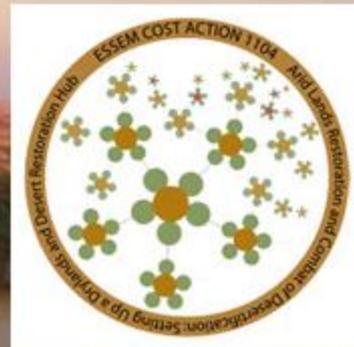




LAND DEGRADATION/DESERTIFICATION AND EXAMPLES OF STUDIES ON COMBATING WITH LAND DEGRADATION/DESERTIFICATION IN TURKEY

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Desert Restoration Hub
Arid Lands Restoration and Combat of Desertification





There are not any deserts in Turkey however significant desertification risk is present

The main reason for desertification in Turkey is erosion.

***Erzurum
Rangeland
Water Erosion***

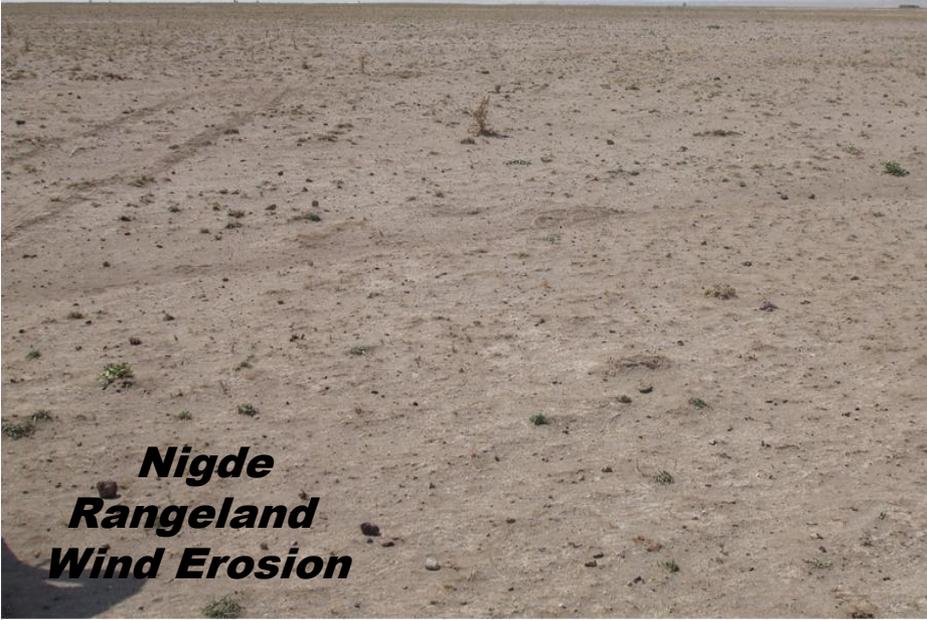


***Forest
Water Erosion***

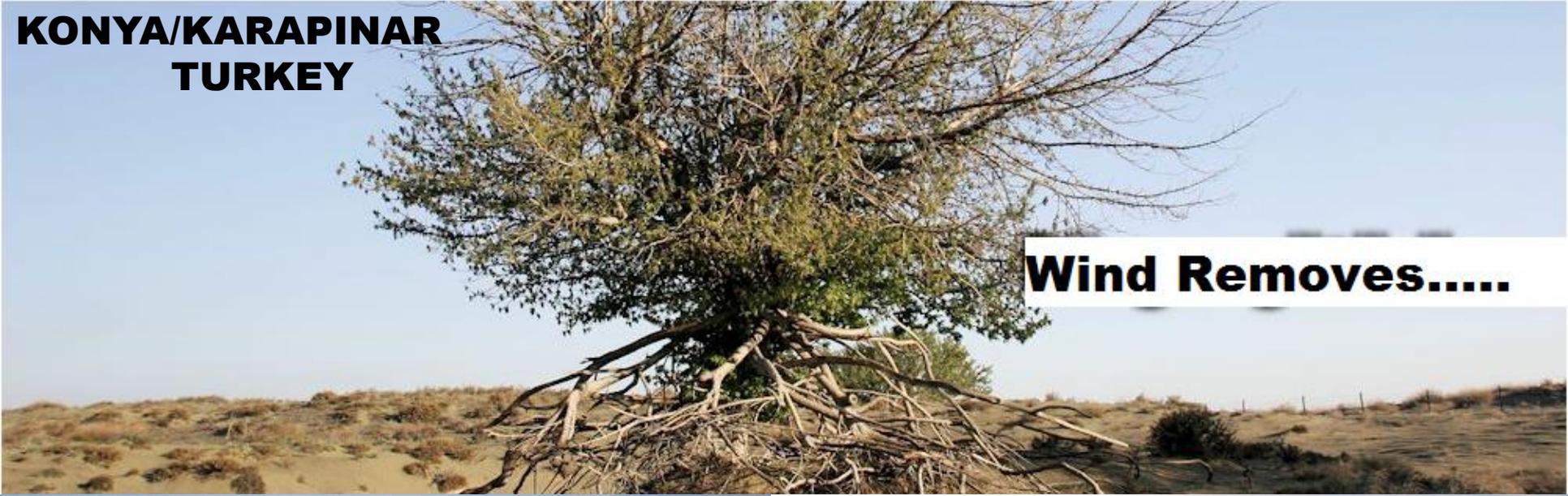
***Sanliurfa /Crop Field
Water Erosion***



