F-3.2 Project Cost

TABLE F-3.2.1(1) SUMMARY OF PROJECT COST (Tan Chi) Alternative-1 (7 years-period) (Viet Nam Pump & Material)

| ITEM | F/C | L/C | TAX | UNIT; USD TOTAL |
|---------------------------|-------------|--------------|----------|--|
| 1108 | | <i>D</i> / 0 | Tita | TOTAL |
| 1. Construction Cost | | | | |
| a. Pump Station | | | | |
| Civil works | 1, 077, 407 | 355, 390 | 0 | 1, 432, 797 |
| Mechanical Equipment | 955, 526 | 106, 170 | 0 | 1,061,696 |
| Electric Equipment | 433, 463 | 288, 976 | 65, 020 | 787, 459 |
| Pump House (410m2) | 65, 600 | 16, 400 | 3, 280 | 85, 280 |
| Overhead 10% of Cvl+Ho | 114, 301 | 37, 179 | 1, 515 | 152, 994 |
| Profits 3% | 79, 389 | 24, 123 | 31, 054 | 134, 566 |
| Sub-total | 2, 725, 686 | 828, 238 | | 3, 654, 792 |
| b. Drainage Canal | | | | |
| Tao Khe Creek | 779, 124 | 581, 599 | 0 | 1, 360, 723 |
| KT Trinh Xa | 215, 645 | 266, 118 | | 481, 763 |
| KT 6 Xa | 259, 769 | 226, 306 | 0 | |
| KT Phat Thich | 135, 477 | 115, 885 | 0 | 251, 362 |
| KT 4 Xa | 114, 025 | 100, 736 | 0 | 214, 761 |
| KT Kau Nau | 95, 245 | 91, 829 | 0 | |
| KT Kau Nau-I | 97, 208 | 109, 465 | 0 | |
| KT Kau Nau-2 | 93, 558 | 106, 302 | 0 | |
| KT Tan Chi | 85, 644 | 83, 151 | 0 | |
| Overhead 10% | 187, 570 | | 0 | |
| Sub-total | 2, 063, 264 | 1, 849, 530 | 0 | and the second s |
| Sub-total of Item 1 | 4, 788, 951 | 2, 677, 768 | 100, 868 | 7, 567, 587 |
| 2. Association Cost | | | | |
| a. Construction Machines | 1, 250, 000 | 187, 500 | 187, 500 | 1,625,000 |
| b. Land Aquisition | 0 | 60,000 | 0 | 60, 000 |
| c. Consulting Service | 478, 895 | 267, 777 | 5, 043 | 751, 715 |
| d. Project Administration | 47, 890 | 267, 777 | 0 | 315, 666 |
| Sub-total of Item 2 | 1, 776, 785 | | 192, 543 | |
| Tota1(1+2) | 6, 565, 736 | 3, 460, 821 | 293, 411 | 10, 319, 968 |
| 3. Physical Contingency | 656, 574 | 346, 082 | 29, 341 | 1, 031, 997 |
| 4. Price Escalation | 909, 897 | 874, 499 | | 1, 784, 396 |
| Grand total | 8, 132, 206 | 4, 681, 402 | 322, 753 | 13, 136, 361 |

TABLE F-3.2.1(2) SUMMARY OF PROJECT COST (Tan Chi + Han Quang)
Alternative-1 (7 years-period)
(Viet Nam Pump & Material)

| | | | , | |
|---------------------------|--------------|--------------|----------|-------------------|
| ITEM | F/C | L/C | TAX | UNIT;USD TOTAL |
| 1. Construction Cost | | | | |
| a. Pump Station | | | | |
| Civil works | 1, 432, 951 | 472, 669 | 0 | 1, 905, 620 |
| Mechanical Equipment | 862, 683 | 575, 122 | . 0 | 1, 437, 805 |
| Electric Equipment | 471, 055 | 314, 037 | 70, 658 | |
| Pump House (546m2) | 87, 360 | 98, 280 | 4, 368 | 190, 008 |
| Overhead 10% of Cv1+Ho | 152, 031 | 57, 095 | 2, 091 | 211, 217 |
| Profits 3% | 90, 182 | 45, 516 | 40, 710 | 176, 408 |
| Sub-total | 3, 096, 263 | 1, 562, 718 | | |
| b. Drainage Canal | | | , • | 2, 110, 200 |
| Tao Khe Creek | 779, 124 | 581, 599 | 0 | 1, 360, 723 |
| KT Trinh Xa | 215, 645 | 266, 118 | 0 | 481, 763 |
| KT 6 Xa | 259, 769 | 226, 306 | . 0 | 486, 075 |
| KT Phat Thich | 135, 477 | 115, 885 | Ŏ | 251, 362 |
| KT 4 Xa | 114, 025 | 100, 736 | Ö | 214, 761 |
| KT Kau Nau | 95, 245 | 91, 829 | Ö | 187, 074 |
| KT Kau Nau-1 | 97, 208 | 109, 465 | . 0 | 206, 673 |
| KT Kau Nau-2 | 93, 558 | 106, 302 | Ö | 199, 860 |
| KT Conten Creek | 74, 846 | 85, 042 | Õ | |
| Other Secondary Canals | 190, 766 | 215, 767 | Ő | |
| KT Han Quang | 85, 644 | 83, 151 | Ö | |
| Overhead 10% | 214, 131 | 198, 220 | 0 | 412, 351 |
| Sub-total | 2, 355, 438 | 2, 180, 420 | 0 | |
| | : | 2, 100, 120 | | ·i, 000, 000 |
| d. Transmission Line | 1, 200, 000 | 1, 800, 000 | 0 | 3, 000, 000 |
| | 6, 651, 701 | 5, 543, 138 | | 12, 312, 666 |
| * | 0, 001, 101 | 0, 0 10, 100 | 1111 001 | 12, 012, 000 |
| 2. Association Cost | | | | |
| a. Construction Machines | 1, 250, 000 | 187, 500 | 187, 500 | 1, 625, 000 |
| b. Land Aquisition | 0 | 62, 000 | 0 | 62, 000 |
| c. Consulting Service | 665, 170 | 554, 314 | 5, 891 | 1, 225, 375 |
| d. Project Administration | 66, 517 | 554, 314 | | |
| Sub-total of Item 2 | 1, 981, 687 | 1, 358, 128 | | 3, 533, 206 |
| Total(1+2) | 8, 633, 388 | | | 15, 845, 872 |
| | 3, 003, 500 | 0, 001, 200 | 011, 210 | 10, 010, 012 |
| 3. Physical Contingency | 863, 339 | 690, 127 | 31, 122 | 1, 584, 587 |
| 4. Price Escalation | 1, 145, 010 | 1, 506, 477 | | 2, 651, 488 |
| Grand total | 10, 641, 738 | 9, 097, 870 | 342, 340 | 20, 081, 948 |

TABLE F-3.2.1(3) SUMMARY OF PROJECT COST (Tan Chi)
Alternative-2 (7 years-period)
(Viet Nam Pump & Material)

| | | | | - <u>r</u> | ,, | | UNIT; USD | |) | | | |
|---------------------------|------|--------------|-----|------------|------------|-----|-----------|------|------------|-----------|--------------|------|
| ITEM | F/ | ′C | | | L/ | C | ٠. | 1 | ÀΧ | | IOTAI | |
| 1. Construction Cost | | | | | ٠. | ٠. | | • | | : :- : | | .* |
| a. Pump Station | • | : | | | | | | | ٠., | 7. | | |
| Civil works | 1, 0 | 77, | 407 | . " | 3 | 55, | 390 | | 0 | 1. | 432, | 797 |
| Mechanical Equipment | 9 | 355 , | 526 | | 1 | 06, | 170 | | 0 | 1, | 061, | 696 |
| Electric Equipment | 4 | 133, | 463 | | 2 | 88, | 976 | 65, | 020 | | 787, | 459 |
| Pump House (410m2) | | 65, | 600 | | | 16. | 400 | 3, | 280 | | 85, | 280 |
| Overhead 10% of Cvl+Ho | 1 | 14, | 301 | | | 37, | 179 | 1. | 515 | 19.50 | 152, | 994 |
| Profits 3% | | 79, | 389 | | | 24, | 123 | 31, | 054 | N. 3 | 134, | 566 |
| Sub-total | 2, 7 | 25, | 686 | | 8 | 28, | 238 | 100, | 868 | 3 | 654, | 792 |
| b. Drainage Canal | | | | | | | | | 1.1 | | 7 17 4 | |
| Tao Khe Creek | 7 | 779, | 124 | | 5 | 81, | 599 | | 0 | 1, | 360, | 723 |
| KT Trinh Xa | 2 | 15, | 645 | F + . | 2 | 66, | 118 | | 0 | | 481, | |
| KT 6 Xa | 2 | 259, | 769 | | 2 | 26, | 306 | | 0 | | 486. | |
| KT Phat Thich | 1 | 35, | 477 | | 1 | 15, | 885 | | 0 | 11.74 | 251, | 362 |
| KT 4 Xa | 1 | 14, | 025 | | 1 | 00, | 736 | | 0 | | 214, | 761 |
| KT Kau Nau | | 95, | 245 | | | 91, | 829 | | 0 | | 187, | 074 |
| KT Kau Nau-1 | | 97, | 208 | | 1 | 09, | 465 | | 0 | | 206, | 673 |
| KT Kau Nau-2 | | 93, | 558 | : | 1 | 06, | 302 | | 0 | | 199, | 860 |
| KT Tan Chi | | 85, | 644 | | | 83, | 151 | | 0 | | 168, | 795 |
| Overhead 10% | | | 570 | | 1 | 68. | 139 | • | 0 | | 355, | 709 |
| Sub-total | 2, 0 | 63, | 264 | | 1, 8 | 49, | 530 | | 0 | 3, | 912, | 795 |
| c. Irrigation Canal | ٠ | | | | ٠. | | | | | 100 | 7 : -1 | |
| South Irrigation Canal | | 76. | 098 | | 5 | 89, | 796 | | Ó | : | 665, | 894 |
| N 6 Irrigation Canal | | | 518 | | | | 410 | | 0 | | 203, | 928 |
| Others | 1 | 76. | 206 | : | 5 | 16. | 999 | | 0 | | 693, | 205 |
| Overhead 10% | | 29, | 282 | | 1 | 27, | 021 | *. | - 0 | | 156, | 303 |
| Sub-total | 8 | 322, | 104 | | 1, 3 | 97, | 226 | | 0 | 1. | 719, | 330 |
| Sub-total of Item 1 | 5. 1 | 11. | 055 | | <u>4</u> 1 | 74 | 993 | 100 | 868 | Q | 286, | 916 |
| | ٠, ، | , | | | 2, 0 | , | 000 | 100, | 000 | | 200 , | DIO |
| 2. Association Cost | | | | 1 | | | | | . : | : | | 1 5 |
| a. Construction Machines | 1, 2 | 250, | 000 | | 1 | 87, | 500 | 187, | 500 | 1 | 625, | 000 |
| b. Land Aquisition | | | 0 | | | | 000 | | 0 | | 60, | |
| c. Consulting Service | 5 | 511, | 106 | | | | 499 | | 043 | | | 648 |
| d. Project Administration | | 51, | 111 | | | | 499 | | . 0 | | 458, | |
| Sub-total of Item 2 | 1, 8 | 312, | 216 | | 1.0 | 62. | 499 | 192, | 543 | 3 | 067. | 258 |
| Tota1(1+2) | 6, 9 |)23, | 271 | | 5, 1 | 37, | 492 | 293, | 411 | 12 | 354. | 174 |
| 3. Physical Contingency | ÷ | | | | | | | | | .* | . : | |
| | | | | | | | | | 041 | | | 417. |
| 4. Price Escalation | í | }90 , | 689 | | 1, 4 | 06, | 868 | | | 2 | 397, | 557 |
| Grand total | 8, 6 | 306. | 288 | | 7, 0 | 58, | 109 | 322, | 753 | . 15 | 987, | 149 |

TABLE F-3.2.1(4) SUMMARY OF PROJECT COST (Tan Chi + Han Quang)
Alternative-2 (7 years-period)
(Viet Nam Pump & Material)

| 1 INIT | | | | |
|---------------------------|--------------|--------------|----------|------------------|
| ITEM | F/C | L/C | TAX | NIT;USD TOTAL |
| 1 I E A | r/C | L/C | Inn | IOIND |
| 1. Construction Cost | | | | |
| a. Pump Station | | | | • |
| Civil works | 1, 432, 951 | 472, 669 | 0 | 1, 905, 620 |
| Mechanical Equipment | 862, 683 | 575, 122 | | 1, 437, 805 |
| Electric Equipment | 471, 055 | 314, 037 | | 855, 750 |
| Pump House (546m2) | 87, 360 | | 4, 368 | |
| Overhead 10% of Cv1+Ho | 152, 031 | 57, 095 | | 211, 217 |
| | | | 40, 710 | |
| Profits 3% | 90, 182 | | | |
| Sub-total | 3, 096, 263 | 1, 302, 118 | 111,041 | 4, 776, 809 |
| b. Drainage Canal | 770 104 | EQ1 E00 | 0 | 1 960 709 |
| Tao Khe Creek | 779, 124 | 581, 599 | 0 | 1, 360, 723 |
| KT Trinh Xa | 215, 645 | 266, 118 | 0 | 481, 763 |
| KT 6 Xa | 259, 769 | 226, 306 | 0 | 486, 075 |
| KT Phat Thich | 135, 477 | 115, 885 | 0 | 251, 362 |
| KT 4 Xa | 114, 025 | 100, 736 | 0 | 214, 761 |
| KT Kau Nau | 95, 245 | 91, 829 | 0 | 187, 074 |
| KT Kau Nau-1 | 97, 208 | 109, 465 | 0 | 206, 673 |
| KT Kau Nau-2 | 93, 558 | 106, 302 | 0 | 199, 860 |
| KT Conten Creek | 74, 846 | 85, 042 | 0 | 159, 888 |
| Other Secondary Canals | 190, 766 | 215, 767 | 0 | 406, 533 |
| KT Han Quang | 85, 644 | 83, 151 | 0 | 168, 795 |
| Overhead 10% | 214, 131 | 198, 220 | 0 | 412, 351 |
| Sub-total | 2, 355, 438 | 2, 180, 420 | 0 | 4, 535, 858 |
| c. Irrigation Canal | | | | |
| South Irrigation Canal | 76, 098 | 589, 796 | | 665, 894 |
| N 6 Irrigation Canal | 40, 518 | 163, 410 | 0 | 203, 928 |
| Others | 177, 968 | 522, 169 | 0 | 700, 137 |
| Overhead 10% | 29, 458 | 127, 537 | | 156, 996 |
| Sub-total | 324, 042 | 1, 402, 912 | 0 | 1, 726, 955 |
| e. Transmission Line | 1, 200, 000 | 1 800 000 | 0 | 3, 000, 000 |
| Sub-total of Item 1 | | | | |
| Sud-total of frem i | 0, 510, 124 | 0, 340, 000 | 117,021 | 14, 000, 021 |
| 2. Association Cost | | | | |
| a. Construction Machines | 1, 250, 000 | 187, 500 | 187, 500 | 1, 625, 000 |
| b. Land Aquisition | | | | 62,000 |
| c. Consulting Service | 697, 574 | 694, 605 | 5, 891 | 1, 398, 071 |
| d. Project Administration | 69, 757 | 694, 605 | 0 | 764, 362 |
| Sub-total of Item 2 | 2, 017, 332 | | | 3, 849, 433 |
| Total(1+2) | 8, 993, 075 | | | 17, 889, 054 |
| : | | | | |
| 3. Physical Contingency | 899, 308 | 858, 476 | 31, 122 | 1, 788, 905 |
| 4. Price Escalation | 1, 226, 344 | 2, 041, 327 | | 3, 267, 671 |
| Grand total | 11, 118, 727 | 11, 484, 564 | 342, 340 | 22, 945, 631 |

TABLE F-3.2.1(5) SUMMARY OF PROJECT COST (Tan Chi)
Alternative-3 (7 years-period)
(Viet Nam Pump & Material)

| ITEM | F/C | L/C | TAX | UNIT; USD TOTAL |
|---------------------------|--------------|----------------------|----------|----------------------------|
| 1. Construction Cost | | | | |
| a. Pump Station | | | | |
| Civil works | 1, 077, 407 | 355 390 | n | 1 /32 707 |
| Mechanical Equipment | 955, 526 | 106 170 | ň | 1, 432, 797 1, 061, 696 |
| Electric Equipment | 433, 463 | 288, 976 | 65 020 | 787, 459 |
| Pump House (410m2) | 65, 600 | 16, 400 | 3. 280. | 85, 280 |
| Overhead 10% of Cv1+Ho | | | | 152, 994 |
| Profits 3% | 79, 389 | | | 134, 566 |
| Sub-total | 2, 725, 686 | 828, 238 1 | | 3, 654, 792 |
| b. Drainage Canal | _,,,,, | 000, 000 | | 0, 001, 102 |
| Tao Khe Creek | 779, 124 | 581, 599 | 0 | 1, 360, 723 |
| KT Trinh Xa | 215, 645 | | | 481, 763 |
| KT 6 Xa | 259, 769 | | | 486, 075 |
| KT Phat Thich | 135, 477 | | . 0 | 251, 362 |
| KT 4 Xa | 114, 025 | | | 214, 761 |
| KT Kau Nau | 95, 245 | | 0 | :: ∍187, 074 |
| KT Kau Nau-1 | 97, 208 | 109, 465 | 0. | 206, 673 |
| KT Kau Nau-2 | 93, 558 | | 0.7 | 199, 860 |
| KT Tan Chi | 85, 644 | 83, 151 | 0 - | 168, 795 |
| Overhead 10% | 187, 570 | | | 355, 709 |
| Sub-total | 2, 063, 264 | 1, 849, 530 | | -3, 912, 795 |
| c. Irrigation Canal | 8 | | | ataj kaptas |
| South Irrigation Canal | 76, 098 | | | 665, 894 |
| N 6 Irrigation Canal | 40, 518 | | | 203, 928 |
| Others | 176, 206 | | | 693, 205 |
| Overhead 10% | 29, 282 | 127, 021 | 0 | 156, 303 |
| Sub-total | 322, 104 | 1, 397, 226 | 0. | 1, 719, 330 |
| d. Pond Construction | 234, 000 | 26,000 | 2, 340 | 262, 340 |
| Sub-total of Item 1 | 5, 345, 055. | 4, 100, 993 | 03, 208 | 9, 549, 256 |
| 2. Association Cost | and g | | | |
| a. Construction Machines | 1. 250, 000 | 187, 500-1 | 87. 500 | 1, 625, 000 |
| b. Land Aquisition | 0 | 60,000 | 0 | |
| c. Consulting Service | 534, 506 | | | 949, 648 |
| d. Project Administration | 53, 451 | 410, 099 410, 099 | 0 | 463, 550 |
| Sub-total of Item 2 | 1, 837, 956 | 1, 067, 699 | 92, 543 | 3, 098, 198 |
| Total(1+2) | 7, 183, 011 | 5, 168, 692 2 | 95, 751 | 12, 647, 454 |
| 3. Physical Contingency | 718, 301 | 516, 869 | 29, 575 | 1, 264, 745 |
| 4. Price Escalation | 1, 066, 181 | 1, 420, 904 | | 2, 487, 085 |
| Grand total | 8, 967, 494 | 7, 106, 465 | 325, 327 | 16, 399, 285 |

TABLE F-3.2.1(6) SUMMARY OF PROJECT COST (Tan Chi + Han Quang)
Alternative-3 (7 years-period)
(Viet Nam Pump & Material)

| | (120 | · | -L | w 110001 1 | ω-, | |
|-------|------------------------|-----------|-----|--------------|-------------|------------------|
| T MTU | | P /O | | T 10 | W1 V | UNIT; USD |
| I | TEN | F/C | | L/C | TAX | TOTAL |
| -1 | Construction Cost | | | | | |
| | Pump Station | | | | | |
| а. | Civil works | 1 /39 0 | 151 | 472 KK | 9 0 | 1, 905, 620 |
| | Mechanical Equipment | 862, 6 | | 575, 12 | | |
| | Electric Equipment | 471, 0 | | | 7 70,658 | |
| | Pump House (546m2) | | | | 0 4,368 | |
| | Overhead 10% of Cvl+Ho | | | | 5 2,091 | • |
| , | Profits 3% | 90, 1 | | | 6 40,710 | |
| | Sub-total | 3, 096, 2 | | | 8 117, 827 | |
| | Drainage Canal | 0, 000, 2 | | ., | 0 11., 02. | 1, 110, 000 |
| | | 779, 1 | 24 | 581, 59 | 9 0 | 1, 360, 723 |
| | KT Trinh Xa | 215, 6 | | | | |
| | KT 6 Xa | | | | | |
| | | 135. 4 | | | | 251, 362 |
| | KT 4 Xa | | | 100, 73 | | 214, 761 |
| | KT Kau Nau | | | | | |
| | KT Kau Nau-1 | | 208 | 109, 46 | 5 0 | 206, 673 |
| | | 93. 5 | 558 | 106, 30 | 2 0 | 199, 860 |
| | KT Conten Creek | | | | | 159, 888 |
| | Other Secondary Canals | | | | | |
| | KT Han Quang | | | | | |
| | Overhead 10% | 214. | 131 | 198, 22 | 20 0 | |
| | Sub-total | | | | | |
| c. | Irrigation Canal | _,, | | _,, | | |
| | South Irrigation Canal | 76. (| 98 | 589, 79 | 0 0 | 665, 894 |
| | N 6 Irrigation Canal | 40, 5 | | 163, 41 | . 0 | 203, 928 |
| | Others | 177, 9 | | 522, 16 | | 700, 137 |
| | Overhead 10% | | | 127, 53 | | |
| | Sub-total | 324, (| 042 | 1, 402, 91 | 2 0 | 1, 726, 955 |
| d. | | 234, (| 000 | 234, 00 | 00 4, 212 | 472, 212 |
| e. | Transmission Line | 1, 200, (| 000 | . 1, 800, 00 |)0 0 | 3, 000, 000 |
| | Sub-total of Item 1 | 7, 209, 7 | 744 | 7, 180, 05 | 50 122, 039 | 14, 511, 833 |
| | | ٠. | | | | • |
| | Association Cost | | | | | |
| | Construction Machines | | | | | |
| b. | Land Aquisition | | 0 | 62, 00 | 0 (0 | 62, 000 |
| C. | Consulting Service | 720, | 974 | 718, 00 |)5 5, 891 | |
| d. | Project Administration | 72, | 097 | 718, 00 |)5 0 | 7 90, 102 |
| | Sub-total of Item 2 | 2, 043, | 072 | 1, 685, 5 | | 3, 921, 973 |
| | Tota1(1+2) | 9, 252, | 815 | 8, 865, 50 | 31 315, 430 | 18, 433, 806 |
| 3. | Physical Contingency | 925, | 282 | 886, 5 | 56 31, 543 | 1, 843, 381 |
| 4. | Price Escalation | 1, 301, | 817 | 2, 159, 5 | 83 | 3, 461, 399 |
| | | . • | | | | |
| | Grand total | 11, 479, | 914 | 11, 911, 6 | 99 346, 973 | 23, 738, 587 |

TABLE F-3.2.1(7) SUMMARY OF PROJECT COST (Tan Chi)

Alternative-1 (7 years-period)

(Foreign Pump & Material)

| Tank | w | | | UNIT; USD |
|---------------------------|-------------|---------------|----------|--|
| ITEN | F/C | L/C | TAX | TOTAL |
| 1. Construction Cost | | | | |
| a. Pump Station | • | | | n de Notae |
| Civil works | 1, 077, 40 | 7 355, 390 | 0 | 1, 432, 797 |
| Mechanical Equipment | 7, 838, 67 | | | 8, 709, 642 |
| Electric Equipment | 3, 559, 51 | | 533, 927 | |
| Pump House (410m2) | 295, 20 | | | 383, 760 |
| Overhead 10% of Cvl+Ho | 137, 26 | | | 181, 981 |
| Profits 3% | 387, 24 | | | 571, 219 |
| Sub-total | | 4 1, 790, 732 | | 15, 768, 345 |
| b. Drainage Canal | | ,, | | |
| Tao Khe Creek | 779, 12 | 4 581, 599 | 0 | 1, 360, 723 |
| KT Trinh Xa | 215, 64 | | . 0 | 481, 763 |
| KT 6 Xa | 259, 76 | | 0 | 486, 075 |
| KT Phat Thich | 135, 47 | 7 115, 885 | 0 | |
| KT 4 Xa | 114, 02 | 5 100, 736 | 0 | 214, 761 |
| KT Kau Nau | 95, 24 | 5 91, 829 | 0. | |
| KT Kau Nau-1 | 97, 20 | 8 109, 465 | 0 | 206, 673 |
| KT Kau Nau-2 | 93, 55 | 8 106, 302 | 0 | 199, 860 |
| KT Tan Chi | 85, 64 | 4 83, 151 | 0 | 168, 795 |
| Overhead 10% | 187, 57 | 0 168, 139 | 0 | 355, 709 |
| Sub-total | 2, 063, 26 | 4 1, 849, 530 | 0 | 3, 912, 795 |
| Sub-total of Item 1 | 15, 358, 56 | 8 3, 640, 262 | 682, 309 | 19, 681, 139 |
| 2. Association Cost | | | | |
| a. Construction Machines | 1, 250, 00 | 0 187, 500 | 187, 500 | 1, 625, 000 |
| b. Land Aquisition | | 0 60,000 | 0 | |
| c. Consulting Service | 1, 535, 85 | | 34, 115 | |
| d. Project Administration | 153, 58 | | 0 | and the second s |
| Sub-total of Item 2 | 2, 939, 44 | | 221, 615 | 4, 136, 610 |
| Total(1+2) | | 1 4, 615, 815 | 903, 924 | 23, 817, 750 |
| 3. Physical Contingency | 1, 829, 80 | 1 461, 581 | 90, 392 | 2, 381, 775 |
| 4. Price Escalation | 2, 244, 00 | 1, 082, 253 | | 3, 326, 257 |
| Grand total | 22, 371, 81 | 6 6, 159, 649 | 994, 317 | 29, 525, 782 |

TABLE F-3.2.1(8) SUMMARY OF PROJECT COST (Tan Chi + Han Quang)
Alternative-1 (7 years-period)
(Foreign Pump & Material)

| (10101611 1 mary w 1100001 mary | | | | | | | |
|---|--------------|--------------|--------------|--------------|--|--|--|
| | 10 | | | UNIT;USD | | | |
| ITEM | F/C | L/C | TAX | TOTAL | | | |
| 1. Construction Cost | | | | | | | |
| a. Pump Station | | | | | | | |
| Civil works | 1, 432, 951 | 472, 669 | 0 | 1, 905, 620 | | | |
| Mechanical Equipment | | 1, 277, 397 | . 0 | | | | |
| | 4, 116, 784 | 457, 421 | 617, 518 | | | | |
| Pump House (546m2) | 393, 120 | 98, 280 | 19, 656 | | | | |
| Overhead 10% of Cultile | | 57, 095 | 2, 397 | | | | |
| Profits 3% | 528, 661 | 70, 886 | 179, 864 | 779, 411 | | | |
| Sub-total | 18, 150, 697 | | | i i | | | |
| Profits 3% Sub-total b. Drainage Canal | | -,, | | | | | |
| Tao Khe Creek | 779, 124 | 581, 599 | 0 | 1, 360, 723 | | | |
| KT Trinh Xa | 215, 645 | 266, 118 | 0 | | | | |
| KT 6 Xa | 259, 769 | | 0 | 486, 075 | | | |
| KT Phat Thich | 135, 477 | 115, 885 | . 0 | | | | |
| KT 4 Xa | 114, 025 | 100, 736 | 0 | 214, 761 | | | |
| KT Kau Nau | 95, 245 | 91, 829 | 0 | 187, 074 | | | |
| KT Kau Nau-1 | 97, 208 | 109, 465 | 0 | 206, 673 | | | |
| KT Kau Nau-2 | 93, 558 | 106, 302 | 0 | 199, 860 | | | |
| KT Conten Creek | 74, 846 | | 0 | 159, 888 | | | |
| Other Secondary Canals | 190, 766 | 215, 767 | 0 | 406, 533 | | | |
| KT Han Quang | 85, 644 | 83, 151 | 0 | 168, 795 | | | |
| Overhead 10% | 214, 131 | 198, 220 | 0 | 412, 351 | | | |
| KT Han Quang Overhead 10% Sub-total | 2, 355, 438 | 2, 180, 420 | 0 | 4, 535, 858 | | | |
| | | • | _ | | | | |
| d. Transmission Line | | | | | | | |
| Sub-total of Item 1 | 21, 706, 135 | 6, 414, 166 | 819, 435 | 28, 939, 736 | | | |
| | * * | | | | | | |
| 2. Association Cost | 1 050 000 | 100 500 | 100 500 | 1 005 000 | | | |
| a. Construction Machines | 1, 250, 000 | | 187, 500 | 1, 625, 000 | | | |
| b. Land Aquisition | 0 | 62, 000 | 0 40, 972 | 62, 000 | | | |
| c. Consulting Service | 2, 170, 614 | | | | | | |
| d. Project Administration | 217, 061 | | | 858, 478 | | | |
| Sub-total of Item 2 | | 1, 532, 333 | | 5, 398, 480 | | | |
| Total(1+2) | 25, 343, 810 | 7, 946, 500 | 1, 047, 907 | 34, 338, 216 | | | |
| 3. Physical Contingency | 2, 534, 381 | 794, 650 | 104, 791 | 3, 433, 822 | | | |
| 4. Price Escalation | 3, 035, 340 | 1, 694, 493 | | 4, 729, 834 | | | |
| Grand total | 30, 913, 531 | 10, 435, 643 | 1, 152, 697 | 42, 501, 872 | | | |

TABLE F-3.2.1(9) SUMMARY OF PROJECT COST (Tan Chi)
Alternative-2 (7 years-period)
(Foreign Pump & Material)

| \ ** | v-v-0 | | | UNIT; USD |
|--|-------------------------------|----------------------------|----------------|---|
| ITEN | F/C | L/C | TAX | TOTAL |
| | | | | |
| 1. Construction Cost | $(-1, 1, \dots, 1, 1, \dots)$ | | | |
| a. Pump Station | | | | |
| Civil works | 1, 077, 407 | 355, 390 | 0 | 1, 432, 797 |
| Mechanical Equipment | 7, 838, 678 | 870, 964 | | |
| Electric Equipment | 3, 559, 516 | 395, 502 | 533, 927 | 4, 488, 945 |
| Pump House (410m2) | 295, 200 | 73, 800 | 14, 760 | 383, 760 |
| Overhead 10% of Cv1+Ho | 137, 261 | 42, 919 | 1,802 | 181, 981 |
| Profits 3% | 387, 242 | 52, 157 | | 571, 219 |
| Sub-total | 13, 295, 304 | 1, 790, 732 | 682, 309 | 15, 768, 345 |
| b. Drainage Canal | | | | |
| Tao Khe Creek | | 58 1, 599 | a.e 0 | 1, 360, 723 |
| KT Trinh Xa | 215, 645 | 266, 118 | 0 | 481, 763 |
| KT 6 Xa | 259, 769 | 226, 306 | | 486, 075 |
| KT Phat Thich | 135, 477 | | | 251, 362 |
| KT 4 Xa | | 100, 736 | | 214, 761 |
| KT Kau Nau | 95, 245 | 91, 829 | | 187, 074 |
| KT Kau Nau-1 | 97, 208 | | | 206, 673 |
| KT Kau Nau-2 | 93, 558 | | | 199, 860 |
| KT Tan Chi | 85, 644 | | | 168, 795 |
| Overhead 10% | 187, 570 | 168, 139 | | 355, 709 |
| Sub-total | | 1, 849, 530 | . 0 | 3, 912, 795 |
| c. Irrigation Canal | | | | |
| South Irrigation Canal | 76, 098 | 589, 796 | 0 | 665, 894 |
| N 6 Irrigation Canal | 40, 518 | 163, 410 | g. 0 | 203, 928 |
| Others | 176, 206 | 516, 999 | · 23 - 2 2 0 - | 693, 205 |
| Overhead 10% | 29, 282 | | 0 | 156, 303 |
| Sub-total | 322, 104 | | Ō | |
| | | | | .,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |
| Sub-total of Item 1 | 15, 680, 672 | 5, 037, 488 | 682, 309 | 21, 400, 469 |
| N. Carlotte and Ca | | • | | |
| 2. Association Cost | 100 | * | | |
| a. Construction Machines | 1, 250, 000 | 187, 500 | 187, 500 | 1, 625, 000 |
| b. Land Aquisition | , · | 60,000 | 0 | 60,000 |
| c. Consulting Service | 1, 568, 067 | 503, 749 | 34, 115 | 2, 105, 931 |
| d. Project Administration | 156, 807 | 503, 749 | 0. | 660, 55 6 |
| Sub-total of Item 2 | 2, 974, 874 | 1, 254, 998 | 221, 615 | 4, 451, 487 |
| Total(1+2) | 18, 655, 546 | 1, 254, 998 6, 292, 485 | 903, 924 | 25, 851, 956 |
| 0 70 1 2 0 1 | | | | |
| 3. Physical Contingency | 1, 865, 555 | 629, 249 | 90, 392 | 2, 585, 196 |
| 4. Price Escalation | 2, 324, 793 | 1, 614, 962 | | 3, 939, 755 |
| Grand total | 22, 845, 894 | 8, 536, 696 | 994, 317 | 32, 376, 907 |

TABLE F-3.2.1(10) SUMMARY OF PROJECT COST (Tan Chi + Han Quang)
Alternative-2 (7 years-period)
(Foreign Pump & Material)

| , | (| | UNIT:USD | | |
|---------------------------|--------------------------|------------------|-------------|--------------|--|
| ITEM | F/C | L/C | TAX | TOTAL | |
| 1. Construction Cost | | | | | |
| a. Pump Station | | | | | |
| | 1, 432, 951 | | 0 | | |
| Mechanical Equipment | | | | | |
| Electric Equipment | | | | | |
| Pump House (546m2) | 393, 120 | | 19, 656 | | |
| Overhead 10% of Cv1+Ho | | | | 242, 099 | |
| Profits 3% | 528, 661 18, 150, 697 | 70, 886 | 179, 864 | 779, 411 | |
| Sub-total | 18, 150, 697 | 2, 433, 747 | 819, 435 | 21, 403, 879 | |
| b. Drainage Canal | | | | | |
| Tao Khe Creek | 779, 124 | 581, 599 | 0 | 1, 360, 723 | |
| KT Trinh Xa | 215, 645 | 266, 118 | 0 | 481, 763 | |
| KT 6 Xa | 259, 769 | 226, 306 | 0 | 486, 075 | |
| KT Phat Thich | 135, 477 | 115, 885 | . 0 | 251, 362 | |
| KT 4 Xa | 114, 025 | 100, 736 | 0 | 214, 761 | |
| KT Kau Nau | 95, 245 | 91, 829 | 0 | 187, 074 | |
| KT Kau Nau-1 | 97, 208 | 109, 465 | 0 | | |
| KT Kau Nau-2 | | 106, 302 | 0 | 199, 860 | |
| KT Conten Creek | 74, 846 | 85, 042 | . 0 | 159, 888 | |
| Other Secondary Canals | | | 0 | 406, 533 | |
| KT Han Quang | | 83, 151 | 0 | | |
| Overhead 10% | 214, 131 | 198, 220 | 0 | 412, 351 | |
| Overhead 10% Sub-total | 2, 355, 438 | | 0 | | |
| c. Irrigation Canal | | | • | | |
| South Irrigation Canal | 76, 098 | 589, 796 | 0 | 665, 894 | |
| N 6 Irrigation Canal | | 163, 410 | | 203, 928 | |
| Others | | 522, 169 | | 700, 137 | |
| Overhead 10% | | 127, 537 | | | |
| Sub-total | | 1, 402, 912 | | 1, 726, 955 | |
| d. Transmission Line | 1, 200, 000 | 1, 800, 000 | 0 | 3, 000, 000 | |
| Sub-total of Item 1 | 22, 030, 178 | 7, 817, 079 | 819, 435 | | |
| 343 5344 01 133 1 | 44 , 555, 115 | ,, _ , , , , , , | | | |
| 2. Association Cost | | | | | |
| a. Construction Machines | 1, 250, 000 | 187, 500 | 187, 500 | 1, 625, 000 | |
| b. Land Aquisition | | | | 62,000 | |
| c. Consulting Service | 2, 203, 018 | | 40, 972 | 3, 025, 697 | |
| d. Project Administration | 220, 302 | | | 1, 002, 010 | |
| Sub-total of Item 2 | 3, 673, 320 | | 228, 472 | 5, 714, 707 | |
| Total(1+2) | 25, 703, 497 | 9, 629, 995 | | 36, 381, 398 | |
| | | 3, 323, 342 | | | |
| 3. Physical Contingency | 2, 570, 350 | 962, 999 | 104, 791 | 3, 638, 140 | |
| 4. Price Escalation | 3, 116, 677 | 2, 229, 684 | | 5, 346, 361 | |
| Grand total | 31, 390, 524 | 12, 822, 678 | 1, 152, 697 | 45, 365, 899 | |

TABLE F-3.2.1(11) SUMMARY OF PROJECT COST (Tan Chi) Alternative-3 (7 years-period) (Foreign Pump & Material)

UNIT; USD ITEM F/C L/C TAX TOTAL 1. Construction Cost a. Pump Station Civil works 1,077,407 355, 390 1, 432, 797 Mechanical Equipment 7, 838, 678 870, 964 0 8, 709, 642 Electric Equipment 3, 559, 516 395, 502 533, 927 4, 488, 945 Pump House (410m2) 295, 200 73,800 14,760 383, 760 Overhead 10% of Cvl+Ho 137, 261 42,919 1,802 181, 981 Profits 3% 52, 157 387, 242 131, 820 571, 219 Sub-total 13, 295, 304 1, 790, 732 682, 309 15, 768, 345 b. Drainage Canal Tao Khe Creek 779, 124 581, 599 1, 360, 723 KT Trinh Xa 215, 645 266, 118 0 481, 763 KT 6 Xa 259, 769 226, 306 0 486, 075 KT Phat Thich 135, 477 115, 885 0 251, 362 KT 4 Xa 114,025 100, 736 0 214, 761 KT Kau Nau 95, 245 91,829 0 187, 074 KT Kau Nau-1 97, 208 109, 465 0 206, 673 KT Kau Nau-2 93, 558 0 106, 302 199, 860 KT Tan Chi 85, 644 83, 151 0 168, 795 Overhead 10% 187, 570 168, 139 0 355, 709 Sub-total 2, 063, 264 1,849,530 3, 912, 795 c. Irrigation Canal South Irrigation Canal 76,098 589, 796 665, 894 N 6 Irrigation Canal 40, 518 163, 410 0 203, 928 Others | 176, 206 516, 999 0 693, 205 Overhead 10% 29, 282 127, 021 0 156, 303 Sub-total 322, 104 1, 397, 226 0 1,719,330 d. Pond Construction 234,000 26,000 2, 340 262, 340 Sub-total of Item 1 15, 914, 672 5, 063, 488 684, 649 21, 662, 809 2. Association Cost a. Construction Machines 1, 250, 000 187,500 187, 500 1,625,000 b. Land Aquisition 60,000 60,000 c. Consulting Service 1, 591, 467 506, 349 34, 115 2, 131, 931 d. Project Administration 159, 147 506, 349 665, 496 Sub-total of Item 2 3,000,614 1, 260, 198 221, 615 4, 482, 427 Total(1+2) 18, 915, 286 6, 323, 685 906, 264 26, 145, 236 3. Physical Contingency 1, 891, 529 632, 369 90,626 2, 614, 524 4. Price Escalation 2, 400, 288 1,628,658 4,028,946 Grand total 23, 207, 103 8, 584, 712 996, 891 32, 788, 706

TABLE F-3.2.1(12) SUMMARY OF PROJECT COST (Tan Chi + Han Quang)
Alternative-3 (7 years-period)
(Foreign Pump & Material)

| UNIT;U | | | | | |
|---------------------------|--------------|-----------------|-------------|--------------|--|
| ITEM | F/C | L/C | TAX | TOTAL | |
| | | | | | |
| 1. Construction Cost | | | | | |
| a. Pump Station | | | | | |
| Civil works | 1, 432, 951 | 472, 669 | 0 | 1, 905, 620 | |
| | 11, 496, 573 | 1, 277, 397 | 0 - | 12, 773, 970 | |
| Electric Equipment | 4, 116, 784 | 457, 421 | 617, 518 | 5, 191, 723 | |
| Pump House (546m2) | 393, 120 | 98, 280 | 19,656 | 511,056 | |
| Overhead 10% of Cv1+Ho | 182, 607 | 57, 095 | 2, 397 | 242, 099 | |
| Profits 3% | 528, 661 | 70, 886 | 179, 864 | | |
| Sub-total | 18, 150, 697 | 2, 433, 747 | 819, 435 | 21, 403, 879 | |
| b. Drainage Canal | | | | | |
| Tao Khe Creek | 779, 124 | 581, 599 | 0 | 1, 360, 723 | |
| KT Trinh Xa | 215, 645 | 266, 118 | 0 | 481, 763 | |
| KT 6 Xa | 259, 769 | 226, 306 | . 0 | 486, 075 | |
| KT Phat Thich | 135, 477 | 115, 885 | . 0 | 251, 362 | |
| KT 4 Xa | 114, 025 | 100, 736 | 0 | 214, 761 | |
| KT Kau Nau | 95, 245 | 91, 829 | 0 | 187, 074 | |
| KT Kau Nau-1 | 97, 208 | | 0 | 206, 673 | |
| KT Kau Nau-2 | 93, 558 | 106, 302 | 0 | 199, 860 | |
| KT Conten Creek | 74, 846 | | - 0 | 159, 888 | |
| Other Secondary Canals | | 215, 767 | 0 | 406, 533 | |
| KT Han Quang | 85, 644 | 83, 151 | 0 | 168, 795 | |
| Overhead 10% | 214, 131 | 198, 220 | Ō | 412, 351 | |
| Sub-total | 2, 355, 438 | | 0 | | |
| c. Irrigation Canal | | _,,, | _ | .,, | |
| South Irrigation Canal | 76, 098 | 589, 796 | 0 | 665, 894 | |
| N 6 Irrigation Canal | 40, 518 | 163, 410 | | 203, 928 | |
| Others | 177, 968 | 522, 169 | 0 | 700, 137 | |
| Overhead 10% | 29, 458 | 127, 537 | | 156, 996 | |
| Sub-total | 324, 042 | 1, 402, 912 | Ö | 1, 726, 955 | |
| d. Pond Construction | 234, 000 | 234, 000 | 4, 212 | 472, 212 | |
| e. Transmission Line | 1, 200, 000 | | | 3, 000, 000 | |
| | 22, 264, 177 | | | | |
| | | | | , | |
| 2. Association Cost | | | | | |
| a. Construction Machines | 1, 250, 000 | 187, 500 | 187, 500 | | |
| b. Land Aquisition | 0 | 62, 000 | 0 | 62, 000 | |
| c. Consulting Service | 2, 226, 418 | 805, 108 | 40, 972 | 3, 072, 497 | |
| d. Project Administration | 222, 642 | 805, 108 | 0 | 1, 027, 750 | |
| Sub-total of Item 2 | 3, 699, 060 | 1, 859, 716 | 228, 472 | 5, 787, 247 | |
| Total(1+2) | 25, 963, 237 | 9, 910, 795 | 1, 052, 119 | 36, 926, 150 | |
| 3. Physical Contingency | 2, 596, 324 | 991, 080 | 105, 212 | 3, 692, 615 | |
| 4. Price Escalation | 3, 192, 149 | 2, 347, 599 | | 5, 539, 748 | |
| Grand total | 31, 751, 710 | 13, 249, 474 | 1, 157, 330 | 46, 158, 514 | |

