



*The Abdus Salam*  
International Centre for Theoretical Physics



## 2148-Presentations

### Fifth ICTP Workshop on the Theory and Use of Regional Climate Models

*31 May - 11 June, 2010*

The effects of future landuse change for the central region of Turkey on teperature  
and precipitation

G 12

# GROUP 12

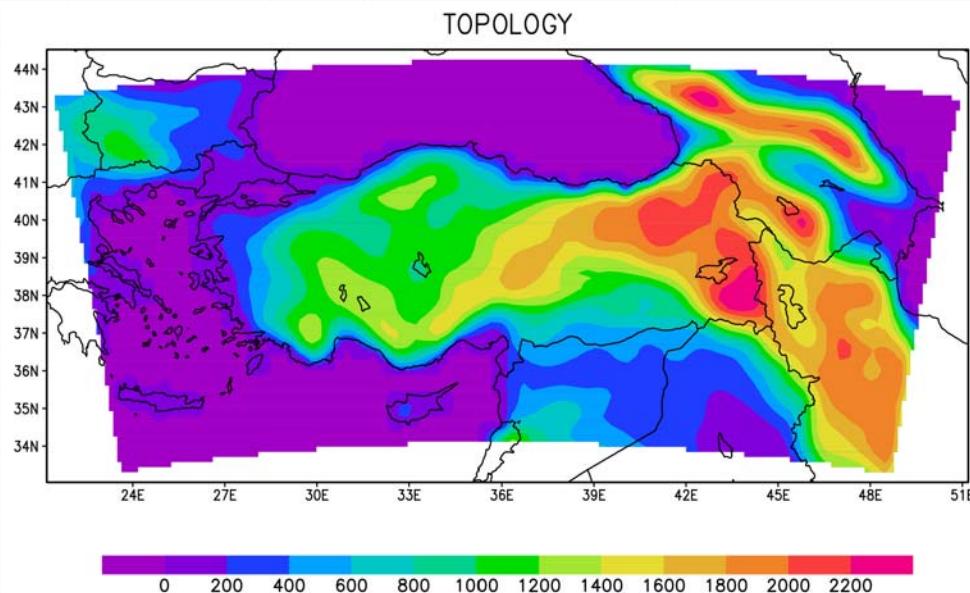
THE EFFECTS OF FUTURE LANDUSE  
