 | 2 | 2 | 1,200 | 2 | 2 | 1,200 | 2 | 2 | 1,200 | 2 | 2 | 1,200 | 2 | 2 | 1,200 | 2 | 2 | 1,200 | 2 | 2 | 1,200 | 8 | 8 | 4,800 |
| | Sub-total | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 115,680 |
| 5. | Staff Empowerment | unit | 550 | 1 | 1 | 550 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | | | | 1,100 | |
| 6. | Provision of Transportation Means | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | - Bicycle | unit | 100 | 8 | 8 | 800 | | | | | | | | | | | | | | | | | | | | | | | | | | | 800 |
| | - Motorcycle | unit | 1,000 | 2 | 2 | 2,000 | | | | | | | | | | | | | | | | | | | | | | | | | | | 2,000 |
| | Sub-total | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 45,700 |
| | Total | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 46,000 |
| | 1/: Program direct cost | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 46,000 |

Table C3-37 Present/Without-project & With-project Crop Production: Wat Chre Rehabilitation Project

Wat Chre Rehabilitation Project

A. Present/Without-project Crop Production

| Area (ha) | Rice: Earli Wet Season (Transplanting) | | | | | | Rice: Wet Season (Direct Sowing) | | | | | | Rice: Dry Season | | | | | | Annual | | | | | |
|-------------------------------------|--|------------------------|----------------|------------------|-------------------|------------------------|----------------------------------|------------------|-------------------|------------------------|----------------|------------------|-------------------|------------------------|----------------|------------------|-------------------|------------------------|----------------|------------------|-------------------|------------------------|----------------|------------------|
| | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) |
| Land Use Sub-category | 20 | | | | | | | | | | | | | | | | | | | | | | | |
| Normal Irrigation Paddy Field | 15 | 2 | 3.0 | 46 | 5 | 0 | 2.0 | 9 | 20 | 2 | 3.0 | 60 | 40 | 4 | 115 | | | | | | | | | |
| Supplemental Irrigation Paddy Field | 75 | 8 | 2.0 | 150 | 23 | 2 | 1.5 | 34 | | | | | | | | | | | | | | | | |
| Rainfed Paddy Field | 679 | 68 | 1.5 | 1,019 | 203 | 20 | 1.0 | 203 | | | | | | | | | | | | | | | | |
| Recession Paddy Field | | | | | | | | | | | | | | | | | | | | | | | | |
| Total | 1,000 | 0 | 1.6 | 1,215 | 230 | 23 | 1.1 | 246 | 20 | 2 | 3.0 | 60 | 1,020 | 102 | 1,521 | 0 | | | | | | | | 0 |

B. With-project Crop Production

| Area (ha) | Rice: Earli Wet Season (Transplanting) | | | | | | Rice: Wet Season (Direct Sowing) | | | | | | Rice: Dry Season | | | | | | Annual | | | | | |
|-------------------------------------|--|------------------------|----------------|------------------|-------------------|------------------------|----------------------------------|------------------|-------------------|------------------------|----------------|------------------|-------------------|------------------------|----------------|------------------|-------------------|------------------------|----------------|------------------|-------------------|------------------------|----------------|------------------|
| | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) |
| Land Use Sub-category | 70 | 7 | 3.5 | 245 | 770 | 18 | 2.8 | 644 | | | | | | | | | | | | | | | | |
| Normal Irrigation Paddy Field | 70 | 7 | 3.5 | 245 | 770 | 18 | 2.8 | 644 | | | | | | | | | | | | | | | | |
| Supplemental Irrigation Paddy Field | | | | | | | | | | | | | | | | | | | | | | | | |
| Rainfed Paddy Field | | | | | | | | | | | | | | | | | | | | | | | | |
| Recession Paddy Field | | | | | | | | | | | | | | | | | | | | | | | | |
| Total | 1,000 | 7 | 3.5 | 245 | 770 | 18 | 2.8 | 644 | 0 | 0 | 0 | 0 | 1,070 | 107 | 3,584 | 0 | 1,070 | 107 | 3,584 | 0 | 1,070 | 107 | 3,584 | 40 |

C. Increment: With-project - Present/Without-project

| Area (ha) | Rice: Earli Wet Season (Transplanting) | | | | | | Rice: Wet Season (Direct Sowing) | | | | | | Rice: Dry Season | | | | | | Annual | | | | | |
|-------------------------------------|--|------------------------|----------------|------------------|-------------------|------------------------|----------------------------------|------------------|-------------------|------------------------|----------------|------------------|-------------------|------------------------|----------------|------------------|-------------------|------------------------|----------------|------------------|-------------------|------------------------|----------------|------------------|
| | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) |
| Land Use Sub-category | 70 | 7 | 3.5 | 245 | 770 | 18 | 2.8 | 644 | | | | | | | | | | | | | | | | |
| Normal Irrigation Paddy Field | 70 | 7 | 3.5 | 245 | 770 | 18 | 2.8 | 644 | | | | | | | | | | | | | | | | |
| Supplemental Irrigation Paddy Field | | | | | | | | | | | | | | | | | | | | | | | | |
| Rainfed Paddy Field | | | | | | | | | | | | | | | | | | | | | | | | |
| Recession Paddy Field | | | | | | | | | | | | | | | | | | | | | | | | |
| Total | 0 | 7 | 3.5 | 245 | 0 | 0 | 1.7 | 398 | -20 | -2 | -60 | -60 | 50 | 5 | 2,063 | 40 | 40 | 4 | 4 | 4 | 40 | 4 | 4 | 20 |

Table C3-38 Cost Estimates for Agricultural Support Services for Wat Chre Rehabilitation Project 1/

| Activities | | 1,000 ha | | | | | | | | | | | | | | | |
|--|-------|----------|--------|-------|---------------|------------------|------------|--------|---------------|------------------|------------|--------|---------------|------------------|------------|--------|---------------|
| | | 1st | | | | 2nd | | | | 3rd | | | | Overall | | | |
| | | Unit | Volume | | Amount (US\$) | Dry Early Season | Wet Season | Annual | Amount (US\$) | Dry Early Season | Wet Season | Annual | Amount (US\$) | Dry Early Season | Wet Season | Annual | Amount (US\$) |
| 1. Field Programs | unit | | 1 | 1 | | | | | | | | | | | | | |
| 1.1 Field Adaptability Test | unit | 3 | 3 | 150 | | 4 | 200 | | | 3 | 3 | 150 | | | 10 | 10 | 500 |
| 1.2 Demonstration Plot (0.1ha) | unit | 1 | 1 | 400 | | 2 | 800 | | | 2 | 2 | 400 | | | 5 | 5 | 2,000 |
| - Irrigated Rice | unit | 1 | 1 | 400 | | 0 | 0 | | | 1 | 1 | 400 | | | 1 | 1 | 400 |
| - Upland Crops/vegetables | unit | 1 | 1 | 0 | | 0 | 0 | | | 0 | 0 | 0 | | | 0 | 0 | 0 |
| 1.2 Demonstration Plot (1.0ha) | unit | 1 | 1 | 400 | | 2 | 800 | | | 2 | 2 | 400 | | | 5 | 5 | 2,000 |
| - Irrigated Rice | unit | 1 | 1 | 400 | | 0 | 0 | | | 1 | 1 | 400 | | | 1 | 1 | 400 |
| - Upland Crops/vegetables | unit | 0 | 0 | 0 | | 0 | 0 | | | 0 | 0 | 0 | | | 0 | 0 | 0 |
| 1.3 Demonstration Farm (5.0ha) | unit | 0 | 0 | 0 | | 1 | 1,000 | | | 1 | 1 | 1,000 | | | 2 | 2 | 2,000 |
| - Irrigated Rice | unit | 0 | 0 | 0 | | 0 | 0 | | | 0 | 0 | 0 | | | 0 | 0 | 0 |
| - Upland Crops/vegetables | unit | 1 | 1 | 360 | | 1 | 360 | | | 1 | 1 | 360 | | | 2 | 2 | 720 |
| 1.4 Demonstration Area (20ha) | unit | 0 | 0 | 0 | | 8 | 2,360 | | | 8 | 8 | 2,360 | | | 23 | 23 | 6,720 |
| - Irrigated Rice | unit | 0 | 0 | 0 | | 0 | 0 | | | 0 | 0 | 0 | | | 0 | 0 | 0 |
| 1.5 Seed Multiplication | unit | 7 | 7 | 1,460 | | 8 | 2,360 | | | 8 | 8 | 2,900 | | | 23 | 23 | 6,720 |
| Sub-total | | 0 | 7 | 7 | | 8 | 2,360 | | | 8 | 8 | 2,900 | | | 23 | 23 | 6,720 |
| 2. Farmer/Farmer Group Training Programs | unit | 1 | 1 | 370 | | 1 | 370 | | | 1 | 1 | 370 | | | 2 | 2 | 740 |
| 2.1 Training Course | unit | 0 | 0 | 0 | | 0 | 0 | | | 0 | 0 | 0 | | | 1 | 1 | 850 |
| - 5 Days (30 participants) | unit | 1 | 1 | 330 | | 1 | 330 | | | 1 | 1 | 330 | | | 1 | 1 | 330 |
| 2.2 FFS/IPM (50 participants) | unit | 1 | 1 | 330 | | 0 | 0 | | | 0 | 0 | 0 | | | 0 | 0 | 0 |
| 2.3 Study Tour | unit | 1 | 1 | 330 | | 0 | 0 | | | 0 | 0 | 0 | | | 0 | 0 | 0 |
| 2.4 VEA Training | unit | 0 | 0 | 0 | | 0 | 0 | | | 0 | 0 | 0 | | | 0 | 0 | 0 |
| - 10 Participants | unit | 0 | 0 | 0 | | 0 | 0 | | | 0 | 0 | 0 | | | 0 | 0 | 0 |
| Sub-total | | 0 | 2 | 2 | | 1 | 700 | | | 1 | 1 | 370 | | | 4 | 4 | 1,920 |
| 3. Mass Guidance/Workshop | | 1 | 1 | 120 | | 1 | 120 | | | 1 | 1 | 120 | | | 2 | 2 | 240 |
| 3.1 50 Participants | VEA | 2 | 2 | 720 | | 2 | 720 | | | 2 | 2 | 720 | | | 6 | 6 | 2,160 |
| 4. Support Fund for Extension Staff Farmer-to-farmer Extension Support | staff | 1 | 1 | 600 | | 1 | 600 | | | 1 | 1 | 600 | | | 3 | 3 | 1,800 |
| Field Guidance Staff | staff | 3 | 3 | 1,320 | | 3 | 1,320 | | | 3 | 3 | 1,320 | | | 9 | 9 | 3,960 |
| Sub-total | unit | 0 | 0 | 0 | | 0 | 0 | | | 0 | 0 | 0 | | | 0 | 0 | 0 |
| 5. Staff Empowerment | unit | 2 | 2 | 200 | | 1 | 1,000 | | | 1 | 1 | 1,000 | | | 3 | 3 | 1,200 |
| 6. Provision of Transportation Means | unit | 1 | 1 | 1,000 | | 1 | 1,000 | | | 1 | 1 | 1,000 | | | 3 | 3 | 1,200 |
| - Bicycle | unit | 1 | 1 | 1,000 | | 1 | 1,000 | | | 1 | 1 | 1,000 | | | 3 | 3 | 1,200 |
| - Motorcycle | unit | 0 | 0 | 0 | | 0 | 0 | | | 0 | 0 | 0 | | | 0 | 0 | 0 |
| Sub-total | | 0 | 3 | 3 | | 3 | 1,200 | | | 3 | 3 | 1,200 | | | 9 | 9 | 3,960 |
| Total | | | | | | | 4,800 | | | | | 4,170 | | | | | 5,070 |
| 1/: Program direct cost | | | | | | | 4,800 | | | | | 4,170 | | | | | 5,070 |
| | | | | | | | | | | | | | | | | | 14,040 |
| | | | | | | | | | | | | | | | | | 14,040 |

Table C3-39 Present/Without-project & With-project Crop Production: Anlong Khouch, Wat Leap, Kosh Khsach Water Harvesting & Recession Rice Rehabilitation Project

Anlong Khouch, Wat Leap, Kosh Khsach Water Harvesting & Recession Rice Rehabilitation Project

A. Present/Without-project Crop Production

| Land Use Sub-category | Rice: Earlt Wet Season (Transplanting) | | | | | | Rice: Wet Season (Direct Sowing) | | | | | | Rice: Dry Season | | | | | | Annual | | | | | | Upland Crops: Early Wet Season | | | | | | | | | | | | | | | | | |
|-------------------------------------|--|----------------|------------------|---------------|------------|----------------|----------------------------------|---------------|-----------|----------------|------------------|---------------|------------------|----------------|------------------|---------------|--------------|----------------|------------------|---------------|-----------|----------------|------------------|---------------|--------------------------------|----------------|------------------|---------------|-----------|----------------|------------------|---------------|-----------|----------------|------------------|---------------|---------|--|--|----------|--|--|
| | Cropped | | | Cropping | | | Cropped | | | Cropping | | | Cropped | | | Cropping | | | Cropped | | | Cropping | | | Cropped | | | Cropping | | | Cropped | | | Cropping | | | Cropped | | | Cropping | | |
| | Area (ha) | Yield (ton/ha) | Production (ton) | Intensity (%) | Area (ha) | Yield (ton/ha) | Production (ton) | Intensity (%) | Area (ha) | Yield (ton/ha) | Production (ton) | Intensity (%) | Area (ha) | Yield (ton/ha) | Production (ton) | Intensity (%) | Area (ha) | Yield (ton/ha) | Production (ton) | Intensity (%) | Area (ha) | Yield (ton/ha) | Production (ton) | Intensity (%) | Area (ha) | Yield (ton/ha) | Production (ton) | Intensity (%) | Area (ha) | Yield (ton/ha) | Production (ton) | Intensity (%) | Area (ha) | Yield (ton/ha) | Production (ton) | Intensity (%) | | | | | | |
| Normal Irrigation Paddy Field | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Supplemental Irrigation Paddy Field | 226 | | | | 174 | 7 | 2.0 | 348 | 52 | 2 | 1.5 | 78 | 72 | 3 | 2.5 | 180 | 298 | 11 | 606 | | | | | | | | | | | | | | | | | | | | | | | |
| Rainfed Paddy Field | 1,017 | | | | 783 | 30 | 1.5 | 1,175 | 234 | 9 | 1.0 | 234 | 103 | 4 | 2.0 | 206 | 1,120 | 43 | 1,615 | | | | | | | | | | | | | | | | | | | | | | | |
| Recession Paddy Field | 1,371 | | | | | | | | | | | | 1,371 | 52 | 2.0 | 2,742 | 52 | 2,742 | | | | | | | | | | | | | | | | | | | | | | | | |
| Total | 2,614 | 0 | 0 | 37 | 957 | 1.6 | 1,523 | 286 | 11 | 1.1 | 312 | 1,546 | 59 | 2.0 | 3,128 | 107 | 4,963 | 0 | | | | | | | | | | | | | | | | | | | | | | | | |

B. With-project Crop Production

| Land Use Sub-category | Rice: Earlt Wet Season (Transplanting) | | | | | | Rice: Wet Season (Direct Sowing) | | | | | | Rice: Dry Season | | | | | | Annual | | | | | | Upland Crops: Early Wet Season | | | | | | | | | | | | | | | | | |
|-------------------------------------|--|----------------|------------------|---------------|------------|----------------|----------------------------------|---------------|--------------|----------------|------------------|---------------|------------------|----------------|------------------|---------------|--------------|----------------|------------------|---------------|-----------|----------------|------------------|---------------|--------------------------------|----------------|------------------|---------------|-----------|----------------|------------------|---------------|-----------|----------------|------------------|---------------|---------|--|--|----------|--|--|
| | Cropped | | | Cropping | | | Cropped | | | Cropping | | | Cropped | | | Cropping | | | Cropped | | | Cropping | | | Cropped | | | Cropping | | | Cropped | | | Cropping | | | Cropped | | | Cropping | | |
| | Area (ha) | Yield (ton/ha) | Production (ton) | Intensity (%) | Area (ha) | Yield (ton/ha) | Production (ton) | Intensity (%) | Area (ha) | Yield (ton/ha) | Production (ton) | Intensity (%) | Area (ha) | Yield (ton/ha) | Production (ton) | Intensity (%) | Area (ha) | Yield (ton/ha) | Production (ton) | Intensity (%) | Area (ha) | Yield (ton/ha) | Production (ton) | Intensity (%) | Area (ha) | Yield (ton/ha) | Production (ton) | Intensity (%) | Area (ha) | Yield (ton/ha) | Production (ton) | Intensity (%) | Area (ha) | Yield (ton/ha) | Production (ton) | Intensity (%) | | | | | | |
| Normal Irrigation Paddy Field | 1,231 | 224 | 9 | 3.5 | 784 | 948 | 22 | 3.5 | 3,318 | 283 | 11 | 2.8 | 793 | 100 | 4 | 3.5 | 350 | 60 | 5,244 | | | | | | | | | | | | | | | | | | | | | | | |
| Supplemental Irrigation Paddy Field | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Rainfed Paddy Field | 1,371 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Recession Paddy Field | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total | 2,602 | 224 | 9 | 3.5 | 784 | 948 | 36 | 3.5 | 3,318 | 283 | 11 | 2.8 | 793 | 1,471 | 57 | 2.6 | 3,778 | 112 | 8,672 | 97 | 7 | 0.7 | 68 | 50 | 2 | 0.5 | 25 | 147 | 6 | 0.6 | 93 | | | | | | | | | | | |

