



Designing Local Farmworks for Integrated Water
Resources Management Project Workshop
13-15 Nov 2011 Kyoto

POWER OF WATER: Experience in the GAP Region in TURKEY

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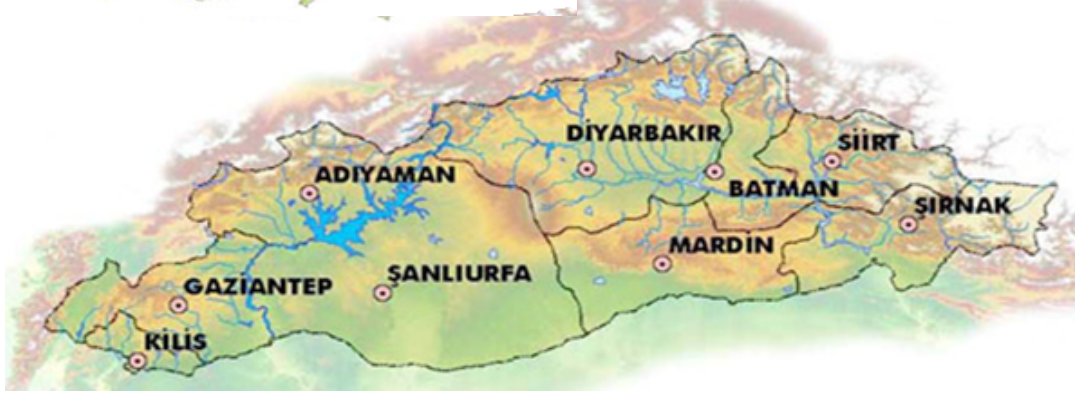
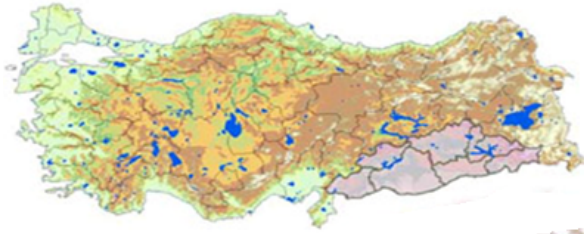


GAP is a multi-sector, integrated attempt for development, based on natural resources (human, soil, water, climate) with the human being at its focal point.



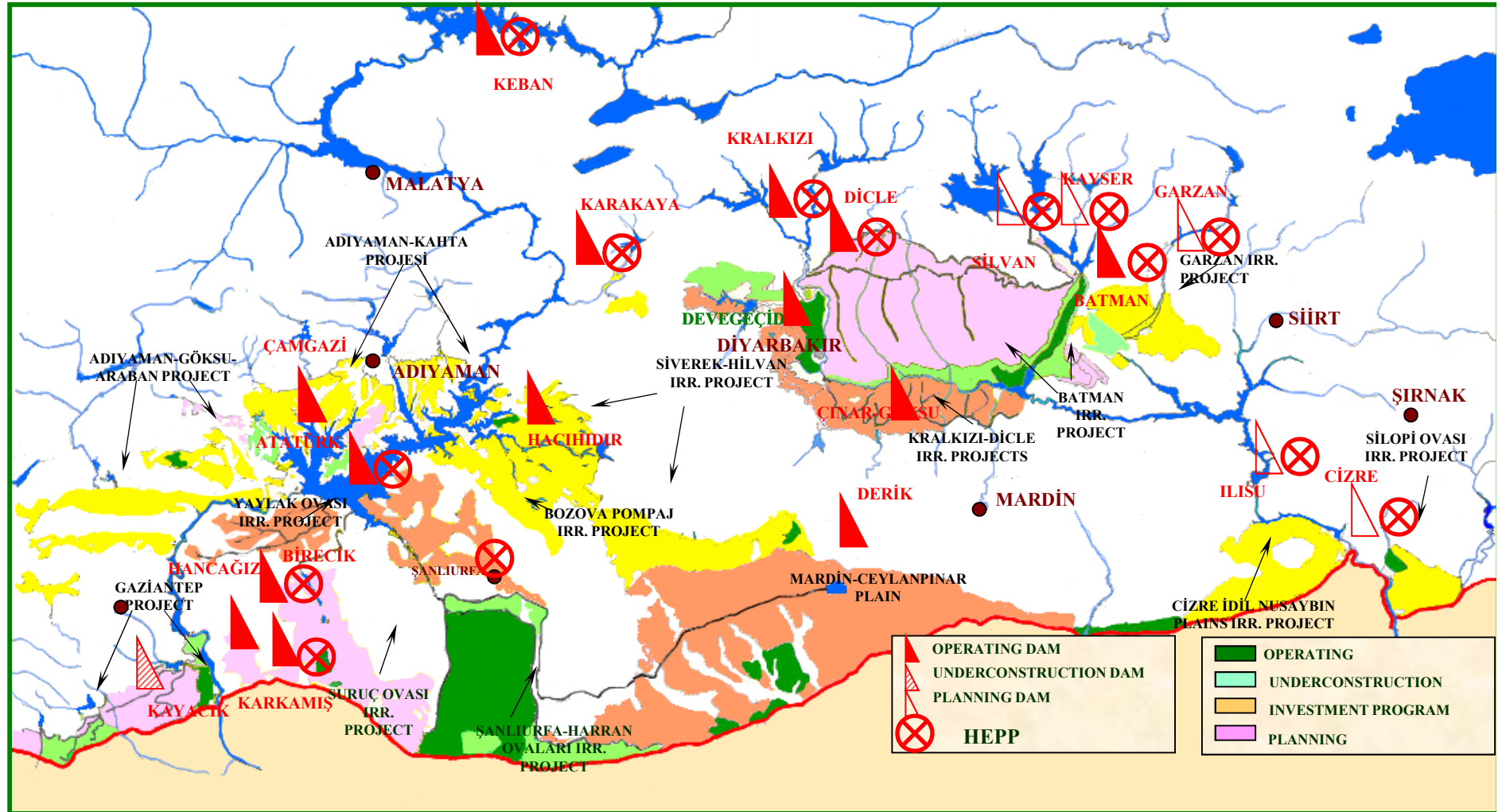
's aim is

- increasing the income and raising the living standard of region's people and Turkish.**
- eliminating interregional disparities**
- contributing to the objective of restoring an economic development at national level**
- social stability**