CHANGE FOR THE CENTRAL REGION  
OF TURKEY ON TEMPERATURE AND  
PRECIPITATION

TUGBA OZTURK, LEVENT KURNAZ, JEAN PIERRE

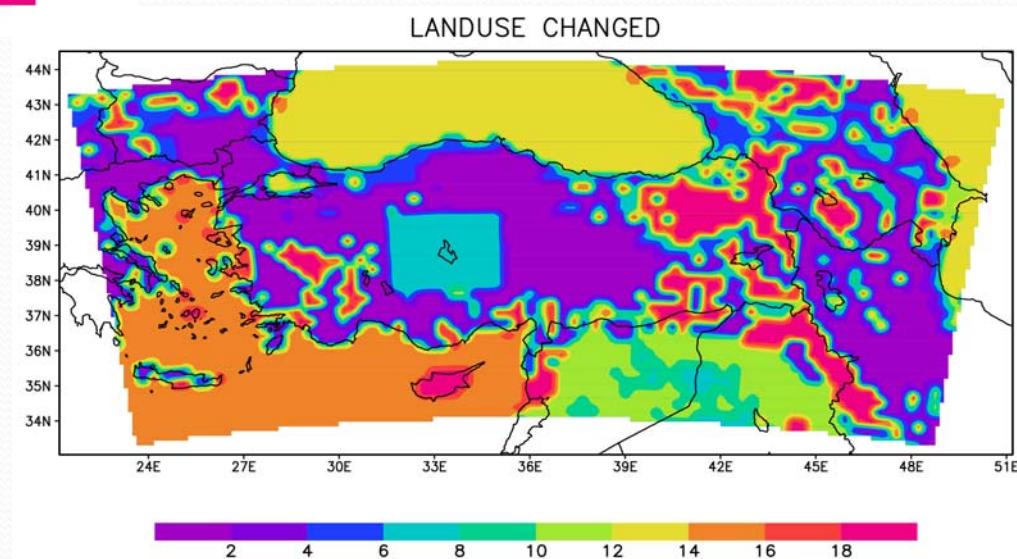
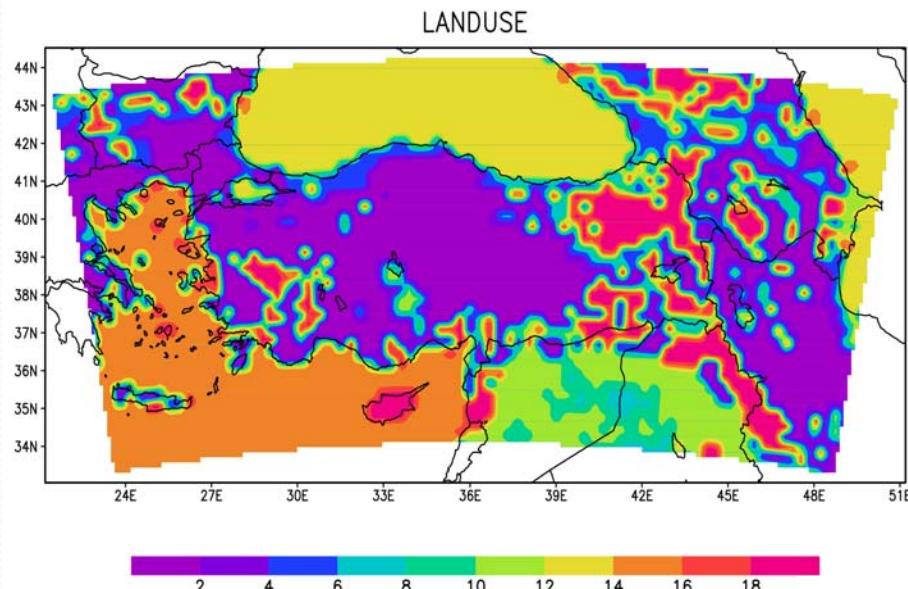
- Parameters:
  - clat=39.00N
  - clon=36.00E
  - iy=40
  - jx=80
  - ds=30 km
  - iproj=LAMCON
  - ssttyp=OI\_WK for present run, EHA1B for future run
  - dattyp=EIN15 for present run, EH5OM for future run.

