Table 2.5.7 (1) Calculation of the Price of Maize

| Description | 1971 | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 |
|---|---|---|---|---|---|---|---|---|---|
| 1. Current ear rice in Kab. Soppeng/1 (Rp/kg) | 18.24 | 29.32 | 24.29 | 48.68 | 52.61 | 69.79 | 45.34 | 41.12 | 79.43 |
| 2. General rice ndex in Sulawesi Selatan/2 (1971 = 100) | 100 | 114 | 179 | 218 | 202 | 246 | 247 | 271 | 326 |
| 3. Adjusted aize rices. (1)/(2) x 100 | 18.27 | 25.72 | 13.57 | 22.33 | 26.04 | 28.37 | 18.36 | 15.25 | 24.36 |
| 4. Current ear ice rices in Kab. Soppeng/1 (Rp/kg) | 29.70 | 43.32 | 64.77 | 75.50 | 84.62 | 104.09 | 103.10 | 127.08 | 151.83 |
| 5. Adjusted ice rices (4)/(2) x 100 | 29.70 | 38.0 | 36.2 | 34.6 | 41.9 | 42.3 | 41.7 | 46.9 | 46.6 |
| 6. Price atios of aize and ice, (3)/(5) | 0.61 | 0.68 | 0.37 | 0.64 | 0.62 | 0.67 | 0.44 | 0.32 | 0.52 |
| 7. Average rice atio of aize and rice | 0.54 (The mean value is adopted) | | | | | | | | |
| 8. Projected etail rice of aize (Rp/kg) | 0.54 x 227.9/3 = 123 Rp/kg | | | | | | | | |
| 9. Projected arm ate rice of aize (Rp/kg) | 123 x 0.75/4 = 92 Rp/kg | | | | | | | | |

/1 : Source : STATISTIK HARGA HASIL PERTANIAN TANAMAN PANGAN, 1980

/2 : Source : INDIKATOR EKONOMI, 1980

/3 : Projected retail price of rice for the year of 1985

/4 : The ratio of retail price and farm gate price is obtained through farm economy survey.

Table 2.5.7 (2) Calculation of the Price of Groundnuts (peanuts)

| Description | 1971 | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 |
|---|---|---|---|---|---|---|---|---|---|
| 1. Current rice in Kab. Soppeng/1 (Rp/kg) | 46.75 | 95.09 | 72.93 | 155.87 | 175.21 | 263.12 | 233.53 | 245.57 | 416.46 |
| 2. General rice ndex in Sulawesi Selatan/2 (1971 = 100) | 100 | 114 | 179 | 218 | 202 | 246 | 247 | 271 | 326 |
| 3. Adjusted roundnuts (peanuts) prices, (1)/(2) x 100 | 46.8 | 83.4 | 40.7 | 71.5 | 86.7 | 106.9 | 94.5 | 90.6 | 127.7 |
| 4. Current ear ice rices in Kab. Soppeng/1 (Rp/kg) | 29.70 | 43.32 | 64.77 | 75.50 | 84.62 | 104.09 | 103.10 | 127.08 | 151.83 |
| 5. Adjusted ice rices, (4)/(2) x 100 | 29.7 | 38.0 | 36.2 | 34.6 | 41.9 | 42.3 | 41.7 | 46.9 | 46.6 |
| 6. Price atios of eanuts and ice, (3)/(5) | 1.58 | 2.19 | 1.12 | 2.07 | 2.07 | 2.53 | 2.27 | 1.93 | 2.74 |
| 7. Average rice atio of eanuts and ice | 2.05 (The mean value is adopted) | | | | | | | | |
| 8. Projected retail rice of eanuts (Rp/kg) | 2.05 x 227.9/3 = 468 Rp/kg | | | | | | | | |
| 9. Projected arm ate rice of eanuts (Rp/kg) | 468 x 0.75/4 = 351 Rp/kg | | | | | | | | |

/1 : Source : STATISTIK HARGA HASIL PERTANIAN TANAMAN PANGAN, 1980

/2 : Source : INDIKATOR EKONOMI, 1980

/3 : Projected retail price of rice for the year of 1985

/4 : The ratio of retail price and farm gate price is obtained through farm economy survey.

Table 2.5.7 (3) Calculation of the Price of Greenbeans

| Description | 1971 | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 |
|---|---|---|---|---|---|---|---|---|---|
| 1. Current ear rice in Kab. Soppeng/1 (Rp/kg) | 45.50 | 82.38 | 91.95 | 144.94 | 167.15 | 213.78 | 188.99 | 228.57 | 294.61 |
| 2. General rice ndex in Sulawesi Selatan/2 (1971 = 100) | 100 | 114 | 179 | 218 | 202 | 246 | 247 | 271 | 326 |
| 3. Adjusted reenbeans rices. (1)/(2) x 100 | 45.5 | 72.3 | 51.4 | 66.5 | 82.7 | 86.9 | 76.5 | 84.3 | 90.4 |
| 4. Current ear ice rices in Kab. Soppeng/1 (Rp/kg) | 39.70 | 43.32 | 64.77 | 75.50 | 84.62 | 104.09 | 103.10 | 127.08 | 151.83 |
| 5. Adjusted ice rices, (4)/(2) x 100 | 29.7 | 38.0 | 36.2 | 34.6 | 41.9 | 42.3 | 41.7 | 46.9 | 46.6 |
| 6. Price ratios of reenbeans and ice, (3)/(5) | 1.53 | 1.90 | 1.42 | 1.92 | 1.97 | 2.05 | 1.83 | 1.80 | 1.94 |
| 7. Average rice atio of reenbeans and ice | 1.81 (The mean value is adopted) | | | | | | | | |
| 8. Projected retail rice of reenbeans (Rp/kg) | 1.81 x 227.9/3 = 414 Rp/kg | | | | | | | | |
| 9. Projected arm ate rice of reenbeans | 414 x 0.75/4 = 310 Rp/kg | | | | | | | | |

/1 : Source : STATISTIK HARGA HASIL PERTANIAN TANAMAN PANGAN, 1980

/2 : Source : INDIKATOR EKONOMI, 1980

/3 : Projected retail price of rice for the year of 1985

/4 : The ratio of retail price and farm gate price is obtained through farm economy survey

Table 2.5.7 (4) Calculation of the Price of Soybeans

| Description | 1971 | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 |
|---|---|---|---|---|---|---|---|---|---|
| 1. Current ear rice in Kab. Soppeng/1 (Rp/kg) | - | - | - | 144.94 | 167.15 | 213.78 | 188.99 | 288.57 | 294.61 |
| 2. General rice ndex in Sulawesi Selatan/2 (1971 = 100) | 100 | 114 | 179 | 218 | 202 | 246 | 247 | 271 | 326 |
| 3. Adjusted Soybeans rices. (1)/(2) x 100 | - | - | - | 66.49 | 82.75 | 86.90 | 76.51 | 84.34 | 90.37 |
| 4. Current ear ice rices in Kab. Soppeng (Rp/kg) | 29.70 | 43.32 | 64.77 | 75.50 | 84.62 | 104.09 | 103.10 | 127.08 | 151.83 |
| 5. Adjusted ice rices. (4)/(2) x 100 | - | - | - | 34.63 | 41.89 | 42.31 | 41.74 | 46.29 | 46.57 |
| 6. Price atio of Soybeans and ice. (3)/(5) | - | - | - | 1.92 | 1.97 | 2.05 | 1.83 | 1.80 | 1.94 |
| 7. Average rice atio of Soybeans and ice | 1.92 (The mean value is adopted) | | | | | | | | |
| 8. Projected etail rice of Soybeans (Rp/kg) | 1.92 x 227.9/3 = 437 Rp/kg | | | | | | | | |
| 9. Projected arm ate rice of Soybeans (Rp/kg) | 4.37 x 0.75/4 = 328 Rp/kg | | | | | | | | |

/1 : Source : STATISTIK HARGA HASIL PERTANIAN TANAMAN PANGAN, 1980

/2 : Source : INDIKATOR EKONOMI, 1980

/3 : Projected retail price of rice for the year of 1985

/4 : The ratio of retail price and farm gate price is obtained through farm economy survey.

Table 2.5.8 Total Production Costs without and with Project

| | Without Project | | | With Project | | | Increment of Total Production Cost |
|---|---|---|---|---|---|---|---|
| | Planted Area | Unit Production Cost/1 | Total Production Cost | Planted Area | Unit Production Cost/2 | Total Production Cost | |
| | (ha) | (Rp/ha) | ($10^6$Rp) | (ha) | (Rp/ha) | ($10^6$Rp) | ($10^6$Rp) |
| 1. Wet Season Paddy | | | | | | | |
| - technical area | - | - | - | 6,400 | 191,000 | 1,222.4 | 1,222.4 |
| - semi-technical area | 3,320 | 183,000 | 607.5 | - | - | - | -607.5 |
| - non-technical area | 2,818 | 150,000 | 422.7 | - | - | - | -422.7 |
| Sub-total | 6,138 | - | 1,030.2 | 6,400 | - | 1,222.4 | 192.2 |
| 2. Dry Season Paddy | | | | | | | |
| - technical area | - | - | - | 6,400 | 199,000 | 1,273.6 | 1,273.6 |
| - semi-technical area | 2,225 | 192,000 | 427.2 | - | - | - | -427.2 |
| - non-technical area | 1,928 | 162,000 | 312.3 | - | - | - | -312.3 |
| Sub-total | 4,153 | - | 739.5 | 6,400 | - | 1,273.6 | 534.1 |
| 3. Polowijo Crops | | | | | | | |
| - maize | | | | | | | |
| - groundnuts | 350 | 72,500/3 | 25.4 | 6,400 | 124,500/4 | 796.9 | 771.5 |
| - greenbeans | | | | | | | |
| - soybeans | | | | | | | |
| Total (1+2+3) | 10,641 | - | 1,795.1 | 19,200 | - | 3,292.9 | 1,497.8 |
| Production cost per ha per year | - | 280,500 | - | - | 514,500 | - | 234,000 (83.4%) |
| Production cost per ha per crop | - | 168,700 | - | - | 171,500 | - | 2,800 (1.7%) |

/1 : see Table 2.5.9 (1), Production Cost of Paddy without Project

/2 : see Table 2.5.9 (2), Production Cost of Paddy with Project

/3 : see Table 2.5.9 (3), Production Cost of Polowijo without Project

/4 : see Table 2.5.9 (4), Production Cost of Polowijo with Project

## Table 2.5.9 (1) Production Cost of Paddy without Project

| | Unit Price | Semi-technical Irrigation Area | | | | Non-technical Irrigation Area | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | W.S.P. /1 | (Rp) | D.S.P. /2 | (Rp) | W.S.P. /1 | (Rp) | D.S.P. /2 | (Rp) | Rainfed Paddy | (Rp) |
| A. Farm Input | | | | | | | | | | | |
| 1. Seed | Rp210/kg | 30 kg | 6,300 | 30 kg | 2,580 | 30 kg | 6,300 | 30 kg | 6,300 | 30 kg | 6,300 |
| 2. Fertilizer | | | | | | | | | | | |
| Urea | Rp100/kg | 200 kg | 20,000 | 200 kg | 20,000 | 100 kg | 10,000 | 100 kg | 10,000 | 100 kg | 10,000 |
| TSP | Rp100/kg | 50 kg | 5,000 | 50 kg | 5,000 | 35 | 3,500 | 50 kg | 5,000 | - | - |
| KCl | Rp100/kg | 50 kg | 5,000 | 50 kg | 5,000 | - | - | - | - | - | - |
| 3. Chemicals | | | | | | | | | | | |
| Insecticide | Rp1,800/lt | 2 lt | 3,600 | 2 lt | 3,600 | 1.5 lt | 2,700 | 2 15 | 3,600 | - | - |
| Rodenticide | Rp5,700/kg | 100 gr | 570 | 100 gr | 570 | - | - | 100 gr | 570 | - | - |
| Sub-total | | | 40,470 | | 40,470 | | 22,500 | | 25,470 | | 16,300 |
| B. Labour Cost | (Rp/days) | (M/D) | | (M/D) | | (M/D) | | (M/D) | | (M/D) | |
| 1. Nursery Preparation | 1,000 | 4.3 | 4,300 | 4.3 | 4,300 | 4.1 | 4,100 | 4.1 | 4,100 | 4.1 | 4,100 |
| 2. Ploughing | 1,080 | 11.3 | 12,200 | 12.3 | 13,280 | 11.8 | 12,200 | 12.3 | 13,280 | 11.3 | 12,200 |
| 3. Harrow/Puddling | 1,080 | 13.6 | 14,690 | 14.5 | 15,660 | 13.6 | 14,690 | 14.5 | 15,660 | 13.6 | 15,660 |
| 4. Transplanting | 1,000 | 25.7 | 25,700 | 25.7 | 25,700 | 25.7 | 25,700 | 25.7 | 25,700 | 25.7 | 25,700 |
| 5. Weeding | 1,000 | 12.1 | 12,100 | 15.5 | 15,500 | 11.1 | 11,100 | 14.5 | 14,500 | 11.9 | 11,900 |
| 6. Fertilizer Appl. | 500 | 5.5 | 2,750 | 5.5 | 2,750 | 4.3 | 2,150 | 4.3 | 2,150 | 4.3 | 2,150 |
| 7. Chemical Appl. | 790 | 5.3 | 4,190 | 5.3 | 4,190 | 4.3 | 3,400 | 4.3 | 3,400 | - | - |
| 8. Harvesting | 860 | 21.9 | 18,830 | 23.0 | 19,780 | 18.3 | 15,740 | 19.2 | 16,510 | 16.5 | 14,190 |
| 9. Threshing | 860 | 17.2 | 14,790 | 18.2 | 15,650 | 14.3 | 12,300 | 15.2 | 13,070 | 12.8 | 11,010 |
| 10. Drying | 1,000 | 5.1 | 5,100 | 5.6 | 5,600 | 4.2 | 4,200 | 4.7 | 4,700 | 3.8 | 3,800 |
| 11. Transportation | 500 | 11.8 | 5,900 | 11.9 | 5,950 | 9.8 | 4,900 | 9.9 | 4,950 | 8.8 | 4,400 |
| 12. Water Management | 500 | 3.0 | 1,500 | 3.0 | 1,500 | 2.5 | 1,250 | 2.5 | 1,250 | - | - |
| Sub-total | | 136.8 | 122,050 | 144.8 | 129,860 | 123.5 | 111,730 | 131.2 | 119,270 | 112.8 | 105,110 |
| C. Miscellaneous Cost (Equipment, tax etc.) | 12% of (A+B) | | 20,480 | | 21,670 | | 15,770 | | 17,260 | | 13,590 |
| Total (A+B+C) | | | 183,000 | | 192,000 | | 150,000 | | 162,000 | | 135,000 |

