# Food Scarcity in Pakistan
# Causes, Dynamics and Remedies

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**Abstract.**

*Since the establishment of Pakistan we have been facing food insufficiency. Khyber Pakhtonkhwa has been more adversely affected on account of this shortage. This paper will identify the main causes of food shortfall as well as suggest remedy for coping with the situation in Khyber Pakhtonkhwa. To collect data MINFAL, Bureau of Statistics and Agriculture Research Institute at Peshawar will be the sources of secondary data. Simple mathematical equation will be used to show the demand and supply of wheat because of its being the major food item. This will help the common man know the existing situation and also measures necessary for meeting the future demand.*

**Keywords:** *Food Scarcity, Agriculture, Pakistan*

## Food scarcity

Pakistan is an agriculture economy where more than seventy percent of the population is directly or indirectly depending on agriculture. This vital sector has been contributing more than 24% to our GDP. In spite of its vital significance the economy is facing challenges of food deficiency. Ever since its establishment in 1947. Out of 120 districts in Pakistan 80 districts are food insecure. A total of 23 million tones of wheat are being produced in Pakistan and to meet the deficiency nearly 3 million tones of wheat is annually imported. During the last eight months of the current financial year we had to incur a sum of about US$ 838 million on import of wheat. A basically agriculture country which should have been a food exporting country is incurring a huge amount of foreign exchange on

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wheat import. It is really thought provoking. The total area of 798000 square kilometer i.e. 79.61 million hectares in 2002-2003 an area of 59.48 million hectares of land has been found cultivable but only 31.19 million hectares is agricultural where as 4.04 million hectares is under forest.

Rest of the 8.96 million hectares is cultivable waste while 24.25 million hectares is not available for agriculture. This area has reduced to 57.23 million hectares in the year 2006-2007 instead of increasing for meeting the ever increasing demand

Table No; 1 below shows province wise area and its utilization under agriculture.

| **1. AGRICULTURE** | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | **1.1** | **Land Utilization** | | | | |
| | | | | | | **(Area in million hectares)** | |
| **Year / Province** | **Geographical area** | **Total area reported Col.(4+6)** | **Not available for cultivation** | **Agriculture (6+7)** | **land** | **Forest area** | **Arable land (8+9)** |
| 1 | 2 | 3 | 4 | 5 | | 6 | 7 |
| **1997-98** | | | | | | | |
| **Total** | **79.61** | **59.32** | **24.61** | | **34.71** | **3.60** | **31.11** |
| **Punjab** | **20.63** | **17.52** | **3.00** | | **14.52** | **0.51** | **14.01** |
| **Sindh** | **14.09** | **14.08** | **6.26** | | **7.82** | **0.69** | **7.13** |
| **KHYBER PAKHTONKHWA** | **10.17** | **8.35** | **4.01** | | **4.34** | **1.35** | **2.99** |