- 1990 Summer control run
- 2070 Summer future run
- Grell Cumulus convection scheme
- Fritsch & Chappell (1980)-Grell Scheme Cumulus closure scheme.

# TOPOLOGY OF TURKEY

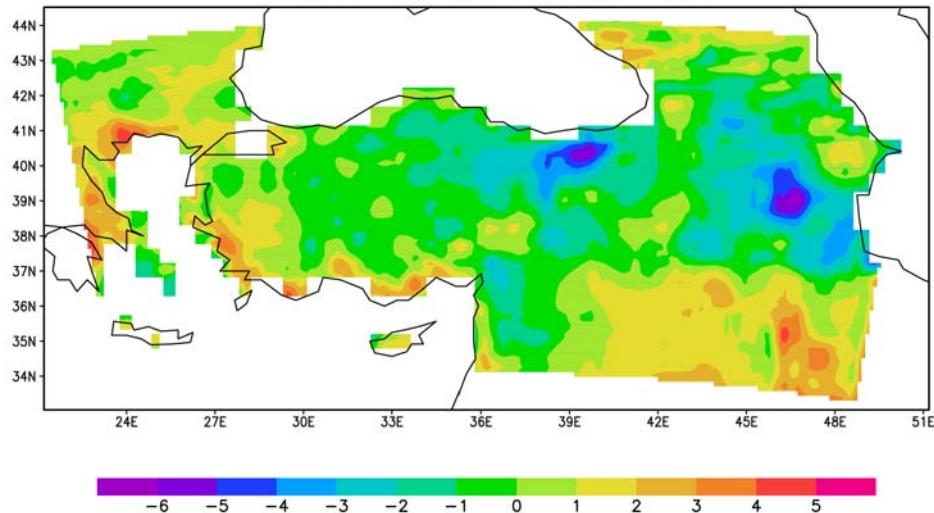


# PROJECTED LANDUSE CHANGE

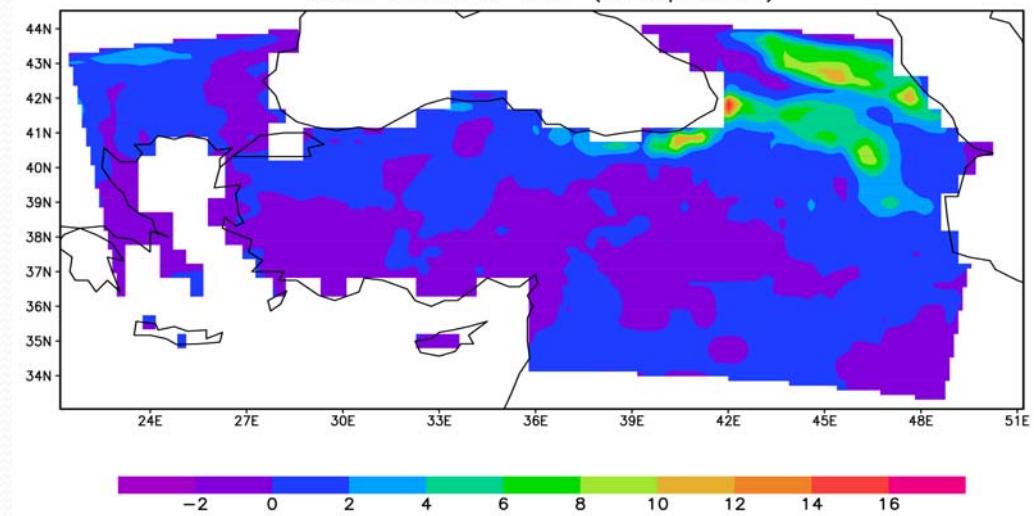


