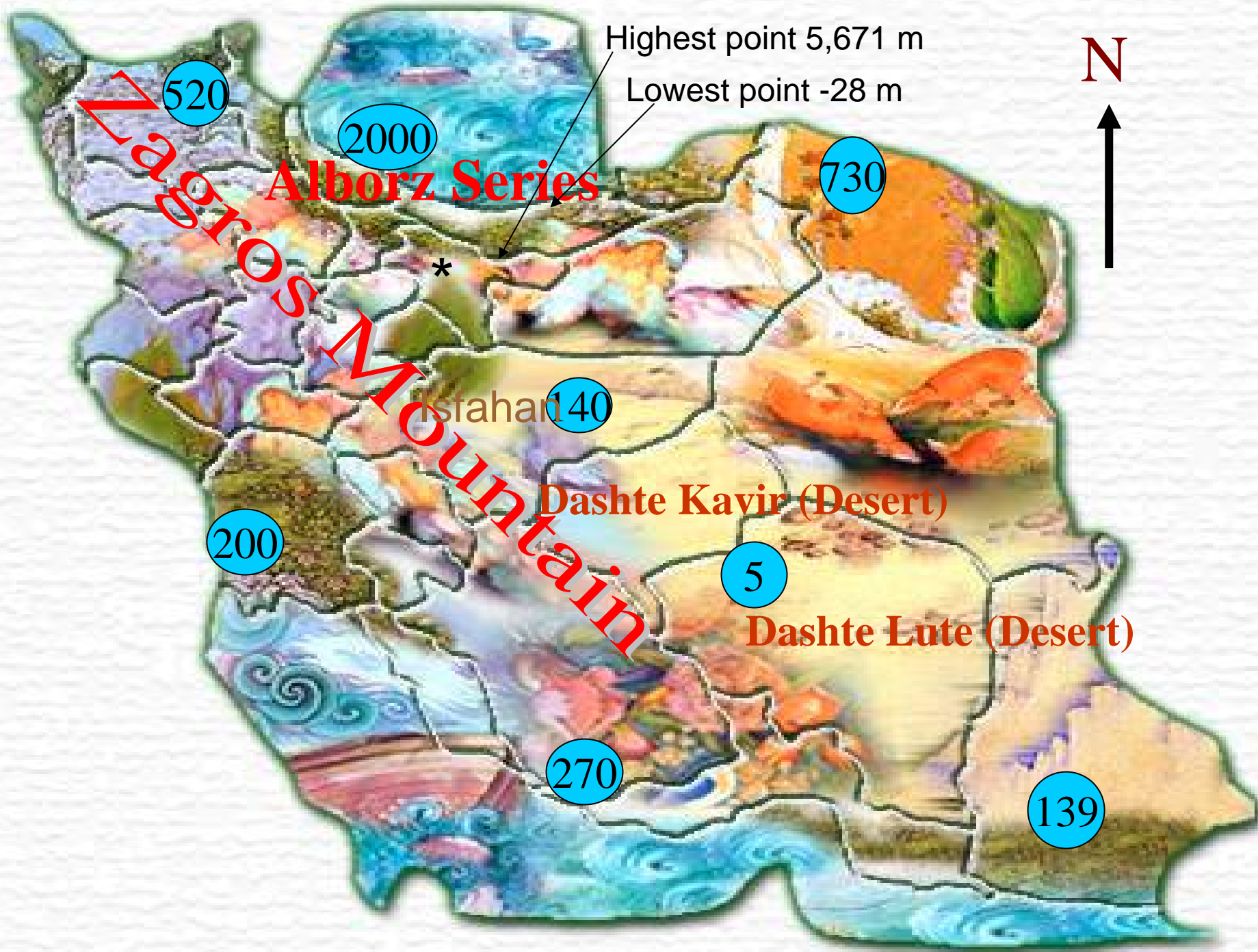


# SWAT Application in Iran

Majid Afyuni



Isfahan University of Technology



Highest point 5,671 m

Lowest point -28 m

520

2000

**Alborz Series**

730

\*