TABLE F-3.2.1(13) SUMMARY OF PROJECT COST (Tan Chi)
Alternative-1 (4 years-period)
(Viet Nam Pump & Material)

| (*10 | (vice nami tamp a materia. | | | | |
|---------------------------|----------------------------|-----------------------------|-----------------------|--|--|
| ITEM | F/C | L/C | and the second second | NIT;USD TOTAL | |
| | | | | | |
| 1. Construction Cost | | | | 1. 2. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. | |
| a. Pump Station | | | 1000 | e e e e e e e e e e e e e e e e e e e | |
| Civil works | 1.077. | 407 355, 390 | 0 | 1, 432, 797 | |
| Mechanical Equipment | 955, | 526 108, 170 | 0 | 1, 061, 696 | |
| Electric Equipment | | | | | |
| Pump House (410m2) | 65, | 600 16.400 | 3, 280 | 85, 280 | |
| Overhead 10% of Cvl+Ho | | 301 37, 179 | 1,515 | 152, 994 | |
| Profits 3% Sub-total | 79, | 389 24, 123 | 31, 054 | 134, 566 | |
| Sub-total | 2, 725, | 389 24, 123 686 828, 238 | 100, 868 | 3, 654, 792 | |
| b. Drainage Canal | | | | at San territor | |
| Tao Khe Creek | 779, | 124 581, 599 | 0 | 1, 360, 723 | |
| KT Trinh Xa | 215, | 645 266, 118 | 0 | 481, 763 | |
| KT 6 Xa | 259, | 769 226, 306 | 0 | 486, 075 | |
| KT Phat Thich | 135, | | 0 | 251, 362 | |
| KT 4 Xa | 114. | 025 100, 736 | D | 214, 761 | |
| KT Kau Nau | 95, | 245 91, 829 | 0 | 187, 074 | |
| KT Kau Nau-1 | 97, | 208 109, 465 | 0. | 206, 673 | |
| KT Kau Nau-2 | 93, | 558 106, 302 | | 199, 860 | |
| KT Tan Chi | 85, | 644 83, 151 | 0 | 168, 795 | |
| Overhead 10% | 85, 187, | 570 168, 139 | | 355, 709 | |
| Sub-total | 2, 063, | 264 1, 849, 530 | | 3, 912, 795 | |
| | | | | | |
| Sub-total of Item 1 | 4, 788. | 951 2, 677, 768 | 100, 868 | 7, 567, 587 | |
| | | | | A 4. 1 | |
| 2. Association Cost | <i>i</i> . | | | | |
| a. Construction Machines | 1, 250, | | | 1, 625, 000 | |
| b. Land Aquisition | | 0 60,000 | 0 | 60, 000 751, 715 | |
| c. Consulting Service | 478, | 895 267, 777 | 5, 043 | 751, 715 | |
| d. Project Administration | 47, | 890 267, 777 | 0 | 315, 666 | |
| Sub-total of Item 2 | | 785 783, 054 | | 2, 752, 382 | |
| Total(1+2) | 6, 565, | 736 3, 460, 821 | 293, 411 | 10, 319, 968 | |
| | | | 10 10 10 | est to the | |
| 3. Physical Contingency | 656, | 574 346. 082 | 29, 341 | 1.031.997 | |
| | | | | | |
| 4. Price Escalation | 770, | 113 683, 067 | ar than a first | 1, 453, 180 | |
| | | | 4000 | | |
| Grand total | 7. 992. | 422 4, 489, 970 | 322, 753 | 12, 805, 145 | |
| | | | | | |

TABLE F-3.2.1(14) SUMMARY OF PROJECT COST (Tan Chi + Han Quang) Alternative-1 (4 years-period)

(Viet Nam Pump & Material)

| | · · · · · · · · · · · · · · · · · · · | | | UNIT; USD |
|---------------------------|---------------------------------------|-------------|----------|--|
| ITEM | F/C | L/C | TAX | TOTAL |
| 1. Construction Cost | | | | |
| a. Pump Station | | | | |
| Civil works | 1, 432, 951 | 472, 669 | 0 | 1, 905, 620 |
| Mechanical Equipment | 862, 683 | 575, 122 | | 1, 437, 805 |
| Electric Equipment | 471, 055 | 314, 037 | | 855, 750 |
| Pump House (546m2) | 87, 3 6 0 | 98, 280 | | |
| Overhead 10% of Cvl+Ho | | | 2, 091 | 190, 008 |
| Profits 3% | 90, 182 | 45, 516 | | 211, 217 |
| Sub-total | | | | 176, 408 |
| | 3. 096, 263 | 1, 562, 718 | 111, 021 | 4, 776, 809 |
| b. Drainage Canal | 770 104 | E01 E00 | | 1 000 500 |
| Tao Khe Creek | 779, 124 | 581, 599 | 0 | ., - , - , - , - , - , - , - , - , - , - |
| KT Trinh Xa | 215, 645 | 266, 118 | 0 | 481, 763 |
| KT 6 Xa | 259, 769 | 226, 306 | 0 | 48 6, 075 |
| KT Phat Thich | 135, 477 | 115, 885 | 0 | 251, 362 |
| KT 4 Xa | 114, 025 | 100, 736 | | 214, 761 |
| KT Kau Nau | 95, 245 | 91, 829 | - | 187, 074 |
| KT Kau Nau-1 | 97, 208 | 109, 465 | | 206, 673 |
| KT Kau Nau-2 | 93, 558 | 106, 302 | | 199, 860 |
| KT Conten Creek | 74, 846 | 85, 042 | 0 | 159, 888 |
| Other Secondary Canals | 190. 76 6 | 215, 767 | | 406, 533 |
| KT Han Quang | 85, 644 | 83, 151 | | 168, 795 |
| Overhead 10% | 214, 131 | 198, 220 | | 412, 351 |
| Sub-total | 2, 955, 438 | 2, 180, 420 | o Q | 4, 535, 858 |
| | | | | |
| d. Transmission Line | 1, 200, 000 | | | 3, 000, 000 |
| Sub-total of Item 1 | 6, 651, 701 | 5, 543, 138 | 117, 827 | 12, 312, 666 |
| 2. Association Cost | • | * | | |
| a. Construction Machines | 1, 250, 000 | 187, 500 | 187, 500 | 1, 625, 000 |
| b. Land Aquisition | 0 | 62,000 | 0 | 62,000 |
| c. Consulting Service | 665, 170 | | 5. 891 | 1, 225, 375 |
| d. Project Administration | 66, 517 | | 0 | 620, 831 |
| Sub-total of Item 2 | 1, 981, 687 | 1, 358, 128 | | 3, 533, 206 |
| Tota1(1+2) | 8, 633, 388 | 6, 901, 266 | | 15, 845, 872 |
| 3. Physical Contingency | 863, 339 | 690, 127 | 31, 122 | 1, 584, 587 |
| 4. Price Escalation | 1, 018, 763 | 1, 279, 637 | ٠. | 2, 298, 400 |
| Grand total | 10, 515, 490 | 8, 871, 029 | 342, 340 | 19, 728, 859 |

TABLE F-3.2.1(15) SUMMARY OF PROJECT COST (Tan Chi)
Alternative-2 (4 years-period)
(Viet Nam Pump & Material)

| | V HULL 1 | r | w. 110 00 | 114 | | | UNIT: | USD | |
|--|----------|-----|--------------|-----|----------|-------|--------|---------------|-----|
| ITEM | F/C | | L/C | | T | X | 70 | TAL | |
| 1. Construction Cost | | | | | | | | | |
| a. Pump Station | | | | | | ٠., | | | |
| Civil works | 1, 077, | 407 | 355. | 390 | | n | 1.4 | 32 7 | 107 |
| Mechanical Equipment Electric Equipment Pump House (410m2) | 955. | 526 | | 170 | 1. 1. 1. | ñ | 10 | 61 F | 306 |
| Electric Equipment | 433 | 463 | 288 | 976 | 65, (| 120 | 7. 7 | 87 4 | 150 |
| Pump House (410m2) | 65. | 600 | | | 3, 2 | | | | |
| Overhead 10% of Cvl+Ho | 114. | 301 | 37. | 179 | 1 1 | 15 | 1 | 50, 2 | ND. |
| Profits 3% | 79 | 389 | 24 | 123 | 31, (| 154 | 1 | 94 F | GR. |
| Profits 3% Sub-total | 2. 725. | 888 | 828 | 238 | 100, 8 | IRR | 3 6 | 54 7 | 190 |
| b. Drainage Canal | 27 7 22 | | 5 25, | | 100, (| ,,,, | ٠, ٥ | | |
| Tao Khe Creek | 779. | 124 | 581. | 599 | | n | 1, 3 | 60. 7 | 23 |
| KT Trinh Xa | 215. | 645 | 266. | | | ň | 4 | 81.7 | 63 |
| XT 6 Xa | 259, | | 226, | | | . 0 : | 4 | 86 C | 175 |
| KT Phat Thich | 135, | | 115. | | ٠. | ់ព័ | 2 | 51. 2 | 182 |
| KT 4 Xa | 114. | | 100, | 736 | | | 2 | | |
| KT Kan Nan | 95, | 245 | 91, | 829 | | 0 | ī | 87. f | 174 |
| KT Xau Nau-1 | 97, | 208 | 109, | 465 | | . 7. | 1 2 | 06. f | 172 |
| KT Kau Nau-2 | 93, | | 108 | 969 | | Λ | - 1 | 00 0 | DA. |
| KT Tan Chi | 85. | 644 | 83. | 151 | | 0 | Ī | 68. 7 | 95 |
| Overhead 10% | 187. | 570 | 168. | 139 | | ō | 3 | 55. 7 | 09 |
| Sub-total | 2, 063, | 264 | 1, 849, | 530 | | . 0 | 3, 9 | 12. 7 | 95 |
| c. Irrigation Canal | | | | 1 | | ٠. | | | • |
| South Irrigation Canal | 76, | 098 | 589, | 796 | | 0 | 6 | 65. E | 94 |
| N 6 Irrigation Canal | | | 163, | | | | 2 | | |
| Others | 176, | 206 | 516. | 999 | | :0 | . 6 | 93, 2 | 05 |
| Overhead 10% | 29, | 282 | 127, | 021 | | 0 | 1 | 56, 8 | 103 |
| Sub-total | 322. | 104 | 1, 397, | 226 | | 0. | 1, 7 | 19, 3 | 130 |
| | | | 1 | | | | | | , |
| Sub-total of Item 1 | 5, 111. | 055 | 4, 074, | 993 | 100, 8 | 68 | 9, 2 | 86. 9 | 16 |
| O describer O | | | | | 200 | | | | • |
| 2 Association Cost | 4 050 | ~^^ | | | | · . | | | |
| a. Construction Machines | 1, 250, | | | | 187. | | | | |
| b. Land Aquisition | P14 | 0 | 60, | 000 | | 0 | | 60 , 0 | 00 |
| c. Consulting Service | 511, | 106 | 497. | 499 | 5, (| 43 | 9 | 23, 6 | 48 |
| d. Project Administration | | | 407, | 499 | 400. | 0 | 4 | 58, 6 | 10 |
| Sub-total of Item 2 | 1.812. | 210 | 1, 062, | 499 | 192, 5 | 43 | 3, 0 | 67, 2 | 58 |
| Total(1+2) | 6, 923. | 2/1 | 5, 137, | 492 | 293, 4 | 111 | 12, 3 | 54, 1 | 74 |
| 3. Physical Contingency | 692. | 327 | 513. | 749 | 29, 3 | 141 | 1.9 | 35 <i>4</i> | .17 |
| | | | | | a w , | | 14 6 | 4417 | 1 T |
| 4. Price Escalation | 805, | 090 | 915, | 562 | | | 1, 7 | 20, 6 | 52 |
| Grand total | 8, 420. | 688 | 6, 566, | 803 | 322. 7 | 53 | 15, 3 | 10, 2 | 43 |

TABLE F-3.2.1(16) SUMMARY OF PROJECT COST (Tan Chi + Han Quang)
Alternative-2 (4 years-period)
(Viet Nam Pump & Material)

| | | , man r comp | w | , 1 | UNIT; USD |
|---------|--|---------------------|----------------------|----------|-------------------------|
| 1. | TEM | F/C | L/C | TAX | TOTAL |
| 1. | | ,,, | 2,0 | IAA | IOIND |
| 1 6 | Construction Cost | | | | |
| | Pump Station | | | | |
| | | 1, 432, 951 | 472. 669 | 0 | 1, 905, 620 |
| | Mechanical Equipment | 862, 683 | | | 1, 437, 805 |
| | Electric Equipment | 471, 055 | | | 855, 750 |
| | Pump House (546m2) | 87, 360 | | | 190, 008 |
| | Overhead 10% of Cv1+Ho | 152, 031 | | 2, 091 | 211, 217 |
| | Profits 3% | 90, 182 | | 40, 710 | |
| | Sub-total | | 1, 562, 718 | | |
| ь | Drainage Canal | D, 000j 200 | 1,000,110 | 117; 021 | 41 1101 000 |
| | Tao Khe Creek | 779, 124 | 581, 599 | O | 1, 360, 728 |
| | KT Trinh Xa | 215, 645 | | 0 | 481, 763 |
| | KT 6 Xa | 259, 769 | | | 486, 075 |
| | KT Phat Thich | 135, 477 | | 0 | 251, 3 62 |
| | KT 4 Xa | 114, 025 | | 0 | 214, 761 |
| | KT Kau Nau | 95, 245 | | | 187, 074 |
| | KT Kau Nau-1 | 97, 208 | | 0 | 206, 673 |
| | KT Kau Nau-2 | 93, 558 | | 0 | |
| | KT Conten Creek | 74, 846 | | 0 | 199, 860 |
| | Other Secondary Canals | 190, 766 | | | 159, 888 |
| | | | | | |
| : | KT Han Quang | 85, 644 | | 0 | 168, 795 |
| | Overhead 10% | 214, 131 | | | • |
| | Sub-total | 2, 355, 438 | 2, 180, 420 | 0 | 4, 535, 858 |
| Ç. | Irrigation Canal | 70.000 | 5 EDA 700 | | 000 004 |
| | South Irrigation Canal | 76, 098 | | | |
| | N 6 Irrigation Canal | 40, 518 | 163, 410 | | |
| | Others | 177, 968 | | | 700, 137 |
| 1.1 | Overhead 10% | | 127, 537 | | 156, 996 |
| | Sub-total | 324. 042 | 1, 402, 912 | 0 | 1, 726, 955 |
| _ | Turnerin dina Titae | 1 000 000 | 1 000 000 | | 0 868 668 |
| e. | Transmission Line | | | | 3, 000, 000 |
| | Sub-total of item 1 | 0, 910, 144 | 0, 340, 000 | 111, 521 | 14, 039, 621 |
| ń | Accomintion Cost | - | | | |
| | Association Cost | 1 950 000 | 107 500 | 107 Enn | 1 005 000 |
| ä. L | Construction Machines | 1, 230, 000 | 29 000 | | 1, 625, 000 |
| | Land Aquisition Consulting Service | \$07 574 | 02, UUU 804 CAE | E 001 | 02, UUU 1 200 071 |
| | | | 694, 605 | 7, DBT | |
| a, | Project Administration Sub-total of Item 2 | 161,60 | 004,000 1 000 71A | 100 001 | |
| | | Z, U11, 004 | 8, 584, 761 | 190,081 | 0,043,433 17 000 054 |
| | Total(1+2) | 6 , 555, 010 | 0, 004, 101 | all, 210 | 11,000,004 |
| 3. | Physical Contingency | 899, 308 | 858, 476 | 31, 122 | 1, 788, 905 |
| | $\frac{1}{2} \frac{1}{2} \frac{1}$ | The state of | : | | |
| 4. | Price Escalation | 1, 053, 996 | 1, 513, 239 | | 2, 567, 295 |
| | Grand total | 10, 946, 379 | 10, 956, 475 | 342, 340 | 22, 245, 195 |

TABLE F-3.2.1(17) SUMMARY OF PROJECT COST (Tan Chi)
Alternative-3 (4 years-period)
(Viet Nam Pump & Material)

| | P & DAGGOTT | • • • | UNIT; USD | |
|--------------------------------------|------------------------------------|-----------------------|-----------|----------------------|
| ITEN | F/C | L/C | TAX | TOTAL |
| 1. Construction Cost | ٠. | | | |
| a. Pump Station | | | | |
| Civil works | 1, 077, 407 | 355, 390 | 0 | 1, 482, 797 |
| Mechanical Equipment | | | | 1, 081, 696 |
| Electric Equipment | 483, 463 | | | 787, 459 |
| Pump House (410m2) | | | 3, 280 | 85, 280 |
| Overhead 10% of Cvl | Bo 114, 301 | 37, 179 | 1, 515 | 152, 994 |
| Profits 3% | 79, 389 | 24, 123 | 31, 054 | 184, 566 |
| Sub-total | 79, 389 2, 725, 686 | 828, 238 | 100, 868 | 3 654, 792 |
| b. Drainage Canal | | 020, 200 | 240,000 | 0, 002, 155 |
| Tao Khe Creek | 779. 124 | 581, 599 | n | 1, 360, 723 |
| KT Trinh Xa | | 266, 118 | | 481. 763 |
| KT 6 Xa | | 226, 306 | | 486, 075 |
| | 135, 477 | 115 995 | v n | 251, 362 |
| NT 4 Xa | | 100, 736 | | |
| KT Kau Nau | | 91, 829 | | 187, 074 |
| KT Kau Nau-1 | 97, 208 | 100 425 | | 701, VIII |
| KT Kau Nau-2 | 93, 558 | 106, 302 | 0 | 199, 860 |
| | 95, 644 | 29 151 | | 127,000 |
| KT Tan Chi Overhead 10% | 85, 644 187, 570 2, 063, 264 | 168 190 | 0 | 168, 795 355, 709 |
| Sub-total | 2, 063, 264 | 1 940 530 | Λ. | 9 019 70E |
| c. Irrigation Canal | 2, 000, 204 | 71 0491 290 | v | 0, 912, 199 |
| South Irrigation Can | •1 76 nag | E 0 0 702 | ۸ | 665, 894 |
| N 6 Irrigation Canal | 10, 030 10, 619 | 163, 410 | | 203, 928 |
| Others | 178 908 | 516, 999 | ۷. | 200, 300 |
| Overhead 10% | 29, 282 | 127, 021 | 0 | 693, 205 156, 303 |
| Sub-total | | | 0 | 1, 719, 330 |
| d Pand Construction | 024, 104 | 1, 031, 220 00 000 | . O 040 | 1, /19, 550 |
| d. Pond Construction | 434, UUU E 946 A66 | 4 100 000 | 2, 040 | 262, 340 |
| Sub-total of Item 1 | 1 5, 345, 055 | 4, 100, 993 | 103, 208 | 9, 549, 25b |
| 2. Association Cost | Service Parkers | | | |
| a. Construction Machine | s 1, 250, 000 | 187, 500 | 187, 500 | 1, 625, 000 |
| b. Land Aquisition | 0 | 60, 000 | . 0 | የብ ባልብ |
| c. Consulting Service | 534, 506 | 410, 099 | 5, 043 | 949, 648 |
| d. Project Administrati | ion 53, 451 | 410, 099 | . 0 | 463, 550 |
| Sub-total of Item ? | 1, 837, 956 | 1, 067, 699 | 192, 543 | 3, 098, 198 |
| Total(1+2) | 7, 183, 011 | 5, 168, 692 | 295, 751 | 12, 647, 454 |
| 8. Physical Contingency | | | 2.0 | 1, 264, 745 |
| 4. Price Escalation | | 1 1 | | |
| J. TITCE ESCRIPTION | 004, 018 | 921, 162 | | 1, 755, 840 |
| Grand total | 8, 735, 990 | 6, 606, 723 | 325, 327 | 15, 668, 040 |

TABLE F-3.2.1(18) SUMMARY OF PROJECT COST (Tan Chi + Han Quang)
Alternative-3 (4 years-period)
(Viet Nam Pump & Material)

| | | | UNIT; USD | | |
|---------------------------|-----------------|-----------------------|-----------|----------------------|--|
| ITEN | F/C | L/C | TAX | TOTAL | |
| 1. Construction Cost | | | | | |
| a Pump Station | • | | | | |
| Civil works | 1, 432, 951 | 472, 669 | 0 | 1, 905, 620 | |
| Mechanical Equipment | 862, 683 | 575, 122 | 0 | 1, 437, 805 | |
| Electric Equipment | 471, 055 | 314, 037 | 70, 658 | 855, 750 | |
| Pump House (546m2) | 87, 360 | 98, 280 | 4, 368 | 190, 008 | |
| Overhead 10% of Cvl+Ho | 152, 031 | 57, 095 | 2,091 | 211, 217 | |
| Profits 3% | 90, 182 | 45, 516 | 40, 710 | 176, 408 | |
| Sub-total | 3, 096, 263 | 1, 562, 718 | 117, 827 | 4, 776, 809 | |
| b. Drainage Canal | | | | - | |
| Tao Khe Creek | 779, 124 | 581, 599 | 0 | 1, 360, 723 | |
| KT Trinh Xa | 215, 645 | 266, 118 | 0 | 481, 763 | |
| KT 6 Xa | 259, 769 | 22 6 , 306 | 0 | 486, 075 | |
| KT Phat Thich | 135, 477 | 115, 885 | 0 | 251, 362 | |
| KT 4 Xa | 114, 025 | 100, 736 | 0 | 214, 761 | |
| KT Kau Nau | 95, 245 | 91, 829 | 0 | 187, 074 | |
| KT Kau Nau-1 | | 109, 465 | 0 | | |
| KT Kau Nau-2 | 93, 558 | | 0 | | |
| KT Conten Creek | | 85, 042 | 0 | | |
| Other Secondary Canals | 190, 766 | | | 406, 533 | |
| KT Han Quang | | 83, 151 | 0 | 168, 795 | |
| Overhead 10% | | 198, 220 | 0 | 412. 351 | |
| Sub-total | 2, 355, 438 | 2, 180, 420 | 0 | 4, 535, 858 | |
| c. Irrigation Canal | | | 0 | ስለም ክስ 4 | |
| South Irrigation Canal | | 589, 796 | | | |
| N 6 Irrigation Canal | 40, 518 | | | | |
| Others | 177, 968 | 522, 169 | 0 | 700, 187 156. 996 | |
| Overhead 10% | 29, 458 | 127, 537 | 0 | | |
| Sub-total | 324, 042 | | | | |
| d. Pond Construction | 234,000 | | | | |
| | 1, 200, 000 | | | | |
| Sub-total of Item 1 | 7, 209, 744 | 1, 100, 000 | 122. 000 | 14, 011, 000 | |
| 2. Association Cost | - | | | | |
| a. Construction Machines | 1, 250, 000 | | 187, 500 | | |
| b. Land Aquisition | 0 | 62, 000 | | 62, 000 | |
| c. Consulting Service | 720, 974 | | 5, 891 | 1, 444, 871 | |
| d. Project Administration | 7 2, 097 | 718, 005 | | 790, 102 | |
| Sub-total of Item 2 | 2, 043, 072 | 1, 685, 510 | | 3, 921, 973 | |
| Total(1+2) | 9, 252, 815 | 8, 865, 561 | 315, 430 | 18, 433, 806 | |
| 3. Physical Contingency | 925, 282 | 886, 556 | 31, 543 | 1, 843, 381 | |
| 4. Price Escalation | 1, 083, 564 | 1, 561, 247 | 1 | 2, 644, 811 | |
| Grand total | 11, 261, 661 | 11, 313, 363 | 346, 973 | 22, 921, 998 | |

TABLE F-3.2.1(19) SUMMARY OF PROJECT COST (Tan Chi) Alternative-1 (4 years-period)

| (Foreign Pump & Material) | | | | | |
|---------------------------|--------------|-------------|-------------|--------------------|--|
| ITEX | F/C | L/C | TAX | UNIT; USD TOTAL | |
| 1. Construction Cost | | | + 4 - 14 | A STATE OF | |
| a. Pump Station | | | | | |
| Civil works | 1, 077, 407 | 355, 390 | 0 | 1, 432, 797 | |
| Mechanical Equipment | 7, 838, 678 | 870, 964 | 0 | 8, 709, 642 | |
| Electric Equipment | 3, 559, 516 | 395, 502 | 533, 927 | | |
| Pump House (410m2) | 295, 200 | 73, 800 | 14, 760 | | |
| Overhead 10% of Cv1+Ho | 137, 261 | 42, 919 | 1,802 | | |
| Profits 3% | 387, 242 | 52, 157 | 131, 820 | | |
| Sub-total | 13, 295, 304 | 1, 790, 732 | | 15, 768, 345 | |
| b. Drainage Canal | | | | | |
| Tao Khe Creek | 779, 124 | 581, 599 | 0 | 1, 360, 723 | |
| KT Trinh Xa | 215, 645 | 266, 118 | Ō | 481, 763 | |
| KT 6 Xa | 259, 769 | 226, 306 | 0 | | |
| KT Phat Thich | 135, 477 | 115, 885 | . 0 | | |
| KT 4 Xa | 114, 025 | 100, 736 | 0 | , | |
| KT Kau Nau | 95, 245 | 91, 829 | 0 | | |
| KT Kau Nau-1 | 97, 208 | 109, 465 | Ŏ | | |
| KT Kau Nau-2 | 93, 558 | 106, 302 | . 0 | | |
| KT Tan Chi | 85, 644 | 83, 151 | 0 | , | |
| Overhead 10% | 187, 570 | 168, 139 | 0 | | |
| Sub-total | 2, 063, 264 | 1, 849, 530 | 0 | | |
| Sub-total of Item 1 | 15, 358, 568 | 3, 640, 262 | 682, 309 | 19, 681, 139 | |
| 2. Association Cost | | | 1.7 | | |
| a. Construction Machines | 1, 250, 000 | 187, 500 | 187, 500 | 1, 625, 000 | |
| b. Land Aquisition | 0 | 60, 000 | .0 | | |
| c. Consulting Service | 1, 535, 857 | 364, 026 | 34, 115 | 1, 933, 998 | |
| d. Project Administration | 153, 586 | 364, 026 | 04, 110 | | |
| Sub-total of Item 2 | 2, 939, 442 | 975, 552 | 221, 615 | | |
| Total(1+2) | 18, 298, 011 | 4, 615, 815 | 903, 924 | | |
| 3. Physical Contingency | 1, 829, 801 | 461, 581 | 90, 392 | 2, 381, 775 | |
| 4. Price Escalation | 2, 104, 220 | 871, 999 | | 2, 976, 219 | |
| Grand total | 22, 232, 031 | 5, 949, 396 | 994, 317 | 29, 175, 744 | |

TABLE F-3.2.1(20) SUMMARY OF PROJECT COST (Tan Chi + Han Quang)
Alternative-1 (4 years-period)
(Foreign Pump & Material)

| | | | | UNIT;USD |
|---------------------------|--------------|-------------------|---------------------------------------|--------------|
| ITEM | F/C | L/C | TAX | TOTAL |
| 1. Construction Cost | | | | |
| a. Pump Station | | | | |
| Civil works | 1, 432, 951 | 472, 669 | 0 | 1, 905, 620 |
| | 11, 496, 573 | 1, 277, 397 | . 0 | 12, 773, 970 |
| Electric Equipment | 4, 116, 784 | 457, 421 | · · · · · · · · · · · · · · · · · · · | 5, 191, 723 |
| (-10 m) | 393, 120 | 98, 280 | 19, 656 | 511, 056 |
| Overhead 10% of Cv1+Ho | | 57, 095 | 2, 397 | 242, 099 |
| Profits 3% | 528, 661 | 70, 886 | | 779, 411 |
| | 18, 150, 697 | | 819, 435 | 21, 403, 879 |
| b. Drainage Canal | 10, 100, 001 | 2, 100, 111 | 010, 100 | 21, 100, 010 |
| Tao Khe Creek | 779, 124 | 581, 599 | 0 | 1, 360, 723 |
| KT Trinh Xa | 215, 645 | 266, 118 | Õ | 481, 763 |
| KT 6 Xa | 259, 769 | 226, 306 | Ŏ | 486, 075 |
| KT Phat Thich | 135, 477 | | Ŏ | 251, 362 |
| KT 4 Xa | 114, 025 | | 0 | 214, 761 |
| KT Kau Nau | 95, 245 | 91, 829 | | 187, 074 |
| KT Kau Nau-1 | 97, 208 | 109, 465 | ŏ | 206, 673 |
| KT Kau Nau-2 | 93, 558 | 106, 302 | Ŏ | 199, 860 |
| KT Conten Creek | 74, 846 | 85, 042 | Ö | 159, 888 |
| Other Secondary Canals | | 215, 767 | Ö | 406, 533 |
| KT Han Quang | | 83, 151 | Ŏ | 168, 795 |
| Overhead 10% | 214, 131 | 198, 220 | Õ | 412, 351 |
| Sub-total | 2, 355, 438 | 2, 180, 420 | Õ | 4, 535, 858 |
| | _, | 1 , 14-, 1 | | .,, |
| c. Transmission Line | 1, 200, 000 | 1, 800, 000 | 0 | 3, 000, 000 |
| Sub-total of Item 1 | | 6, 414, 166 | 819, 435 | 28, 939, 736 |
| | | | | |
| 2. Association Cost | | | | |
| a. Construction Machines | 1, 250, 000 | 187, 500 | 187, 500 | 1, 625, 000 |
| b. Land Aquisition | 0 | 62,000 | 0 | 62,000 |
| c. Consulting Service | 2, 170, 614 | 641, 417 | 40, 972 | 2, 853, 002 |
| d. Project Administration | 217, 061 | 641, 417 | 0 | 858, 478 |
| Sub-total of Item 2 | 3, 637, 675 | 1, 532, 333 | 228, 472 | 5, 398, 480 |
| Tota1(1+2) | 25, 343, 810 | 7, 946, 500 | 1,047,907 | 34, 338, 216 |
| | | : | | |
| 3. Physical Contingency | 2, 534, 381 | 794, 650 | 104, 791 | 3, 433, 822 |
| 4. Price Escalation | 2, 909, 093 | 1, 450, 602 | | 4, 359, 695 |
| Ti TITOO DOGGIATION | 2, 000, 000 | 1, 100, 002 | | 7, 000, 000 |
| Crond total | 90 707 004 | 10 101 750 | 1 150 607 | 40 101 700 |
| Grand total | 30, 787, 284 | 10, 191, 792 | 1, 192, 097 | 42, 131, 733 |

TABLE F-3.2.1(21) SUMMARY OF PROJECT COST (Tan Chi) Alternative-2 (4 years-period)

| | and the second second second | p & Material | | UNIT; USD |
|--------------------------------|------------------------------|--------------|-----------------------|--|
| ITEM | F/C | L/C | TAX | TOTAL |
| 1 0 | | | A _k a | |
| 1. Construction Cost | | | | |
| a. Pump Station | 1 055 405 | 0== 000 | 2.5 | |
| Civil works | 1, 077, 407 | • | . 0 | 1, 432, 797 |
| Mechanical Equipment | 7, 838, 678 | | | 8, 709, 642 |
| Electric Equipment | 3, 559, 516 | | and the second second | 4, 488, 945 |
| Pump House (410m2) | | | 14, 760 | 383, 760 |
| Overhead 10% of Cvl+llo | , , | | | and the second second |
| Profits 3% | 387, 242 | | | |
| Sub-total b. Drainage Canal | 13, 295, 304 | 1, 790, 732 | 682, 309 | 15, 768, 345 |
| Tao Khe Creek | 770 104 | E01 E00 | • | 1 000 500 |
| KT Trinh Xa | 779, 124 | i i | : 0 | 1, 360, 723 |
| KT 6 Xa | 215, 645 | | . 0 | |
| KT Phat Thich | 259, 769 | | . 0 | 486, 075 |
| KT 4 Xa | 135, 477 114, 025 | | 0 | 251, 362 |
| KT Kau Nau | 95, 245 | | 0 | 214, 761 |
| KT Kau Nau-1 | 97, 208 | | 0 | 187, 074 |
| KT Kau Nau-2 | 93, 558 | | 0 | 206, 673 |
| KT Tan Chi | 85, 644 | • | 0 | 199, 860 168, 795 |
| Overhead 10% | 187, 570 | | 0 | 355, 709 |
| Sub-total | 2, 063, 264 | | 0 | |
| c. Irrigation Canal | 2, 000, 201 | 1, 010, 000 | U | 0,014,100 |
| South Irrigation Canal | 76, 098 | 589, 796 | 0 | 665, 894 |
| N 6 Irrigation Canal | 40, 518 | 163, 410 | Ö | 203, 928 |
| Others | 176, 206 | 516, 999 | 0 | 693, 205 |
| Overhead 10% | 29, 282 | 127, 021 | 0 | 156, 303 |
| Sub-total | 322, 104 | 1, 397, 226 | Ô | 1, 719, 330 |
| | | ., | : . | 1, 110, 000 |
| Sub-total of Item 1 | 15, 680, 672 | 5, 037, 488 | 682, 309 | 21, 400, 469 |
| | * - | | | |
| 2. Association Cost | 4.2 | | | en e |
| a. Construction Machines | 1, 250, 000 | 187, 500 | 187, 500 | 1, 625, 000 |
| b. Land Aquisition | 0 | 60,000 | 0 | 60,000 |
| c. Consulting Service | 1, 568, 067 | 503, 749 | 34, 115 | 2, 105, 931 |
| d. Project Administration | | 503, 749 | . 0 | 660, 556 |
| Sub-total of Item 2 | 2, 974, 874 | 1, 254, 998 | 221, 615 | 4, 451, 487 |
| Tota1(1+2) | 18, 655, 546 | 6, 292, 485 | 903, 924 | 25, 851, 956 |
| 3. Physical Contingency | 1, 865, 555 | 629, 249 | 90, 392 | 2, 585, 196 |
| 4. Price Escalation | 2, 139, 194 | 1, 104, 378 | | 3, 243, 572 |
| Grand total | 22, 660, 295 | 8, 026, 112 | 994, 317 | 31, 680, 724 |

TABLE F-3.2.1(22) SUMMARY OF PROJECT COST (Tan Chi + Han Quang)
Alternative-2 (4 years-period)
(Foreign Pump & Material)

| | | | UNIT; USD | | |
|--|--------------|--------------|-------------|----------------------|--|
| ITEN | F/C | L/C | TAX | TOTAL | |
| 1 Construction Cost | | | | | |
| 1. Construction Cost a. Pump Station | | | | | |
| | 1, 432, 951 | 479 660 | 0 | 1, 905, 620 | |
| Mechanical Equipment | | | 0 | 12, 773, 970 | |
| Electric Equipment | | 457, 421 | 617, 518 | | |
| Pump House (546m2) | | | 19, 656 | | |
| Overhead 10% of Cv1+Ho | | 57, 095 | | 242, 099 | |
| Profits 3% | 528 661 | 70, 886 | | 779, 411 | |
| | 18, 150, 697 | | | 21, 403, 879 | |
| b. Drainage Canal | 10, 100, 001 | 2, 100, 141 | 010, 100 | 21, 100, 010 | |
| Tao Khe Creek | 779, 124 | 581, 599 | 0 | 1, 360, 723 | |
| KT Trinh Xa | 215, 645 | | | 481, 763 | |
| KT 6 Xa | 259, 769 | | 0 | | |
| KT Phat Thich | 135, 477 | 115, 885 | Ď. | | |
| KT 4 Xa | 114, 025 | | 0 | | |
| KT Kau Nau | 95, 245 | | | | |
| KT Kau Nau-1 | | | | 206, 673 | |
| KT Kau Nau-2 | | | | 199, 860 | |
| KT Conten Creek | | | 0 | | |
| Other Secondary Canals | 190, 766 | 215, 767 | 0 | | |
| KT Han Quang | 85, 644 | 83, 151 | 0 | | |
| KT Han Quang Overhead 10% | 214, 131 | 198, 220 | 0 | | |
| Sub-total | 2, 355, 438 | 2, 180, 420 | 0 | 4, 535, 858 | |
| c. Irrigation Canal | | , · | | | |
| South Irrigation Canal | 76, 098 | | | 665, 894 | |
| N 6 Irrigation Canal | 40, 518 | 163, 410 | 0 | 203, 928 | |
| | 177, 968 | | | 700, 137 | |
| Overhead 10% | 29, 458 | 127, 537 | - 0 | | |
| Sub-total | 324, 042 | 1, 402, 912 | 0 | 1, 726, 955 | |
| d. Transmission Line | 1, 200, 000 | 1, 800, 000 | 0 | 3, 000, 000 | |
| Sub-total of Item 1 | 22, 030, 178 | 7, 817, 079 | 819, 435 | 30, 666, 69 1 | |
| 9 Americation Cont | | | | | |
| 2. Association Cost a. Construction Machines | 1 950 000 | 197 500 | 107 500 | 1, 625, 000 | |
| b. Land Aquisition | | | | | |
| c. Consulting Service | 0 202 010 | 791 709 | 40 079 | 3, 025, 697 | |
| d. Project Administration | | | | | |
| | 3, 673, 320 | | | | |
| Total(1+2) | | 9, 629, 995 | | | |
| Ισται(1τα) | 20, 100, 401 | J, V4J, JJJ | 1, 041, 301 | 00, 001, 000 | |
| 3. Physical Contingency | 2, 570, 350 | 962, 999 | 104, 791 | 3, 638, 140 | |
| 4. Price Escalation | 2, 944, 329 | 1, 684, 089 | | 4, 628, 417 | |
| Grand total | 31, 218, 175 | 12, 277, 083 | 1, 152, 697 | 44, 647, 956 | |

TABLE F-3.2.1(23) SUMMARY OF PROJECT COST (Tan Chi) Alternative-3 (4 years-period)

| | (Foreign | Pump | & Mate | rial) | UNIT;USD |
|--------------------------------|-----------|----------------|----------|-----------------------|----------------------------------|
| ITEM | F/C | . : | L/C | TAX | |
| 1 | | *. | | 21 L | |
| 1. Construction Cost | | | | | |
| a. Pump Station Civil works | 1, 077 | ¥07 | 955 | 200 | 0 1, 432, 797 |
| Mechanical Equipment | | | 355, 3 | 00U 004 | |
| Electric Equipment | | | 205 (| 504 509 - 599 I | 0 8, 709, 642 927 4, 488, 945 |
| Pump House (410m2) | | , 200 | | 302 333, 1 800 14, | |
| Overhead 10% of Cv1 | | , 261 | 10,0 | 000 14, 010 1 1 | 302 181, 981 |
| Profits 3% | | , 242 | | | 320 571, 219 |
| Sub-total | 13, 295 | | 1, 790, | | 309 15, 768, 345 |
| b. Drainage Canal | 10, 400 | , 004 | 1, 100, | 104 004, | 703 13, 100, 343 |
| Tao Khe Creek | 770 | , 124 | 581, | 500 | 0 1, 360, 723 |
| KT Trinh Xa | | , 645 | | | 0 481, 763 |
| KT 6 Xa | | , 769 | 226, | | 0 486, 075 |
| KT Phat Thich | | , 103 , 477 | 115, | | 0 251, 362 |
| KT 4 Xa | | , 025 | | 736 | 0 214, 761 |
| KT Kau Nau | | 245 | 91, | | 0 187, 074 |
| KT Kau Nau-1 | | 208 | 109, | | 0 206, 673 |
| KT Kau Nau-2 | | , 558 | 106, | | 0 199, 860 |
| KT Tan Chi | | , 644 | 83, | | 0 168, 795 |
| Overhead 10% | | , 570 | 168, | | 0 355, 709 |
| Sub-total | | , 264 | | | 0 3, 912, 795 |
| c. Irrigation Canal | | , | -, -, -, | | 0,012,.00 |
| South Irrigation Can | nal 76 | . 098 | 589, | 796 | 0 665, 894 |
| N 6 Irrigation Canal | | , 518 | 163, | | 0 203, 928 |
| Others | | , 206 | 516, | | 0 693, 205 |
| Overhead 10% | | , 282 | | | 0 156, 303 |
| Sub-total | | | 1, 397, | | 0 1, 719, 330 |
| d. Pond Construction | | , 000 | | | 340 262, 340 |
| Sub-total of Item 1 | l 15, 914 | , 672 | 5, 063, | 488 684, | |
| | | | | | |
| 2. Association Cost | • | | | | |
| a. Construction Machine | es 1, 250 | , 000 | | | 500 1, 625, 000 |
| b. Land Aquisition | | 0 | 60, | 000 | 0 60,000 |
| c. Consulting Service | | | | | 115 2, 131, 931 |
| d. Project Administrati | | , 147 | 506, | | 0 665, 496 |
| Sub-total of Item 2 | | | | | 615 4, 482, 427 |
| Total(1+2) | 18, 915 | , 286 | 6, 323, | 685 906, | 264 26, 145, 236 |
| 3. Physical Contingency | 1, 891 | , 529 | 632, | 369 90, | 626 2, 614, 524 |
| 4. Price Escalation | 1, 942 | , 245 | 1, 068, | 462 | 3, 010, 707 |
| Grand total | 22, 749 | , 060 | 8, 024, | 516 996, | 891 31, 770, 467 |