C. Increment: With-project - Present/Without-project

| Land Use Sub-category | Rice: Earlt Wet Season (Transplanting) | | | | | | Rice: Wet Season (Direct Sowing) | | | | | | Rice: Dry Season | | | | | | Annual | | | | | | Upland Crops: Early Wet Season | | | | | | | | | | | | | | | | | |
|-------------------------------------|--|----------------|------------------|---------------|-----------|----------------|----------------------------------|---------------|-----------|----------------|------------------|---------------|------------------|----------------|------------------|---------------|------------|----------------|------------------|---------------|-----------|----------------|------------------|---------------|--------------------------------|----------------|------------------|---------------|-----------|----------------|------------------|---------------|-----------|----------------|------------------|---------------|---------|--|--|----------|--|--|
| | Cropped | | | Cropping | | | Cropped | | | Cropping | | | Cropped | | | Cropping | | | Cropped | | | Cropping | | | Cropped | | | Cropping | | | Cropped | | | Cropping | | | Cropped | | | Cropping | | |
| | Area (ha) | Yield (ton/ha) | Production (ton) | Intensity (%) | Area (ha) | Yield (ton/ha) | Production (ton) | Intensity (%) | Area (ha) | Yield (ton/ha) | Production (ton) | Intensity (%) | Area (ha) | Yield (ton/ha) | Production (ton) | Intensity (%) | Area (ha) | Yield (ton/ha) | Production (ton) | Intensity (%) | Area (ha) | Yield (ton/ha) | Production (ton) | Intensity (%) | Area (ha) | Yield (ton/ha) | Production (ton) | Intensity (%) | Area (ha) | Yield (ton/ha) | Production (ton) | Intensity (%) | Area (ha) | Yield (ton/ha) | Production (ton) | Intensity (%) | | | | | | |
| Normal Irrigation Paddy Field | 1,231 | 224 | 9 | 3.5 | 784 | 948 | 22 | 3.5 | 3,318 | 283 | 11 | 2.8 | 793 | 100 | 4 | 3.5 | 350 | 60 | 5,244 | | | | | | | | | | | | | | | | | | | | | | | |
| Supplemental Irrigation Paddy Field | -226 | | | | -174 | -7 | -3.48 | -348 | -52 | -2 | -78 | -72 | -3 | -78 | -72 | -3 | -180 | -11 | -606 | | | | | | | | | | | | | | | | | | | | | | | |
| Rainfed Paddy Field | -1,017 | | | | -783 | -30 | -1,175 | -234 | -9 | -234 | -103 | -4 | -234 | -103 | -4 | -206 | -43 | -1,615 | | | | | | | | | | | | | | | | | | | | | | | | |
| Recession Paddy Field | 0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Total | -12 | 0 | 0 | 0 | -9 | 1.9 | 1,795 | -3 | 0 | 1.7 | 481 | -75 | 481 | -75 | -3 | 0.5 | 650 | 6 | 3,709 | 147 | 6 | 0.6 | 93 | 50 | 2 | 0.5 | 25 | 147 | 6 | 0.6 | 93 | | | | | | | | | | | |

Table C3-42 Present & With-project Land Use of the Project Areas in the Boribo River Basin

Lum Hach Rehabilitation Project

| Land Use Sub-category | I. Present Area | | | II. With Project Area | | | Increment (II - I) Area (ha) |
|-------------------------------------|-----------------|------------|------------|-----------------------|------------|----------|------------------------------|
| | (ha) | (%) | (%) | (ha) | (%) | (%) | |
| 1. Irrigation Area | 2,000 | 100 | 46 | 3,700 | 85 | | 1,700 |
| Normal Irrigation Paddy Field | 380 | 19 | 9 | 3,700 | 85 | | 3,320 |
| Supplemental Irrigation Paddy Field | 405 | 20 | 9 | | | | -405 |
| Field under Rainfed Condition | 1,215 | 61 | 28 | | | | -1,215 |
| 2. Rainfed Paddy Field | 2,000 | | 46 | | | | -2,000 |
| 3. Right-of-ways | 350 | | 8 | 650 | 15 | | 300 |
| Total | 4,350 | 100 | 100 | 4,350 | 100 | 0 | 0 |

7th January Canal Rehabilitation Project

| Land Use Sub-category | I. Present Area | | | II. With Project Area | | | Increment (II - I) Area (ha) |
|-------------------------------------|-----------------|------------|------------|-----------------------|------------|----------|------------------------------|
| | (ha) | (%) | (%) | (ha) | (%) | (%) | |
| 1. Irrigation Area | 1,000 | 100 | 43 | 2,000 | 85 | | 1,000 |
| Normal Irrigation Paddy Field | 190 | 19 | 8 | 2,000 | 85 | | 1,810 |
| Supplemental Irrigation Paddy Field | 203 | 20 | 9 | | | | -203 |
| Field under Rainfed Condition | 607 | 61 | 26 | | | | -607 |
| 2. Rainfed Paddy Field | 1,170 | | 50 | | | | -1,170 |
| 3. Right-of-ways | 180 | | 8 | 350 | 15 | | 170 |
| Total | 2,350 | 100 | 100 | 2,350 | 100 | 0 | 0 |

Khvet Rehabilitation Project

| Land Use Sub-category | I. Present Area | | | II. With Project Area | | | Increment (II - I) Area (ha) |
|-------------------------------------|-----------------|------------|------------|-----------------------|------------|----------|------------------------------|
| | (ha) | (%) | (%) | (ha) | (%) | (%) | |
| 1. Irrigation Area | 250 | 100 | 86 | 250 | 86 | | 0 |
| Normal Irrigation Paddy Field | | | | 250 | 86 | | 250 |
| Supplemental Irrigation Paddy Field | 25 | 10 | 9 | | | | -25 |
| Field under Rainfed Condition | 225 | 90 | 78 | | | | -225 |
| 2. Rainfed Paddy Field | | | | | | | |
| 3. Right-of-ways | 40 | | 14 | 40 | 14 | | 0 |
| Total | 290 | 100 | 100 | 290 | 100 | 0 | 0 |

Ta Ram Rehabilitation Project

| Land Use Sub-category | I. Present Area | | | II. With Project Area | | | Increment (II - I) Area (ha) |
|-------------------------------------|-----------------|------------|------------|-----------------------|------------|----------|------------------------------|
| | (ha) | (%) | (%) | (ha) | (%) | (%) | |
| 1. Irrigation Area | 180 | 100 | 95 | 180 | 95 | | 0 |
| Normal Irrigation Paddy Field | | | | 180 | 95 | | 180 |
| Supplemental Irrigation Paddy Field | 18 | 10 | 10 | | | | -18 |
| Field under Rainfed Condition | 162 | 90 | 86 | | | | -162 |
| 2. Rainfed Paddy Field | | | | | | | |
| 3. Right-of-ways | 9 | | 5 | 9 | 5 | | 0 |
| Total | 189 | 100 | 100 | 189 | 100 | 0 | 0 |

Chak Teum, Traneang Khong, Don Pov Rehabilitation Project

| Land Use Sub-category | I. Present Area | | | II. With Project Area | | | Increment (II - I) Area (ha) |
|-------------------------------------|-----------------|------------|------------|-----------------------|------------|----------|------------------------------|
| | (ha) | (%) | (%) | (ha) | (%) | (%) | |
| 1. Irrigation Area | 980 | 100 | 85 | 980 | 85 | | 0 |
| Normal Irrigation Paddy Field | | | | 980 | 85 | | 980 |
| Supplemental Irrigation Paddy Field | 98 | 10 | 9 | | | | -98 |
| Field under Rainfed Condition | 882 | 90 | 77 | | | | -882 |
| 2. Rainfed Paddy Field | | | | | | | |
| 3. Right-of-ways | 170 | | 15 | 170 | 15 | | 0 |
| Total | 1,150 | 100 | 100 | 1,150 | 100 | 0 | 0 |

Teuk Laak & Traneang Thlan Rehabilitation Project

| Land Use Sub-category | I. Present Area | | | II. With Project Area | | | Increment (II - I) Area (ha) |
|-------------------------------------|-----------------|------------|------------|-----------------------|------------|----------|------------------------------|
| | (ha) | (%) | (%) | (ha) | (%) | (%) | |
| 1. Irrigation Area | 230 | 100 | 95 | 230 | 95 | | 0 |
| Normal Irrigation Paddy Field | | | | 230 | 95 | | 230 |
| Supplemental Irrigation Paddy Field | 23 | 10 | 9 | | | | -23 |
| Field under Rainfed Condition | 207 | 90 | 85 | | | | -207 |
| 2. Rainfed Paddy Field | | | | | | | |
| 3. Right-of-ways | 13 | | 5 | 13 | 5 | | 0 |
| Total | 243 | 100 | 100 | 243 | 100 | 0 | 0 |

Toul Chamvev Rehabilitation Project

| Land Use Sub-category | I. Present Area | | | II. With Project Area | | | Increment (II - I) Area (ha) |
|-------------------------------------|-----------------|------------|------------|-----------------------|------------|----------|------------------------------|
| | (ha) | (%) | (%) | (ha) | (%) | (%) | |
| 1. Irrigation Area | 360 | 100 | 86 | 360 | 86 | | 0 |
| Normal Irrigation Paddy Field | | | | 360 | 86 | | 360 |
| Supplemental Irrigation Paddy Field | 36 | 10 | 9 | | | | -36 |
| Field under Rainfed Condition | 324 | 90 | 77 | | | | -324 |
| 2. Rainfed Paddy Field | | | | | | | |
| 3. Right-of-ways | 60 | | 14 | 60 | 14 | | 0 |
| Total | 420 | 100 | 100 | 420 | 100 | 0 | 0 |

Chan Keak Rehabilitation Project

| Land Use Sub-category | I. Present Area | | | II. With Project Area | | | Increment (II - I) Area (ha) |
|-------------------------------------|-----------------|------------|------------|-----------------------|------------|----------|------------------------------|
| | (ha) | (%) | (%) | (ha) | (%) | (%) | |
| 1. Irrigation Area | 110 | 100 | 95 | 110 | 95 | | 0 |
| Normal Irrigation Paddy Field | | | | 110 | 95 | | 110 |
| Supplemental Irrigation Paddy Field | 27 | 25 | 23 | | | | -27 |
| Field under Rainfed Condition | 83 | 75 | 72 | | | | -83 |
| 2. Rainfed Paddy Field | | | | | | | |
| 3. Right-of-ways | 6 | | 5 | 6 | 5 | | 0 |
| Total | 116 | 100 | 100 | 116 | 100 | 0 | 0 |

Whole River Basin

| Land Use Sub-category | I. Present Area | | | II. With Project Area | | | Increment (II - I) Area (ha) |
|-------------------------------------|-----------------|------------|------------|-----------------------|------------|----------|------------------------------|
| | (ha) | (%) | (%) | (ha) | (%) | (%) | |
| 1. Irrigation Area | 5,110 | 100 | 56 | 7,810 | 86 | | 2,700 |
| Normal Irrigation Paddy Field | 570 | 11 | 6 | 7,810 | 86 | | 7,240 |
| Supplemental Irrigation Paddy Field | 835 | 16 | 9 | 0 | | | -835 |
| Field under Rainfed Condition | 3,705 | 73 | 41 | 0 | | | -3,705 |
| 2. Rainfed Paddy Field | 3,170 | | 35 | 0 | | | -3,170 |
| 3. Right-of-ways | 828 | | 9 | 1,298 | 14 | | 470 |
| Total | 9,108 | 100 | 100 | 9,108 | 100 | 0 | 0 |

Source: JICA Study Team

Table C3-43 Present/Without-project & With-project Detail Land Use of the Project Areas in the Boribo River Basin

| Project | I. Present & Without Land Use (ha) | | | | | | II. With-project Land Use (hat) | | | | | | Balance (II - I) | | | |
|---|--|-----------------------------|---------------------------------|-------------------|---------------|------------|---------------------------------|---------------|--------------|-------------------|-----------------------|---------------|-------------------|---------------|------------|----------|
| | Paddy Field in Existing Irrigated Area | | Rainfed Field in Potential Area | Paddy Field Total | Right of Ways | Gross Area | Normal Iri. Field | Right of Ways | Gross Area | Normal Iri. Field | Supplement Iri. Field | Rainfed Field | Paddy Field Total | Right of Ways | Gross Area | |
| | Normal Iri. Field | Field in Rainfed Conditions | | | | | | | | | | | | | | Total |
| Lum Hach Rehabilitation Project | | | | | | | | | | | | | | | | |
| BRB-001 | 380 | 405 | 1,215 | 2,000 | 4,000 | 350 | 4,350 | 4,350 | 3,700 | 650 | 4,350 | 3,320 | -405 | -2,000 | 300 | 0 |
| 7th January Canal Rehabilitation Project | | | | | | | | | | | | | | | | |
| BRB-001 | 190 | 203 | 607 | 1,000 | 2,170 | 180 | 2,350 | 2,350 | 2,000 | 350 | 2,350 | 1,810 | -203 | -1,170 | 170 | 0 |
| Khvet Rehabilitation Project | | | | | | | | | | | | | | | | |
| TKP-001 | | 25 | 225 | 250 | 250 | 40 | 290 | 290 | 250 | 40 | 290 | 250 | -25 | 0 | 0 | 0 |
| Ta Ram Rehabilitation Project | | | | | | | | | | | | | | | | |
| TKP-002 | | 18 | 162 | 180 | 180 | 9 | 189 | 189 | 180 | 9 | 189 | 180 | -18 | 0 | 0 | 0 |
| Chak Teum, Trapeang Khlong, Don Pov Rehabilitation Project | | | | | | | | | | | | | | | | |
| TKP-009 | 23 | 207 | 230 | 0 | 230 | 40 | 270 | 270 | 230 | 40 | 270 | 230 | -23 | 0 | 0 | 0 |
| TKP-013 | 53 | 477 | 530 | 0 | 530 | 90 | 620 | 620 | 530 | 90 | 620 | 530 | -53 | 0 | 0 | 0 |
| TKP-014 | 22 | 198 | 220 | 0 | 220 | 40 | 260 | 260 | 220 | 40 | 260 | 220 | -22 | 0 | 0 | 0 |
| Project Total | 0 | 98 | 882 | 980 | 980 | 170 | 1,150 | 1,150 | 980 | 170 | 1,150 | 980 | -98 | 0 | 0 | 0 |
| Teuk Laak & Trapeang Thlan Rehabilitation Project | | | | | | | | | | | | | | | | |
| TKP-024 | 11 | 94 | 105 | 0 | 105 | 6 | 111 | 111 | 105 | 6 | 111 | 105 | -11 | 0 | 0 | 0 |
| TKP-025 | 12 | 113 | 125 | 0 | 125 | 7 | 132 | 132 | 125 | 7 | 132 | 125 | -12 | 0 | 0 | 0 |
| Project Total | 0 | 23 | 207 | 230 | 230 | 13 | 243 | 243 | 230 | 13 | 243 | 230 | -23 | 0 | 0 | 0 |
| Toul Champey Rehabilitation Project | | | | | | | | | | | | | | | | |
| TKP-021 | | 36 | 324 | 360 | 360 | 60 | 420 | 420 | 360 | 60 | 420 | 360 | -36 | 0 | 0 | 0 |
| Chan Keak Rehabilitation Project | | | | | | | | | | | | | | | | |
| KTL-011 | | 27 | 83 | 110 | 110 | 6 | 116 | 116 | 110 | 6 | 116 | 110 | -27 | 0 | 0 | 0 |
| Basin Total | 570 | 835 | 3,705 | 5,110 | 8,280 | 828 | 9,108 | 9,108 | 7,810 | 1,298 | 9,108 | 7,240 | -835 | -3,170 | 470 | 0 |

Source: JICA Study Team

Table C3-44 Prevailing Cropping Patterns in Irrigation Systems in the Boribo River Basin

| Sub Code | System | 1/ | 2/ | 3/ | Cropping Callendar | | | | | | | | | | | | Cropping Calendar 4/ | |
|--|-----------------|-------|----|-------|--------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------------------|------------|
| | | | | | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | | Apr |
| Lum Hach Rehabilitation Project BRB-001 | Lum Hach | Wet 2 | T | 7,945 | | | | | | | | | | | | | | N5/6-12/1 |
| | | Dry | T | 1,533 | | | | | | | | | | | | | | N12/1-2/3 |
| 7th January Canal Rehabilitation Project BRB-001 | Lum Hach | Wet 2 | T | 7,945 | | | | | | | | | | | | | | N5/6-12/1 |
| | | Dry | T | 1,533 | | | | | | | | | | | | | | N12/1-2/3 |
| Khvet Rehabilitation Project TKP-001 | Khvet | Wet 2 | T | 250 | | | | | | | | | | | | | | N5/6-10/12 |
| | | Wet 2 | T | 180 | | | | | | | | | | | | | | N5/6-10/12 |
| Chak Teum, Trapeang Khlong, Don Pove Rehabilitation Project | | | | | | | | | | | | | | | | | | |
| TKP-009 | Chak Teum | Dry | D | 0 | | | | | | | | | | | | | | D11/12-3/4 |
| TKP-013 | Trapeang Khlong | Wet 2 | T | 530 | | | | | | | | | | | | | | N5/6-10/12 |
| TKP-014 | Don Pov | Wet 2 | T | 0 | | | | | | | | | | | | | | N5/6-10/12 |
| Teuk Laak & Trapeang Thlan Rehabilitation Project | | | | | | | | | | | | | | | | | | |
| TKP-024 | Teuk Laak | Wet 2 | T | 150 | | | | | | | | | | | | | | N5/6-10/12 |
| TKP-025 | Trapeang Thlan | Wet 2 | T | 125 | | | | | | | | | | | | | | N5/6-10/12 |
| Toul Champey Rehabilitation Project | | | | | | | | | | | | | | | | | | |
| TKP-021 | Toul Champey | Wet 2 | T | 360 | | | | | | | | | | | | | | N5/6-10/12 |
| Chan Keak Rehabilitation Project | | | | | | | | | | | | | | | | | | |
| KTL-011 | Chen Keak | Dry | T | 110 | | | | | | | | | | | | | | N2/3-6/7 |
| | | | D | | | | | | | | | | | | | | | D2/3-6/7 |

1/: Cropping season: wet 1 --- early wet season, wet 2 --- wet season 2/: Planting method: D --- direct sowing, T --- transplanting

3/: Cropped area (ha)

Source: Inventory Survey, JICA, 2006

Table C3-45 Present/Without-project Crop Production in the Project Areas of the Boribo River Basin

Lum Hach Rehabilitation Project

| Land Use Sub-category | Area (ha) | Rice: Wet Season (Transplanting) | | | | Rice: Dry Season | | | | Annual | | | |
|-------------------------------------|--------------|----------------------------------|------------------------|----------------|------------------|-------------------|------------------------|----------------|------------------|-------------------|------------------------|----------------|------------------|
| | | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) |
| Normal Irrigation Paddy Field | 380 | 380 | 10 | 3.0 | 1,140 | 380 | 10 | 3.0 | 1,140 | 760 | 19 | 3.0 | 2,280 |
| Supplemental Irrigation Paddy Field | 405 | 405 | 10 | 2.0 | 810 | | | | | 405 | 10 | 2.0 | 810 |
| Rainfed Paddy Field | 3,215 | 3,215 | 80 | 1.5 | 4,823 | | | | | 3,215 | 80 | 1.5 | 4,823 |
| Total | 4,000 | 4,000 | 100 | 1.7 | 6,773 | 380 | 10 | 0.2 | 1,140 | 4,380 | 110 | 1.8 | 7,913 |