Isfahan 140

**Dashte Kavir (Desert)**

200

5

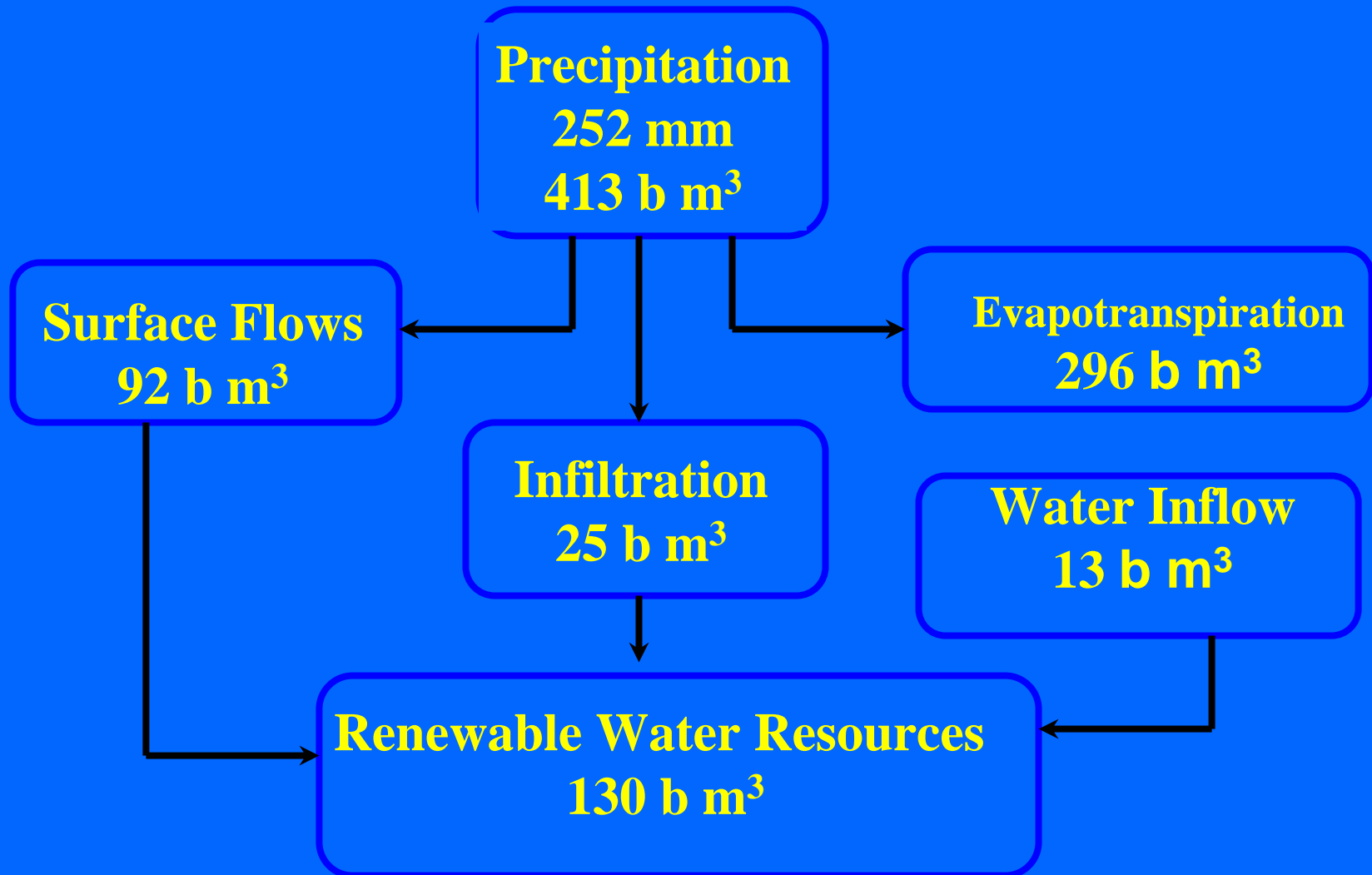
**Dashte Lute (Desert)**

270

139

**Zagros Mountain**

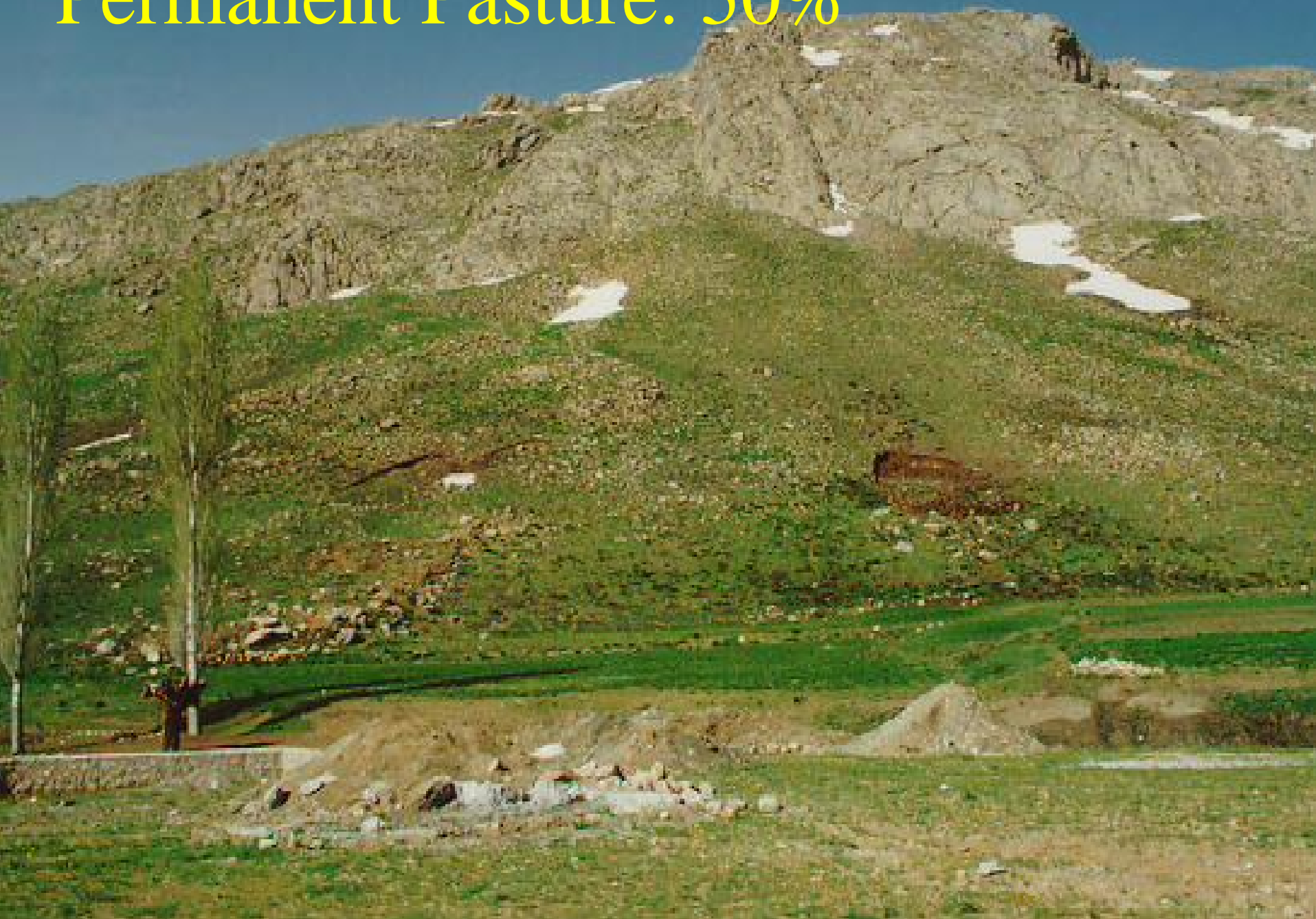