TABLE F-3.2.1(24) SUMMARY OF PROJECT COST (Tan Chi + Han Quang)
Alternative-3 (4 years-period)
(Foreign Pump & Material)

| • | • | | 1 | UNIT;USD |
|---------------------------|--|-------------------|-------------|--------------------------|
| ITEN | F/C | L/C | TAX | TOTAL |
| 1 0 | | | | |
| 1. Construction Cost | | | | |
| a. Pump Station | 1 400 051 | (mo 000 | ^ | 1 005 000 |
| Civil works | 1, 432, 951 | 472, 669 | 0 | 1, 905, 620 |
| Mechanical Equipment | 11, 496, 573 | 1, 277, 397 | 0 | 12, 773, 970 |
| Electric Equipment | 4, 116, 784 | 457, 421 | 617, 518 | 5, 191, 723 |
| Pump House (546m2) | 393, 120 | 98, 280 | 19, 656 | 511, 056 |
| Overhead 10% of Cv1+Ho | 182, 607 | 57, 095 | 2, 397 | 242, 099 |
| Profits 3% | 528, 661 | 70, 886 | 179, 864 | |
| Sub-total | 18, 150, 697 | 2, 433, 747 | 819, 435 | 21, 403, 879 |
| b. Drainage Canal | | | | |
| Tao Khe Creek | 779, 124 | 581, 599 | 0 | 1, 360, 723 |
| KT Trinh Xa | 215, 645 | 266, 118 | 0 | 481, 763 |
| KT 6 Xa | 259, 769 | 226, 306 | . 0 | 486, 075 |
| KT Phat Thich | 135, 477 | 115, 885 | 0 | 2 51, 3 62 |
| KT 4 Xa | 114, 025 | 100, 736 | . 0 | 214, 761 |
| KT Kau Nau | 95, 245 | 91, 829 | 0 | 187, 074 |
| KT Kau Nau-1 | 97, 208 | 109, 4 6 5 | 0 | 206, 673 |
| KT Kau Nau-2 | 93, 5 58 | 106, 302 | 0 | 199, 860 |
| KT Conten Creek | 74, 846 | 85, 042 | 0 | 159, 888 |
| Other Secondary Canals | 190, 766 | 215, 767 | 0 | 406, 533 |
| KT Han Quang | 85, 644 | 83, 151 | . 0 | 168, 795 |
| Overhead 10% | 214, 131 | 198, 220 | . 0 | 412, 351 |
| Sub-total | 2, 355, 438 | 2, 180, 420 | 0 | 4, 535, 858 |
| c. Irrigation Canal | | | | |
| South Irrigation Canal | 76, 098 | 589, 796 | 0 | 665, 894 |
| N 6 Irrigation Canal | 40, 518 | 163, 410 | . 0 | 203, 928 |
| Others | 1 77, 968 | 522, 169 | 0 | 700, 137 |
| Overhead 10% | 29, 458 | 127, 537 | 0 | 156, 996 |
| Sub-total | 324, 042 | 1, 402, 912 | 0 | 1, 726, 955 |
| d. Pond Construction | 234, 000 | 234, 000 | 4, 212 | 472, 212 |
| | 1, 200, 000 | 1, 800, 000 | 0 | 3, 000, 000 |
| Sub-total of Item 1 | 22, 264, 178 | 8, 051, 079 | 823, 647 | 31, 138, 903 |
| | | | | |
| 2. Association Cost | 1 050 000 | 107 500 | 107 500 | 1 000 000 |
| a. Construction Machines | 1, 250, 000 | 187, 500 | 187, 500 | |
| b. Land Aquisition | 0 | 62, 000 | | 62, 000 |
| c. Consulting Service | 2, 226, 418 | 805, 108 | 40, 972 | 3, 072, 497 |
| d. Project Administration | 222, 642 | 805, 108 | 000 470 | 1, 027, 750 |
| Sub-total of Item 2 | 3, 699, 060 | 1, 859, 716 | 228, 472 | 5, 787, 247 |
| Total(1+2) | 25, 963, 237 | 9, 910, 795 | 1, 052, 119 | 36, 926, 150 |
| 3. Physical Contingency | 2, 596, 324 | 991, 079 | 105, 212 | 3, 692, 615 |
| 4. Price Escalation | 2, 660, 654 | 1, 688, 348 | | 4, 349, 002 |
| | - - - - - - | | | |
| | 01 000 01= | 10 500 000 | 1 155 000 | 44 000 000 |
| Grand total | 31, 220, 215 | 12, 590, 222 | 1, 157, 330 | 44, 967, 767 |

| Unit Cost (US \$) F/C L/C | 35132 14847 11212 6567 6567 2106 37723 3249 110, 886 | 109117 3718 747 3750 13241 124 342 131, 039 24, 193 266, 118 | F/C L/C L/C L/C L/C L/C L/C L/C L/C L/C L | 29693 29693 1239 262 1100 3753 39 36, 202 10, 535 115, 885 |
|--|---|--|--|--|
| Unit Cos F/C | 95744 51431 0 0 8423 0 112996 1168, 594 | 6423 3325 2989 12990 1207 495 27.447 19.604 215.645 | | |
| ST. | 7 130927 0 66278 2 11212 0 6567 0 10529 6 37723 0 16245 | 1 115540 9 7043 9 7736 0 16740 2 14448 0 618 0 362 43.747 43.747 43.763 | Total Total Total 7 129824 2 7320 0 2790 0 4473 5 26406 0 13875 | |
| uction COS Base Unit Price | Cu. m 2.40 Cu. m 2.40 Cu. m 1.22 Cu. m 1.70 Cu. m 7.86 Cu. m 0.30 | Cu. n 127.81 58.69 78.0.99 Cu. n 2.40 Cu. n 2.92 Cu. n 30.20 Cu. n 5.30 | Construction COST Base but. Unit Price 0 cu.m 2.37 54180 cu.m 2.40 6602 cu.m 1.22 1640 cu.m 1.70 14760 cu.m 0.30 3360 cu.m 7.86 43800 cu.m 0.30 | Cu. m 127.81 58.69 69 60.00 60 |
| Construction COST Base Qunt. Unit Price | 55320 o 27660 c 9220 o 3860 o 34740 c 53600 o | 904 cu.m 120 m 3760 kg 6986 cu.m 4846 cu.m 2040 cu.m 12 cu.m | Constr Qunt. 1 Qunt. 1 54180 cu 5620 cu 5640 cu 14760 cu 14760 cu 3360 cu 43800 cu | 246 our 40 m 1320 kg 2049 our 1402 our 1402 our 1402 our m 1402 ou |
| TABLE F-3.2.2 (2) Description 2. M. Triah Xa Imp. | 2.1 Earth Works Dreadging Excavation (Back Hoe) Excavation (Mannual) Fill (Wannual) Fill (Wannual) Placing Gravel Spoiled Dike Sub Total | 2.2 Sircturai Morks Concrete Works R.C. Pipe Gate (Weight) Structural Excavation Structural Fill Spoiled Dike Brick Work Sub Total 2.3 Preparation works 2.4 Total | TABLE F-3.2.2 (4) Description 4. KT Phat Thich impr. 4.1 Earth Works Dreadging Excavation (Back Hoe) Excavation (Manual) Fill (Manual) Fill (Manual) Placing Gravel Spoiled Dike | 4. Structural Torks Concrete Torks R.C. Pipe Gate (Teight) Structural Excavation Structural Fill Spoiled Dike Brick Tork Sub Total 4. 3 Preparation works 4. 4 Total |
| | | | TAB Des | |
| Unit Cost (US S) F/C L/C | 137334 57955 43765 12853 4122 34580 17236 307, 843 | 183230 8675 1514 6056 20386 222 739 220, 883 52, 873 581, 599 | t (US \$) L/C 46096 19453 14696 111704 3753 40867 3152 | 53110 3718 463 1884 6433 66.018 20.573 226, 306 |
| Unit Cos F/C | 373735 200758 0 0 16486 0 58944 659.923 | 10785 7788 6057 20978 1838 889 47 44.371 70.829 779.124 | Unit Cost F/C 125444 67384 67384 0 15013 0 12608 | 3126 3325 1352 6326 586 586 20 15.704 23.615 259, 769 |
| ST | 511069 258713 43765 12853 20608 34580 86180 | 194016 18433 7571 27033 22244 1111 1111 846 269, 254 123, 705 1, 360, 723 | Total Total 171540 86837 14690 11704 18767 40867 15760 | |
| ction CO Mase Unit Price | 2. 2. 40 2. 40 1. 70 1. 70 1. 70 1. 86 0. 30 | 127.81 59.69 0.99 0.99 0.99 0.30 0.30 | Unit Price Base Unit Price Land Price Land Price Land Land Land Land Land Land Land Land | 127. 81 5.8. 69 0. 98 0. 20 30. 20 20. 20 |
| Construction COST Mase | 215940 cu a 107970 cu a 35990 cu a 77555 cu a 4400 cu a 284350 cu a | 1518 cu a 280 a 7620 kg 11282 cu a 7615 cu a 3667 cu a 28 cu a 1 LS | Construction COST Base Qunt. Unit Price 72480 cu. m 2.37 36240 cu. m 2.40 12080 cu. m 1.22 6880 cu. m 1.70 61920 cu. m 0.30 5200 cu. m 7.86 5200 cu. m 0.30 | 440 cu.m. 120 cu.m. 2330 kg 3510 cu.m. 2463 cu.m. 12 cu.m. 12 cu.m. 12 cu.m. 1 LS |
| TABLE F-3.2.2 (1) Description 1. Tao Khe Greek Impr. | i. i Earth Torks Dreadging Excavation (Back Hoe) Excavation (Annual) Fill (Mannual) Fill (Buldozer) Placing Gravel Spoiled Dike Sub Total | 1.2 Stretural Works Concrete Morks R.C. Pipe Gare (Weight) Structural Excavation Structural Fill Spoiled Dike Brick Work Sub Total 1.3 Preparation works 1.4 Total | TABLE F-3.2.2 (3) Description 3. KT 6 XA lmpr. 3.1 Earth forks Dreadging Excavation (Mannal) Fill (Mannal) Fill (Mannal) Fill (Mannal) Placing Gravel Spoiled Dike | 3. Strotural Norks Concrete Morks R.C. Pipe Gate (Feight) Structural Excavation Structural Fill Spoiled Dike Brick Fork Sub Total 3.3 Preparation works 3.4 Total |
| | | F- | -73 | |

| | 7/1 (18 8) | 20000 20000 5034 2960 | 343 22005 1455 52, 404 | 24382 2479 191 833 2937 298 | 31, 077 8, 348 91, 829 | 2/7 (\$ \$n) | 19130 4815 3368 1080 20748 1200 | 50, 345 39371 1239 350 1233 3938 50 114 46, 296 9, 664 106, 302 |
|---|---|--|---|--|---|--|--|--|
| | Unit Cost (US \$) F/C L/C | 69281 0 0 | 3481 0 5819 78.897 | 1435 2217 763 2884 268 110 | 7, 690 8, 659 95, 245 0, 51 | Unit Cast | 66268 0 0 4321 4801 | 75, 330 2317 1108 1399 4272 359 200 7 9, 663 8, 505 93, 558 |
| | IST Total | 89281 5034 2960 | 4746 22005 7274 131, 301 | 25818 4695 954 3716 3204 138 | 242 38. 767 17. 007 187. 074 | OST Total | 85399 4815 3368 5401 20748 6001 | 41688 2348 2348 1749 1774 5505 4297 250 121 55, 958 181 169 |
| | ruction CC Base Unit Price | 2.37 2.40 1.22 | 0.30 0.30 | 127. 81 58. 69 0. 99 2. 40 0. 30 | 30. 20 | tion C Base Price | 2. 37 1. 22 1. 70 0. 30 0. 30 | 127. 81 58. 69 6. 98 72. 72. 99 90. 90 80. 20 |
| | Construction COST Base Qunt. Unit Price To | 0 cu. n 37250 cu. n 4140 cu. n 1740 cu. n | 15660 cu. m 2800 cu. m 24000 cu. m | 202 cu.m 80 m 960 kg 1551 cu.m 1097 cu.m 454 cu.m | 8 cu. n | Construction COST Base Qunt. Unit Price To | 0 cu a 35640 cu a 3960 cu a 1980 cu a 17820 cu a 2640 cu a 19800 cu a | 326 cu. m 40 m 1760 kg 2298 cu. m 1471 cu. m 826 cu. m 4 cu. m 1 LS |
| | TABLE F-3.2.2 (6) Description 6. KT Kau Nau Impr. | 6. l Earth Dread Excav Excav Fill | Fill (Buldozer) Placing Gravel Spoiled Dike Sub Total 6.2 Stretural Forks | 1 | Brick Work Sub Total 6.3 Preparation works 6.4 Total | | 8.1 Earth Morks Dreadging Excavation (Back Hoe) Excavation (Mammual) Fill (Mammual) Fill (Malocer) Placing Gravel Spoiled Dike | Sub Total 8.2 Strctural Works Concrete Works R.C. Pipe Gate (Weight) Structural Excavation Structural Fill Spoiled Dike Brick Work Sub Total 8.3 Preparation works 8.4 Total |
| | | 72 59 05 | 111 02 91 40 | 41160 1239 366 1289 4117 52 | 114 139 136 | G | 0 903 010 015 287 287 602 | 1239 1239 1239 1283 4098 52 52 114 8, 112 9, 465 |
| | Unit Cost (US \$) F/C L/C | | 4 611 0 8802 5 2291 8 43,240 | | 7 114 1 48, 339 6 9, 158 5 100, 736 3 | 0/1 1/C | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 10 |
| | Unit G F/C | 0 81999 0 | 2444 0 9165 93.608 | 2423 1108 1462 4466 375 209 | 10,051 10,366 114,025 0,53 | Unit Cost (F/C | 68946 0 0 5150 4267 78, 363 | , |
| | Total | 105670 5959 1905 | 3055 8802 11456 136, 848 | 43583 2348 1828 5756 4493 262 | 121 58, 390 19, 524 214, 761 | Total | 88849 5010 5010 4015 6437 20119 5334 | 43373 2348 1819 5728 4471 261 18. 120 18. 120 18. 788 |
| • | tion COST Base mit Price | 2. 37 1. 22 1. 70 | 0.30 7.86 0.30 | 127. 81 58. 69 0. 99 2. 92 0. 30 | 30. 20 | ction COST Base Mit Price | 2. 37 2. 40 1. 22 1. 70 7. 86 0. 30 | 127.81 58.69 0.99 2.40 2.92 0.30 30.20 |
| : | Constructic | 0 cu. m 44100 cu. m 4900 cu. m 1120 cu. m | 10080 cu. m 1120 cu. m 37800 cu. m | 341 cu.m 40 m 1840 kg 2402 cu.m 1538 cu.m 864 cu.m | 4 cu. m 1 LS | Construction COST Base Qunt. Unit Price | 0 cu.m 37080 cu.m 4120 cu.m 2380 cu.m 21240 cu.m 2560 cu.m 17600 cu.m | 339 cu m 40 m 1831 kg 2390 cu m 1531 cu m 860 cu m 4 cu m |
| | 2 (5) | 5. KT 4 AA impr. 5.1 Earth Works Breadging Excavation (Back Hoe) Excavation (Manual) Fill (Manual) | Fill (Addition) Fill (Buldozer) Flacing Gravel Spoiled Dike Sub Total | 5.2 Stretural Yorks Concrete Torks R.C. Pipe Gare (Weight) Structural Excavation Structural Sill Socied Dike | Brick Work Sub Total 5.3 Preparation works 5.4 Total | TABLE F-3.2.2 (7) Description 7. KT Kau Nau-1 Impr. 7.1 Earth Morks | Dreadging Excavation (Back Hoe) Excavation (Mannual) Fill (Mannual) Fill (Mannual) Fill (Bandozer) Placing Gravel Spoiled Dike | 7. 2 Structural Works Concrete Works R.C. Pipe Gate (Teight) Structural Excavation Structural Fill Spoiled Dike Brick Fork Sub Total 7. 3 Preparation Works 7. 4 Total |
| | | | | | F- | 14 | | |

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| on COST | (SS:S) 1/C 1/C | 581, 599 | 256.118 | 226, 306 | 115,885 | 100, 736 | 91. 829 | 109, 465 | 106, 302 | 83, 151 | 681, 391 | | | | | | | | | | | |
|---------------------------------|------------------------------|------------------------------------|---------------------|------------------|------------------------|------------------|--------------------|--|-----------------------|---------------------|-------------|---------------------|------------|-----------|------------------|-----------------|----------------|-------|-----------|------------|-------------|------|
| structi | Unit Cost (US \$) F/C L/C | 779, 124 | 215. 545 | 259, 769 | 135, 477 | 114, 025 | 95, 245 | 97, 208 | 93, 558 | 85, 644 | 875, 695 1. | 3557086 | | | | | | | | | | |
| 0) Con | Total | 360, 723 | 481, 763 | 486, 074 | 251,362 | 214, 761 | 187, 074 | 206, 673 | 199, 860 | 168, 795 | 557, 086 1. | | | | | | | | | | | |
| TABLE F-3.2.2 (10) Construction | Descfiption | 1. Tao Khe Creek Impr. 1, 360, 723 | . Al Trinh Aa Impr. | 3. KT 6 XA lapr. | l. KT Phat Thich Impr. | k KT 4 XA Impr. | . KT Kau Mau Impr. | KT Kau Nau-1 Impr. | 3. KT Kau Nau-2 Impr. |). KT Tan Chi Impr. | ന് | | | | **** | | | ٠ | | ٠ | | |
| • | - | _, | | | 4 | ., | _ | | ω. | Ų, | | | | | | | | | : | | | |
| | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | - | | | | ٠ | | | | | | | | - | |
| . : | | | - | . * | | 1.4 Total | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | ٠. | | |
| (\$ SN | ပ္ | • | 0 | 17391 | 4378 | 0 | 0 | 9431 | 2182 | 33, 382 | | 35792 | 1239 | 318 | 1121 | 3580 | 46 | 114 | 210 | . 559 | 3, 151 | |
| | 3 | | | _ | | | | | | | | | | | | | | | 42 | - | 00 | |
| Unit Cost (| F/C L | | _ | 60244 | _ | 0 | 0 | | 8729 | 68, 973 | | | 1108 | 1272 | | | | | 8,886 42. | | | 0.51 |
| Unit Cost (US \$) | Total F/C L | | 0 | | 0 | 0 | 0 | • | 8729 | 102, 355 68, 973 | | 2107 | | | . 3884 | 326 | 182 | 7 | 988 8 886 | 7, 786 | 795 85, 644 | 0.51 |
| F | | | 0 | 60244 | 4378 0 | 1.70 0 0 | 0 | 9431 0 | 10911 8729 | | | 37898 2107 | 2348 | 1272 | 5005 3884 | 3907 326 | 30 228 182 | 121 7 | 988 8 886 | 345 7, 786 | 795 85, 644 | 0.51 |
| COST | Total | • | 0 | 77635 60244 | n 1.22 4378 0 | 0 ct. m 1.70 0 0 | 0 | п 7.86 9431 0 | 10911 8729 | | | m 127.81 37898 2107 | 58.69 2348 | 1590 1272 | m 2.40 5005 3884 | п 2.92 3907 326 | m 0.30 228 182 | 121 7 | 988 8 886 | 345 7, 786 | 795 85, 644 | 0.51 |

| TABLE F- | 3.2.3 (1) Construction | on COST | | | | | |
|----------|---|------------------------------|---------|---------------|-------------------|------------------|-------------------|
| | en e | : | | Base | | Unit Cos | t (US \$) |
| Descfir | ption | Qunt. | llnit | Price | Total | | L/C |
| | th Irrigation Canal Imp | | 01120 | | 10001 | .,, | 2, 0 |
| | Canal Works | • • | | | | | |
| 1.1 | | | ۸ – | 2.37 | 0 | Δ. | . 0 |
| | | 400 | | | | 0 | |
| | Excavation (Back Hoe) | | | 2.40 | | | 2257 |
| | Excavation (Mannual) | 981 | 1 cu.m | 1.22 | 11931 | | 11931 |
| | Fill (Mannual) Fill (Buldozer) | 280 | 3 cu.m | 1.70 | 4769 | | 4769 |
| | Fill (Buldozer) | 2522 | 9 cu.m. | 0.30 | 7646 | 6117 | 1529 |
| | Placing Gravel | | | | | | 38556 |
| | Placing Gravel Hauling Work (10km) | 1401 | 6 cu.m | 0.30 | | | |
| 1 | Brick Work | 1502 | 1 211 m | 30.20 | | 25319 | 430132 |
| | C.L Takal | 1000 | ı Çu.m | | 532,676 | 42 GE2 | |
| 1 0 | Sub Total | * . | | * . | 552,070 | 42,652 | 490,024 |
| 1.2 | Strctural Works | : 50 | 4 | 00.00 | 10010 | 040 | 1 0001 |
| | Concrete Works | . 55 | l cu.m | 30.20 | | | |
| | R.C. Pipe D=0.30m | | | 26.28 | | | |
| | R.C. Pipe D=0.45m | | 0 m | 31.28 | 3753 | 1523 | 2230 |
| | R.C. Pipe D=0.60m | 10 | 0 m | 45.41 | 4541 | 1834 | 2707 |
| | R.C. Pipe D=0.80m | 4 | 0 m | | 2082 | | |
| | Gate (Weight) | 19Ř | n ko | 0.99 | 4928 | | |
| | Structural Excavation | 302 | n au m | 2 40 | 9465 | | |
| 25 23 | Characteral Excavacion | 200 | 7 | 2.30 | 10799 | | |
| | Structural Fill | . อดช | Cu.m. | Z.8Z | 10788 | | |
| | Spoiled Dike Brick Work | 4 496 395 369 25 | o cu.m | 0.30 | 77 | | 15 |
| 1.14 | Brick Work | . 3 | 9 cu.m | 30.20 | 1178 | | |
| | | | | | | 26,528 | |
| 1.3 | Preparation works | | 1 LS | | 60,536 | 6 ,9 18 | 53,618 |
| | Total | | | | 665,895 | 76,098 | 589,796 |
| Descfi | -3.2.3 (2) Construct ption IRRIGATION Impr. | | _ | Base Price | Total | Unit Cost F/C | L/C |
| | Earth Works | | | | * | | |
| | Dreadging | Λ | Cu.m | 2.37 | 0 | 0 | 0 |
| 100 | | | | | | | |
| | Excavation (Back Hoe) | 31 ZV | cu.m | 2.40 | 7476 | | 1675 |
| | Excavation (Mannual) | 7280 | cu.m | 1.22 | 8853 | 0 | 8853 |
| | Fill (Mannual) | 2080 | | 1.70 | 3539 | 0 | 3539 |
| | Fill (Buldozer) | 18720 | | 0.30 | 5674 | 4539 | 1135 |
| | Placing Gravel | 3640 | cu.m | 7.86 | 28607 | 0 | 28607 |
| | Spoiled Dike | 10400 | | 0.30 | 3152 | 2522 | 630 |
| | Brick Work | 2686 | | 30.20 | 81118 | 4509 | 76609 |
| | Sub Total | 2000 | Ç4.H | 00.20 | 138,418 | 17,371 | 121,047 |
| 2 2 | Stretural Works | | | | 100,410 | TIPOIT | 141,041 |
| ٤٠٤ | | . 40 | | 20.20 | 1 450 | 01 | 1000 |
| | Concrete Works | 48 | | 30.20 | 1450 | 81 | 1369 |
| | R.C. Pipe D=0.30m | 600 | Th. | 26.28 | 15765 | 7442 | 8323 |
| | R.C. Pipe D=0.45m | 360 | | 31.28 | 11259 | 4569 | 6690 |
| | R.C. Pipe D=0.60m | 0 | | 45.41 | 0 | 0 | 0 |
| | R.C. Pipe D=0.80m | 0 | | 52.05 | 0 | 0 | 0 |
| | Gate (Weight) | 589 | ke | 0.99 | 585 | 468 | 117 |
| | Structural Excavation | 3255 | | 2.40 | 7799 | 6052 | 1747 |
| 100 | Structural Fill | 3094 | | 2.92 | 9038 | 755 | 8283 |
| | Spoiled Dike | | | | | | |
| | | | cu.m | 0.30 | 49 | 39 | 10 |
| | Brick Work | 34 | cu.m | 30.20 | 1027 | 57 | 970 |
| * * | Sub Total | | | | 46,972 | 19,463 | 27,508 |
| | | | | | | D 466 | |
| | Preparation works | 1 | LS | - | 18,539 | 3,683 | 14,855 |
| | Preparation works Total | 1 | LS | | 18,539 203,929 | 3,683 40,518 | 14,855 163,410 |

| | 3.2.3 (3) Constructi | | | | |
|--|--|--|--|---|--|
| D 61 | tion | Base | | Unit Cost (US | \$) |
| Descile | otion | Qunt. Unit Pric | e lotal | F/C L/C | |
| J. N 4 | Irrigation Canal Impr. | | | | |
| 3,1 | Canal Works | 0.00 8 2 | 37 0 | 0 | 0 |
| | Dreadging Excavation (Back Hoe) | 1320 cu m 2 | <i>ያየ</i> - 3163 - | 2454 | 700 |
| e de la companya de | Excavation (Mannual) | 3080 cu m 1 | 22 3745 | 7404 | 3 74 5 |
| | Fill (Mannual) | 880 cu.m 1. | 70 1497 | Ŏ | 1497 |
| and the second of the second o | Fill (Buldozer) | 7920 cu.m 0. | 30 2400 | 1920 | 480 |
| | Excavation (Back noe) Excavation (Mannual) Fill (Mannual) Fill (Buldozer) Placing Gravel Hauling Work (10km) | 1540 cu.m. 7. | 86 12103 | 0 1 | 2103 |
| | Hauling Work (10km) | 4400 cu.m 0. | 30 1334 | 1067 | 267 |
| 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | Brick Work | 130 cu.m 30. | 20 3926 | 218 | 3708 |
| en e | Brick Work Sub Total | The state of the s | 28 168 | 5 RRA 77 | 508 |
| 3.2 | Strctural Works Concrete Works R.C. Pipe D=0.30m R.C. Pipe D=0.45m | | | politica de la composição | |
| | Concrete Works | 212 cu.m 30. | 20 6402 | 356 | 6047 |
| | R.C. Pipe D=0.30m | 440 m 26. | 28 11561 | 54 58 | 6103 |
| | R.C. Pipe D=0.45m | 0 m 31. | 28 0 | 0 | 0 |
| 31. | K.C. Pipe D≃O.6Om | () m = 45 | Δ1 · · · · · · · · · · · · · · · · · · · | 41) 4 4 1 0 1 4 1 | 0 |
| | R.C. Pipe D=0.80m Gate (Weight) | 0 m 52. | 05 | 0 | 0 |
| | Characters I Bereit | 1055 kg 0. | 99 1058° | 846 | 212 |
| er e | Structural Excavation | 1430 CU.M Z. | 4U 3427 | ∠008 205 | 768 |
| | Spoiled Niko | 10/0 Cu.m Z. | 92 4017 | 335 13 | 3681 3 |
| | Structural Fill Spoiled Dike Brick Work Sub Total | 15 cu m 20 | 20 453 | 25 | 128 |
| | Sub Total | To Cu+m 30+ | 26 931 | 9 893 17 | 241 |
| 3.3 | Sub Total Preparation works | 1 LS | 5.510 | 9,693 17 1,535 3 | .975 |
| 3.4 | Total | | 60,613 | 16,888 43 | 725 |
| 4.1 | Earth Works Dreadging | 0 cu.m 2.37 | 7 0 | 0 | 0 |
| | Excavation (Back Hoe) | 1116 cu m 2.46 | 2674 | | 599 |
| | Excavation (Mannual) | 2604 cn.m 1.23 | 3167 | | .67 |
| | Fill (Mannual) | 744 cu.m. 1.70 | 1266 | 0 12 |)66 |
| | Fill (Buldozer) | | 2029 | 1624 4 | |
| | | | | | |
| | Placing Gravel | 1302 cu.m 7.86 | 3 10232 | | |
| | Spoiled Dike | 1302 cu.m 7.86 3720 cu.m 0.30 | | 0 102 | |
| | Spoiled Dike Brick Work | 1302 cu.m 7.86 |) 1127) 22469 | 0 102 | 232 225 |
| | Spoiled Dike Brick Work Sub Total | 1302 cu.m 7.86 3720 cu.m 0.30 | 1127 | 0 102 902 2 | 232 225 220 |
| 4.2 | Spoiled Dike Brick Work Sub Total Strctural Works | 1302 cu.m 7.86 3720 cu.m 0.30 744 cu.m 30.20 | 1127 22469 42,965 | 0 102 902 2 1249 212 5,850 37,1 | 232 225 220 115 |
| 4.2 | Spoiled Dike Brick Work Sub Total Strctural Works Concrete Works | 1302 cu.m 7.86 3720 cu.m 0.30 744 cu.m 30.20 | 1127 22469 42,965 | 0 102 902 2 1249 212 5,850 37,1 | 232 225 220 115 |
| 4.2 | Spoiled Dike Brick Work Sub Total Strctural Works Concrete Works R.C. Pipe D=0.30m | 1302 cu.m 7.86 3720 cu.m 0.30 744 cu.m 30.20 0 cu.m 30.20 372 m 26.28 | 1127 22469 42,965 0 0 3 9774 | 0 102 902 2 1249 212 5,850 37,1 0 4614 51 | 232 225 220 115 0 |
| 4.2 | Spoiled Dike Brick Work Sub Total Strctural Works Concrete Works R.C. Pipe D=0.30m R.C. Pipe D=0.45m | 1302 cu.m 7.86 3720 cu.m 0.30 744 cu.m 30.20 0 cu.m 30.20 372 m 26.28 0 31.28 | 1127 22469 42,965 0 0 3 9774 3 0 | 0 102 902 2 1249 212 5,850 37,1 | 232 225 220 115 0 160 |
| 4.2 | Spoiled Dike Brick Work Sub Total Strctural Works Concrete Works R.C. Pipe D=0.30m R.C. Pipe D=0.45m R.C. Pipe D=0.60m | 1302 cu.m 7.86 3720 cu.m 0.30 744 cu.m 30.20 0 cu.m 30.20 372 m 26.28 0 31.28 0 45.41 | 1127 22469 42,965 0 0 3 9774 3 0 | 0 102 902 2 1249 212 5,850 37,1 0 4614 51 0 0 | 232 225 220 115 0 160 0 |
| 4.2 | Spoiled Dike Brick Work Sub Total Strctural Works Concrete Works R.C. Pipe D=0.30m R.C. Pipe D=0.45m R.C. Pipe D=0.60m R.C. Pipe D=0.70m | 1302 cu.m 7.86 3720 cu.m 0.30 744 cu.m 30.20 0 cu.m 30.20 372 m 26.28 0 31.28 0 45.41 186 48.73 | 1127 22469 42,965 0 0 3 9774 3 0 1 0 3 9064 | 0 102 902 2 1249 212 5,850 37,1 0 4614 51 0 0 4279 47 | 232 225 220 115 0 160 0 0 |
| 4.2 | Spoiled Dike Brick Work Sub Total Strctural Works Concrete Works R.C. Pipe D=0.30m R.C. Pipe D=0.45m R.C. Pipe D=0.60m R.C. Pipe D=0.70m Gate (Weight) | 1302 cu.m 7.86 3720 cu.m 0.30 744 cu.m 30.20 0 cu.m 30.20 372 m 26.28 0 31.28 0 45.41 186 48.73 300 kg 0.98 | 1127 22469 42,965 0 0 3 9774 3 0 1 0 3 9064 9 298 | 0 102 902 2 1249 212 5,850 37,1 0 4614 51 0 0 4279 47 238 | 232 225 220 115 0 160 0 0 785 60 |
| 4.2 | Spoiled Dike Brick Work Sub Total Strctural Works Concrete Works R.C. Pipe D=0.30m R.C. Pipe D=0.45m R.C. Pipe D=0.60m R.C. Pipe D=0.70m Gate (Weight) Structural Excavation | 1302 cu.m 7.86 3720 cu.m 0.30 744 cu.m 30.20 0 cu.m 30.20 372 m 26.28 0 31.28 0 45.41 186 48.73 300 kg 0.98 2000 cu.m 2.40 | 1127 22469 42,965 0 3 9774 3 0 1 0 3 9064 9 298 0 4792 | 0 102 902 2 1249 212 5,850 37,1 0 4614 51 0 0 4279 47 238 3719 10 | 232 225 220 115 0 160 0 0 785 60 |
| 4.2 | Spoiled Dike Brick Work Sub Total Strctural Works Concrete Works R.C. Pipe D=0.30m R.C. Pipe D=0.45m R.C. Pipe D=0.60m R.C. Pipe D=0.70m Gate (Weight) Structural Excavation Structural Fill | 1302 cu.m 7.86 3720 cu.m 0.30 744 cu.m 30.20 0 cu.m 30.20 372 m 26.28 0 31.28 0 45.41 186 48.73 300 kg 0.99 2000 cu.m 2.40 1859 cu.m 2.93 | 1127 22469 42,965 0 0 3 9774 3 0 1 0 3 9064 9 298 0 4792 2 5430 | 0 102 902 2 1249 212 5,850 37,1 0 4614 51 0 0 4279 47 238 3719 10 454 48 | 232 225 220 115 0 160 0 0 785 60 974 |
| 4.2 | Spoiled Dike Brick Work Sub Total Strctural Works Concrete Works R.C. Pipe D=0.30m R.C. Pipe D=0.45m R.C. Pipe D=0.60m R.C. Pipe D=0.70m Gate (Weight) Structural Excavation | 1302 cu.m 7.86 3720 cu.m 0.30 744 cu.m 30.20 0 cu.m 30.20 372 m 26.28 0 31.28 0 45.41 186 48.73 300 kg 0.98 2000 cu.m 2.40 | 1127 22469 42,965 0 0 3 9774 3 0 1 0 3 9064 9 298 0 4792 2 5430 0 43 | 0 102 902 2 1249 212 5,850 37,1 0 4614 51 0 0 4279 47 238 3719 10 454 48 34 | 232 225 220 115 0 160 0 0 785 60 974 |
| | Spoiled Dike Brick Work Sub Total Strctural Works Concrete Works R.C. Pipe D=0.30m R.C. Pipe D=0.45m R.C. Pipe D=0.60m R.C. Pipe D=0.70m Gate (Weight) Structural Excavation Structural Fill Spoiled Dike Brick Work Sub Total | 1302 cu.m 7.86 3720 cu.m 0.30 744 cu.m 30.20 0 cu.m 30.20 372 m 26.28 0 31.28 0 45.41 186 48.73 300 kg 0.98 2000 cu.m 2.40 1859 cu.m 2.93 141 cu.m 0.30 | 1127 22469 42,965 0 0 3 9774 3 0 1 0 3 9064 9 298 0 4792 2 5430 0 43 | 0 102 902 2 1249 212 5,850 37,1 0 4614 51 0 0 4279 47 238 3719 10 454 49 34 34 | 232 225 220 115 0 160 0 0 785 60 974 977 9 |
| | Spoiled Dike Brick Work Sub Total Strctural Works Concrete Works R.C. Pipe D=0.30m R.C. Pipe D=0.45m R.C. Pipe D=0.60m R.C. Pipe D=0.70m Gate (Weight) Structural Excavation Structural Fill Spoiled Dike Brick Work | 1302 cu.m 7.86 3720 cu.m 0.30 744 cu.m 30.20 0 cu.m 30.20 372 m 26.28 0 31.28 0 45.41 186 48.73 300 kg 0.98 2000 cu.m 2.40 1859 cu.m 2.93 141 cu.m 0.30 | 1127 22469 42,965 0 0 3 9774 3 0 1 0 3 9064 9 298 0 4792 2 5430 0 43 | 0 102 902 2 1249 212 5,850 37,1 0 4614 51 0 0 4279 47 238 3719 10 454 49 34 34 | 232 225 220 115 0 160 0 785 60 977 9 570 334 |
| 4.3 | Spoiled Dike Brick Work Sub Total Strctural Works Concrete Works R.C. Pipe D=0.30m R.C. Pipe D=0.45m R.C. Pipe D=0.60m R.C. Pipe D=0.70m Gate (Weight) Structural Excavation Structural Fill Spoiled Dike Brick Work Sub Total | 1302 cu.m 7.86 3720 cu.m 0.30 744 cu.m 30.20 0 cu.m 30.20 372 m 26.28 0 31.28 0 45.41 186 48.73 300 kg 0.98 2000 cu.m 2.40 1859 cu.m 2.93 141 cu.m 0.30 20 cu.m 30.20 | 1127 22469 42,965 0 0 3 9774 3 0 1 0 3 9064 9 298 0 4792 2 5430 0 43 0 604 30,005 7,297 | 0 102 902 2 1249 212 5,850 37,1 0 4614 51 0 0 4279 47 238 3719 10 454 49 34 34 34 13,372 16,6 1,922 5,3 | 232 225 220 115 0 60 0 785 60 974 977 9 570 334 |
| 4.3 | Spoiled Dike Brick Work Sub Total Strctural Works Concrete Works R.C. Pipe D=0.30m R.C. Pipe D=0.45m R.C. Pipe D=0.60m R.C. Pipe D=0.70m Gate (Weight) Structural Excavation Structural Fill Spoiled Dike Brick Work Sub Total Preparation works | 1302 cu.m 7.86 3720 cu.m 0.30 744 cu.m 30.20 0 cu.m 30.20 372 m 26.28 0 31.28 0 45.41 186 48.73 300 kg 0.98 2000 cu.m 2.40 1859 cu.m 2.93 141 cu.m 0.30 20 cu.m 30.20 1 LS | 1127 22469 42,965 0 0 3 9774 3 0 1 0 3 9064 9 298 0 4792 2 5430 0 43 0 604 30,005 | 0 102 902 2 1249 212 5,850 37,1 0 4614 51 0 0 4279 47 238 3719 10 454 49 34 34 34 5 13,372 16,6 | 232 225 220 115 0 60 0 785 60 974 977 9 570 334 |
| 4.3 | Spoiled Dike Brick Work Sub Total Strctural Works Concrete Works R.C. Pipe D=0.30m R.C. Pipe D=0.45m R.C. Pipe D=0.60m R.C. Pipe D=0.70m Gate (Weight) Structural Excavation Structural Fill Spoiled Dike Brick Work Sub Total Preparation works | 1302 cu.m 7.86 3720 cu.m 0.30 744 cu.m 30.20 0 cu.m 30.20 372 m 26.28 0 31.28 0 45.41 186 48.73 300 kg 0.98 2000 cu.m 2.40 1859 cu.m 2.93 141 cu.m 0.30 20 cu.m 30.20 | 1127 22469 42,965 0 0 3 9774 3 0 1 0 3 9064 9 298 0 4792 2 5430 0 43 0 604 30,005 7,297 | 0 102 902 2 1249 212 5,850 37,1 0 4614 51 0 0 4279 47 238 3719 10 454 49 34 34 34 13,372 16,6 1,922 5,3 | 232 225 220 115 0 60 0 785 60 974 977 9 570 334 |

TABLE F-3.2.3 (5) Construction COST

| Descfi | | Qunt. | Unit | Price | Total | F/C | ·L/C |
|-----------------|---------------------------------------|-----------------|---------------|------------------|-----------------|-----------------|-----------------|
| | NUI CHE Irrigation Canal Works | anal Impr | | | | | |
| 0.1 | Dreadging | · d | cu.m | 2.37 | Ò | 0 | 0 |
| | Excavation (Back Hoe | 960 | cu.m | 2.40 | 2300 | 1785 | 515 |
| | Excavation (Mannual) | 2240 | cu.m | 1.22 | 2724 | Ŏ | 2724 |
| | Fill (Mannual) | | cu.m. | 1.70 | 1089 | 0 | 1089 |
| | Fill (Buldozer) | | cu.m | | 1746 | 1397 | 349 |
| | Placing Gravel Hauling Work (10km) | 3200 | cu.m | 7.86 0.30 | 8802 970 | 0 776 | 8802 194 |
| | Brick Work | | cu.m | | 2899 | 161 | 2738 |
| | Sub Total | | | | 20,530 | | 16,411 |
| 5.2 | Strctural Works | • | | 00.00 | | | + |
| | Concrete Works R.C. Pipe D=0.30m | 320 | cu.m | $30.20 \\ 26.28$ | 9409 | 2000 | 4420 |
| | R.C. Pipe D=0.45m | _ | , hr | 31.28 | 8408 | 3969 | 4439 0 |
| • | R.C. Pipe D=0.60m | 0 | m | 45.41 | Ŏ. | Ŏ | Ö |
| | R.C. Pipe D=0.70m | 160 | m, | 48.73 | 7797 | 3681 | 4116 |
| | Gate (Weight) | Z58 | kg | 0.99 | 256 | 205 | 51 |
| | Structural Excavation Structural Fill | | cu.m | 2.40 2.92 | 4121 4671 | 3198 390 | 923 4281 |
| | Spoiled Dike | | Cu.m | 0.30 | 37 | 29 | 4201 |
| | Brick Work | | cu.m | 30.20 | 513 | 29 | 485 |
| E 2 | Sub Total | • | 1.0 | | 25,803 | 11,501 | 14,302 |
| | Preparation works Total | 1 | LS | | 4,633 50,967 | 1,562 | 3,071 |
| U V 1 | 10021 | | | | JU, 807 | 17,182 | 33,785 |
| - | · a. a. wind a | **** | | enger, night en | | | |
| | -3.2.3 (6) Construc | | | | | | |
| Descfi | IRRIGATION Impr. | Qunt. | Unit | Price | Total | F/C | L/C |
| | Earth Works | | | | | | |
| | Dreadging | 0 (| cu.m | 2.37 | . 0 | 0 | 0 |
| | Excavation (Back Hoe |) 1248 (| cu.m | 2.40 | 2990 | 2321 | 670 |
| | Excavation (Mannual) | | cu.m | 1.22 | 3541 | 0 | 3541 |
| | Fill (Mannual) Fill (Buldozer) | 832 c 7488 c | CU - III | 1.70 | 1415 | 0 | 1415 |
| | Placing Gravel | 1456 | eu•Mi en.m | 0.30 7.86 | 2269 11443 | 1816 0 | 454 11443 |
| | Spoiled Dike | 4160 | u.n | 0.30 | 1261 | 1009 | 252 |
| 1 5 | Brick Work | 117 c | cu.m | 30.20 | 3533 | 196 | 3337 |
| 6 2 | Sub Total Strctural Works | | | | 26,453 | 5,341 | 21,112 |
| 0.2 | Concrete Works | 171 d | יווי ווי | 30.20 | 5164 | 997 | # 0 7 P |
| | R.C. Pipe D=0.30m | 416 | 1 | 26.28 | 10930 | 287 5160 | 4877 5770 |
| | R.C. Pipe D=0.45m | 0 | | 31.28 | 0 | 0 | 00 |
| | R.C. Pipe D=0.60m | 0 | | 45.41 | 0 | 0 | 0 |
| A 1 | R.C. Pipe D=0.70m Gate (Weight) | 0 727 k | | 48.73 0.99 | 700 | 0 | 0 |
| | Structural Excavation | n 1352 d | | 2.40 | 722 3240 | 578 2514 | 144 726 |
| e gradu. Tal | Structural Fill | 1300 c | u.m | 2.92 | 3797 | 317 | 3480 |
| | Spoiled Dike | 52 c | u.n | 0.30 | 16 | 13 | 3 |
| | Brick Work Sub Total | 15 c | u. D | 30.20 | 453 | 25 | 428 |
| 6.3 | Preparation works | 1 L | • | | 24,323 | 8,894 | 15,429 |
| 6.4 | Total | | | | 5,078 55,854 | 1,423 15,658 | 3,654 40,195 |
| | | | F78 | | ,001 | 20,000 | マシナプリ |
| | | | r- 10 | | | | |
| | | | | | | | |
| | | | • | • | | | |