7th January Canal Rehabilitation Project

| Land Use Sub-category | Area (ha) | Rice: Wet Season (Transplanting) | | | | Rice: Dry Season | | | | Annual | | | |
|-------------------------------------|--------------|----------------------------------|------------------------|----------------|------------------|-------------------|------------------------|----------------|------------------|-------------------|------------------------|----------------|------------------|
| | | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) |
| Normal Irrigation Paddy Field | 190 | 190 | 9 | 3.0 | 570 | 190 | 9 | 3.0 | 570 | 380 | 18 | 3.0 | 1,140 |
| Supplemental Irrigation Paddy Field | 203 | 203 | 9 | 2.0 | 406 | | | | | 203 | 9 | 2.0 | 406 |
| Rainfed Paddy Field | 1,777 | 1,777 | 82 | 1.5 | 2,666 | | | | | 1,777 | 82 | 1.5 | 2,666 |
| Total | 2,170 | 2,170 | 100 | 1.7 | 3,642 | 190 | 9 | 3.0 | 570 | 2,360 | 109 | 1.8 | 4,212 |

Khvet Rehabilitation Project

| Land Use Sub-category | Area (ha) | Rice: Wet Season (Transplanting) | | | | Rice: Dry Season | | | | Annual | | | |
|-------------------------------------|------------|----------------------------------|------------------------|----------------|------------------|-------------------|------------------------|----------------|------------------|-------------------|------------------------|----------------|------------------|
| | | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) |
| Normal Irrigation Paddy Field | | | | | | | | | | | | | |
| Supplemental Irrigation Paddy Field | 25 | 25 | 10 | 2.0 | 50 | | | | | 25 | 10 | 2.0 | 50 |
| Rainfed Paddy Field | 225 | 225 | 90 | 1.5 | 338 | | | | | 225 | 90 | 1.5 | 338 |
| Total | 250 | 250 | 100 | 1.6 | 388 | 0 | | | 0 | 250 | 100 | 1.6 | 388 |

Ta Ram Rehabilitation Project

| Land Use Sub-category | Area (ha) | Rice: Wet Season (Transplanting) | | | | Rice: Dry Season | | | | Annual | | | |
|-------------------------------------|------------|----------------------------------|------------------------|----------------|------------------|-------------------|------------------------|----------------|------------------|-------------------|------------------------|----------------|------------------|
| | | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) |
| Normal Irrigation Paddy Field | | | | | | | | | | | | | |
| Supplemental Irrigation Paddy Field | 18 | 18 | 10 | 2.0 | 36 | | | | | 18 | 10 | 2.0 | 36 |
| Rainfed Paddy Field | 162 | 162 | 90 | 1.5 | 243 | | | | | 162 | 90 | 1.5 | 243 |
| Total | 180 | 180 | 100 | 1.6 | 279 | 0 | | | 0 | 180 | 100 | 1.6 | 279 |

Chak Teum, Trapeang Khong, Don Pov Rehabilitation Project

| Land Use Sub-category | Area (ha) | Rice: Wet Season (Transplanting) | | | | Rice: Dry Season | | | | Annual | | | |
|-------------------------------------|------------|----------------------------------|------------------------|----------------|------------------|-------------------|------------------------|----------------|------------------|-------------------|------------------------|----------------|------------------|
| | | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) |
| Normal Irrigation Paddy Field | | | | | | | | | | | | | |
| Supplemental Irrigation Paddy Field | 98 | 98 | 10 | 2.0 | 196 | | | | | 98 | 10 | 2.0 | 196 |
| Rainfed Paddy Field | 882 | 882 | 90 | 1.5 | 1,323 | | | | | 882 | 90 | 1.5 | 1,323 |
| Total | 980 | 980 | 100 | 1.6 | 1,519 | 0 | | | 0 | 980 | 100 | 1.6 | 1,519 |

Teuk Laak & Trapeang Thlan Rehabilitation Project

| Land Use Sub-category | Area (ha) | Rice: Wet Season (Transplanting) | | | | Rice: Dry Season | | | | Annual | | | |
|-------------------------------------|------------|----------------------------------|------------------------|----------------|------------------|-------------------|------------------------|----------------|------------------|-------------------|------------------------|----------------|------------------|
| | | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) |
| Normal Irrigation Paddy Field | | | | | | | | | | | | | |
| Supplemental Irrigation Paddy Field | 23 | 23 | 10 | 2.0 | 46 | | | | | 23 | 10 | 2.0 | 46 |
| Rainfed Paddy Field | 207 | 207 | 90 | 1.5 | 311 | | | | | 207 | 90 | 1.5 | 311 |
| Total | 230 | 230 | 100 | 1.6 | 357 | 0 | | | 0 | 230 | 100 | 1.6 | 357 |

Toul Champey Rehabilitation Project

| Land Use Sub-category | Area (ha) | Rice: Wet Season (Transplanting) | | | | Rice: Dry Season | | | | Annual | | | |
|-------------------------------------|------------|----------------------------------|------------------------|----------------|------------------|-------------------|------------------------|----------------|------------------|-------------------|------------------------|----------------|------------------|
| | | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) |
| Normal Irrigation Paddy Field | | | | | | | | | | | | | |
| Supplemental Irrigation Paddy Field | 36 | 36 | 10 | 2.0 | 72 | | | | | 36 | 10 | 2.0 | 72 |
| Rainfed Paddy Field | 324 | 324 | 90 | 1.5 | 486 | | | | | 324 | 90 | 1.5 | 486 |
| Total | 360 | 360 | 100 | 1.6 | 558 | 0 | | | 0 | 360 | 100 | 1.6 | 558 |

Chan Keak Rehabilitation Project

| Land Use Sub-category | Area (ha) | Rice: Wet Season (Transplanting) | | | | Rice: Dry Season | | | | Annual | | | |
|-------------------------------------|------------|----------------------------------|------------------------|----------------|------------------|-------------------|------------------------|----------------|------------------|-------------------|------------------------|----------------|------------------|
| | | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) |
| Normal Irrigation Paddy Field | | | | | | | | | | | | | |
| Supplemental Irrigation Paddy Field | 28 | 28 | 25 | 2.0 | 56 | | | | | 28 | 25 | 2.0 | 56 |
| Rainfed Paddy Field | 82 | 82 | 75 | 1.5 | 123 | | | | | 82 | 75 | 1.5 | 123 |
| Total | 110 | 110 | 100 | 1.6 | 179 | 0 | | | 0 | 110 | 100 | 1.6 | 179 |

Whole Basin

| Land Use Sub-category | Area (ha) | Rice: Wet Season (Transplanting) | | | | Rice: Dry Season | | | | Annual | | | |
|-------------------------------------|--------------|----------------------------------|------------------------|----------------|------------------|-------------------|------------------------|----------------|------------------|-------------------|------------------------|----------------|------------------|
| | | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) |
| Normal Irrigation Paddy Field | 570 | 570 | 7 | 3.0 | 1,710 | 570 | 7 | 3.0 | 1,710 | 1,140 | 14 | 3.0 | 3,420 |
| Supplemental Irrigation Paddy Field | 836 | 836 | 10 | 2.0 | 1,672 | 0 | | | 0 | 836 | 10 | 2.0 | 1,672 |
| Rainfed Paddy Field | 6,874 | 6,874 | 83 | 1.5 | 10,311 | 0 | | | 0 | 6,874 | 83 | 1.5 | 10,311 |
| Total | 8,280 | 8,280 | 100 | 1.7 | 13,693 | 570 | 7 | 3.0 | 1,710 | 8,850 | 107 | 1.7 | 15,403 |

Table C3-46 Present/Without-project & With-project Crop Production: Lum Hach Rehabilitation Project

Lum Hach Rehabilitation Project

A. Present/Without-project Crop Production

| | Rice: Wet Season (Transplanting) | | | Rice: Dry Season | | | Annual | | | Upland Crops: Early Wet Season | | | |
|-------------------------------------|----------------------------------|-------------------|------------------------|-------------------|------------------------|------------------|-------------------|------------------------|------------------|--------------------------------|------------------------|----------------|------------------|
| | Area (ha) | Cropped Area (ha) | Cropping Intensity (%) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) |
| | | Yield (ton/ha) | Production (ton) | | Yield (ton/ha) | Production (ton) | | Yield (ton/ha) | Production (ton) | | | | |
| Land Use Sub-category | 380 | 380 | 10 | 380 | 10 | 3.0 | 380 | 10 | 3.0 | 760 | 19 | 3.0 | 2,280 |
| Normal Irrigation Paddy Field | | | | | | | | | | | | | |
| Supplemental Irrigation Paddy Field | 405 | 405 | 10 | | | 2.0 | 405 | 10 | 2.0 | 405 | 10 | 2.0 | 810 |
| Rainfed Paddy Field | 3,215 | 3,215 | 80 | | | 1.5 | 3,215 | 80 | 1.5 | 3,215 | 80 | 1.5 | 4,823 |
| Recession Paddy Field | | | | | | | | | | | | | |
| Total | 4,000 | 4,000 | 100 | 380 | 10 | 0.2 | 380 | 10 | 0.2 | 4,380 | 110 | 1.8 | 7,913 |

B. With-project Crop Production

| | Rice: Wet Season (Transplanting) | | | Rice: Dry Season | | | Annual | | | Upland Crops: Early Wet Season | | | |
|-------------------------------------|----------------------------------|-------------------|------------------------|-------------------|------------------------|------------------|-------------------|------------------------|------------------|--------------------------------|------------------------|----------------|------------------|
| | Area (ha) | Cropped Area (ha) | Cropping Intensity (%) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) |
| | | Yield (ton/ha) | Production (ton) | | Yield (ton/ha) | Production (ton) | | Yield (ton/ha) | Production (ton) | | | | |
| Land Use Sub-category | 3,700 | 3,700 | 93 | | | 3.5 | 3,700 | 100 | 3.5 | 3,700 | 100 | 3.5 | 12,950 |
| Normal Irrigation Paddy Field | | | | | | | | | | | | | |
| Supplemental Irrigation Paddy Field | | | | | | | | | | | | | |
| Rainfed Paddy Field | | | | | | | | | | | | | |
| Recession Paddy Field | | | | | | | | | | | | | |
| Total | 3,700 | 3,700 | 100 | 0 | 0 | 0 | 3,700 | 100 | 3.5 | 3,700 | 100 | 3.5 | 12,950 |

C. Increment: With-project - Present/Without-project

| | Rice: Wet Season (Transplanting) | | | Rice: Dry Season | | | Annual | | | Upland Crops: Early Wet Season | | | |
|-------------------------------------|----------------------------------|-------------------|------------------------|-------------------|------------------------|------------------|-------------------|------------------------|------------------|--------------------------------|------------------------|----------------|------------------|
| | Area (ha) | Cropped Area (ha) | Cropping Intensity (%) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) |
| | | Yield (ton/ha) | Production (ton) | | Yield (ton/ha) | Production (ton) | | Yield (ton/ha) | Production (ton) | | | | |
| Land Use Sub-category | 3,320 | 3,320 | 83 | -380 | -10 | -1,140 | 3,320 | 83 | 3.5 | 3,320 | 83 | 3.5 | 11,700 |
| Normal Irrigation Paddy Field | | | | | | | | | | | | | |
| Supplemental Irrigation Paddy Field | -405 | -405 | -10 | 0 | 0 | -810 | -405 | -10 | -2.0 | -405 | -10 | -2.0 | -810 |
| Rainfed Paddy Field | -3,215 | -3,215 | -80 | 0 | 0 | -4,823 | -3,215 | -80 | -1.5 | -3,215 | -80 | -1.5 | -4,823 |
| Recession Paddy Field | | | | | | | | | | | | | |
| Total | -300 | -300 | 0 | -380 | -10 | -1,140 | -380 | -10 | 0 | -680 | -10 | 1.7 | 5,038 |

Table C3-47 Cost Estimates for Agricultural Support Services for Lum Hach Rehabilitation Project 1/

| 1. Lum Hach Rehabilitation Project | | Project Area: | | 3,700 ha | | Overall | | | | | | | | | | | | |
|--|-------|---------------------|------------|------------------|--------|------------|------------------|--------|------------|------------------|--------|------------|------------------|--------|------------|------------------|--------|---------------|
| Activities | Unit | Program Cost (US\$) | 1st | | | 2nd | | | 3rd | | | 4th | | | Overall | | | |
| | | | Volume | | | Volume | | | Volume | | | Volume | | | Volume | | | |
| | | | Dry Season | Early Wet Season | Annual | Dry Season | Early Wet Season | Annual | Dry Season | Early Wet Season | Annual | Dry Season | Early Wet Season | Annual | Dry Season | Early Wet Season | Annual | Amount (US\$) |
| 1. Field Programs | | | | | | | | | | | | | | | | | | |
| 1.1 Field Adaptability Test | unit | 550 | | 1 | 1 | 550 | | 1 | 1 | 550 | | 1 | 1 | 550 | | 4 | 4 | 2,200 |
| 1.2 Demonstration Plot (0.1ha) | | | | | | | | | | | | | | | | | | |
| - Irrigated Rice | unit | 50 | | 4 | 4 | 200 | | 5 | 5 | 250 | | 5 | 5 | 250 | | 19 | 19 | 950 |
| - Upland Crops/vegetables | unit | 50 | | 1 | 1 | 50 | | 1 | 1 | 50 | | 1 | 1 | 50 | | 4 | 4 | 100 |
| 1.2 Demonstration Plot (1.0ha) | | | | | | | | | | | | | | | | | | |
| - Irrigated Rice | unit | 400 | | 2 | 2 | 800 | | 3 | 3 | 1,200 | | 2 | 2 | 800 | | 9 | 9 | 3,600 |
| - Upland Crops/vegetables | unit | 400 | | 1 | 1 | 400 | | 1 | 1 | 400 | | 1 | 1 | 400 | | 4 | 4 | 1,600 |
| 1.3 Demonstration Farm (5.0ha) | | | | | | | | | | | | | | | | | | |
| - Irrigated Rice | unit | 1,000 | | 1 | 1 | 1,000 | | 1 | 1 | 1,000 | | 1 | 1 | 1,000 | | 4 | 4 | 4,000 |
| 1.4 Demonstration Area (20ha) | | | | | | | | | | | | | | | | | | |
| - Irrigated Rice | unit | 2,500 | | 0 | 0 | 0 | | 0 | 0 | 0 | | 1 | 1 | 2,500 | | 2 | 2 | 5,000 |
| - Upland Crops/vegetables | unit | 360 | | 2 | 2 | 720 | | 2 | 2 | 720 | | 2 | 2 | 720 | | 7 | 7 | 2,520 |
| 1.5 Seed Multiplication | | | | | | | | | | | | | | | | | | |
| Sub-total | | | 0 | 12 | 12 | 3,670 | 0 | 14 | 14 | 4,170 | 0 | 14 | 14 | 6,270 | 0 | 13 | 13 | 5,860 |
| 2. Farmer/Farmer Group Training Programs | | | | | | | | | | | | | | | | | | |
| 2.1 Training Course | | | | | | | | | | | | | | | | | | |
| - 5 Days (30 participants) | unit | 370 | | 2 | 2 | 740 | | 2 | 2 | 740 | | 2 | 2 | 740 | | 7 | 7 | 2,590 |
| 2.2 FFS/IPM (50 participants) | unit | 850 | | 1 | 1 | 850 | | 1 | 1 | 850 | | 1 | 1 | 850 | | 4 | 4 | 3,400 |
| 2.3 Study Tour | unit | 330 | | 1 | 1 | 330 | | 1 | 1 | 330 | | 1 | 1 | 330 | | 4 | 4 | 1,320 |
| 2.4 VEA Training | | | | | | | | | | | | | | | | | | |
| - 10 Participants | unit | 2,200 | | 1 | 1 | 2,200 | | 4 | 4 | 1,920 | | 4 | 4 | 1,920 | | 16 | 16 | 7,000 |
| Sub-total | | | 0 | 5 | 5 | 1,920 | 0 | 4 | 4 | 1,920 | 0 | 4 | 4 | 1,920 | 0 | 3 | 3 | 37,000 |
| 3. Mass Guidance/Workshop | | | | | | | | | | | | | | | | | | |
| 3.1 50 Participants | | | | | | | | | | | | | | | | | | |
| Support Fund for Extension Staff | | | | | | | | | | | | | | | | | | |
| Farmer-to-farmer Extension Support | VEA | 360 | | 6 | 6 | 2,160 | | 6 | 6 | 2,160 | | 6 | 6 | 2,160 | | 24 | 24 | 8,640 |
| Field Guidance Staff | staff | 600 | | 2 | 2 | 1,200 | | 2 | 2 | 1,200 | | 2 | 2 | 1,200 | | 8 | 8 | 4,800 |
| Sub-total | | | 0 | 8 | 8 | 3,360 | 0 | 8 | 8 | 3,360 | 0 | 8 | 8 | 3,360 | 0 | 32 | 32 | 128,950 |
| 5. Staff Empowerment | unit | 550 | | | | 0 | | | | 0 | | | | 0 | | | | 0 |
| 6. Provision of Transportation Means | | | | | | | | | | | | | | | | | | |
| - Bicycle | unit | 100 | | 6 | 6 | 600 | | | | | | | | | | 6 | 6 | 600 |
| - Motorcycle | unit | 1,000 | | 2 | 2 | 2,000 | | | | | | | | | | 2 | 2 | 2,000 |
| Sub-total | | | | 8 | 8 | 2,600 | | | | 0 | | | | 0 | | 8 | 8 | 213,990 |
| Total | | | | | | 11,790 | | | | 9,690 | | | | 11,790 | | | | 44,160 |
| 1/ Program direct cost | | | | | | | | | | | | | | | | | | 44,000 |

Table C3-48 Present/Without-project & With-project Crop Production: 7th January Canal Rehabilitation Project