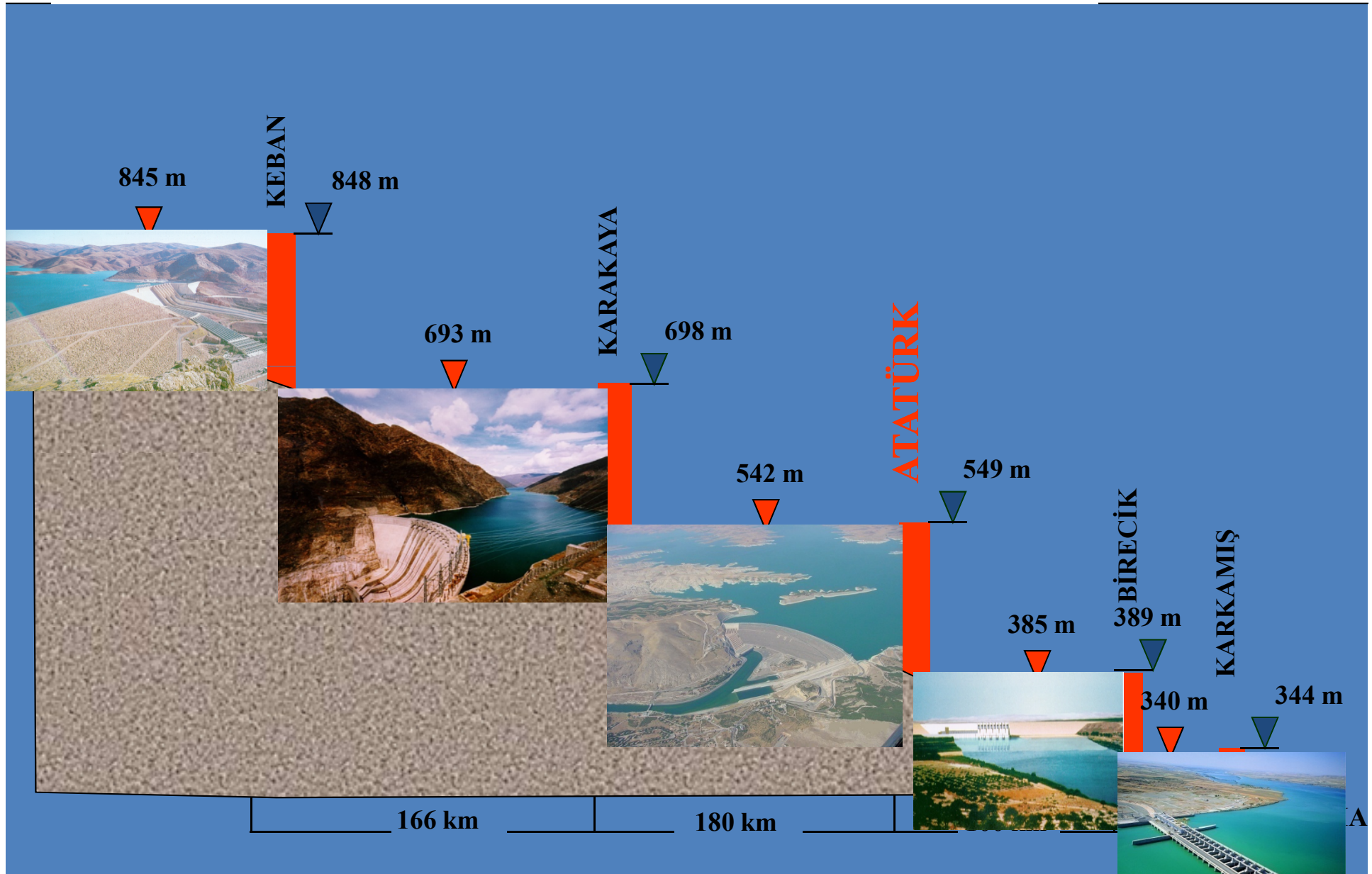
	TÜRKİYE	GAP	GAP/TR %
Total Area (km²)	780.580	75.358	9,7
Population (million)	70,6	7,1	10,2
Cultivated area (M ha)	28	3,25	11,8
Irrigatable area (M ha)	8,5	1,8	22