| **Balochistan** | **34.72** | **19.37** | **11.34** | | **8.03** | **1.05** | **6.98** |
| **2000-01** | | | | | | | |
| **Total** | **79.61** | **59.45** | **24.38** | | **35.07** | **3.77** | **31.30** |
| **Punjab** | **20.63** | **17.64** | **3.01** | | **14.63** | **0.52** | **14.11** |
| **Sindh** | **14.09** | **14.09** | **6.13** | | **7.96** | **0.80** | **7.16** |
| **KHYBER PAKHTONKHWA** | **10.17** | **8.35** | **3.91** | | **4.44** | **1.32** | **3.12** |
| **Balochistan** | **34.72** | **19.37** | **11.33** | | **8.04** | **1.13** | **6.91** |
| **2001-02** | | | | | | | |
| **Total** | **79.61** | **59.33** | **24.30** | | **35.03** | **3.81** | **31.22** |
| **Punjab** | **20.63** | **17.52** | **2.95** | | **14.57** | **0.51** | **14.06** |
| **Sindh** | **14.09** | **14.09** | **6.12** | | **7.97** | **0.84** | **7.13** |
| **KHYBER PAKHTONKHWA** | **10.17** | **8.34** | **3.90** | | **4.44** | **1.33** | **3.11** |
| **Balochistan** | **34.72** | **19.38** | **11.33** | | **8.05** | **1.13** | **6.92** |
| **2003-04** | | | | | | | |
| **Total** | **79.61** | **57.06** | **22.74** | | **34.32** | **4.01** | **30.31** |
| **Punjab** | **20.63** | **17.51** | **2.91** | | **14.60** | **0.48** | **14.12** |
| **Sindh** | **14.09** | **14.09** | **6.13** | | **7.96** | **0.84** | **7.12** |
| **KHYBER PAKHTONKHWA** | **10.17** | **8.34** | **3.86** | | **4.48** | **1.33** | **3.15** |
| **Balochistan(R)** | **34.72** | **17.12** | **9.84** | | **7.28** | **1.36** | **5.92** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **2004-05** | | | | | | | |
| **Total** | **79.61** | **57.07** | **22.88** | | **34.19** | **4.02** | **30.17** |
| **Punjab (R)** | **20.63** | **17.52** | **2.98** | | **14.54** | **0.49** | **14.05** |
| **Sindh** | **14.09** | **14.10** | **6.16** | | **7.94** | **0.84** | **7.10** |
| **KHYBER PAKHTONKHWA** | **10.17** | **8.34** | **3.91** | | **4.43** | **1.33** | **3.10** |
| **Balochistan(R)** | **34.72** | **17.11** | **9.83** | | **7.28** | **1.36** | **5.92** |
| **2005-06** | | | | | | | |
| **Total** | **79.61** | **57.22** | **22.87** | | **34.35** | **4.03** | **30.32** |
| **Punjab (R)** | **20.63** | **17.66** | **2.97** | | **14.69** | **0.50** | **14.19** |
| **Sindh** | **14.09** | **14.10** | **6.17** | | **7.93** | **0.84** | **7.09** |
| **KHYBER PAKHTONKHWA** | **10.17** | **8.34** | **3.90** | | **4.44** | **1.33** | **3.11** |
| **Balochistan(R)** | **34.72** | **17.12** | **9.83** | | **7.29** | **1.36** | **5.93** |
| **2006-07** | | | | | | | |
| **Total(P)** | **79.61** | **57.20** | **22.66** | | **34.54** | **4.22** | **30.32** |
| **Punjab (R)** | **20.63** | **17.66** | **2.97** | | **14.69** | **0.50** | **14.19** |
| **Sindh** | **14.09** | **14.08** | **5.96** | | **8.12** | **1.03** | **7.09** |
| **KHYBER PAKHTONKHWA** | **10.17** | **8.34** | **3.90** | | **4.44** | **1.33** | **3.11** |
| **Balochistan(R)** | **34.72** | **17.12** | **9.83** | | **7.29** | **1.36** | **5.93** |
| **R = repeated** | | | | | | | **Contd.** |