7th January Canal Rehabilitation Project

A. Present/Without-project Crop Production

| | Rice: Wet Season (Transplanting) | | | Rice: Dry Season | | | Annual | | | Upland Crops: Early Wet Season | | | |
|-------------------------------------|----------------------------------|-------------------|------------------------|------------------|------------------|-------------------|------------------------|----------------|------------------|--------------------------------|------------------------|----------------|------------------|
| | Area (ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) |
| | | | | | | | | | | | | | |
| Land Use Sub-category | 190 | 190 | 9 | 3.0 | 570 | 190 | 9 | 3.0 | 570 | 380 | 18 | 3.0 | 1,140 |
| Normal Irrigation Paddy Field | | | | | | | | | | | | | |
| Supplemental Irrigation Paddy Field | 203 | 203 | 9 | 2.0 | 406 | | | | | 203 | 9 | 2.0 | 406 |
| Rainfed Paddy Field | 1,777 | 1,777 | 82 | 1.5 | 2,666 | | | | | 1,777 | 82 | 1.5 | 2,666 |
| Recession Paddy Field | | | | | | | | | | | | | |
| Total | 2,170 | 2,170 | 100 | 1.7 | 3,642 | 190 | 9 | 3.0 | 570 | 2,360 | 109 | 1.8 | 4,212 |

B. With-project Crop Production

| | Rice: Wet Season (Transplanting) | | | Rice: Dry Season | | | Annual | | | Upland Crops: Early Wet Season | | | |
|-------------------------------------|----------------------------------|-------------------|------------------------|------------------|------------------|-------------------|------------------------|----------------|------------------|--------------------------------|------------------------|----------------|------------------|
| | Area (ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) |
| | | | | | | | | | | | | | |
| Land Use Sub-category | 2,000 | 2,000 | 50 | 3.5 | 7,000 | | | | | 2,000 | 100 | 3.5 | 7,000 |
| Normal Irrigation Paddy Field | | | | | | | | | | | | | |
| Supplemental Irrigation Paddy Field | | | | | | | | | | | | | |
| Rainfed Paddy Field | | | | | | | | | | | | | |
| Recession Paddy Field | | | | | | | | | | | | | |
| Total | 2,000 | 2,000 | 100 | 3.5 | 7,000 | 0 | | | 0 | 2,000 | 100 | 3.5 | 7,000 |

C. Increment: With-project - Present/Without-project

| | Rice: Wet Season (Transplanting) | | | Rice: Dry Season | | | Annual | | | Upland Crops: Early Wet Season | | | |
|-------------------------------------|----------------------------------|-------------------|------------------------|------------------|------------------|-------------------|------------------------|----------------|------------------|--------------------------------|------------------------|----------------|------------------|
| | Area (ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) |
| | | | | | | | | | | | | | |
| Land Use Sub-category | 1,810 | 1,810 | 41 | 6,430 | -570 | -190 | -9 | -9 | -570 | 1,620 | 82 | 3.5 | 5,860 |
| Normal Irrigation Paddy Field | | | | | | | | | | | | | |
| Supplemental Irrigation Paddy Field | -203 | -203 | -9 | -406 | 0 | 0 | 0 | 0 | 0 | -203 | -9 | -9 | -406 |
| Rainfed Paddy Field | -1,777 | -1,777 | -82 | -2,666 | 0 | 0 | 0 | 0 | 0 | -1,777 | -82 | -82 | -2,666 |
| Recession Paddy Field | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | -170 | -170 | 0 | 1.8 | 3,359 | -190 | -9 | -9 | -570 | -360 | -9 | 1.7 | 2,789 |

Table C3-49 Cost Estimates for Agricultural Support Services for 7th January Canal Rehabilitation Project 1/

| 2. 7th January Canal Rehabilitation Project | | Project Area: 2,000 ha | | | | | 1st | | | 2nd | | | 3rd | | | 4th | | | Overall | | | |
|--|-------|------------------------|---------------------|------------|------------|---------------|---------------|------------|------------------|------------|---------------|---------------|------------|------------------|------------|---------------|---------------|------------|------------------|------------|---------------|---------------|
| | | Unit | Program Cost (US\$) | Dry Season | Wet Season | Volume Annual | Amount (US\$) | Dry Season | Early Wet Season | Wet Season | Volume Annual | Amount (US\$) | Dry Season | Early Wet Season | Wet Season | Volume Annual | Amount (US\$) | Dry Season | Early Wet Season | Wet Season | Volume Annual | Amount (US\$) |
| 1. Field Programs | unit | 550 | 1 | 1 | 550 | 1 | 1 | 1 | 1 | 550 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1.1 Field Adaptability Test | | | | | | | | | | | | | | | | | | | | | | |
| 1.2 Demonstration Plot (0.1ha) | unit | 50 | 3 | 3 | 150 | 3 | 3 | 3 | 3 | 150 | 2 | 100 | 2 | 2 | 2 | 100 | 2 | 10 | 10 | 10 | 500 | |
| - Irrigated Rice | unit | 50 | 1 | 1 | 50 | 1 | 1 | 1 | 1 | 50 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 2 | 50 | |
| - Upland Crops/vegetables | | | | | | | | | | | | | | | | | | | | | | |
| 1.2 Demonstration Plot (1.0ha) | unit | 400 | 1 | 1 | 400 | 2 | 2 | 2 | 2 | 800 | 1 | 400 | 1 | 1 | 1 | 400 | 1 | 1 | 1 | 1 | 400 | |
| - Irrigated Rice | unit | 400 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 400 | 1 | 400 | 1 | 1 | 1 | 400 | 0 | 2 | 0 | 2 | 800 | |
| - Upland Crops/vegetables | | | | | | | | | | | | | | | | | | | | | | |
| 1.3 Demonstration Farm (5.0ha) | unit | 1,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1,000 | 1 | 1 | 1 | 1,000 | 1 | 1 | 1 | 1 | 2,000 | |
| - Irrigated Rice | unit | 2,500 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 2,500 | |
| - Upland Crops/vegetables | | | | | | | | | | | | | | | | | | | | | | |
| 1.4 Demonstration Area (20ha) | unit | 360 | 1 | 1 | 360 | 1 | 1 | 1 | 1 | 360 | 1 | 360 | 1 | 1 | 1 | 360 | 1 | 1 | 1 | 1 | 1,440 | |
| - Irrigated Rice | | | | | | | | | | | | | | | | | | | | | | |
| 1.5 Seed Multiplication | unit | 2,200 | 1 | 1 | 2,200 | 2 | 7 | 9 | 9 | 2,310 | 1 | 2,260 | 0 | 6 | 6 | 4,360 | 4 | 28 | 28 | 28 | 10,390 | |
| - 10 Participants | | | | | | | | | | | | | | | | | | | | | | |
| Sub-total | | | | | | | | | | | | | | | | | | | | | | |
| 2. Farmer/Farmer Group Training Programs | unit | 370 | 1 | 1 | 370 | 1 | 1 | 1 | 1 | 370 | 1 | 370 | 1 | 1 | 1 | 370 | 4 | 4 | 4 | 4 | 1,480 | |
| 2.1 Training Course - 5 Days (30 participants) | unit | 850 | 1 | 1 | 850 | 0 | 0 | 0 | 0 | 0 | 1 | 850 | 1 | 1 | 1 | 850 | 0 | 0 | 0 | 0 | 1,700 | |
| 2.2 FFS/IPM (50 participants) | unit | 330 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 330 | 0 | 0 | 0 | 0 | 0 | 330 | 1 | 1 | 1 | 1 | 660 | |
| 2.3 Study Tour | unit | 2,200 | 1 | 1 | 2,200 | 2 | 7 | 9 | 9 | 2,310 | 1 | 2,260 | 0 | 6 | 6 | 4,360 | 4 | 28 | 28 | 28 | 10,390 | |
| 2.4 VEA Training - 10 Participants | | | | | | | | | | | | | | | | | | | | | | |
| Sub-total | | | | | | | | | | | | | | | | | | | | | | |
| 3. Mass Guidance/Workshop | unit | 120 | 1 | 1 | 120 | 1 | 1 | 1 | 1 | 120 | 1 | 120 | 1 | 1 | 1 | 120 | 0 | 0 | 0 | 0 | 20,370 | |
| 3.1 50 Participants | | | | | | | | | | | | | | | | | | | | | | |
| 4. Support Fund for Extension Staff Farmer-to-farmer Extension Support | VEA | 360 | 4 | 4 | 1,440 | 4 | 4 | 4 | 4 | 1,440 | 4 | 1,440 | 4 | 4 | 1,440 | 16 | 16 | 16 | 16 | 5,760 | | |
| Field Guidance Staff | staff | 600 | 1 | 1 | 600 | 1 | 1 | 1 | 1 | 600 | 1 | 600 | 1 | 1 | 1 | 600 | 0 | 0 | 0 | 0 | 2,400 | |
| Sub-total | | | | | | | | | | | | | | | | | | | | | | |
| 5. Staff Empowerment | unit | 550 | 5 | 5 | 2,040 | 5 | 5 | 5 | 5 | 2,040 | 5 | 2,040 | 0 | 0 | 0 | 2,040 | 0 | 0 | 0 | 0 | 72,810 | |
| 6. Provision of Transportation Means | unit | 100 | 4 | 4 | 400 | 4 | 4 | 4 | 4 | 400 | 4 | 400 | 4 | 4 | 400 | 4 | 4 | 4 | 4 | 4 | 400 | |
| - Bicycle | unit | 1,000 | 1 | 1 | 1,000 | 1 | 1 | 1 | 1 | 1,000 | 1 | 1,000 | 1 | 1 | 1,000 | 1 | 1 | 1 | 1 | 1 | 1,000 | |
| - Motorcycle | unit | 1,000 | 5 | 5 | 1,400 | 5 | 5 | 5 | 5 | 1,400 | 5 | 5,640 | 0 | 0 | 0 | 5,640 | 0 | 0 | 0 | 0 | 120,610 | |
| Sub-total | | | | | | | | | | | | | | | | | | | | | | |
| Total | | | | | 6,240 | | | | | 5,170 | | | | | | 7,220 | | | | | 24,000 | |
| 1/: Program direct cost | | | | | | | | | | | | | | | | | | | | | | |

Table C3-50 Present/Without-project & With-project Crop Production: Khvet Rehabilitation Project

Khvet Rehabilitation Project

A. Present/Without-project Crop Production

| | Rice: Wet Season (Transplanting) | | | Rice: Dry Season | | | Annual | | | Upland Crops: Early Wet Season | | | | | |
|-------------------------------------|----------------------------------|------------------------|----------------|-------------------|------------------------|----------------|------------------|-------------------|------------------------|--------------------------------|------------------|-------------------|------------------------|----------------|------------------|
| | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) |
| Land Use Sub-category | | | | | | | | | | | | | | | |
| Normal Irrigation Paddy Field | 25 | 10 | 2.0 | 50 | | | | 25 | 10 | 2.0 | 50 | | | | |
| Supplemental Irrigation Paddy Field | 225 | 90 | 1.5 | 338 | | | | 225 | 90 | 1.5 | 338 | | | | |
| Rainfed Paddy Field | | | | | | | | | | | | | | | |
| Recession Paddy Field | | | | | | | | | | | | | | | |
| Total | 250 | 100 | 1.6 | 388 | 0 | | 0 | 250 | 100 | 1.6 | 388 | 0 | | 0 | 0 |

B. With-project Crop Production

| | Rice: Wet Season (Transplanting) | | | Rice: Dry Season | | | Annual | | | Upland Crops: Early Wet Season | | | | | |
|-------------------------------------|----------------------------------|------------------------|----------------|-------------------|------------------------|----------------|------------------|-------------------|------------------------|--------------------------------|------------------|-------------------|------------------------|----------------|------------------|
| | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) |
| Land Use Sub-category | | | | | | | | | | | | | | | |
| Normal Irrigation Paddy Field | 250 | 100 | 3.5 | 875 | | | | 250 | 100 | 3.5 | 875 | | | | |
| Supplemental Irrigation Paddy Field | | | | | | | | | | | | | | | |
| Rainfed Paddy Field | | | | | | | | | | | | | | | |
| Recession Paddy Field | | | | | | | | | | | | | | | |
| Total | 250 | 100 | 3.5 | 875 | 0 | | 0 | 250 | 100 | 3.5 | 875 | 10 | 4 | 0.5 | 5 |

C. Increment: With-project - Present/Without-project

| | Rice: Wet Season (Transplanting) | | | Rice: Dry Season | | | Annual | | | Upland Crops: Early Wet Season | | | | | |
|-------------------------------------|----------------------------------|------------------------|----------------|-------------------|------------------------|----------------|------------------|-------------------|------------------------|--------------------------------|------------------|-------------------|------------------------|----------------|------------------|
| | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) |
| Land Use Sub-category | | | | | | | | | | | | | | | |
| Normal Irrigation Paddy Field | 250 | 100 | 875 | | | | 875 | 250 | 100 | 875 | | | | | |
| Supplemental Irrigation Paddy Field | -25 | -10 | -50 | | | | -50 | -25 | -10 | -50 | | | | | |
| Rainfed Paddy Field | -225 | -90 | -338 | | | | -338 | -225 | -90 | -338 | | | | | |
| Recession Paddy Field | 0 | 0 | 0 | | | | 0 | 0 | 0 | 0 | | | | | |
| Total | 0 | 0 | 2.0 | 488 | 0 | | 0 | 0 | 0 | 1.9 | 488 | 10 | 4 | 0.5 | 5 |

Table C3-52 Present/Without-project & With-project Crop Production: Ta Ram Rehabilitation Project

Ta Ram Rehabilitation Project

A. Present/Without-project Crop Production

| | Rice: Wet Season (Transplanting) | | | Rice: Dry Season | | | Annual | | | Upland Crops: Early Wet Season | | | | | |
|-------------------------------------|----------------------------------|------------------------|----------------|-------------------|------------------------|----------------|------------------|-------------------|------------------------|--------------------------------|------------------|-------------------|------------------------|----------------|------------------|
| | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) |
| Land Use Sub-category | | | | | | | | | | | | | | | |
| Normal Irrigation Paddy Field | 18 | 10 | 2.0 | 36 | | | | 18 | 10 | 2.0 | 36 | | | | |
| Supplemental Irrigation Paddy Field | 162 | 90 | 1.5 | 243 | | | | 162 | 90 | 1.5 | 243 | | | | |
| Rainfed Paddy Field | | | | | | | | | | | | | | | |
| Recession Paddy Field | | | | | | | | | | | | | | | |
| Total | 180 | 100 | 1.6 | 279 | 0 | | 0 | 180 | 100 | 1.6 | 279 | 0 | | | 0 |

B. With-project Crop Production

| | Rice: Wet Season (Transplanting) | | | Rice: Dry Season | | | Annual | | | Upland Crops: Early Wet Season | | | | | |
|-------------------------------------|----------------------------------|------------------------|----------------|-------------------|------------------------|----------------|------------------|-------------------|------------------------|--------------------------------|------------------|-------------------|------------------------|----------------|------------------|
| | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) |
| Land Use Sub-category | | | | | | | | | | | | | | | |
| Normal Irrigation Paddy Field | 180 | 5 | 3.5 | 630 | | | | 180 | 100 | 3.5 | 630 | | | | |
| Supplemental Irrigation Paddy Field | | | | | | | | | | | | | | | |
| Rainfed Paddy Field | | | | | | | | | | | | | | | |
| Recession Paddy Field | | | | | | | | | | | | | | | |
| Total | 180 | 100 | 3.5 | 630 | 0 | | 0 | 180 | 100 | 3.5 | 630 | 10 | 6 | 0.5 | 5 |

C. Increment: With-project - Present/Without-project

| | Rice: Wet Season (Transplanting) | | | Rice: Dry Season | | | Annual | | | Upland Crops: Early Wet Season | | | | | |
|-------------------------------------|----------------------------------|------------------------|----------------|-------------------|------------------------|----------------|------------------|-------------------|------------------------|--------------------------------|------------------|-------------------|------------------------|----------------|------------------|
| | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) |
| Land Use Sub-category | | | | | | | | | | | | | | | |
| Normal Irrigation Paddy Field | 180 | 5 | 630 | 0 | | | 630 | 180 | 90 | | | | | | |
| Supplemental Irrigation Paddy Field | -18 | -10 | -36 | 0 | | | -36 | -18 | -90 | | | | | | |
| Rainfed Paddy Field | -162 | -90 | -243 | 0 | | | -243 | -162 | 0 | | | | | | |
| Recession Paddy Field | | | | | | | | | -100 | | | 10 | 6 | | 5 |
| Total | 0 | 0 | 2 | 351 | 0 | | 0 | 0 | 0 | 1.9 | 351 | 10 | 6 | 0.5 | 5 |