# 1990-CRU COMPARISON

TEMPERATURE 1990-SUMMER – CRU

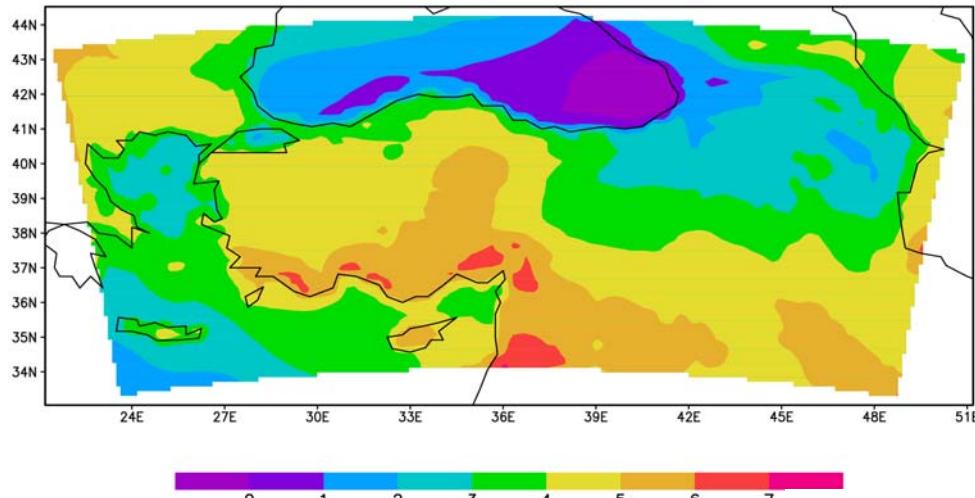


1990 SUMMER-CRU (Precipitation)

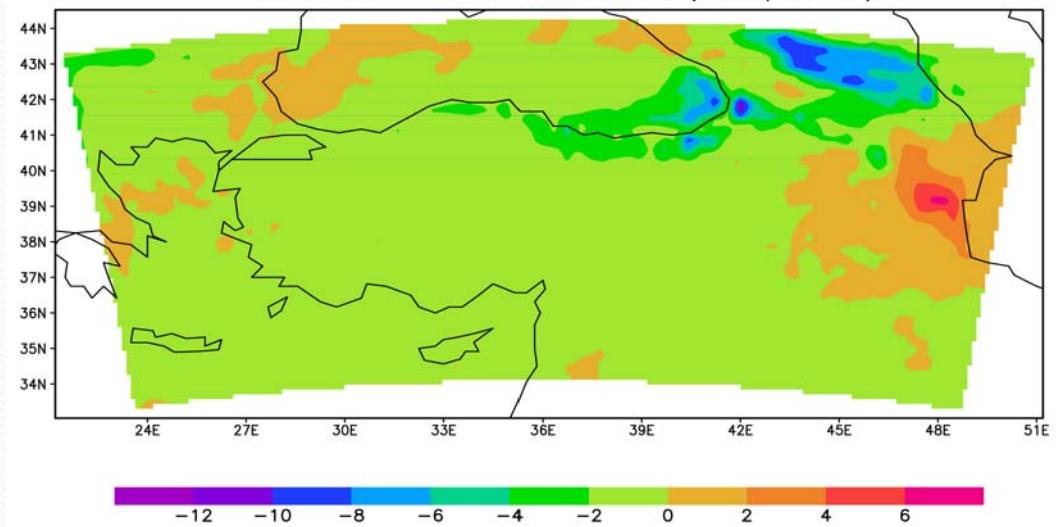


# 2070-1990 COMPARISON

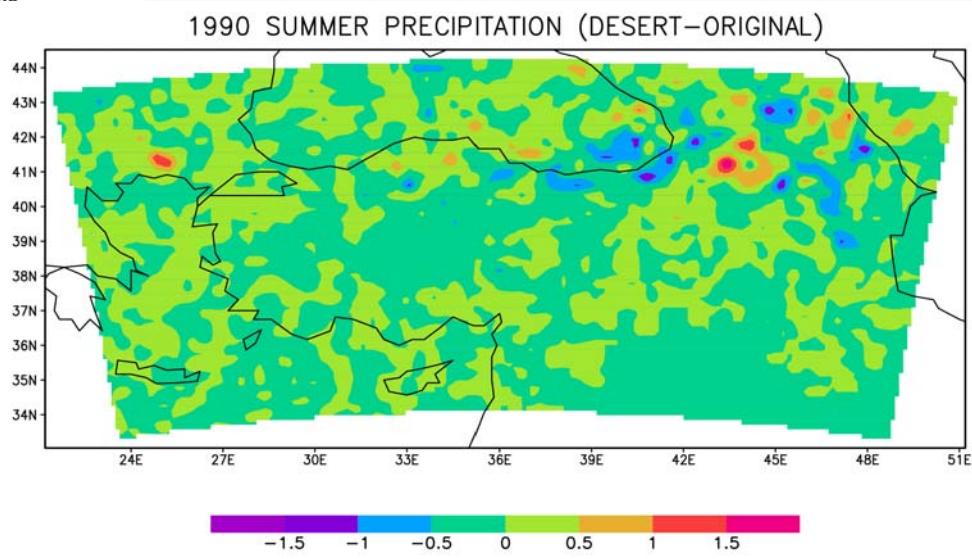
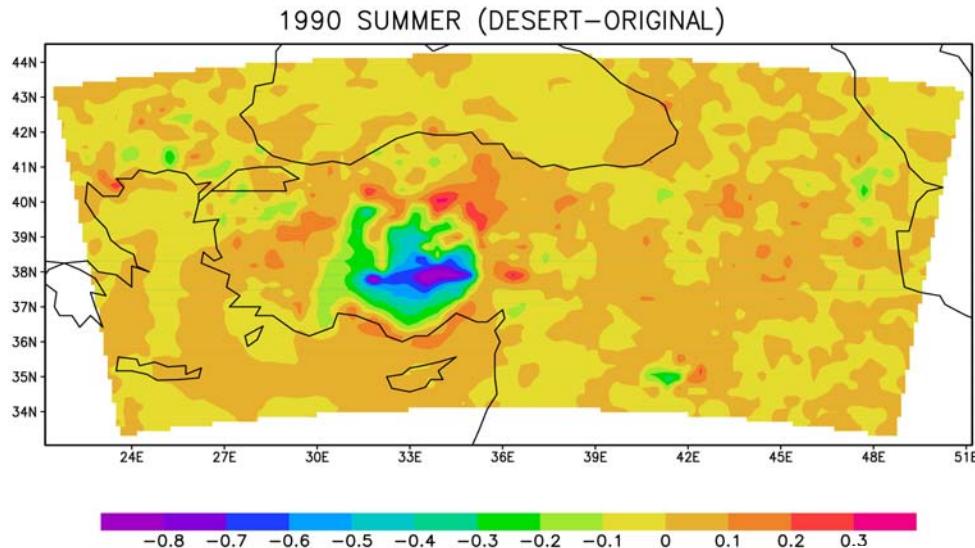
2070 SUMMER – 1990 SUMMER