***Nigde
Rangeland
Wind Erosion***



**KONYA/KARAPINAR
TURKEY**



Wind Removes.....



Wind erosion is common in the plains of the arid and semi-arid climatic regions

ISTANBUL- September 09/2009



Degradation of natural resources, over- and excessive grazing in rangelands, dispersed settlement, misuse of lands, rural poverty, lack of training on use of natural resources



February 15, 2014- NIGDE/TURKEY

Excessive use of water resources, particularly ground water in Closed Konya Basin





**Wrong
irrigation
techniques
resulted in
salinization**



31.08.2008 12:35

Nigde
15/07/2014

Improper agricultural techniques,



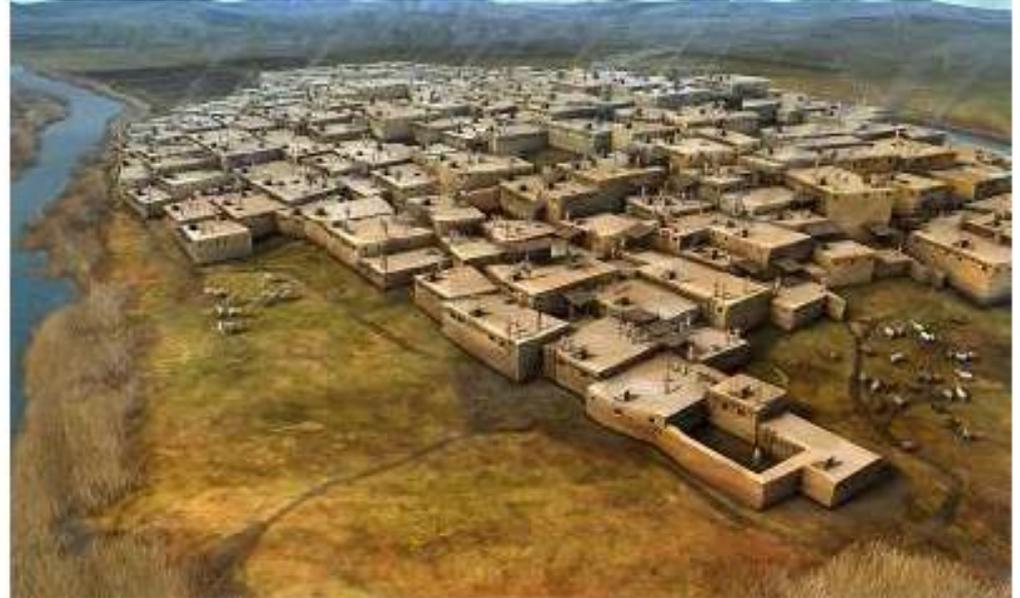
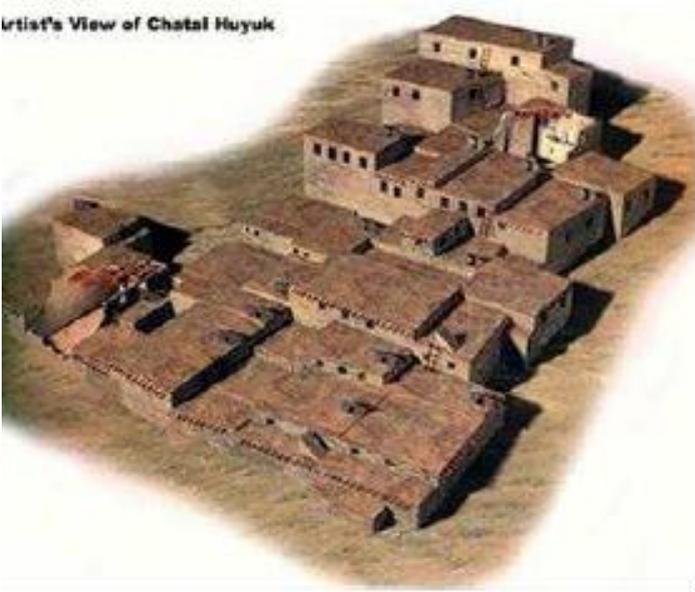
Corn grown in saline and boron toxic soils with severe compaction at surface