Table C3-53 Cost Estimates for Agricultural Support Services for Ta Ram Rehabilitation Project 1/

| 4. Ta Ram Rehabilitation Project | Project Area: 180 ha | | | | 1st | | | | 2nd | | | | 3rd | | | | Overall | | | | | | | | |
|--|----------------------|-------|---------------------|--------|------------|------------------|------------|---------------|------------|------------------|------------|---------------|------------|------------------|------------|---------------|------------|------------------|------------|---------------|------------|------------------|------------|-------|---|
| | Activities | Unit | Program Cost (US\$) | Volume | Volume | | | Amount (US\$) | Volume | | | Amount (US\$) | Volume | | | Amount (US\$) | Volume | | | Amount (US\$) | | | | | |
| | | | | | Dry Season | Early Wet Season | Wet Season | | Dry Season | Early Wet Season | Wet Season | | Dry Season | Early Wet Season | Wet Season | | Dry Season | Early Wet Season | Wet Season | | Dry Season | Early Wet Season | Wet Season | | |
| 1. Field Programs | unit | 550 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| 1.1 Field Adaptability Test | unit | 550 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| 1.2 Demonstration Plot (0.1ha) | unit | 50 | 1 | 1 | 1 | 1 | 50 | 2 | 2 | 2 | 100 | 1 | 1 | 1 | 50 | 4 | 4 | 4 | 200 | 1 | 1 | 1 | 50 | 200 | |
| - Irrigated Rice | unit | 50 | 0 | 0 | 0 | 0 | 50 | 1 | 1 | 1 | 50 | 0 | 0 | 0 | 50 | 1 | 1 | 1 | 50 | 0 | 0 | 0 | 50 | 50 | |
| - Upland Crops/vegetables | unit | 400 | 0 | 0 | 0 | 0 | 400 | 1 | 1 | 1 | 400 | 1 | 1 | 1 | 400 | 2 | 2 | 2 | 800 | 1 | 1 | 1 | 400 | 800 | |
| 1.2 Demonstration Plot (1.0ha) | unit | 400 | 0 | 0 | 0 | 0 | 400 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 400 | 1 | 1 | 1 | 400 | 0 | 0 | 0 | 400 | 400 | |
| - Irrigated Rice | unit | 400 | 0 | 0 | 0 | 0 | 400 | 1 | 1 | 1 | 400 | 1 | 1 | 1 | 400 | 1 | 1 | 1 | 400 | 0 | 0 | 0 | 400 | 400 | |
| - Upland Crops/vegetables | unit | 1,000 | 0 | 0 | 0 | 0 | 1,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1.3 Demonstration Farm (5.0ha) | unit | 2,500 | 0 | 0 | 0 | 0 | 2,500 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| - Irrigated Rice | unit | 360 | 0 | 0 | 0 | 0 | 360 | 1 | 1 | 1 | 360 | 1 | 1 | 1 | 360 | 1 | 1 | 1 | 360 | 0 | 0 | 0 | 360 | 360 | |
| - Irrigated Rice | unit | 360 | 0 | 0 | 0 | 0 | 360 | 1 | 1 | 1 | 360 | 1 | 1 | 1 | 360 | 1 | 1 | 1 | 360 | 0 | 0 | 0 | 360 | 360 | |
| 1.5 Seed Multiplication | unit | | 0 | 1 | 1 | 1 | 50 | 1 | 1 | 1 | 50 | 4 | 4 | 4 | 200 | 1 | 1 | 1 | 200 | 0 | 0 | 0 | 200 | 200 | |
| Sub-total | | | | | | | 550 | | | | | | | | 910 | | | | 910 | | | | 910 | 1,810 | |
| 2. Farmer/Farmer Group Training Programs | unit | 370 | 1 | 1 | 1 | 370 | | | | | | | | | | | | | | | | | | | |
| 2.1 Training Course | unit | 370 | 1 | 1 | 1 | 370 | | | | | | | | | | | | | | | | | | | |
| - 5 Days (30 participants) | unit | 850 | 0 | 0 | 0 | 850 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2.2 FFS/PPM (50 participants) | unit | 330 | 0 | 0 | 0 | 330 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 330 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2.3 Study Tour | unit | 2,200 | 0 | 0 | 0 | 2,200 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2.4 VEA Training | unit | 2,200 | 0 | 0 | 0 | 2,200 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sub-total | | | | | | 370 | | | | | | | | | 910 | | | | 910 | | | | 910 | 1,810 | |
| 3. Mass Guidance/Workshop | unit | 120 | 1 | 1 | 1 | 120 | | | | | | | | | | | | | | | | | | | |
| 3.1 50 Participants | unit | 120 | 1 | 1 | 1 | 120 | | | | | | | | | | | | | | | | | | | |
| 4. Support Fund for Extension Staff | unit | 360 | 1 | 1 | 1 | 360 | | | | | | | | | | | | | | | | | | | |
| Farmer-to-farmer Extension Support | VEA | 360 | 1 | 1 | 1 | 360 | | | | | | | | | | | | | | | | | | | |
| Field Guidance Staff | staff | 600 | 1 | 1 | 1 | 600 | | | | | | | | | | | | | | | | | | | |
| Sub-total | | | | | | 120 | | | | | | | | | 360 | | | | 360 | | | | 360 | 1,080 | |
| 5. Staff Empowerment | unit | 550 | 2 | 2 | 2 | 1,100 | | | | | | | | | | | | | | | | | | | |
| Sub-total | | | | | | 550 | | | | | | | | | 1,100 | | | | 1,100 | | | | 1,100 | 2,200 | |
| 6. Provision of Transportation Means | unit | 100 | 1 | 1 | 1 | 100 | | | | | | | | | | | | | | | | | | | |
| - Bicycle | unit | 1,000 | 1 | 1 | 1 | 1,000 | | | | | | | | | | | | | | | | | | | |
| - Motorcycle | unit | 1,000 | 1 | 1 | 1 | 1,000 | | | | | | | | | | | | | | | | | | | |
| Sub-total | | | | | | 1,000 | | | | | | | | | 1,000 | | | | 1,000 | | | | 1,000 | 2,000 | |
| Total | | | | | | 550 | | | | | | | | | 2,600 | | | | 2,600 | | | | 2,600 | 6,610 | |
| Program direct cost | | | | | | | | | | | | | | | | | | | | | | | | 7,000 | |

1/: Program direct cost

Table C3-54 Present/Without-project & With-project Crop Production: Chak Teum, Trapeang Khong, Don Pov Rehabilitation Project

Chak Teum, Trapeang Khong, Don Pov Rehabilitation Project

A. Present/Without-project Crop Production

| | Rice: Wet Season (Transplanting) | | | Rice: Dry Season | | | Annual | | | Upland Crops: Early Wet Season | | | | | |
|-------------------------------------|----------------------------------|------------------------|----------------|-------------------|------------------------|----------------|------------------|-------------------|------------------------|--------------------------------|------------------|-------------------|------------------------|----------------|------------------|
| | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) |
| Land Use Sub-category | | | | | | | | | | | | | | | |
| Normal Irrigation Paddy Field | 98 | 10 | 2.0 | 196 | | | | 98 | 10 | 2.0 | 196 | | | | |
| Supplemental Irrigation Paddy Field | 882 | 90 | 1.5 | 1,323 | | | | 882 | 90 | 1.5 | 1,323 | | | | |
| Rainfed Paddy Field | | | | | | | | | | | | | | | |
| Recession Paddy Field | | | | | | | | | | | | | | | |
| Total | 980 | 100 | 1.6 | 1,519 | 0 | | 0 | 980 | 100 | 1.6 | 1,519 | 0 | | 0 | 0 |

B. With-project Crop Production

| | Rice: Wet Season (Transplanting) | | | Rice: Dry Season | | | Annual | | | Upland Crops: Early Wet Season | | | | | |
|-------------------------------------|----------------------------------|------------------------|----------------|------------------|-------------------|------------------------|----------------|------------------|-------------------|--------------------------------|----------------|------------------|-------------------|------------------------|----------------|
| | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) |
| Land Use Sub-category | | | | | | | | | | | | | | | |
| Normal Irrigation Paddy Field | 980 | 25 | 3.5 | 3,430 | | | | 980 | 100 | 3.5 | 3,430 | | | | |
| Supplemental Irrigation Paddy Field | | | | | | | | | | | | | | | |
| Rainfed Paddy Field | | | | | | | | | | | | | | | |
| Recession Paddy Field | | | | | | | | | | | | | | | |
| Total | 980 | 100 | 3.5 | 3,430 | 0 | | 0 | 980 | 100 | 3.5 | 3,430 | 50 | 5 | 0.5 | 25 |

C. Increment: With-project - Present/Without-project

| | Rice: Wet Season (Transplanting) | | | Rice: Dry Season | | | Annual | | | Upland Crops: Early Wet Season | | | | | |
|-------------------------------------|----------------------------------|------------------------|----------------|------------------|-------------------|------------------------|----------------|------------------|-------------------|--------------------------------|----------------|------------------|-------------------|------------------------|----------------|
| | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) |
| Land Use Sub-category | | | | | | | | | | | | | | | |
| Normal Irrigation Paddy Field | 980 | 25 | 3.5 | 3,430 | | | | 980 | 100 | 3.5 | 3,430 | | | | |
| Supplemental Irrigation Paddy Field | -98 | -10 | -1.5 | -196 | | | | -98 | -10 | -1.5 | -196 | | | | |
| Rainfed Paddy Field | -882 | -90 | -1.5 | -1,323 | | | | -882 | -90 | -1.5 | -1,323 | | | | |
| Recession Paddy Field | | | | | | | | | | | | | | | |
| Total | 0 | 0 | 2.0 | 1,911 | 0 | | 0 | 0 | 0 | 1.9 | 1,911 | 50 | 5 | 0.5 | 25 |

Table C3-55 Cost Estimates for Agricultural Support Services for Chak Teum, Trapeang Khong, Don Pov Rehabilitation Project 1/

| Activities | | Project Area: 980 ha | | | | | | | | | | | | | | | |
|--|---------------------|----------------------|------------|---------------|------------|------------|--------------|---------------|------------|--------|------------|---------------|--------|------------|------------|---------------|---------------|
| | | 1st | | | | 2nd | | | | 3rd | | | | Overall | | | |
| | | Volume | | Amount (US\$) | | Volume | | Amount (US\$) | | Volume | | Amount (US\$) | | Volume | | Amount (US\$) | |
| Unit | Program Cost (US\$) | Dry Season | Wet Season | Annual | Dry Season | Wet Season | Annual | Dry Season | Wet Season | Annual | Dry Season | Wet Season | Annual | Dry Season | Wet Season | Annual | |
| 1. Field Programs | | | | | | | | | | | | | | | | | |
| 1.1 Field Adaptability Test | unit | 550 | | 1 | | | 0 | | | | 0 | | | | | 0 | |
| 1.2 Demonstration Plot (0.1ha) | unit | 50 | | 3 | | 3 | 150 | | | | 4 | | 4 | | | 200 | |
| - Irrigated Rice | unit | 50 | | 0 | | 1 | 50 | | | | 1 | | 1 | | | 50 | |
| - Upland Crops/vegetables | unit | 400 | | 3 | | 3 | 1,200 | | | | 4 | | 4 | | | 1,600 | |
| 1.2 Demonstration Plot (1.0ha) | unit | 400 | | 0 | | 0 | 0 | | | | 1 | | 1 | | | 400 | |
| - Irrigated Rice | unit | 1,000 | | 0 | | 0 | 0 | | | | 1 | | 1 | | | 1,000 | |
| - Upland Crops/vegetables | unit | 2,500 | | 0 | | 0 | 0 | | | | 0 | | 0 | | | 0 | |
| 1.3 Demonstration Farm (5.0ha) | unit | 360 | | 0 | | 1 | 360 | | | | 1 | | 1 | | | 360 | |
| - Irrigated Rice | unit | | | 0 | | 7 | 1,900 | | | | 7 | | 7 | | | 1,760 | |
| 1.4 Demonstration Area (20ha) | unit | | | 0 | | 7 | 1,900 | | | | 8 | | 8 | | | 3,250 | |
| - Irrigated Rice | unit | | | 0 | | 7 | 1,900 | | | | 8 | | 8 | | | 3,250 | |
| 1.5 Seed Multiplication | unit | | | 0 | | 7 | 1,900 | | | | 8 | | 8 | | | 3,250 | |
| - Irrigated Rice | unit | | | 0 | | 7 | 1,900 | | | | 8 | | 8 | | | 3,250 | |
| Sub-total | | | | | | | | | | | | | | | | | 6,910 |
| 2. Farmer/Farmer Group Training Programs | | | | | | | | | | | | | | | | | |
| 2.1 Training Course | unit | 370 | | 1 | | 1 | 370 | | | | 0 | | 0 | | | 0 | |
| - 5 Days (30 participants) | unit | 850 | | 0 | | 0 | 0 | | | | 1 | | 1 | | | 850 | |
| 2.2 FFS/IPM (50 participants) | unit | 330 | | 0 | | 0 | 0 | | | | 1 | | 1 | | | 330 | |
| 2.3 Study Tour | unit | 2,200 | | 0 | | 0 | 0 | | | | | | | | | 0 | |
| 2.4 VEA Training | unit | | | 0 | | 0 | 0 | | | | | | | | | 0 | |
| - 10 Participants | unit | | | 0 | | 1 | 370 | | | | 1 | | 1 | | | 330 | |
| Sub-total | | | | | | | | | | | | | | | | | 3,170 |
| 3. Mass Guidance/Workshop | | | | | | | | | | | | | | | | | |
| 3.1 50 Participants | | 120 | | 1 | | 1 | 120 | | | | 1 | | 1 | | | 0 | |
| 4. Support Fund for Extension Staff | VEA | 360 | | | | 1 | 360 | | | | 1 | | 1 | | | 360 | |
| Farmer-to-farmer Extension Support | staff | 600 | | 1 | | 1 | 600 | | | | 1 | | 1 | | | 600 | |
| Field Guidance Staff | staff | | | 2 | | 2 | 960 | | | | 2 | | 2 | | | 960 | |
| Sub-total | | | | | | | | | | | | | | | | | 2,880 |
| 5. Staff Empowerment | unit | 550 | | | | | 0 | | | | | | | | | 0 | |
| 6. Provision of Transportation Means | unit | 100 | | | | 1 | 100 | | | | | | | | | 100 | |
| - Bicycle | unit | 1,000 | | | | 1 | 1,000 | | | | | | | | | 1,000 | |
| - Motorcycle | unit | | | | | 2 | 1,100 | | | | | | | | | 1,100 | |
| Sub-total | | | | | | | | | | | | | | | | | 1,200 |
| Total | | | | | | | 4,450 | | | | | | | | | 5,060 | 12,680 |
| 1/ Program direct cost | | | | | | | | | | | | | | | | | 13,000 |

Table C3-56 Present/Without-project & With-project Crop Production: Teuk Laak & Trapeang Thlan Rehabilitation Project

Teuk Laak & Trapeang Thlan Rehabilitation Project

A. Present/Without-project Crop Production

| | Rice: Wet Season (Transplanting) | | | | Rice: Dry Season | | | | Annual | | | | Upland Crops: Early Wet Season | | | |
|-------------------------------------|----------------------------------|------------------------|----------------|------------------|-------------------|------------------------|----------------|------------------|-------------------|------------------------|----------------|------------------|--------------------------------|------------------------|----------------|------------------|
| | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) |
| Land Use Sub-category | 23 | 10 | 2.0 | 46 | | | | | 23 | 10 | 2.0 | 46 | | | | |
| Normal Irrigation Paddy Field | | | | | | | | | | | | | | | | |
| Supplemental Irrigation Paddy Field | 207 | 90 | 1.5 | 311 | | | | | 207 | 90 | 1.5 | 311 | | | | |
| Rainfed Paddy Field | | | | | | | | | | | | | | | | |
| Recession Paddy Field | | | | | | | | | | | | | | | | |
| Total | 230 | 100 | 1.6 | 357 | 0 | 0 | 0 | 0 | 230 | 100 | 1.6 | 357 | 0 | 0 | 0 | 0 |

B. With-project Crop Production

| | Rice: Wet Season (Transplanting) | | | | Rice: Dry Season | | | | Annual | | | | Upland Crops: Early Wet Season | | | |
|-------------------------------------|----------------------------------|------------------------|----------------|------------------|-------------------|------------------------|----------------|------------------|-------------------|------------------------|----------------|------------------|--------------------------------|------------------------|----------------|------------------|
| | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) |
| Land Use Sub-category | 230 | 6 | 3.5 | 805 | | | | | 230 | 100 | 3.5 | 805 | | | | |
| Normal Irrigation Paddy Field | | | | | | | | | | | | | | | | |
| Supplemental Irrigation Paddy Field | | | | | | | | | | | | | | | | |
| Rainfed Paddy Field | | | | | | | | | | | | | | | | |
| Recession Paddy Field | | | | | | | | | | | | | | | | |
| Total | 230 | 100 | 3.5 | 805 | 0 | 0 | 0 | 0 | 230 | 100 | 3.5 | 805 | 10 | 4 | 0.5 | 5 |

C. Increment: With-project - Present/Without-project

| | Rice: Wet Season (Transplanting) | | | | Rice: Dry Season | | | | Annual | | | | Upland Crops: Early Wet Season | | | |
|-------------------------------------|----------------------------------|------------------------|----------------|------------------|-------------------|------------------------|----------------|------------------|-------------------|------------------------|----------------|------------------|--------------------------------|------------------------|----------------|------------------|
| | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) |
| Land Use Sub-category | 230 | 6 | 3.5 | 805 | | | | | 230 | 100 | 3.5 | 805 | | | | |
| Normal Irrigation Paddy Field | | | | | | | | | | | | | | | | |
| Supplemental Irrigation Paddy Field | -23 | -10 | -46 | -46 | | | | | -23 | -10 | -46 | -46 | | | | |
| Rainfed Paddy Field | -207 | -90 | -311 | -311 | | | | | -207 | -90 | -311 | -311 | | | | |
| Recession Paddy Field | | | | | | | | | | | | | | | | |
| Total | 0 | 0 | 2.0 | 449 | 0 | 0 | 1.9 | 449 | 0 | 0 | 1.9 | 449 | 10 | 4 | 0.5 | 5 |