GAP LAND AND WATER RESOURCES DEVELOPMENT PROJECTS

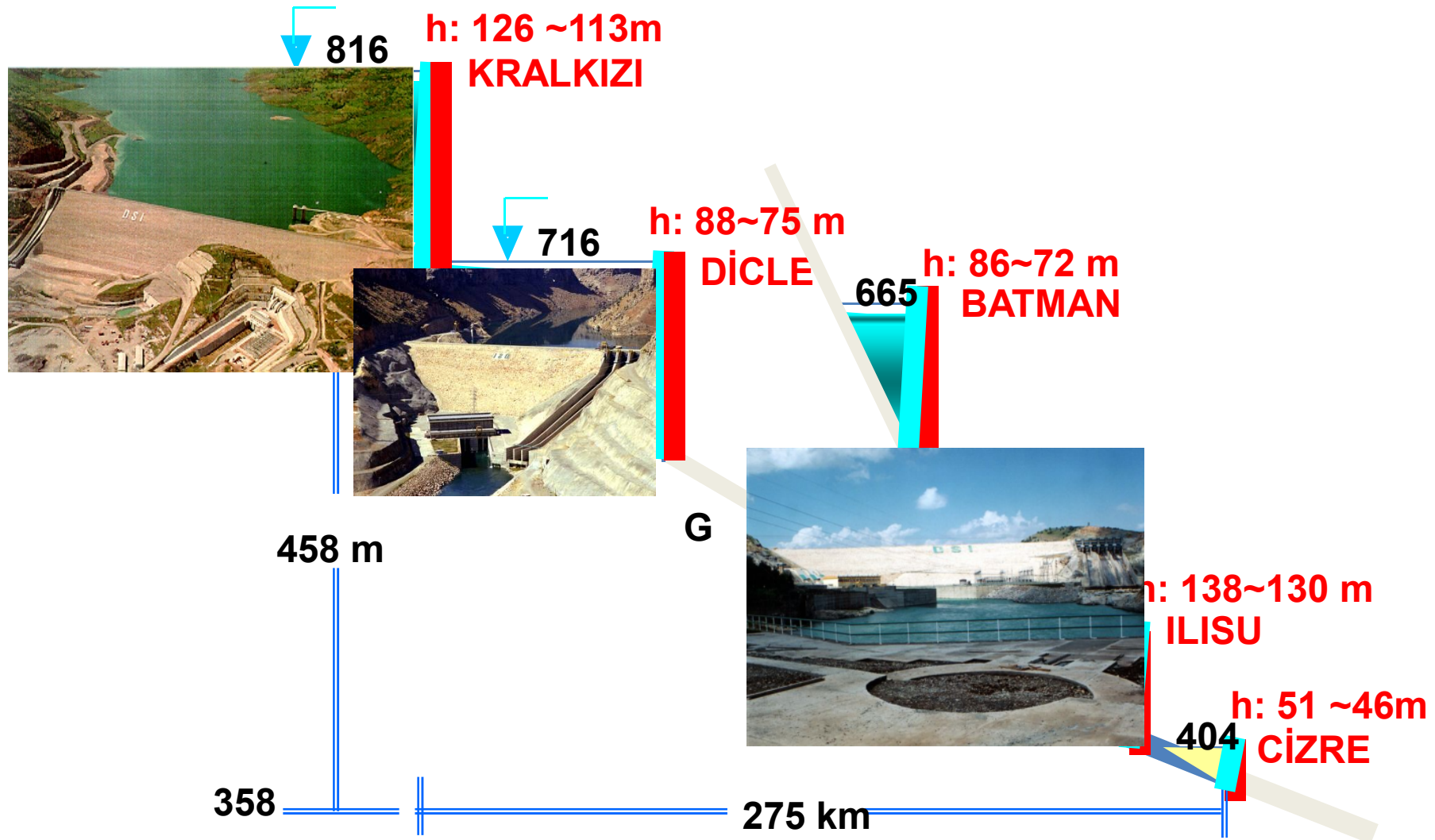


22 DAM, 19 HEPP (7 500 MW, 27 387 GWh/y)
1,822 Mha IRR. AREA (46% gravity, 54% pumping)

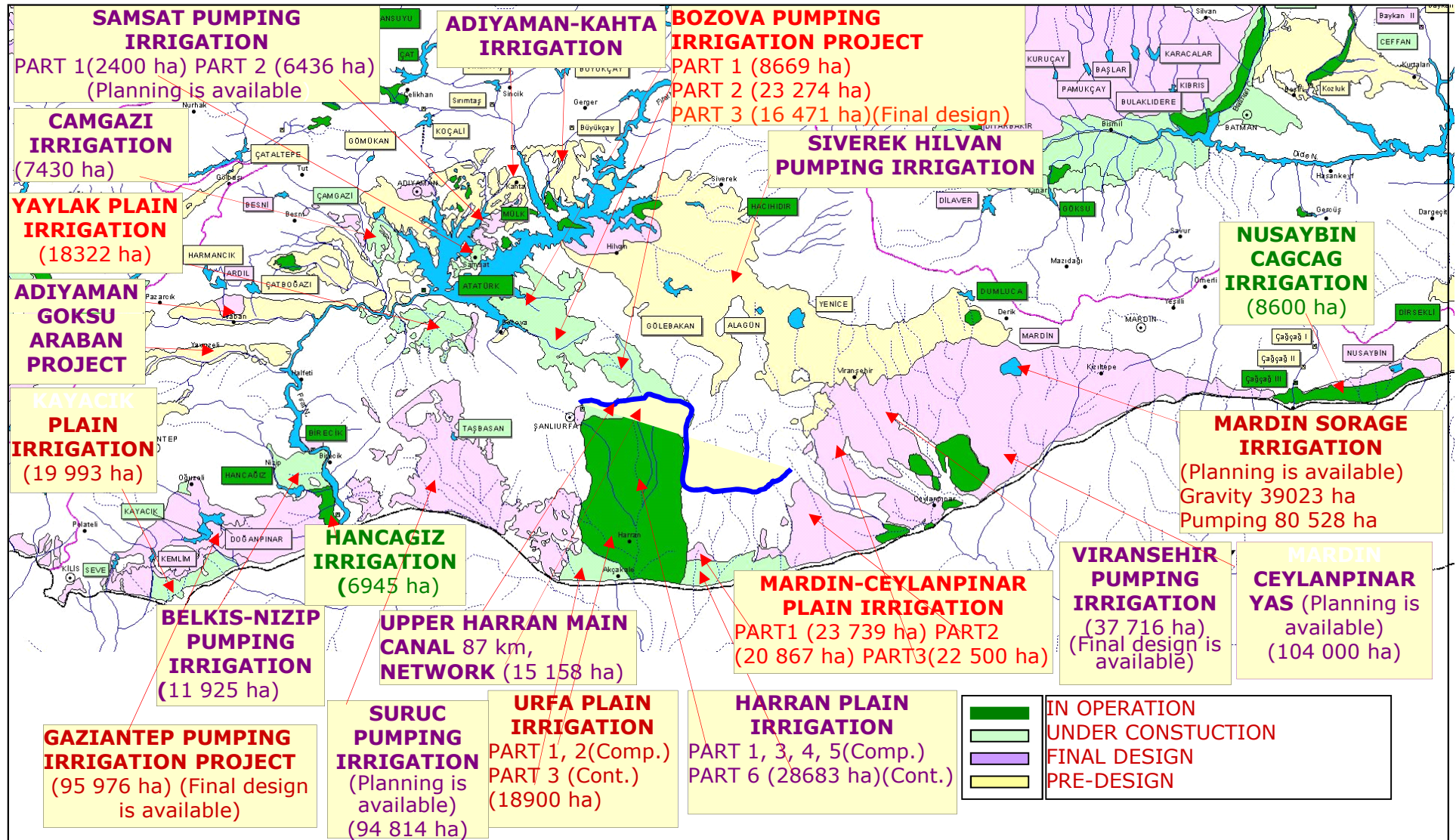
DAMS CONSTRUCTED ON EUPHRATES RIVER



DAMS CONSTRUCTED ON DICLE (TIGRES) RIVER



GAP FIRAT (EUPHRATES) BASIN IRRIGATION PROJECTS



More than 100,000 people have been forced to migrate because of the Ataturk Dam.



Birecik Dam&Halfeti

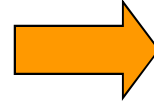






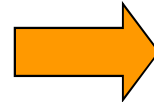
GAP VISION

WATER BASED DEVELOPMENT
PROGRAM



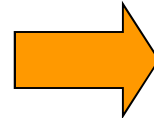
- 22 DAMS
- 19 HEPs
- 1.8 MILLION Ha Irrigation

INTEGRATED SUSTAINABLE
HUMAN DEVELOPMENT



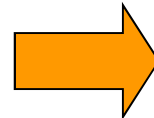
- GENDER & DEVELOPMENT
- STUDIES on
DISADVANTAGED GROUPS

PARTICIPATORY DEVELOPMENT
APPROACH



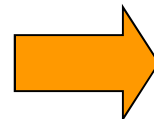
- PARTICIPATORY
RESETTLEMENT
- PARTICIPATORY
URBAN PLANNING