/1 : Wet Season Paddy /2 : Dry Season Paddy

Table 2.5.9 (2) Production Cost of Paddy with Project

| | Unit Price | Technical Irrigation Area | | | |
|---|---|---|---|---|---|
| | | W.S.P. /1 | (Rp) | D.S.P. /2 | (Rp) |
| A. Farm Input | | | | | |
| 1. Seed | Rp210/kg | 30 kg | 6,300 | 30 kg | 6,300 |
| 2. Fertilizer | | | | | |
| Urea | Rp100/kg | 200 kg | 20,000 | 200 kg | 20,000 |
| TSP | Rp100/kg | 50 kg | 5,000 | 50 kg | 5,000 |
| KCl | Rp100/kg | 50 kg | 5,000 | 50 kg | 5,000 |
| 3. Chemicals | | | | | |
| Insecticide | Rp1,800/kg | 3 lt | 5,400 | 3 lt | 5,400 |
| Fungicide | Rp1,800/kg | 1 lt | 1,800 | 1 lt | 1,800 |
| Rodenticide | Rp5,700/kg | 100 gr | 570 | 100 gr | 570 |
| Sub-total | | | 44,070 | | 44,070 |
| B. Labour Cost | (Rp/day) | (M/D) | | (M/D) | |
| 1. Nursery Preparation | 1,000 | 4.3 | 4,300 | 4.5 | 4,500 |
| 2. Ploughing | 1,080 | 11.3 | 12,200 | 12.8 | 13,820 |
| 3. Harrow/Puddling | 1,080 | 13.6 | 14,690 | 15.0 | 16,200 |
| 4. Transplanting | 1,000 | 25.7 | 25,700 | 25.7 | 25,700 |
| 5. Weeding | 1,000 | 12.1 | 12,100 | 15.7 | 15,700 |
| 6. Fertilizer Appl. | 500 | 5.5 | 2,750 | 5.5 | 2,750 |
| 7. Chemical Appl. | 790 | 5.7 | 4,500 | 5.7 | 4,500 |
| 8. Harvesting | 860 | 22.9 | 19,690 | 22.9 | 19,690 |
| 9. Threshing | 860 | 18.2 | 15,650 | 18.2 | 15,650 |
| 10. Drying | 1,000 | 5.6 | 5,600 | 5.6 | 5,600 |
| 11. Transportation | 500 | 12.8 | 6,400 | 12.8 | 6,400 |
| 12. Water Management | 500 | 5.0 | 2,500 | 5.0 | 2,500 |
| Sub-total | | 142.7 | 126,080 | 149.4 | 133,010 |
| C. Miscellaneous Cost (Equipment, Tax etc.) | 12% of (A+B) | | 20,850 | | 21,920 |
| Total (A+B+C) | | | 191,000 | | 199,000 |

/1: Wet Season Paddy
/2: Dry Season Paddy

Table 2.5.9 (3) Production Cost of Polowijo Crops without Project

| | Unit Price | Maize | | Groundnuts | | Greenbeans | | Soybeans | |
|---|---|---|---|---|---|---|---|---|---|
| | | | (Rp) | | (Rp) | | (Rp) | | (Rp) |
| A. Farm Input | | | | | | | | | |
| 1. Seed | - | 30 kg | 2,800 | 100 kg | 26,100 | 25 kg | 7,700 | 40 kg | 13,100 |
| 2. Fertilizer | | | | | | | | | |
| Urea | Rp100/kg | - | - | - | - | - | - | - | - |
| TSP | Rp100/kg | - | - | - | - | - | - | - | - |
| 3. Chemicals | | | | | | | | | |
| Insecticide | Rp1,800/lt | - | - | - | - | 2 lt | 3,600 | 2 lt | 3,600 |
| Rodenticide | Rp5,700/kg | - | - | - | - | - | - | - | - |
| Sub-total | | | 2,800 | | 26,100 | | 11,300 | | 16,700 |
| B. Labour Cost | (Rp/day) | (M/D) | | (M/D) | | (M/D) | | (M/D) | |
| 1. Land Preparation | 1,000 | 5.0 | 5,000 | 8.5 | 8,500 | 7.0 | 7,000 | 8.5 | 8,500 |
| 2. Seeding/Planting | 1,000 | 3.0 | 3,000 | 7.5 | 7,500 | 10.0 | 10,000 | 8.0 | 8,000 |
| 3. Weeding | 1,000 | 12.5 | 12,500 | 20.0 | 20,000 | 20.0 | 20,000 | 15.0 | 15,000 |
| 4. Fertilizer Application | 500 | - | - | - | - | - | - | - | - |
| 5. Chemical Application | 790 | - | - | - | - | 4.0 | 3,160 | 4.0 | 3,160 |
| 6. Harvesting/Drying | 860 | 7.5 | 6,450 | 28.0 | 24,080 | 24.0 | 20,640 | 24.0 | 20,640 |
| 7. Transportation | 500 | 1.5 | 750 | 1.0 | 500 | 1.0 | 500 | 1.0 | 500 |
| 8. Water Management | 500 | 1.0 | 500 | 1.0 | 500 | 1.0 | 500 | 1.0 | 500 |
| Sub-total | | 30.5 | 28,200 | 66.0 | 61,080 | 67.0 | 61,800 | 61.5 | 56,300 |
| C. Miscellaneous Cost (Equipment, Tax etc.) | 10% of (A+B) | | 3,000 | | 8,820 | | 6,900 | | 7,000 |
| Total (A+B+C) | | | 34,000 | | 96,000 | | 80,000 | | 80,000 |

Table 2.5.9 (4) Production Cost of Polowijo Crops with Project

| | Unit Price | Maize | | Groundnuts | | Greenbeans | | Soybeans | |
|---|---|---|---|---|---|---|---|---|---|
| | | | (Rp) | | (Rp) | | (Rp) | | (Rp) |
| A. Farm Input | | | | | | | | | |
| 1. Seed | - | 50 kg | 4,600 | 100 kg | 35,100 | 25 kg | 7,700 | 40 kg | 13,100 |
| 2. Fertilizer | | | | | | | | | |
| Urea | Rp100/kg | 250 kg | 25,000 | 75 kg | 7,500 | 100 kg | 10,000 | 100 kg | 10,000 |
| TSP | Rp100/kg | 100 kg | 10,000 | 100 kg | 10,000 | 100 kg | 10,000 | 100 kg | 10,000 |
| 3. Chemicals | | | | | | | | | |
| Insecticide | Rp1,800/lt | 2 lt | 3,600 | 2 lt | 3,600 | 2 lt | 3,600 | 2 lt | 3,600 |
| Rodenticide | Rp5,700/kg | 100 gr | 570 | 100 gr | 570 | 100 gr | 570 | 100 gr | 570 |
| Sub-total | | | 43,770 | | 56,770 | | 31,870 | | 37,270 |
| B. Labour Cost | (Rp/day) | (M/D) | | (M/D) | | (M/D) | | (M/D) | |
| 1. Land Preparation | 1,000 | 10 | 10,000 | 10 | 10,000 | 10 | 10,000 | 10 | 10,000 |
| 2. Seeding/Planting | 1,000 | 8 | 8,000 | 10 | 10,000 | 20 | 20,000 | 14 | 14,000 |
| 3. Weeding | 1,000 | 20 | 20,000 | 20 | 20,000 | 20 | 20,000 | 20 | 20,000 |
| 4. Fertilizer Application | 500 | 3 | 1,500 | 2 | 1,000 | 2 | 1,000 | 2 | 1,000 |
| 5. Chemical Application | 790 | 4 | 3,160 | 4 | 3,160 | 4 | 3,160 | 4 | 3,160 |
| 6. Harvesting/Drying | 860 | 15 | 12,900 | 30 | 25,800 | 25 | 21,500 | 25 | 21,500 |
| 7. Transportation | 500 | 4 | 2,000 | 3 | 1,500 | 3 | 1,500 | 3 | 1,500 |
| 8. Water Management | 500 | 3 | 1,500 | 3 | 1,500 | 3 | 1,500 | 3 | 1,500 |
| Sub-total | | 67 | 59,060 | 82 | 72,960 | 87 | 78,660 | 81 | 72,660 |
| C. Miscellaneous Cost (Equipment, Tax etc.) | 10% of (A+B) | | 10,170 | | 12,270 | | 11,470 | | 11,070 |
| Total (A+B+C) | | | 113,000 | | 142,000 | | 122,000 | | 121,000 |

Table 2.5.10 Net Production Value without and with Project Condition

| Description | Crops | Without Project | | | With Project | | | Increment | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Paddy | | Polowijo Crops | Paddy | | Polowijo Crops | Paddy | | Polowijo Crops |
| | | W.S.P./1 | D.S.P./2 | | W.S.P./1 | D.S.P./2 | | W.S.P./1 | D.S.P./2 | |
| 1. | Planted Area (ha) | 6,138 | 4,153 | 350 | 6,400 | 6,400 | 6,400 | 262 | 2,247 | 6,050 |
| 2. | Gross Production Value (x $10^6$Rp) | 3,386.3 | 2,362.3 | 81.0 | 4,608.0 | 4,608.0 | 2,193.3 | 1,221.7 | 2,235.9 | 2,112.2 |
| 3. | Total Production Cost (x $10^6$Rp) | 1,030.2 | 739.5 | 25.4 | 1,222.4 | 1,273.6 | 777.9 | 192.2 | 534.1 | 752.5 |
| 4. | Net Production Value (x $10^6$Rp) | 2,356.1 | 1,632.8 | 55.6 | 3,385.6 | 3,334.4 | 1,415.3 | 1,029.5 | 1,701.6 | 1,359.7 |
| 5. | Annual Net Production Value (x $10^6$Rp) | | 4,044.5 | | | 8,135.3 | | | 4,090.8 | |
| 6. | Proportion of Net Production Value by Each Crop (%) | 58.3 | 40.4 | 1.3 | 41.6 | 41.0 | 17.4 | 25.2 | 41.6 | 33.2 |

/1 : Wet Season Paddy, /2 : Dry Season Paddy

Table 2.6.1 (1) Water Shortage and Anticipated Yield Reduction of Paddy
( after rehabilitation and improvement of existing Desa non-technical irrigation schemes - Work Division-I )

| Year | Area to be affected | Nos. of Continuous No Irrigation Days | Rate of Yield Reduction [1] | Total Reduction Rate | Crop [2] Reduction |
|---|---|---|---|---|---|
| | (%) | (days) | (%) | (%) | (x $10^6$Rp) |
| Wet Season Paddy | | | | | |
| 1975 | 74.1 | 10 | 1.8 | 1.33 | 32.1 |
| 1976 | 66.7 | 10 | 1.8 | 1.20 | |
| | 58.8 | 20 | 8.2 | 4.82 | |
| | 10.0 | 10 | 1.8 | 0.18 | |
| | | | | 6.20 | 107.9 |
| 1977 | 26.0 | 10 | 14.0 | 3.64 | |
| | 38.2 | 10 | 1.8 | 0.69 | |
| | | | | 4.33 | 75.3 |
| 1978 | 1.6 | 10 | 1.8 | 0.03 | 0.5 |
| 1979 | 38.2 | 10 | 8.0 | 3.06 | |
| | 26.8 | 10 | 1.8 | 0.48 | |
| | 20.7 | 10 | 1.8 | 0.37 | |
| | | | | 3.91 | 68.0 |
| | | | Average | 3.16 | 55.0 |
| Dry Season Paddy | | | | | |
| 1975 | 10.4 | 30 | 95.0 | 9.88 | |
| | 34.0 | 20 | 50.0 | 17.00 | |
| | 11.0 | 10 | 14.0 | 1.54 | |
| | 44.9 | 20 | 8.2 | 3.68 | |
| | 25.5 | 10 | 1.8 | 0.46 | |
| | 19.3 | 40 | 37.3 | 7.20 | |
| | 2.5 | 30 | 19.9 | 0.50 | |
| | 46.3 | 20 | 8.2 | 3.80 | |
| | 3.3 | 10 | 1.8 | 0.06 | |
| | | | | 44.12 | 767.7 |
| 1976 | 24.4 | 10 | 8.0 | 1.95 | |
| | 8.2 | 10 | 1.8 | 0.15 | |
| | | | | 2.10 | 36.5 |
| 1977 | 46.1 | 10 | 8.0 | 3.69 | |
| | 34.5 | 10 | 1.8 | 0.62 | |
| | | | | 4.31 | 75.0 |
| 1978 | 18.1 | 20 | 8.2 | 1.48 | |
| | 9.0 | 10 | 1.8 | 0.16 | |
| | | | | 1.64 | 28.5 |
| | | | Average | 13.04 | 226.9 |
| | | | Total | | 281.9 |

[1] : See Fig. 2.6.1

[2] : Gross production value x Total crop reduction rate (%)

Table 2.6.1 (2) Water Shortage and Anticipated Yield Reduction of Paddy (after construction of Langkemme irrigation canal system - Work Division-II)

| Year | Area to be affected | Nos. of Continuous No Irrigation Days | Rate of Yield Reduction [1] | Total Reduction Rate | Crop Reduction [2] |
|---|---|---|---|---|---|
| | (%) | (days) | (%) | (%) | ($\times 10^6$Rp) |
| Wet Season Paddy | | | | | |
| 1975 | 27.5 | 10 | 1.8 | 0.50 | 16.2 |
| 1976 | 51.6 | 10 | 8.0 | 4.13 | |
| | 32.3 | 20 | 8.2 | 2.65 | |
| | 9.1 | 10 | 1.8 | 0.16 | |
| | | | | 6.94 | 224.8 |
| 1977 | 10.4 | 10 | 1.8 | 0.19 | 6.2 |
| 1978 | - | - | - | - | - |
| 1979 | 10.8 | 10 | 8.0 | 0.89 | 28.8 |
| | | | Average | 1.70 | 55.2 |
| Dry Season Paddy | | | | | |
| 1975 | 20.1 | 20 | 8.2 | 1.65 | |
| | 37.5 | 10 | 1.8 | 0.67 | |
| | 58.5 | 10 | 1.0 | 1.05 | |
| | 53.6 | 10 | 1.0 | 0.96 | |
| | | | | 4.33 | 140.3 |
| 1976 | - | - | - | - | - |
| 1977 | 23.2 | 10 | 8.0 | 1.86 | |
| | 4.9 | 10 | 1.8 | 0.09 | |
| | | | | 1.95 | 63.2 |
| 1978 | - | - | - | - | - |
| | | | Average | 1.57 | 50.9 |
| | | | Total | | 106.1 |

[1] : See Fig. 2.6.1

[2] : Gross production value x Total crop reduction rate (%)

