Drought Management in Central Part of Turkey

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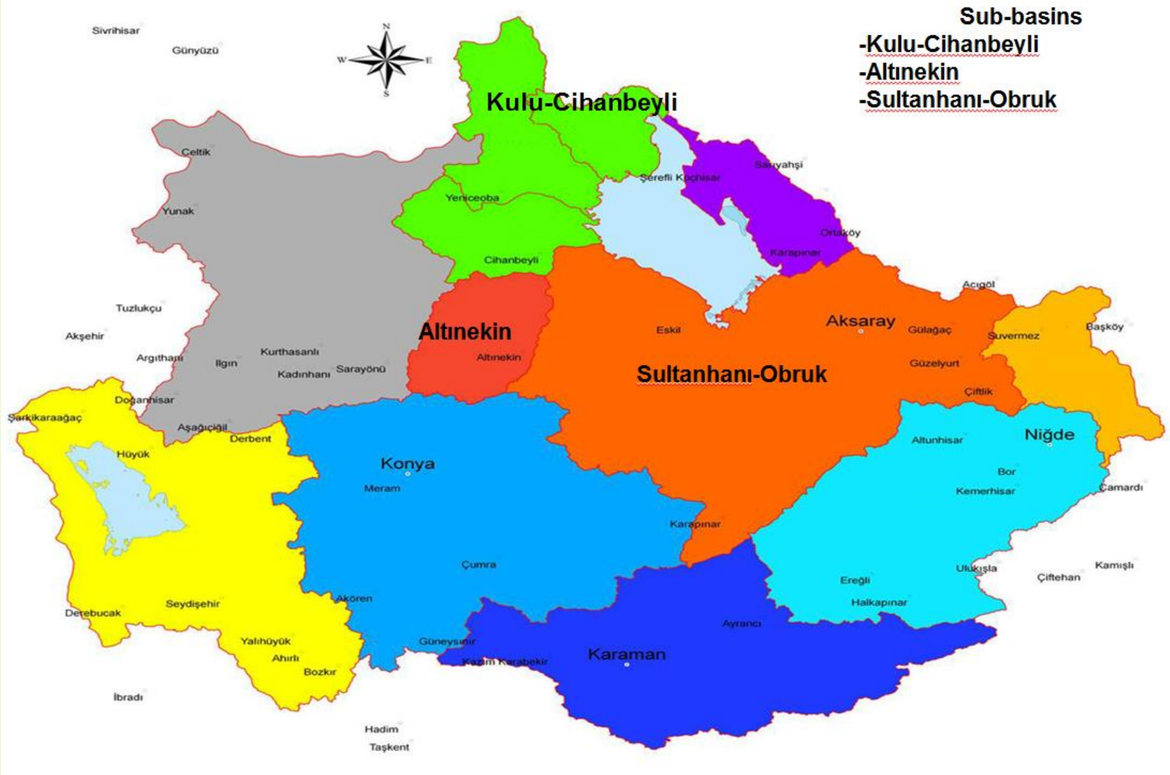
Drought Management in Central Part of Turkey with special reference to recent drought effect experienced on water resources

The central part of Turkey receives the least precipitation. Successive drought years with lack of fresh water turn the situation into drought disaster. Being located in the central part of Turkey, Tuz Lake has no outflow. Irrigated agriculture is mainly responsible for depletion of water since their agricultural activities use most of the water consumed in the catchment area. Groundwater in the catchment area is not enough for agriculture, domestic and industrial water supply and natural environment during the summers of drought years. The ground water is excessively used in irrigated agriculture. This study aims at defining problems around Tuz Lake and proposes solutions to these problems.

The Second ring: Tuz Lake Catchement Area (18,560 km²=1,865 Mha)



Conclusion:

To save water in agricultural irrigation, 2 applications are proposed; the first one is to shift modern irrigation methods. The second one is to discourage crop requiring more water and encourage cultivating crops.