Nigde
15/07/2014

Because of the richness of its natural resources, Anatolia has been a multi-cultural civilization since the Neolithic. The overuse of the land without sustainable planning has caused the occurrence of degradation eventually leading, to a reduction in productivity, and even, to the loss of the soil.

Artist's View of Chatal Huyuk

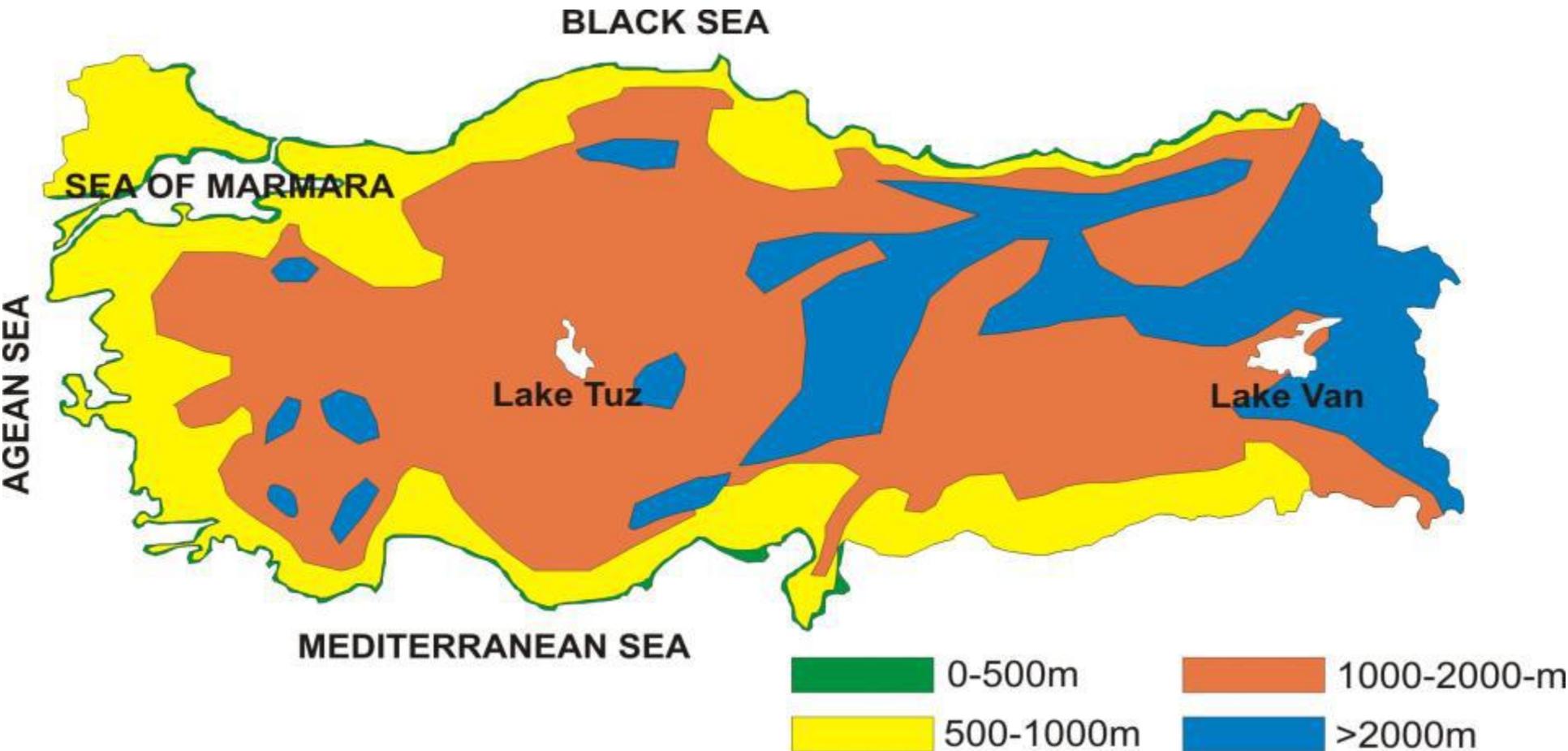


Çatalhöyük (9000 years ago) and population was 10000



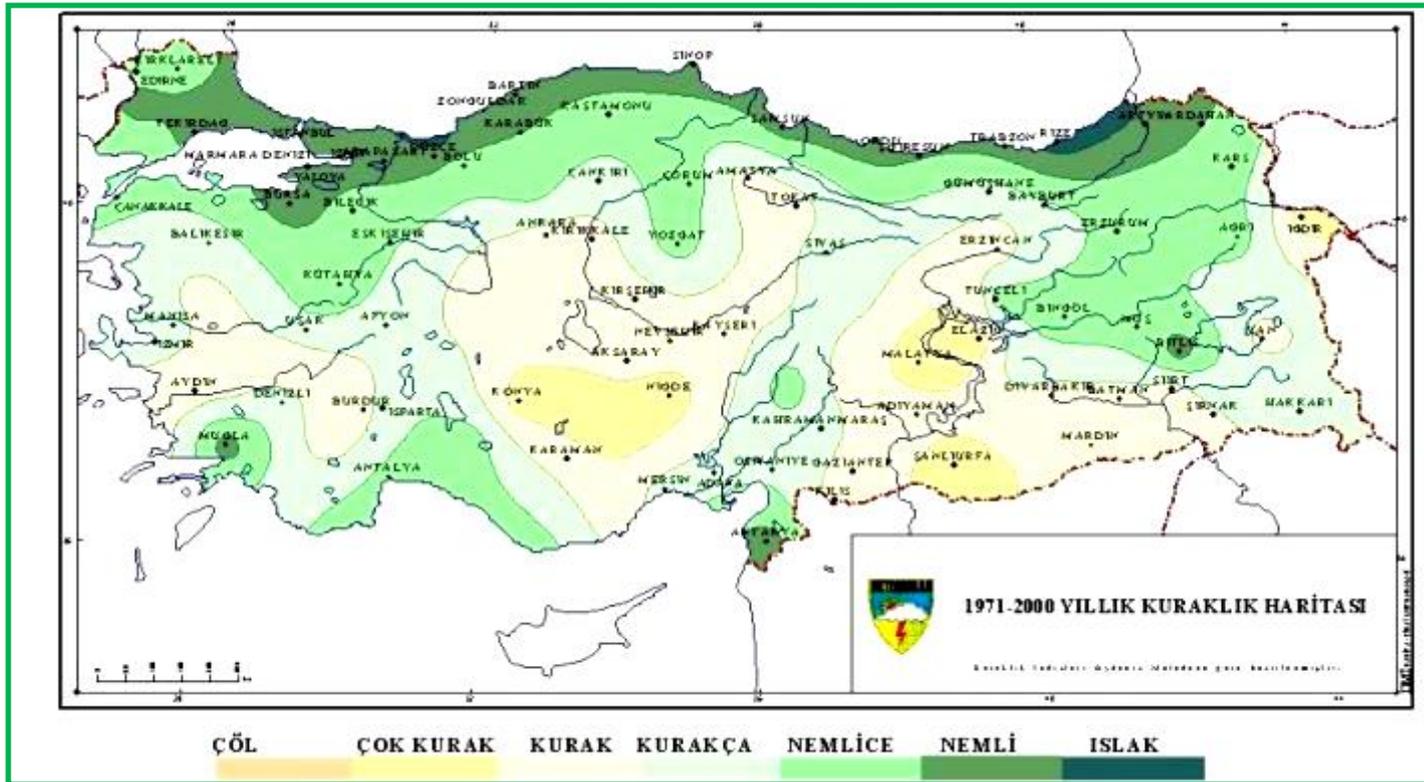
OVERVIEW OF TURKEY

Land of Turkey is very sensitive for desertification, due to her climate, topography, soil characteristics and human activities.



Turkey's average altitude is 1,132 m whereas Europe's average altitude is 330 m. 46% of the total land has slope more than 40%, 62.5% of the total land has slope more than 15%.

CLIMATE OF TURKEY



Annual
Precipitation
Average:
632mm

Rize:2269mm

Iğdır:231mm

Arid and semi-
arid lands in
Turkey cover
51 million
hectares.
(65%)

The precipitations are usually insufficient and irregular.

Combating Desertification

One of the main reason and consequence of desertification is **rural poverty.**

Therefore, combatting with desertification can only be achieved initially by removing the socio-economic pressure and fixing the bio-physical factors causing the degradation.



ABONDONED VILLAGE





“General Directorate of Combating Desertification and Erosion” was established at 2011.

Duties of General Directorate of Combating Desertification and Erosion

- 1. watershed scale projects for soil conservation and developing natural source,**