TABLE F-3.2.3 (7) Construction COST

| 7. N 34 IRRIGATION CANAL Impr | .Qunt. Unit | Price | Total | F/C | L/C |
|---|-----------------|----------------|-----------------|---------|------------|
| 7.1 Canal Works Dreadging | 4 | 0.05 | | | |
| Dreadging | 0 cu.m | 2.37 | 0 | | |
| Excavation (Back Hoe) | | 2.40 | | | |
| Excavation (Mannual) | | | | 0 | 2588 |
| Fill (Mannual) | | 1.70 | | | |
| Fill (Buldozer) | 5472 cu.m | 0.30 | 1658 | | |
| Placing Gravel Hauling Work (10km) | 1064 cu.m | 7.86 | 8362 | 0 | 8362 |
| Hauling Work (10km) | 3040 cu.m | 0.30 | 921 | 737 | 184 |
| Brick Work | 869 cu.m | 30.20 | 26244 | 1459 | 24785 |
| SUD TOTAL | | | | 5,219 | |
| 5.2 Stretural Works | 1 | | | | |
| Concrete Works R.C. Pipe D=0.30m | 0 си. п | 30.20 | 0 | 0 | 0 |
| R.C. Pipe D=0.30m | 304 m | 26.28 | | | 4217 |
| R.C. Pipe D=0.45m | 0 m | 31.28 | | | |
| R.C. Pipe D=0.60m | 0 m | 45.41 | | | Ŏ |
| R.C. Pipe D=0.80m | 152 m | 52.05 | | | |
| | 152 m 300 kg | 0 00 | 000 | 238 | |
| Structurel Evenuation | 1672 au m | v• əə | 4006 | | |
| Structural Pill | 1577 | 2 02 | 4490 | | |
| Scructural rill | 1007 Cu in | | 4490 | 375 | |
| Structural Excavation Structural Fill Spoiled Dike Brick Work Sub Total | 100 CU III | 00 00 00 00 | 41 | | |
| DIICK WOLK | 10 Cu.m | 30.20 | 403 | 27 | |
| 5 9 Decreased as a second | 1 LS | | 40,417 | 11,288 | 13,930 |
| | 1 LS | | 6,821 | 1,651 | 5,170 |
| 5.4 Total | • | | 75,032 | 18,157 | 56,875 |
| TABLE F-3.2.3 (8) Construc 8. IRRIGATION CANAL Impr. | | Price | Total | F/C | L/C |
| 8.1 Earth Works | • | | | | |
| Dreadging | 0 cu.m | 2.37 | | 0 | 0 |
| Excavation (Back Hoe) | 17594 cu.m | 2.40 | | | 9444 |
| Excavation (Mannual) | | 1.22 | 49921 | 0 | |
| Fill (Mannual) | 11729 cu.m | 1.70 | | | 19954 |
| Fill (Buldozer) | 105565 cu.m | 0.30 | 31994 161323 | 25595 | 6399 |
| Placing Gravel | 20527 cu m | 7.86 | 161323 | 0 | 161323 |
| Spoiled Dike | 58647 cu.m | 0.30 | 17775 | 14220 | 3555 |
| Brick Work | 23960 cu.m | 30.20 | 723599 | 40225 | 683374 |
| Sub Total | | | 1,046,724 | 112,754 | 933,969 |
| 2 Strctural Works | | | | | |
| Concrete Works | 991 cu.m | 30.20 | 29928 | 1664 | 28265 |
| R.C. Pipe D=0.30m | 4743 m | 26.28 | 124623 | 58832 | 65791 |
| R.C. Pipe D=0.45m | 876 m | 31.28 | 27397 | 11118 | 16279 |
| R.C. Pipe D=0.60m | 284 m | 45.41 | 12896 | 5208 | 7688 |
| R.C. Pipe D=0.70m | 774 m | 48.73 | 37717 | 17805 | 19911 |
| R.C. Pipe D=0.80m | 272 m | 52.05 | 0.,1, | 17000 | 10011 |
| Gate (Weight) | 9353 kg | 0.99 | 9292 | 7434 | 1858 |
| Structural Excavation | | 2.40 | 58078 | 45068 | 13010 |
| Structural Fill | 22763 cu.m | 2.92 | 66493 | 5554 | 60939 |
| Spoiled Dike | 1475 cu.m | 0.30 | | 358 | |
| Brick Work | 243 cu.m | | 447 7339 | | 89 6031 |
| | AAO CU.II | 30.20 | | 408 | 6931 |
| Sub Total | 1 10 | 100 | 374,210 | 153,448 | 220,763 |
| .3 Preparation works | 1 LS | | 142,093 | 26,620 | 115,473 |
| 4 Total | | | 1,563,028 | 797,077 | 1,270,205 |

| TABLE F-3.2.4 (1) | CONSTRUCTION COST | ' FOR PUMPING STATION |
|-------------------|-------------------|-----------------------|
| | • | Rase |

| | | | | Base | | Unit Cost | (US \$) |
|---------|------------------------|-------|-------|---------|-------------|----------------|----------|
| Descfip | otion | Qunt. | Unit | Price | Total | F/C | L/C |
| 1. Civi | 1 Works | | | | • | | |
| 1. 1 | Leading Canal | | | ٠, | | | • |
| .* | Dreadging | 14000 | cu. m | 2. 37 | 33134 | 24230 | 8904 |
| | Excavation (Back Hoe) | 4000 | cu. m | 2.40 | 9585 | 7438 | 2147 |
| | Excavation (Mannual) | 2000 | cu. m | 1. 22 | 2432 | 0 | 2432 |
| | Fill (Mannual) | 200 | cu. m | 1.70 | 340 | 0 | 340 |
| | Fill (Buldozer) | 1800 | cu. m | 0.30 | 546 | 436 | 109 |
| | Placing Gravel | 20 | cu. m | 7.86 | 157 | , 0 . | 157 |
| | SPOILED DIKE | 4000 | cu. m | 0.30 | 1212 | 970 | 242 |
| | BRICK WORK | 250 | cu. m | 30. 20 | 7550 | 420 | 7130 |
| | Sub Total | * | | | 54, 956 | 33, 494 | 21, 462 |
| 1.2 | Suction Base | - | | | | | |
| | Concrete Works | 990 | cu. m | 165. 26 | 163604 | 102517 | 61088 |
| | P.C. Pile D450 L=15m | 182 | pcs | 1014.60 | 184883 | 165713 | 19170 |
| | Structural Excavation | 14000 | cu. n | 2.40 | 33600 | 26073 | 7527 |
| | Structural Fill | 9200 | cu. m | 2. 92 | 26864 | 2149 | 24715 |
| | Spoiled Dike | 4800 | cu. m | 0.30 | 1440 | 1152 | 288 |
| | Brick Work | 50 | cu. m | 30. 20 | 1510 | 91 | 1419 |
| • | Sub Total | | | | 411, 901 | 297, 695 | 114, 207 |
| 1. 3 | Suction Basin & Sluice | | | | | u ^e | |
| | Concrete Works | 2430 | cu. m | 165. 26 | 401582 | | 148585 |
| | P.C. Pile D450 L=15m | 491 | pcs | 1014.60 | 498169 | 446515 | 51653 |
| | Structural Excavation | 22100 | cu. m | 2. 40 | 53040 | 41371 | 11669 |
| | Structural Fill | 2200 | LS | 2. 92 | 6424 | | 5910 |
| | Spoiled Dike | 19900 | | 0. 30 | 5970 | 4776 | 1194 |
| | Brick Work | 25 | | 30. 20 | 755 | 45 | 710 |
| : | Sub Total | | | | 965, 939 | 746, 218 | 219, 721 |
| 1.4 | Civil Work Total | | | | 1, 432, 796 | 1, 077, 407 | 355, 390 |

TABLE F-3.2.4(2) CONSTRUCTION COST FOR PUMPING STATION

| Unit Price for Mechanical Equipment (1440 (Viet Nam Pump & Materials) | | | Equipment Co | ost(USD) | Instalatio | n Cost | |
|--|-----|------------|--------------------|--------------------|---------------|-------------------|-------------------------|
| Items | No. | Unit | :Unit price(l | J Cost(USD) | (USD/T) | Cost(USD) | Weigt(Ton) |
| 1 Procurement of Hydraulic equipment 1) Mixed Flow Pump D=1350x325rpmx550kwx | | | F. 000 | 018 000 | | | |
| Q=14400 m3/h | | set | 54,000 | 216, 000 | | 32, 400 | 64 |
| 2)Planetary gear reducer 3)Induction motor550kwx4px3kvx50Hz | | set set | 25, 000 23, 800 | | | 15,000 | |
| 4)Steel Pipe | - | set | 5, 800 | 95, 200 23, 200 | | 14, 280 3, 480 | |
| • | | set | 5, 500 | | | | 4 - 1 4. |
| 6)Replace of Existing Pump | | set | 2,000 | | | , | 1. |
| 7)Circulation fee | 2 | * | 2, 000 | 8, 692 | 000 | 20, 100 | |
| 8)Transportaion charge | | * | | 17, 384 | | Market State of | |
| Sub total | | | tution is a | 596, 676 | | 85, 590 | 65 |
| 2 Gates and Valves | | | 1 | | | | 1.1 |
| 1)Trash Rack 4. 05x6. 25 | 4 | set | 26, 000 | 104, 000 | 3, 900 | 15, 600 | 7 |
| 2)Butterfly Valve D=1350 | . 4 | set | | . 0 | 0 | 0 | 7 |
| 3)Flap Valve D=1650 | 5.7 | set | 3, 800 | | | 2, 280 | 3 |
| 4)Novable Crane 15T LX Lk=4.5m | | set | • | 100, 500 | 15, 075 | 15, 075 | |
| ., | | set | 0. | | | | 3 |
| •• •• • • • • • • • • • • • • • • • • • | | set | 0 | | | . 0 | 1 |
| · · · · · · · · · · · · · · · · · · · | | * | | 4, 394 | | 1 | 2 |
| 8)Transportation charge | . 5 | . % | 1. | 10, 985 | | 00.055 | ^- |
| Sub total Total 1+2 | | | | 235, 079 | | 32, 955 | 28 |
| 3 Elelectric receiving facilities | | | | 831, 755 | | 118, 545 | 93 |
| 1) 34kv Incoming Panel | 1 | set | | 22, 950 | 3, 443 | 3, 443 | |
| 2) 34kv Incoming Circuit Breaker Panel | | set | | 24, 707 | | 3, 706 | 4. · |
| 3) 4500KVA Main Transformer | | set | | 75, 000 | | 11. 250 | - 1. - 1. |
| 4) Circulation fee | | * % | | 2, 453 | | 11, 200 | |
| 5) Transportation charge | | * | | 6, 133 | | | |
| Sub total | | | | 131, 242 | | 18, 398 | |
| 4 Distribution Panel and Others | | | | | | | |
| 1) 3kv Incoming Panel | . 1 | set | 8, 320 | 8, 320 | 1, 248, | 1, 248 | -1 |
| 2) 3kv Reacor & Capacitor Panel | 4 | set | 6, 560 | 26, 240 | | 3, 936 | |
| 3) 3kv Motor Starter Panel | _ | set | 7, 200 | 28, 800 | | 4, 320 | |
| 4) Auxiliary Transformer Feeder Panel | | set | 7, 440 | 7, 440 | | | |
| 5) 500kva Auxiliary Transformer | | set | 6, 160 | 6, 160 | | 924 | |
| 6)Low Voltage Panel | | set | 3, 840 | 7, 680 | | 1, 152 | |
| 7)Replace of Transmissionline | - | LS | | 197, 655 | | 0 | |
| 8)Local Pump Control Panel 6)Auxiliary Relay Panel | | set set | 4, 160 | 10 040 | _ | 0 (00 | |
| 7)Cables | | set | 15, 000 | 16, 640 15, 000 | 624 2, 250 | 2, 496 2, 250 | |
| 8) Circulation fee | | 1 % | 15,000 | 6, 279 | 2, 230 | 2, 200 | |
| 9) Transportation charge | | × × | | 15, 697 | | | |
| Sub total | · | ,,, | | 335, 910 | | 17, 442 | • |
| Total of 3+4 | | | - | 467, 153 | | 35, 840 | |
| 4 Total 1+2+3+4 | | | | 1, 298, 908 | | 154, 385 | |
| | | | | | | ,-, | |
| 5 Unit cost for Mechanical Equipment | | | | | | | |
| Items | uni | t | Pump | Sluice 1 | Sluice 2 S | | Total |
| w.t.a. ep. t | | | station | (Pump up) | (Gravity) | | |
| Weight of Equipment | TON | | 93 | .11 | . 15 | 3. | 122 |
| Equipment | USD | | 831, 755 | 7, 306 | 8, 739 | 1, 728 | 849, 529 |
| Instalation Design Fee 2% of Equipment | USD | | 118, 545 | 1, 029 | 1, 323 | 261 | 121, 157 |
| Others 3% of Equipment | USD | | 16, 635 | 146 | 175 | 35 | 16, 991 |
| Contingency 5% of 1+2 | USD | | 24, 953 47, 515 | 219 | 262 | 52 | 25, 486 |
| Total | USD | | 1, 039, 403 | 417 | 503 11,002 | 99 | 48, 534 |
| Unit cost for a pump(14400m3/h) | USD | | 1, 000, 400 | 9, 117 | 11,002 | 2, 175 | 1, 061, 696 265, 424 |
| and town to being (Tainoino) its | 300 | | | | | | PAP ,CUA |
| 6 Unit cost for Electrical Equipment | | | | | | | |
| Items | uni | t | Pump | Sluice 1 | Sluice 2 S | Sluice 3 | Total |
| | | | station | (Pump up) | (Gravity) | _ | |
| Equipment | USD | | 467, 153 | 57, 293 | 73, 662 | 13, 840 | 611, 947 |
| Instalation | USD | | 35, 840 | 4, 396 | | 1,062 | 46, 949 |
| Design Fee 2% of Equipment | USD | | 9, 343 | 1, 146 | 1, 473 | 277 | 12, 239 |
| Others 3% of Equipment | USD | | 14, 015 | 1, 719 | 2, 210 | 415 | 18, 358 |
| Contingency 5% of 1+2 | USD | | 25, 150 | 3, 084 | 3, 966 | 745 | 32, 945 |
| Total | USD | | 551, 500 | 67, 638 | 86, 963 | 16, 338 | 722, 439 |
| Unit cost for a pump(14400m3/h) | USD | | 137, 875 | 16, 909 | 21, 741 | 4, 085 | 180, 610 |
| | | | | | | | |

TABLE F-3.2.4(3) CONSTRUCTION COST FOR PUMPING STATION

| Unit Price for Mechanical Equipment (1440 | n=9 /I | : . | h appurtanan | +) | | | |
|--|--------|------------|--------------------|---------------------|------------------|--------------------|--------------------|
| (Viet Nam Pump & Materials) | UMO/ I | | Equipment Co | | Instalatio | n Cost | |
| ltens | No. | | Unit price(V | | | Cost(USD) | Weigt(Ton) |
| 1 Procurement of Hydraulic equipment | | | | | | | |
| 1)Mixed Flow Pump D=1350x325rpmx550kwx5 | | | 54 000 | 004 000 | 0.100 | 40 000 | Ċ. |
| Q=14400 m3/h 2)Planetary gear reducer | _ | set set | 54, 000 25, 000 | | 8, 100 3, 750 | 48, 600 22, 500 | 64 |
| 3)Induction motor550kwx4px3kvx50Hz | _ | set | 23, 800 | 142, 800 | 3, 130 | 21, 420 | . 1 |
| 4)Steel Pipe | - | set | 5, 800 | 34, 800 | 870 | 5, 220 | • |
| 5)Replace of Existing Pump | _ | set | 2, 000 | 136, 000 | 300 | 20, 400 | |
| 6)Others | 6 | set | 50 | 300 | 8 | 45 | |
| 7)Circulation fee | 2 | | | 15, 758 | | | |
| 8)Transportation charge | 4 | X | | 31, 516 | | 110 100 | 0.5 |
| Sub total 2 Gates and Valves | | | | 835, 174 | | 118, 185 | 65 |
| 1)Trash Rack 4. 05x6. 25 | 6 | set | 26, 000 | 156, 000 | 3, 900 | 23, 400 | 7 |
| 2)Butterfly Valve D=1350 | | set | 20,000 | 100,000 | 0, 500 | 20, 400 | 7 |
| 3)Flap Valve D=1650 | - | set | 3, 800 | 22, 800 | 570 | 3, 420 | 3 |
| 4) Movable Crane 15T LX Lk=4.5m | 1 | set | 100, 500 | 100, 500 | 15, 075 | 15, 075 | 5 |
| 5)Holizontal conveyor 750mm\x41mL | | set | 0 | 0 | 0 | 0 | 3 |
| 6)Inclined conveyor 750mmWx15mL 7)Circulation fee | | set | . 0 | 0 | 0 | 0 | 1 |
| 8)Transportation charge | | % % | | 5, 586 13, 965 | | | 2 |
| Sub total | | Л | | 298, 851 | | 41, 895 | 28 |
| Total 1+2 | | | | 1, 134, 025 | | 160, 080 | 93 |
| 3 Elelectric receiving facilities | | | | -, | | | |
| 1) 34kv Incoming Panel | _ | set | | 22, 950 | | 3, 443 | |
| 2) 34kv Incoming Circuit Breaker Panel | | set | | 24, 707 | | 3, 706 | |
| 3) 4500KVA Main Transformer | | set | • | 75, 000 | | 11, 250 | |
| 4) Circulation fee | Z | % % | | 2, 453 | | | |
| 5) Transportation charge Sub total | | 75 | | 6, 133 131, 242 | | 18, 398 | |
| 4 Distribution Panel and Others | | | | 101, 242 | + | 10, 550 | |
| 1) 3kv Incoming Panel | 1 | set | 8, 320 | 8, 320 | 1, 248 | 1, 248 | • |
| 2) 3kv Reacor & Capacitor Panel | | set | 6, 560 | 39, 360 | | 5, 904 | |
| 3) 3kv Notor Starter Panel | 6 | set | | 43, 200 | 1,080 | 6, 480 | |
| 4)Auxiliary Transformer Feeder Panel | | set | 7, 440 | 7, 440 | 1, 116 | 1, 116 | |
| 5) 500kva Auxiliary Transformer | | set | 6, 160 | 6. 160 | | 924 | |
| 6)Low Voltage Panel 7)Replace of Transmissionline | | set LS | 3, 840 | 7, 680 197, 655 | | 1, 152 0 | |
| 8)Local Pump Control Panel | | set | . 0 | 191, 000 | | .0 | |
| 6)Auxiliary Relay Panel | | set | 4, 160 | 24, 960 | | 3, 744 | • |
| 7)Cables | | set | 15,000 | 15, 000 | | 2, 250 | |
| 8) Circulation fee | | % | | 6, 995 | | | |
| 9) Transportation charge | . 5 | * | | 17, 489 | | | |
| Sub total | | | | 374, 259 | | 22, 818 | |
| Total of 344 4 Total 1+2+3+4 | | | | 505, 501 | | 41, 216 | |
| 4 10121 1121314 | | | | 1, 639, 526 | | 201, 296 | |
| 5 Unit cost for Mechanical Equipment | | | | | | | • |
| Items | uni | t | Pump | Sluice 1 | Sluice 2 | Sluice 3 | Total |
| | 11 - 1 | | station | (Pump up) | | (lrrig.) | |
| Weight of Equipment | TON | | 93 | 11 | 15 | 3 | 122 |
| Equipment | USD | | 1, 134, 025 | 7, 306 | 8, 739 | 1, 728 | 1, 151, 799 |
| Instalation Design Fee 2% of Equipment | USD | | 160, 080 | | 1, 323 | 261 | 162, 692 |
| Others 3% of Equipment | USD | | 22, 681 34, 021 | 146 219 | 175 262 | 35 52 | 23, 036 34, 554 |
| Contingency 5% of 1+2 | USD | | 64, 705 | 417 | 503 | 99 | 65, 725 |
| Total | USD | | 1, 415, 512 | 9, 117 | 11,002 | 2, 175 | 1, 437, 805 |
| Unit cost for a pump(14400m3/h) | USD | - | | | | | 239,634 |
| 0.77 | | | | | | | |
| 6 Unit cost for Electrical Equipment | , , | | D | 011 | 01 | 01 | W-4-3 |
| Items | uni | ţ | Pump | Sluice 1 | Sluice 2 | | Total |
| Equipment | USD | | station 505,501 | (Pump up) 61,996 | 79, 709 | (Irrig.) 14,976 | 662, 182 |
| Instalation | USD | | 41, 216 | 5, 055 | 6, 499 | 1, 221 | 53, 992 |
| Design Fee 2% of Equipment | USD | | 10, 110 | 1, 240 | 1, 594 | 300 | 13, 244 |
| Others 3% of Equipment | USD | | 15, 165 | 1,860 | 2, 391 | 149 | 19, 865 |
| Contingency 5% of 1+2 | USD | | 27. 336 | 3, 353 | 4, 310 | 810 | |
| Total | USD | | 599, 329 | 73, 503 | 94, 504 | 17, 755 | 785, 092 |
| Unit cost for a pump(14400m3/h) | USD | | 99, 888 | 12, 251 | 15, 751 | 2, 959 | 130, 849 |

TABLE F-3.2.4(4) CONSTRUCTION COST FOR PUMPING STATION

| Unit Price for Mechanical Equipmen | - (14400mg/ | h =: | th annuetonan | | | | |
|--|-------------|------------|------------------------------|---------------------|--------------------|--------------|---------------------|
| (Foreign Pump & Haterials) | (1440000) | 11 #1 | Equipment Co | st(USD) | Instalatio | on Cost | |
| Items | No. | Uni | tUnit price(U | | (USD/T) | Cost(USD) | Weigt(Ton) |
| 1 Procurement of Hydraulic equipment | ıt | | | | | | |
| 1) Mixed Flow Pump D=1350x325rpmx | 550kwx50Hz | 1 | 41 | edia et | aa Eest | jar i | |
| Q=14400 m3/h | | set | | | | 517, 440 | 64 |
| 2)Planetary gear reducer | | set | the state of the state of | - | | 105, 000 | |
| 3)Induction motor550kwx4px3kvx50 | | set | | 666, 400 | | 99, 960 | 1 |
| 4)Steel Pipe | | set | | 162, 400 | | | in a company |
| 5)Others | | set | | | | | |
| 6)Replace of Existing Pump 7)Circulation fee | | * | 2,000 | 136,000 | | 20, 400 | 44,004 |
| 8)Transportation charge | | * | | 99, 572 199, 144 | | | |
| Sub total | 7 | | | 5, 413, 316 | | 767, 190 | 65 |
| 2 Gates and Valves | | | | 5, 415, 510 | | 101, 150 | 00 |
| 1)Trash Rack 4. 05x6. 25 | 4 | set | 182,000 | 728: 000 | 27, 300 | 109 200 | 7 |
| 2)Butterfly Valve D=1350 | | set | | 319, 200 | | 47, 880 | 7 |
| 3)Flap Valve D=1650 | | set | | 106, 400 | 3 990 | 15 960 | 3 |
| 4) Movable Crane 15T LX Lk=4.5m | | set | and the second of the second | 140, 700 | 21, 105 | 21, 105 | . 5 |
| 5)Holizontal conveyor 750mmWx41m | | set | | | | 11, 655 | |
| 6) Inclined conveyor 750mmWx15mL | | set | | 72, 100 | | 10, 815 | i |
| 7)Circulation fee | 2 | % | | 28, 882 | | | 2 |
| 8)Transportation charge | . 5 | * | | 72, 205 | | | |
| Sub total | | | | 1, 545, 187 | | 216, 615 | 28 |
| Total 1+2 | | | | 6, 958, 503 | | 983, 805 | 93 |
| 3 Elelectric receiving facilities | | • | | | | 1.14 | |
| 1) 34kv Incoming Panel | | set | | 178, 500 | | , | |
| 2) 34kv Incoming Circuit Breaker | | | | 207, 200 | | | |
| 3) 4500KYA Main Transformer | | set | | 525, 000 | 78, 750 | 78, 750 | : |
| 4) Circulation fee | | * | | 18, 214 | | | 194 |
| 5) Transportation charge | 5 | * | | 45, 535 | | | |
| Sub total | | | | 974, 449 | | 136, 605 | 1.11 |
| 4 Distribution Panel and Others | | | BO 000 | 50 000 | | | |
| 1) 3ky Incoming Panel | | set | | 72, 800 | 10, 920 | | |
| 3) 3kv Reacor & Capacitor Panel 3) 3kv Motor Starter Panel | | set | - | 229, 600 | | 34, 440 | |
| 4) Auxiliary Transformer Feeder Pa | | set | - | 252, 000 | | 37, 800 | January States |
| 5) 500kva Auxiliary Transformer | | set set | - | 65, 100 | 9, 765 | 9, 765 | |
| 6)Low Voltage Panel | | set | 33, 600 | 53, 900 67, 200 | 8, 085 | 8, 085 | |
| 7)Replace of Transmissionline | | LS | 33, 000 | 67, 200 197, 655 | | 10, 080 0 | A |
| 8)Local Pump Control Panel | _ | set | 20, 300 | 81, 200 | 3, 045 | | |
| 6)Auxiliary Relay Panel | | set | 36, 400 | 145, 600 | 5, 460 | | |
| 7)Cables | | set | | 210, 000 | 31, 500 | 31, 500 | 100 |
| 8) Circulation fee | | % | 210,000 | 27, 501 | 01,000 | 01,000 | |
| 9) Transportation charge | 5 | % | | 68, 753 | | | |
| Sub total | | | | 1, 471, 309 | • | 176, 610 | |
| Total of 3+4 | | | | 2, 445, 758 | | 313, 215 | |
| 4 Total 1+2+3+4 | | | | 9, 404, 261 | | 1, 297, 020 | |
| • | | | | | | | |
| 5 Unit cost for Mechanical Equipmen | | | - | | | | 100 |
| Items | uni | t | Pump . | Sluice 1 | Sluice 2 | | Total |
| * • • • • • • • • • • • • • • • • • • • | | | station | (Pump up) | (Gravity) | (Irrig.) | |
| Weight of Equipment | TON | | 93 | 11 | 15 | 3 | 122 |
| Equipment | USD | | 6, 958, 503 | 7, 306 | 8, 739 | 1, 728 | 6, 976, 277 |
| Instalation | USD | | 983, 805 | 1, 029 | 1, 323 | 261 | 986, 417 |
| Design Fee 2% of Equipment | USD | | 139, 170 | 146 | 175 | 35 | 139, 526 |
| Others 3% of Equipment Contingency 5% of 1+2 | USD | | 208, 755 | 219 | 262 | 52 | 209, 288 |
| Total | USD | ٠. | 397, 115 | 417 | 503 | 99 | 398, 135 |
| Unit cost for a pump(14400m3/h) | USD USD | | 8, 687, 349 | 9, 117 | 11,002 | 2, 175 | 8, 709, 642 |
| onit cost for a pump(14400mg/H) | กอก | | | | | . : | 2, 177, 411 |
| 6 Unit cost for Electrical Equipmen | t . | · | | • | | | • |
| Items | unii | + | Pump | Sluice 1 | Cluice o | Slutas 9 | Total |
| | . unii | ٠ | station | (Pump up) | Sluice 2 (Gravity) | Cleric) | Total |
| Equipment | USD | | 2, 445, 758 | 299, 954 | 385, 656 | 72, 457 | 3, 203, 824 |
| Instalation | USD | | 313, 215 | 38, 414 | 49, 389 | 9, 279 | |
| Design Fee 2% of Equipment | USD | | 48, 915 | 5, 999 | 7, 713 | 1, 449 | 410, 296 64, 076 |
| Others 3% of Equipment | USD | | 73, 373 | 8, 999 | 11, 570 | 2, 174 | 96, 115 |
| Contingency 5% of 1+2 | USD | | 137, 949 | 16, 918 | 21, 752 | 4, 087 | 180, 706 |
| Total | USD | | 3, 019, 209 | 370, 284 | 476, 079 | 89, 445 | 3, 955, 018 |
| Unit cost for a pump(14400m3/h) | USD | | 754, 802 | 92, 571 | 119, 020 | 22, 361 | 988, 754 |
| • | | | | | | | |

TABLE F-3.2.4(5) CONSTRUCTION COST FOR PUMPING STATION

| Unit Price for Mechanical Equipment (1440 | Úπ3/1 | h wit | h annurtenan | t) | • | | |
|---|-------|------------|-------------------------|-------------------------|---------------------|----------------------|-----------------------------|
| (Foreign Pump & Materials) | VMO/ | | Equipment Cos | | Instalatio | n Cost | |
| Items | No. | Unit | Unit price(U | Cost(USD) | | | Weigt(Ton) |
| 1 Procurement of Hydraulic equipment | A11 | | | | | | |
| 1)Mixed Flow Pump D=1350x325rpmx550kwx5 | | oot | 960 400 | 5 174 400 | 100.000 | 776 160 | 64 |
| Q=14400 m3/h 2)Planetary gear reducer | | set set | 862, 400 175, 000 | 1, 050, 000 | 129, 360 26, 250 | 776, 160 157, 500 | 04 |
| 3) Induction motor550kwx4px3kvx50Hz | | set | 166, 600 | 999, 600 | | 149, 940 | 1 |
| 4)Steel Pipe | | set | 40, 600 | 243, 600 | | 36, 540 | _ |
| 5)Others | | set | 50 | 300 | | 45 | |
| 6)Replace of Existing Pump | | set | 2, 000 | 136, 000 | | 20, 400 | |
| 6)Circulation fee | | * | | 149, 358 | | | |
| 7)Transportation charge | 4 | * | | 298, 716 8, 051, 974 | | 1, 140, 585 | 65 |
| Sub total 2 Gates and Valves | | | | 0, 031, 314 | | 1, 140, 565 | 00 |
| 1)Trash Rack 4. 05x6. 25 | 6 | set | 182, 000 | 1, 092, 000 | 27, 300 | 163, 800 | 7 |
| 2)Butterfly Valve D=1350 | 6 | set | 79, 800 | 478, 800 | | 71, 820 | 7 |
| 3)Flap Valve D=1650 4)Movable Crane 15T LX Lk=4.5m | 6 | set | | 159, 600 | | 23, 940 | 3 |
| 4) Novable Crane 15T LX Lk=4.5m | | set | 140, 700 | 140, 700 | | | 5 |
| 5)Holizontal conveyor 750mmwx41mL | - 1 | set | 77, 700 | | | | 3 |
| 6)Inclined conveyor 750mm\xi5ml 7)Circulation fee | 2 | set | 72, 100 | 72, 100 40, 418 | | 10, 815 | 1 2 |
| 8)Transportation charge | 5 | % % | | 101, 045 | | | 4 |
| Sub total | | ~ | | 2, 162, 363 | | 303, 135 | 28 |
| Total 1+2 | | • | | 10, 214, 337 | | 1, 443, 720 | 93 |
| 3 Elelectric receiving facilities | | | | | | | |
| 1) 34kv Incoming Panel | | set | | 178, 500 | | | • |
| 2) 34ky Incoming Circuit Breaker Panel | 1 | set | | 207, 200 | | | |
| 3) 4500KVA Main Transformer | | | | 525, 000 | | 78, 750 | |
| 4) Circulation fee 5) Transportation charge | _ | % % | | 18, 214 45, 535 | | | |
| Sub total | v | | | 974, 449 | | 136, 605 | |
| 4 Distribution Panel and Others | | | | 011, 110 | | 100, 000 | |
| 1) 3ky Incoming Panel | 1 | set | 72, 800 | 72, 800 | 10, 920 | 10, 920 | |
| 2) 3kv Reacor & Capacitor Panel | 6 | set | 57, 400 | 344, 400 | 8, 610 | 51,660 | |
| 3) 3kv Notor Starter Panel | | set | | 378, 000 | | | |
| 4) Auxiliary Transformer Feeder Panel | | set | - , . | 65, 100 | | | |
| 5) 500kva Auxiliary Transformer | | set | 53, 900 | 53, 900 | | | |
| 6)Low Voltage Panel 7)Replace of Transmissionline | | set | 33, 600 | 67, 200 197, 655 | | | |
| 8)Local Pump Control Panel | 6 | set | 20, 300 | | _ | _ | |
| 6)Auxiliary Relay Panel | | set | 36, 400 | 218, 400 | | | |
| 7)Cables | 1 | set | 210,000 | 210,000 | | | |
| 8) Circulation fee | | % | | 34, 585 | | | |
| 9) Transportation charge | . 5 | * | | 86, 463 | | | |
| Sub total | | | | 1, 850, 303 | | 229, 740 | |
| Total of 3+4 4 Total 1+2+3+4 | | | | 2, 824, 752 | | 366, 345 | |
| 4 10181 1121014 | | | | 13, 039, 089 | | 1, 810, 065 | |
| 5 Unit cost for Mechanical Equipment | | | | | | | |
| Items | uni | t | Ришр | Sluice 1 | Sluice 2 | Sluice 3 | Total |
| | | | station | (Pump up) | | (Irrig.) | |
| Weight of Equipment | TON | | 93 | 11 | | | 122 |
| Equipment | USD | | 10, 214, 337 | 7, 306 | | | 10, 232, 111 1, 446, 332 |
| Instalation Design Fee 2% of Equipment | USD | | 1, 443, 720 204, 287 | 1, 029 146 | | | 204, 642 |
| Others 3% of Equipment | USD | | 306, 430 | 219 | | 52 | 306, 963 |
| Contingency 5% of 1+2 | USD | | 582, 903 | 417 | | | 583, 922 |
| Total | USD |) | 12, 751, 677 | 9, 117 | | | 12, 773, 970 |
| Unit cost for a pump(14400m3/h) | USD |) | | | | | 2,128,995 |
| A. W. C. | | | | | | | |
| 6 Unit cost for Electrical Equipment | ·· | | D | 01 | 01 | 01 | Total |
| Items | uni | ι. | Pump | Sluice 1 (Pump up) | | Sluice 3 (Irrig.) | Total |
| Equipment | USD | | station 2, 824, 752 | 346, 435 | | | 3, 700, 288 |
| Instalation | USD | | 366, 345 | 44, 930 | | | 479, 894 |
| Design Fee 2% of Equipment | USI | | 56, 495 | 6, 929 | | | 74, 006 |
| Others 3% of Equipment | USD | | 84, 743 | 10, 393 | 13, 363 | 2, 511 | 111,009 |
| Contingency 5% of 1+2 | USD | | 159, 555 | 19, 568 | | 4, 727 | 209, 009 |
| Total | USD | | 3, 491, 889 | 428, 255 | | 103, 449 | 4, 574, 205 |
| Unit cost for a pump(14400m3/h) | USD | | 581, 981 | 71, 376 | 91, 769 | 17, 241 | 762, 368 |

TABLE F-3.2.5 (1) QUANTITIES CALCULATION FOR TAO KHE CREEK

| STATION | ENGTH AREA (m) (m2) | GRAVEL (m3) |
|--|---------------------|----------------|
| (m) (m) (m2) (m3) (m2) (m3) (m2) (m3) (m2) (m3) (m2) (m3) (m3) (m3) (m3) (m2) (m3) (m3) (m2) (m3) < | (m) (m2) | |
| 13 K+ 650 0 0 14 K+ 0 350 350 15 K+ 0 1350 1000 15 K+ 500 1850 500 | (n) (n2) | (m3) |
| 14 K+ 0 350 350 15 K+ 0 1350 1000 15 K+ 500 1850 500 | | |
| 14 K+ 0 350 350 15 K+ 0 1350 1000 15 K+ 500 1850 500 | | |
| 15 K+ 0 1350 1000 15 K+ 500 1850 500 | | - |
| | | |
| 116 K+ 0 2350 500 | | |
| | | |
| 17 K+ 0 3350 1000 | | |
| 17 K+ 500 3850 500 60 18 42 | 20 | 400 |
| 18 K+ 0 4350 500 60 30000 18 9000 42 21000 | 20 10000 | |
| 18 K+ 400 4750 400 72 24000 16 7200 56 16800 | 35 8000 | |
| 19 K+ 0 5350 600 72 43200 16 9600 56 33600 | 35 21000 | |
| 19 K+ 750 6100 750 62 54000 3 12000 59 42000 | 25 26250 | |
| 20 K+ 0 6350 250 62 15500 3 750 59 14750 | 25 6250 | |
| 21 K+ 0 7350 1000 82 62000 7 3000 75 59000 | 45 25000 | |
| 22 K+ 0 8350 1000 80 82000 6 7000 74 75000 | 45 45000 | |
| 22 K+ 300 8650 300 12 24000 12 1800 22200 | 13500 | |
| 23 K+ 0 9350 700 12 8400 12 8400 | | 560 |
| 24 K+ 400 10750 1400 16800 16800 | | |
| 359900 75550 284350 | 15500 | 0 4400 |
| 359900 75550 284350 | 19900 | 3 4400 |

TABLE F-3.2.5 (2) QUANTITIES CALCULATION FOR KT TRIN XA

| | | DISTA | NCE | CUT | 1.1 | FILL | | SPOILE | D BANK | BORRO | W AREA | |
|-------------|-----|-------|--------|------|--------|------|---------|--------|--------|--------|--------|--------|
| | | ACUM. | INTVL. | AREA | QUANT. | AREA | QUQNTI. | AREA | QUANT. | LENGTH | AREA | |
| STATION | Ī | | | | | | | | | | | GRAVEI |
| | | (m) | (m) | (m2) | (m3) | (m2) | (m3) | (m2) | (m3) | (m) | (m2) | (m3) |
| 0 K+ | 0 | 0 | 0 | 45 | | 18 | | 27 | 14.7 | 22 | | 0 |
| 1 K+ | 0 | 1000 | 1000 | 34 | 45000 | 7 | 18000 | 27 | 27000 | 12 | 22000 | 800 |
| 1 K+ | 300 | 1300 | 300 | 10 | 10200 | 5 | 2100 | 5 | 8100 | 5 | 3600 | 240 |
| 2 K+ | 0 | 2000 | 700 | 10 | 7000 | 5 | 3500 | 5 | 3500 | 5 | 3500 | 560 |
| 3 K i | 0 | 3000 | 1000 | 4 | 10000 | 4 | 5000 | | 5000 | | 5000 | 800 |
| 4 K+ | 0 | 4000 | 1000 | 10 | 4000 | 5 | 4000 | 5 | | 5 | | 800 |
| 5 K+ | 0 | 5000 | 1000 | 6 | 10000 | 1 | 5000 | 5 | 5000 | | 5000 | 800 |
| 5 K+ | 500 | 5500 | 500 | 6 | 3000 | 1 | 500 | 5 | 2500 | | | 400 |
| 6 K+ | 0 | 6000 | 500 | | 3000 | | 500 | Ī . | 2500 | | | 400 |
| | | 1 | | | 92200 | | 38600 | T | 53600 | | 39100 | 4800 |

TABLE F-3.2.5 (3) QUANTITIES CALCULATION FOR KT 6 XA

| [· | DISTA | NCE | CUT | · | FILL | , . | SPOILE | D BANK | BORRO | W AREA | |
|----------|----------|--------|------|--------|------|---------|--------|--------|--------|--------|--------|
| | ACUM. | INTVL. | AREA | QUANT. | AREA | QUQNTI. | AREA | QUANT. | LENGTH | | |
| STATION | ļ | | | 1 | | | | • 1 | | | GRAVEL |
| : . | (n) | (m) | (m2) | (m3) | (m2) | (m3) | (m2) | (m3) | (m) | (m2) | (m3) |
| 0 K+ 0 | 0 | . 0 | 25 | 0 | 11 | | 14 | | 25 | | 0 |
| 1 K+ 0 | 1000 | 1000 | 28 | 25000 | 23 | 11000 | 5 | 14000 | 21 | 25000 | 800 |
| 2 K+ 0 | 2000 | 1000 | 17 | 28000 | 17 | 23000 | | 5000 | 15 | 21000 | 800 |
| 2 K+ 600 | 2600 | 600 | 12 | 10200 | 7 | 10200 | 5 | 0 | 16 | 9000 | 480 |
| 3 K+ 0 | 3000 | 400 | 12 | 4800 | . 7 | 2800 | 5 | 2000 | 16 | 6400 | 320 |
| 3 K+ 800 | 3800 | 800 | 16 | 9600 | 6 | 5600 | 10 | 4000 | 26 | 12800 | 640 |
| 4 K+ 0 | 4000 | 200 | 16 | 3200 | 6 | 1200 | 10 | 2000 | 26 | 5200 | 160 |
| 5 K+ 0 | 5000 | 1000 | 16 | 16000 | 6 | 6000 | - 10 | 10000 | 15 | 26000 | 800 |
| 6 K+ 0 | 6000 | 1000 | 16 | 16000 | 6 | 6000 | 10 | 10000 | 15 | 15000 | 800 |
| 6 K+ 500 | 6500 | 500 | 16 | 8000 | 6 | 3000 | 10 | 5000 | 15 | 7500 | 400 |
| | <u> </u> | | | 120800 | | 68800 | | 52000 | | 127900 | 5200 |