ECONOMIC SUSTAINABILITY



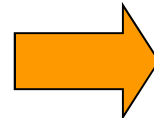
- SUPPORTING
ENTREPRENEURS

SPATIAL SUSTAINABILITY



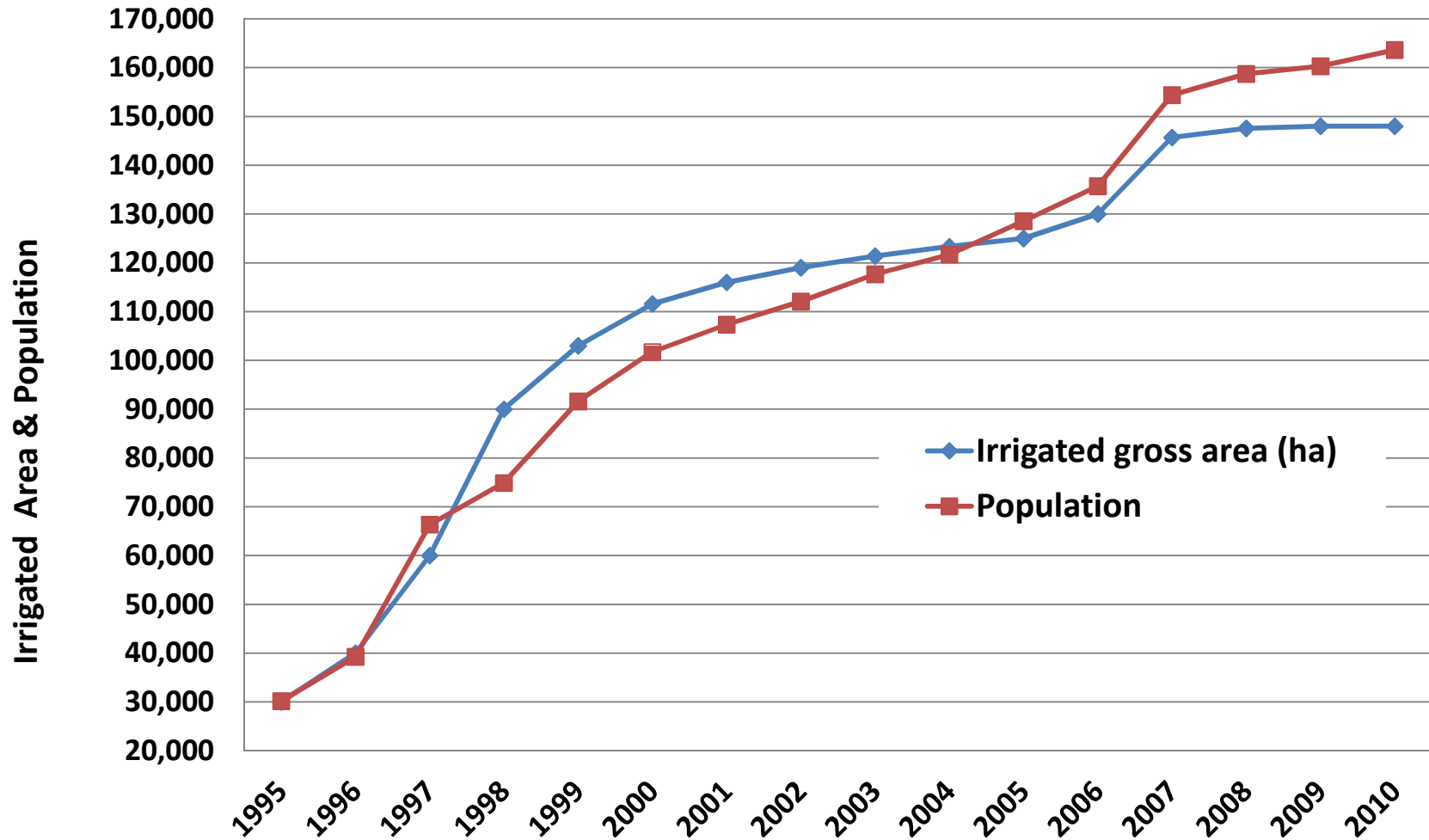
- EQUITABLE, EFFECTIVE &
SENSITIVE TO
ENVIRONMENT