Agriculture without water can not be thought of. During 1997-1998 an area of 18.oo million hectares was being irrigated through various sources but irrigation through canals and canal tube wells was the major source of water supply for farm irrigation. There has been no increase in the water supply during the whole decade and the area watered through irrigation system rather declined from 7.31 million hectares in 1997-98 to 6.36 million hectares in 2007 although total area under irrigation increased to 19.07million hectares. This increase in the total irrigated area was due to an increase in the area watered by the help of canal tube wells The existing canals could not water the catchments area due to silt deposition both in canals and dams. This increase was due to an increase in the area water by the help of canal tube wells. This phenomenon reveals that our agriculture is largely dependent on rain fall. Since there has been no further development in the irrigation during this period, there has been no addition to cultivable land and hence no increase in the quantum of produce. (See Table No2 below)

## 2. Area Irrigated by Different Sources

(Area in million hectares)

| Province | Total | Canals | | Tubewells | Wells | Canal Tubewells | Canal Wells | Thanks | Others |
|---|---|---|---|---|---|---|---|---|---|
| | | Government | Private | | | | | | |
| **1997-98** | | | | | | | | | |
| TOTAL | 18.00 | 7.31 | 0.48 | 3.00 | 0.16 | 6.74 | 0.13 | * | 0.18 |
| Punjab | 13.66 | 4.08 | -- | 2.53 | 0.11 | 6.74 | 0.13 | -- | 0.07 |
| Sindh | 2.56 | 2.43 | -- | 0.13 | * | -- | -- | -- | 0.00 |
| N.W.F.P | 0.94 | 0.38 | 0.40 | 0.09 | 0.04 | -- | -- | * | 0.03 |
| Balochistan | 0.84 | 0.42 | 0.08 | 0.25 | 0.01 | -- | -- | -- | 0.08 |
| **1998-99** | | | | | | | | | |
| TOTAL | 17.95 | 7.20 | 0.47 | 2.98 | 0.17 | 6.88 | 0.09 | -- | 0.16 |
| Punjab | 13.55 | 3.88 | -- | 2.53 | 0.11 | 6.88 | 0.09 | -- | 0.06 |
| Sindh | 2.66 | 2.53 | -- | 0.13 | * | -- | -- | -- | 0.00 |
| N.W.F.P | 0.94 | 0.39 | 0.39 | 0.09 | 0.04 | -- | -- | * | 0.03 |
| Balochistan | 0.80 | 0.40 | 0.08 | 0.23 | 0.02 | -- | -- | -- | 0.07 |
| **1999-00** | | | | | | | | | |
| TOTAL | 18.10 | 7.10 | 0.46 | 3.11 | 0.18 | 6.99 | 0.09 | -- | 0.17 |
| Punjab | 13.84 | 3.93 | -- | 2.65 | 0.12 | 6.99 | 0.09 | -- | 0.06 |
| Sindh | 2.52 | 2.39 | -- | 0.13 | -- | -- | -- | -- | 0.00 |
| N.W.F.P | 0.92 | 0.39 | 0.37 | 0.09 | 0.04 | -- | -- | * | 0.03 |
| Balochistan | 0.82 | 0.39 | 0.09 | 0.24 | 0.02 | -- | -- | -- | 0.08 |
| **2000-01** | | | | | | | | | |
| TOTAL | 17.83 | 6.55 | 0.43 | 3.19 | 0.16 | 7.22 | 0.10 | -- | 0.18 |
| Punjab | 14.05 | 3.82 | -- | 2.77 | 0.10 | 7.22 | 0.10 | -- | 0.04 |
| Sindh | 2.01 | 1.91 | -- | 0.10 | * | -- | -- | -- | 0.00 |
| N.W.F.P | 0.93 | 0.41 | 0.35 | 0.09 | 0.04 | -- | -- | * | 0.04 |
| Balochistan | 0.84 | 0.41 | 0.08 | 0.23 | 0.02 | -- | -- | -- | 0.10 |
| **2001-02** | | | | | | | | | |
| TOTAL | 17.99 | 6.36 | 0.43 | 3.45 | 0.20 | 7.24 | 0.16 | -- | 0.18 |
| Punjab | 14.08 | 3.70 | -- | 2.83 | 0.11 | 7.24 | 0.16 | -- | 0.04 |
| Sindh | 2.04 | 1.84 | -- | 0.20 | * | -- | -- | -- | 0.00 |
| N.W.F.P | 0.90 | 0.41 | 0.35 | 0.09 | 0.04 | -- | -- | * | 0.04 |
| Balochistan | 0.97 | 0.41 | 0.08 | 0.33 | 0.05 | -- | -- | -- | 0.10 |
| **2002-03** | | | | | | | | | |
| TOTAL | 18.23 | 6.62 | 0.44 | 3.42 | 0.21 | 7.17 | 0.17 | -- | 0.20 |
| Punjab | 13.94 | 3.70 | -- | 2.74 | 0.12 | 7.17 | 0.17 | -- | 0.04 |
| Sindh | 2.16 | 1.96 | -- | 0.20 | * | -- | -- | -- | -- |
| N.W.F.P | 0.96 | 0.41 | 0.36 | 0.10 | 0.05 | -- | -- | * | 0.04 |
| Balochistan | 1.17 | 0.55 | 0.08 | 0.38 | 0.04 | -- | -- | -- | 0.12 |
| **2003-04** | | | | | | | | | |
| **2004-05** | | | | | | | | | |
| TOTAL | 18.98 | 6.54 | 0.44 | 3.56 | 0.29 | 7.66 | 0.19 | -- | 0.30 |
| Punjab | 14.53 | 3.62 | -- | 2.81 | 0.16 | 7.66 | 0.19 | -- | 0.09 |
| Sindh | 2.22 | 2.00 | -- | 0.22 | * | -- | -- | -- | -- |
| N.W.F. P | 0.95 | 0.41 | 0.36 | 0.06 | 0.05 | -- | -- | * | 0.07 |
| Balochistan | 1.28 | 0.51 | 0.08 | 0.47 | 0.08 | -- | -- | -- | 0.14 |
| **2005-06** | | | | | | | | | |
| TOTAL | 19.13 | 6.54 | 0.52 | 3.58 | 0.28 | 7.71 | 0.21 | -- | 0.29 |
| Punjab | 14.59 | 3.65 | -- | 2.82 | 0.15 | 7.71 | 0.21 | -- | 0.05 |
| Sindh | 2.28 | 2.05 | -- | 0.23 | * | -- | -- | -- | -- |
| N.W.F.P | 0.98 | 0.33 | 0.44 | 0.05 | 0.06 | -- | -- | * | 0.10 |
| Balochistan | 1.28 | 0.51 | 0.08 | 0.47 | 0.08 | -- | -- | -- | 0.14 |