- 2. prepare and put into practice national and regional plans about combating desertification and soil erosion at watershed scale,**
- 3. monitor implementations, on a project basis provide support to these activities,**
- 4. identify policies and strategies related to desertification,**
- 5. ensure cooperation and coordination between related institutions and organizations.**
- 6. to carry out activities of researches and developments, national and international training, publications and promotional activities with the Universities research and development organizations**



Karapınar 1949



KARAPINAR 2013

Successful attempts were implemented by related institutions to deal with the threat of sand burial, in the wind erosion prevention area in **Konya-Karapınar in Central Anatolia, in the “**Eastern Anatolia Watershed Rehabilitation Project**” area, and I **n the “Sand Dune Rehabilitation area in Akyatan-Adana”.****



**Artificial
Fences
Against
Wind
Erosion:
Very
effective
mechanical
method**



**Physical
and plant
measures
applied
together
to stop
sand
movement**





**KARAPINAR
2013**



Sand Stabilization -Fethiye



BEFORE



Iğdır-Aralık

AFTER



Combating Against Wind Erosion

Perennial forage crops for sand dune stabilization activities.



Production of Seeds and Seedlings



- ✓ **500 different species which are resistant to climate change and extreme conditions were determined**
- ✓ **Now, about 500 million seedlings are produced each year in the nurseries of Ministry.**

Turkey's Forest increases