SUSTAINABLE IRRIGATION

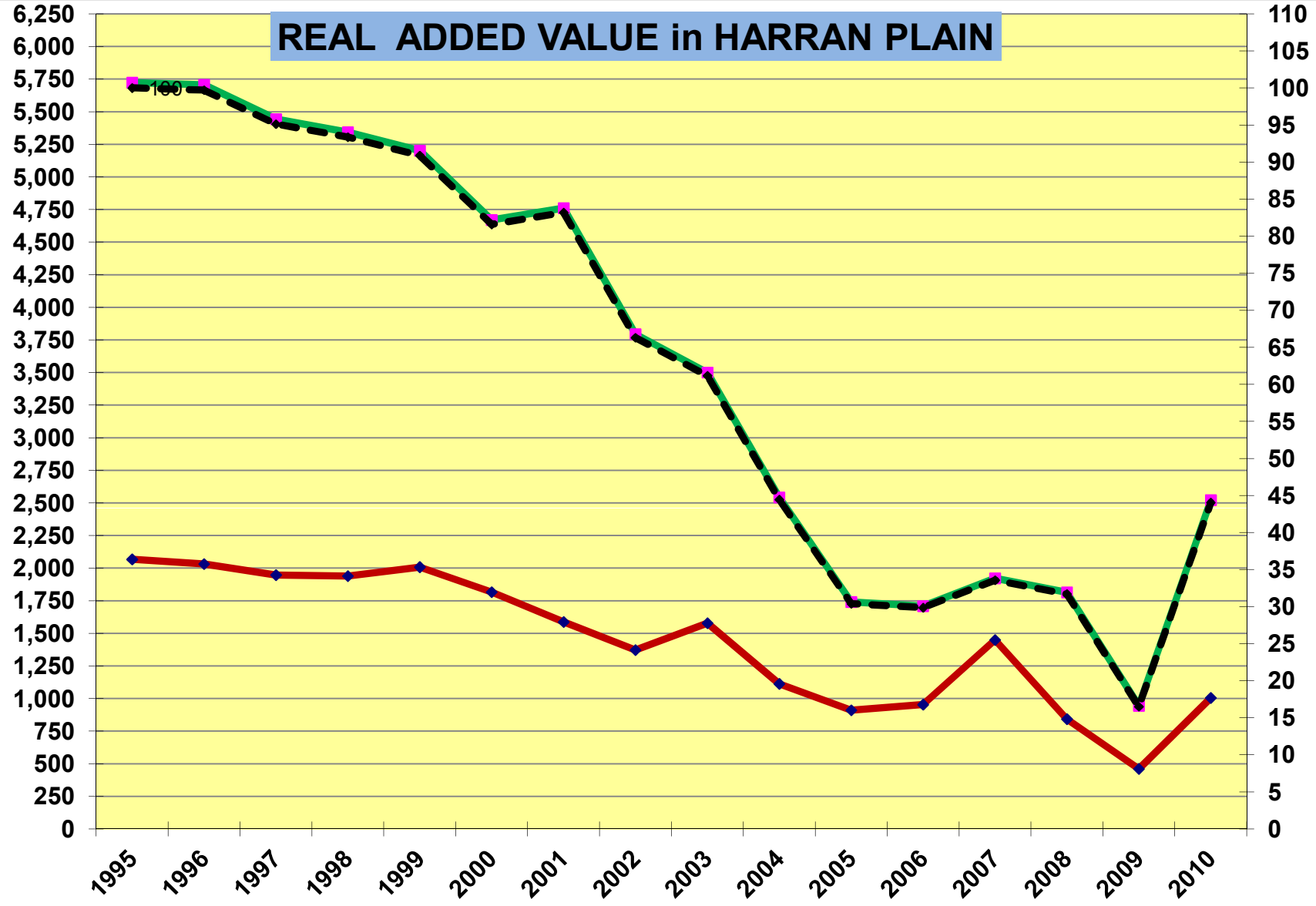


- PARTICIPATORY
IRRIGATION

Irrigated Area & Population Change in Harran Plain

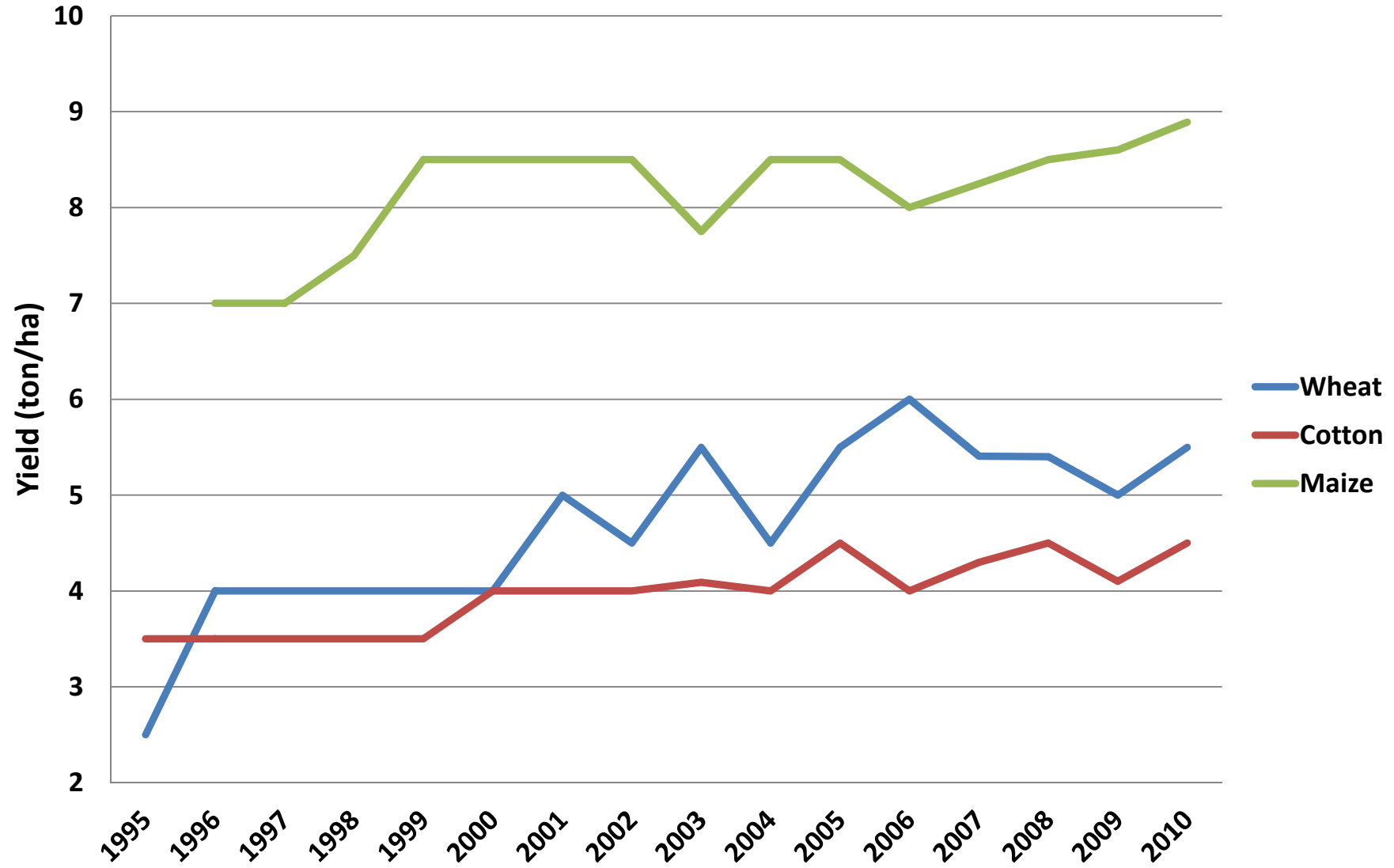


REAL ADDED VALUE in HARRAN PLAIN

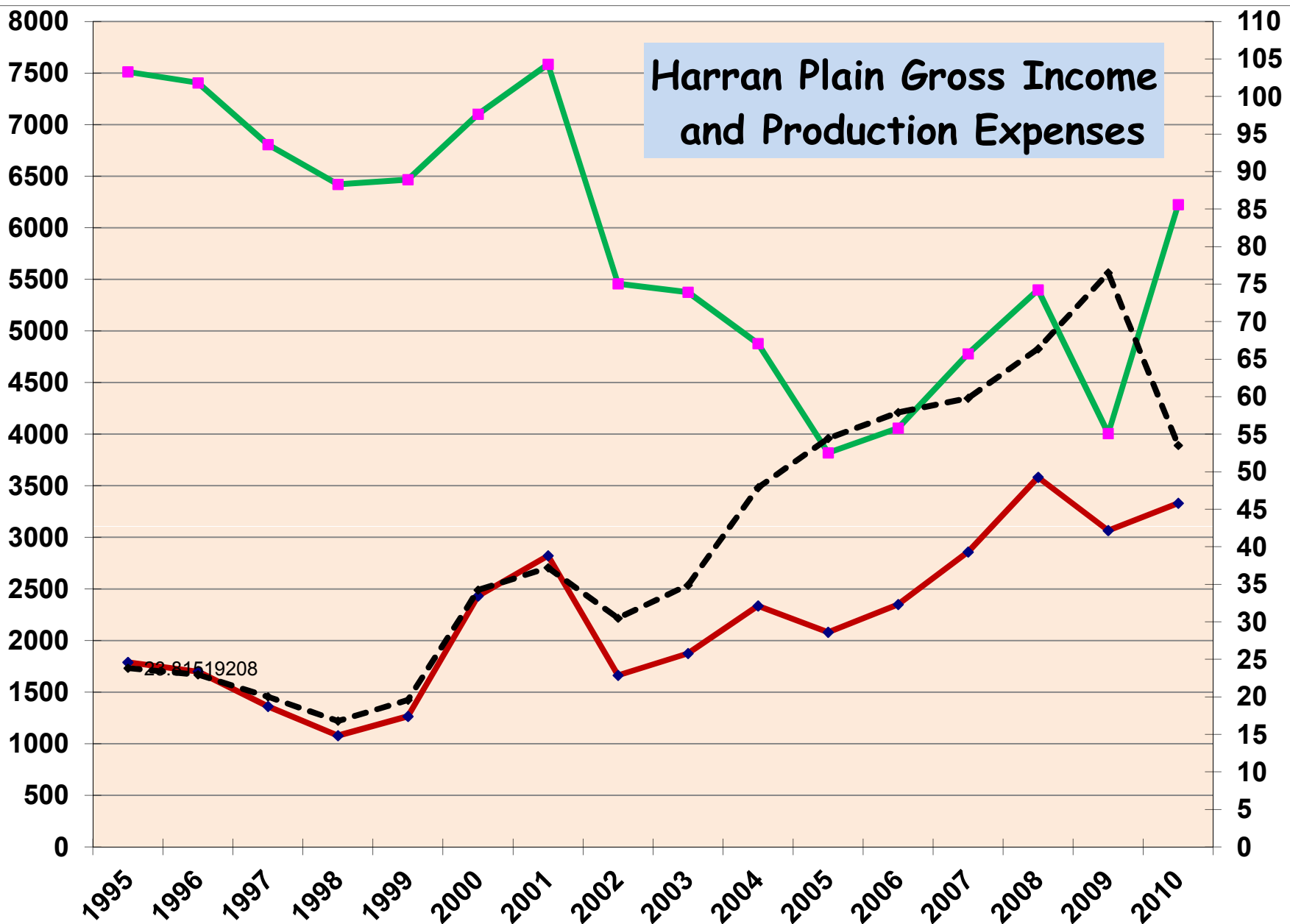


—◆— Irrigated Area's Real Added Value (TL/ha)
 —◆— Rainfed Area's Real Added Value (TL/ha)
- - ◆ - - The rate of change than in 1995