The above statement reveals that a total of 9.74 million hectares of land is being watered with the help of tube wells. In the wake of energy crisis in the economy the tube wells could not be operated to the fullest

capacity which consequently resulted in shortage of irrigation water. Hence failure of crops due to non availability of required quantity of water.

With no development in irrigation system and no improvement in the cultivable waste land the production /produce of the major cereal crops did not grow in proportion of demand.

Table 3 below shows that rice crop increased by 8.3% in the year2003-4 but its growth rate came down to 2.3% in the year 2007-8 .However, the most important food item i.e. wheat production fell to (-6.6)% during the year 2007-8 which phenomena adversely affected the whole socio-economic scenario.

Area, Production and Yield per Hectare of Agricultural Crops

| CROP/YEAR | PUNJAB | SINDH | KP | BALOCHISTAN | PAKISTAN |
|---|---|---|---|---|---|
| **WHEAT** | | **AREA IN "000" HECTARES** | | | |
| 1997-98 | 5934.6 | 1120.2 | 918.1 | 381.7 | 8354.6 |
| 2000-01 | 6255.5 | 810.7 | 790.3 | 324.3 | 8180.8 |
| 2004-05 | 6378.9 | 887.4 | 748.6 | 343.1 | 8358.0 |
| 2006-07 | 6432.8 | 982.2 | 754.2 | 408.9 | 8578.1 |
| | | **PRODUCTION IN "000" TONNES** | | | |
| 1997-98 | 13807.0 | 2659.4 | 1356.0 | 871.6 | 18694.0 |
| 2000-01 | 15419.0 | 2226.5 | 764.0 | 614.2 | 19023.7 |
| 2004-05 | 17375.0 | 2508.6 | 1091.1 | 637.6 | 21612.3 |
| 2006-07 | 17853.0 | 3409.1 | 1160.4 | 872.1 | 23294.6 |

Area, Production and Yield per Hectare of Agricultural Crops

| CROP/YEAR | PUNJAB | SINDH | KP | BALOCHISTAN | PAKISTAN |
|---|---|---|---|---|---|
| **RICE** | | **AREA IN "000" HECTARES** | | | |
| 1997-98 | 1409.9 | 689.3 | 66.8 | 151.3 | 2317.3 |
| 2000-01 | 1627.2 | 540.1 | 66.4 | 142.9 | 2376.6 |
| 2004-05 | 1754.2 | 543.9 | 59.9 | 161.5 | 2519.5 |

| | | | | | |
|---|---|---|---|---|---|
| 2006-07 | 1728.4 | 598.1 | 60.8 | 193.9 | 2581.2 |
| | | PRODUCTION IN "000" TONNES | | | |
| 1997-98 | 1948.0 | 1840.9 | 130.2 | 413.9 | 4333.0 |
| 2000-01 | 2577.0 | 1682.3 | 131.2 | 412.1 | 4802.6 |
| 2004-05 | 2980.3 | 1499.6 | 123.2 | 421.6 | 5024.7 |
| 2006-07 | 3075.5 | 1761.8 | 122.9 | 478.2 | 5438.4 |

Production and Yield per Hectare of Agricultural Crops

| CROP/YEAR | PUNJAB | SINDH | KP | BALOCHISTAN | PAKISTAN |
|---|---|---|---|---|---|
| **MAIZE** | | AREA IN "000" HECTARES | | | |
| 1997-98 | 385.7 | 9.3 | 533.6 | 4.0 | 932.6 |
| 2000-01 | 397.3 | 7.7 | 536.5 | 2.5 | 944.0 |
| 2004-05 | 475.0 | 3.0 | 498.6 | 5.2 | 981.8 |
| 2006-07 | 492.5 | 2.4 | 516.1 | 5.9 | 1016.9 |
| | | PRODUCTION IN "000" TONNES | | | |
| 1997-98 | 694.0 | 5.0 | 814.0 | 4.3 | 1517.3 |
| 2000-01 | 748.5 | 4.4 | 887.8 | 2.5 | 1643.2 |
| 2004-05 | 1934.6 | 1.6 | 855.5 | 5.3 | 2797.0 |
| 2006-07 | 2161.9 | 1.4 | 918.6 | 6.5 | 3088.4 |

