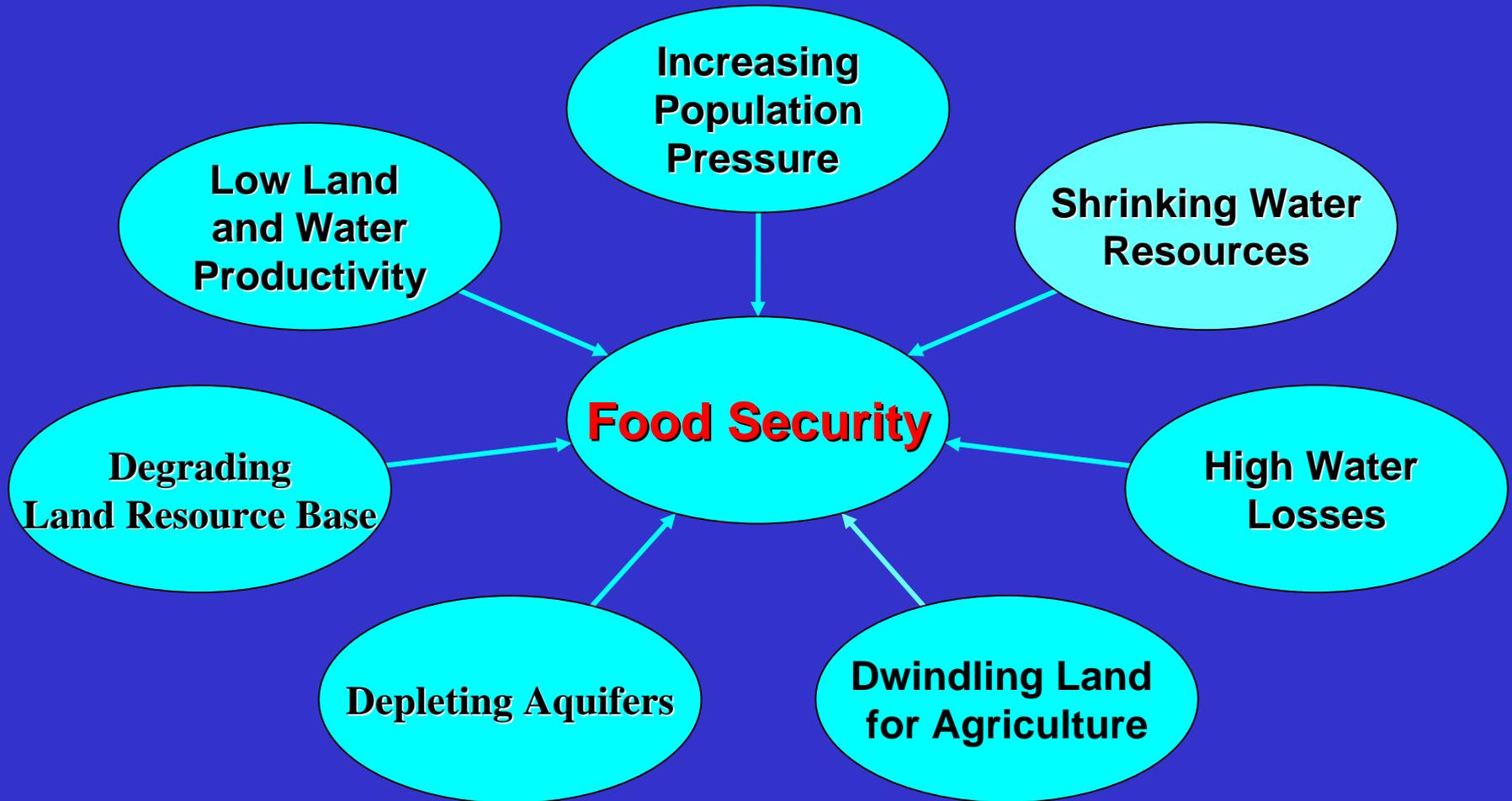


Increasing Water Productivity of Rice through Adoption of System of Rice Intensification (SRI)