TABLE F-3.2.5 (4) QUANTITIES CALCULATION FOR KT PHAT TICH

| | ٠ | DISTA | NCE | CUT | • . ' • • | FILL | | SPOILE | D BANK | BORRO | W AREA | |
|---------|-----|-------|--------|------|-----------|------|---------|--------|--------|--------|--------|--------|
| | | ACUM. | INTVL. | AREA | QUANT. | AREA | QUQNTI. | AREA | QUANT. | LENGTH | AREA | |
| STATION | | | | | | | 6. | | ļ | | | GRAVEL |
| | | (n) | (m) | (m2) | (m3) | (m2) | (m3) | (m2) | (m3) | (m) | (m2) | (m3) |
| 0 K+ | 0 | 0 | 0 | 14 | | | | 14 | | 14 | | 0 |
| 1 K+ | 0_ | 1000 | 1000 | 12 | 14000 | 0 | 0 | 12 | 14000 | 0 | 14000 | 800 |
| 2 K+ | 0 | 2000 | 1000 | 17 | 12000 | 8 | 0 | 9 | 12000 | 14 | 0 | 800 |
| 3 K+ | 0 | 3000 | 1000 | 16 | 17000 | 2 | 8000 | 14 | 9000 | 0 | 14000 | 800 |
| 3 K+ 2 | 200 | 3200 | 200 | 14 | 3200 | 8 | 400 | 6 | 2800 | 14 | 0 | 160 |
| 4 K+ | 0 | 4000 | 800 | 14 | 11200 | 8 | 6400 | 6 | 4800 | 14 | 11200 | 640 |
| 4 K† 2 | 200 | 4200 | 200 | 14 | 2800 | 8 | 1600 | 6 | 1200 | 14 | 2800 | 160 |
| | | | | | 60200 | | 16400 | | 43800 | | 42000 | 3360 |

TABLE F-3.2.5 (5) QUANTITIES CALCULATION FOR KT 4 XA

| | DISTA | NCE | CU1 | Γ. | FILI | , | SPOILI | ED BANK | BORRO | WAREA | |
|----------|-------|--------|------|--------|------|---------|--------|---------|--------|-------|-------|
| | ACUM. | INTVL. | AREA | QUANT. | AREA | QUQNTI. | AREA | QUANT. | LENGTH | AREA | |
| STATION. | | | | | | | | | | , | GRAVE |
| | (m) | (m) | (m2) | (m3) | (m2) | (m3) | (m2) | (m3) | (m) | (m2) | (m3) |
| 0 K+ 0 |) 0 | 0 | 35 | 0 | 8 | 0 | 27 | 0 | 30 | 0 | 0 |
| 1 K+ (| 1000 | 1000 | 35 | 35000 | 8 | 8000 | 27 | 27000 | 30 | 30000 | 800 |
| 1 K+ 400 | 1400 | 400 | 35 | 14000 | 8 | 3200 | 27 | 10800 | 30 | 12000 | 320 |
| | | | | 49000 | | 11200 | | 37800 | 1 | 42000 | 1120 |

TABLE F-3.2.5 (6) QUANTITIES CALCULATION FOR KT CAU NAU

| | DISTA | NCE | CUI | | FILL | | SPOILE | D BANK | BORRO | W AREA | |
|----------|-------|----------|------|--------|------|---------|--------|--------|--------|--------|--------|
| ** | ACUM. | INTVL. | AREA | QUANT. | AREA | QUQNTI. | AREA | QUANT. | LENGTH | AREA | T . |
| STATION | | | | | | | | | | | GRAVEL |
| | (m) | (m) | (m2) | (m3) | (m2) | (m3) | (m2) | (m3) | (m) | (m2) | (m3) |
| 0 K+ 0 | 0 | 0 | 21 | 0 | 6 | 0 | 15 | 0 | 20 | 0 | 0 |
| 0 K+ 800 | 800 | 800 | 18 | 16800 | 6 | 4800 | 12 | 12000 | 18 | 16000 | 640 |
| 1 K+ 0 | 1000 | 200 | 18 | 3600 | 6 | 1200 | 12 | 2400 | 18 | 3600 | 160 |
| 2 K+ 0 | 2000 | 1000 | 18 | 18000 | 6 | 6000 | 12 | 12000 | 18 | 18000 | 800 |
| 2 K+ 500 | 2500 | 500 | 6 | 9000 | 4 | 3000 | 2 | 6000 | 0 | 9000 | 400 |
| 3 K+ 0 | 3000 | 500 | 6 | 3000 | 4 | 2000 | 2 | 1000 | 0 | 0 | 400 |
| 4 K+ 0 | 4000 | 1000 | 6 | 6000 | 4 | 4000 | 2 | 2000 | 0 | 0 | 800 |
| 4 K+ 300 | 4300 | 300 | 6 | 1800 | 4 | 1200 | 2 | 600 | 0 | 0 | 240 |
| | | <u> </u> | | 41400 | | 17400 | | 24000 | | 30600 | 2800 |

TABLE F-3.2.5 (7) QUANTITIES CALCULATION FOR KT CAU NAU-1

| | DISTA | NCE | CUT | 14 Table 1 | FILL | | SPOILE | D BANK | BORRO | W AREA | |
|----------|-------|--------|------|------------|------|---------|--------|--------|--------|--------|--------|
| | ACUM. | INTVL. | AREA | QUANT. | AREA | QUQNTI. | AREA | QUANT. | LENGTH | AREA | |
| STATION | | | 44.1 | | | | - | | | | GRAVEL |
| | (m) | (m) | (m2) | (m3) | (m2) | (m3) | (m2) | (m3) | (m) | (m2) | (m3) |
| 0 K+ 0 | 0 | 0 | 16 | 0 | 8 | 0 | 8 | 0 | 10 | 0 | 0 |
| 1 K+ 0 | 1000 | 1000 | 16 | 16000 | 8 | 8000 | 8 | 8000 | 10 | 10000 | 800 |
| 1 K+ 700 | 1700 | 700 | 12 | 11200 | 8 | 5600 | 4 | 5600 | . 8 | 7000 | 560 |
| 2 K+ 0 | 2000 | 300 | 12 | 3600 | 8 | 2400 | 4 | 1200 | - 8 | 2400 | 240 |
| 2 K+ 200 | 2200 | 200 | 8 | 2400 | 6 | 1600 | 2 | 800 | . 6 | 1600 | 160 |
| 3 K+ 0 | 3000 | 800 | 8 | 6400 | 6 | 4800 | 2 | 1600 | 6 | 4800 | 640 |
| 3 K+ 200 | 3200 | 200 | 8 | 1600 | 6 | 1200 | - 2 | 400 | 6 | 1200 | 160 |
| | | | | 41200 | | 23600 | | 17600 | | 27000 | 2560 |

TABLE F-3.2.5 (8) QUANTITIES CALCULATION FOR KT CAU NAU-2

| | | DISTA | NCE | CUI | | FILL | , | SPOILE | D BANK | BORRO | W AREA: | |
|--------|-----|-------|--------|------|--------|------|---------|--------|--------|--------|---------|--------|
| | | ACUM. | INTYL. | AREA | QUANT. | AREA | QUQNTI. | AREA | QUANT. | LENGTH | AREA | |
| STATIO | N | | | | | | | | 1 | | | GRAVEI |
| | | (m) | (m) | (m2) | (m3) | (m2) | (m3) | (m2): | (m3) | (m) | (m2) | (m3) |
| 0 K+ | 0 | 0 | 0 | 12 | 0 | 6 | 0 | 6 | 0 | 6 | 0 | 0 |
| 1 K+ | 0 | 1000 | 1000 | 12 | 12000 | 6 | 6000 | 6 | 6000 | 6 | 6000 | 800 |
| 2 K+ | 0 | 2000 | 1000 | 12 | 12000 | 6 | 6000 | 6 | 6000 | 6 | 6000 | 800 |
| 3 K+ | 0 | 3000 | 1000 | 12 | 12000 | 6 | 6000 | 6 | 6000 | 6 | 6000 | 800 |
| 3 K+ | 300 | 3300 | 300 | 12 | 3600 | 6 | 1800 | 6 | 1800 | 6 | 1800 | 240 |
| | 4 | l | | | 39600 | | 19800 | | 19800 | | 19800 | 2640 |

TABLE F-3.2.5 (9) QUANTITIES CALCULATION FOR KON TEN CREEK

| | | 3.11 | DISTA | NCE | CUT | ſ | FILI | | SPOILE | D BANK | BORRO | WAREA | |
|-----|-------------|------|-------|--------|------|--------|------|---------|--------|--------|---------|-------|---------------------------------------|
| 1.7 | | | ACUM. | INTYL. | AREA | QUANT. | AREA | QUQNTI. | AREA | QUANT. | LENGTH | AREA | |
| STA | T10 | N | (m) | (m) | (m2) | (m3) | (m2) | (m3) | (m2) | (m3) | (m) | (m2) | GRAVEL (m3) |
| 0 | K + | 0 | 0 | 0 | | | - | 1. | | | | 1 | ` |
| 1 | K ŧ | . 0 | 1000 | 1000 | | | | | | | | | · · · · · · · · · · · · · · · · · · · |
| 1 | Κŧ | 950 | 1950 | 950 | | | | | 17 | | | | |
| - 2 | K+ | 0 | 2000 | 50 | | | | | | | | | 1 5 4 |
| 3 | K + | 0 | 3000 | 1000 | - | | | | | | 1 | | — |
| 3 | K +. | 50 | 3050 | 50 | | | | | | | | | |

TABLE F-3.2.5 (10) QUANTITIES CALCULATION FOR TAN CHI CANAL

| <u> </u> | | | | | | | | | | | |
|----------|-------|--------|------|--------|------|---------|--------|--------|--------|--------|--------|
| | DISTA | NCE | CU1 | [| FILL | , | SPOILE | D BANK | BORRO | W AREA | |
| | ACUM. | INTYL. | AREA | QUANT. | AREA | QUQNTI. | AREA | QUANT. | LENGTH | | T |
| STATION | | | | | | | 1 | | | | GRAVEL |
| | (m) | (m) | (m2) | (m3) | (m2) | (m3) | (m2) | (m3) | (m) · | (m2) | (m3) |
| 0 K+ 0 | 0 | 0 | 24 | 0 | - 0 | 0 | 24 | 0 | 10 | 0 | 0 |
| 1 K+ 0 | 1000 | 1000 | 24 | 24000 | 0 | 0 | 24 | 24000 | 10 | 10000 | 800 |
| 1 K+ 500 | 1500 | 500 | 24 | 12000 | 0 | 0 | 24 | 12000 | 10 | 5000 | 400 |
| | | | | 36000 | | 0 | | 36000 | | 15000 | 1200 |

TABLE F-3.2.5 (11) LIST OF QUANTITY CALCULATION

| ************************************** | птрт | Ot MO | 711111 | UNLUU. | PUT I OIA | | | | | | | | | |
|--|-------|---------|--------|--------|-----------|-------|--------|-------|--------|--------|--------|-------|--------|-------|
| ITEM | | | | | | | | | Canal | | | Struc | ture | |
| | R | .C. PII | PE (m |) . | | CONC. | GATE | BRICK | EXCAV. | FILL | GRAVEL | BRICK | EXCAV. | FILL |
| CANAL | 0.3 | 0.45 | 0.6 | 0.7 | 0.8 | (m3) | (t) | (m3) | (m3) | (m3) | (m3) | (m3) | (m3) | (m3) |
| MAIN CANAL | 720 | 120 | 100 | 140 | 40 | 561 | 4.960 | 15081 | 14016 | 28032 | 4906 | 39 | 3950 | 3697 |
| DAY GANG | 68 | | | | | | 0.015 | 14 | 682 | 1363 | 239 | 2 | 222 | 213 |
| DONG BONG | 85 | | | | | | 0.018 | 17 | 848 | 1696 | 297 | 3 | 276 | 265 |
| N-3B (N3A) | 157 | | | 78 | | | 0. 126 | 47 | 1568 | 3136 | 549 | 8 | 843 | 784 |
| N 11 | 80 | · | | 40 | | | 0.064 | 244 | 800 | 1600 | 280 | 4 | 430 | 400 |
| N 4 | 440 | | | | | 212 | 1.065 | 130 | 4400 | 8800 | 1540 | 15 | 1430 | 1375 |
| N 5 | 194 | | | 97 | | | 0. 157 | 607 | 1944 | 3888 | 680 | 10 | 1045 | 972 |
| N 13 | 240 | | 120 | | | | 0. 156 | 728 | 2400 | 4800 | 840 | 13 | 1260 | 1184 |
| CAU NGATU | 112 | Ţ | | 56 | | | 0.090 | 34 | 1120 | 2240 | 392 | 6 | 602 | 560 |
| N 15 | 160 | · | | | 80 | | 0. 158 | 550 | 1600 | 3200 | 560 | 8 | 880 | 809 |
| BAN THONG | 56 | | | | | | 0.012 | 11 | 560 | 1120 | 196 | 2 | 182 | 175 |
| NAM NUI CHE | 372 | | | 186 | · | | 0.300 | 744 | 3720 | 7440 | 1302 | 20 | 2000 | 1859 |
| BAC | 320 | | • | 160 | | | 0. 258 | 96 | 3200 | 6400 | 1120 | 17 | 1720 | 1599 |
| NGHIA TRANG | 38 | | | | | | 0.008 | 8 | 384 | 768 | 134 | 1 | 125 | 120 |
| CHE DOC | 36 | | | | | | 0.008 | 7 | 360 | 720 | 126 | 1 | 117 | 112 |
| THUONG LAM | 72 | 36 | | | | | 0.033 | 22 | 720 | 1440 | 252 | 4 | 365 | 347 |
| N6 | 600 | 360 | | | | 48 | 0. 589 | 2686 | 10400 | 20800 | 3640 | 34 | 3255 | 3094 |
| HOAI THI | 86 | | | | | | 0.019 | 17 | 864 | 1728 | 302 | 3 | 281 | 270 |
| M22 | 26 | 360 | | | | | 0. 181 | 149 | 262 | 523 | 92 | 14 | 1390 | 1301 |
| M24 | 32 | | | 16 | | | 0.026 | 1745 | 320 | 640 | 112 | 2 | 172 | 160 |
| N8 | 416 | | | | | 171 | 0. 727 | 117 | 4160 | 8320 | 1456 | 15 | 1352 | 1300 |
| N35 | . 128 | | 64 | | | | 0.083 | 38 | 1280 | 2560 | 448 | 7 | 672 | 631 |
| N34 | 304 | | | | 152 | | 0. 300 | 869 | 3040 | 6080 | 1064 | 16 | 1672 | 1537 |
| TOTAL | 4743 | 876 | 284 | 774 | 272 | 991 | 9. 353 | 23960 | 58647 | 117294 | 20527 | 243 | 24238 | 22763 |

F-3.3 Disbursement Schedule

FIGURE F-3.3.1 IMPLEMENTATION SCHEDULE

| Year | 1st Y | ear | 2nd Year | Ti | 3rc | 3rd Year | | 4th | 4th Year | | 5th Year | r a | 6th | 6th Year | | 7th Year | ar |
|--------------------------------|-------|-----|----------|--------|------|------------|-------|----------|-------------|------|----------|---------------------------------------|------------|----------|--------|----------|-------|
| Items | II I | ш | III | Ш | I | 11 | Ш | Ţ | п | I | Ħ | E | I | Ш |) H | II. | B |
| I Detail Design | V1, V | 2 | <u> </u> | 3, 44, | Υ5 | | | | | | | V6,V | 77 | | | | |
| II Loan Procedure | | | V1,V2 | | V | V3, V4, V5 | V 5 | | | | : | | A | V6, V7 | · . | | |
| III Tendering | | | V 1 | V.2 | | - | V3,V4 | , V5 | | | | | | , v | V6, V7 | | |
| W Land Aquisition | | | V1, V2 | | | | | | | | | | | | | | |
| V Construction | | | | | | | | | | | | | | | | | |
| 1. Equip. Procurement | | | | | : | | . | | | | | | | | | | |
| 2. Main Drainage System | | | | | | | | | | | | | | | | | |
| (1) Pump Station | | | | Tanchi | | S dwnd | St. | | | | | | | | | | |
| (2) Drainage Canal | | | | | 4, | .4km | | 4 | 4.5km | | | | | | | | |
| (3) Drainage Structure | | | | | | | | r | n=32 | | | | | | | | |
| (4) Transmission Line | _ | | | | | E | n=10 | | | | | | | | | | ļ |
| 3. Main Irrigation System | | | | | | | | | | | | | | | | | |
| (1) Irrigation Canal | | | | | | | | | | | 5.8km | Œ. | 5 | .9km | | 5.8km | Ē |
| (2) Structure | | | | | | | | | | | | | =u | n=37 | | n=37 | |
| 4. Secondary Drainage System | | | | | KT T | TANCHI | _L | TRINH. | VH XA, | KT 4 | 4XA, K | KT CAU | CAUNAU, KT | -6 X A | and 0 | OTHERS | |
| 5. Secondary Irrigation System | | | | | | | | | | | N6 | | OTH | OTHERS | | | |
| 6. Main Farm Road | | | | | | | | | | | | · · · · · · · · · · · · · · · · · · · | | | | | |
| 7. Fish Pond | | | | | | | | | • | | | | | | | | |
| IV Consultant Service | | | | \top | + | + | + | \dashv | \parallel | | | | | | | | |

Viet Nam Pump & Material - Alternative-1 TABLE F-3.3.2(1) DISBURSEMENT SCHEDULE (TAN CHI AREA)

| | Total | | | 3654. 7 | 0.0 | 360.8 | 481.7 | 486. 1 | 251.4 | 214.7 | 187.0 | 206.7 | 199.9 | 168.8 | 355. 7 | | 1625.0 | 90.0 | 752. 1 | 316.0 | 1032. 1 | 1784. 4 | 37.1 |
|----------------|-------|------|---------------------|-----------------|-------------------|---------------|-------------|---------|---------------|---------|------------|--------------|--------------|------------|----------|------------------|--------------------------|--------------------|-----------------------|---------------------------|----------------------|--------------------|-----------------|
| | ည | | | 36 | | 133 | 4 | 4 | 2 | 2 | 80 | 2 | က | - | | | 16 | | က | 60 | | | 642. 3 13137. 1 |
| | 2001 | C.C | | | | | | | | | 91. | 109. | 106. | | 30.8 | | | | 38 38 | 38 86 | 41 | 185.8 | |
| CUNIT; 1000USD | | F.C | | | | | | | | | 95. 2 | 97.2 | 93.6 | | 28.6 | | | | | | 31.5 | 99. 3 | 445.3 |
| | 2000 | L.C | | | | | | 226.3 | | | | | | | 22.6 | | | | 38.3 | 38.3 | 32.6 | 121.8 | 479.9 |
| | 3 | F. C | | | 1. | | | 259.8 | | | | | | | 26.0 | | | | | | 28.6 | 75. 4 | 389. 7 |
| | 1199 | L.C | | | | | | | 115.9 | 100.7 | | • | | | 21.7 | | | | 38. 3 | 38.3 | 31.5 | 95. 7 | 442.0 |
| | 1 | F.C | | | | | | | 135.5 | 114.0 | | | | | 25.0 | | | | | | 27. 4 | 58. 7 | 360.6 |
| | 1998 | L.C | | | | 290.8 | 266. 1 | | | | | | | | 55. 7 | | | | 38.3 | 38.3 | 68. 9 | 163.4 | 921. 5 |
| | ,—1 | F. C | | | | 389. 6 | 215.6 | | | | | | | | 60.5 | | | | | | 9.99 | 110.3 | 842.6 |
| | 1997 | L.C | | 745.4 | | 290.8 | | | - | | | | | 83.2 | 37. 4 | | 375.0 | | 38. 3 | 38.3 | 160.8 | 278.9 | 2048. 1 |
| | | FC | | 2453.1 | | 389. 6 | | | | | | | | 85.6 | 47.5 | | 1250.0 | | 121.0 | 12.0 | 435.9 | 520.1 | 5314.8 |
| | 1996 | L.C | | 82.8 | | | | | | | | | | | | | | 60.0 | 38.3 | 38.3 | 21.9 | 24.7 | 266.1 |
| | | C. | - | 373.4 | | | | | | | | | | | | | | 0.0 | 121.0 | 12.0 | 50.6 | 37.8 | 594.9 |
| , | 1995 | L.C | | | | | | | | | | | | | | | | | 38.3 | 38.3 | 7.7 | 4.2 | 88. 5 |
| | | F. C | | | | | | | | | | | | | | | | | 242.0 | 23.9 | 26.6 | 8.4 | 300.9 |
| | Year | Item | . Construction Cost | a. Pump Station |). Drainage Canal | Tao Khe Creek | KT Trinh Xa | KT 6 Xa | KT Phat Thich | KT 4 Xa | KT Kau Nau | KT Kau Nau-1 | KT Kau Nau-2 | KT Tan Chi | Overhead | Association Cost | a. Construction Machines | b. Land Aquisition | c. Consulting Service | d. Project Administration | Physical Contingency | . Price Escalation | Total |

Viet Nam Pump & Material - Alternative-1 TABLE F-3.3.2(2) DISBURSEMENT SCHEDULE (TAN CHI + HANQUANG AREA)

| Treat F.C. L.C. F.C. <t< th=""><th>TOTAL TRANSPORTED TOTAL TRANSPORTED TOTAL TRANSPORTED TO THE TRANSPORT</th><th></th><th></th><th></th><th>,</th><th></th><th>Z</th><th></th><th>٠.</th><th></th><th></th><th></th><th></th><th>(UNIT: 1000USD)</th><th>(QSDO)</th><th>1</th></t<> | TOTAL TRANSPORTED TOTAL TRANSPORTED TOTAL TRANSPORTED TO THE TRANSPORT | | | | , | | Z | | ٠. | | | | | (UNIT: 1000USD) | (QSDO) | 1 |
|--|--|----------|--------|-------|-------|--------|--------|--------|--------|--------|-------|--------|--------|-----------------|--------|---------|
| F.C. L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F | Year | | 1995 | | 966 | | 1997 | | 866 | | 199 | | | | 2001 | Total |
| st 427. 5 186. 3 2786. 6 1406.4 | | Γ | ပ [| | J. C | F. C | T. C | | J.C | F. C | T. C | F. C | T. C | F.C | I. C | |
| transional and the control of the co | Construction Cost | | | | | | | | | | | | | | | |
| t t t t t t t t t t t t t t t t t t t | Pump Station | | | 427.5 | 156.3 | 2786.6 | | | | | | | | | | 4776.8 |
| 186 187 | Drainage Canal | | | | | | | | | | | | | | | 0.0 |
| ine ine ine ine ine ine ine ine | Tao Khe Creek | | | | | 389. 6 | 8 067 | 389. 6 | 290.8 | | | 5 | | | | 1360.8 |
| KT f Axa KT Phat Thich 113.6 115.9 259.8 226.3 18.2 KT 4 Xa KT 4 Xa KT Axa KT Axa KT Axa Month 114.0 100.7 95.2 91.8 KT Kau Nau-1 KT Kau Nau-1 KT Kau Nau-1 Month | KT Trinh Xa | | | | | | | 215.6 | 266.1 | | | | | | | 481.7 |
| KT 4 Na KT 4 Na KT Kau Nau-1 113.5 115.9 115.9 118.0 <th< td=""><td>KT 6 Xa</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>259.8</td><td>226.3</td><td></td><td></td><td>486. 1</td></th<> | KT 6 Xa | | | | | | | | | | | 259.8 | 226.3 | | | 486. 1 |
| KT Kau Nau. KT Kau Nau. III.0 100.7 95.2 91.8 KT Kau Nau. KT Kau Nau. Man. | KT Phat Thich | | | | | | - | | | 135. 5 | | | | | | 251.4 |
| KT Kau Nau KT Kau Nau KT Kau Nau-1 KT Kau Nau-1 95.2 91.8 KT Kau Nau-1 KT Kau Nau-1 95.2 91.8 91.5 91.5 91.5 91.5 91.5 91.6 91.5 91.6 91.5 91.6< | KT 4 Xa | | | | | | | | | 114.0 | | | - | - | | 214.7 |
| National Part National Par | KT Kan Nam | | | | | | | | | | - | | | 95. 2 | 91.8 | 187.0 |
| Tansmission Line Construction Machines Construct | VT Van Nan-1 | | | | | | | | | | | | | 97.2 | 109.5 | 206.7 |
| Content Creek 190.8 215.8 9 | KT Kan Nan-9 | | | | | | | | | | | | | 93.6 | 106.3 | 199.9 |
| Other canals Other canals 190.8 215.8 9.2 6.0 21.7 26.0 22.6 28.6 30.8 Overhead Overhead 74.1 67.5 60.5 55.7 25.0 21.7 26.0 22.6 28.6 30.8 Transmission Line Transmission Line 1200.0 1800.0 | Conten Creek | | | | | 74.8 | 85.0 | | | | | | | | | 159.8 |
| KT Han Quang S5.6 83.2 60.5 55.7 25.0 21.7 26.0 22.6 28.6 30.8 Overhead Overhead TA.1 67.5 60.5 55.7 25.0 21.7 26.0 22.6 28.6 30.8 Transmission Line Ssociation Cost 1200.0 1800.0 1800.0 1800.0 375.0 20.0 21.7 26.0 22.6 28.6 30.8 30.8 Land Aquisition Land Aquisition 0.0 62.0 375.0 375.0 379.2 79.2 79.2 79.2 79.2 Project Administration 33.3 79.2 16.6 79.2 79.2 79.2 79.2 79.2 Project Administration 38.3 79.2 16.6 79.2 79.2 79.2 79.2 79.2 Project Administration 11.7 8.7 445.3 76.2 76.2 76.2 76.2 76.2 76.2 76.2 76.2 76.2 76.2 76.2 | Other canals | | | | | 190.8 | 215.8 | | | | | | | | | |
| Overhead T4.1 67.5 60.5 55.7 25.0 21.7 26.0 22.6 28.6 30.8 Transmission Line Issociation Cost Construction Machines 1200.0 1800.0 375.0 1250.0 375.0 1250.0 375.0 1250.0 375.0 1250.0 375.0 1250.0 375.2 1250.0 376.2 1250.0 376.2 1250.0 376.2 1250.0 376.2 1250.0 377.1 1250.0 377.1 1250.0 377.1 127.1 127.4 38.7 128.6 49.7 188.7 188.7 188.7 188.7 188.7 188.7 188.8 188.9 188.7 188.9 188.7 188.9 188.9 188.7 188.9 188.9 | KT Han Quang | | | | | 85.6 | 83. 2 | | | - | | | | | | 168.8 |
| Transmission Line 1200.0 1800.0 375.0 79.2 79.2 16.6 79.2 16.6 79.2 16.6 79.2 16.6 77.1 110.3 182.6 182.0 183.0 182.0 183.0 | Overhead | | | | | 74.1 | 67.5 | 60.5 | 55. 7 | 25.0 | 21.7 | 26.0 | 22.6 | 28. 6 | 30.8 | 412.4 |
| Transmission Line 1200. 0 1800. 0 375. 0 375. 0 375. 0 375. 0 375. 0 375. 0 375. 0 375. 0 375. 0 375. 0 375. 0 375. 0 375. 0 375. 0 375. 2 | | | | | | | | - | | | | | | | | 0 |
| Ssociation Cost Construction Machines 1250.0 375.0 79.2 79.2 79.2 167.8 79.2 167.8 79.2 167.8 79.2 167.9 79.2 167.8 79.2 167.8 79.2 167.8 79.2 167.8 79.2 167.8 79.2 167.8 79.2 167.8 79.2 167.8 79.2 167.8 79.2 167.8 79.2 167.8 79.2 167.8 79.2 167.8 79.2 167.8 167.8 168.6 17.1 27.4 39.7 28.6 40.7 31.5 49.7 hysical Contingency 36.9 15.8 61.2 37.7 110.3 182.8 58.7 120.5 75.4 195.3 222.5 rice Escalation 417.4 183.0 718.8 7603.5 5707.4 842.6 1030.9 360.6 556.9 389.7 600.4 4455.3 768.9 268.9 566.9 556.9 389.7 600.4 4455.3 768.9 566.9< | Transmission Line | | | | | 1200.0 | | | | | | | | | | 3000.0 |
| Construction Machines a. 1250.0 375.0 a. 1250.0 375.0 a. 1250.0 | Association Cost | | | | | | | | | | | | | | | |
| Land Aquisition 0.0 62.0 79.2 | Construction Machines | | | | | 1250.0 | 375.0 | | | | | | | | | 1625.0 |
| Consulting Service 335.5 79.2 167.8 79.2 167.6 79.2 16.6 79.2 16.6 79.2 16.6 79.2 16.6 79.2 16.6 77.1 10.2 | Land Aquisition | | | 0.0 | 62.0 | | | | | | | | | | | 62.0 |
| 38.3 79.2 16.6 79.2 16.6 79.2 79.2 79.2 79.2 36.9 15.8 61.2 37.7 623.6 448.2 66.6 77.1 27.4 39.7 28.6 40.7 31.5 49.7 11.7 8.7 45.7 42.5 744.1 777.1 110.3 182.8 58.7 120.5 75.4 152.4 99.3 222.5 417.4 183.0 718.8 456.8 7603.5 5707.4 842.6 1030.9 360.6 556.9 389.7 600.4 445.3 768.9 278.0 | Consulting Service | 335. 5 | 79.2 | 167.8 | 79.2 | 167.8 | 79.2 | | 79.2 | | 79.2 | ļ | 79. 2 | | 79. 2 | 1225. 5 |
| 36. 9 15. 8 61. 2 37. 7 623. 6 448. 2 66. 6 77. 1 27. 4 39. 7 28. 6 40. 7 31. 5 49. 7 158. 11. 7 8. 7 45. 7 42. 5 744. 1 777. 1 110. 3 182. 8 58. 7 120. 5 75. 4 152. 4 99. 3 222. 5 2651. 417. 4 183. 0 718. 8 456. 8 7603. 5 5707. 4 842. 6 1030. 9 360. 6 556. 9 389. 7 600. 4 445. 3 768. 9 20082. | Project Administration | 33.3 | 79.2 | 16.6 | 79.2 | 16.6 | 79. 2 | | 79.2 | | 79.2 | | 79. 2 | | 79.2 | 620.9 |
| 11.7 8.7 45.7 42.5 744.1 777.1 110.3 182.8 58.7 120.5 75.4 152.4 99.3 222.5 2651. 417.4 183.0 718.8 456.8 7603.5 5707.4 842.6 1030.9 360.6 556.9 389.7 600.4 445.3 768.9 20082. | Physical Contingency | 36.9 | 15.8 | 61.2 | 37.7 | 623.6 | 448.2 | 9.99 | 77. 1 | 27.4 | 39. 7 | | 40.7 | | 49. 7 | 1584. 6 |
| 417.4 183.0 718.8 456.8 7603.5 5707.4 842.6 1030.9 360.6 556.9 389.7 600.4 445.3 | Price Escalation | 11.7 | 8. 7 | 45.7 | 42.5 | 744. 1 | 777. 1 | 110.3 | 182.8 | 58.7 | 120.5 | 75.4 | 152. 4 | 99.3 | 222. 5 | 2651.5 |
| | Total | 417.4 | 183.0 | 718.8 | 456.8 | 7603.5 | 5707.4 | 842.6 | 1030.9 | 360.6 | 556.9 | 389. 7 | 600.4 | 445.3 | 768 9 | 0082. 1 |

TABLE F-3.3.2(3) DISBURSEMENT SCHEDULE (TAN CHI AREA) Viet Nam Pump & Material - Alternative-2

| | Total | | · | 3654. 7 | 0.0 | 360.8 | 481.7 | 486.1 | 251.4 | 214.7 | 187.0 | 206.7 | 199.9 | 168.8 | 355. 7 | | 665.9 | 203.9 | 693. 2 | 156.3 | | 1625.0 | 60.0 | 923. 5 | 458.6 | 1235. 4 | 2397.6 | 15986.9 | 936 |
|-----------------|-------|------|-------------------|--------------|----------------|---------------|-------------|---------|---------------|---------|------------|--------------|--------------|------------|----------|------------------|------------------------|----------------------|--------|----------|------------------|-----------------------|--------------------|--------|---------------------------|----------------------|------------------|-----------|---------------------|
| Ī | | ၁ | | ह | | Ï | - | | | | 91.8 | 109.5 | 106.3 | | 30.8 | | | | | | | 1(| | 58.2 | 58.2 4 | 45.5 12 | \vdash | | 826 |
| (UNIT; 1000USD) | 2001 | J.C | ļ., | | | | | | | | 2 | | _ | | | | | | | | | | | S | 5 | 5 4 | 3 20 | 3 | 11 |
| CUNIT; | | F.C | | | | | | | | | 95. | 97.2 | 93.6 | | 28.6 | | | | | | | | | | | 31. | 99. | 445. | |
| | 2000 | ЭТ | | | | | | 226.3 | | | | | | | 22.6 | | | | 517.0 | 51.7 | | | | 58.2 | 58.2 | 93. 4 | 349.4 | 1376.9 | 1019 |
| | | F.C | ٠. | | | | | 259.8 | | | | | | | 26.0 | | | | 176.2 | 17.6 | | | | | | 48.0 | 126.5 | 654.0 | |
| | 199 | r.C | | | | | | | 115.9 | 100.7 | | | | | 21.7 | | 589.8 | 163.4 | | 75.3 | | | : | 58.2 | 58.2 | 118.3 | 359.6 | 1661. 1 | 1060 |
| | | F.C | | | | - | | | 135. 5 | 114.0 | | - · | | | 25.0 | | 76. 1 | 40.5 | | 11.7 | | | | | | 40.3 | 86.1 | 529. 1 | |
| | 1998 | J.T | | | | 290.8 | 266.1 | | | | | | | | 55. 7 | | | | | | | | | 58.2 | 58. 2 | 72. 9 | 172.8 | 974. 7 | 1101 |
| , | | F.C | | | | 389. 6 | 215.6 | | | | | | - | | 60.5 | | | | | | | | | | | 9.99 | 110.3 | 842.6 | |
| | 1997 | J. C | | 745. 4 | | 290.8 | | | | | | | | 83. 2 | 37.4 | | - | | | | | 375.0 | | 58. 2 | 58.2 | 164.8 | 285.8 | - | 1937 |
| | | F. C | | 2453. 1 | | 389. 6 | | | | | - | | | 85.6 | 47.5 | | | | | | | 1250.0 | | 129.0 | 12.8 | 436.8 | | 5325. 5 2 | |
| | 1996 | L.C | | 85.8 | | | | | | | | | | | | | | | | | | | 60.0 | 58. 2 | 58.2 | 25.9 | | 314.3 5 | 1937 |
| | | F. C | ĺ | 373.4 | | | | | | | | | | | | | | | | | | | 0.0 | 129.0 | 12.8 | 51.5 | 38. 5 | 605. 2 | |
| | 1995 | L.C | | | | | | | | - | | | | | | | | | | | | | | 58. 2 | 58. 2 | 11.6 | 6.4 | 134. 4 | 1937 |
| | ĺ | F. C | | | | | | | | | | | | | | | | | | | | | | 258. 1 | 25.6 | 28. 4 | 9.0 | 321. 1 | |
| A N | Year | Item | Construction Cost | Pump Station | Drainage Canal | Tao Khe Creek | KT Trinh Xa | KT 6 Xa | KT Phat Thich | KT 4 Xa | KT Kau Nau | KT Kau Nau-1 | KT Kau Nau-2 | KT Tan Chi | Overhead | Irrigation Canal | South Irrigation Canal | N 6 Irrigation Canal | Others | Overhead | Association Cost | Construction Machines | b. Land Aquisition | ice | d. Project Administration | Physical Contingency | Price Escalation | | INUNDATED AREA (ha) |
| L | | 듸 | | તું | ا خ | | | | | | | | | | | <u>ن</u> Fi | <u> </u> | 33 | | | S. | ä | q | ರ | Ö | ဌာ | 4 | | INI |

TABLE F-3.3.2(4) DISBURSEMENT SCHEDULE (TAN CHI + HANQUANG AREA) Viet Nam Pump & Material - Alternative-2

| | Total | | | 4776.8 | 0.0 | 1360.8 | 181.7 | 486.1 | 51.4 | 14.7 | 87.0 | 7.90 | 99.9 | 159.8 | 06.6 | 168.8 | 412.4 | | 62.9 | 03.9 | 700.2 | 57.0 | | 3000.0 | | 1625.0 | 62.0 | 1397.9 | 764. 1 | 1788.9 | 67.7 | 45.2 | 1395 |
|-----------------|----------------|-------|-------------------|-----------|----------------|---------------|-------------|---------|---------------|---------|------------|--------------|--------------|--------------|--------------|--------------|----------|------------------|------------------------|----------------------|--------|----------|----------|----------------------|------------------|---|-----------------|-----------|------------------------|----------------------|-------------|-----------------|---------------------|
| | <u>ت</u> | ပ | | 4.1 | | 15 | 7 | 4 | 3 | 3 | | 109.5 | | 1 | 4 | 1 | 30.8 4 | | 9 | 2 | Į. | | • | 30 | | 16 | | | 99.2 7 | | 240.4 3267. |). 8 229 | 1450 |
| (UNIT: 1000USD) | 2001 | L. C | | | | | | | | | | | | | | | 9 | | | | | | | | | _ | | 36 | ъ Б | | | 3 830 | 1, |
| (UNIT; | | F. C | | | | | | | | | 95. | 97.2 | 93. | | | | 28. | | | | | | | | | | | | | 31. | 99. 3 | 445. | |
| | 2000 | L.C | | | | | | 226.3 | | | | | | | | | 22.6 | | | | 522. 2 | 52. 2 | | | | | | 99. 2 | 99. 2 | 102.2 | 382. 2 | 1506.2 | 1504 |
| | | F. C. | | | | | | 259.8 | | | | | | | | | 26.0 | | | | 178.0 | 17.8 | | | | *************************************** | | - | | 48. 2 | 127.0 | 656. 7 | . |
| | 1199 | ГC | | | | | | | 115.9 | 100.7 | | | | | | | 21.7 | | 589.8 | 163.4 | | 75.3 | | | | | | 99. 2 | 99. 2 | 126.5 | 384. 5 | 1776.2 | 1558 |
| | | F. C | | | | | | | 135.5 | 114.0 | | | | | | | 25.0 | | 76. 1 | 40.5 | | 11.7 | | | | | | | | 40.3 | 86.1 | 529. 1 | |
| | 1998 | ГС | | | | 290.8 | 266. 1 | | | | | | : | | | | 55.7 | | | | | | | | | | -7 | 99. 2 | 99.2 | 81.1 | 192. 3 | 1084.3 | 1612 |
| | | F. C | | | | 389.6 | 215.6 | | | | | | | | - | | 60. 5 | | | | | | | | - | | | | | 66.6 | | 842.6 | |
| | 19 9 7. | L.C | | 1406.4 | | 290.8 | | | | | | | | 85.0 | 215.8 | 83. 2 | 67.5 | | | | | | | 1800.0 | | 375.0 | | 99. 2 | 99. 2 | 452. 2 | 784. 1 | 5758.4 | 2710 |
| | _ | F. C | | 2786.6 | - | 389.6 | · . | | | | | | | 74.8 | 190.8 | 85.6 | 74. 1 | | | | | | | 1200.0 | : | 1250.0 | | 175.9 | 17.4 | 624. 5 | | 7614.4 | : |
| | 1996 | r.c | | 156.3 | | | | | | | | | | | | | | | | | | | | | | | 62.0 | 99. 2 | 99. 2 | 41.7 | | | 2710 |
| | - | F. C | | 427.5 | | : | | | | | | | | | | | | | | | | | <u>.</u> | | | | 0.0 | 175.9 | 17.4 | 62. 1 | 46.4 | 729. 2 | |
| | 1995 | L.C | | | | | | | | | | | | | | | | | | | | | - | | | | | 99. 2 | 99. 2 | 19.8 | 10.9 | 229. 2 | 2710 |
| | <u> </u> | F.C | | | | | | | | | | | | | | | | | | | | | | | | | | 351.7 | 34.9 | 38. 7 | | 437. 5 | |
| | Year | L' | Construction Cost | p Station | Drainage Canal | Tao Khe Creek | KT Trinh Ka | KT 6 Xa | KT Phat Thich | KT 4 Xa | KT Kau Nau | KT Kau Nau-1 | KT Kau Nau-2 | Conten Creek | Other canals | KT Han Quang | Overhead | Irrigation Canal | South Irrigation Canal | N 6 Irrigation Canal | ers | Overhead | | d. Transmission Line | Association Cost | Construction Machines | Land Aquisition | ice | Project Administration | Physical Contingency | | | INUNDATED AREA (ha) |
| | | Item | L Cons | a. Pum | | Tao | KT | KT | KT | KT | KT | KT | KT | S | O. | KT | Ove | c. Irr | Son | 9 N | 0thers | Ove | | d. Tra | 2. Asso | a. Con | b. Lan | | d Pro | 3. Phys | 4. Pric | Total | INUNDAT |
| | | | | | | | | | : | | | | | : | F | ,— 6 | 4 | | | | | | | | | | | | | | | | |