Area, Production and Yield per Hectare of Agricultural Crops

| CROP/YEAR | PUNJAB | SINDH | N.W.F.P | BALOCHISTAN | PAKISTAN |
|---|---|---|---|---|---|
| **BAJRA** | | AREA IN "000" HECTARES | | | |
| 1997-98 | 290.0 | 160.0 | 9.3 | 0.7 | 460.0 |
| 2000-01 | 303.1 | 80.5 | 5.4 | 0.6 | 389.6 |
| 2004-05 | 331.7 | 5.7 | 5.3 | 0.6 | 343.3 |
| 2006-07 | 366.7 | 131.6 | 4.5 | 1.2 | 504.0 |
| | | PRODUCTION IN "000" TONNES | | | |
| 1997-98 | 139.5 | 66.2 | 5.1 | 0.5 | 211.3 |
| 2000-01 | 155.6 | 40.5 | 2.5 | 0.4 | 199.0 |
| 2004-05 | 186.8 | 3.2 | 2.8 | 0.5 | 193.3 |
| 2006-07 | 216.8 | 18.0 | 2.3 | 0.9 | 238.0 |

Area, Production and Yield per Hectare of Agricultural Crops

| CROP/YEAR | PUNJAB | SINDH | N.W.F.P | BALOCHISTAN | PAKISTAN |
|---|---|---|---|---|---|
| **JOWAR** | | | AREA IN "000" HECTARES | | |
| 1997-98 | 245.6 | 95.6 | 13.4 | 35.7 | 390.3 |
| 2000-01 | 238.4 | 87.2 | 8.8 | 19.2 | 353.6 |
| 2004-05 | 216.7 | 61.4 | 7.6 | 21.8 | 307.5 |
| 2006-07 | 184.1 | 64.0 | 6.3 | 37.2 | 291.6 |
| | | PRODUCTION IN "000" TONNES | | | |
| 1997-98 | 137.1 | 53.5 | 8.5 | 32.2 | 231.3 |
| 2000-01 | 144.0 | 51.8 | 5.0 | 17.7 | 218.5 |
| 2004-05 | 124.1 | 38.8 | 4.5 | 19.0 | 186.4 |
| 2006-07 | 101.0 | 44.1 | 3.6 | 30.8 | 179.5 |

Area, Production and Yield per Hectare of Agricultural Crops

| CROP/YEAR | PUNJAB | SINDH | N.W.F.P | BALOCHISTAN | PAKISTAN |
|---|---|---|---|---|---|
| **BARLEY** | | AREA IN "000" HECTARES | | | |
| 1997-98 | 40.0 | 22.3 | 54.6 | 45.8 | 162.7 |
| 2000-01 | 32.0 | 16.3 | 43.9 | 20.8 | 113.0 |
| 2004-05 | 35.9 | 7.7 | 32.2 | 17.5 | 93.3 |
| 2006-07 | 37.0 | 7.7 | 32.1 | 17.2 | 94.0 |
| | | PRODUCTION IN "000" TONNES | | | |
| 1997-98 | 41.8 | 11.4 | 59.7 | 61.2 | 174.1 |
| 2000-01 | 32.8 | 8.9 | 32.9 | 24.3 | 98.9 |
| 2004-05 | 35.2 | 3.4 | 32.7 | 20.4 | 91.7 |
| 2006-07 | 34.6 | 4.2 | 32.7 | 21.2 | 92.7 |

The situation in N.W.F.P is worse due to a host of problems among which following are most significant.

*Cultivable Area*: Total reported area is 10.424 million acres of which an area of 6.55 million acres is being cultivated. Even of the cultivated area only 40% is being irrigated and rest is depending on the mercy of nature for timely and appropriate quantity of rain. The area

under cultivation consists of tiny plots where large scale and mechanized agriculture is not possible. Resultantly the per acre production/yeild is low and comparative cost so high that most of the farmers are preferring cash crops to cope with their cost of land management.

*Low income* is major constraint in the way of modernization of agriculture. Hence per acre yield could not be improved in spite of availability of certified seed but at a cost beyond the reach of poor farmers.