Yield Change in Harran Plain

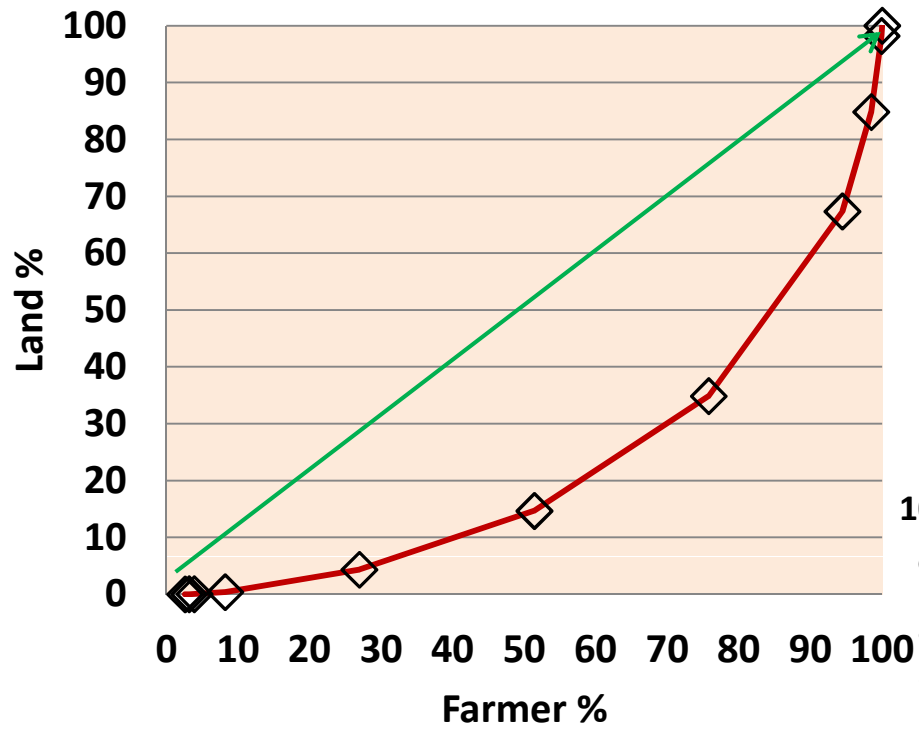


Harran Plain Gross Income and Production Expenses

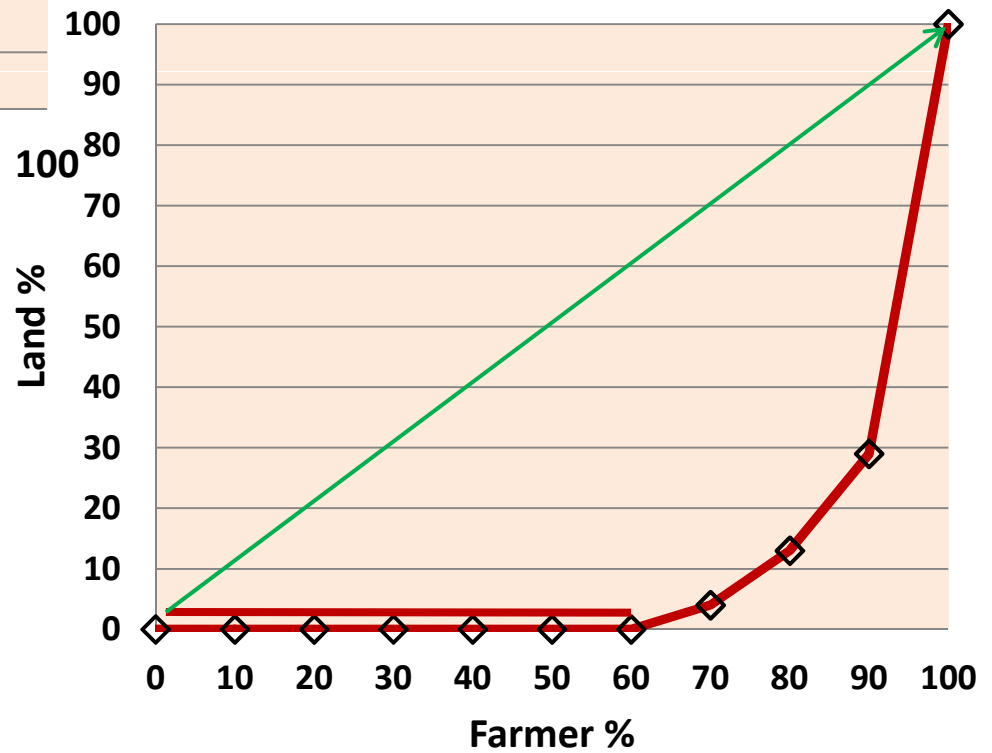


■ Gross Income (TL/ha)
 ◆ Production Cost (TL/ha)
 - - -◆ The share of the costs of income (%)

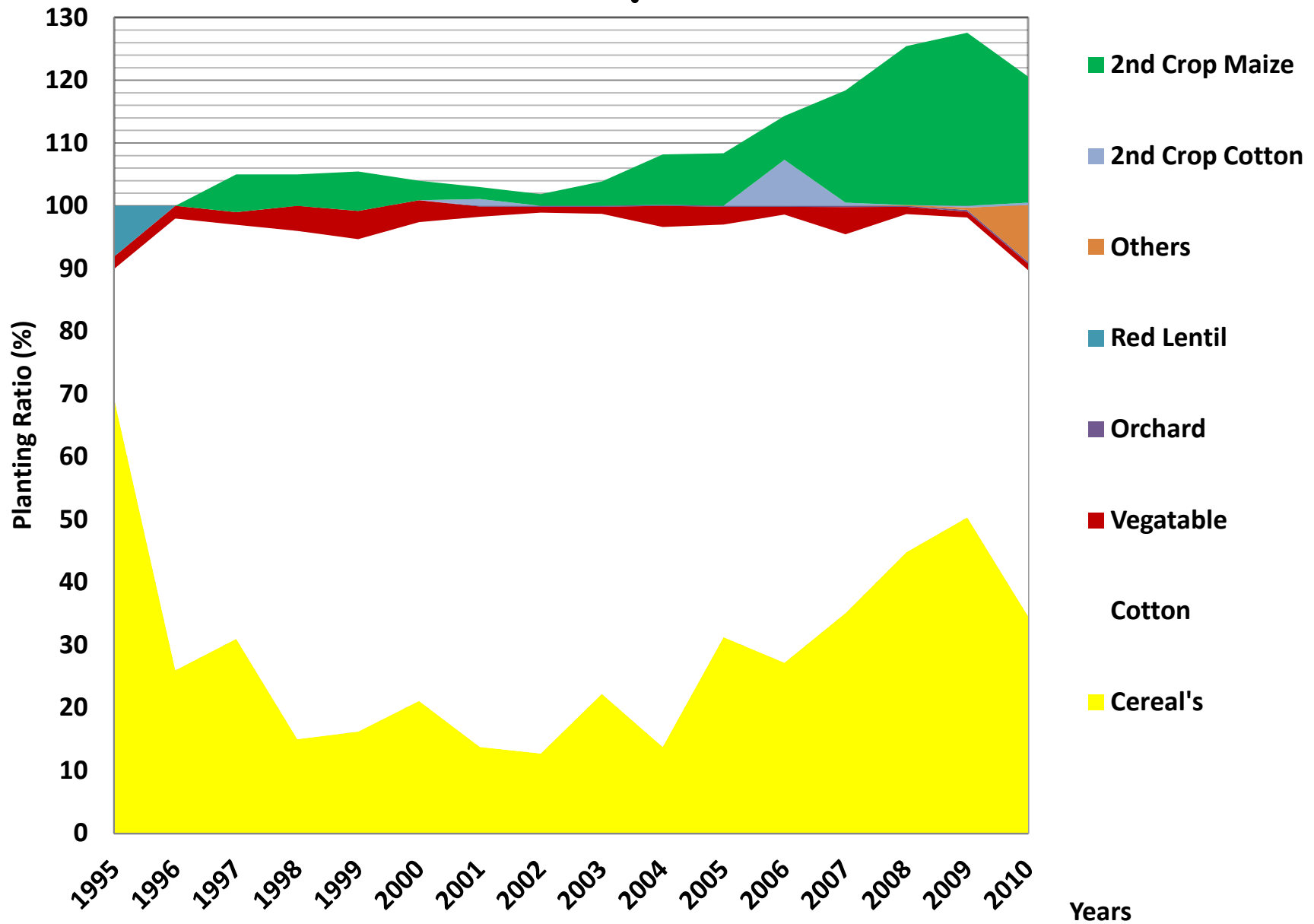
Distribution of Land Ownership in Sanliurfa in 2001