TABLE F-3.3.2(5) DISBURSEMENT SCHEDULE (TAN CHI AREA) Viet Nam Pump & Material - Alternative-3

| | IABLE f -3.3.4(3) UISBURSERENI | n (c) | 1 SD UKSI | | SCREDULE (IAN CRI AREA) | TAIN T | Cul A | | VIEL NAM I UMP & MAVOL 181 | מים ד | ਰ ਹ | 4 n + 400 | TINIL | (IINIT: 1000IISD) | | |
|----------|--------------------------------|--------|-----------|--------|-------------------------|---------|--------------|-------|----------------------------|--------|---------|---------------------|------------|-------------------|--------|---------|
| | Vear | | 1005 | | 1996 | | 1007 | | 860 | | 1199 | , | 2000 | 2 | | Total |
| | | Ç. | 1. C | 1 1 | . C | F C | J C | FC | O I | F. C |) I | F.C | L.C | F. C | C L | |
| | 1 Construction Cost | | ì | 2 | i | ? |) i | | | | | | | | | |
| | a Pum Station | | | 373.4 | 82.8 | 2453. 1 | 745. 4 | | | | | | | | | 3654.7 |
| | 1 | | | | + | | | | | | | | | | | 0 0 |
| | | | | | | 389. 6 | 290.8 | 389.6 | 290.8 | | | | | | | 1360.8 |
| | KT Trinh Xa | | | | | | | 215.6 | 266.1 | | | | | | - | 481.7 |
| | KT 6 Xa | | | | | | | | | | | 259.8 | 226.3 | | - | 486. 1 |
| | KT Phat Thich | | | | | | | | , | 135.5 | 115.9 | | | | | 251.4 |
| | KT 4 Xa | | | | | | | | | 114.0 | 100.7 | | | | | 214.7 |
| | KT Kan Nan | | | | | | | | | | ** | | | 95. 2 | 91.8 | 187.0 |
| | VT Ven Neue-1 | | | | | | | | | | | | | 97.2 | 109.5 | 206.7 |
| - | KT Kan Nan-9 | | | | | | | | | | - | | | 93.6 | 106.3 | 199.9 |
| | KT Tan Chi | | | | | 85.6 | 83.2 | | | | | | | | | 168.8 |
| ,- | Overhead | | | | | 47.5 | 37.4 | 60.5 | 55. 7 | 25.0 | 21.7 | 26.0 | 22. 6 | 28.6 | 30.8 | 355. 7 |
| | c. Irrigation Canal | | | | | | | | | | | | | | | |
| | 1 | | | | | | | | | 76.1 | 589.8 | | | | | 665.9 |
| | N 6 Irrigation Canal | | | | | - | - | | .*. | 40.5 | 163.4 | | | | | 203.9 |
| | Others | | | | | | | | | | | 176.2 | 517.0 | | | 693. 2 |
| | Overhead | | | | | | | | | 11.7 | 75.3 | 17.6 | 51.7 | | | 156.3 |
| . : | d. Pond Construction | | | | | | | | | | | | | 234.0 | 28.3 | 262.3 |
| | | | | | | | | | | | | | | | | , |
| | a. Construction Machines | | | | | 1250.0 | 375.0 | | | | | | | | | 1625.0 |
| | b. Land Aquisition | | | 0.0 | 90.0 | | | | | | | - | | | 6 | 20.0 |
| . • | | 269.8 | 58.6 | 134.9 | 58.6 | 134.9 | 58. 6 | | 58.6 | | 58.6 | | 2 % | | 58.6 | 949.0 |
| <i>.</i> | d. Project Administration | 26.7 | 58.6 | 13.4 | 58.6 | 13.4 | 58.6 | | 58.6 | | 58.6 | | 58.6 | | 58.6 | 463.7 |
| | 3. Physical Contingency | 29. 7 | 11.7 | 52. 2 | 26.0 | 437.4 | 164.9 | 9.99 | 73.0 | 40.3 | 118 4 | 48.0 | 93.5 | 54.9 | 48.4 | 1264.8 |
| | 4. Price Escalation | 9.4 | 6.4 | 39.0 | 29.3 | | 285.9 | 110.3 | 173.0 | 86.1 | 359.8 | 126.5 | 349. 7 | 173. 1 | 216.7 | 2487. 1 |
| | Total | 335. 5 | 135.4 | 612.8 | | 5333. 5 | 2099.8 | 842.6 | 975.8 | 529. 1 | 1662. 2 | 654.0 | 1378 0 | 776.5 | | 6399. 5 |
| | INUNDATED AREA (ha) | | 1937 | | | | 1937 | | 1101 | | 1060 |) () () () | 1019 | | 978 | 936 |
| | | | | | | | | | | | | | | | | |

Viet Nam Pump & Material - Alternative-3 TABLE F-3.3.2(6) DISBURSEMENT SCHEDULE (TAN CHI + HANQUANG AREA)

| 1995 |
|--|
| L.C. F.C |
| |
| 427.5 |
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| and the state of t |
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| |
| |
| 181.7 |
| 102.6 18.0 102.6 |
| 62.7 |
| |
| 237.0 736.8 513.6 |
|] |

TABLE F-3.3.2(7) DISBURSEMENT SCHEDULE (TAN CHI AREA) Foreign Pump & Material - Alternative-1

| . | _ | | · | | _ | т — | | 1 | | | · · | _ | | | _ | | | <u> </u> | т - | i | , | | - : | |
|-----------------|-------|------|----------------------|-----------------|-------------------|---------------|-------------|---------|---------------|---------|------------|--------------|--------------|------------|----------|---|---------------------|--------------------------|--------------------|-----------------------|---------------------------|-------------------------|---------------------|-----------------|
| | Total | | | 15768. 4 | 0.0 | 1360.8 | 481.7 | 486.1 | 251.4 | 214.7 | 187.0 | 206. 7 | 199.9 | 168.8 | 355.7 | | | 1625.0 | 60.0 | 1934. 0 | 517.6 | 2381.8 | 3326.3 | 684. 7 29525. 8 |
| (OSD) | 2001 | r.c | | | | | | | | | 91.8 | 109.5 | 106.3 | | 30.8 | : | | | | 52.0 | 52.0 | 44.2 | 198.1 | 684. 7 |
| (INIT; 1000USD) | | F. C | | | | | | | | | 95. 2 | 97.2 | 93.6 | | 28.6 | | | :. | | | | 31.5 | 99.3 | 445.3 |
| | 2000 | r c | | | | | | 226.3 | | | | | | | 22.6 | | | | | 52.0 | 52.0 | 35.3 | 132.0 | 520.3 |
| | 2 | F. C | | | | | | 259.8 | | | | | | | 26.0 | | | | | | | 28.6 | 75.4 | 389. 7 |
| | 1199 | T.C | | | | | | | 115.9 | 100.7 | | | | | 21.7 | | | - | | 52.0 | 52.0 | 34.2 | 104.0 | 480.5 |
| | 1 | F. C | | | | | | | 135. 5 | 114.0 | | | | | 25. 0 | | | | | | | 27. 4 | 58.7 | 360.6 |
| | 866 | L.C | | | | 290.8 | 266.1 | | | | | | | | 55. 7 | | | | | 52.0 | 52.0 | 71.7 | 169.9 | 958. 1 |
| | - | F. C | | | | 389.6 | 215.6 | | | | | | | | 60.5 | | | | 2 | | | 9.99 | 110.3 | 842.6 |
| | 1997 | J. C | | 1611.7 | | 290.8 | | | | | · · | | | 83. 2 | 37. 4 | | | 375.0 | | 52.0 | 52.0 | 250.2 | 433.8 | 3186. 1 |
| | | F. C | | 11965.8 | | 389.6 | | | | | | | | 85.6 | 47.5 | | | 1250.0 | | 392. 5 | 38. 4 | 1416.9 | 1690. 7 | 17277. 1 |
| | 1996 | r.c | | 179.1 | | | | | | | | | | | | , | | | 0.09 | 52.0 | 52.0 | 34.3 | 38. 7 | 416.1 |
| | Ţ | F. C | | 2011.8 | | : | | | | | | | | | | | | | 0.0 | 392. 5 | 38. 4 | 244.3 | 182. 4 | 2869. 4 |
| | 1995 | r.c | | | | | | | | | | | | | | | | | | 52.0 | 52.0 | 10.4 | 5.7 | 120.1 |
| | . 1 | F. C | | | | | | | | | | | | | | | | | | 785.0 | 76.8 | 86. 2 | 27.3 | 975.3 |
| | Year | Item | 1. Construction Cost | a. Pump Station | b. Drainage Canal | Tao Khe Creek | KT Trinh Xa | KT 6 Xa | KT Phat Thich | KT 4 Xa | KT Kau Nau | KT Kau Nau-1 | KT Kau Nau-2 | KT Tan Chi | Overhead | | 2. Association Cost | a. Construction Machines | b. Land Aquisition | c. Consulting Service | d. Project Administration | 3. Physical Contingency | 4. Price Escalation | Total |

TABLE F-3.3.2(8) DISBURSEMENT SCHEDULE (TAN CHI + HANQUANG AREA) Foreign Pump & Material - Alternative-1

| | Total | | | 21403.9 | 0.0 | 1360.8 | 481. 7 | 486. 1 | 251.4 | 214.7 | 8 187.0 | | 5 206. | ന ക | ന | ന്ന | 32 | , m | | | | 1 (3) (a) (a) (b) (c) (d) (d) (d) (d) (d) (d) (d) (d) (d) (d | | 2 | QQ | | |
|---------------|-------|----------|-------------------|----------------|----------------|---------|-------------|---------|---------------|--|----------|--------------|--------------|-----|--------|----------------|--|--|---|-------------------------------------|--|---|--|--|---|---|---|
| UNIT: 1000USD | 2001 | LC | | | | _ | | | | | 2 91. | | | | | | | | | | | | | | | | 32 6 6 7 |
| (UNIT; | | ٦. د | | | | | | 33 | | | 95. | 2 | 2.18 | 93. | 93. | 93. | 93. | 93. | | | | | | | | | |
| 0000 | 2000 | C | | | | | | 226.3 | | | | | | | | | | 22. | 22. | 52. | 22 | 75. | 55. | | 22. 22. 91. 91. | | |
| | | F. C | | | | | | 259.8 | | | | _ | | | | | | 26.0 | 26. | 26. | 26. | 26. | 58. | 26. | 26. | 26. | 26. |
| | 1199 | L.C | | | | | | | 115.9 | 100.7 | | | , | | | | | 21.7 | 21.7 | 21.7 | 21.7 | 21.7 | 21.7 | 21.7 | 21.7 | 21. 7 | |
| | | F. C | | | | | | | 135.5 | 114.0 | | | | | | | | 25.0 | 25.0 | 25.0 | 25.0 | 25.0 | 25. 0 | 25. 0 | 25. 0 | 25.0 | 25. 0 |
| | 1998 | L.C | | | | 290.8 | 266. 1 | | | : | | | | | | | | 55.7 | 55.7 | 55.7 | 55.7 | 55.7 | 55.7 | 55.7 | 55. 7 55. 7 91. 6 91. 6 | 55. 7 91. 6 91. 6 | 91. 6 91. 6 79. 6 188. 6 |
| | , 1 | F.C | | | | 389.6 | 215.6 | | | | | | | | | | | 60.5 | 60.5 | 60.5 | 60.5 | 60.5 | 60.5 | 60.5 | 60.5 | 66. 6 | 60. 5 |
| | 1997 | J.T | | 2190.4 | | 290.8 | - | | | | | | | | 85.0 | 85.0 215.8 | 85.0 215.8 83.2 | 85.0 215.8 83.2 67.5 | 85.0 215.8 83.2 67.5 | 85.0 215.8 83.2 67.5 | 85. 0 215. 8 83. 2 67. 5 67. 5 | 85. 0 215. 8 83. 2 67. 5 67. 5 375. 0 | 85. 0 215. 8 83. 2 67. 5 67. 5 375. 0 | 85. 0 215. 8 83. 2 83. 2 67. 5 67. 5 375. 0 | 85. 0 215. 8 83. 2 67. 5 67. 5 91. 6 91. 6 | 85. 0 215. 8 83. 2 67. 5 67. 5 67. 5 91. 6 91. 6 529. 1 | 85.0 215.8 83.2 67.5 67.5 91.6 91.6 91.6 529.1 |
| | _ | F.C | | 16335.6 | | 389.6 | - | | | | | | | | 74.8 | | 74. 8 190. 8 85. 6 | 74.8 190.8 85.6 74.1 | 74.8 190.8 85.6 74.1 | 74.8 190.8 85.6 74.1 | 74.8 190.8 85.6 74.1 7200.0 | 74.8 190.8 85.6 74.1 74.1 | 74.8 190.8 85.6 74.1 1200.0 | 74.8 190.8 85.6 74.1 74.1 1200.0 1250.0 | 74.8 190.8 85.6 74.1 74.1 1200.0 1250.0 552.9 54.3 | 74. 8 85. 6 85. 6 74. 1 1200. 0 1250. 0 552. 9 54. 3 2020. 8 | 74. 8 85. 6 74. 1 1200. 0 1250. 0 552. 9 54. 3 2020. 8 |
| | 1996 | I, C | | 243.4 1 | | | | | | | | | | | | | | | | | | | 62.0 | 62.0 | 62.0 91.6 91.6 | 62. 0 91. 6 48. 9 | -·├··├ ───────────────────────────────── |
| | | F.C | | 2634. 5 | | | | | | | 1 | | | - | | | | | | | | | 0.0 | 0.0 | 0.0 | 0.0 552.9 54.3 324.2 | 0.0 552.9 54.3 324.2 242.1 |
| | 1995 | | ļ | | | | - | | | | | | | _ | | | | | | | | | | 91.6 | 91.6 | 91.6 | 91.6 18.3 10.1 |
| | T | F.C | - | | - | | | | | | | | | _ | | | | | | | | | | 1105.8 | 1105.8 | 1105.8 108.5 121.4 | 1105.8 108.5 38.5 |
| | | <u> </u> | | | | | | | | | | | | | | | | | | <u></u> | | dines | de de la companya de | | - - - - - - - - - - - - - - - - - - - | | |
| | Year | | Construction Cost | ation | - Canal | Creek | , Xa | | Thich | | Van | Van-1 | Nau-2 | 1 | Creek | Creek anals | Creek anals Ouang | Oreek anals Quang d | Creek anals Quang d | Creek anals Quang d | Conten Creek Other canals KT Han Quang Overhead C. Transmission Line Association Cost | Creek anals Quang d ssion Lin ion Cost ction Mac | Conten Creek Other canals IT Han Quang Overhead Overhead C. Transmission Line Association Cost a. Construction Machines b. Land Aguisition | Creek anals Quang d ssion Lin ion Cost ction Mac uisition ing Servi | Conten Creek Other canals IXT Han Quang Overhead C. Transmission Line Association Cost a. Construction Machin b. Land Aquisition c. Consulting Service d. Project Administral | Conten Creek Other canals KT Han Quang Overhead Overhead C. Transmission Line Association Cost a. Construction Machines b. Land Aquisition C. Consulting Service d. Project Administration Physical Contingency | Conten Creek Other canals KT Han Quang Overhead Transmission Line Association Cost Construction Machin Land Aquisition Consulting Service Project Administrat Physical Contingency Price Escalation |
| | | Tem | Jonstruci | a. Pum Station | Drainage Canal | Tao Khe | KT Trinh Xa | KT 6 Xa | KT Phat Thich | KT 4 Xa | KT Kall | KT Kau Nau-1 | KT Kau Nau-2 | | Conten | Conten (| Conten Creek Other canals KT Han Quang | Conten Creek Other canals KT Han Quang Overhead | Conten Cl Other can KT Han Qu Overhead | Conten Cother care KT Han (Overhead | Conten Cother Co | Conten Creek Other canals KT Han Quang Overhead Transmission Lin Association Cost Construction Ma | Conten Cother Co | Conten Cother can try Han (Overhead Overhead Associat Construe Land Ag Consult | Conten Cother cother cother cother cother converhead Overhead Associat: Construe Land Aque Consult Project | Conten Cother ce XT Han (Overhead Overhead Associat Constru Consult Project Physical | Conten Creek Other canals KT Han Quang Overhead Transmission Li Association Cost Construction Maland Aquisition Consulting Serv Project Adminis Physical Conting Price Escalation |
| | L | Ť | _ | , | عا | | <u> </u> - | | | | <u> </u> | | | 1 | _ | | | | | ၂၂၂೮ | ್ರ ರ ನ | ပ _{ုံလျှံ} က | | U 2 8 6 0 | ပြင္ပြဲ မေတြ ပုံ | 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 0 0 0 0 0 0 0 0 0 0 0 0 |

Foreign Pump & Material - Alternative-2 TABLE F-3.3.2(9) DISBURSEMENT SCHEDULE (TAN CHI AREA)

| | Total | | | 15768.4 | 0.0 | 1360.8 | 481.7 | 486.1 | 251.4 | 214.7 | 187.0 | 206. 7 | 199.9 | 168.8 | 355. 7 | | 665.9 | 203.9 | 693. 2 | 156.3 | | | 1625.0 | 60.0 | 2106.1 | 660.8 | 2585. 2 | 3939.8 | 32377. 4 | 978 936 |
|----------------|-------|------|----------------------|-----------------|-------------------|---------------|-------------|---------|---------------|---------|------------|--------------|--------------|------------|----------|---------------------|------------------------|----------------------|--------|----------|---|---------------------|--------------------------|--------------------|-----------------------|---------------------------|--|---------------------|----------|---------------------|
| (QSDOO | 2001 | L. C | | | | | | | | | 91.8 | 109.5 | 106.3 | | 30.8 | | | | | | | | | | 72.0 | | 48.2 | 216.0 | 746.6 | 826 |
| (UNIT;1000USD) | | F. C | | | | | | | | | 95. 2 | 97.2 | 93.6 | | 28.6 | | | | | 4 4 | | | | | | | 31.5 | 99.3 | 445.3 | |
| | 2000 | L. C | | | | **. | | 226. 3 | | | | | | | 22.6 | | | | 517.0 | 51.7 | | | | | 72.0 | 72.0 | 96. 2 | 359.8 | 1417.5 | 1019 |
| | | F. C | | | | | | 259.8 | | | | | | | 26.0 | | | | 176.2 | 17.6 | | | | | | | 48.0 | 126.5 | 654.0 | |
| • | 1199 | L.C | | | | | | | 115.9 | 100.7 | | | | | 21.7 | | 589.8 | 163.4 | *- | 75.3 | | | | | 0.21 | 72.0 | 121.1 | 368. 0 | 1699.8 | 1060 |
| • | | F. C | | | | | | | 135.5 | 114.0 | | | | | 25.0 | | 1.92 | 40.5 | | 11.7 | | | | | | | 40.3 | 86. 1 | 529.1 | |
|) | 1998 | 1. C | | | | 290.8 | 266. 1 | | | | | | | | 55.7 | | | | | | | ·. | | | 0.2L | 0.27 | 75. 7 | 179.4 | 1011.6 | 1101 |
| Ì | | F.C | | | | 388 6 | 215.6 | | | | | | | | 60.5 | | | | | | | | | | | | 66.6 | 110.3 | 842.6 | |
| | 1997 | L. C | | 1611.7 | | 290.8 | | | | | | | - | 83.2 | 37.4 | | - | | - | | | | 375.0 | | 72.0 | 72.0 | 254. 2 | | 3 | |
| 1 | | F. C | | 11965.8 | | 389.6 | | | | | | | | 85.6 | 47.5 | | | | | | | | 1250.0 | | 400.5 | 39. 2 | 1417.8 | 1691.8 | 17287.8 | 1937 |
| | 1996 | L.C | | 179.1 | | | | | | | | | | | | | | | | | | | | 60.0 | 72.0 | 72.0 | 38.3 | 43.2 | 464.6 | 1937 |
| | | F.C | | 2011.8 | | | | | | | | | | | | | | | | | | | | 0.0 | 400.5 | 39. 2 | 245. 2 | 183. 1 | 2879.7 | |
| | 1995 | r.c | | | | | | | | | | | | | | | | | | | ٠ | | | | 15.0 | 72.0 | 14. 4 | 7.9 | 166.3 | 1937 |
| | | F. C | | | | | | | | | | | | | | | | | | | | | | | 801.1 | 78. 4 | 88.0 | 27.9 | 862.3 | |
| | Year | Item | 1. Construction Cost | a. Pump Station | b. Drainage Canal | Tao Khe Creek | KT Trinh Xa | KT 6 Xa | KT Phat Thich | KT 4 Xa | KT Kau Nau | KT Kau Nau-1 | KT Kau Nau-2 | KT Tan Chi | Overhead | c. Irrigation Canal | South Irrigation Canal | N 6 Irrigation Canal | Others | Overhead | | 2. Association Cost | a. Construction Machines | b. Land Aquisition | c. Consulting Service | d. Project Administration | Physical Contingency | 4. Price Escalation | Total | INUNDATED AREA (ha) |

Foreign Pump & Material - Alternative-2 TABLE F-3.3.2(10) DISBURSEMENT SCHEDULE (TAN CHI + HANQUANG AREA)

TABLE F-3.3.2(11) DISBURSEMENT SCHEDULE (TAN CHI AREA) Foreign Pump & Material - Alternative-3

| | Total | | | 15768.4 | 0.0 | 1360.8 | 481.7 | 486. 1 | 251.4 | 214.7 | 187.0 | 206. 7 | 199.9 | 168.8 | 355. 7 | | 665.9 | 203.9 | 693. 2 | 156.3 | 262.3 | | 1625.0 | 60.0 | 2131.7 | 665.3 | 2614.5 | 1028.9 | 2788. 2 | 936 |
|-----------------|-------|------|---------------------|-----------------|-----|---------------|-------------|---------|---------------|---------|------------|--------------|--------------|------------|----------|---------------------|-------|----------------------|--------|----------|----------------------|--------------------|--------------------------|--------------------|-----------------------|---------------------------|----------------------|------------------|----------|---------------------|
| | 2001 | T. C | | 1 | | | | | | | 91.8 | 109.5 | 106.3 | | 30.8 | | | | | | 28.3 | | | | | | 51.1 | 228.9 4028.9 | 791. 3.3 | 826 |
| (UNIT: 1000USD) | 2 | F. C | | | | | | | | | 95. 2 | 97.2 | 93.6 | | 28.6 | | | | | | 234.0 | | | | | | 54.9 | 173. 1 | 776. 5 | |
| | 2000 | J. C | | | | | | 226. 3 | | | | | | | 22.6 | | | | 517.0 | 51.7 | | : | | | 72.3 | 72.3 | 96. 2 | 360.0 | 1418.4 | 1019 |
| | 2 | F. C | | | - | | | 259.8 | | | | | | | 26.0 | | | | 176.2 | 17.6 | | | | 7. 2. | | | 48.0 | 126.5 | 654.0 | 1 |
| | 1199 | ľ. C | | | | | | | 115.9 | 100.7 | | | | | 21.7 | | 589.8 | 163.4 | | 75.3 | | | | | 72.3 | 72.3 | 121.1 | 368.2 | 1700.7 | 1060 |
| | | F. C | | | | | | | 135. 5 | 114.0 | | | | | 25.0 | | 76. 1 | 40.5 | | 11.7 | | | | | | | 40.3 | 86.1 | 529. 1 | |
| | 1998 | L. C | | | | 290.8 | 266. 1 | | | | | | | | 55.7 | | | | | | | | | | 72.3 | 72.3 | 75. 7 | 179.5 | 1012.4 | 1101 |
| | | F. C | | | | 389.6 | 215.6 | | | | | | | | 60.5 | | | | | | | | | | | | 9.99 | 110.3 | 842.6 | |
| | 1997 | r. C | | 1611.7 | | 290.8 | | | | | | | | 83. 2 | 37. 4 | | | | | | | | 375.0 | | 72.3 | 72.3 | | 440.9 | | |
| | | F. C | | 11965.8 | | 389.6 | | | | | | | | 85.6 | 47.5 | | | | | | | | 1250.0 | | 406.4 | 39.8 | 1418.5 | 43.3 1692.5 | 17295. 7 | |
| | 1996 | r.c | | 179.1 | | | | | | | | | | | | | | | | | | | | 60.0 | 72.3 | 72.3 | 38. 4 | 43.3 | 465.3 | 1937 |
| | | F. C | | 2011.8 | | | | | | | | | | | | | | | | | | , | | 0.0 | 406.4 | 39.8 | 245.8 | 183.6 | 2887. 4 | |
| | 1995 | T. C | | | | | | | | | | | | | | | | | | | | | | | 72.3 | 72.3 | 14.5 | 8.0 | 167.0 | 1937 |
| | | F. C | | | | | | | | | | | | | | | | | | | | | | | 812.8 | 79.6 | 89. 2 | 28.3 | 1009.9 | |
| | Year | Item | . Construction Cost | a. Pump Station | i | Tao Khe Creek | KT Trinh Xa | KT 6 Xa | KT Phat Thich | KT 4 Xa | KT Kau Nau | KT Kau Nau-1 | KT Kau Nau-2 | KT Tan Chi | Overhead | c. Irrigation Canal | | N 6 Irrigation Canal | Others | Overhead | d. Pond Construction | . Association Cost | a. Construction Machines | b. Land Aquisition | c. Consulting Service | d. Project Administration | Physical Contingency | Price Escalation | Total | INUNDATED AREA (ha) |

TABLE F-3.3.2(12) DISBURSEMENT SCHEDULE (TAN CHI + HANQUANG AREA) Foreign Pump & Material - Alternative-3 (UNIT:1000USD)

| | - | 1001 | ľ | 900 | | 1007 | | 1000 | | 1100 | | 0006 | 90011 | 9001 | Total |
|--------------------------|---|-------|--------|-------|---------|---------|-------|--------|--------------|---------|--------|-------------|---------|------------------|---------|
| Year | | CRRI | Ì | 1880 | | 1221 | ١ | 230 | ſ | ecri | I | 0000 | 1 | 000 | 1000 |
| Item | F. C | ľ. C | F. C | L.C | F. C | 1. C | F. C | ľ | ر. د د | ر ان | F. C | ر د د | ۳. د | r.C | |
| Construction Cost | | | | | - | | | | | · | | | | | |
| a. Pump Station | | | 2634.5 | 243.4 | 16335.6 | 2190.4 | : | | | | | | | | 21403.9 |
| 1 | | | | | | | | | | : | | | | | 0.0 |
| 1 | | | | | 389.6 | 290.8 | 389.6 | 290.8 | | | | | | - | 1360.8 |
| KT Trinh Xa | | | | | | | 215.6 | 266.1 | | | | | | | 481.7 |
| KT 6 Xa | | | | | | | | | | | 259.8 | 226.3 | | .: | 486.1 |
| KT Phat Thich | | | | | | | | | 135.5 | 115.9 | | | | | 251.4 |
| KT 4 Xa | | | | | | | | | 114.0 | 100.7 | | | | | 214.7 |
| KT Kau Nau | , in the second | | | | | | | | | | | | 95. 2 | 91.8 | 187.0 |
| KT Kan Nan-1 | | | | - | | | | | - | | | | 97. 2 | 109.5 | 206.7 |
| KT Kan Nau-2 | | | | | | | - | | | | | | 93.6 | 106.3 | 199.9 |
| Conten Creek | | | | | 74.8 | 85.0 | | | | | | | | | 159.8 |
| Other canals | | | | | 190.8 | 215.8 | | | | | | | | | 406.6 |
| KT Han Ouang | | | | | 85.6 | 83.2 | | | | | | | | | 168.8 |
| Overhead | | | | | 74. 1 | 67.5 | 60.5 | 55. 7 | 25.0 | 21.7 | 26.0 | 22.6 | 28.6 | 30.8 | 412.4 |
| c. Irrigation Canal | | | | | | | | | | | | | | | |
| South Irrigation Canal | | | | | | | | | 76.1 | 589.8 | | | | | 665.9 |
| N 6 Irrigation Canal | | | | | | | | | 40.5 | 163.4 | | | | | 203.9 |
| Others | | | | | | - | | | | | 178.0 | 522. 2 | | | 700.2 |
| Overhead | | | | | | | | | 11.7 | 75.3 | 17.8 | 52.2 | | | 157.0 |
| d. Pond Construction | | | | | | - | | | - | | | | 234.0 | 238. 2 | 472.2 |
| e. Transmission Line | | | | | 1200.0 | 1800.0 | | | | | | | | | 3000.0 |
| Association Cost | | | | | | | | | | | | | | | |
| a. Construction Machines | | | | | 1250.0 | 375.0 | | | | | | | | | 1625.0 |
| | | | 0.0 | 62.0 | | | | | | | | | | | 62.0 |
| | 1133.7 | 115.0 | 566.8 | 115.0 | 566.8 | 115.0 | | 115.0 | | 115.0 | | 115.0 | | 115.0 | 3072. 3 |
| | 111.3 | 115.0 | 55. 7 | 115.0 | 55.7 | 115.0 | | 115.0 | | 115.0 | | 115.0 | | 115.0 | 1027.7 |
| Physical Contingency | 124.5 | 23.0 | 325. 7 | 53.5 | 2022. 3 | 533.8 | 9.99 | 84.3 | 40.3 | 129. 7 | 48.2 | 105.3 | 54.9 | 80.7 | 3692. 6 |
| Price Escalation | 39.4 | 12.7 | 243. 2 | 60.4 | 2413.0 | 925. 5 | 110.3 | 199. 7 | 86. 1 | 394. 1 | 127.0 | 394. 1 | 173. 1 | 361.2 | 5539. 7 |
| Total | 1408.9 | 265.7 | 3825.9 | | 24658.3 | 6.962.9 | 842.6 | 1126.6 | 529. 1 | 1820.6 | 656. 7 | 1552. 7 | 776.5 | 1248. 4 46158. 3 | 16158.3 |
| NUNDATED AREA (ha) | | 2710 | | 2710 | | 2710 | | 1612 | | 1558 | | 1504 | | 1450 | 1395 |
| | | | | | | | | | | | | | | | |

FIGURE F-3.3.3 IMPLEMENTATION SCHEDULE (4 YEARS)

| Vear | lst | Year | | 2nd | Year | ; | 3rd | 3rd Year | | 4th | Year | |
|--------------------------------|----------|-------|---------------------------------------|-------|-------|-------|-------|----------|----|-----|------|---|
| Items | Щ | п | Ħ | 1 | п | Ħ | н | П | Ш | | П | 目 |
| I Detail Design | ZX IX | FA SA | V5.V6 | 7.7 | | | 1 | | | | | |
| II Loan Procedure | | | | 21.12 | V3 V4 | V5.V6 | 7.7 | | | | | |
| III Tendering | | | | | | v1,v2 | V3,V4 | V5.V6 | 77 | | | |
| IV Land Acquisition | | | | v1.v2 | V3.V4 | V5.V6 | 7.7 | | | | | |
| V Construction | | | | | : | | | | | | | |
| 1. Equipment Procurement | | | • | | | | | , | | | | |
| 2. Main Drainage System | | | | | | | | | | | | |
| (1) Pump Station | | | | | | | | | | | | |
| (2) Drainage Canal | | | | | | | | | | | | |
| (3) Drainage Structures | | | | | | | | | | | | |
| (4) Transmission Line | | | | | : | | | | | | | |
| 3. Main Irrigation System | | | | : | | | | | | | | |
| (1) Irrigation Canal | | | | | | | | : | | | | |
| (2) Structure | | | \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | | | | | | | - | | |
| 4. Secondary Drainage System | · | | | : | | | - | 1. | | | | |
| 5. Secondary Irrigation System | | | | | - | | | | | | | |
| 6. Main Farm Road | | | | | | | | | | | | |
| 7. Fish Pond | | | | | | | | | | | | |
| VI Consultant Service | | | | | | | | | | | | |
| | | | | | | | | | : | | | |

TABLE F-3.3.4(1) DISBURSEMENT SCHEDULE (TAN CHI AREA) Viet Nam Pump & Material - Alternative-1

| | | | | | | | ľ | | | 30, | | | (100001;1100) | (1000) | 4.4.1 |
|---------------------------|-------|--------|---------|-------|--------|--------|--------|---------|------|------|------|------|---------------|--------|----------------|
| Year | | 1995 | | 1996 | | 1997 | | 1998 | | 1199 | - | 2000 | | 2001 | lotal |
| Item | F. C | I.C | F. C | L.C | F.C | T. C | F. C | ر. د | F. C | ı.c | F. C | ı.c | F. C | ľ. C | |
| 1 Construction Cost | | | | | | | | | | | | | | | |
| a Pump Station | | | 340.6 | 115.6 | 2157.9 | 1040.7 | | | | | | | | | 3654.8 |
| h. Drainage Canal | | | | | | | | | | | | - | | | 0.0 |
| Tao Khe Creek | | | | | 389. 6 | 290.8 | 389.6 | 290.8 | | | | | | | 1360.8 |
| KT Trinh Xa | | | | | | | 215.6 | 266. 1 | | | | | | | 481. 7 |
| KT 6 Xa | | | | | | | 259.8 | 226.3 | | | | | | | 486.1 |
| KT Phat Thich | | | | | | | 135.5 | 115.9 | | | | | | | 251.4 |
| KT 4 Xa | | | | | | | 114.0 | 100.7 | | | | | | | 214.7 |
| KT Kau Nau | | | | | | | 95. 2 | 91.8 | | | | | - | | 187.0 |
| KT Kau Nau-1 | | | | | | | 97. 2 | 109. 5 | | : | | | | | 206. 7 |
| KT Kau Nau-2 | | | | | | | 93.6 | 106.3 | | | | | | | 199. 9 |
| KT Tan Chi | | | | | | | 85.6 | 83. 2 | | | - | | | | 168.8 |
| Overhead | 0 0 | 0 0 | 0.0 | 0.0 | 39.0 | 29.1 | 148.6 | 139. 1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 355. 7 |
| | | | | | | | | | | | | | | | |
| 2. Association Cost | | | | | | | | | · | | | | | | |
| a. Construction Machines | | | 1250.0 | 375.0 | | | | | | | | | | | 1625.0 |
| b. Land Aguisition | | | 0.0 | 60.0 | | | | | | | | | | | 90.0 |
| c. Consulting Service | 225.6 | 75. 1 | 112.8 | 75. 1 | 112.8 | 75. 1 | | 75. 1 | | 0.0 | | 0.0 | | 0.0 | 751.6 |
| d. Project Administration | 22.3 | 75. 1 | 11.2 | 75. 1 | 11.2 | | | 75. 1 | | 0.0 | | 0.0 | | 0.0 | 345. 1 |
| 3. Physical Contingency | 24.8 | 15.0 | 171.5 | 70. 1 | 271.0 | - 1 | 163.5 | 168.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1034.9 |
| 4. Price Escalation | 7.9 | & 3 | 128. 1 | 79.0 | 323. 4 | | 270.8 | 398. 2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1477. 6 |
| Total | 280.5 | 173.5 | 2014. 1 | 849.9 | 3304.9 | 1923.8 | 2069.0 | 2246.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | $0.0\ 12861.8$ |

TABLE F-3.3.4(2) DISBURSEMENT SCHEDULE (TAN CHI + HANQUANG AREA) Viet Nam Pump & Material - Alternative-1

| | Total | | | 4776.8 | 0.0 | 1360.8 | 481.7 | 486.1 | 251.4 | 214.7 | 187 0 | 206.7 | 199.9 | 159.8 | 406.6 | 168.8 | 412.4 | 3000.0 | | 1625.0 | 62.0 | 1225. 5 | 620.8 | 1584.6 | 2298. 4 |
|------------------|-------|------|-------------------|-----------------|-------------------|---------------|-------------|---------|---------------|---------|------------|--------------|--------------|--------------|--------------|--------------|----------|----------------------|------------------|--------------------------|-------------------|-----------------------|---------------------------|-------------------------|---------------------|
| OOUSD) | 2001 | L. C | | | - | | | | | | | | | | | | 0.0 | | | | | 0.0 | 0.0 | 0.0 | 0.0 |
| (UNIT; 10000USD) | | F. C | | | | | | | | | | | - | | | | 0.0 | | | | | | | 0.0 | 0.0 |
|) | 2000 | ГC | | | | | | | | | | | - | | | | 0.0 | | | | | 0.0 | 0.0 | 0.0 | 0.0 |
| - | 3 | F. C | - | | | | | | | - | | | | | | | 0.0 | | | | | | | 0.0 | 0 |
| | 199 | r.c | | | | | : | | | | | | | | | | 0.0 | | | | | 0.0 | 0.0 | 0.0 | 0.0 |
| | | F. C | | | | : | | | | | - | | - | | | | 0.0 | | | | | | | 0.0 | 0.0 |
| | 1998 | L.C | | | | 290.8 | 266.1 | 226.3 | 115.9 | 100.7 | 91.8 | 109.5 | 106.3 | 85.0 | 215.8 | 83.2 | 169.1 | | | | | 138.6 | 138.6 | 213.8 | 506 8 |
| : | | F. C | | | | 389. 6 | 215.6 | 259.8 | 135.5 | 114.0 | 95. 2 | 97.2 | 93.6 | 74.8 | 190.8 | 85.6 | 175.2 | | | | | | | 192. 7 | 319.2 |
| - | 1997 | L.C | | 1406.4 | | 290.8 | | | | | | | | | | | 29. 1 | 1800.0 | | | | 138.6 | 138.6 | 380.3 | 659.5 |
| | | F. C | | 2786.6 | | 389.6 | | | | | | | | | | | 39.0 | 1200.0 | | | | 167.8 | 16.6 | 460.0 | 548 8 |
| | 1996 | L. C | | 156.3 | | | | | | | | | | | | | 0.0 | | | 375.0 | 62.0 | 138.6 | 138.6 | 87.1 | 98 1 |
| | | F. C | | 427. 5 | | | | | | | | | | | | | 0.0 | | | 1250.0 | 0.0 | 167.8 | 16.6 | 186.2 | 139.1 |
| - | 1995 | L.C | | | | | | | | | | : | | | | | 0.0 | | | - | | 138.6 | 138.6 | 27.7 | 15.2 |
| | | F. C | | | | | | | | | | | | | | | 0.0 | | | | | 335. 5 | 33. 3 | 36.9 | 11.7 |
| | Year | Item | Construction Cost | a. Pump Station | o. Drainage Canal | Tao Khe Creek | KT Trinh Xa | KT 6 Xa | KT Phat Thich | KT 4 Xa | KT Kau Nau | KT Kau Nau-1 | KT Kau Nau-2 | Conten Creek | Other canals | KT Han Quang | Overhead | c. Transmission Line | Association Cost | a. Construction Machines | . Land Aquisition | c. Consulting Service | d. Project Administration | 3. Physical Contingency | 4. Price Escalation |

TABLE F-3.3.4(3) DISBURSEMENT SCHEDULE (TAN CHI AREA) Viet Nam Pump & Material - Alternative-2

| | Total | | | 3654.8 | 0.0 | 1360.8 | 481.7 | 486. 1 | 251.4 | 214.7 | 187.0 | 206. 7 | 199.9 | 168.8 | 355. 7 | | 665.9 | 203.9 | 693. 2 | 156.3 | | | 1625.0 | 60.0 | 923. 7 | 488.3 | 1238.4 | 1745.0 | 15367.3 | 936 |
|---------------------------------------|-------|-------------|-------------------|----------|-----------|---------------|---------|--------|---------------|---------|---------|--------------|---------|--------------|----------|------------------|-------------|------------------------|--------------|--------|----------|---|------------------|-----------------------|-----------------|-----------------------|--|------------------|----------|---------------------|
| (QSD) | | C | | - | | | | | | | | | | | 0.0 | | | | | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 936 |
| (UNIT: 1000USD | | F. C | | | | | | | | | | | | | 0.0 | | | | | | | | | | | | 0.0 | 0.0 | 0.0 | |
| (II) | | ر د ر | | | | | | | | | | | | | 0.0 | · | | | | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 936 |
| | 2000 | F. C. | | | | | | | | | | | | | 0.0 | | | | | | - | | | | | | 0.0 | 0.0 | 0.0 | |
| | 6 | L.C. | | | | | | | | | | | | _ | 0.0 | | | | | | - | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 936 |
| | 1199 | F.C L | | | | | : | | | | | | | | 0.0 | | | | | | | | | | | | 0.0 | 0.0 | 0.0 | |
| | 8661 | L.C | | | | 290.8 | 1 997 | 226.3 | 115.9 | 100.7 | 91.8 | 109.5 | 106.3 | 83. 2 | 139.1 | | | | | | | - | | | 110.1 | 110.1 | 175.0 | 414.8 | 2339. 7 | 1270 |
| | 19 | F. C 1 | | | | 389.6 | | 259.8 | | 114.0 | 95. 2 | 97. 2 | 93.6 | 85.6 | 9 | | | | | | - | | | | | | 163.5 | | 2069.0 2 | 4 |
| | 1997 | | | 1040.7 | | 290.8 | ļ | | | | | | | | 29. 1 | | | | 517.0 | | | | | - | 110.1 | 110.1 | 214.9 | 372. 7 | - | 1 |
| 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | 19 | F. C | | 2157.9 | ⊢ | 389. 6 | | | | | | | - | | 39.0 | | | | 176.2 | 1 | 0.71 | | | | 120.8 | 12.0 | 1 | _ | 0 | 1 |
| | 9(| | | 115.6 2 | ↓ | | | | | | | | | | 0.0 | | 580 8 | 163.4 | | 75 9 | | | 975 0 | 60.00 | \bot | - | 5 | | 9 | -1 |
| | 1996 | F. C | | 340.6 | 1_ | | | | | | | | | | 0 0 | | 76 1 | 1 | | 11.7 | 17:1 | | 1050 | 1 | 1 | ↓_ | 185. 2 | 138.3 | | 7 |
| | 5 | | - | 673 | <u>'</u> | | | | | - | | | | | 0 0 | | - | | + | - | | | 1 | - | 10 1 | | | 10 1 | 12 | -1 |
| | 1995 | F.C I | - | | | | | | | | | | | | 0 | > | | | | | | | | + | 9/1 7 | 0 86 | 26.6 | V & | ٠. | 4 |
| | | | | - | | | | | | | | | - | - | + | | [040 | allal | 4 | | + | | - | 22 | + | +- | 2 2 | | | |
| | Vear | 1 | tad | | 127 | Jok Jok | | | ich | | | | 1 0 | 7 | | Canal | Canar. | Sation C | | | | 1 | 1807 | On Macin | Comingo | oct v tvo | ntingenc | 4100 | 10110 | (ha) |
| : | | | Conctanotion Cost | m Static | C) docurr | Tao Khe Creek | Trinh K | 6 Xa | KT Phat Thich | KT A Ya | Van Nam | VT Van Nau-1 | Von Non | AI AND NAU-L | Overhead | Irrigation Canal | 1 180 L10II | South iffigation canal | Others | Culers | Overhead | | ASSOCIATION COST | Construction machines | Land Aquisition | Design Administration | Sical Co | Dried Eccalation | ין רי | INTINDATED AREA (ha |
| | | T tem | | יון ל | 6 A | 1 2 | ŠĮ. | | 5 | 1.7 | LA LA | LA | Tu to | T/A | Out. | | ا د | 8 2 | 2 2 | 200 | Š | | ٠. | | i | | -i - | , i | Total | INIINDA' |