Aridity Assesment of Turkey
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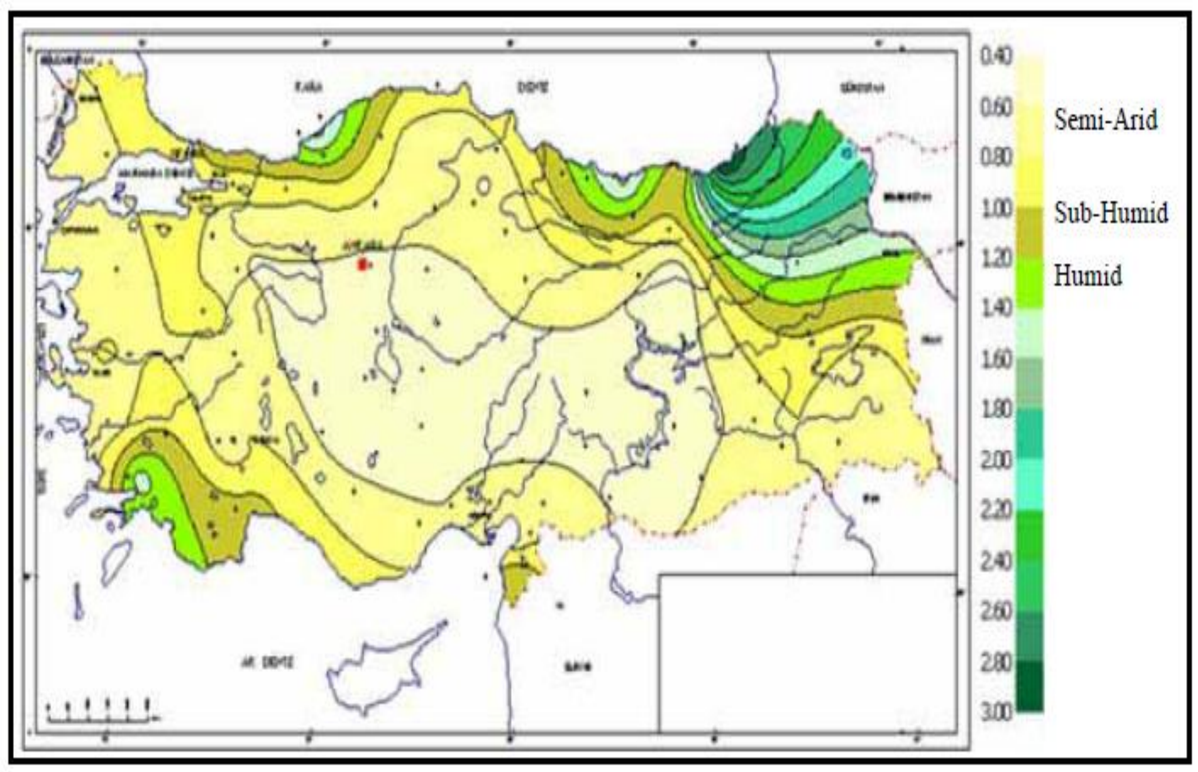

Method:

Existing water storages and existing irrigated area have been analyzed. Existing ground and surface water usage has been calculated. Thus excessive ground water has been assessed as per allocated amount of groundwater. The tables have been prepared to demonstrate the real time agricultural irrigation.

Caption (Arial, 20pt, Italic): Title of the item above:

Sub basin	Potential Water Reservation	De facto Water Withdrawal (hm³)						Remaining water (hm³)
		Cooperative Wells	Wells with license	Wells without license	Additional wells	Water supply	Total	
Sultanhanı-Obruk	435	186	275	306	31	20	818	-383
Altınekin	74	11	86	38	-	5	140	-66
Kulu-Cihanbeyli	70	8	53	73	-	5	139	-69
Total	579	205	414	417	31	30	1097	-518