# Water Resources of Iran



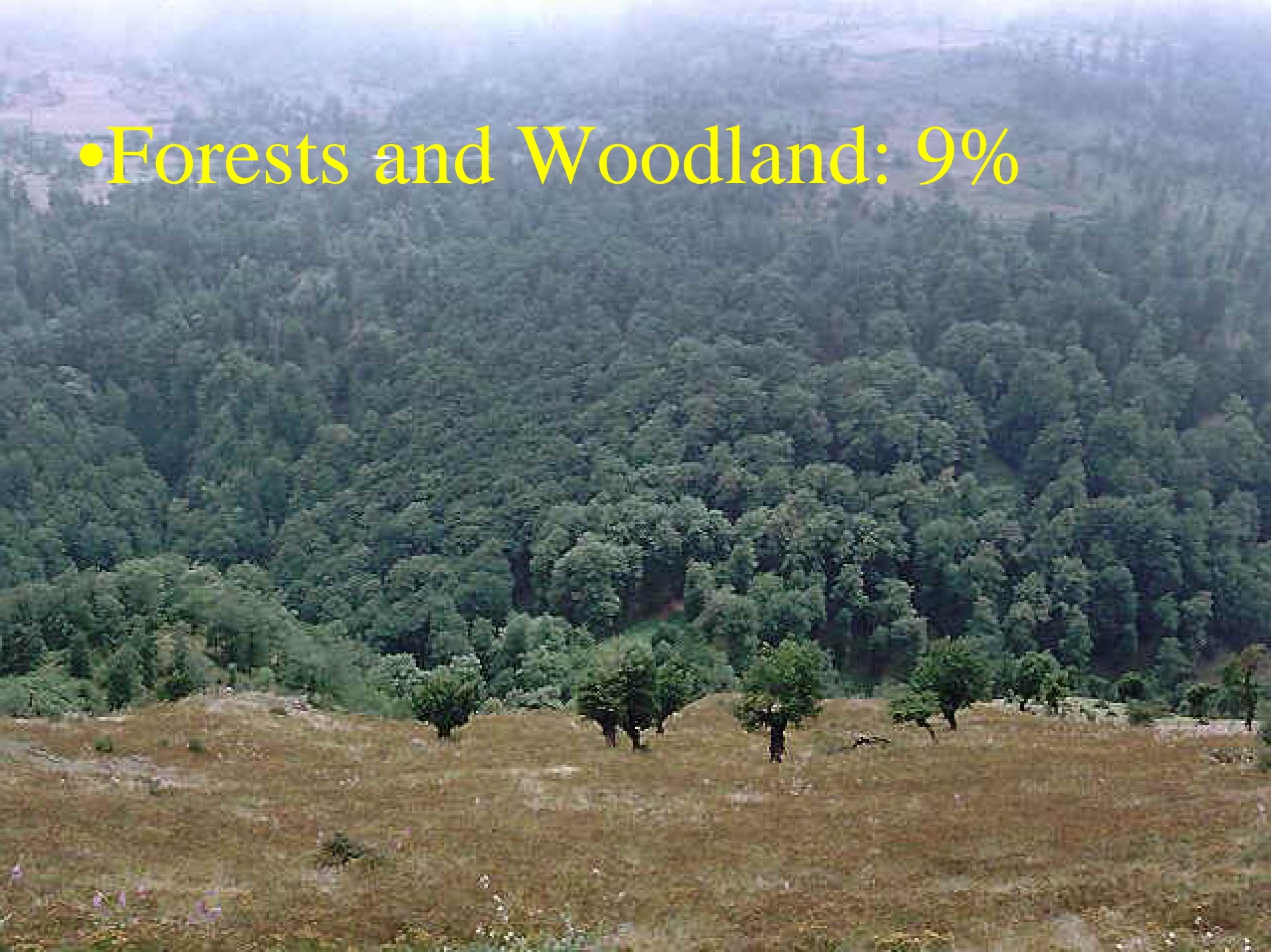
# LAND USE

- Total Area: 1,648,000 km<sup>2</sup>
- Agricultural land: 11%

Permanent Pasture: 50%



- Forests and Woodland: 9%



•Other Land : 30%



**FAO reports that about 36% of total land and 60% of the agricultural soils in Iran are in danger of erosion.**

- Cultivation of steep slopes**
- Deforestation**
- Wind erosion**
- Water erosion**