Table 2.6.1 (3) Water Shortage and Anticipated Yield Reduction of Paddy (after construction of Sero diversion canal system - Work Division-III)

| Year | Area to be affected | Nos. of Continuous No Irrigation Days | Rate of Yield Reduction /1 | Total Reduction Rate | Crop Reduction /2 |
|---|---|---|---|---|---|
| | (%) | (days) | (%) | (%) | ($\times 10^6$Rp) |
| Wet Season Paddy | | | | | |
| 1975 | 60.9 | 10 | 1.8 | 1.10 | 50.7 |
| 1976 | 2.7 | 20 | 8.2 | 0.22 | |
| | 42.7 | 10 | 1.8 | 0.77 | |
| | | | | 0.99 | 45.6 |
| 1977 | - | - | - | - | - |
| 1978 | - | - | - | - | - |
| 1979 | - | - | - | - | - |
| | | | Average | 0.42 | 19.3 |
| Dry Season Paddy | | | | | |
| 1975 | 38.0 | 10 | 1.8 | 0.68 | |
| | 32.9 | 10 | 1.8 | 0.59 | |
| | | | | 1.27 | 58.5 |
| 1976 | - | - | - | - | - |
| 1977 | 35.6 | 10 | 8.0 | 2.85 | 131.3 |
| 1978 | - | - | - | - | - |
| | | | Average | 1.03 | 47.5 |
| | | | Total | | 66.8 |

/1 : See Fig. 2.6.1

/2 : Gross production value x Total crop reduction rate (%)

Table 2.6.1 (4) Water Shortage and Reduction in Harvested Area of Polowijo Crops

| Year | Diversion Requirement (A) | Water Shortage (B) | Rate of Water Shortage B/A | Reduction in Harvested Area/2 | Crop/2 Reduction |
|---|---|---|---|---|---|
| | (l/s) | (l/s) | (%) | (ha) | ($\times 10^6$Rp) |
| **After completion of Work Division II (4,500 ha)** | | | | | |
| 1975 | 3,390 | 0 | 0 | 0 | 0 |
| 1976 | 17,740 | 5,300 | 30 | 1,350 | 462.6 |
| 1977 | 11,010 | 1,890 | 17 | 765 | 262.2 |
| 1978 | 5,380 | 0 | 0 | 0 | 0 |
| 1979 | 16,380 | 3,040 | 19 | 855 | 293.0 |
| | | Average | 13.2 | 594 | 203.6 |
| | | - Saving of harvesting cost | | | -14.3 |
| | | | | | 189.3 |
| **After completion of Work Division III (6,400 ha)** | | | | | |
| 1975 | 4,900 | 0 | 0 | 0 | 0 |
| 1976 | 25,210 | 6,570 | 26 | 1,664 | 570.3 |
| 1977 | 15,680 | 2,970 | 19 | 1,216 | 416.7 |
| 1978 | 7,650 | 0 | 0 | 0 | 0 |
| 1979 | 23,270 | 1,450 | 6 | 384 | 131.6 |
| | | Average | 10.2 | 653 | 223.8 |
| | | - Saving of harvesting cost | | | -15.8 |
| | | | | | 208.0 |

/1 : Planted area x Rate of ater hortage (%)

/2 : Damaged area x Gross production value (342,700 Rp/ha)

# Table 2.6.2 (1) Irrigation Benefits

| Description | W/O Project | W/Project | Increment |
|---|---|---|---|
| 1. Planted Area (ha)/1 | | | |
| - Wet season paddy | 6,138 | 6,400 | 262 |
| - Dry season paddy | 4,153 | 6,400 | 2,247 |
| - Polowijo crops | 350 | 6,400 | 6,050 |
| 2. Unit Yield (ton/ha) | | | |
| - Wet season paddy/2 | | | |
| non-technical irri. area | 4.57 | 6.0 | 1.43 |
| semi-technical irri. area | 4.59 | 6.0 | 1.41 |
| D.P.U. semi-tech. irri. area | 4.64 | 6.0 | 1.36 |
| - Dry season paddy/2 | | | |
| non-technical irri. area | 4.62 | 6.0 | 1.38 |
| semi-technical irri. area | 4.71 | 6.0 | 1.29 |
| D.P.U. semi-tech. irri. area | 5.00 | 6.0 | 1.00 |
| - Polowijo crops/2 | | | |
| maize | 0.79 | 2.0 | 1.21 |
| groundnuts | 0.81 | 1.2 | 0.39 |
| greenbeans | 0.83 | 1.2 | 0.37 |
| soybeans | 0.67 | 1.2 | 0.53 |
| 3. Project Prices of Paddy and Polowijo Crops/3 (Rp/ha) | | | |
| - Dry stalk paddy | 120,000 | 120,000 | - |
| - Polowijo crops | | | |
| maize | 92,000 | 92,000 | - |
| groundnuts | 351,000 | 351,000 | - |
| greenbeans | 310,000 | 310,000 | - |
| soybeans | 328,000 | 328,000 | - |
| 4. Unit Production Cost/4 (Rp/ha) | | | |
| - Wet season paddy | | | |
| non-technical irri. area | 150,000 | 191,000 | 41,000 |
| semi-technical irri. area | 183,000 | 191,000 | 8,000 |
| - Dry season paddy | | | |
| non-technical irri. area | 162,000 | 199,000 | 37,000 |
| semi-technical irri. area | 192,000 | 199,000 | 7,000 |
| - Polowijo crops | | | |
| maize | 34,000 | 113,000 | 79,000 |
| groundnuts | 96,000 | 142,000 | 46,000 |
| greenbeans | 80,000 | 122,000 | 42,000 |
| soybeans | 80,000 | 121,000 | 41,000 |

| Description | W/O Project | W/Project | Increment |
|---|---|---|---|
| 5. Gross Production Value (1 x 2 x 3) ($x10^6$Rp) | 5,839.6 | 11,409.2 | 5,569.6 |
| - Wet season paddy | 3,386.3 | 4,608.0 | 1,221.7 |
| - Dry season paddy | 2,362.3 | 4,608.0 | 2,235.7 |
| - Polowijo crops | 81.3 | 2,193.2 | 2,112.2 |
| 6. Total Production Cost (1 x 4) ($x10^6$Rp) | 1,795.1 | 3,273.9 | 1,478.8 |
| - Wet season paddy | 1,030.2 | 1,222.4 | 192.2 |
| - Dry season paddy | 739.5 | 1,273.6 | 534.1 |
| - Polowijo crops | 25.4 | 777.9 | 752.5 |
| 7. Net Production Value (5 - 6) ($x10^6$Rp) | 4,044.5 | 8,135.3 | 4,090.8 |
| - Wet season paddy | 2,356.1 | 3,385.6 | 1,029.5 |
| - Dry season paddy | 1,632.8 | 3,334.6 | 1,701.6 |
| - Polowijo crops | 55.6 | 1,415.3 | 1,359.7 |
| 8. Crop Damages Due to Water Shortage/5 ($x10^6$Rp) | 0 | 274.8 | 274.8 |
| - Wet season paddy | 0 | 19.3 | 19.3 |
| - Dry season paddy | 0 | 47.5 | 47.5 |
| - Polowijo crops | 0 | 208.0 | 208.0 |
| 9. Adjusted Net Production Value (7 - 8) ($x10^6$Rp) | 4,044.5 | 7,860.5 | 3,816.0 |
| - Wet season paddy | 2,356.1 | 3,366.3 | 1,010.2 |
| - Dry season paddy | 1,632.8 | 3,286.9 | 1,654.1 |
| - Polowijo crops | 55.6 | 1,207.3 | 1,151.7 |

/1 : Including the areas of rainfed paddy field: See Table 2.2.4

/2 : See Table 2.2.14

/3 : See Table 2.5.6 and 2.5.7

/4 : See Table 2.5.9

/5 : See Table 2.6.1

Table 2.6.2 (2) Irrigation Benefits derived from Rehabilitation and Improvement of existing Desa Non-technical Irrigation Scheme (Work Division-I)

| Description | | W/O Project | W/Project | Increment |
|---|---|---|---|---|
| 1. Planted Area | (ha) | | | |
| - Wet season paddy | | 2,818 /1 | 2,900 | 82 |
| - Dry season paddy | | 1,928 | 2,900 | 972 |
| 2. Unit Yields | (ton/ha) | | | |
| - Wet season paddy | | 4.57 /1 | 5.0 | 0.43 |
| - Dry season paddy | | 4.62 /1 | 5.0 | 0.38 |
| 3. Projected Price of Dry Stalk Paddy /2 | (Rp/ton) | 120,000 | 120,000 | - |
| 4. Unit Production Cost /3 | | | | |
| - Wet season paddy | | 150,000 | 183,000 | 33,000 |
| - Dry season paddy | | 162,000 | 192,000 | 30,000 |
| 5. Gross Production Value ((1)x(2)x(3)) | ($x10^6$Rp) | 2,614.3 | 3,480.0 | 865.7 |
| 6. Total Production Costs ((1)x(4)) | ($x10^6$Rp) | 735.0 | 1,087.5 | 352.5 |
| 7. Net Production Value ((5)-(6)) | ($x10^6$Rp) | 1,879.3 | 2,392.5 | 513.2 |
| 8. Crop Damages Due to Water Shortage | ($x10^6$Rp) | - /4 | 281.9 /5 | 281.9 |
| 9. Adjusted Net Production Value ((7)-(8)) | ($x10^6$Rp) | 1,879.3 | 2,110.6 | 231.3 |

/1 : including the areas of rainfed paddy fields; see Table 2.2.4
/2 : see Table 2.5.6
/3 : see Table 2.5.9
/4 : The damaged areas have been already excluded from the Planted areas (Item 1)
/5 : see Table 2.6.1

## Table 2.6.2 (3) Irrigation Benefits Derived from Construction of Langkemme Irrigation Canal System ( Work Division - II )

| Description | | W/O Project | W/Project | Increment |
|---|---|---|---|---|
| 1. Planted Area | (ha) | | | |
| - Wet season paddy | | 4,386 /1 (2,900) | 4,500 | 114 |
| - Dry season paddy | | 3,907 (2,900) | 4,500 | 593 |
| - Polowijo crops | | 245 (-) | 4,500 | 4,255 |
| 2. Unit Yields | (ton/ha) | | | |
| - Wet season paddy | | 4.59 /1 (5.0) | 6.0 | 1.41 (1.0) |
| - Dry season paddy | | 4.71 /1 (5.0) | 6.0 | 1.29 (1.0) |
| - Polowijo crops /2 | | | | |
| maize | | 0.79 | 2.0 | 1.21 |
| groundnuts | | 0.81 | 1.2 | 0.39 |
| greenbeans | | 0.83 | 1.2 | 0.37 |
| soybeans | | 0.67 | 1.2 | 0.53 |
| 3. Projected Prices of Paddy and Polowijo Crops | (Rp/ton) | | | |
| - Dry stalk paddy | | 120,000 | 120,000 | - |
| - Polowijo crops /3 | | | | |
| maize | | 92,000 | 92,000 | - |
| groundnuts | | 351,000 | 351,000 | - |
| greenbeans | | 310,000 | 310,000 | - |
| soybeans | | 328,000 | 328,000 | - |
| 4. Unit Production Costs /4 | (Rp/ha) | | | |
| - Wet season paddy | | 183,000 | 191,000 | 8,000 |
| - Dry season paddy | | 192,000 | 199,000 | 7,000 |
| - Polowijo crops | | | | |
| maize | | 34,000 | 113,000 | 79,000 |
| groundnuts | | 96,000 | 142,000 | 46,000 |
| greenbeans | | 80,000 | 122,000 | 42,000 |
| soybeans | | 80,000 | 121,000 | 41,000 |

| Description | | W/O Project | W/Project | Increment |
|---|---|---|---|---|
| 5. Gross Production Value ((1)x(2)x(3)) | ($x10^6$Rp) | 4,931.4 (3,480.0) | 8,022.1 | 3,090.7 |
| 6. Total Production Costs ((1)x(4)) | ($x10^6$Rp) | 1,570.5 (1,087.5) | 2,300.9 | 730.4 |
| 7. Net Production Value ((5)-(6)) | ($x10^6$Rp) | 3,360.9 (2,392.5) | 5,721.2 | 2,360.3 |
| 8. Crops Damages Due to Water Shortage | ($x10^6$Rp) | 281.9 | 295.4 /5 | 13.5 |
| 9. Adjusted Net Production Value ((7)-(8)) | ($x10^6$Rp) | 3,079.0 (2,110.6) | 5,425.8 | 2,346.8 |

Note: The figures parenthesized in the column of W/O Project condition are of W/Project condition in the Work Division I.

/1 : Including the areas of rainfed paddy fields; See Table 2.2.4

/2 : See Table 2.2.14

/3 : See Table 2.5.7

/4 : See Table 2.5.9

/5 : See Table 2.6.1

## Table 2.6.2 (4) Irrigation Benefits Derived from Construction of Sero Diversion Canal System ( Work Division - III )

| Description | | W/O Project | W/Project | Increment |
|---|---|---|---|---|
| 1. Planted Area | (ha) | | | |
| - Wet season paddy | | 6,334 [1] (4,500) | 6,400 | 66 |
| - Dry season paddy | | 5,718 (4,500) | 6,400 | 682 |
| - Polowijo crops | | 4,605 (4,500) | 6,400 | 1,795 |
| 2. Unit Yield | (ton/ha) | | | |
| - Wet season paddy | | 4.64 [2] (6.0) | 6.0 | 1.36 (-) |
| - Dry season paddy | | 5.00 (6.0) | 6.0 | 1.00 (-) |
| - Polowijo crops | | | | |
| maize | | 0.79 | 2.0 | 1.21 |
| groundnuts | | 0.81 | 1.2 | 0.39 |
| greenbeans | | 0.83 | 1.2 | 0.37 |
| soybeans | | 0.67 | 1.2 | 0.53 |
| 3. Projected Price of Paddy and Polowijo Crops | (Rp/ton) | | | |
| - Dry stalk paddy | | 120,000 | 120,000 | - |
| - Polowijo crops | | | | |
| maize | | 92,000 | 92,000 | - |
| groundnuts | | 351,000 | 351,000 | - |
| greenbeans | | 310,000 | 310,000 | - |
| soybeans | | 328,000 | 328,000 | - |
| 4. Unit Production Cost | (Rp/ha) | | | |
| - Wet season paddy | | 183,000 | 191,000 | 8,000 (-) |
| - Dry season paddy | | 192,000 | 199,000 | 7,000 (-) |
| - Polowijo crops | | | | |
| maize | | 34,000 | 113,000 | 79,000 |
| groundnuts | | 96,000 | 142,000 | 46,000 |
| greenbeans | | 80,000 | 122,000 | 42,000 |
| soybeans | | 80,000 | 121,000 | 41,000 |
| 5. Gross Production Value ((1)x(2)x(3)) | ($x10^6$Rp) | 9,796.0 (8,022.1) | 11,409.2 | 1,613.2 |
| 6. Total Production Costs ((1)x(4)) | ($x10^6$Rp) | 2,878.1 (2,300.9) | 3,274.0 | 395.9 |
| 7. Net Production Value ((5)-(6)) | ($x10^6$Rp) | 6,917.9 (5,721.2) | 8,135.2 | 1,217.3 |
| 8. Crop Damages Due to Water Shortage | ($x10^6$Rp) | 295.4 | 274.8 [2] | -20.6 |
| 9. Adjusted Net Production Value ((7)-(8)) | ($x10^6$Rp) | 6,622.5 (5,425.8) | 7,860.4 | 1,237.9 |

Note: The figures parenthesized in the column of W/O Projects condition are of W/Project condition in the Work Diversion II.