Table C3-57 Cost Estimates for Agricultural Support Services for Teuk Laak & Trapeang Thlan Rehabilitation Project 1/

| 6. Teuk Laak & Trapeang Thlan Rehabilitation Project | | Project Area: 230 ha | | | | | | | | | | | | | | | | | | |
|--|-------|----------------------|---------------------|--------|---|---------------|------------------|--------------|--------|------------------|------------|--------------|---------------|---------|---|---------------|------------------|------------|--------------|-------|
| | | 1st | | | | 2nd | | | | 3rd | | | | Overall | | | | | | |
| | | Unit | Program Cost (US\$) | Volume | | Amount (US\$) | Dry Early Season | Wet Season | Annual | Dry Early Season | Wet Season | Annual | Amount (US\$) | Volume | | Amount (US\$) | Dry Early Season | Wet Season | Annual | |
| 1. Field Programs | unit | | | 550 | | | | | | | | | | | 0 | | | | | |
| 1.1 Field Adaptability Test | unit | 50 | 1 | | 1 | | | 50 | | | 50 | | | 0 | | | 2 | | 100 | |
| 1.2 Demonstration Plot (0.1ha) | unit | 50 | | | 0 | 1 | | 50 | | | 50 | | | 0 | 1 | | 0 | 1 | 50 | |
| - Irrigated Rice | unit | 400 | | | 0 | | 1 | 400 | | | 400 | | | 2 | | | 2 | | 800 | |
| 1.2 Demonstration Plot (1.0ha) | unit | 400 | | | 0 | | 0 | 400 | | | 400 | | | 1 | | | 1 | | 400 | |
| - Irrigated Rice | unit | 1,000 | | | 0 | | 0 | 0 | | | 0 | | | 0 | | | 0 | | 0 | |
| - Upland Crops/vegetables | unit | 2,500 | | | 0 | | 0 | 0 | | | 0 | | | 0 | | | 0 | | 0 | |
| 1.3 Demonstration Farm (5.0ha) | unit | 360 | | | 0 | | 1 | 360 | | | 360 | | | 1 | | | 1 | | 360 | |
| - Irrigated Rice | unit | | | | | | | | | | | | | | | | | | | |
| 1.4 Demonstration Area (20ha) | unit | | | | | | | | | | | | | | | | | | | |
| - Irrigated Rice | unit | | | | | | | | | | | | | | | | | | | |
| 1.5 Seed Multiplication | unit | | | | | | | | | | | | | | | | | | | |
| Sub-total | | | 0 | 1 | 1 | 1 | 1 | 50 | 1 | 3 | 4 | 860 | 1 | 1 | 2 | 800 | 2 | 5 | 7 | 1,710 |
| 2. Farmer/Farmer Group Training Programs | unit | | | | | | | | | | | | | | | | | | | |
| 2.1 Training Course | unit | 370 | 1 | | 1 | | | 370 | | | 0 | | | 0 | | | 1 | | 370 | |
| - 5 Days (30 participants) | unit | 850 | | | 0 | | 0 | 0 | | | 0 | | | 0 | | | 0 | | 0 | |
| 2.2 FFS/PPM (50 participants) | unit | 330 | | | 0 | | 1 | 330 | | | 0 | | | 0 | | | 1 | | 330 | |
| 2.3 Study Tour | unit | 2,200 | | | 0 | | | 0 | | | 0 | | | 0 | | | 0 | | 0 | |
| 2.4 VEA Training | unit | | | | | | | | | | | | | | | | | | | |
| - 10 Participants | unit | | | | | | | | | | | | | | | | | | | |
| Sub-total | | | 0 | 1 | 1 | 1 | 1 | 370 | 0 | 1 | 1 | 330 | 0 | 0 | 0 | 0 | 2 | 2 | 700 | |
| 3. Mass Guidance/Workshop | unit | 120 | | | 1 | | | 120 | | | 0 | | | 0 | | | 0 | | 240 | |
| 3.1 50 Participants | unit | 360 | | | 1 | | | 360 | | | 1 | | | 360 | | | 3 | | 1,080 | |
| 4. Support Fund for Extension Staff | staff | 600 | | | 1 | | | 600 | | | 1 | | | 600 | | | 3 | | 1,800 | |
| Farmer-to-farmer Extension Support | staff | | | | 2 | | | 960 | | | 2 | | | 960 | | | 6 | | 2,880 | |
| Field Guidance Staff | staff | 550 | | | | | | 0 | | | 0 | | | 0 | | | 0 | | 0 | |
| 5. Staff Empowerment | unit | 100 | | | 1 | | | 100 | | | 1 | | | 100 | | | 1 | | 100 | |
| 6. Provision of Transportation Means | unit | 1,000 | | | 1 | | | 1,000 | | | 1 | | | 1,000 | | | 1 | | 1,000 | |
| - Bicycle | unit | | | | 2 | | | 1,100 | | | 2 | | | 1,100 | | | 2 | | 1,100 | |
| - Motorcycle | unit | | | | | | | 0 | | | 0 | | | 0 | | | 0 | | 0 | |
| Total | | | | | | | | 2,600 | | | | 2,270 | | | | 1,760 | | | 6,630 | |
| 1/: Program direct cost | | | | | | | | | | | | | | | | | | | 7,000 | |

Table C3-58 Present/Without-project & With-project Crop Production: Toul Champey Rehabilitation Project

Toul Champey Rehabilitation Project

A. Present/Without-project Crop Production

| | Rice: Wet Season (Transplanting) | | | Rice: Dry Season | | | Annual | | | Upland Crops: Early Wet Season | | |
|-------------------------------------|----------------------------------|-------------------|------------------------|-------------------|------------------------|------------------|-------------------|------------------------|----------------|--------------------------------|------------------------|----------------|
| | Area (ha) | Cropped Area (ha) | Cropping Intensity (%) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) |
| | | Production (ton) | Production (ton) | | Production (ton) | Production (ton) | | Production (ton) | | | | |
| Land Use Sub-category | | | | | | | | | | | | |
| Normal Irrigation Paddy Field | 36 | 36 | 10 | | | 2.0 | 72 | | | 36 | 10 | 2.0 |
| Supplemental Irrigation Paddy Field | 324 | 324 | 90 | | | 1.5 | 486 | | | 324 | 90 | 1.5 |
| Rainfed Paddy Field | | | | | | | | | | | | |
| Recession Paddy Field | | | | | | | | | | | | |
| Total | 360 | 360 | 100 | 0 | 0 | 1.6 | 558 | 0 | 0 | 360 | 100 | 1.6 |
| | | | | | | | | | | 0 | | |
| | | | | | | | | | | 0 | | |

B. With-project Crop Production

| | Rice: Wet Season (Transplanting) | | | Rice: Dry Season | | | Annual | | | Upland Crops: Early Wet Season | | |
|-------------------------------------|----------------------------------|-------------------|------------------------|-------------------|------------------------|------------------|-------------------|------------------------|----------------|--------------------------------|------------------------|----------------|
| | Area (ha) | Cropped Area (ha) | Cropping Intensity (%) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) |
| | | Production (ton) | Production (ton) | | Production (ton) | Production (ton) | | Production (ton) | | | | |
| Land Use Sub-category | | | | | | | | | | | | |
| Normal Irrigation Paddy Field | 360 | 360 | 9 | | | 3.5 | 1,260 | | | 360 | 100 | 3.5 |
| Supplemental Irrigation Paddy Field | | | | | | | | | | | | |
| Rainfed Paddy Field | | | | | | | | | | | | |
| Recession Paddy Field | | | | | | | | | | | | |
| Total | 360 | 360 | 100 | 0 | 0 | 3.5 | 1,260 | 0 | 0 | 360 | 100 | 3.5 |
| | | | | | | | | | | 20 | 6 | 0.5 |
| | | | | | | | | | | 20 | 6 | 0.5 |

C. Increment: With-project - Present/Without-project

| | Rice: Wet Season (Transplanting) | | | Rice: Dry Season | | | Annual | | | Upland Crops: Early Wet Season | | |
|-------------------------------------|----------------------------------|-------------------|------------------------|-------------------|------------------------|------------------|-------------------|------------------------|----------------|--------------------------------|------------------------|----------------|
| | Area (ha) | Cropped Area (ha) | Cropping Intensity (%) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) |
| | | Production (ton) | Production (ton) | | Production (ton) | Production (ton) | | Production (ton) | | | | |
| Land Use Sub-category | | | | | | | | | | | | |
| Normal Irrigation Paddy Field | 360 | 360 | 9 | | | 1,260 | 1,260 | | | 360 | 100 | 1,260 |
| Supplemental Irrigation Paddy Field | -36 | -36 | -10 | | | -72 | -72 | | | -36 | -10 | -72 |
| Rainfed Paddy Field | -324 | -324 | -90 | | | -486 | -486 | | | -324 | -90 | -486 |
| Recession Paddy Field | | | | | | | | | | | | |
| Total | 0 | 0 | 0 | 0 | 0 | 2.0 | 702 | 0 | 0 | 0 | 0 | 1.9 |
| | | | | | | | | | | 20 | 6 | 0.5 |
| | | | | | | | | | | 20 | 6 | 0.5 |

Table C3-59 Cost Estimates for Agricultural Support Services for Toul Champey Rehabilitation Project 1/

| 7. Toul Champey Rehabilitation Project | | Project Area: 360 | | | | | | | | | | Overall | | | | | |
|--|-------|-------------------|---------------------|---------------|------------|------------|--------|------------|------------|--------|------------|------------|--------|---------------|--------|---------------|-------|
| | | 1st | | | 2nd | | | 3rd | | | Volume | | | Amount (US\$) | Annual | Amount (US\$) | |
| | | Unit | Program Cost (US\$) | Amount (US\$) | Dry Season | Wet Season | Annual | Dry Season | Wet Season | Annual | Dry Season | Wet Season | Annual | | | | |
| 1. Field Programs | unit | 550 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1.1 Field Adaptability Test | unit | 50 | 2 | 100 | | | | | | | | | | | | | 200 |
| 1.2 Demonstration Plot (0.1ha) | unit | 50 | 0 | 0 | 1 | 50 | | | | | | | | | | 0 | 50 |
| - Irrigated Rice | unit | 400 | 1 | 400 | | | | | | | | | | | | | 1,600 |
| 1.2 Demonstration Plot (1.0ha) | unit | 400 | 0 | 0 | 2 | 800 | | | | | | | | | | | 400 |
| - Irrigated Rice | unit | 1,000 | 0 | 0 | 0 | 0 | | | | | | | | | | | 0 |
| 1.3 Demonstration Farm (5.0ha) | unit | 2,500 | 0 | 0 | 0 | 0 | | | | | | | | | | | 0 |
| - Irrigated Rice | unit | 360 | 0 | 0 | 1 | 360 | | | | | | | | | | | 360 |
| 1.4 Demonstration Area (20ha) | unit | 360 | 0 | 0 | 0 | 0 | | | | | | | | | | | 0 |
| - Irrigated Rice | unit | 360 | 0 | 0 | 0 | 0 | | | | | | | | | | | 0 |
| 1.5 Seed Multiplication | unit | 360 | 0 | 0 | 1 | 360 | | | | | | | | | | | 360 |
| Sub-total | | | 0 | 3 | 500 | 1 | 4 | 5 | 1,260 | 1 | 2 | 3 | 850 | 2 | 9 | 11 | 2,610 |
| 2. Farmer/Farmer Group Training Programs | unit | 370 | 1 | 370 | | | | | | | | | | | | | 0 |
| 2.1 Training Course | unit | 850 | 0 | 0 | 0 | 0 | | | | | | | | | | | 0 |
| - 5 Days (30 participants) | unit | 330 | 0 | 0 | 1 | 330 | | | | | | | | | | | 330 |
| 2.2 FFS/IPM (50 participants) | unit | 2,200 | 0 | 0 | 0 | 0 | | | | | | | | | | | 0 |
| 2.3 Study Tour | unit | 2,200 | 0 | 0 | 0 | 0 | | | | | | | | | | | 0 |
| 2.4 VEA Training | unit | 2,200 | 0 | 0 | 0 | 0 | | | | | | | | | | | 0 |
| - 10 Participants | unit | | 0 | 1 | 370 | 0 | 1 | 1 | 330 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 700 |
| Sub-total | | | 0 | 1 | 370 | 0 | 1 | 1 | 120 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 240 |
| 3. Mass Guidance/Workshop | unit | 120 | 1 | 120 | | | | | | | | | | | | | 0 |
| 3.1 50 Participants | unit | 360 | 1 | 360 | | | | | | | | | | | | | 0 |
| 4. Support Fund for Extension Staff | VEA | 600 | 1 | 600 | | | | | | | | | | | | | 0 |
| Farmer-to-farmer Extension Support | staff | 600 | 1 | 600 | | | | | | | | | | | | | 0 |
| Field Guidance Staff | staff | 550 | 2 | 960 | | | | | | | | | | | | | 2,880 |
| Sub-total | | | 0 | 0 | 0 | 0 | | | | | | | | | | | 0 |
| 5. Staff Empowerment | unit | 100 | 1 | 100 | | | | | | | | | | | | | 0 |
| 6. Provision of Transportation Means | unit | 1,000 | 1 | 1,000 | | | | | | | | | | | | | 0 |
| - Bicycle | unit | 1,000 | 1 | 1,000 | | | | | | | | | | | | | 0 |
| - Motorcycle | unit | 1,000 | 2 | 1,000 | | | | | | | | | | | | | 0 |
| Sub-total | | | 0 | 0 | 0 | 0 | | | | | | | | | | | 0 |
| Total | | | 0 | 3,050 | 2,670 | 1,810 | | | | | | | | | | | 7,530 |
| Program direct cost | | | | 3,050 | 2,670 | 1,810 | | | | | | | | | | | 8,000 |

1/: Program direct cost rounded

Table C3-60 Present/Without-project & With-project Crop Production: Chan Keak Rehabilitation Project

Chan Keak Rehabilitation Project

A. Present/Without-project Crop Production

| | Rice: Wet Season (Transplanting) | | | Rice: Dry Season | | | Annual | | | Upland Crops: Early Wet Season | | | | | |
|-------------------------------------|----------------------------------|------------------------|----------------|-------------------|------------------------|----------------|------------------|-------------------|------------------------|--------------------------------|------------------|-------------------|------------------------|----------------|------------------|
| | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) |
| Land Use Sub-category | | | | | | | | | | | | | | | |
| Normal Irrigation Paddy Field | 28 | 25 | 2.0 | 56 | | | | 28 | 25 | 2.0 | 56 | | | | |
| Supplemental Irrigation Paddy Field | 82 | 75 | 1.5 | 123 | | | | 82 | 75 | 1.5 | 123 | | | | |
| Rainfed Paddy Field | | | | | | | | | | | | | | | |
| Recession Paddy Field | | | | | | | | | | | | | | | |
| Total | 110 | 100 | 1.6 | 179 | 0 | | 0 | 110 | 100 | 1.6 | 179 | 0 | | | 0 |

B. With-project Crop Production

| | Rice: Wet Season (Transplanting) | | | Rice: Dry Season | | | Annual | | | Upland Crops: Early Wet Season | | | | | |
|-------------------------------------|----------------------------------|------------------------|----------------|------------------|-------------------|------------------------|----------------|------------------|-------------------|--------------------------------|----------------|------------------|-------------------|------------------------|----------------|
| | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) |
| Land Use Sub-category | | | | | | | | | | | | | | | |
| Normal Irrigation Paddy Field | 110 | 110 | 3 | 385 | | | | | 110 | 100 | 3.5 | 385 | | | |
| Supplemental Irrigation Paddy Field | | | | | | | | | | | | | | | |
| Rainfed Paddy Field | | | | | | | | | | | | | | | |
| Recession Paddy Field | | | | | | | | | | | | | | | |
| Total | 110 | 110 | 100 | 385 | 0 | | 0 | 110 | 100 | 3.5 | 385 | 10 | 9 | 0.5 | 5 |

C. Increment: With-project - Present/Without-project

| | Rice: Wet Season (Transplanting) | | | Rice: Dry Season | | | Annual | | | Upland Crops: Early Wet Season | | | | | |
|-------------------------------------|----------------------------------|------------------------|----------------|------------------|-------------------|------------------------|----------------|------------------|-------------------|--------------------------------|----------------|------------------|-------------------|------------------------|----------------|
| | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) |
| Land Use Sub-category | | | | | | | | | | | | | | | |
| Normal Irrigation Paddy Field | 110 | 110 | 3 | 385 | | | | | 110 | 100 | 3.5 | 385 | | | |
| Supplemental Irrigation Paddy Field | -28 | -28 | -25 | -56 | | | | | -28 | -25 | -56 | | | | |
| Rainfed Paddy Field | -82 | -82 | -75 | -123 | | | | | -82 | -75 | -123 | | | | |
| Recession Paddy Field | 0 | 0 | 0 | 0 | | | | | 0 | 0 | 0 | | | | |
| Total | 0 | 0 | 0 | 206 | 0 | | 0 | 206 | 0 | 0 | 1.9 | 206 | 10 | 9 | 5 |

Table C3-61 Cost Estimates for Agricultural Support Services for Chan Keak Rehabilitation Project 1/

| 8. Chan Keak Rehabilitation Project | Project Area: 110 | | | | | | | | | | | | | | | | | | | |
|--|-------------------|-------|--------------------------|------------------|------------|---------------|------------------|--------------|---------------|------------------|------------|---------------|------------------|--------------|---------------|------------------|------------|----------|----------------|--------------|
| | Activities | Unit | Unit Program Cost (US\$) | 1st | | | 2nd | | | 3rd | | | Overall | | | | | | | |
| | | | | Volume | | Amount (US\$) | Volume | | Amount (US\$) | Volume | | Amount (US\$) | Volume | | Amount (US\$) | | | | | |
| | | | | Dry Early Season | Wet Season | | Dry Early Season | Wet Season | | Dry Early Season | Wet Season | | Dry Early Season | Wet Season | | Dry Early Season | Wet Season | | | |
| 1. Field Programs | | | | | | | | | | | | | | | | | | | | |
| 1.1 Field Adaptability Test | unit | 550 | | | 0 | | | 0 | | | | | | 0 | | | 0 | | 0 | |
| 1.2 Demonstration Plot (0.1ha) | | | | | | | | | | | | | | | | | | | | |
| - Irrigated Rice | unit | 50 | | 1 | 1 | | | 50 | | | | | | 0 | | | 0 | | 100 | |
| - Upland Crops/vegetables | unit | 50 | | | 0 | | 1 | 50 | | | | | | 0 | | 1 | 0 | | 50 | |
| 1.2 Demonstration Plot (1.0ha) | | | | | | | | | | | | | | | | | | | | |
| - Irrigated Rice | unit | 400 | | | 0 | | | 0 | | | | | | 1 | | | 1 | | 400 | |
| - Upland Crops/vegetables | unit | 400 | | | 0 | | | 0 | | | | 1 | | 1 | | | 1 | | 400 | |
| 1.3 Demonstration Farm (5.0ha) | | | | | | | | | | | | | | | | | | | | |
| - Irrigated Rice | unit | 1,000 | | | 0 | | | 0 | | | | | | 0 | | | 0 | | 0 | |
| 1.4 Demonstration Area (20ha) | | | | | | | | | | | | | | | | | | | | |
| - Irrigated Rice | unit | 2,500 | | | 0 | | | 0 | | | | | | 0 | | | 0 | | 0 | |
| 1.5 Seed Multiplication | unit | 360 | | | 0 | | | 0 | | | | | | 1 | | | 1 | | 360 | |
| Sub-total | | | | | 0 | | 1 | 50 | | 1 | | 2 | 3 | 460 | | 1 | 1 | 2 | 800 | |
| 2. Farmer/Farmer Group Training Programs | | | | | | | | | | | | | | | | | | | | |
| 2.1 Training Course | | | | | | | | | | | | | | | | | | | | |
| - 5 Days (30 participants) | unit | 370 | | 1 | 1 | | | 370 | | | | | | 0 | | | 0 | | 370 | |
| 2.2 FFS/IPM (50 participants) | unit | 850 | | | 0 | | | 0 | | | | | | 0 | | | 0 | | 0 | |
| 2.3 Study Tour | unit | 330 | | | 0 | | | 0 | | 1 | | | | 330 | | | 0 | | 330 | |
| 2.4 VEA Training | | | | | | | | | | | | | | | | | | | | |
| - 10 Participants | unit | 2,200 | | | 0 | | | 0 | | | | | | 0 | | | 0 | | 0 | |
| Sub-total | | | | | 0 | | 1 | 370 | | 0 | | 1 | 1 | 330 | | 0 | 0 | 0 | 700 | |
| 3. Mass Guidance/Workshop | | | | | | | | | | | | | | | | | | | | |
| 3.1 50 Participants | | | | | | | | | | | | | | | | | | | | |
| - Support Fund for Extension Staff | | | | | | | | | | | | | | | | | | | | |
| - Farmer-to-farmer Extension Support | VEA | 360 | | | 1 | | | 360 | | | | | | 360 | | | | | 1,080 | |
| Field Guidance Staff | staff | 600 | | | 1 | | | 600 | | | | | | 600 | | | | | 1,800 | |
| Sub-total | | | | | | | | 960 | | 2 | | 2 | 960 | 960 | | 0 | 0 | 6 | 2,880 | |
| 5. Staff Empowerment | unit | 550 | | | | | | 0 | | | | | | 0 | | | | | 0 | |
| 6. Provision of Transportation Means | | | | | | | | | | | | | | | | | | | | |
| - Bicycle | unit | 100 | | | 1 | | | 100 | | | | | | | | | | | 100 | |
| - Motorcycle | unit | 1,000 | | | 1 | | | 1,000 | | | | | | | | | | | 1,000 | |
| Sub-total | | | | | | | | 1,100 | | 2 | | | | 1,100 | | | 0 | 0 | 2,100 | |
| Total | | | | | | | | 2,600 | | | | | 1,870 | 1,760 | | | 0 | 0 | 6,230 | |
| 1/; Program direct cost | | | | | | | | | | | | | | | | | | | rounded | 6,000 |