*Population*: Fast growing population has sent a severe threat of further increase in demand for additional food which will certainly aggravate the situation in the near future. Again increase in nominal income as a consequence of increase in inflation rate has been changing the taste of the people and adding to the aggregate demand.

*Certified Seeds*: Non availability of required quantity of certified seeds has been retarding agriculture growth because of low yield per acre. Even the available certified seed carries sky soaring prices. Hence farmer is constrained to continue with traditional seeds with deplorable low yield per acre.

*Fertilizer*: Better yield largely depends upon timely manuring. Due to non development of livestock and dairy sector the natural manure is insufficient to meet the requirement of all crops. Farmers are, therefore, constrained to depend on chemical fertilizer. Ever rising cost of chemical fertilizer and that too, its non availability at critical time, has been an other cause of low yield.

*Irrigation*: Out of total reported area of 10.424 million acres of land 6.55 millions acres of land is cultivated of which only 40% is irrigated by canals irrigation systems. Rest of the 60% of land is barani which that the existing canals can not provide required quantity of

irrigation water for which reasons most of the land remains either uncultivated or grow crops in the one season with negligible yield. Although Jawar, bajra and barley also form part of food, yet wheat the only crop which provides maximum nutritional ingredients and therefore, taken as the basic food item.

Wheat is the common cereal crop in N.W.F.P and is the major food item. Incidentally there has been no increase in the area sown and on average only 29% of the total cultivable land has been utilized for the production of wheat for which reasons there has not been any substantial increase in the total quantity of wheat production which increased from 1.025million tones in 2003-4 to 1.075 million tones in the 2007-8 .This is evident from the following table No; 4.

Table No. 4 showing area, production and average yield of wheat sown in Khyber Pakhtonkhwa.

| Year | Area (million tons) | Production (million tons) | Average Yield Mond/Acres |
|---|---|---|---|
| 2003-04 | 1.854 | 1.025 | 11.0 |
| 2004-05 | 1.872 | 1.091 | 11.6 |
| 2005-06 | 1.803 | 1.100 | 12.2 |
| 2006-07 | 1.885 | 1.160 | 12.3 |
| 2007-08 | 1.848 | 1.075 | 11.6 |
| 2008-09 Estimated | 1.885 | 1.179 | 12.5 |

The above table reveals that a very negligible area has been added to cultivable land during the period from 2003-2004 to 2007-2008 which was the basic reason for insufficiency of wheat in the province. To feed a population of more than 30.108 millions Frontier province needs a total of 3.734 million tones of wheat against a local production of 1.075 million tones. This is a bare need @ 124 kg per head per annum A deficit of 2.555 million tones is being met by importing mostly from the province of Punjab. The total quantity of other crops like Bajra, Barley,

jawar, Maiz and Rice is 1.081 million tones which although reduces the quantum of shortfall to 1.474 million tones yet cannot be a good supplement because the cost of rice is beyond the reach of common man and stuff of the other cereal is not commonly acceptable due to its hardness. See the following table No. 5

Area-wise production for the year 2006-7

| Serial NO. | Description of crop | Area cultivated (in hectares) | Production (in m tones) |
|---|---|---|---|
| 1 | Bajra | 0.005 | 0.002 |
| 2 | Barley | 0.032 | 0.033 |
| 3 | Jawar | 0.006 | 0.004 |
| 4 | Maiz | 0.516 | 0.919 |
| 5 | Rice | 0.061 | 0.123 |
| | Total | 0.620 | 1.081 |

Therefore, to save people from starvation it is suggested that;

i. The Govt. must lower the sale price of agriculture inputs particularly that of fertilizer
ii. Ensure availability of certified seeds as per requirement of each crop.
iii. Facilitate mechanization of agriculture through co operative farming.
iv. Facilitate leveling of barren land with help of govt. subsidized machinery
v. Immediately start construction of following irrigation schemes

| .Serial No. | Name of Scheme | Area to be irrigated in acres |
|---|---|---|
| 1 | Balambat | 11364 |
| 2 | Bazai | 20200 |
| 3 | Sanam Palai dam | 6300 |
| 4 | Kurram Tangi Dam | 361000 |
| 5 | Gomal zam Dam | 163086 |
| 6 | Ist Lift of CRBC | 285000 |
| 7. | Munda Dam | 16919 |

By completing these schemes an additional area of 0.898 millions acres of land will be brought under regular cultivation and will eventually add 65% more to the existing production.

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