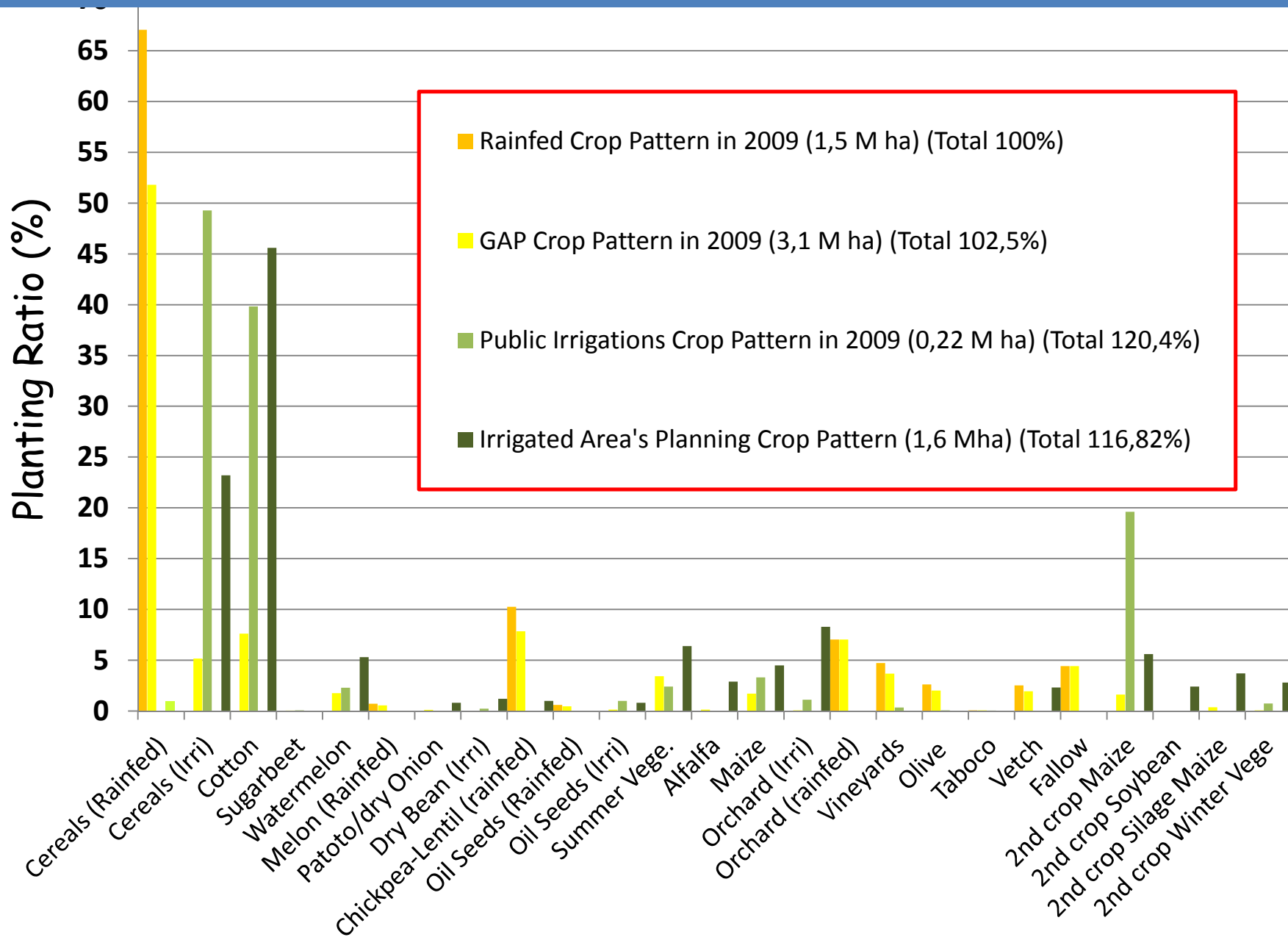
Distribution of Land Ownership in Harran Plain in 1998