Table C3-62 Present/Without-project & With-project Crop Production: Overall Boribo River Basin

Whole Basin

A. Present/Without-project Crop Production

| | Rice: Wet Season (Transplanting) | | | Rice: Dry Season | | | Annual | | | Upland Crops: Early Wet Season | | | |
|-------------------------------------|----------------------------------|-------------------|------------------------|-------------------|------------------------|----------------|-------------------|------------------------|----------------|--------------------------------|------------------------|----------------|------------------|
| | Area (ha) | Cropped Area (ha) | Cropping Intensity (%) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) |
| | | Production (ton) | Yield (ton/ha) | | Production (ton) | Yield (ton/ha) | | Production (ton) | Yield (ton/ha) | | | | |
| Land Use Sub-category | 570 | 570 | 7 | 3.0 | 1,710 | 7 | 3.0 | 1,710 | 14 | 3.0 | 3,420 | | |
| Normal Irrigation Paddy Field | | 836 | 10 | 2.0 | 1,672 | 0 | | 836 | 10 | 2.0 | 1,672 | | |
| Supplemental Irrigation Paddy Field | | 6,874 | 83 | 1.5 | 10,311 | 0 | | 6,874 | 83 | 1.5 | 10,311 | | |
| Rainfed Paddy Field | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | | |
| Recession Paddy Field | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | | |
| Total | 8,280 | 8,280 | 100 | 1.7 | 13,693 | 7 | 3.0 | 1,710 | 107 | 1.7 | 15,403 | 0 | 0 |

B. With-project Crop Production

| | Rice: Wet Season (Transplanting) | | | Rice: Dry Season | | | Annual | | | Upland Crops: Early Wet Season | | | |
|-------------------------------------|----------------------------------|-------------------|------------------------|-------------------|------------------------|----------------|-------------------|------------------------|----------------|--------------------------------|------------------------|----------------|------------------|
| | Area (ha) | Cropped Area (ha) | Cropping Intensity (%) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) |
| | | Production (ton) | Yield (ton/ha) | | Production (ton) | Yield (ton/ha) | | Production (ton) | Yield (ton/ha) | | | | |
| Land Use Sub-category | 7,810 | 7,810 | 100 | 3.5 | 27,335 | 0 | | 7,810 | 100 | 3.5 | 27,335 | | |
| Normal Irrigation Paddy Field | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | | |
| Supplemental Irrigation Paddy Field | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | | |
| Rainfed Paddy Field | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | | |
| Recession Paddy Field | | 0 | 0 | | 0 | 0 | | 0 | 0 | | 0 | | 200 |
| Total | 7,810 | 7,810 | 100 | 3.5 | 27,335 | 0 | | 7,810 | 100 | 3.5 | 27,335 | 400 | 5 |

C. Increment: With-project - Present/Without-project

| | Rice: Wet Season (Transplanting) | | | Rice: Dry Season | | | Annual | | | Upland Crops: Early Wet Season | | | |
|-------------------------------------|----------------------------------|-------------------|------------------------|-------------------|------------------------|----------------|-------------------|------------------------|----------------|--------------------------------|------------------------|----------------|------------------|
| | Area (ha) | Cropped Area (ha) | Cropping Intensity (%) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Cropped Area (ha) | Cropping Intensity (%) | Yield (ton/ha) | Production (ton) |
| | | Production (ton) | Yield (ton/ha) | | Production (ton) | Yield (ton/ha) | | Production (ton) | Yield (ton/ha) | | | | |
| Land Use Sub-category | 7,240 | 7,240 | 93 | 25,625 | -570 | -7 | | 6,670 | 86 | 23,915 | | | |
| Normal Irrigation Paddy Field | | -836 | -10 | -1,672 | 0 | | -836 | -10 | -1,672 | | | | |
| Supplemental Irrigation Paddy Field | | -6,874 | -83 | -10,311 | 0 | | -6,874 | -83 | -10,311 | | | | |
| Rainfed Paddy Field | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | | | 200 | |
| Recession Paddy Field | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | | | 5 | |
| Total | -470 | -470 | 0 | 1.8 | 13,642 | -7 | | -1,040 | -7 | 1.8 | 11,932 | 400 | 5 |

Table C4-1 National Food Balance of Rice under Different Assumptions from 2000 to 2005 1/

| Case | Assumptions | Item | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | | |
|---|--|--|---|--|-----------|-----------|-----------|-----------|-----------|-----------|
| Case 1 | Assumption 1 2/ 143 kg Per Capita Rice Consumption: | Population (thousand) | 13,099 | 13,414 | 13,793 | 13,542 | 13,328 | 14,081 | | |
| | | Annual Paddy Production (ton) | 4,099,016 | 4,026,092 | 3,822,509 | 4,710,957 | 4,170,284 | 5,986,179 | | |
| | | Seed and Post Harvest Losses (13%) | 532,872 | 523,392 | 496,926 | 612,424 | 542,137 | 778,203 | | |
| | | Paddy Consumption for Food (ton) | 3,566,144 | 3,502,700 | 3,325,583 | 4,098,533 | 3,628,147 | 5,207,976 | | |
| | | Converted in Milled Rice (recovery rate 64%) | 2,282,332 | 2,241,728 | 2,128,373 | 2,623,061 | 2,322,014 | 3,333,104 | | |
| | | Rice Requirement for Food (ton) | 1,873,226 | 1,918,184 | 1,972,367 | 1,936,565 | 1,905,896 | 2,013,533 | | |
| | | Food Balance: Surplus or Deficit (ton) | 409,106 | 323,544 | 156,006 | 686,496 | 416,118 | 1,319,571 | | |
| | | Rice Requirement Converted to Paddy (ton) | 3,526,405 | 3,611,039 | 3,713,041 | 3,645,641 | 3,387,997 | 3,790,537 | | |
| | | Paddy/Surplus or Deficit (ton) | 572,611 | 415,053 | 109,468 | 1,065,316 | 582,377 | 2,193,642 | | |
| | | Proportion to Production (%) | 14 | 10 | 3 | 23 | 14 | 37 | | |
| Case 2 | Per Capita Rice Consumption 155kg (FAO estimate) | Rice Requirement for Food (ton) | 2,030,420 | 2,079,150 | 2,137,881 | 2,099,074 | 2,065,832 | 2,182,501 | | |
| | | Food Balance: Surplus or Deficit (ton) | 251,912 | 162,378 | -9,508 | 523,987 | 256,183 | 1,150,603 | | |
| | | Rice Requirement Converted to Paddy (ton) | 3,646,588 | 3,734,106 | 3,839,584 | 3,769,888 | 3,710,186 | 3,919,722 | | |
| | | Paddy/Surplus or Deficit (ton) | 452,428 | 291,986 | -17,075 | 941,069 | 460,098 | 2,066,457 | | |
| | | Proportion to Production (%) | 11 | 7 | -0.4 | 20 | 11 | 35 | | |
| | | Case 3 | Per Capita Rice Consumption 167 kg (FAO estimate for Viet Nam) (FAO estimate for Viet Nam) | Rice Requirement for Food (ton) | 2,187,614 | 2,240,117 | 2,303,394 | 2,261,582 | 2,225,767 | 2,351,469 |
| | | | | Food Balance: Surplus or Deficit (ton) | 94,718 | 1,611 | -175,021 | 361,478 | 96,247 | 981,635 |
| | | | | Rice Requirement Converted to Paddy (ton) | 3,928,904 | 4,023,198 | 4,136,843 | 4,061,750 | 3,997,426 | 4,223,184 |
| | | | | Paddy/Surplus or Deficit (ton) | 170,112 | 2,894 | -314,334 | 649,207 | 172,858 | 1,762,995 |
| | | | | Proportion to Production (%) | 4 | 0 | -8 | 14 | 4 | 29 |
| Case 4 | Assumption 2 3/ 151.2 kg Per Capita Rice Consumption: | | | Seed and Post Harvest Losses (17%) | 696,833 | 684,436 | 649,827 | 800,863 | 708,948 | 1,017,650 |
| | | | | Paddy Consumption for Food (ton) | 3,402,183 | 3,341,656 | 3,172,682 | 3,910,094 | 3,461,336 | 4,968,529 |
| | | | | Converted in Milled Rice (recovery rate 62%) | 2,109,354 | 2,071,827 | 1,967,063 | 2,424,258 | 2,146,028 | 3,080,488 |
| | | | | Rice Requirement for Food (ton) | 1,980,642 | 2,028,177 | 2,085,468 | 2,047,612 | 2,015,185 | 2,128,995 |
| | | | | Food Balance: Milled Rice/Surplus or Deficit (ton) | 128,712 | 43,649 | -118,405 | 376,646 | 130,843 | 951,493 |
| | | Rice Requirement Converted to Paddy (ton) | 3,848,896 | 3,941,270 | 4,052,600 | 3,979,037 | 3,916,023 | 4,137,184 | | |
| | | Paddy/Surplus or Deficit (ton) | 250,120 | 84,822 | -230,091 | 731,920 | 254,261 | 1,848,995 | | |
| | | Proportion to Production (%) | 6 | 2 | -6 | 16 | 6 | 31 | | |
| | | Case 5 | Per Capita Rice Consumption: 155kg (FAO estimate) | Rice Requirement for Food (ton) | 2,030,420 | 2,079,150 | 2,137,881 | 2,099,074 | 2,065,832 | 2,182,501 |
| | | | | Food Balance: Milled Rice/Surplus or Deficit (ton) | 78,953 | -7,323 | -170,817 | 325,185 | 80,197 | 897,986 |
| Rice Requirement Converted to Paddy (ton) | 3,945,628 | | | 4,040,323 | 4,154,451 | 4,079,039 | 4,014,442 | 4,241,161 | | |
| Paddy/Surplus or Deficit (ton) | 153,388 | | | -14,231 | -331,942 | 631,918 | 155,842 | 1,745,018 | | |
| Proportion to Production (%) | 4 | | | -0.4 | -9 | 13 | 4 | 29 | | |
| Case 6 | Per Capita Rice Consumption: 167 kg (FAO estimate for Viet Nam) (FAO estimate for Viet Nam) | | | Rice Requirement for Food (ton) | 2,187,614 | 2,240,117 | 2,303,394 | 2,261,582 | 2,225,767 | 2,351,469 |
| | | | | Food Balance: Surplus or Deficit (ton) | -78,260 | -168,290 | -336,331 | 162,676 | -79,739 | 729,019 |
| | | | | Rice Requirement Converted to Paddy (ton) | 4,251,096 | 4,353,122 | 4,476,086 | 4,394,856 | 4,325,237 | 4,569,508 |
| | | | | Paddy/Surplus or Deficit (ton) | -78,260 | -168,290 | -336,331 | 162,676 | -79,739 | 729,019 |
| | | | | Proportion to Production (%) | -2 | -4 | -9 | 3 | -2 | 12 |

1/: Italic parts: estimates by MAFF, Agriculture Statistics & Food Balance Sheet, Paddy, MAFF; other parts estimated by JICA Study Team.

2/: Assumption 1: seed & post-harvest losses 13% & rice milling recovery rate 64% applied by MAFF from 2001

3/: Assumption 2: seed & post-harvest losses 17% & rice milling recovery rate 62% applied by MAFF up to 2000

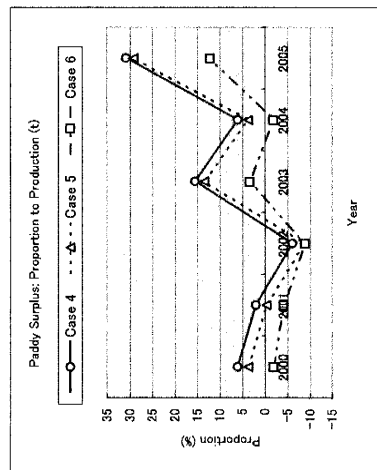
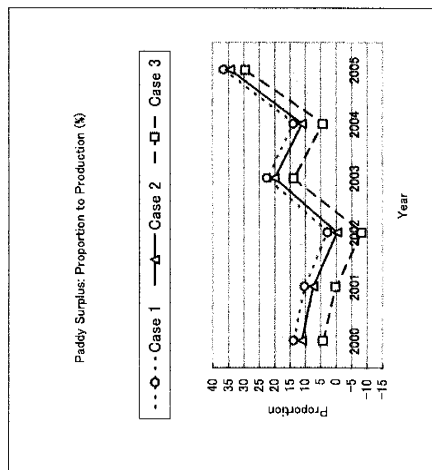


Table C4-2 Estimation of National Food Balance of Rice for 2010, 2015 & 2020 under Different Assumptions

| Assumptions/ Sub-cases | Item | Case A 1/ | | | Case B 2/ | | | Case C 3/ | | | Case D 4/ | | |
|--|--|---------------------------------|------------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| | | 2010 | 2015 | 2020 | 2010 | 2015 | 2020 | 2010 | 2015 | 2020 | 2010 | 2015 | 2020 |
| Assumption 1 5/ 143 kg | Population (thousand) | 4,469,000 | 4,469,000 | 4,469,000 | 4,469,000 | 4,469,000 | 4,469,000 | 4,469,000 | 4,469,000 | 4,469,000 | 4,469,000 | 4,469,000 | 4,469,000 |
| | Annual Paddy Production (ton) | 580,970 | 580,970 | 580,970 | 580,970 | 580,970 | 580,970 | 580,970 | 580,970 | 580,970 | 580,970 | 580,970 | 580,970 |
| | Seed and Post-Harvest Losses (13%) | 3,888,030 | 3,888,030 | 3,888,030 | 3,888,030 | 3,888,030 | 3,888,030 | 3,888,030 | 3,888,030 | 3,888,030 | 3,888,030 | 3,888,030 | 3,888,030 |
| | Paddy Consumption for Food (ton) | 2,488,339 | 2,488,339 | 2,488,339 | 2,488,339 | 2,488,339 | 2,488,339 | 2,488,339 | 2,488,339 | 2,488,339 | 2,488,339 | 2,488,339 | 2,488,339 |
| | Converted in Milled Rice (recovery rate 64%) | 2,285,426 | 2,285,426 | 2,285,426 | 2,285,426 | 2,285,426 | 2,285,426 | 2,285,426 | 2,285,426 | 2,285,426 | 2,285,426 | 2,285,426 | 2,285,426 |
| | Rice Requirement for Food (ton) | 2,023,913 | -72,362 | -72,362 | 2,023,913 | -72,362 | -72,362 | 2,023,913 | -72,362 | -72,362 | 2,023,913 | -72,362 | -72,362 |
| | Food Balance: Surplus or Deficit (ton) | 166,617 | -351,597 | -937,380 | 166,617 | -351,597 | -937,380 | 166,617 | -351,597 | -937,380 | 166,617 | -351,597 | -937,380 |
| | Paddy/Surplus or Deficit (ton) | 4 | -7 | -17 | 4 | -7 | -17 | 4 | -7 | -17 | 4 | -7 | -17 |
| | Proportion to Requirement (%) | | | | | | | | | | | | |
| | 2 | Rice Requirement for Food (ton) | 2,477,210 | 2,775,585 | 3,112,865 | 2,477,210 | 2,775,585 | 3,112,865 | 2,477,210 | 2,775,585 | 3,112,865 | 2,477,210 | 2,775,585 |
| Per Capita Rice Consumption: 155 kg (FAO estimate) | Food Balance: Surplus or Deficit (ton) | 11,129 | -287,246 | -624,526 | 863,590 | 635,093 | 1,063,135 | 164,806 | 96,946 | -10,375 | 347,993 | 368,665 | 350,431 |
| Paddy/Surplus or Deficit (ton) | 19,988 | -515,887 | -1,121,634 | 1,550,988 | 1,140,613 | 1,909,366 | 295,988 | 174,113 | -18,634 | 624,988 | 662,113 | 629,366 | |
| Proportion to Requirement (%) | 0 | -10 | -20 | 35 | 23 | 34 | 7 | 3 | 0 | 14 | 13 | 11 | |
| 3 | Rice Requirement for Food (ton) | 2,668,994 | 2,990,469 | 3,353,861 | 2,668,994 | 2,990,469 | 3,353,861 | 2,668,994 | 2,990,469 | 3,353,861 | 2,668,994 | 2,990,469 | 3,353,861 |
| Per Capita Rice Consumption: 167 kg (FAO estimate for Viet Nam) | Food Balance: Surplus or Deficit (ton) | -180,655 | -502,130 | -865,522 | 671,806 | 420,209 | 822,139 | -26,978 | -117,938 | -251,371 | 156,209 | 153,781 | 109,435 |
| Paddy/Surplus or Deficit (ton) | -324,452 | -901,814 | -1,554,457 | 1,206,548 | 754,686 | 1,476,543 | -48,452 | -211,814 | -451,457 | 280,548 | 276,186 | 196,543 | |
| Proportion to Requirement (%) | -7 | -17 | -26 | 25 | 14 | 25 | -1 | -4 | -7 | 6 | 5 | 3 | |
| 4 | Seed and Post-Harvest Losses (17%) | 759,730 | 759,730 | 759,730 | 759,730 | 759,730 | 759,730 | 759,730 | 759,730 | 759,730 | 759,730 | 759,730 | 759,730 |
| Assumption 2 6/ 143 kg | Paddy Consumption for Food (ton) | 3,709,270 | 3,709,270 | 3,709,270 | 4,980,000 | 5,084,165 | 6,225,000 | 3,938,350 | 4,281,970 | 4,624,760 | 4,211,420 | 4,687,010 | 5,162,600 |
| Converted in Milled Rice (recovery rate 62%) | 2,299,747 | 2,299,747 | 2,299,747 | 3,087,600 | 3,152,182 | 3,859,500 | 2,441,777 | 2,654,821 | 2,867,351 | 2,611,080 | 2,905,946 | 3,208,812 | |
| Rice Requirement for Food (ton) | 2,416,478 | 2,707,538 | 3,036,550 | 2,416,478 | 2,707,538 | 3,036,550 | 2,416,478 | 2,707,538 | 3,036,550 | 2,416,478 | 2,707,538 | 3,036,550 | |
| Food Balance: Milled Rice/Surplus or Deficit (ton) | -116,731 | -407,791 | -736,802 | 671,122 | 444,644 | 822,950 | 25,299 | -57,717 | -169,198 | 194,602 | 198,408 | 164,282 | |
| Paddy/Surplus or Deficit (ton) | -226,838 | -792,443 | -1,431,796 | 1,304,162 | 864,057 | 1,599,204 | 49,162 | -102,443 | -328,796 | 378,162 | 385,557 | 319,204 | |
| Proportion to Requirement (%) | -5 | -15 | -24 | 28 | 16 | 27 | 1 | -2 | -6 | 8 | 7 | 5 | |
| 5 | Rice Requirement for Food (ton) | 2,477,210 | 2,775,585 | 3,112,865 | 2,477,210 | 2,775,585 | 3,112,865 | 2,477,210 | 2,775,585 | 3,112,865 | 2,477,210 | 2,775,585 | 3,112,865 |
| Per Capita Rice Consumption: 155 kg (FAO estimate) | Food Balance: Milled Rice/Surplus or Deficit (ton) | -177,465 | -475,838 | -813,118 | 610,390 | 376,597 | 746,635 | -35,433 | -120,764 | -245,514 | 133,870 | 130,361 | 87,947 |
| Paddy/Surplus or Deficit (ton) | -344,855 | -924,675 | -1,580,096 | 1,186,145 | 731,825 | 1,450,904 | -68,855 | -234,675 | -477,096 | 260,145 | 253,325 | 170,904 | |
| Proportion to Requirement (%) | -7 | -17 | -26 | 25 | 14 | 24 | -1 | -4 | -8 | 5 | 5 | 3 | |
| 6 | Rice Requirement for Food (ton) | 2,668,994 | 2,990,469 | 3,353,861 | 2,668,994 | 2,990,469 | 3,353,861 | 2,668,994 | 2,990,469 | 3,353,861 | 2,668,994 | 2,990,469 | 3,353,861 |
| Per Capita Rice Consumption: 167 kg (FAO estimate) | Food Balance: Surplus or Deficit (ton) | -369,247 | -690,722 | -1,054,114 | 418,606 | 161,713 | 505,639 | -227,217 | -335,648 | -486,510 | -57,914 | -84,523 | -153,049 |
| Paddy/Surplus or Deficit (ton) | -717,541 | -1,342,250 | -2,048,414 | 813,459 | 314,250 | 982,586 | -441,541 | -652,250 | -945,414 | -112,541 | -164,250 | -297,414 | |
| Proportion to Requirement (%) | -14 | -23 | -31 | 16 | 5 | 15 | -9 | -11 | -15 | -2 | -3 | -5 | |