[1] : Including the areas of rainfed paddy fields; See Table 2.2.4

[2] : See Table 2.6.1

Table 2.6.3 Farm Budget of Average Size Farmer without Project and with Project

Total Farm Land : 1.03 ha
- Paddy field : 0.61/1
- Up-land field : 0.42

Family Size : 5.53 persons

| | Without Project (Rp) | With Project (Rp) | Increment (Rp) |
|---|---|---|---|
| 1. Gross Farm Income | | | |
| Wet season paddy | 285,300 | 369,200 | |
| Dry season paddy | 212,500 | 356,300 | |
| Polowijo crops/2 | 2,500 | 216,100 | |
| Up-land crops | 30,500 | 30,500 | |
| Non-farm income | 28,400 | 10,400 | |
| Sub-total | 559,200 | 982,500 | 423,300 |
| 2. Gross Out-go | | | |
| Farming expenses | | | |
| Paddy | 90,200 | 147,600 | |
| Polowijo crops | 200 | 32,700 | |
| Up-land crops | 2,400 | 2,400 | |
| Irrigation expenses | 15,300 | 15,300 | |
| IPEDA tax others | 5,300 | 9,700 | |
| Sub-total | 113,400 | 207,700 | 94,300 |
| 3. Net Farm Income | | | |
| (1 - 2) | 445,800 | 774,800 | 329,000 |
| 4. Family Living Expenses | | | |
| Food | 258,900 | 336,500 | |
| Residence | 58,200 | 75,600 | |
| Clothing | 47,500 | 61,800 | |
| Luxury | 28,400 | 36,900 | |
| Education | 23,100 | 30,000 | |
| Social-expenses | 19,500 | 25,400 | |
| Miscellaneous | 8,400 | 11,000 | |
| Sub-total | 444,000 | 577,200 | 133,200 |
| 5. Net Reserve | | | |
| (3 - 4) | 1,800 | 197,600 | 195,800 |

/1 : Out of 0.61 ha of paddy field, 0.50 ha will be put under the project
/2 : Polowijo crops planted after harvest of wet season paddy

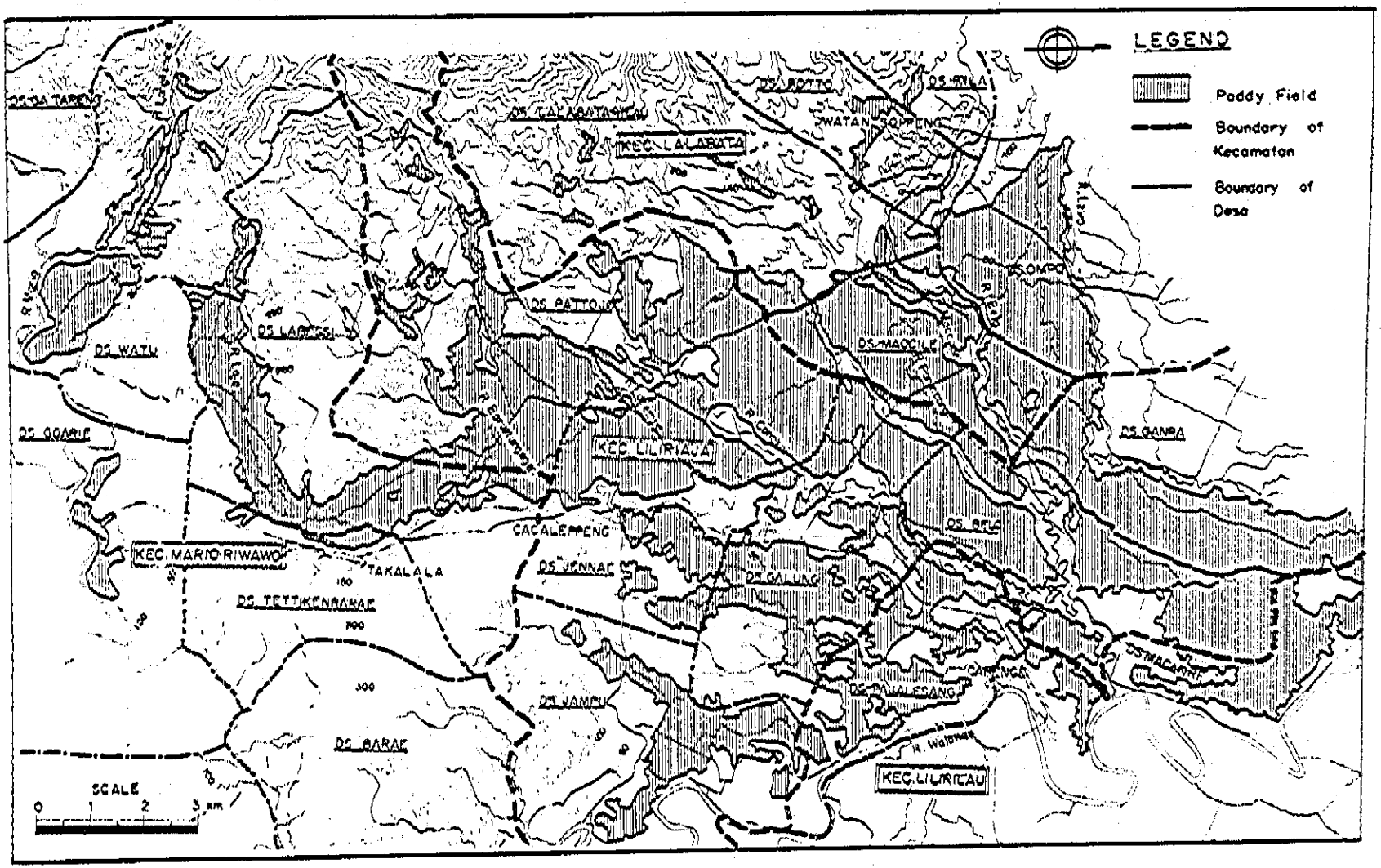
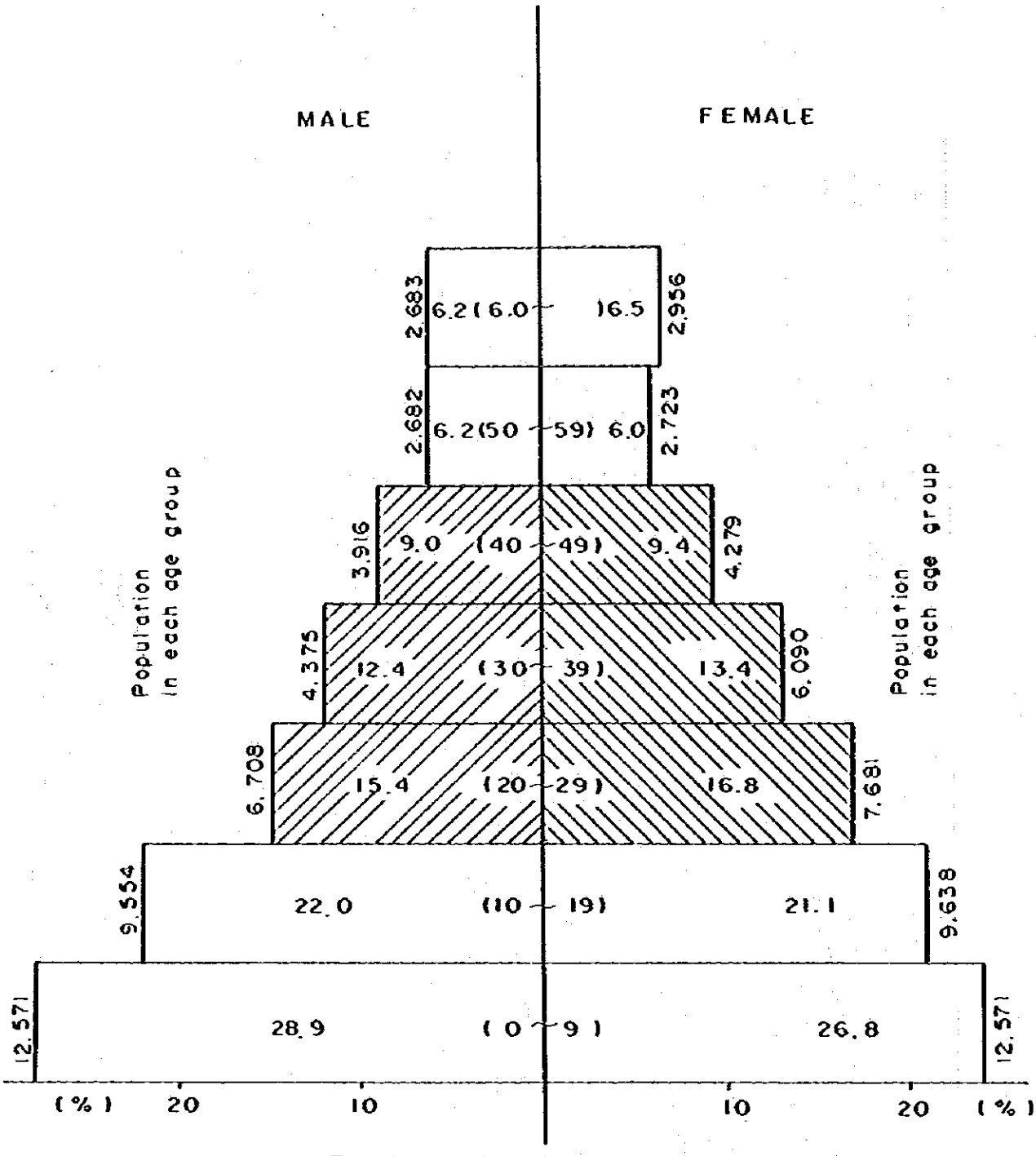



Fig. 2.2.1 ADMINISTRATIVE BOUNDARIES IN THE PROJECT AREA




Total Population : 89.080 (1979)