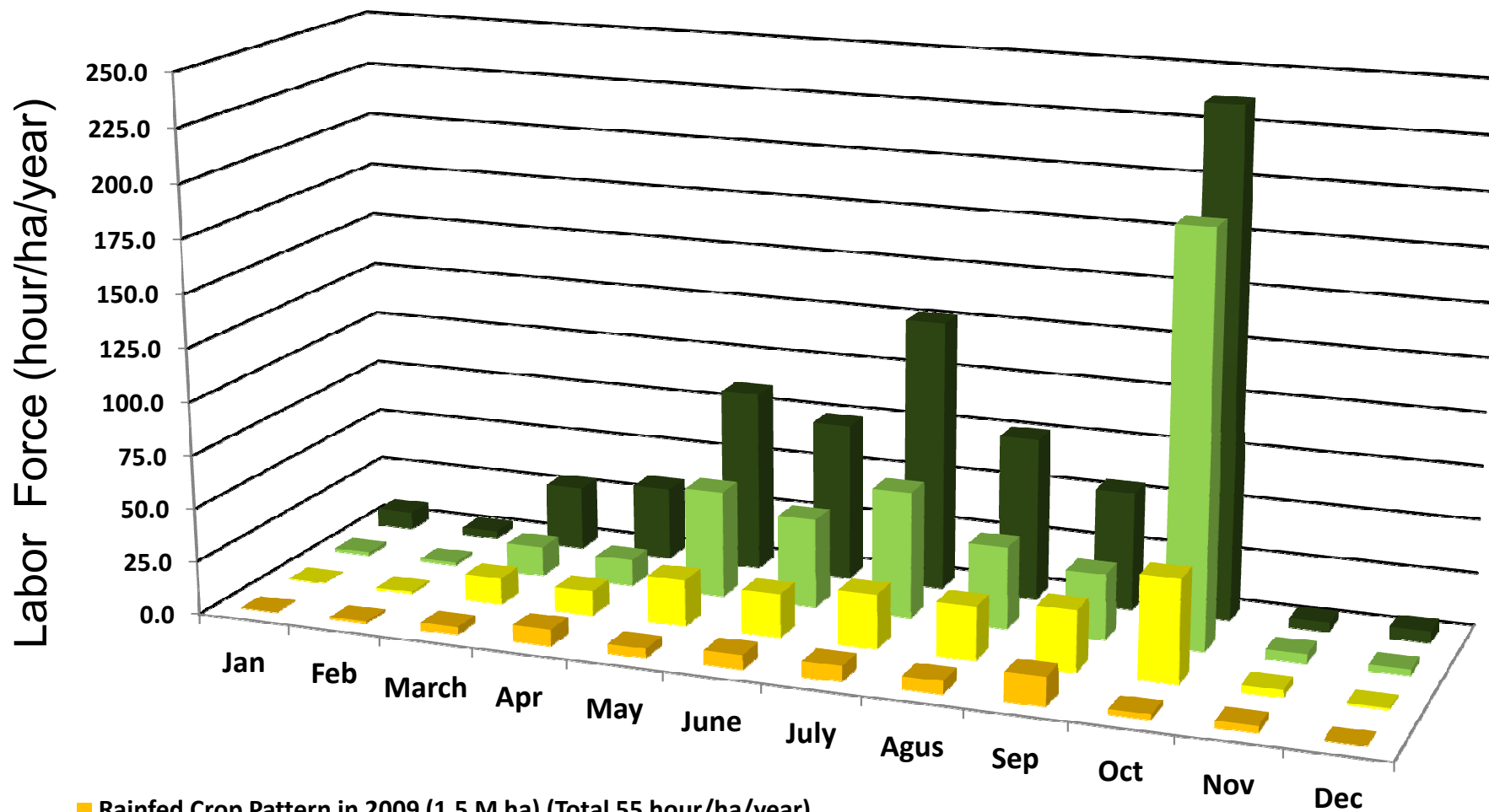
Harran Plain Crop Patern in Years



ALTERNATIVE CROP PATTERNS OF GAP REGION



AGRICULTURAL EMPLOYMENT in The GAP REGION



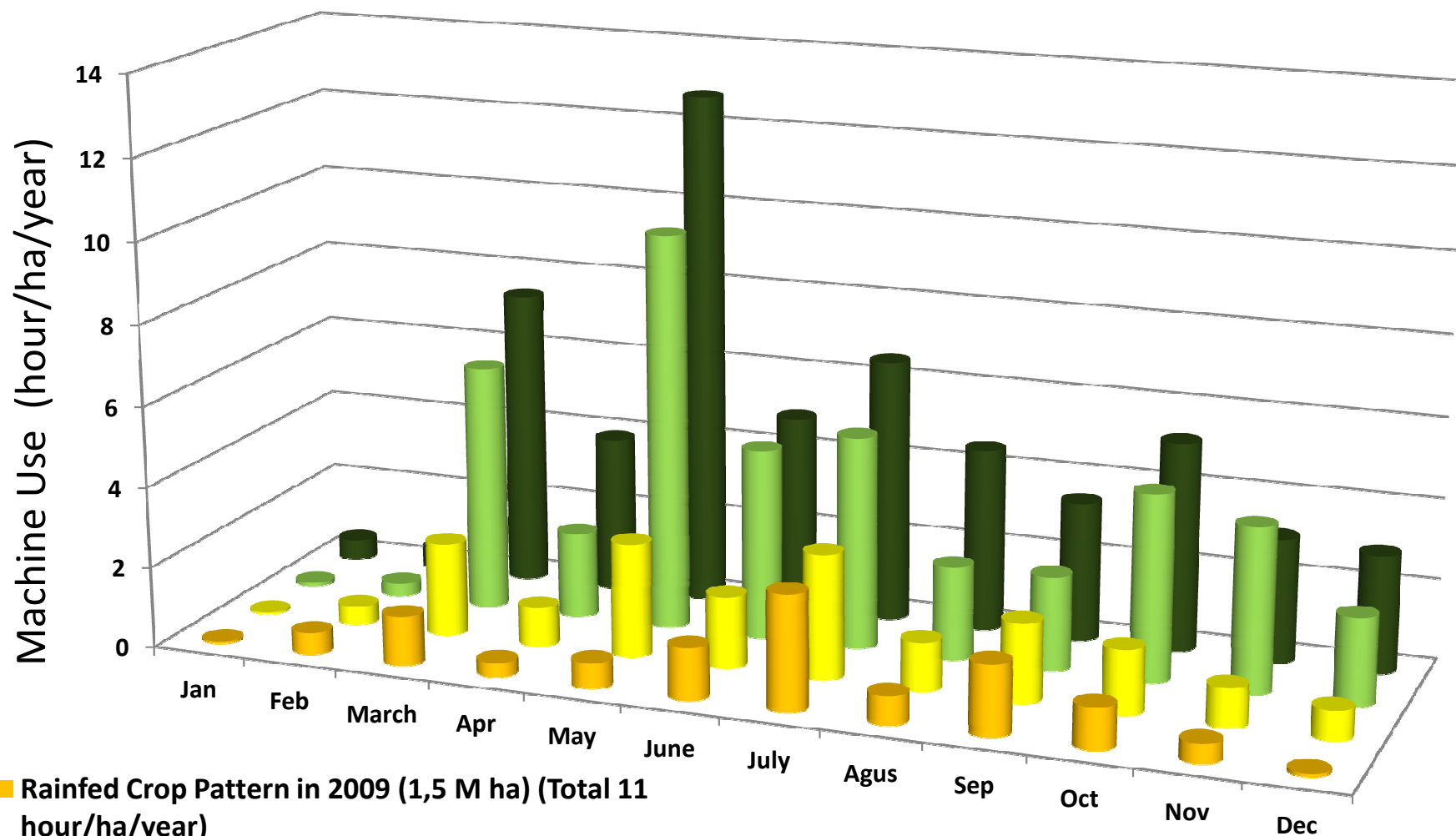
■ Rainfed Crop Pattern in 2009 (1,5 M ha) (Total 55 hour/ha/year)

■ GAP Crop Pattern in 2009 (3,1 M ha) (Total 198 hour/ha/y)

■ Public Irrigations Crop Pattern in 2009 (0,22 M ha) (Total 449 hour/ha/y)

■ Irrigated Area's Planning Crop Pattern (1,6 Mha) (Total 742 hour/ha/y)

AGRICULTURAL Machine Use in The GAP REGION



- Rainfed Crop Pattern in 2009 (1,5 M ha) (Total 11 hour/ha/year)
- GAP Crop Pattern in 2009 (3,1 M ha) (Total 18 hour/ha/year)
- Public Irrigations Crop Pattern in 2009 (0,22 M ha) (Total 44 hour/ha/year)
- Irrigated Area's Planning Crop Pattern (1,6 Mha) (Total 56 hour/ha/year)

Over use water in Harran Plain







Su iyi idare edilmez ise,



kıtlıktır

sıkıntıdır

yoksa;



risktir



felakettir





Portakal Sulamasi



Su iyi idare edildiğinde;



hayattır



bolluktur



berekettir



refahtır