1/ Case A: future production assumed to be equal to and average volume of 2000 to 2005

2/ Case B: based on 3rd Draft, Development Scenario for Agriculture Sector in Cambodia, 2007, MAFF

3/ Case C: forecasted figures based on production of 2000 to 2004

4/ Case D: forecasted figures based on production of 1995 to 2004

5/ Assumption 1: seed & post-harvest losses 13% & rice milling recovery rate 64% applied by MAFF from 2001

6/ Assumption 2: seed & post-harvest losses 17% & rice milling recovery rate 62% applied by MAFF up to 2000

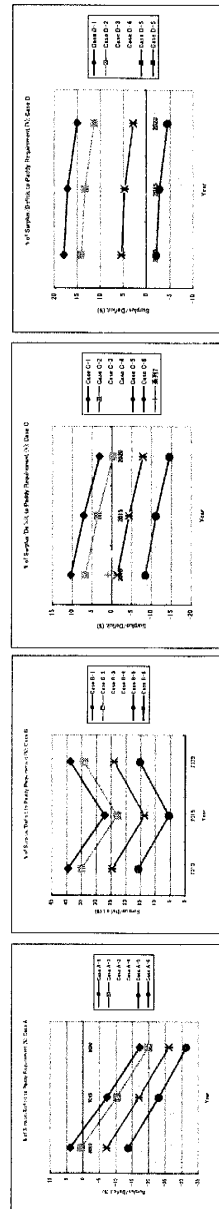
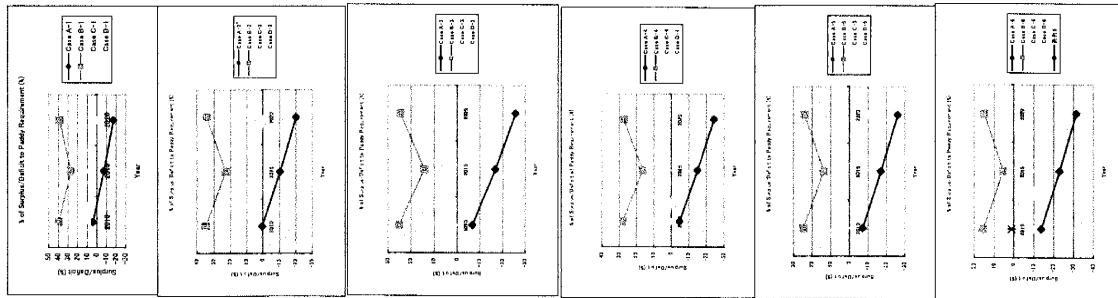


Table C4-3 Paddy Production & Food Balance of Rice in the Four River Basins, Selected Provinces and National from 2002 to 2005

| Year | Item | Four River Basins 1/ | Selected Provinces | | | | | | | National |
|---------|------------------------------|----------------------|--------------------|---------|-----------------|---------|------------|------------|-----------|----------|
| | | | Battambang | Pursat | Kampong Chhnang | Takeo | Prey Veang | Svay Rieng | | |
| 2002 | Production (t) | 639,660 | 295,511 | 160,237 | 23,813 | 487,977 | 519,697 | 160 | 3,822,509 | |
| | Share (%) | 17 | 8 | 4 | 1 | 13 | 14 | 0 | 100 | |
| | Rice Surplus (t) | 57,712 | 22,513 | 26,482 | 30,272 | 141,236 | 135,361 | 10,879 | 156,006 | |
| | Paddy Surplus (t) | 103,649 | 40,433 | 47,561 | 54,368 | 253,657 | 243,105 | 19,538 | 280,183 | |
| | Proportion to Production (%) | 16 | 14 | 30 | 228 | 52 | 47 | 12,212 | 7 | |
| 2003 | Production (t) | 722,249 | 446,359 | 135,678 | 18,633 | 616,757 | 639,452 | 314,336 | 4,710,957 | |
| | Share (%) | 15 | 9 | 3 | 0 | 13 | 14 | 7 | 100 | |
| | Food Balance (t) | 98,615 | 108,418 | 15,267 | 32,044 | 216,172 | 207,946 | 98,878 | 686,496 | |
| | Paddy Surplus (t) | 177,110 | 194,716 | 27,419 | 57,550 | 388,240 | 373,466 | 177,583 | 1,232,931 | |
| | Proportion to Production (%) | 25 | 44 | 20 | 309 | 63 | 58 | 56 | 26 | |
| 2004 | Production (t) | 767,400 | 467,635 | 147,359 | 181,320 | 633,936 | 517,350 | 249,205 | 4,170,284 | |
| | Share (%) | 18 | 11 | 4 | 4 | 15 | 12 | 6 | 100 | |
| | Food Balance (t) | 128,116 | 115,956 | 14,278 | 21,919 | 222,092 | 137,522 | 62,325 | 416,118 | |
| | Paddy Surplus (t) | 230,093 | 208,254 | 25,643 | 39,366 | 398,872 | 246,986 | 111,934 | 747,338 | |
| | Proportion to Production (%) | 30 | 45 | 17 | 22 | 63 | 48 | 45 | 18 | |
| 2005 | Production (t) | 1,078,608 | 603,221 | 197,797 | 257,188 | 781,895 | 897,854 | 264,213 | 5,986,179 | |
| | Share (%) | 18 | 10 | 3 | 4 | 13 | 15 | 4 | 100 | |
| | Food Balance (t) | 240,469 | 190,480 | 47,884 | 68,069 | 304,865 | 349,254 | 69,297 | 1,319,571 | |
| | Paddy Surplus (t) | 431,877 | 342,098 | 85,999 | 122,250 | 547,531 | 627,252 | 124,456 | 2,369,919 | |
| | Proportion to Production (%) | 40 | 57 | 43 | 48 | 70 | 70 | 47 | 40 | |
| Average | Production (t) | 801,979 | 453,182 | 160,268 | 120,239 | 630,141 | 643,588 | 206,979 | 4,672,482 | |
| | Share (%) | 17 | 10 | 3 | 3 | 13 | 14 | 4 | 100 | |
| | Food Balance (t) | 131,228 | 109,342 | 25,978 | 38,076 | 221,091 | 207,521 | 60,345 | 644,548 | |
| | Paddy Surplus (t) | 235,683 | 196,375 | 46,655 | 68,384 | 397,075 | 372,702 | 108,378 | 1,157,593 | |
| | Proportion to Production (%) | 29 | 43 | 29 | 57 | 63 | 58 | 52 | 25 | |

1/: Figures of all districts located in the basins

Source: Food Balance Sheet, Paddy, MAFF

Table C4-4 Annual Variations in Global Export & Import Volumes from 2000 to 2004

1. Annual Variation of Export (000 tons)

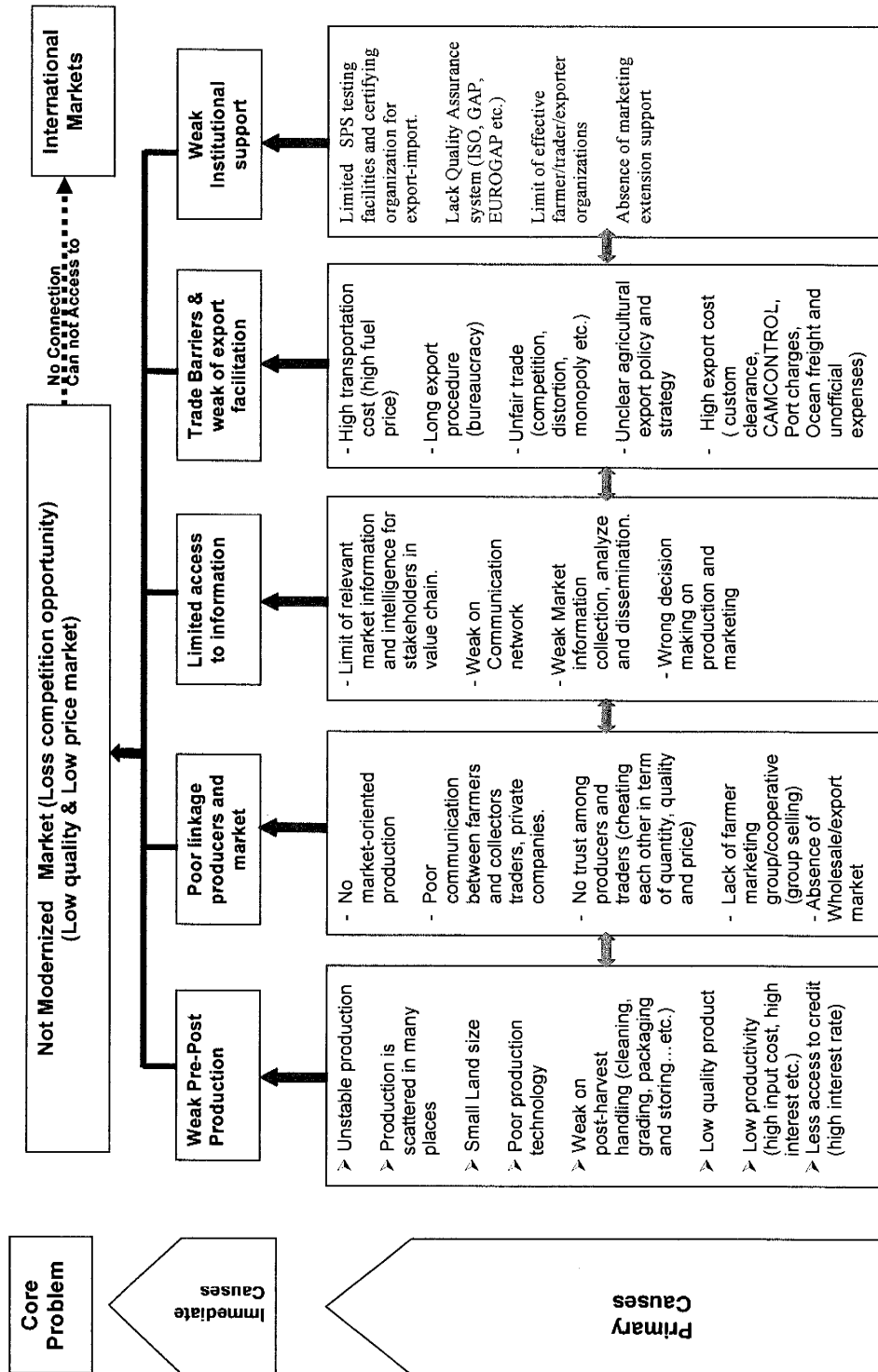
| Region | Indicator | 2000 | 2001 | 2002 | 2003 | 2004 | Average |
|----------|----------------------------|--------|--------|--------|--------|--------|---------|
| World | Volume (1000 t) | 23,546 | 26,809 | 27,387 | 27,839 | 28,990 | 26,914 |
| | Variation from Average (%) | 87 | 100 | 102 | 103 | 108 | 100 |
| Asia | Volume (1000 t) | 16,688 | 19,815 | 20,548 | 20,694 | 22,114 | 19,972 |
| | Variation from Average (%) | 84 | 99 | 103 | 104 | 111 | 100 |
| Thailand | Volume (1000 t) | 6,141 | 7,685 | 7,338 | 8,395 | 9,990 | 7,910 |
| | Variation from Average (%) | 78 | 97 | 93 | 106 | 126 | 100 |
| Viet Nam | Volume (1000 t) | 3,477 | 3,729 | 3,241 | 3,813 | 4,087 | 3,669 |
| | Variation from Average (%) | 95 | 102 | 88 | 104 | 111 | 100 |
| India | Volume (1000 t) | 1,533 | 2,194 | 5,053 | 3,402 | 4,795 | 3,395 |
| | Variation from Average (%) | 45 | 65 | 149 | 100 | 141 | 100 |
| China | Volume (1000 t) | 3,071 | 2,011 | 2,068 | 2,597 | 891 | 2,128 |
| | Variation from Average (%) | 144 | 95 | 97 | 122 | 42 | 100 |
| USA | Volume (1000 t) | 2,736 | 2,622 | 3,267 | 3,785 | 3,067 | 3,095 |
| | Variation from Average (%) | 88 | 85 | 106 | 122 | 99 | 100 |

2. Annual Variation of Import (000 tons)

| Region | Indicator | 2000 | 2001 | 2002 | 2003 | 2004 | Average |
|-------------------------|----------------------------|--------|--------|--------|--------|--------|---------|
| World | Volume (1000 t) | 22,823 | 23,323 | 26,488 | 26,677 | 26,814 | 25,225 |
| | Variation from Average (%) | 90 | 92 | 105 | 106 | 106 | 100 |
| Asia | Volume (1000 t) | 11,531 | 9,711 | 12,819 | 11,582 | 11,896 | 11,508 |
| | Variation from Average (%) | 100 | 84 | 111 | 101 | 103 | 100 |
| Indonesia | Volume (1000 t) | 1,355 | 642 | 1,799 | 1,626 | 391 | 1,163 |
| | Variation from Average (%) | 117 | 55 | 155 | 140 | 34 | 100 |
| Bangladesh | Volume (1000 t) | 452 | 152 | 943 | 1,251 | 992 | 758 |
| | Variation from Average (%) | 60 | 20 | 124 | 165 | 131 | 100 |
| Philippines | Volume (1000 t) | 642 | 811 | 1,196 | 887 | 1,049 | 917 |
| | Variation from Average (%) | 70 | 88 | 130 | 97 | 114 | 100 |
| Africa | Volume (1000 t) | 4,962 | 6,888 | 6,759 | 7,433 | 7,572 | 6,723 |
| | Variation from Average (%) | 74 | 102 | 101 | 111 | 113 | 100 |
| Nigeria | Volume (1000 t) | 786 | 1,770 | 1,236 | 1,600 | 1,398 | 1,358 |
| | Variation from Average (%) | 58 | 130 | 91 | 118 | 103 | 100 |
| Cote d'Ivoire | Volume (1000 t) | 441 | 645 | 718 | 736 | 868 | 682 |
| | Variation from Average (%) | 65 | 95 | 105 | 108 | 127 | 100 |
| Senegal | Volume (1000 t) | 537 | 682 | 792 | 890 | 823 | 745 |
| | Variation from Average (%) | 72 | 92 | 106 | 119 | 110 | 100 |
| North & Central America | Volume (1000 t) | 2,107 | 2,264 | 2,483 | 2,523 | 2,345 | 2,344 |
| | Proportion to Average (%) | 90 | 97 | 106 | 108 | 100 | 100 |

Source: World Rice Statistics, IRRI

Table C4-5 Problem Tree Analysis For Crop Marketing and Commercialization Prepared by MAFF



Source: Report on Agricultural Marketing System and market Potential, Agricultural Marketing Office, MAFF, 2006