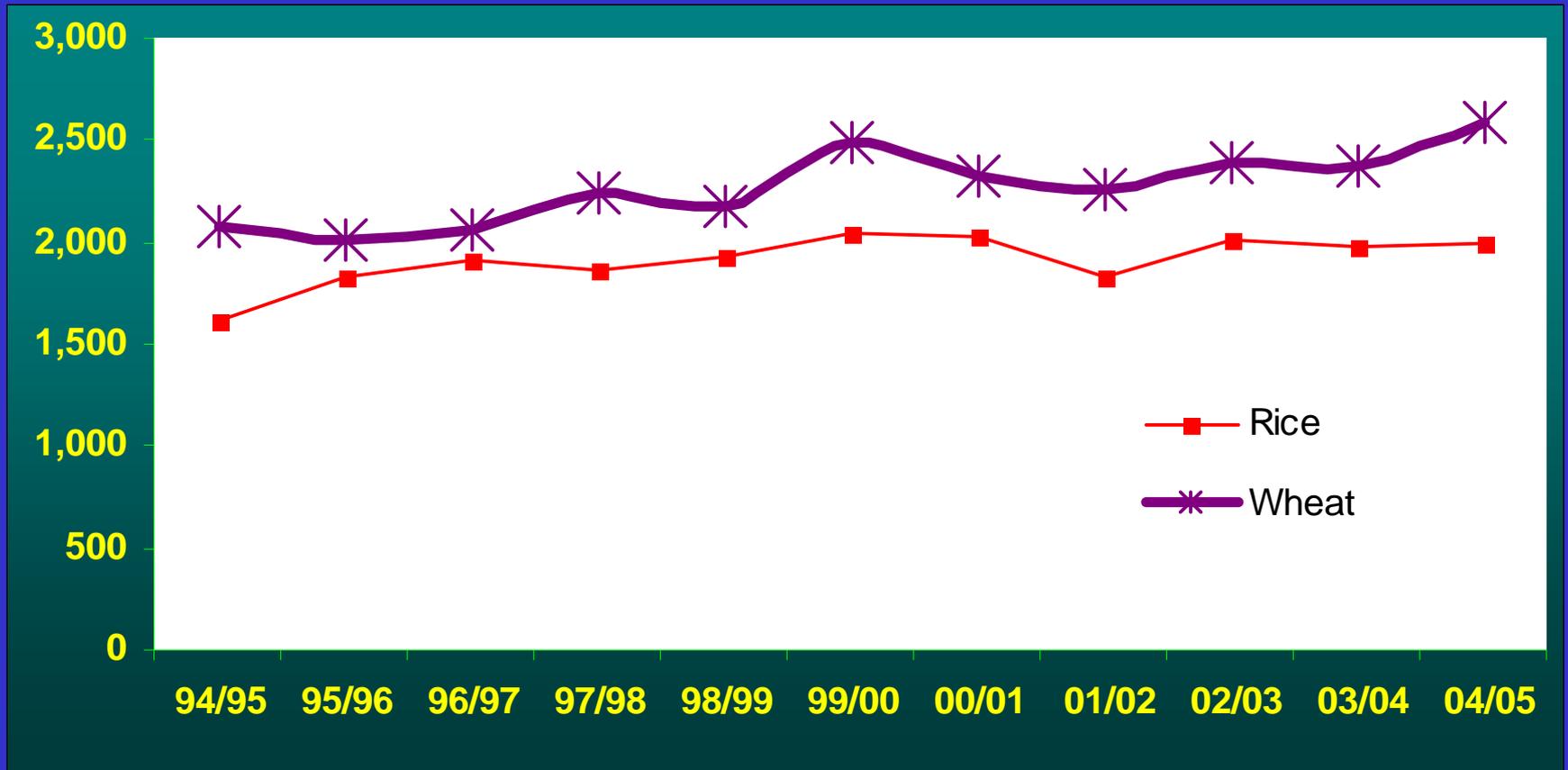


Mushtaq A. Gill
Director General Agriculture
(Water Management), Punjab, Pakistan

MAJOR CHALLENGES



YIELD OF MAJOR CROPS IN PAKISTAN (Kg/ha)



Yields are almost stagnant for the past decade

RICE PRODUCTION CONSTRAINTS

- **Insufficient water availability**
- **Improper water management**
- **Undulated topography**
- **Sub-optimal plant population**
- **Imbalanced use of fertilizers**
- **Deterioration of soil fertility**
- **Inhumane & laborious method of transplanting**



SYSTEM OF RICE INTENSIFICATION

Punjab Experience

- **Start with precisely levelled fields**
- **Early transplantation of young seedlings, only 8-15 days old (9-12 cm height, 2-leaf stage)**
- **Maintain moist field with just thin layer of water**
- **Wide-space planting in square pattern (25 x 25 cm)**
- **Planting only one plant per hill**
- **Transplantation of nursery in evening**



SYSTEM OF RICE INTENSIFICATION (SRI)

Impact Assessment

- **Enhances Productivity**
 - Increase yield 30-50% or more
 - Larger panicles (about 200-300 grains/panicle)
 - Higher grain weight (15-20%)
- **Conserves 25-50 % water**
- **Reduces seed requirement by 80-90%**
- **Improves livelihood**
 - 20 % reduction in cost of production



PROMOTION OF SRI



SRI Seminars at UAF and in Okara Project area



Trials at Univ. of Agriculture Faisalabad for adaptation of SRI

CROP ESTABLISHMENT AND IMPACT



IMPACT OF SRI

Year	Area (acres)	No. of Farmers	Water Saving (AF)	Net Income (US\$)
2006	10	4	13.17	2,395.90
2007	25	10	32.93	5,989.75
Total (US\$)				8,385.65

RESOURCE CONSERVATION TECHNOLOGIES BEING EVALUATED AND ADOPTED FOR RICE

- ✓ **System of Rice Intensification (SRI)**
- ✓ **Direct-Seeded Rice (DSR)**
- ✓ **Zero-tillage Dry Sowing**
- ✓ **Leaf Colour Chart (LCC)**
- ✓ **Brown Manuring**
- ✓ **Surface Mulching**

Sustainable Agricultural Development through Resource Conservation Technologies



A Resource Conserved
is
A Resource Generated