TABLE F-3.3.4(4) DISBURSEMENT SCHEDULE (TAN CHI + HANQUANG AREA) Viet Nam Pump & Material - Alternative-2

| | Total | | | 4776.8 | 0.0 | 1360.8 | 481.7 | 486.1 | 251.4 | 214.7 | 187.0 | 206. 7 | 199.9 | 159.8 | 406.6 | 168.8 | 412.4 | | 665.9 | 203.9 | 700.2 | 157.0 | | 3000.0 | | 1625.0 | 62.0 | 1398.3 | 764. 5 | 1788.9 | 0.0 2567.2 | 2245.6 |
|-----------------|-------|-------|----------------------|-----------------|-------------------|---------------|-------------|---------|---------------|---------|------------|--------------|--------------|--------------|--------------|--------------|----------|---------------------|------------------------|----------------------|--------|----------|---|----------------------|---------------------|--------------------------|--------------------|-----------------------|---------------------------|-------------------------|------------|---------|
| (QSII) | 2001 | ľ. C | | | | | | | | - | | | : | | | | 0.0 | | | | | | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| (UNIT; 1000USD) | | F. C | | | | | | | | - | | | | | | | 0.0 | | | | | | - | | | | | | | 0.0 | 0.0 | 0.0 |
| | 2000 | r.c | | | | | | | | | | | | | | | 0.0 | | | | | | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | 2 | F.C | | | - | | | | | | | | | | | | 0.0 | : | | | | | | | | | | | | 0.0 | 0.0 | 0.0 |
| | 1199 | T. C | | | | | | | | | | | ÷. | | | | 0.0 | | | | | | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| | | F. C. | | | | | | | | | | | | | | | 0.0 | | | | | | | | - | | | | | 0.0 | 0.0 | 0.0 |
| | 1998 | J T | | | | 290.8 | 266. 1 | 226.3 | 115.9 | 100.7 | 91.8 | 109.5 | 106.3 | 85.0 | 215.8 | 83. 2 | 169. 1 | | | | | | | | | | | 173.7 | 173.7 | 220.8 | 523. 4 | 2952. 1 |
| | | F. C | | | - | 389.6 | 215.6 | 259.8 | 135.5 | 114.0 | 95.2 | 97.2 | 93.6 | 74.8 | 190.8 | 85.6 | 175. 2 | | | | | | | | | | | | | 192.7 | ⊢ | 00 |
| | 1997 | 1. C | | 1406.4 | | 290.8 | | | | | | | | • | | | 29. 1 | | | | 522. 2 | 52.2 | | 1800.0 | | | | 173. 7 | 173.7 | 444.8 | - | 5664.2 |
| | | P. C | | 2786.6 | | 389.6 | | | | | | | | | | | 39.0 | | | | 178.0 | 17.8 | | 1200.0 | | | | 175.9 | 17.4 | 480.4 | 573.3 | 5857.9 |
| | 1996 | J. C | | 156.3 | | | | | | | | | | | | | 0.0 | | 589.8 | 163.4 | | 75.3 | | | | 375.0 | 62.0 | 173.7 | 173. 7 | 176.9 | 199. 5 | 2145.6 |
| - | | F. C | | 427.5 | | | | | | | | | | , | | | 0.0 | | 76. 1 | 40.5 | | 11.7 | | | | 1250.0 | 0.0 | 175.9 | 17.4 | 199.9 | 149.3 | 2348.3 |
| | 1995 | J. C | | | | | | | | | | | | | | | 0.0 | | | | | | | | | | | 173. 7 | 173. 7 | 34. 7 | 19. 1 | 401.2 |
| | | F. C | | | | | | | | | | | 2.12 | | | | 0.0 | | | | | | | | | | | 351. 7 | 34.9 | 38. 7 | 12.2 | 437.5 |
| | Year | Item | 1. Construction Cost | a. Pump Station | b. Drainage Canal | Tao Khe Creek | KT Trinh Xa | KT 6 Xa | KT Phat Thich | KT 4 Xa | KT Kau Nau | KT Kau Nau-1 | KT Kau Nau-2 | Conten Creek | Other canals | KT Han Quang | Overhead | c. Irrigation Canal | South Irrigation Canal | N 6 Irrigation Canal | Others | Overhead | | d. Transmission Line | 2. Association Cost | a. Construction Machines | b. Land Aquisition | c. Consulting Service | d. Project Administration | 3. Physical Contingency | | Total |

TABLE F-3.3.4(5) DISBURSEMENT SCHEDULE (TAN CHI AREA) Viet Nam Pump & Material - Alternative-3

| | Total | | | 3654.8 | 0.0 | ٠. | 481.7 | 486.1 | 251.4 | 214. 7 | 187.0 | 206.7 | 199.9 | 168.8 | 355. 7 | | 665.9 | 203.9 | 693. 2 | 156.3 | 262. 3 | | 1625.0 | 60.0 | 949.6 | 492.9 | 1267.7 | 1780.2 | 15724. 6 | 936 |
|-----------------|-------|------|----------------------|-----------------|-----|--------|-------------|---------|---------------|---------|------------|--------------|--------------|------------|----------|---------------------|------------------------|----------------------|--------|----------|----------------------|---------------------|--------------------------|--------------------|--------|---------------------------|-------------------------|---------------------|----------|---------------------|
| OSDC | 2001 | L.C | | | | | | | | | | | - | | 0.0 | | | | | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 986 |
| (UNIT: 1000USD) | 2(| F. C | | | | | | | | | | | | • | 0.0 | | | | | | | | | | | | 0.0 | 0.0 | 0.0 | |
| | 2000 | L.C | | | | | | | | | | | | | 0.0 | | | | | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 936 |
| * . | 2 | F. C | | | | | | | | | | | | | 0.0 | | | | | | | | | | 100 | | 0.0 | 0.0 | 0.0 | |
| | 1199 | L.C | | | | | | | - | | | | | | 0.0 | | | | | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 936 |
| | | F.C | | - | | | | | - | | | | | | 0.0 | | | | | | | | | | | | 0.0 | 0.0 | 0.0 | : |
| | 1998 | L.C | | | | 290.8 | 266. 1 | 226.3 | 115.9 | 100.7 | 91.8 | 109.5 | 106.3 | 83. 2 | 139. 1 | | | | | | | | | | 110.7 | 110.7 | 175. 1 | 415.1 | 2341.3 | 1270 |
| | | F. C | | | | 389.6 | 215.6 | 259.8 | 135.5 | 114.0 | 95. 2 | 87.2 | 93.6 | 85.6 | 148.6 | | | | | | | | | | | | 163.5 | 270.8 | 2069.0 | |
| | 1997 | J.C | | 1040.7 | | 290.8 | | | | | | | | | 29. 1 | | | | 517.0 | 51.7 | 28. 3 | | | | 110.7 | 110.7 | 217.9 | 377.8 | 2774. 7 | 1604 |
| | | F. C | | 2157.9 | | 389. 6 | | | | | | | | | 39.0 | | | | 176.2 | 17.6 | 234.0 | | | | 126.7 | 12.5 | 315.3 | 376.3 | 3845. 1 | |
| | 1996 | r.c | | 115.6 | | | | | | | | | | | 0.0 | | 589.8 | 163.4 | | 75.3 | | | 375.0 | 60.0 | 110.7 | 110.7 | 160.1 | 180.5 | 1941.0 | 1937 |
| : | | F. C | | 340.6 | | | | | | | | | | | 0.0 | | 76. 1 | 40.5 | | 11.7 | | | 1250.0 | 0.0 | 126.7 | 12.5 | 185.8 | 138.8 | 2182.6 | |
| | 1995 | 01 | | | | | | | | | | | | | 0.0 | | | | | | | | | | 110.7 | 110.7 | 22. 1 | 12.2 | 2 | |
| | | F. C | | | | | | | | | | | | | 0.0 | | | | | | | | | | 253. 4 | 25. 1 | 27.9 | တ် | 315. 2 | |
| | Vear | Item | 1. Construction Cost | a. Pump Station | 1 | 1 | KT Trinh Xa | KT 6 Xa | KT Phat Thich | KT 4 Xa | KT Kau Nau | KT Kau Nau-1 | KT Kau Nau-2 | KT Tan Chi | Overhead | c. Irrigation Canal | South Irrigation Canal | N 6 Irrigation Canal | Others | Overhead | d. Pond Construction | 2. Association Cost | a. Construction Machines | b. Land Aquisition | 1 | d. Project Administration | 3. Physical Contingency | 4. Price Escalation | Total | INUNDATED AREA (ha) |
| | | | | | | | | | | | | | | | F | _ 1 | ΛQ | | | | | | | | - | | | | | |

TABLE F-3.3.4(6) DISBURSEMENT SCHEDULE (TAN CHI + HANQUANG AREA) Viet Nam Pump & Material - Alternative-3

| | Total | | | 4776.8 | 0.0 | 360.8 | 481.7 | 486. 1 | 251.4 | 214.7 | 187.0 | 206. 7 | 199.9 | 159.8 | 9 .901 | 8.89 | 412.4 | | 365.9 | 203.9 | 700.2 | 157.0 | 472.2 | 3000.0 | ٠. | 1625.0 | 62.0 | 1444.8 | 790.0 | 1843.4 | 2644.8 | 22921.8 | 1395 |
|-----------------|-------|------|-------------------|-----------------|-----|---------------|-------------|---------|---------------|---------|------------|--------------|--------------|--------------|--------------|--------------|----------|---------------------|------------------------|----------------------|--------|----------|----------------------|----------------------|------------------|-------------------------|--------------------|-----------------------|--------------------------|----------------------|------------------|---------------|---------------------|
| D) | T | ၁ | | 4 | | | | | - | | | | | | 7. | | 0.0 | | | | | | 7 | 3(| 7. | 1 | | 0.0 | 0.0 | 0.0 | 0.0 26 | 0.0226 | 1395 |
| (UNIT; 1000USD) | 2001 | T.C | | | | | | | | | | | | | | | 0 | | | | | | | | | | | | | - | | | 1 |
| CUNIT; | 2 | F. C | | | | | | | | | | | | | | | 0 | | | | | | | | | | | | | 0.0 | 0.0 | 0.0 | |
| | 2000 | r c | | | | | | | | | | | | | | | 0.0 | | | 1 | | | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1395 |
| | , | F. C | | | | | | | | | | | | | | | 0.0 | | | | | | | | | | | | | 0.0 | 0.0 | 0.0 | |
| | 199 | r.c | | | | | | | | | | | | | | : | 0.0 | | | | | | | | - | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1395 |
| | Ţ | F. C | | | | | | | | | | | | | | | 0.0 | | | | | | | | | | | | | 0.0 | 0.0 | 0.0 | - |
| | 1998 | CC | | | | 290.8 | 266.1 | 226.3 | 115.9 | 100.7 | 91.8 | 109.5 | 106.3 | 85.0 | 215.8 | 83. 2 | 169.1 | | | | | | | | | | | 179.5 | 179.5 | 222. 0 | 526.2 | 2967. 7 | 1834 |
| | 1 | F.C | | | | 389.6 | 215.6 | 259.8 | 135.5 | 114.0 | 95. 2 | 97.2 | 93.6 | 74.8 | 190.8 | 85.6 | 175.2 | | | | | | | | | i i | | | | 192. 7 | 319.2 | 2438.8 | 1 . |
| | 1997 | L. C | | 1406.4 | | 290.8 | | | | | | | | | | | 29. 1 | | | | 522. 2 | 52. 2 | 238.2 | 1800.0 | | | | 179.5 | 179.5 | 469.8 | 814.6 | $\overline{}$ | 1 |
| | 1 | F. C | | 2786.6 | | 389.6 | | | | | | | | | | | 39.0 | | | | 178.0 | 17.8 | 234. 0 | 1200.0 | | | | 181. 7 | 18.0 | 504.5 | 601.9 | 6151.1 | |
| | 1996 | r.c | | 156.3 | | | | | | | | | | | | | 0.0 | | 589.8 | 163. 4 | | 75.3 | | | | 375.0 | 62.0 | 179. 5 | 179. 5 | 178.1 | 200.8 | 2159. 7 | 2710 |
| | | F.C | | 427.5 | | | | | - | | | | | | | | 0.0 | | 76. 1 | 40.5 | | 11.7 | | | | 1250.0 | 0.0 | 181.7 | 18.0 | 200.5 | 149.8 | | |
| | 1995 | T.C | | | | | | | | | | | | | | | 0.0 | | | | | | | | | | | 179.5 | 179.5 | 35.9 | | 414.6 | 2710 |
| | | F. C | | | | | | | | | | | | | | | 0.0 | | - - | | | | | | | | | 363.4 | 36.0 | 39.9 | 12. 7 | 452.0 | |
| | Year | Item | Construction Cost | a. Pump Station | | Tao Khe Creek | KT Trinh Xa | KT 6 Xa | KT Phat Thich | KT 4 Xa | KT Kau Nau | KT Kau Nau-1 | KT Kau Nau-2 | Conten Creek | Other canals | KT Han Quang | Overhead | c. Irrigation Canal | South Irrigation Canal | N 6 Irrigation Canal | Others | Overhead | d. Pond Construction | e. Transmission Line | Association Cost | . Construction Machines | b. Land Aquisition | c. Consulting Service | . Project Administration | Physical Contingency | Price Escalation | Total | INUNDATED AREA (ha) |
| ļ | - | | <u></u> i | | _ | | L | L | L | L | L | | L | ٺــا | _ | L | | | | | | ! | 0 | <u>ات</u> | લં | તાં | | ۷ | ö | က | 4 | | N. |

TABLE F-3.3.4(7) DISBURSEMENT SCHEDULE (TAN CHI AREA) Foreign Pump & Material - Alternative-1

| (UNIT;1000USD) | 1998 1199 2000 2001 Total | F.C L.C F.C L.C F.C L.C F.C L.C | | 15768.4 | 0.0 | 389.6 290.8 1360.8 | 215. 6 266. 1 481. 7 | 259.8 226.3 486.1 | 135. 5 115. 9 251. 4 | 114.0 100.7 214.7 | 95. 2 91. 8 187. 0 | 109.5 | 93.6 106.3 | 85. 6 83. 2 168. 8 | 148.6 139.1 0.0 0.0 0.0 0.0 0.0 0.0 355.7 | The state of the s | 1625.0 | 60.0 | 0.0 | 0.0 0.0 0.0 | 171. 2 0.0 0.0 0.0 0.0 0.0 | C C C C C C C C C C C C C C C C C C C | 405.8 0.0 0.0 0.0 |
|----------------|---------------------------|---------------------------------|----------------------|-----------------|-------------------|--------------------|----------------------|-------------------|----------------------|-----------------------|--------------------|--------------|--------------|--------------------|---|--|--------------------------|--------------------|--------|---------------------------|----------------------------|---------------------------------------|-------------------|
| VIT; 1000 | 20 | _ | • | | | | | | | | | | | | | | | ! | | | 0.0 | 0.0 | < |
| | 0 | | | | | | | | | | | • | | | 0.0 | | | | 0.0 | 0.0 | 0.0 | 0.0 | |
| | 200 | | | - | | | | | | | | _ | | | 0.0 | | | | | | 0.0 | 0.0 | |
| | 9 | | | | | | | | | | | | | | 0.0 | | | | 0.0 | 0.0 | 0.0 | 0.0 | |
| | 119 | | | | | | | | | | | - | | | 0.0 | | | | | | 0.0 | 0.0 | |
| | 38 | | | • | | 8 .067 | 1 992 | 226.3 | 115.9 | 100.7 | 91.8 | 109.5 | 106.3 | 83. 2 | 139. 1 | | | | 91.0 | 91.0 | 171. 2 | 405.8 | |
| | 196 | | | : : | | Ľ | _ | | : | | 95. 2 | | | 85.6 | | | | | | | | 270.8 | ł |
| | 1661 | L. C | | 1611.7 | | 8 .062 | | | | | | | | | 29. 1 | | - | | 91.0 | 91.0 | | 366.5 | ļ |
| | 19 | F. C | | 1965.8 1 | | 389. 6 | | | | | | | | | 39.0 | | | | 392. 5 | 38. 4 | 1282. 5 | 1530.3 | İ |
| | 1996 | L. C | | 179.1 11 | | | | | | - | | | | | 0.0 | | 375.0 | 60.0 | 91.0 | 91.0 | 79.6 | 89.8 | ł |
| - | 19 | F.C | | 2011.8 | | | | | | | | | | | 0.0 | | 1250.0 | 0.0 | 392. 5 | 38. 4 | 369. 3 | 275.8 | |
| | 1995 | L.C | | 3 | | | | | | | | | | | | - | | | 91.0 | | 18.2 | 10.0 | } |
| ٠ | 19 | F. C | | | | | | | | | | | | | | | | | 785.0 | 76.8 | 86. 2 | 27.3 | |
| | Year | Item | 1. Construction Cost | a. Pump Station | b. Drainage Canal | Tao Khe Creek | KT Trinh Xa | KT 6 Xa | KT Phat Thich | KT 4 Xa | KT Kau Nau | KT Kau Nau-1 | KT Kau Nau-2 | KT Tan Chi | Overhead | 2. Association Cost | a. Construction Machines | b. Land Aquisition | ece | d. Project Administration | 3. Physical Contingency | 4. Price Escalation | |

TABLE F-3.3.4(8) DISBURSEMENT SCHEDULE (TAN CHI + HANQUANG AREA) Foreign Pump & Material - Alternative-1

| | | | | | | • | | ÷ | | | | | (UNIT: 1000USD) | (QSDO) | |
|---------------------------|---------|-------|--------------|-------|------------------|--------|--------|--------|-----|-----|-----|------|-----------------|--------|---------|
| Year | | 1995 | | 9661 | | 1997 | | 1998 | | 199 | | 2000 | | 2001 | Total |
| Item | F.C | L.C | F. C | 1. C | FC |) T | FC | T.C | F.C | L.C | F.C | r.c | F. C | L C | |
| 1. Construction Cost | | | | | | | | | | | | | | | |
| a. Pump Station | | | 2634. 5 | 243.4 | 243. 4 16335. 6 | 2190.4 | | | | | | | | | 21403.9 |
| | | | | | | | | | | | | | | | 0.0 |
| Tao Khe Creek | | | | | 389.6 | 290.8 | 389.6 | 290.8 | | | | | | | 1360.8 |
| KT Trinh Xa | | | | | | | 215.6 | 266. 1 | | | | | | | 481.7 |
| KT 6 Xa | | | | | | | 259.8 | 226.3 | | | | | | | 486. 1 |
| KT Phat Thich | | | | | | | 135. 5 | 115.9 | | | | | | | 251.4 |
| KT 4 Xa | | | | | | | 114.0 | 100.7 | | | | | | | 214.7 |
| KT Kau Nau | | | | | | | 95. 2 | 91.8 | | | | | | | 187.0 |
| KT Kau Nau-1 | | | | | | | 97.2 | 109.5 | | - | | | | | 206. 7 |
| KT Kau Nau-2 | | | | | | | 93.6 | 106.3 | | | | | | | 199.9 |
| Conten Creek | | | | | | | 74.8 | 85.0 | | | | | | | 159.8 |
| Other canals | | | | | | | 190.8 | 215.8 | | | | | | | 406.6 |
| KT Han Quang | | | | | | | 85.6 | 83. 2 | | | | | | | 168.8 |
| Overhead | 0.0 | 0.0 | 0.0 | 0.0 | 39.0 | 29. 1 | 175. 2 | 169. 1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 412.4 |
| | | | | | | | | | | | | | | | |
| c. Transmission Line | | | | | 1200.0 | 1800.0 | | | | | | · | | | 3000.0 |
| 2. Association Cost | | | | | | | | | | | | | | | |
| a. Construction Machines | | | 1250.0 | 375.0 | | | | | | | | | | | 1625.0 |
| b. Land Aquisition | | | 0.0 | 0.29 | | | | | . " | | | | | | 62.0 |
| c. Consulting Service | 1105.8 | 160.4 | 552. 9 | 160.4 | 552. 9 | 160.4 | | 160.4 | : | 0.0 | | 0.0 | | 0.0 | 2853.2 |
| d. Project Administration | 108.5 | 160.4 | 54.3 | 160.4 | 54.3 | 160.4 | | 160.4 | | 0.0 | - | 0.0 | | 0.0 | 858. 7 |
| 3. Physical Contingency | 121.4 | | 449.2 | 100.1 | 1857. 1 | 463. 1 | 192. 7 | 218.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3433.9 |
| 4. Price Escalation | 38. 5 | 17.6 | 17. 6 335. 5 | | 2216.0 | 803.0 | | 517. 1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4359.7 |
| Total | 1374. 2 | 370.5 | 5276.3 | | 1214. 2 22644. 5 | 5897.2 | 2438.8 | 2916.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 42132.2 |

TABLE F-3.3.4(9) DISBURSEMENT SCHEDULE (TAN CHI AREA) Foreign Pump & Material - Alternative-2

| : | Total | | | 15768.4 | 0.0 | 1360.8 | 481.7 | 486. 1 | 251.4 | 214.7 | 187.0 | 206. 7 | 199.9 | 168.8 | 355. 7 | | 665.9 | 203. 9 | 693. 2 | 156.3 | | 1625.0 | 60.0 | 2105.7 | 660.4 | 2585. 2 | 3243.6 | 31680.3 | 936 |
|----------------|-------|-------|---------------------|-----------------|-----|---------------|-------------|---------|---------------|---------|------------|--------------|--------------|------------|----------|---------------------|------------------------|----------------------|--------|----------|------------------|--------------------------|--------------------|-----------------------|---------------------------|------------------------|--------------------|----------|----------------------|
| (QSD) | 2001 | T. C | | | | | | | | | | | | | 0.0 | | | | | | | | | 0.0 | 0.0 | 0.0 | | 0.0 | 936 |
| (UNIT;1000USD) | 2 | F. C | | | | | | | | | | | | | 0.0 | | | | | | | | | | | 0.0 | 0.0 | 0.0 | |
| | 2000 | СС | | | | | | | | | | | | | 0.0 | | | | | | | | - | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 986 |
| | 2 | F. C. | | | | | | | - | | | | | | 0.0 | | | | | | | | | | | 0.0 | 0.0 | 0.0 | |
| | 1199 | L.C | | | | | | | | | | | | | 0.0 | | | | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 936 |
| | 1 | F. C | | | | | | | | | | | | | 0.0 | | | | | | | | | | | 0.0 | 0.0 | 0.0 | |
| | 8661 | 1. C | | | | 290.8 | 266. 1 | 226.3 | 115.9 | 100.7 | 91.8 | 109.5 | 106.3 | 83.2 | 139. 1 | | | | | | | | | 125.9 | 125.9 | 178. 1 | 422.3 | 2381.9 | 1270 |
| | 1 | F.C | | | | 389. 6 | 215.6 | 259.8 | 135. 5 | 114.0 | 95. 2 | 97.2 | 93. 6 | 85.6 | 148.6 | | | | | | | | | , | | 163. 5 | - | 2069.0 | |
| | 1997 | 7 C | | 1611.7 | | 290.8 | | | | | | | | | 29. 1 | | | | 517.0 | 51.7 | | | | 125.9 | 125.9 | 275. 2 | | 3504.5 | 1604 |
| | | F. C | | 11965.8 | | 389. 6 | | | | | | | | | 39. 0 | | | | 176.2 | 17.6 | | | | 400.5 | 39. 2 | 1302.8 | 1554. 5 | 15885. 2 | |
| | 1996 | I. C | | 179.1 | | | | | | | | | | | 0.0 | | 589.8 | 163.4 | | 75.3 | | 375.0 | 60.0 | 125.9 | 125.9 | 169.4 | | 2054.9 | |
| | | F. C | | 2011.8 | | | | | | | | | | | 0.0 | | 76. 1 | 40.5 | | 11.7 | | 1250.0 | 0.0 | 400.5 | 39. 2 | 383.0 | 286.0 | 4498.8 | |
| | 1995 | L.C | | | | | | | | | | | | | 0.0 | | | | | | | | | 125.9 | 125.9 | 25.2 | | 290.8 | • |
| | | F. C | | | | | | | | | | - | | | 0.0 | | | | | | | | | 801.1 | 78.4 | 88.0 | 27.9 | 995.3 | |
| | Year | Item | . Construction Cost | a. Pump Station | ٠. | Tao Khe Creek | KT Trinh Xa | KT 6 Xa | KT Phat Thich | KT 4 Xa | KT Kau Nau | KT Kau Nau-1 | KT Kau Nau-2 | KT Tan Chi | Overhead | c. Irrigation Canal | South Irrigation Canal | N 6 Irrigation Canal | Others | Overhead | Association Cost | a. Construction Machines | b. Land Aquisition | c. Consulting Service | d. Project Administration | . Physical Contingency | . Price Escalation | Total | INTINDATED AREA (ha) |

TABLE F-3.3.4(10) DISBURSEMENT SCHEDULE (TAN CHI + HANQUANG AREA) Foreign Pump & Material - Alternative-2

| | Total | | | 21403.9 | 0.0 | 1360.8 | 481.7 | 486. 1 | 251.4 | 214.7 | 187.0 | 206.7 | 199.9 | 159.8 | 406.6 | 168.8 | 412.4 | | 665.9 | 203.9 | 700.2 | 157.0 | | 3000.0 | | 1625.0 | 62.0 | 3025.6 | 1002.0 | 3638. 1 | 4628.4 | 44647.9 | 1395 |
|-----------------|-------|------|----------------------|-----------------|-------------------|---------------|-------------|---------|---------------|---------|------------|--------------|--------------|--------------|--------------|--------------|----------|---------------------|------------------------|----------------------|--------|----------|---|----------------------|---------------------|--------------------------|--------------------|-----------------------|---------------------------|-------------------------|--------------------|---------|-------------|
| (CSIOC | 2001 | L.C | | | | | | | | | | | | | | | 0.0 | | | | | | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1395 |
| (UNIT: 1000USD) | | F.C | | | | | - | | | | | | | | | | 0.0 | | | | | | | | | | | | | 0.0 | 0.0 | 0.0 | |
| | 2000 | J. C | | | | | | | | | | | | | | | 0.0 | | | | : | | - | | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1395 |
| | , , | F.C | | | | | | | | | | | | | | - | 0.0 | | - | | | | | | | | | | | 0.0 | 0.0 | 0.0 | |
| | 1199 | L.C | | | - | | | | | - | | | | | | | 0.0 | | | <u>.</u> | | | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1395 |
| | | F. C | | | | | | | | | | | | | 7 | | 0.0 | | | | | | | | - | | | | | 0.0 | 0.0 | 0.0 | |
| | 866 | L.C | | | | 290.8 | 266. 1 | 226.3 | 115.9 | 100.7 | 91.8 | 109.5 | 106.3 | 85.0 | 215.8 | 83. 2 | 169.1 | | | | | | | | | | | 195.4 | 195. 4 | 225. 1 | 533.7 | 3010.2 | 1834 |
| | - | F. C | | | | 389. 6 | 215.6 | 259.8 | 135. 5 | 114.0 | 95. 2 | 97.2 | 93. 6 | 74.8 | 190.8 | 85.6 | 175. 2 | | | | | | | | | | | | | 192. 7 | 319.2 | _ | ļ |
| | 1997 | r. c | | 2190.4 | | 290.8 | | | | | - | | | | | | 29. 1 | | | | 522. 2 | 52. 2 | | 1800.0 | | | | 195. 4 | 195. 4 | | 914.7 | 6717.8 | ı |
| | ,,,, | F. C | | 16335.6 | | 389.6 | | | | | | | | | | | 39.0 | | | | 178.0 | 17.8 | | 1200.0 | | | | 561.0 | 55. 1 | 1877. 6 | 2240.4 | | |
| | 1996 | I. C | | 243.4 | | - | - | | | | | | | | 11 | | 0.0 | | 589.8 | 163.4 | | 75.3 | | | | 375.0 | 62.0 | 195. 4 | -1-1 | 190.0 | 214.2 | 2303.92 | 2710 |
| | | F. C | | 2634. 5 | | | | | | | | | , | | | | 0.0 | | 76. 1 | 40.5 | | 11.7 | | | | 1250.0 | 0.0 | 561.0 | 55. 1 | 462.9 | 345.7 | 5437. 4 | |
| | 1995 | I. C | | | | | | | | | | | | | | | 0.0 | | | | | | | | | | | 195. 4 | 4 | | 2 | 451.4 | 2710 |
| | | F. C | | | | | | | | | | | | | | | 0.0 | | - | : | | | | | | | | 1122.0 | 110.2 | 123. 2 | 39.0 | 1394. 5 | |
| | Year | Item | 1. Construction Cost | a. Pump Station | b. Drainage Canal | Tao Khe Creek | KT Trinh Xa | KT 6 Xa | KT Phat Thich | KT 4 Xa | KT Kau Nau | KT Kau Nau-1 | KT Kau Nau-2 | Conten Creek | Other canals | KT Han Quang | Overhead | c. Irrigation Canal | South Irrigation Canal | N 6 Irrigation Canal | Others | Overhead | | d. Transmission Line | 2. Association Cost | a. Construction Machines | b. Land Aquisition | c. Consulting Service | d. Project Administration | 3. Physical Contingency | . Price Escalation | | D AREA (ha) |

TABLE F-3.3.4(11) DISBURSEMENT SCHEDULE (TAN CHI AREA) Foreign Pump & Material - Alternative-3

| Total | | | 15768. 5 | 0.0 | 1360.8 | 481.7 | 486. 1 | 251.4 | 214.7 | 187.0 | 206.7 | 199.9 | 168.8 | 355. 7 | | 665.9 | 203.9 | 693. 2 | 156.3 | 262. 3 | | 1625.0 | 60.0 | 2132.0 | 665.6 | 2614.6 | 3010.7 | 31770.8 | 936 |
|-------|------|---|--|---|---|---|--|---|--|--|---|---|---|---|--|---|---|---|---|---|---|---|---|---|--|--|--|--|--|
| 2001 | L.C | - | | | | | | | | | | | | 0.0 | | | | | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | | 936 |
| , | P. C | | | | | | | | | | | | | 0.0 | | | | | | | | | | | | 0.0 | 0.0 | 0.0 | |
| | L.C | | | | ** | | | - | | | | | | 0.0 | | | | | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 936 |
| 2 | F. C | | | | | | | : | | | | | - | 0.0 | | | | | | | | | | | | 0.0 | 0.0 | 0.0 | |
| 199 | L.C | - | | | | | | | | | | | | 0.0 | | | | | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 936 |
| 1 | F. C | | | - | | | | | | | | | - | 0.0 | | } | | | | | | | | | | 0.0 | 0.0 | 0.0 | |
| 866 | r.c | | | | 290.8 | 266. 1 | 226.3 | 115.9 | 100.7 | 91.8 | 109.5 | 106.3 | 83. 2 | 139.1 | | | | | 0.0 | 28.3 | | | | 126.6 | 126.6 | 181.1 | 429.3 | 2421.6 | 1270 |
| | F. C | | | | 389.6 | 215.6 | 259.8 | 135. 5 | 114.0 | 95. 2 | 97.2 | 93. 6 | 85.6 | 148.6 | | | | | 0.0 | 234.0 | | | | | | 186.9 | 309.6 | 2365. 1 | |
| 1997 | J. C | | 895.4 | | 290.8 | | | | | | | | | 29. 1 | | | | 517.0 | 51.7 | | | | - | 126.6 | 126.6 | 203. 7 | 353. 2 | | 1 |
| | F.C | | 6647.7 | | 389. 6 | | | | | | | | | 39.0 | | | | 176.2 | 17.6 | | | | | 406.4 | 39.8 | 771.6 | 920.7 | | ı |
| 966 | T.C | | 895. 4 | | | | | | | | | | | 0.0 | | 589.8 | 163.4 | | 75.3 | | | 375.0 | 60.0 | 126.6 | 126.6 | 241.2 | 272.0 | 2925. 3 | 1937 |
| | F.C | | 7330.0 | | | | | | | | | | | 0.0 | | 76.1 | 40.5 | | 11.7 | | | 1250.0 | 0.0 | 406.4 | 39.8 | 915.4 | 683. 7 | 0753.6 | |
| 995 | 2.7 | | | | | | | | | | | | | | | | | | | | | | | 126.6 | 126.6 | 25.3 | 13.9 | 292. 4 | 1937 |
| | F. C | | | | | | | | | | | | | | | | | | | | | | | 812.8 | 79.6 | 89.2 | 28.3 | 1009.9 | |
| Year | Item | 1. Construction Cost | a. Pump Station | b. Drainage Canal | Tao Khe Creek | KT Trinh Xa | KT 6 Xa | KT Phat Thich | KT 4 Xa | KT Kau Nau | KT Kau Nau-1 | KT Kau Nau-2 | KT Tan Chi | Overhead | | | N 6 Irrigation Canal | Others | Overhead | d. Pond Construction | 2. Association Cost | ı | | c. Consulting Service | d. Project Administration | 3. Physical Contingency | 4. Price Escalation | Tota | INUNDATED AREA (ha) |
| | | Year 1995 1996 1997 1998 1199 2000 20 F.C L.C F.C F.C | Year 1995 1996 1997 1998 1199 2000 20 Struction Cost | Year 1995 1996 1997 1998 1199 2000 20 Cost L. C F. C C | ear 1995 1996 1997 1998 1199 2000 2 sst F.C L.C F.C L.C F.C L.C F.C L.C F.C F.C </td <td>Year 1995 1996 1997 1998 1199 2000 2 Cost L. C F. C C<</td> <td>ear 1995 1996 1997 1998 1199 2000 2 st F.C L.C F.C L.C F.C L.C F.C F.C<td>ear 1995 1996 1997 1998 1199 2000 2 st F.C L.C F.C L.C F.C L.C F.C E.C E.C F.C F.C<td>ear 1995 1996 1997 1998 1199 2000 2 st F.C L.C F.C L.C F.C L.C F.C L.C F.C E.C F.C F.C<td>ear 1995 1996 1997 1998 1199 2000 2 sst F.C L.C F.C L.C F.C L.C F.C L.C F.C F.C<!--</td--><td>ear 1995 1996 1997 1998 1199 2000 20 sst L.C F.C L.C<</td><td>ear F.C L.C L.C F.C<td>ear F.C L.C F.C L.C<td>ear F.C L.C L.C F.C L.C L.C L.C L.C<td>ear F.C L.C F.C F.C L.C F.C L.C F.C<td>ear F.C L.C F.C F.C F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>ear F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>ear 1995 1996 1997 1998 1199 2000 2001 sst F.C L.C F.C F.C L.C F.C L.C F.C F.</td><td>ear F.C L.C F.C L.C<td>ear F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>ear F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>ear F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>ear F.C L.C F.C F.C L.C F.C F.C F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>ear F.C L.C F.C F.C L.C F.C F.C L.C F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>Material Dear English F.C. L.C. F.C.</td><td>F.C L.C F.C L.C L.C F.C L.C F.C L.C F.C L.C L.C F.C L.C L.C<td>Year F.C L.C F.C L.C<td>Year 1995 1996 1997 1998 1199 2000 2000 monstruction Cost E. C. L. C. E. C. <td< td=""><td> Pear Pear 1995 1996 1997 1998 1199 2000 2001 </td></td<></td></td></td></td></td></td></td></td></td></td></td></td> | Year 1995 1996 1997 1998 1199 2000 2 Cost L. C F. C C< | ear 1995 1996 1997 1998 1199 2000 2 st F.C L.C F.C L.C F.C L.C F.C F.C <td>ear 1995 1996 1997 1998 1199 2000 2 st F.C L.C F.C L.C F.C L.C F.C E.C E.C F.C F.C<td>ear 1995 1996 1997 1998 1199 2000 2 st F.C L.C F.C L.C F.C L.C F.C L.C F.C E.C F.C F.C<td>ear 1995 1996 1997 1998 1199 2000 2 sst F.C L.C F.C L.C F.C L.C F.C L.C F.C F.C<!--</td--><td>ear 1995 1996 1997 1998 1199 2000 20 sst L.C F.C L.C<</td><td>ear F.C L.C L.C F.C<td>ear F.C L.C F.C L.C<td>ear F.C L.C L.C F.C L.C L.C L.C L.C<td>ear F.C L.C F.C F.C L.C F.C L.C F.C<td>ear F.C L.C F.C F.C F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>ear F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>ear 1995 1996 1997 1998 1199 2000 2001 sst F.C L.C F.C F.C L.C F.C L.C F.C F.</td><td>ear F.C L.C F.C L.C<td>ear F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>ear F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>ear F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>ear F.C L.C F.C F.C L.C F.C F.C F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>ear F.C L.C F.C F.C L.C F.C F.C L.C F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>Material Dear English F.C. L.C. F.C.</td><td>F.C L.C F.C L.C L.C F.C L.C F.C L.C F.C L.C L.C F.C L.C L.C<td>Year F.C L.C F.C L.C<td>Year 1995 1996 1997 1998 1199 2000 2000 monstruction Cost E. C. L. C. E. C. <td< td=""><td> Pear Pear 1995 1996 1997 1998 1199 2000 2001 </td></td<></td></td></td></td></td></td></td></td></td></td></td> | ear 1995 1996 1997 1998 1199 2000 2 st F.C L.C F.C L.C F.C L.C F.C E.C E.C F.C F.C <td>ear 1995 1996 1997 1998 1199 2000 2 st F.C L.C F.C L.C F.C L.C F.C L.C F.C E.C F.C F.C<td>ear 1995 1996 1997 1998 1199 2000 2 sst F.C L.C F.C L.C F.C L.C F.C L.C F.C F.C<!--</td--><td>ear 1995 1996 1997 1998 1199 2000 20 sst L.C F.C L.C<</td><td>ear F.C L.C L.C F.C<td>ear F.C L.C F.C L.C<td>ear F.C L.C L.C F.C L.C L.C L.C L.C<td>ear F.C L.C F.C F.C L.C F.C L.C F.C<td>ear F.C L.C F.C F.C F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>ear F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>ear 1995 1996 1997 1998 1199 2000 2001 sst F.C L.C F.C F.C L.C F.C L.C F.C F.</td><td>ear F.C L.C F.C L.C<td>ear F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>ear F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>ear F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>ear F.C L.C F.C F.C L.C F.C F.C F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>ear F.C L.C F.C F.C L.C F.C F.C L.C F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>Material Dear English F.C. L.C. F.C.</td><td>F.C L.C F.C L.C L.C F.C L.C F.C L.C F.C L.C L.C F.C L.C L.C<td>Year F.C L.C F.C L.C<td>Year 1995 1996 1997 1998 1199 2000 2000 monstruction Cost E. C. L. C. E. C. <td< td=""><td> Pear Pear 1995 1996 1997 1998 1199 2000 2001 </td></td<></td></td></td></td></td></td></td></td></td></td> | ear 1995 1996 1997 1998 1199 2000 2 st F.C L.C F.C L.C F.C L.C F.C L.C F.C E.C F.C F.C <td>ear 1995 1996 1997 1998 1199 2000 2 sst F.C L.C F.C L.C F.C L.C F.C L.C F.C F.C<!--</td--><td>ear 1995 1996 1997 1998 1199 2000 20 sst L.C F.C L.C<</td><td>ear F.C L.C L.C F.C<td>ear F.C L.C F.C L.C<td>ear F.C L.C L.C F.C L.C L.C L.C L.C<td>ear F.C L.C F.C F.C L.C F.C L.C F.C<td>ear F.C L.C F.C F.C F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>ear F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>ear 1995 1996 1997 1998 1199 2000 2001 sst F.C L.C F.C F.C L.C F.C L.C F.C F.</td><td>ear F.C L.C F.C L.C<td>ear F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>ear F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>ear F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>ear F.C L.C F.C F.C L.C F.C F.C F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>ear F.C L.C F.C F.C L.C F.C F.C L.C F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>Material Dear English F.C. L.C. F.C.</td><td>F.C L.C F.C L.C L.C F.C L.C F.C L.C F.C L.C L.C F.C L.C L.C<td>Year F.C L.C F.C L.C<td>Year 1995 1996 1997 1998 1199 2000 2000 monstruction Cost E. C. L. C. E. C. <td< td=""><td> Pear Pear 1995 1996 1997 1998 1199 2000 2001 </td></td<></td></td></td></td></td></td></td></td></td> | ear 1995 1996 1997 1998 1199 2000 2 sst F.C L.C F.C L.C F.C L.C F.C L.C F.C F.C </td <td>ear 1995 1996 1997 1998 1199 2000 20 sst L.C F.C L.C<</td> <td>ear F.C L.C L.C F.C<td>ear F.C L.C F.C L.C<td>ear F.C L.C L.C F.C L.C L.C L.C L.C<td>ear F.C L.C F.C F.C L.C F.C L.C F.C<td>ear F.C L.C F.C F.C F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>ear F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>ear 1995 1996 1997 1998 1199 2000 2001 sst F.C L.C F.C F.C L.C F.C L.C F.C F.</td><td>ear F.C L.C F.C L.C<td>ear F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>ear F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>ear F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>ear F.C L.C F.C F.C L.C F.C F.C F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>ear F.C L.C F.C F.C L.C F.C F.C L.C F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>Material Dear English F.C. L.C. F.C.</td><td>F.C L.C F.C L.C L.C F.C L.C F.C L.C F.C L.C L.C F.C L.C L.C<td>Year F.C L.C F.C L.C<td>Year 1995 1996 1997 1998 1199 2000 2000 monstruction Cost E. C. L. C. E. C. <td< td=""><td> Pear Pear 1995 1996 1997 1998 1199 2000 2001 </td></td<></td></td></td></td></td></td></td></td> | ear 1995 1996 1997 1998 1199 2000 20 sst L.C F.C L.C< | ear F.C L.C L.C F.C <td>ear F.C L.C F.C L.C<td>ear F.C L.C L.C F.C L.C L.C L.C L.C<td>ear F.C L.C F.C F.C L.C F.C L.C F.C<td>ear F.C L.C F.C F.C F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>ear F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>ear 1995 1996 1997 1998 1199 2000 2001 sst F.C L.C F.C F.C L.C F.C L.C F.C F.</td><td>ear F.C L.C F.C L.C<td>ear F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>ear F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>ear F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>ear F.C L.C F.C F.C L.C F.C F.C F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>ear F.C L.C F.C F.C L.C F.C F.C L.C F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>Material Dear English F.C. L.C. F.C.</td><td>F.C L.C F.C L.C L.C F.C L.C F.C L.C F.C L.C L.C F.C L.C L.C<td>Year F.C L.C F.C L.C<td>Year 1995 1996 1997 1998 1199 2000 2000 monstruction Cost E. C. L. C. E. C. <td< td=""><td> Pear Pear 1995 1996 1997 1998 1199 2000 2001 </td></td<></td></td></td></td></td></td></td> | ear F.C L.C F.C L.C <td>ear F.C L.C L.C F.C L.C L.C L.C L.C<td>ear F.C L.C F.C F.C L.C F.C L.C F.C<td>ear F.C L.C F.C F.C F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>ear F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>ear 1995 1996 1997 1998 1199 2000 2001 sst F.C L.C F.C F.C L.C F.C L.C F.C F.</td><td>ear F.C L.C F.C L.C<td>ear F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>ear F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>ear F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>ear F.C L.C F.C F.C L.C F.C F.C F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>ear F.C L.C F.C F.C L.C F.C F.C L.C F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>Material Dear English F.C. L.C. F.C.</td><td>F.C L.C F.C L.C L.C F.C L.C F.C L.C F.C L.C L.C F.C L.C L.C<td>Year F.C L.C F.C L.C<td>Year 1995 1996 1997 1998 1199 2000 2000 monstruction Cost E. C. L. C. E. C. <td< td=""><td> Pear Pear 1995 1996 1997 1998 1199 2000 2001 </td></td<></td></td></td></td></td></td> | ear F.C L.C L.C F.C L.C L.C L.C L.C <td>ear F.C L.C F.C F.C L.C F.C L.C F.C<td>ear F.C L.C F.C F.C F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>ear F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>ear 1995 1996 1997 1998 1199 2000 2001 sst F.C L.C F.C F.C L.C F.C L.C F.C F.</td><td>ear F.C L.C F.C L.C<td>ear F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>ear F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>ear F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>ear F.C L.C F.C F.C L.C F.C F.C F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>ear F.C L.C F.C F.C L.C F.C F.C L.C F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>Material Dear English F.C. L.C. F.C.</td><td>F.C L.C F.C L.C L.C F.C L.C F.C L.C F.C L.C L.C F.C L.C L.C<td>Year F.C L.C F.C L.C<td>Year 1995 1996 1997 1998 1199 2000 2000 monstruction Cost E. C. L. C. E. C. <td< td=""><td> Pear Pear 1995 1996 1997 1998 1199 2000 2001 </td></td<></td></td></td></td></td> | ear F.C L.C F.C F.C L.C F.C L.C F.C <td>ear F.C L.C F.C F.C F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td> <td>ear F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td> <td>ear 1995 1996 1997 1998 1199 2000 2001 sst F.C L.C F.C F.C L.C F.C L.C F.C F.</td> <td>ear F.C L.C F.C L.C<td>ear F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>ear F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>ear F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>ear F.C L.C F.C F.C L.C F.C F.C F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>ear F.C L.C F.C F.C L.C F.C F.C L.C F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td><td>Material Dear English F.C. L.C. F.C.</td><td>F.C L.C F.C L.C L.C F.C L.C F.C L.C F.C L.C L.C F.C L.C L.C<td>Year F.C L.C F.C L.C<td>Year 1995 1996 1997 1998 1199 2000 2000 monstruction Cost E. C. L. C. E. C. <td< td=""><td> Pear Pear 1995 1996 1997 1998 1199 2000 2001 </td></td<></td></td></td></td> | ear F.C L.C F.C F.C F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F | ear F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F | ear 1995 1996 1997 1998 1199 2000 2001 sst F.C L.C F.C F.C L.C F.C L.C F.C F. | ear F.C L.C F.C L.C <td>ear F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td> <td>ear F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td> <td>ear F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td> <td>ear F.C L.C F.C F.C L.C F.C F.C F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td> <td>ear F.C L.C F.C F.C L.C F.C F.C L.C F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F</td> <td>Material Dear English F.C. L.C. F.C.</td> <td>F.C L.C F.C L.C L.C F.C L.C F.C L.C F.C L.C L.C F.C L.C L.C<td>Year F.C L.C F.C L.C<td>Year 1995 1996 1997 1998 1199 2000 2000 monstruction Cost E. C. L. C. E. C. <td< td=""><td> Pear Pear 1995 1996 1997 1998 1199 2000 2001 </td></td<></td></td></td> | ear F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F | ear F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F | ear F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F | ear F.C L.C F.C F.C L.C F.C F.C F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F | ear F.C L.C F.C F.C L.C F.C F.C L.C F.C L.C F.C F.C F.C F.C F.C F.C F.C F.C F.C F | Material Dear English F.C. L.C. F.C. | F.C L.C L.C F.C L.C F.C L.C F.C L.C L.C F.C L.C L.C <td>Year F.C L.C F.C L.C<td>Year 1995 1996 1997 1998 1199 2000 2000 monstruction Cost E. C. L. C. E. C. <td< td=""><td> Pear Pear 1995 1996 1997 1998 1199 2000 2001 </td></td<></td></td> | Year F.C L.C F.C L.C <td>Year 1995 1996 1997 1998 1199 2000 2000 monstruction Cost E. C. L. C. E. C. <td< td=""><td> Pear Pear 1995 1996 1997 1998 1199 2000 2001 </td></td<></td> | Year 1995 1996 1997 1998 1199 2000 2000 monstruction Cost E. C. L. C. E. C. <td< td=""><td> Pear Pear 1995 1996 1997 1998 1199 2000 2001 </td></td<> | Pear Pear 1995 1996 1997 1998 1199 2000 2001 |