Male : 43.489

Female : 45.591

Fig.2.2.2 POPULATION STRUCTURE IN THE PROJECT AREA

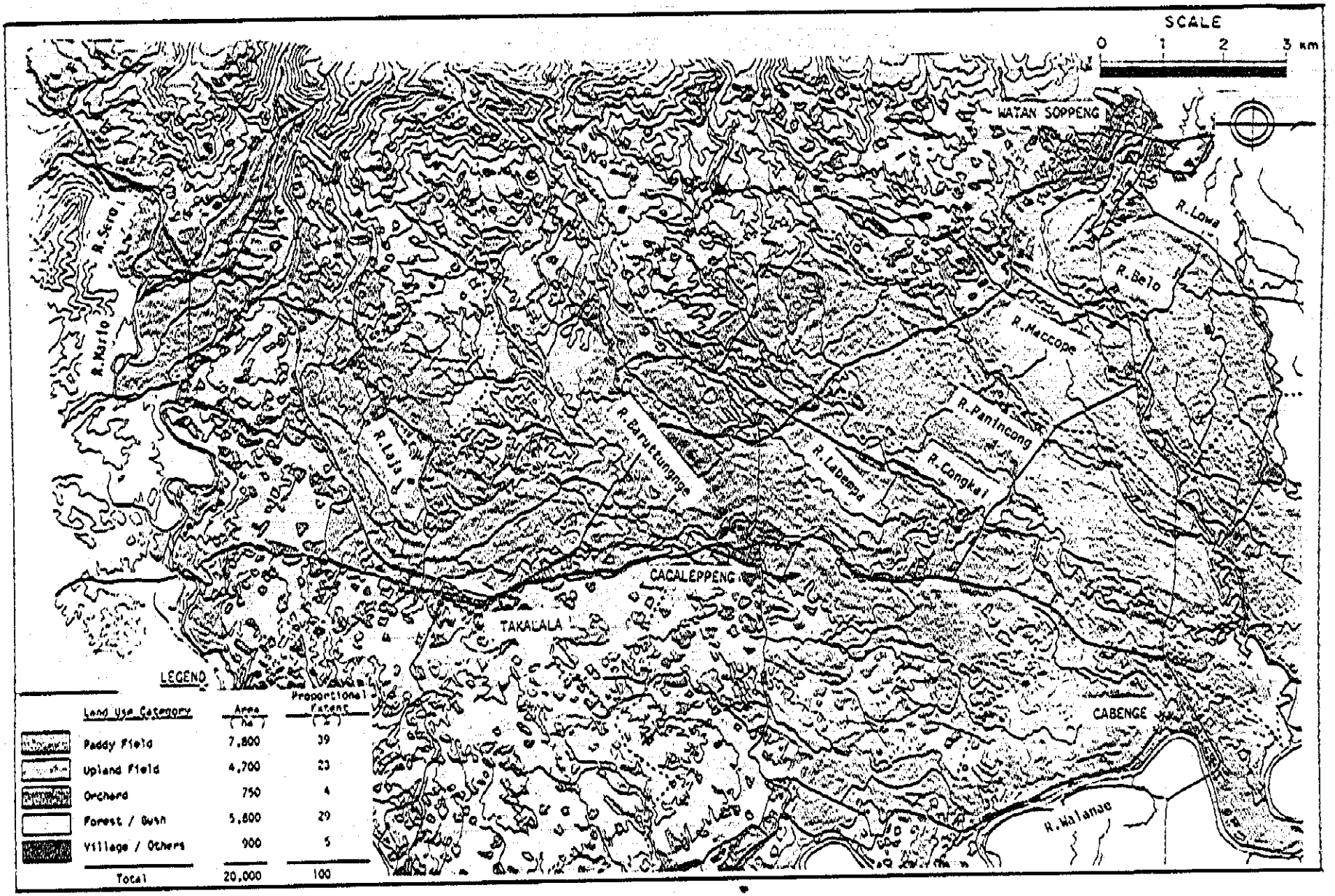



Fig. 2.2.3 PRESENT LAND USE MAP

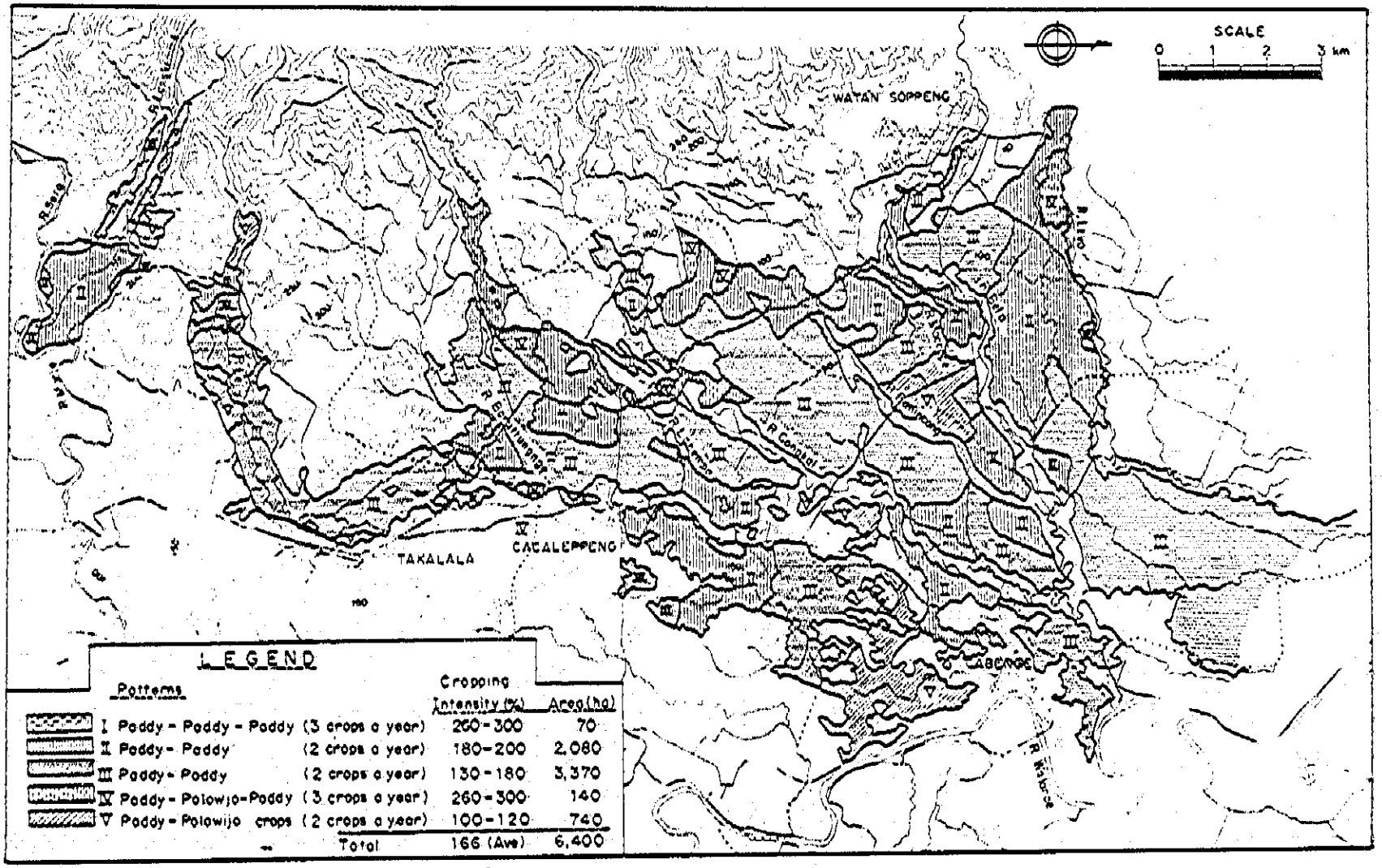



Fig. 2.2.4 PRESENT LAND USE PATTERNS IN THE EXISTING PADDY FIELDS

| Pattern / Month | J | F | M | A | M | J | J | A | S | O | N | D | Area (ha) | Area (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| I. Paddy - Paddy - Paddy (3 crops a year) Cropping Intensity: 260-300% | 3rd Paddy | | | | 1st Paddy | | | 2nd Paddy | | | | | 70 | 1.0 |
| II. Paddy - Paddy (2 crops a year) Cropping Intensity: 180-200% | Paddy | | | | Wet Season Paddy | | | | | Dry Season | | | 2,080 | 32.5 |
| III. Paddy - Paddy (2 crops a year) Cropping Intensity: 130 - 180% | Paddy | | | | Wet Season Paddy | | | | | Dry Season | | | 3,370 | 52.7 |
| IV. Paddy - Polowijo Crops - Paddy (3 crops a year) Cropping Intensity: 260-300% | Season Paddy | | | | Wet Season Paddy | | | Polowijo Crops | | | Dry | | 140 | 2.2 |
| V. Paddy - Polowijo Crops (2 crops a year) Cropping Intensity: 100-120% | | | | | Wet Season Paddy | | | | | Polowijo Crops | | | 740 | 11.6 |
| | | | | | | | | | | | | | (6,400) | (100.0) |
| Mean Temperature (°C) (Sengkang) | 27.9 | 28.0 | 27.7 | 27.6 | 27.4 | 26.5 | 26.1 | 26.3 | 26.7 | 28.2 | 27.9 | 27.6 | | |
| Rainfall (mm) (Sengkang) | 86 | 95 | 121 | 188 | 267 | 210 | 142 | 87 | 57 | 80 | 122 | 97 | 1,552 | |
| (Watan Soppeng) | 119 | 67 | 138 | 203 | 173 | 161 | 135 | 47 | 82 | 98 | 117 | 139 | 1,479 | |
| (Takalala) | 145 | 97 | 177 | 158 | 210 | 211 | 125 | 37 | 70 | 86 | 155 | 189 | 1,650 | |
| (Cabenge) | 143 | 78 | 100 | 167 | 181 | 124 | 108 | 77 | 74 | 121 | 48 | 108 | 1,329 | |

Fig.2.2.5 PRESENT CROPPING PATTERNS IN THE PROJECT AREA

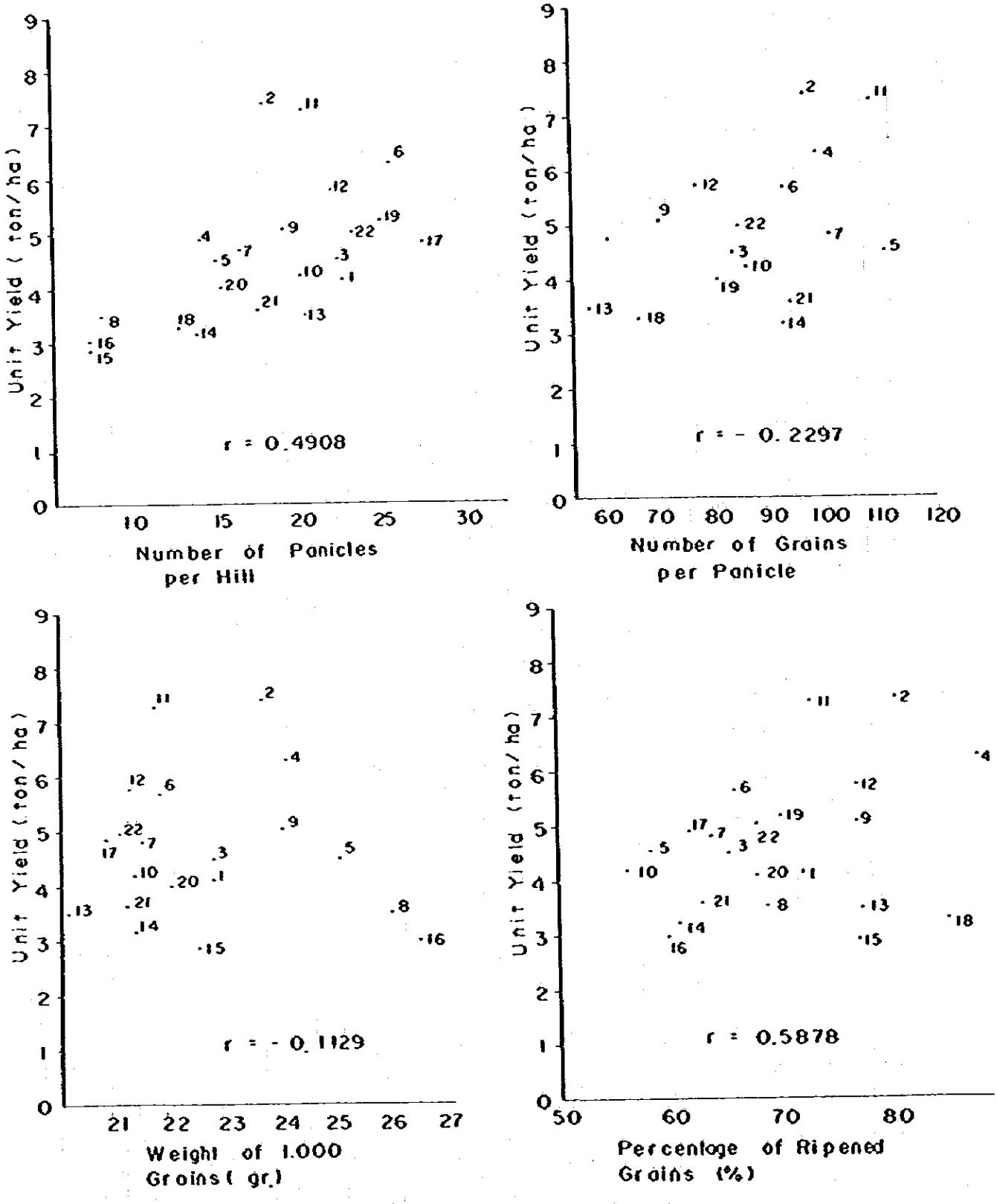



Fig.2.2.6. RELATION BETWEEN PADDY YIELD AND YIELD-DETERMINING COMPONENTS(WET SEASON PADDY)

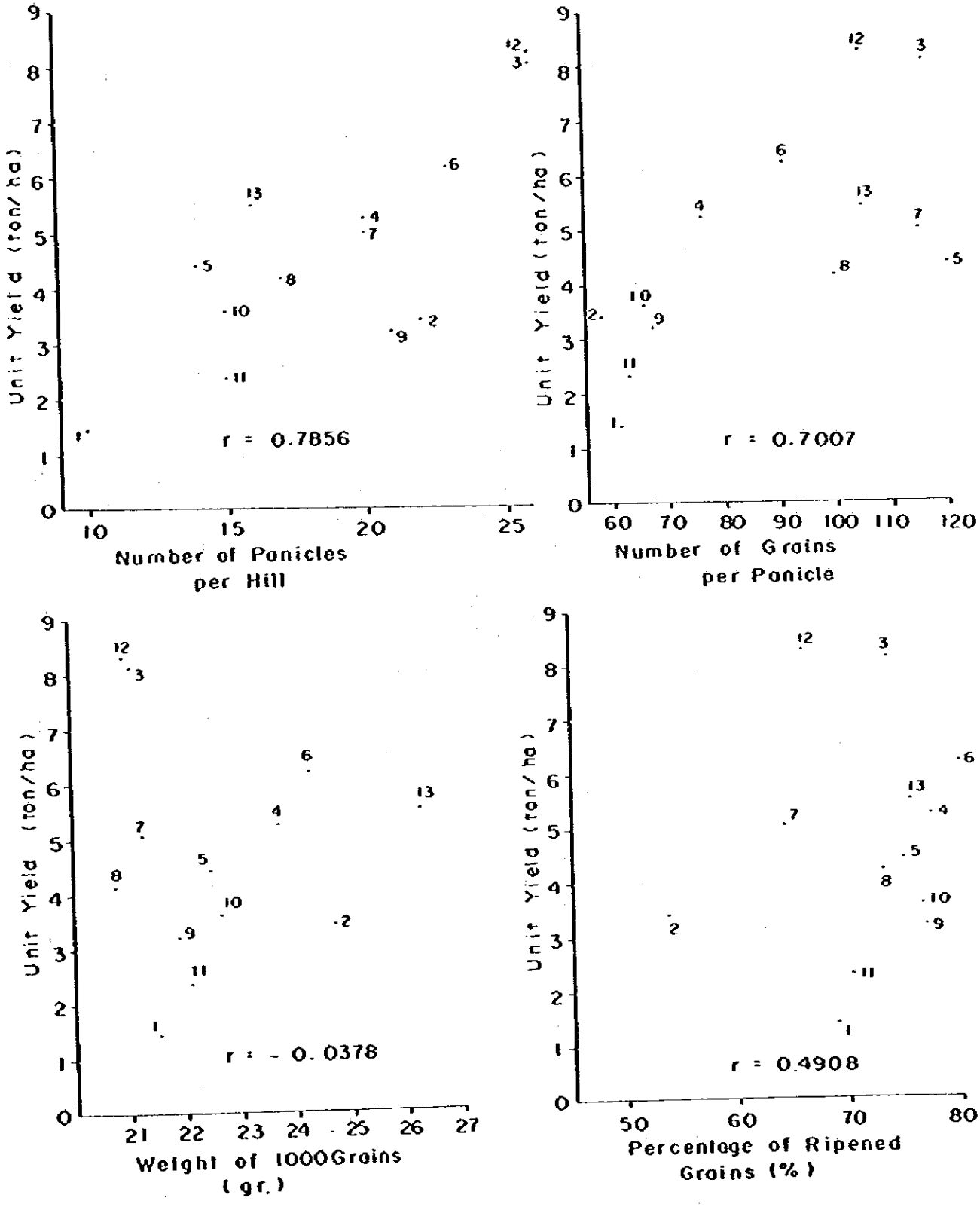



Fig.2.2.7 RELATION BETWEEN PADDY YIELD AND YIELD-DETERMINING COMPONENTS (DRY SEASON PADDY)