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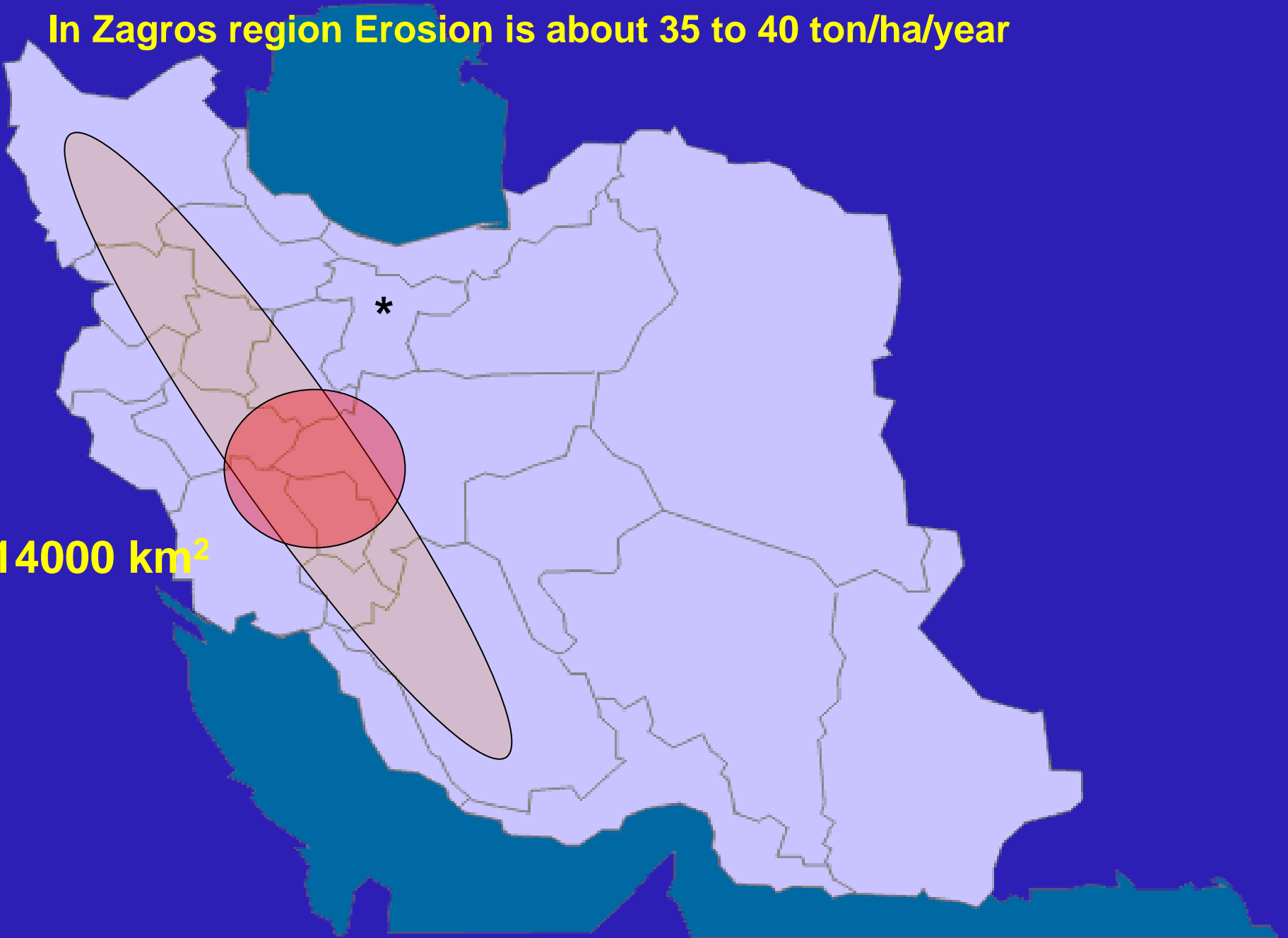
Region	Soil Erosion (ton/ha/year)
Asia, Africa, S. America	30-40
USA, Europe	13-17
Iran	30-32

---

The average erosion in Iran is about 4.3 times of the global

**In Zagros region Erosion is about 35 to 40 ton/ha/year**

**14000 km<sup>2</sup>**



**Deforestation has decreased the productivity of forest lands in central Zagros.**



# Conversion of range land to dry farming land





March 25, 2004  
Lausanne, CH

## **The following data is available for central Zagros region;**

**Land use at  
Soil map  
DEM  
Land cover  
Soil Erosion Map**

### **Climate data:**

**Rainfall, monthly and for some station daily data for the last 30-yr  
Max and Min Temperature  
Solar Radiation  
Relative Humidity  
Pan Evaporation  
Wind**

### **Hydrological Data:**

**Water and Sediment Load**