2070 SUMMER – 1990 SUMMER (Precipitation)

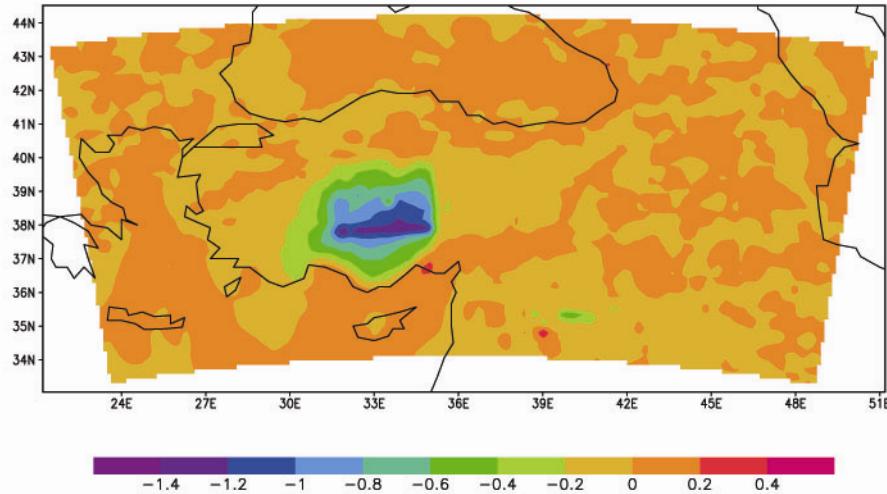


# 1990 LANDUSE COMPARISON

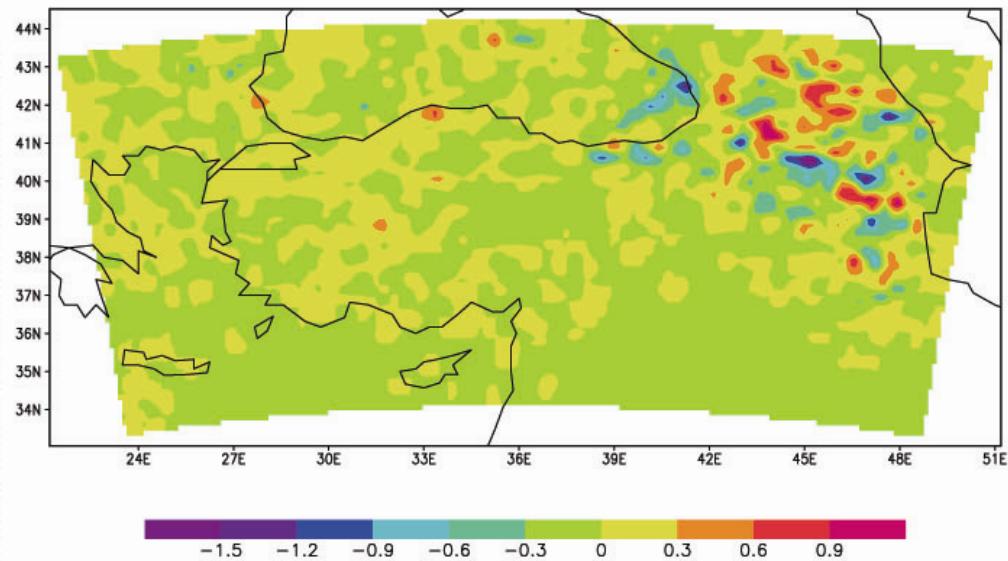


# 2070 LANDUSE COMPARISON

2070 SUMMER SEASON LANDUSE CHANGED – ORIGINAL

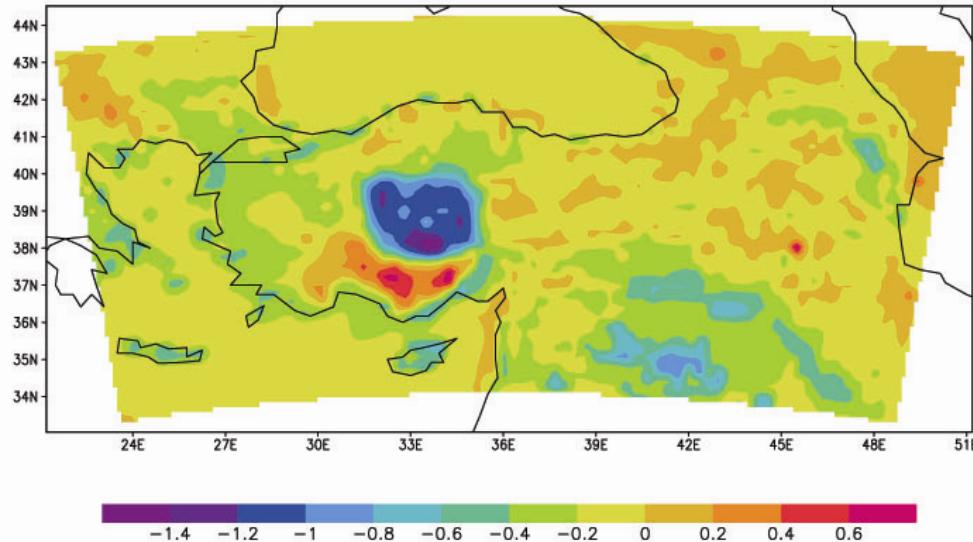


2070 SUMMER SEASON PRECIPITATION LANDUSE CHANGED – ORIGINAL



# 2070 LANDUSE ANOMALY

2070 SUMMER (FOREST-ORIGINAL)



2070 SUMMER (FOREST-ORIGINAL) PRECIPITATION