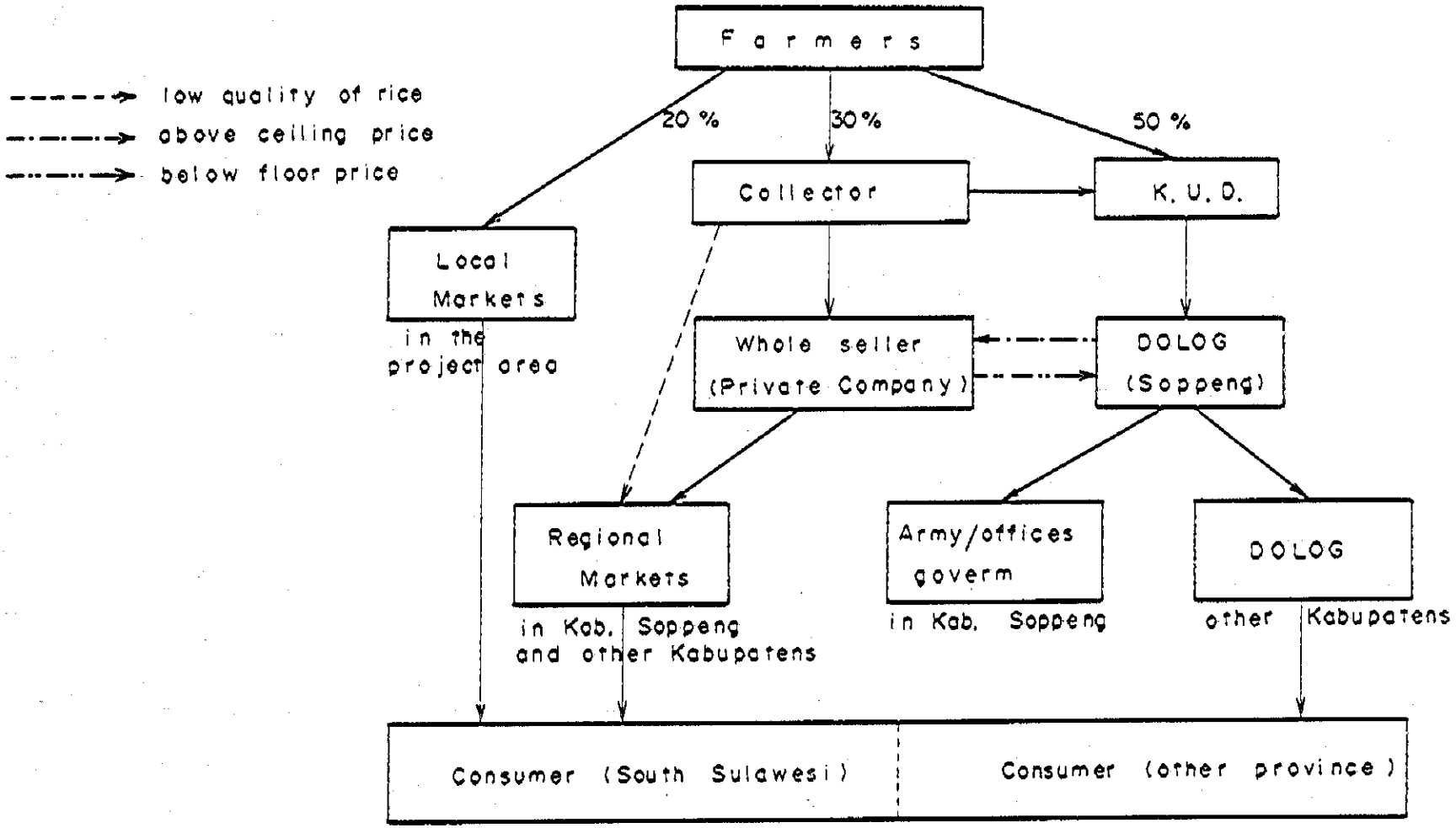



Fig.2.2.8 MARKETING SYSTEM OF RICE

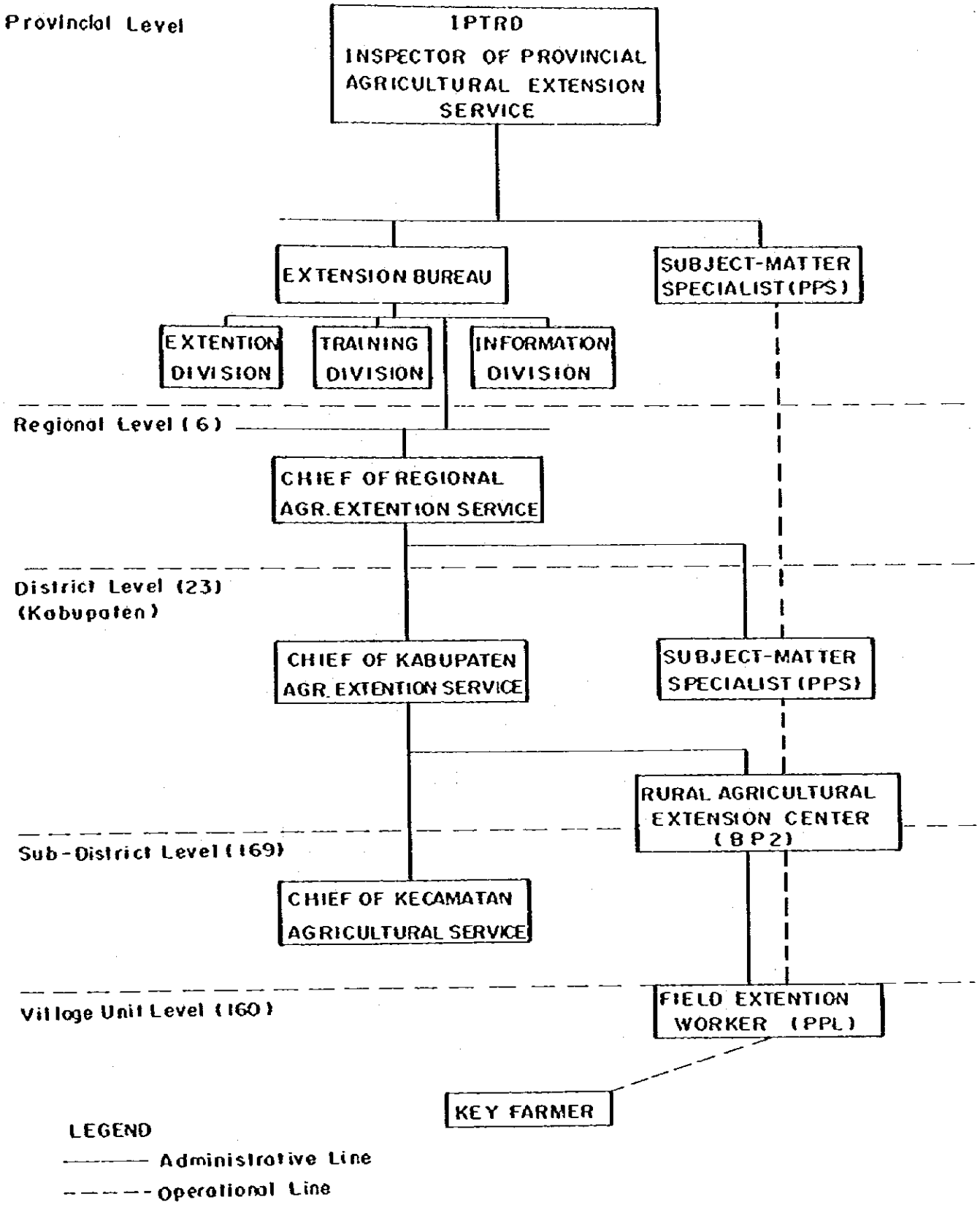



Fig.2.3.1 ORGANIZATION CHART OF AGRICULTURAL EXTENSION SERVICE IN SOUTH SULAWESI PROVINCE

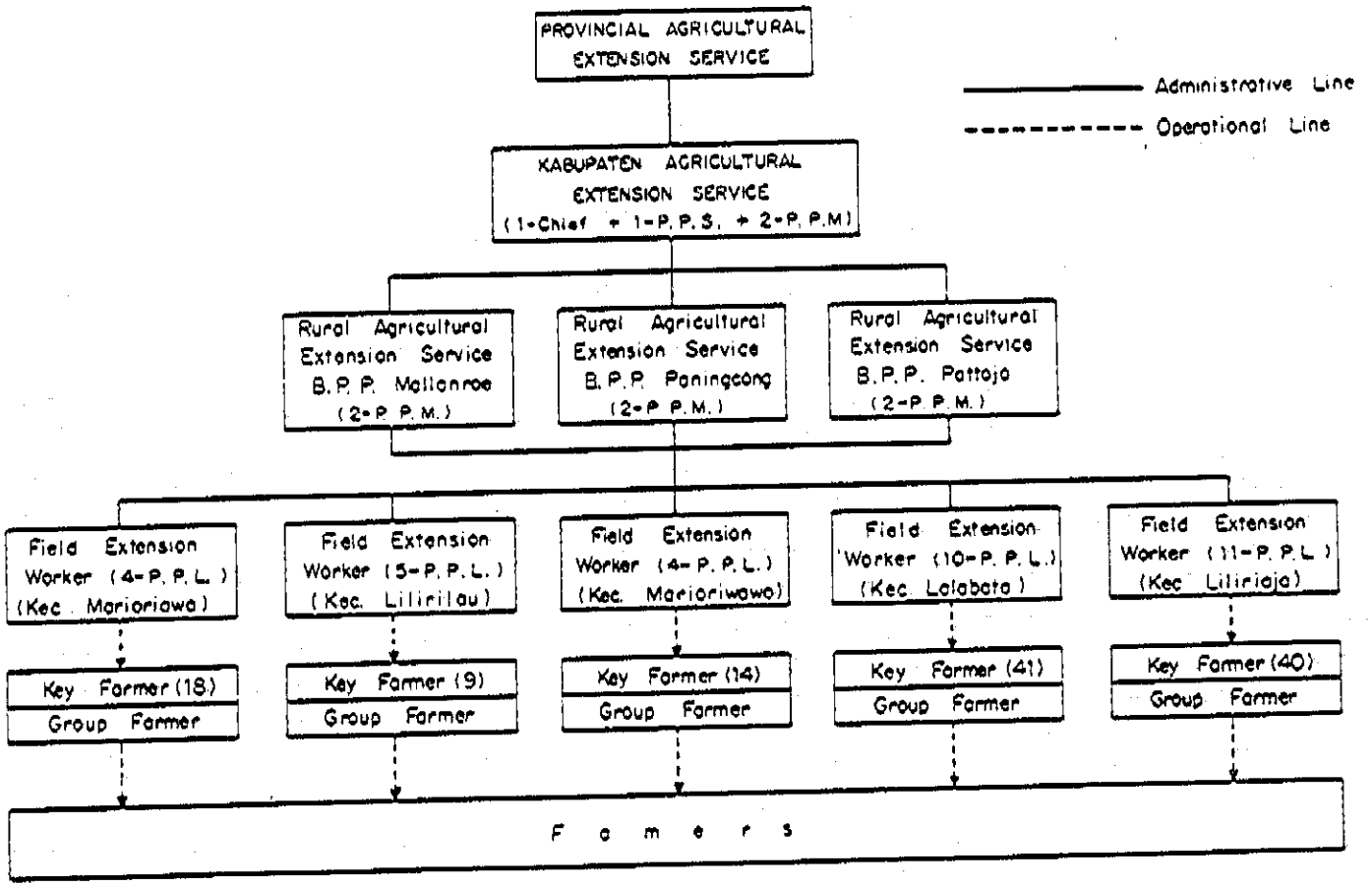



Fig.2.3.2. STRUCTURAL ORGANIZATION OF AGRICULTURAL EXTENSION SERVICE IN KAB. SOPPENG

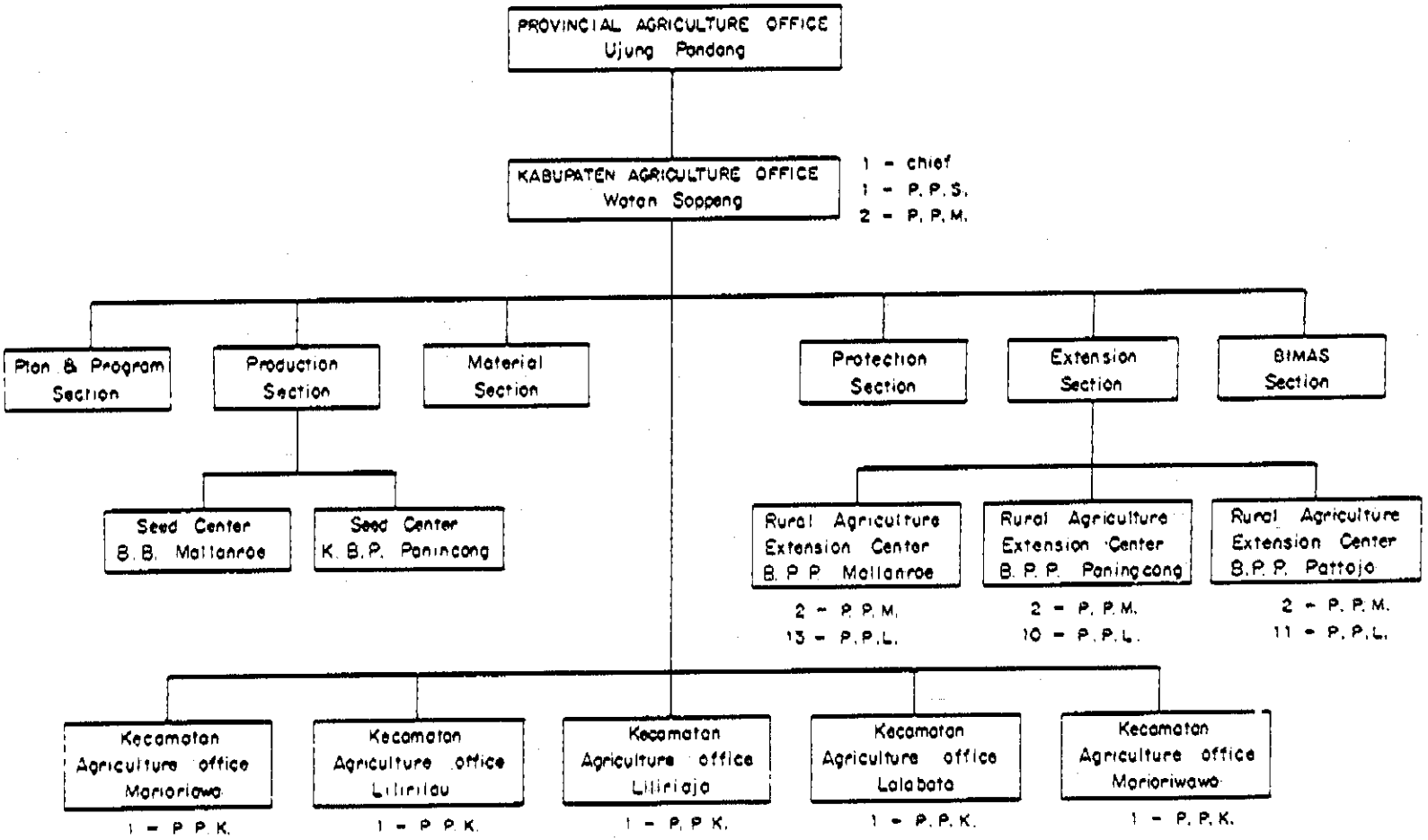



Fig.2.3.3 ORGANIZATION FOR DEPARTMENT OF AGRICULTURE IN KAB.SOPPENG

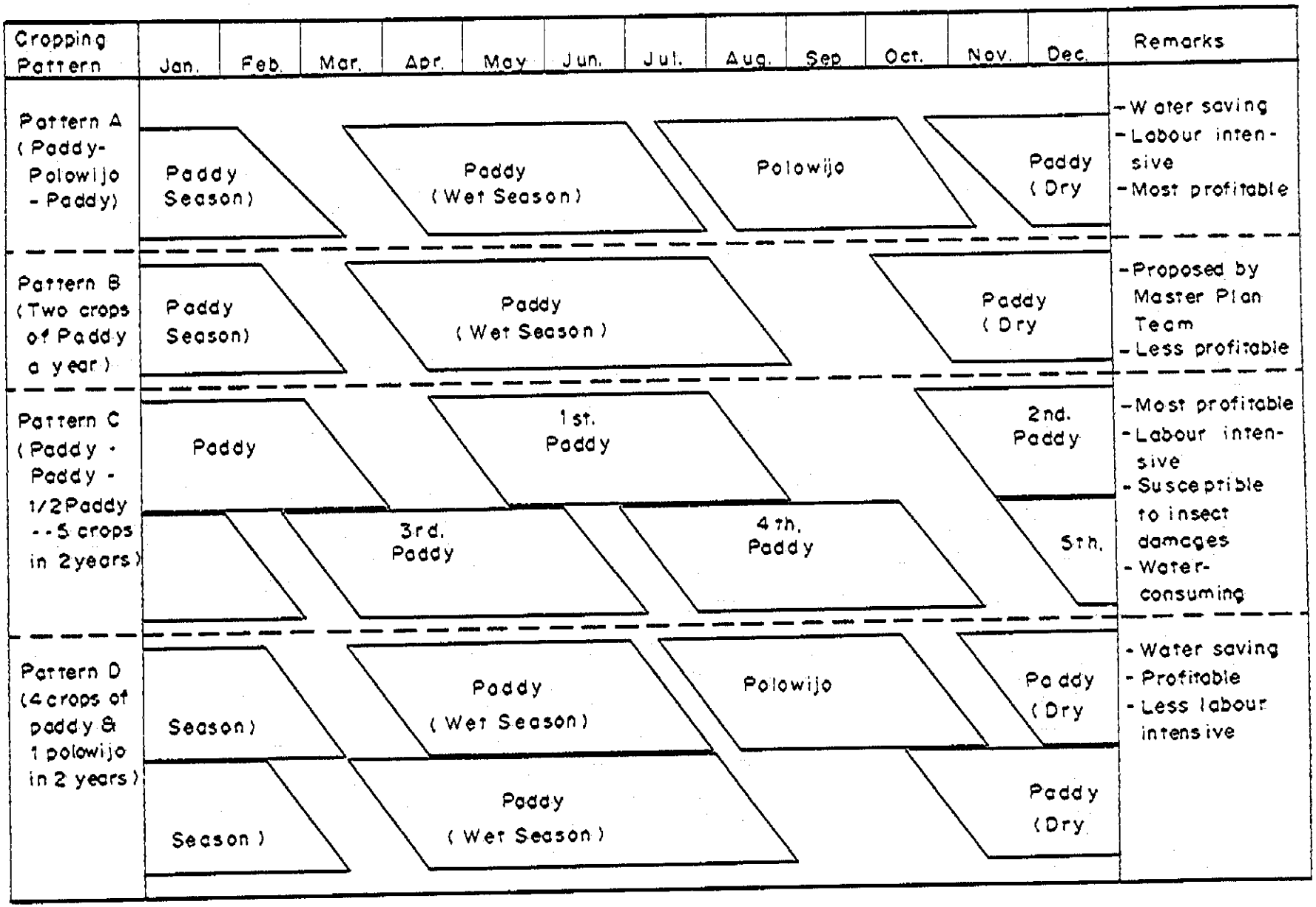



Fig.2.5.1 ALTERNATIVE CROPPING PATTERNS

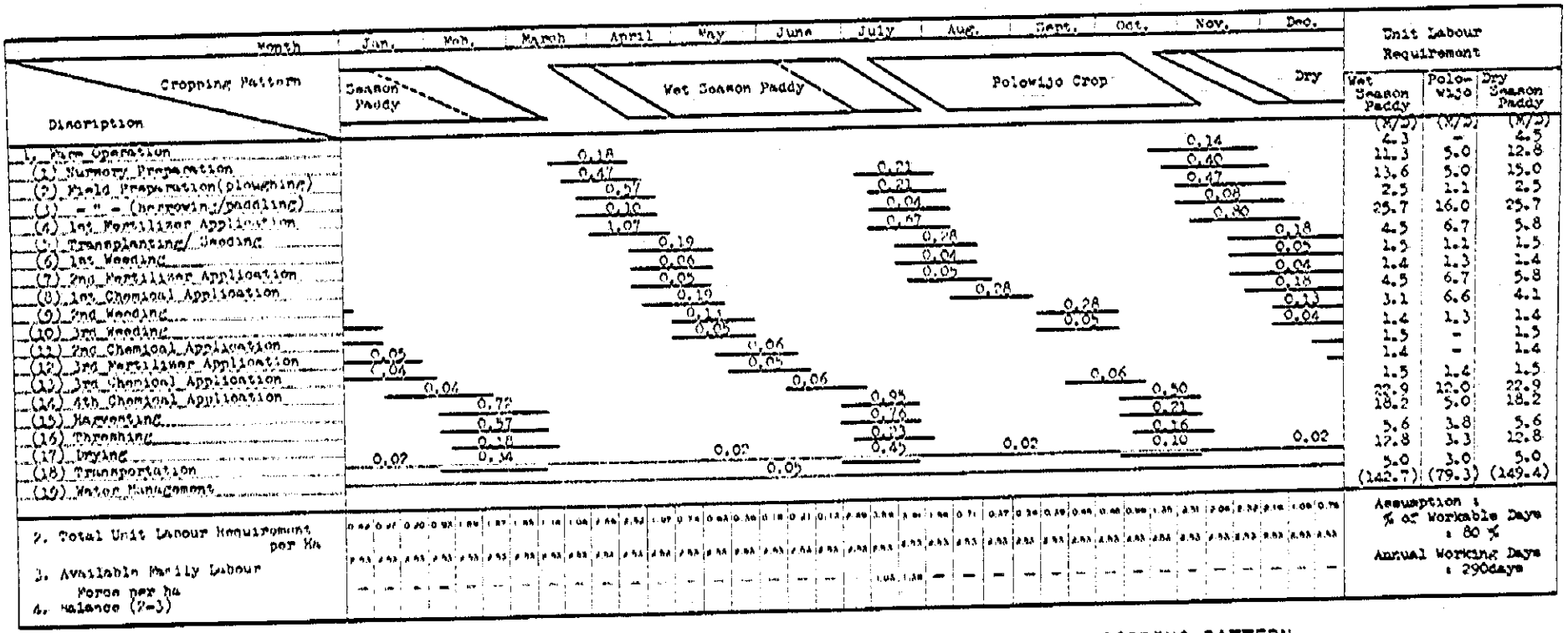