TABLE F-3.3.4(12) DISBURSEMENT SCHEDULE (TAN CHI + HANQUANG AREA) Foreign Pump & Material - Alternative-3

| Total | | | 21403.9 | 0.0 | 1360.8 | 481.7 | 486. 1 | 251.4 | 214.7 | 187.0 | 206. 7 | 199. 9 | 159.8 | 406.6 | 168.8 | 412.4 | | 665.9 | 203.9 | 700.2 | 157.0 | 472.2 | 3000.0 | | 1625.0 | 62.0 | 3072.5 | 1027.9 | 3692.6 | 4349.0 | 44968.0 | 200 |
|-------|--------|-------------------|-----------------|-------------------|---------------|-------------|---------|---------------|---------|------------|--------------|--------------|--------------|--------------|--------------|----------|---------------------|-------|----------------------|--------|----------|----------------------|----------------------|------------------|--------------------------|--------------------|-----------------------|---------------------------|----------------------|------------------|---------|--------|
| 2001 | r.c | | | | | | | | | | | | | | | 0.0 | | | | | 0.0 | | | | | | 0.0 | | 0.0 | 0.0 | 0.0 | 100 |
| 2001 | F. C | | | | - | | | | | | | | | | | 0.0 | | | | | 0.0 | | | | | - | | | 0.0 | 0.0 | 0.0 | , |
| 2000 | ن | | | | | | | | | | | | | | | 0.0 | | | | | 0.0 | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| 2(| F.C | | | | | | | | | | | | | | | 0.0 | | | | | 0.0 | | | | | | | : | 0.0 | 0.0 | 0.0 | |
| 199 | T.C | | | | | | | | | | | | | | | 0.0 | | | | | 0.0 | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | > |
| | F. C. | | | | | | | | | | | | | | | 0.0 | | | | | 0.0 | | | | | | | | 0.0 | 0.0 | 0.0 | , |
| 1998 | C T | | | | 290.8 | 266. 1 | 226. 3 | 115.9 | 100.7 | 8 16 | 109.5 | 106.3 | 85.0 | 215 8 | 83. 2 | 169.1 | | | | | 0.0 | 238. 2 | | | - | • | 201.3 | 201.3 | 250. 1 | 593.0 | 3344. 4 | 1 1 2 |
| I | F.C | | | | 389.6 | 215.6 | 259.8 | 135.5 | 114.0 | 95. 2 | 97.2 | 93.6 | 74.8 | 190.8 | 85.6 | 175. 2 | | | | | 0.0 | 234.0 | | - | | | | | 216. 1 | 358.0 | 5 | 4 |
| 1997 |) | | 1216.9 | | 290.8 | | | | - | | | | | | | 29. 1 | | | | 522. 2 | 52. 2 | | 1800.0 | | | | 201.3 | 201.3 | 431. 4 | 748.0 | ├─ | 1 |
| | P. C. | | 9075.3 | | 389. 6 | | | | | | | | | | | 39.0 | | | | 178.0 | 17.8 | | 1200.0 | - | | | 566.8 | 55. 7 | 1152. 2 | 1374.8 | 14049.2 | 10 101 |
| 1996 | 1.0 | i | 1216.9 | | | | | | | | | | | | | 0.0 | | 589.8 | 163.4 | | 75.3 | | | | 375.0 | 62.0 | 201.3 | 201.3 | 288. 5 | 325. 3 | | |
| | F C | , | 9894. 8 | | | | | | | | 1 | , | | | | 0.0 | | 76.1 | 40.5 | | 11.7 | | | | 1250.0 | 0.0 | 566.8 | 55. 7 | 1189.6 | 888. 4 | 13973.5 | 3 |
| 1995 | . C | i | | | | | | | | | | | | | | | | | | | 0.0 | | | | | ÷ | 201.3 | 201.3 | 40.3 | 22. 1 | | 0.00 |
| | n C |) | | | | | | | | | | - | | | | | | | | | 0.0 | | | | | | 1133.7 | 111.3 | 124. 5 | 39. 4 | 1408.9 | 7 |
| Year | I tem | Construction Cost | a. Pump Station | b. Drainage Canal | Tao Khe Creek | KT Trinh Xa | KT 6 Xa | KT Phat Thich | KT 4 Xa | KT Kau Nau | KT Kau Nau-1 | KT Kau Nau-2 | Conten Creek | Other canals | KT Han Quang | Overhead | c. Irrigation Canal | | N 6 Irrigation Canal | Others | Overhead | d. Pond Construction | e. Transmission Line | Association Cost | a. Construction Machines | b. Land Aquisition | c. Consulting Service | d. Project Administration | Physical Contingency | Price Escalation | Total | 10.01 |

| 1 | Month | Local | | 30 | | 22 | | 23 | မ | · | 20 | 1 | 8 | † 7 0 | # | | | 200 | |
|--|--------------|---------|--------------------|----------------------|----------------------------|----------------------------|--------------|--------------------|----------------------|-----------------------------------|--------------------------------|-------------------|-----------------------|-----------------------------|-----------------------------|---------------------|------|-------|---|
| - | Man-Month | Foreign | 20 | | 12 | | 4 | | | 9 | | č | 77 | | 7 | 23 | | 70 | |
| | | Ш | | | | | | | | | | 4 | | | | • | | | |
| | 7 | II | | | | | | | | | | | 12 | 12 | | | | | |
| <u>le</u> | | ∺ | | | | | | | | | | | | <u> </u> | | | | | |
| χdu | | Ħ | | | | | | | | | | 4 | <u> </u> | | | | | | |
| che | 9 | П | | | | | | | | | | | 12 | 12 | | | | | |
| SS | | ы | | I | | | | | | ∾Ţ | | • | · | | | | | | |
| oin. | | Ħ | | \sim | ް | <u> </u> | : | | , T | | 4.1 | 4 | <u> </u> | | ļ | | | | |
| anı | rO | П | 4₽ | | 4T | <u>T</u> | | | I | | | | 12 | 12 | ļ | | | | |
| F-3.4 Consulting Services Manning Schedule | | H | · | | | | | | | | | | т . | ļ., | | | | | |
| ces | | 田 | | | | | | | | | | 4 | <u> </u> | | | | | | |
| rvi | 4 | II | | | | | | | | | | · · · · | 12 | 12 | ļ | | | | |
| Se | - | 1-1 | | | | | <u>.</u> | | | | | | T | <u> </u> | <u></u> | | | | |
| ing | | III | | | | | | | | | | 4 | | | N∏ | МĪ | | | |
| ult | က | ㅁ | | Т | - | | | | | ο <u>Ι</u> | | | 12 | 12 | | | | | |
| Suc | | П | 4 | _ _ | | T | | | | | 4 | <u>-</u> | Τ. | ļ | | | | · | |
| ı C | | Ħ | ₹ T | 乳, | T | \sim | | | T | | | 4 | 4 | 4 | | | | | ł |
| -3.4 | 2 | Ħ | - | | `- | _ | | | <u>.</u> | | | | | | | | | | |
| F | | ı | 41 | | <u>.</u> | | | | | | 4 | 1. | | · ,· · · · · · | | | . —. | | |
| ıre | | | | 2 | | | | | | ΝĪ | | • | | | | | | | |
| Figure | | I | T | 172 | 4 , L 4 | ↲ | Т | - Σ | | | | | | | | | | | |
| 1 | | | 4 | | 1 | 1 | 4 | | ŊŢ | | | | | | | | | | |
| | | | Civil Engineer/T.L | Civil Engineer/A.T.L | Design Engineer, civil (1) | Design Engineer, civil (2) | Design, Pump | Design, Electrical | Civil Mechanics Eng. | Specialist, Technical Document | Specialist, Construction | Planning and Cost | Construction Eng./T.L | Construction Eng. civil (1) | Construction Eng. civil (2) | Flectnical Engineer | | Total | |
| | | ٠ | | | | | | | F | - 116 | | * | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |

F.4 OPERATION AND MAINTENANCE

TABLE F-4.2.1 LIST OF ESTIMATED OPERATION & MAINTENANCE COST

| <u></u> | 0.0111.020 | l | | |
|---------------------------|-------------|-----------|-------------|-----------|
| Alternative | First Alter | native | Second Alte | rnative |
| Item | Tan Chi | Han Quang | Tan Chi | Han Quang |
| 1.Salary & Insulance | 10500 | 18600 | 10500 | 18600 |
| 2.Electric Charges | 76500 | 113100 | 95200 | 131800 |
| 3.Repair Cost: Structures | 4756 | 6256 | 9511 | 12511 |
| Elect. & Mech. | 32474 | 35054 | 32474 | 35054 |
| 4.0ther Cost | 27041 | 35572 | 54076 | 71138 |
| 5.Total Cost | 151271 | 208582 | 201761 | 269103 |

TABLE F-4.2.2 EXISTING ANUAL OPERATION & MAINTENANCE COST RECORD
(Tan Chi Drainage Pumping Station)
UNIT:1000Dong

| | | | 0111111 | 0000011 | 0 | | |
|------|-----------|---------|----------|---------|---------|--------|------------|
| | Salary & | Electic | Repair C | ost | | Other | Total |
| Year | Insulance | Charges | Struct. | Elec. | & Mech. | Costs | 0 & M Cost |
| 1989 | 8737 | 113893 | : 0. | | 50409 | 11561 | 184600 |
| 1990 | 11280 | 119229 | .0 | 1 | 103206 | 9025 | 242740 |
| 1991 | 13105 | 217246 | 0 | | 134063 | 15137 | 379551 |
| 1992 | 23877 | 473141 | 11813 | | 20297 | 29041 | 558169 |
| 1993 | 66799 | 401428 | 120521 | | 109267 | 123557 | 821572 |
| 1994 | 70139 | 466634 | 126547 | Ī . | 114730 | 129735 | 907785 |

TABLE F-4.2.3 EXISTING ANUAL OPERATION & MAINTENANCE COST RECORD
(Noi Due Irrigation Pumping Station)
UNIT:1000Dong

| | | | | 01111.1 | COODONE | | |
|------|------|-----------|---------|----------|---------------|-------|------------|
| | | Salary & | Electic | Repair C | ost | Other | Total |
| Year | | Insulance | Charges | Struct. | Elec. & Mech. | Costs | 0 & M Cost |
| | 1989 | 1161 | 10875 | 6024 | 10337 | 3792 | 32189 |
| | 1990 | 1853 | 9528 | 0 | 4807 | 4089 | 20277 |
| | 1991 | 2138 | 18988 | 0 | 32185 | 15290 | 68601 |
| | 1992 | 4901 | 47575 | 0 | 3207 | 6247 | 61930 |
| | 1993 | 14711 | 41753 | 95151 | 135186 | 25753 | 312554 |
| | 1994 | 15447 | 43661 | 99909 | 141945 | 27041 | 328003 |

TABLE F-4.2.4 ESTIMATED ANUAL ELECTRIC CONSUMPTION

| | | Electric C | | Electric | Electric Con | sumption | |
|------|------|------------|---------|-------------|--------------|----------|-----------|
| | | (1000D | ong) | Unit Charge | (KWH) | • | Remark |
| Year | | Tan Chi | Noi Due | (Dong/KWH) | Tan Chi | Noi Due | 1 |
| | 1989 | 113893 | 10875 | 90 | 1265478 | 120833 | Record |
| | 1990 | 119229 | 9528 | 100 | 1192290 | 95280 | Record |
| | 1991 | 217246 | 18988 | 205 | 1059737 | 92624 | Record |
| | 1992 | 473141 | 47575 | 358 | 1321623 | 132891 | Record |
| | 1993 | 401428 | 41753 | 376 | 1067628 | 111045 | Record |
| | 1994 | 466634 | 43661 | 395 | 1181351 | 110535 | Estimated |

TABLE F-4.2.5 ESTIMATION FOR THE OPERATION HOURS OF EXISTING PUMPING ST.

| | Drainage (Tan Chi) | Irrigation (Noi Due) | Remark |
|-------------------------------------|-----------------------|-------------------------|----------|
| Anual electric consumption KWH | 1181351 | 110535 | |
| Out-put power per 1 unit | 30 | . 30 | |
| Operated pump unit per station | 60 | 2 | |
| Estimated operation hours a year | 656 | 1842 | Existing |
| Estimated operation days a year | 27 | 77 | |
| Existing drng/irrgtn ratio (1/ha) | 3.27 | 1 | |
| Proposed drng/irrgtn ratio (1/ha) | 4.85 | 1.3 | |
| Operation hours for proposed system | 962 | 100 | Proposed |

TABLE F-4.2.6 CALCULATION OF OPERATION & MAINTENANCE COST

Average monthly salary:50 USD

| | | 11101 000 11011 011 | -, | .00 000 | |
|----------------------------------|----------|---------------------|----------|-----------|-------|
| | | Tan Chi Area | | Han Quang | |
| 1.Staff of Pumping Station | Existing | New station | Total | Han Quang | Total |
| Chief | 1 | 0 | 1 | 1 | 2 |
| Admistrator | 1 | 0 | 1 | 1 | 2 |
| 0&M Engineer | 0 | 1 | <u> </u> | 1 | ī |
| Mechanician | 2 | 1 | 3 | 2 | 4 |
| Electrician | 2 | 1 | 3 | 2 | 4 |
| Workers | 4 | 2 | 6 | 8 | 12 |
| Drivers(Heavy) | 1 | 0 | 1 | 2 | 3 |
| Drivers(Vehicle) | 1 | 0.5 | 1.5 | 2 | 3 |
| Total (Persons) | 12 | 5.5 | 17.5 | 19 | 31 |
| 2.Anual Salary & Insulance (USD) | 7200 | 3300 | 10500 | 11400 | 18600 |

| | Existing | Proposed | Proposed |
|-----------------------------|----------|----------|-----------|
| 2.Electric Charges | Tan Chi | Tan Chi | Han Quang |
| for drainage | | | |
| Operation hours (hr) | 656 | 962 | 962 |
| Out-put power (KWH/unit) | 30 | 550 | 550 |
| NOS of pump (pcs) | 60 | 4 | 6 |
| Total Out-put (KWH) | 1180800 | 2116400 | 3174600 |
| Electric Charges(USD-KWH) | 0.0359 | 0.0359 | 0.0359 |
| Electric Charge (USD) | 42391 | 76500 | 113100 |
| for irrigation | | | |
| Operation hours (hr) | 1842 | 2400 | 2400 |
| Out-put power (KWH/unit) | 30 | 30 | 30 |
| NOS of pump (pcs) | 2 | 2 | . 2 |
| Total Out-put (KWH) | 110520 | 144000 | 144000 |
| Electric Charges(USD-KWH) | 0.0359 | 0.0359 | 0.0359 |
| Electric Charge (USD) | 3968 | 18700 | 18700 |
| Total (Alternative 2) (USD) | 46359 | 95200 | 131800 |

| | | Tan Chi | Area | Han Quang | g Area |
|------------------------------------|----------|-------------|-------|-----------|--------|
| 3.Repair Cost (Viet Nam Mateirals) | Existing | New Tan Chi | Total | Han Quang | Total |
| Civil work Maintenance Cost | 9086 | 9511 | 9511 | | 12511 |
| Drainage Area(ha) | 6420 | 6720 | 6720 | 2120 | 8840 |
| Cropping Area(ha) | 6420 | 6720 | 6720 | 2120 | 8840 |
| Allocated cost | | | | | |
| Drainage | 4543 | | 4756 | | 6256 |
| Irrigation | 4543 | | 4756 | | 6255 |
| Mechanical & Eletric | | | | | |
| Maintenance Cost | 12909 | 19565 | 32474 | 22145 | 35054 |
| Repair Cost for Alternative 1 | | 26285 | 39194 | | 43894 |
| Repair Cost for Alternative 2 | | 29076 | 41985 | | 47565 |

^{*}Repair cost for mechanical equipment are estimated as;

(procurement cost)/(life time 30 years)×(30%)

(procurement cost of 0&M equipment)/(life time 15 years)×(10%)

^{*}Other costs are estimated as;

APPENDIX G

RURAL SOCIOLOGY AND ORGANIZATION

APPENDIX G

RURAL SOCIOLOGY AND ORGANIZATION

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Administration and Formation of Villages

1) Administrative Division The Study Area consist of south westerly 3 districts(huyen) and 1 city(thi xa) of Ha Bac province and a part of 2 eastern districts of Ha Noi capital(thanh pho) as detailed below:

| | Tinh Ha Ba | ac | Thanh Pho Ha Noi |
|-----------------------|------------|--------|---------------------------|
| Total No. of huyen | 14 | | 11 |
| Total No. | | | |
| of thanh xa | 2 | | 2(including capital area) |
| STUDY AREA: | | | |
| No. of xa | | * . | |
| by huyen | Que Vo | 23/23* | Dong Anh a part of 3/24 |
| - | Yen Phong | 4/18 | Gia Lam 7/35 |
| | Tien Son | 27/27 | |
| No. of xa | • | | |
| by thi xa | Bac Ninh | 5/5 | *No. of xa in Study Area |
| | | | Total No. of xa in huyen |

The administrative boundary is shown as FIG. G.1-1.

2) Formation of Villages and their Distribution The total No. of villages in the Study Area is 354, and their breakdown by huyen is as below:

| Name of Huyen | No. of Village | Name of Huyen No. of | Village |
|----------------|------------------|----------------------|---------|
| Oue Vo | 126 | Dong Anh | 13 |
| Bac Ninh | 2 2 | Gia Lam | 28 |
| Yen Phong | 20 | Total in Ha Noi area | 4 1 |
| Tien Son | 145 | • | |
| Total in Ha Ba | c area 313 | Total in Study Area | 354 |
| Data Source: H | earing from dist | rict P.C. | |

3) Land Holding System

The result of village survey of 3,653 villages in the northern Vietnam by the central committee of Land Reform in 1953 was as shown below:

| | Landownership | Percentage of | Area per |
|--------------------|---------------|---------------|----------------|
| Social Classes | (ha) | Total Area | capita (sq.m.) |
| French Plantations | 15,952.05 | 1.0 | |
| Catholic Church | 23,928.07 | 1.5 | • |
| Landlords | 390,825.22 | 24.5 | 10,093 |
| Communal and | | | |
| Semi-communal Land | 398,801.25 | 25.0 | |
| Rich Peasants | 113,259.55 | 7.1 | 6,393 |
| Middle Peasants | 462,609.45 | 29.0 | 1,372 |
| Poor Peasants | 159,520.50 | 10.0 | 431 |
| Very Poor Peasants | | 1.1 | 124 |
| Other Laboring Peo | | 0.8 | |
| Total | 1,595,204.98 | 100.0 | |
| - · | | | |

Data Source: The traditional village in Vietnam

As shown in the above table, the sizes of land holding were not so large, and some 1.0ha per capita even in case of landlord. There is a survey record of land holding per household in 68 villages of ex-Ha Bac province (south westerly area of Ha Bac province and almostly same as the Study Area) at the French colonial period. The landowner having more than 7.2ha/household was, as shown in table below, 13.9 percent.

| Size of Landholding | No. of Household | Percentage |
|---------------------|------------------|------------|
| Less than 1.8ha | 158 | 15.6% |
| 1.8- 3.6ha | 391 | 38.5 |
| 3.6- 7.2ha | 325 | 32.0 |
| 7.2-18.0ha | 100 | 9.9 |
| Over 18.0ha | 41 | 4.0 |
| Total | 1,015 | 100.0% |

Data Source: The traditional village in Vietnam

G-2 Population Distribution and its Characteristics

1) Population Distribution
The total population in the Study Area in 1990 was reported as 472,952, and its breakdown by huyen was as below:

| Name of Huyen | Population | Name of Hu | yen | Popu | lation |
|-------------------|---------------|-------------|--------|--------|---------|
| Oue Vo | 126,129 | Dong Anh | | | 13,884 |
| Bac Ninh | 64,150 | Gia Lam | · | ** * * | 53,839 |
| Yen Phong | 19,570 | Total in H | a Noi | area | 67,723 |
| Tien Son | 95,380 | | | 4 | |
| Total in Ha Bac | area 405,229 | Total in S | tudy A | Area 4 | 72,952 |
| Data Source: Demo | ographic stat | istics of t | he Rec | l rive | r basin |

The population distribution by xa and the sub-areas of drainage system are shown as TABLE G.2-1.

The ethnical distribution in 6 related huyen of the Study Area were reported as TABLE G.2-2 in the 1989 census.

2) Population Structure by Age Group, Sex and Marital Status
The population structure by age group in whole country of
Vietnam in 1989 census shows almostly complete shape of piramid,
while huyen of Dong Anh, Gia Lam and Bac Ninh where the urbanization rates are comparatively high show a trend of decrease of
population less than 4 years old proving the effect of family
planning campaign. The population of huyen by age group are shown
as TABLE G.2-3.

The population structure by sex are rather special in the country. In the age group of less than 14 years old, male population is more than that of female regardless whole country nor huyen basis, however the ratio of female population is more than male in the age group over 15 years old. Consequently, the male: female ratio of population is about 48:52 in total. As shown in TABLE G.2-4, only 4 xa show higher or equal ratio of male, and the female ratio shares majority in the remained 65 xa. The lowest ratio of male population is 44.8% in Xa Hien Van of Tien Son district.

As shown in TABLE G.2-5, the ratio of widow is increasing very obviously after 30 years old as a nation-wise trend when the population structure by marital status is checked with the population by sex. Especially, the ratio of widow is more than 10% after 40 years old, and it is hardly possible to accept as a difference of average life of male and female. Therefore some influence of casualty in 30 years of war time, anti-French war in 1946-54 and North-South conflict in 1955-73, up to the reunion of North and South might be considered as a reason of such high ratio of widow.

Similar trend is also seen in the Study Area, and it is assumed as the reason of higher ratio of female population.

3) Present Ratio of Urbanization The urban/rural population ratio by districts in the Study Area are shown as the table below:

| | Total | Urban Area | Rural Area F | opulation Ratio |
|---------------|-------------|--------------|---------------|-----------------|
| Name of Huyen | Population | Population | Population of | of Urban/ Rural |
| Oue Vo | 126,129 | | 126,129 | 0:100.0 |
| Bac Ninh | 64,150 | 33,849 | 30,301 | 52.8: 47.2 |
| Yen Phong | 114,675 | - · · · · - | 114,675 | 0:100.0 |
| Tien Son | 201,026 | 2,540 | 198,486 | 1.3: 98.3 |
| Dong Anh | 213,092 | 19,087 | 194,005 | 9.0: 91.0 |
| Gia Lam | 260,668 | 51,483 | 209,185 | 19.8: 80.2 |
| Total | 979,740 | 106,959 | 872,781 | 10.9: 89.1 |
| Data Source. | Demograpihi | n etatietics | s of Red rive | hasin |

Data Source: Demographhic statistics of Red river basin

Although the ratio of total urban population of 6 districts related to the Study Area is shown as 10.9% in the above table the urban areas in Dong Anh and Gia Lam districts are not included in the Study Area, therefore the ratio of urban population is assumed as about 7.7% in the Study Area.

4) Size of Household

The mean size of household by xa in the Study Area were 3.93 -5.35 persons in 1990, and the average of whole area was 4.55 as shown in TABLE 6.2-4.

On the other hand, about 36% of population of whole country are belonging to the household size of 4-5 persons from the viewpoint of the population distribution by the household size, while that of province basis both in Ha Bac and Ha Noi are more than 40%. In case of district basis, most of districts shares more than 40% except Yen Phong, 38.4%, and Bac Ninh, 39.7%.

5) Present Employment by Sectors

The present employment by sectors of population over 13 years old are 73.7% in agriculture, 10.5% in manufacturing, 5.7% in trading, 2.5% in education and 1.0% in administration in whole country basis, while the proportion of employment by sectors in the Study Area are as shown in the table below:

| Name of | Manufactur | Agricul | | | Administ |
|-----------|--------------|----------|---------|-----------|----------|
| Huyen | -ing | -ture | Trading | Education | -ration |
| Que Vo | 1.9% | 93.6% | 1.0% | 1.8% | 0.3% |
| Bac Ninh | 29.1 | 36.9 | 12.2 | 4.6 | 1.1 |
| Yen Phong | 1.7 | 94.0 | 1.1 | 1.6 | 0.4 |
| Tien Son | 6.3 | 86.4 | 1.9 | 2.3 | 0.3 |
| | | | | | |
| Dong Anh | 11.4 | 76.0 | 3.6 | 2.1 | 0.6 |
| Gia Lam | 22.4 | 52.0 | 7.1 | 3.4 | 1.0 |
| Data Sour | ce: Census R | eport in | 1989 | ** | |

As clearly shown in the above table, the proportion of employed population in agriculture sector is overwhelmingly high except in those districts where the ratio of urban population is comparatively high such as Bac Ninh and Gia Lam. Although no data is available about the employment by sectors in the Study Area, it is assumed with aged group population and proportion shown in the above table as below:

| | Total | Ratio | Working | Aged | Total | Study | Area |
|------------|-----------|----------|------------|--------|----------|---------|---------|
| | Populat- | in | Populat- | Popula | Populat- | - | Agricu |
| | ion over | Total | ion over | -tion | ion in | Working | -lture |
| Name of | 13 years | Popul. | 13 years | | Study | Popula- | Popula |
| Huyen | old | (1) | old | (2) | Area(3) | tion | -tion |
| Que Vo | 78,459 | 62.21% | 60,073 | 76.57% | 126,129 | 60,080 | 56,235 |
| Bac Ninh | 43,967 | 68.54 | 28,549 | 64.93 | 64,150 | 28,549 | 10,534 |
| Yen Phong | 72,218 | 62.98 | 56,648 | 78.44 | 19,570 | 9,668 | 9,088 |
| Tien Son | 131,005 | 65.17 | 100,100 | 76.41 | 195,380 | 97,292 | 84,060 |
| Total in | Ha Bac a | rea: | | | | 195,589 | 159,917 |
| Dong Anh | 142,242 | 66.75 | 104,585 | 73.53 | 13,884 | 6,814 | 5,179 |
| Gia Lam | 183,494 | 70.39 | 118,502 | 64.58 | 53,839 | 24,474 | 12,727 |
| Total in | Ha Noi a | rea: | | | | 31,288 | 17,906 |
| Total in | the Study | y Area: | | | | 226,877 | 177,823 |
| Note: Worl | king Popu | lation : | in Study A | Area = | (3)x(1)x | (2) | |

81.8% of the working population in Ha Bac area of the Study Area are involving in agriculture, while that of Ha Noi area is 57.2%. However, the Ha Noi area in the Study Area is mostly rural area, therefore the ratio of agriculture population in whole Study Area is assumed as more than 80%.

G-3 Farmer's Organization

The relation of villages and farmer's cooperatives in 4 related districts of the Study Area is as shown below:

| Name of Huyen | No. of Village | No. of Coop. Villages/Coop. |
|---------------|-------------------|-----------------------------|
| Que Vo | 126 | 93 1.35 |
| Bac Ninh | 2 2 | 11 |
| Yen Phong | 86 | 86 |
| Tien Son | 145 | 62 2.34 |
| Data Source: | Hearing from P.C. | of district |

In case of Dong Anh and Gia Lam, each commune or xa has one farmer's cooperative.

G-4 Social Infrastructure in Rural Area

In relation with para. 3.5.3-4 Educational and Cultural Facilities, followings are added:

The ratio of number of pupil/student per the age group population and number of pupil per a teacher by districts are as shown below:

| Primary/Secondary school | | | High School | | |
|--------------------------|--------------|--------------|--------------|-----------|--|
| · · · · · | No. of | : : : | No. of | | |
| | pupil/ | No. of | student/ | No. of | |
| Name of | Aged | pupil/a | Aged | student/ | |
| Huyen | population | teacher | population | a teacher | |
| Que Vo | 74.0% | 24.3:1 | 19.1% | 18.8:1 | |
| Bac Ninh | 83.5 | 24.7:1 | 31.2 | 8.2:1 | |
| Yen Phong | 70.3 | 25.0:1 | 19.0 | 18.9:1 | |
| Tien Son | 76.3 | 24.8:1 | 20.9 | 16.8:1 | |
| Data Sour | ce: Socio-ec | onomic repor | rt of Ha Bac | province. | |

The graduation ratioes of primary and secondary schools are reported as more than 90% in Ha Bac province, therefore the diffusion rate of primary education in the Study Area is considerably high.

The details of ratio of schooling experience by age group and by sex are shown as TABLE G.4-1.

G-5 Outlook of Villages in the Project Area

The outlook of Project Area are explained as below based on the hearing survey of 100 households of farmers in 15 villages, including some surrounded villages, in this area.

1) Demographic structure

The average age of marriage of 100 male and 113 female in the survey were 22.8 and 21.2 years old, respectively. The ratio of marriage before 20 years old was 32.0% in case of male, but that of female was as much as 54.9%. The average age of marriage by generation were as shown below:

| | M | ale | Female | | | |
|---------------|-----|----------|------------|---------|--|--|
| | | average | | average | | |
| year of | | age of | | age of | | |
| marriage | No. | marriage | No. marria | | | |
| 1930s | 0 | | 5 | 17.4 | | |
| 40s | . 1 | 17.0 | 4 | 21.0 | | |
| 50s | 15 | 21.9 | 18 | 19.8 | | |
| 60s | 12 | 23.3 | 12 | 20.5 | | |
| 70s | 34 | 22.8 | 3.5 | 20.5 | | |
| 80s | 29 | 23.5 | 31 | 21.5 | | |
| 90s | 9 | 22.0 | 8 | 18.8 | | |
| total/average | 100 | 22.8 | 113 | 21.2 | | |

As the difference of age between male and female at the time of marriage, the case that male age was 1-3 years older than female shared as much as 48.4%, then the case of 4-6 years older was 21.0%. Same age marriage was 15.8%, but 7.4% was the case that the age of female was 1-2 years older than male. In case that the difference of age of husband/wife are more than 7 years, 5.3% cases showed that male age was older, and female age was older in 2.1%. Such trend is regardless to the generation, and marriage of near ages is considered as traditional.

The year of experience of schooling is shown as table below, and there is not so much difference between male and female in case of 1-9 classes, but male ratio of schooling experience become higher than female after 10th class. Such trend is very obviously appeared after the year of birth of 1950s proving the diffusion of primary/secondary education in the area.

| year of | · | | | · · · | year | r 0: | f b: | irtl | h | | | | | -1, 1 |
|------------|-----|-----|-----|-------|------|------|------|------|-----|-----|-----|---------|------|-------|
| school | -19 | 940 | 41- | -50 | 51- | -60 | 61. | -70 | 71. | -80 | 81- | - | · to | tal |
| attendance | M | F | M | F | М | F | М | F | M | F | М | F | M | F |
| 0 | 2 | 10 | 0 | . 0 | 1 | 1 | _0 | 0 | Ö | 0 | 7-, | _ | 3 | 11 |
| 1-3 | 15 | 29 | 0 | 4 | 2 | 1 | 2 | 0. | 2 | 0 | 2.5 | 17 | 46 | 51 |
| 4 – 6 | 10 | 10 | 5 | 5 | 3 | 12 | 5 | 9 | .12 | 7 | 26 | | 61 | 64 |
| 7-9 | 9 | 2 | 16 | - 8 | 23 | 24 | 22 | 36 | 3 4 | 35 | 6 | 6 | 110 | 111 |
| 10-12 | 0 | 0 | 4 | 2 | 16 | 2 | 13 | 7 | 16 | 12 | _ | · · · · | 49 | 23 |
| 13- | 4 | 0 | 1 | . 0 | 2 | 0 | 0 | 0 | 0 | 0 | | | 7 | 0 |
| total | 40 | 51 | 26 | 19 | 47 | 40 | 42 | 52 | 64 | 54 | 57 | 44 | 276 | 260 |

2) Family composition

The total number of household in 15 villages surveyed was 4,131, of which 11.7% were 1-2 persons/household, 44.2% were 3-4, and 34.1% were 5-6. Therefore the average size of a household was 4.38 persons which is almostly same as the average size of 4.42 persons of commune basis in 1990.

The relation of head of family and members of family living in same house were as shown below:

| | type of | head of | fam | ily · | |
|---|------------|---------|----------|-------|-------|
| | family | male | fem | ale | total |
| 2 | generation | 6 4 | | 9 | 73 |
| 3 | generation | 23 | | 3 | 26 |
| 4 | generation | 1 | <u>-</u> | 0 | 1 |
| | total | 88 | 7: | 12 | 100 |

63 households or 86.3% of 2 generation families were composition of husband/wife and their children, and 12 households of 3 generation families were husband/wife and children with parent of husband. The head of family of 14 households of whole surveyed families were single, and 11 cases of which were female head of family.

3) Employment

96.1% of total households or 96.7% of total population were belonging to the farmer's household, and 96.7% of male and 85.7% of female population were composing the farmer's household, however the actual farming population was abount 57.0% of total population; 55.8% of male and 58.1% of female. The population composition from the viewpoint of economic activities were as shown below:

| <u></u> | m a | ale | fer | male | tot | al |
|-----------------------|-------|-------|-------|-------|--------|-------|
| economically active | 58.6% | | 59.1% | | 58.9% | |
| farming | | 91.5% | | 94.9% | : | 93.3% |
| non-farming labor | | 5.3 | | 1.9 | | 3.5 |
| handcraft/trading | | 1.6 | | 1.2 | , e | 1.4 |
| public services | | 1.6 | 1 | 2.1 | | 1.9 |
| economically inactive | 41.4% | | 40.9% | | 41.1% | |
| children less 6 years | | 32.7% | | 32.9% | 44 | 32.8% |
| pupil/student | | 53.8 | | 48.1 | | 50.8 |
| house keeping | | 4.7 | | 7.8 | | 6.3 |
| old/unable to work | | 8.9 | 100 | 11.2 | | 10.1 |
| total 1 | 00.0% | 1 | 00.0% | | 100.0% | |

As shown above, the ratio of economically active population of male and female are not different so much, and 93.3% of e.a.p. are involving in farming works. A part of pupil/student which shares a half of economically inactive population are also help-ing the farming works in the busy season, therefore it is very obviously that the regional economy is depending to agriculture in considerable extent.

4) Land holding system

The land holding size of 3 types of farmers, viz., farmers who have not livestock having drafting animals and having cattle and pig, are as shown below:

| * * | ratio of | | · | | | |
|-------------------|-----------|-------|-------|-------|------|--------|
| type of farmer | household | 0- 5 | 5-10 | 10-20 | 20- | total |
| without livestock | 46.4% | 56.7% | 39.6% | 3.7% | 0.0% | 100.0% |
| with draft animal | 2.4 | 10.6 | 89.4 | 0.0 | 0.0 | 100.0 |
| with cattle/pig | 51.2 | 24.8 | 59.0 | 15.3 | 0.9 | 100.0 |
| total | 100.0% | 39.3 | 50.7 | 9.5 | 0.5 | 100.0% |

As shown above, 39.3% of farmers have less than 5 sao(1,800 sq.m) of land, especially in the case of farmers who have not livestocks, 56.7% have less than 5 sao. On the other hand, in the case of farmers who have drafting animal, nearly 90% of them are holding 5-10 sao of land, and about 60 % of the farmers who have cattle/pig are holding same size of land.

The average farming land of paddy field per a household is 6.43 sao (2,315 sq.m), and 2.56 sao (920 sq.m) per a farmer. However, 33% of farming households are holding 2.6-5.0 sao, 26% have 5.1-7.5 sao and 21% have 7.6-10 sao, therefore 60% of farmers have 1-3 sao per a farmer.

27% of farming family are cultivating upland crops and 16% are cultivating perenial crops such as fruit tree, but the cropping area per a household are only 1.38 sao of upland crops and 0.6 sao of perenial crops.

The average number of plot of farmland are 8 plots in case of paddy field, 2.8 plots of upland crops and 1 plot of perenial crops, while the area per a plot are 0.8 sao, 0.5 sao and 0.6 sao, respectively.

5) Outlook of farmer's organization
In case of the Project Area, most of farmer's cooperatives
have been established in 1959-60, and the issue of consolidation
of cooperative as one cooperative per a commune encouraged in
1976-82 was not implemented. 61.3% of population of farming
family; 58.7% of male and 71.7% of female, are member of farmer's
cooperative. Average number of member of a cooperative is 720,
which is about 59.3% of average population of a village, and it
is almostly equal to the ratio of farmer in total population of
57.0%.

The amount of capital holding are considerably different by each of the cooperatives, and such difference is mainly appeared due to different investment of the cooperatives such as improvement of infrastructure. Some cooperatives have considerable amount of debt due to the large amount of expenditure required for prevention of water logging.

The oldmen's association and women's association have been organized almostly in whole villages, and they are forming main line of farmer's organization together with the farmer's association. The ratio of time of establishment of main farmer's organization in the Project Area are as shown below:

| | years of establishment | | | | | | | |
|-----------------------|------------------------|-------|-------|-------|----------|-------|-------|--|
| | 1940s | 51-55 | 56-60 | 61-70 | 71-80 | 81-90 | 91- | |
| farmer's cooperative | | | 86.7% | 6.7% | | 6.7% | | |
| farmer's association | 15.4% | | | | 15.4% | 30.8 | 38.5% | |
| oldmen's association | | | 20.0 | 13.3 | 20.0 | 46.7 | | |
| women's association | 28.6 | 35.7% | 28.6 | | | 7.1 | | |
| veteran's association | | | 1 | | <u> </u> | 6.7 | 93.3 | |

As shown above, most of farmer's cooperative have been established in the later half of 1950s following to the implementation of land reform, and aiming to manage the farmland in accordance with the land reform law. The farmer's association was existing even before the revolution in 1945, but the activities were intermitted after the revolution. The farmer's association have been re-organized from the later half of 1970s, and most of villages have such association nowaday. Many of farmers are not recognizing the farmer's cooperative as their own organization, and such cognition of farmer is considered as motive of re-organization of the farmer's association.

The oldmen's association was also existed before the revolution, but formally established after the later half of 1950s. In case of the women's association, it was formally organized immediately after the revolution, and most of villages have been covered with the women's association up to the end of 1950s. This action might be regarded with the basic policy of socialism which encourage the participation of women in the social works. In fact, the role of women in the social affairs in the rural area might be highly evaluated.

The retired army officers and soldiers are forming their own solidarity organization of veteran's association since the end of 1980s, and expanding their influence to the rural communmity. The number of member of veteran's association is not so much, but its impact to the rural community will not be negligible because their country-wide networks.

6) Religion and festivals

From the viewpoint of religion, the rural inhabitants are still depending on their tradition of Confucianism in daily life. Although the religious activities are not so active, many of rural inhabitants, especially elder people, are follower of Buddhism or Catholicism.

Contrarily, the tradition of ancestor worship is deeply rooted in the rural life, and providing the meeting opportunity of community member as different kinds of festivals. It is notable that many of such festivals are held as commune basis, therefore many troubles between the villages such as trouble of water distribution, damage to farmland due to invasion of cattle or buffalo of neighbouring village, conflict of schooling children of different villages, etc. are arbitrated or solved in such occassion of festivals.