Fig.2.5.2 (1) UNIT LABOUR REQUIREMENT PER HA FOR PROPOSED CROPPING PATTERN VS. AVAILABLE FAMILY LABOUR FORCE(PATTERN A)

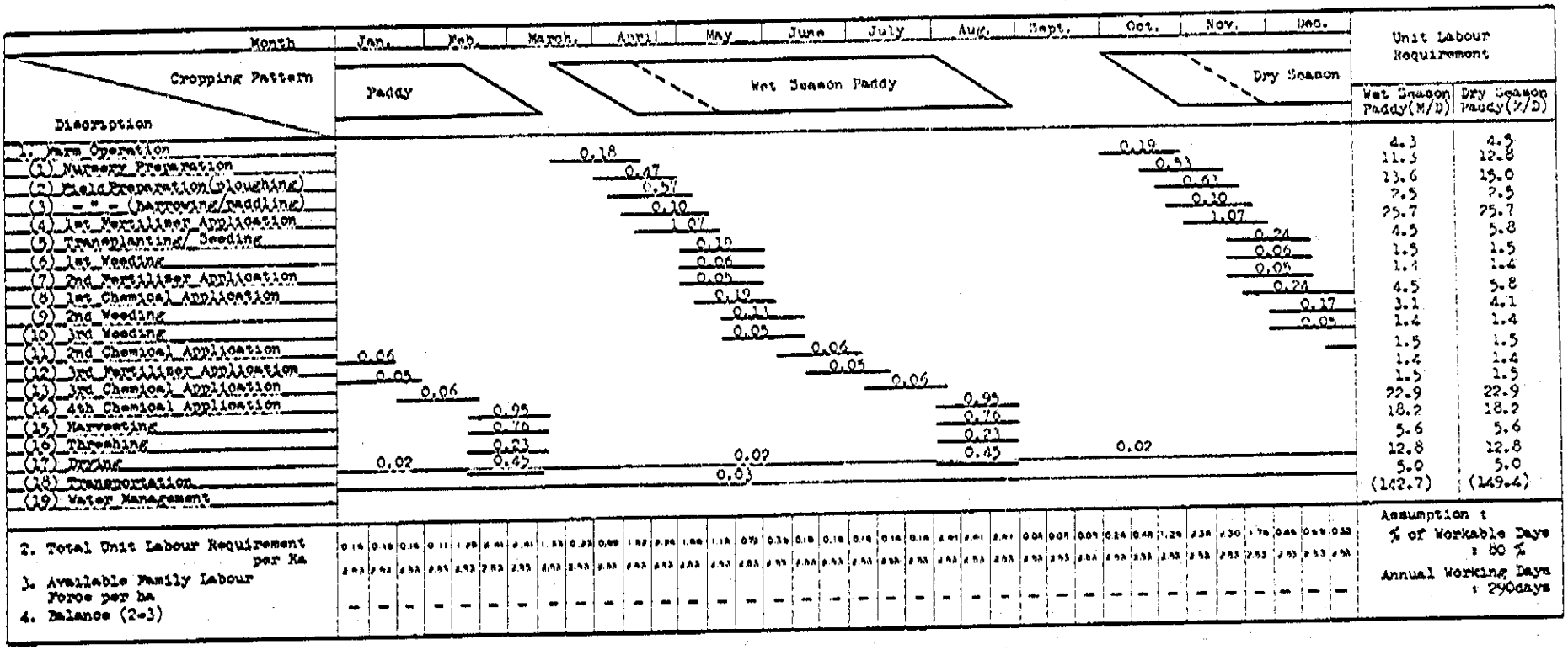



Fig.2.5.2 (2) UNIT LABOUR REQUIREMENT PER HA FOR PROPOSED CROPPING PATTERN VS. AVAILABLE FAMILY LABOUR FORCE (PATTERN B)

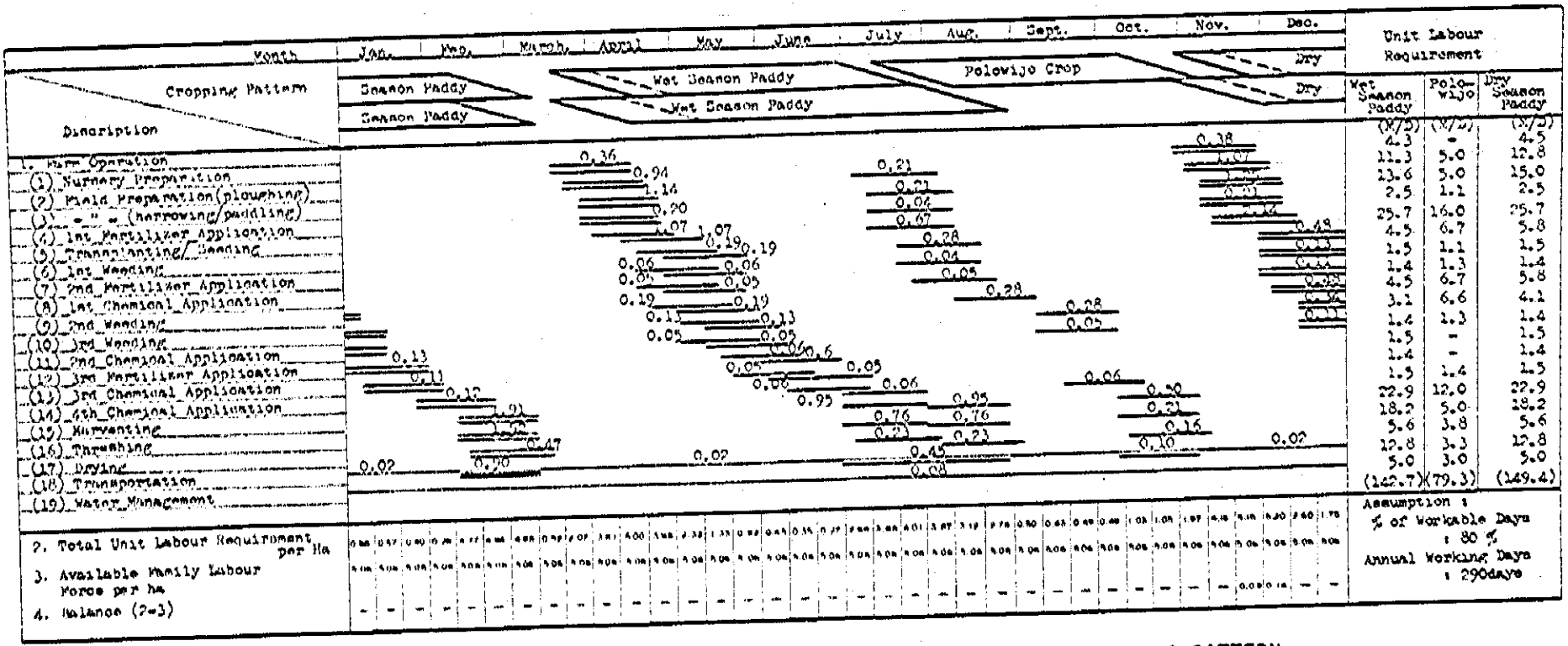



Fig.2.5.2(3) UNIT LABOUR REQUIREMENT PER HA FOR PROPOSED CROPPING PATTERN VS. AVAILABLE FAMILY LABOUR FORCE (PATTERN C)

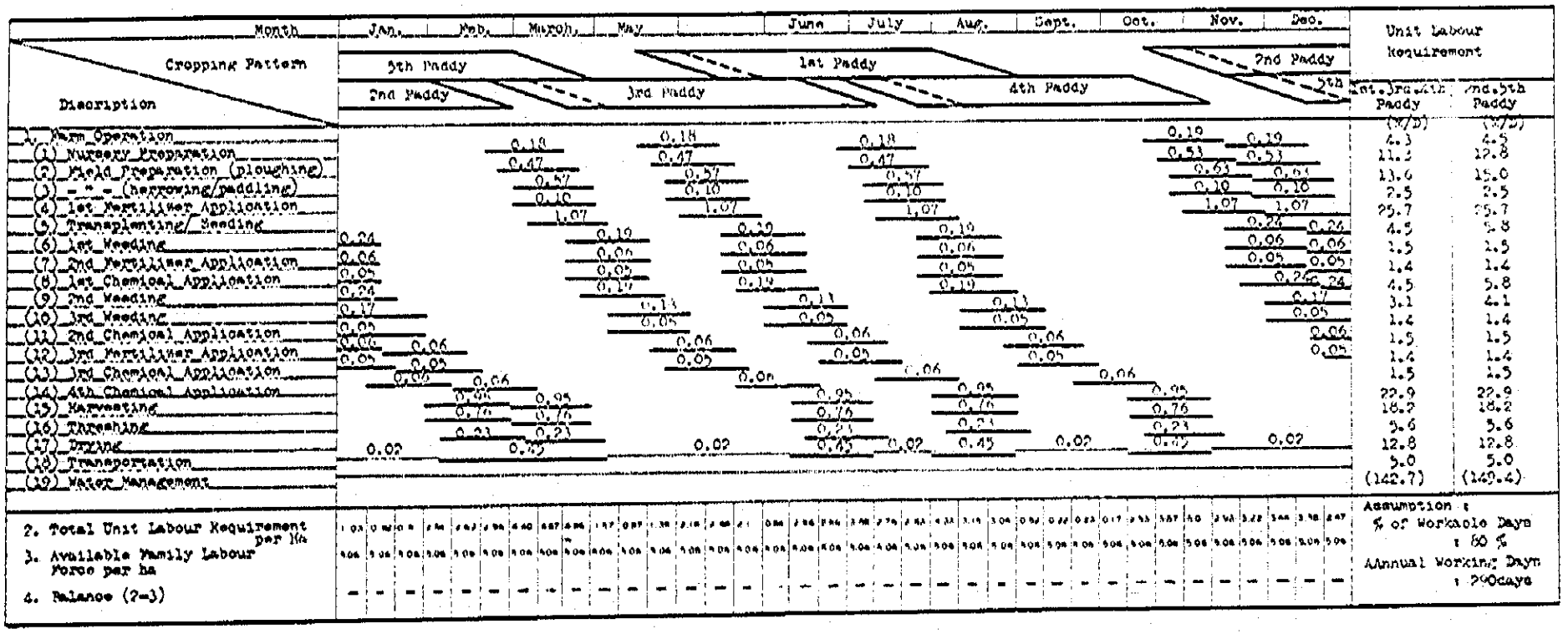



Fig.2.5.2 (4) UNIT LABOUR REQUIRMENT PER HA FOR PROPOSED CROPPING PATTERN VS. AVAILABLE FAMILY LABOUR FORCE (PATTERN D)

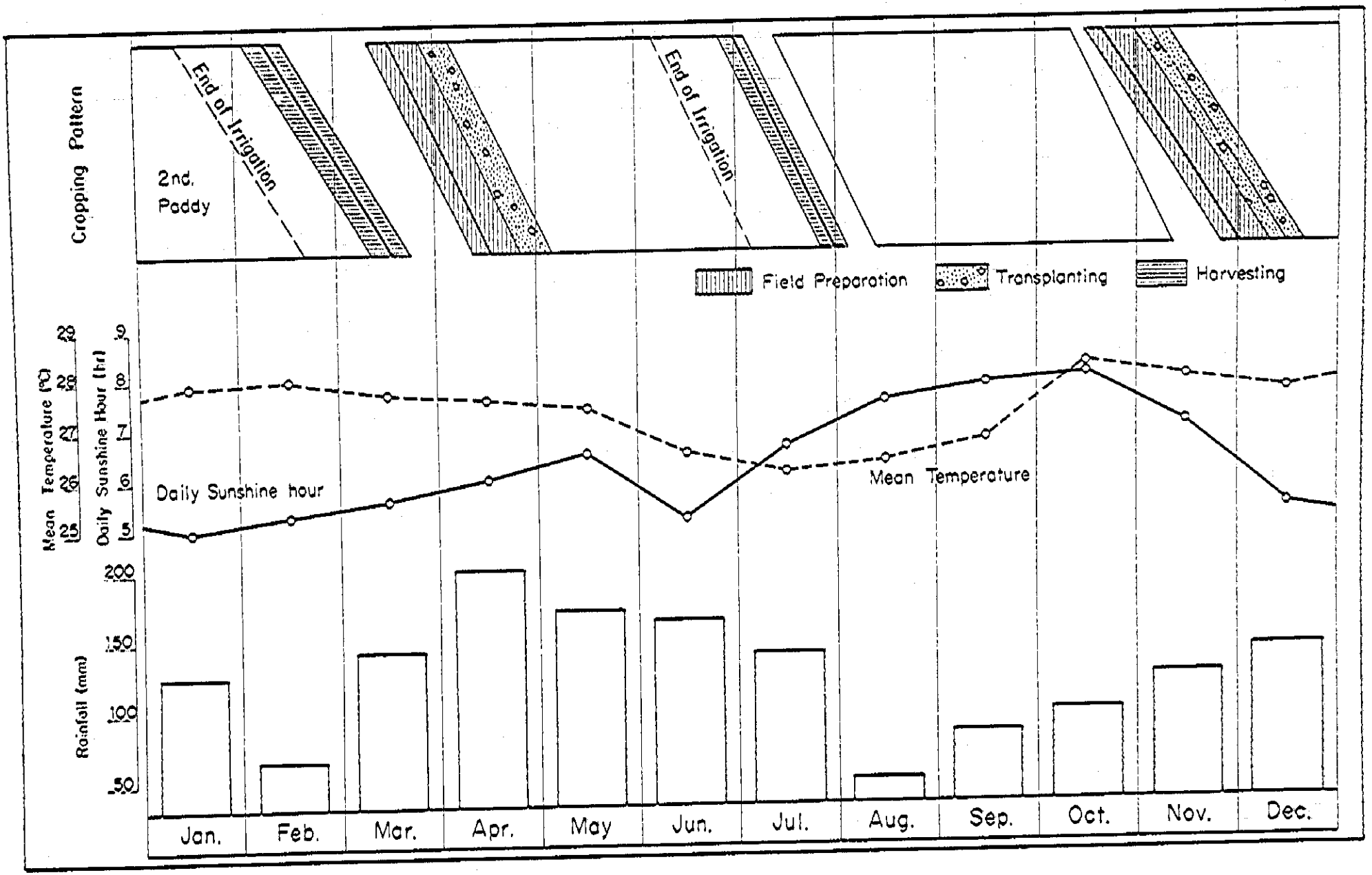



Fig. 2.5.3 PROPOSED CROPPING PATTERN (PATTERN A)

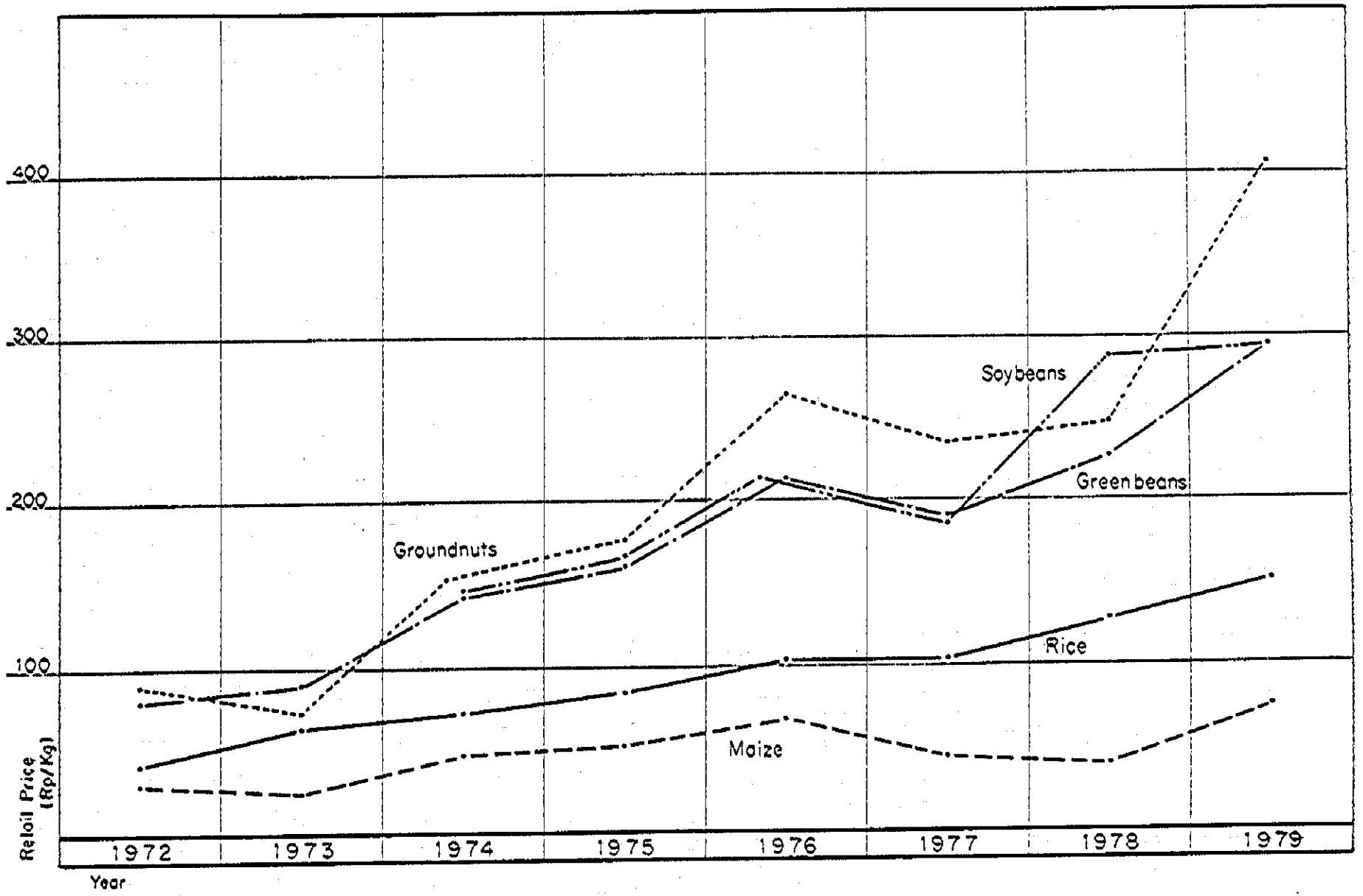
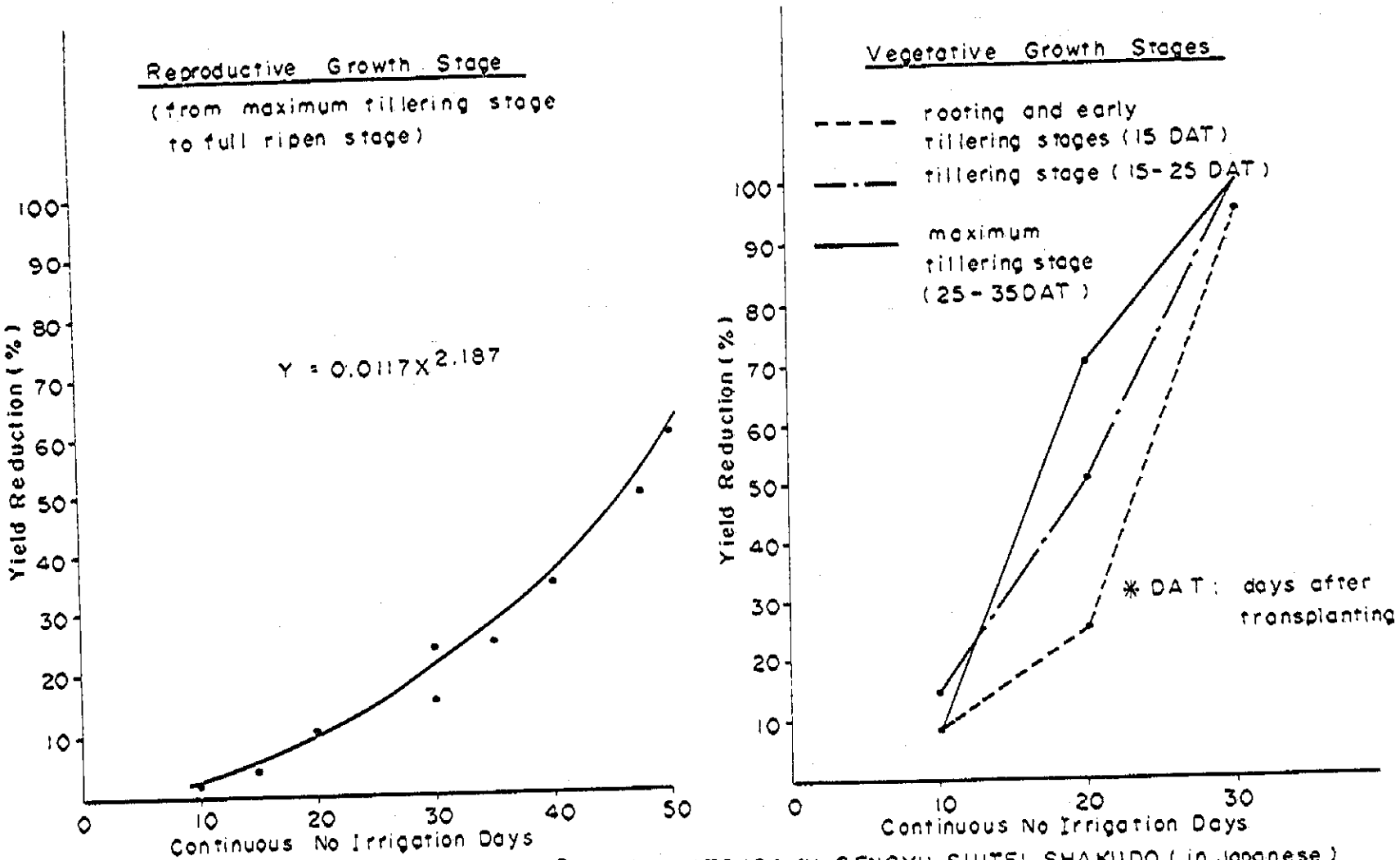



Fig. 2.5.4 RETAIL PRICES OF FARM PRODUCTS IN KAB. SOPPENG




Source: NATSUSAKU GENSYU SUITEI SHAKUDO (in Japanese)
Ministry of Agriculture and Forestry, Japan. 1975.

Fig.2.6.1 PADDY YIELD REDUCTION VS. CONTINUOUS NO IRRIGATION DAYS

: Pertemuan Team Feasibility Study Irigasi Langkemme dengan Bupati KDH Tk.II Soppeng dan Tokoh-2 masyarakat Soppeng.-

Tanggal : 3 September 1980.
J a m : 8.30 WIT.
Tempat : Kantor Bupati KDH Tk.II Soppeng.

Bupati KDH Tingkat II Soppeng, Kepala Dinas Pertanian Rakyat, Tokoh-2 masyarakat di areal Langkemme dan Team Feasibility Study Irigasi Langkemme membicarakan - Cropping pattern untuk irigasi Langkemme.

Bupati KDH Tingkat II Soppeng mengusulkan kepada Team Feasibility Study irigasi-Langkemme.

1. Cropping pattern untuk irigasi Langkemme yaitu :

   a. Padi - Polowijo - Padi
      (3 kali tanam dalam setahun)sebagai alternatif pertama.

   b. Padi - Padi - ½ Padi
      (5 kali tanam dalam 2 tahun)sebagai alternatif ke dua.

2. Tipe polowijo yang ditanam di irigasi Langkemme Kabupaten Soppeng adalah : - kacang tanah, jagung kuning, kacang ijo.

3. Water management ( P3A ) pada rencana irigasi Langkemme dengan irigasi Desa yang telah ada ( sebelah atas irigasi Langkemme ) sebaiknya dipisahkan dan di bentuk kordinasi untuk kedua water management tersebut.

Watan Soppeng, 3 September 1980.

Counterpart Feasibility Study
Irigasi Langkemme,

( Ir. Syamsul Arida ).

D I P E R T A,

(H.Ali Rahman Aliah).-

Team Leader Feasibility Study
Irigasi Langkemme,

( HIROSHI YAMAMOTO ).-

Bupati KDH TK. II Soppeng,

( DJAMALUDDIN )

ATTACHMENT - I MINUTES OF MEETING WITH BUPATI OF KAB. SOPPENG