In Turkey, in the last 3 decades,

Forest area increased 6 %,

Total growing stock increased 40 %.

The goal of Turkey is to increase forest area up to 30% till 2023

Afforestation, erosion control, rangeland rehabilitation and degraded forest rehabilitation works were accelerated with the aim of **combating desertification.**



**Conservation forests were established for protection of catchments.
In these areas any practice that may degrade the soil is not allowed.**



National Afforestation and Erosion Control Campaign National Plan was prepared and put into practice.



- **Appropriate methods are being used in catchments' afforestation studies to increase water quality and quantity.**



Greenbelt Afforestation - Kahramanmaraş



BEFORE



- ❖ Each year in Turkey, 500 million seedlings are produced at average from 500 different species.
- ❖ Diversity in seeds and seedlings were increased.

An area which was a seriously eroded improved by plantation of tree/bush



AFTER

BEFORE



AFTER

AFFORESTATION OF DAM CATCHMENT - ISPARTA

Participation of local people on the decision making and implementation of activities is the core element of National Action program.



While dealing with environmental problems of a country, the opportunity of success would be high, provided that local citizens participate (social sensitivity).

Community Participation in Afforestation



In order to raise public awareness and provide information;

various films, posters, brochures and printed documents, panels, classes for students at schools, sport tournaments, photograph exhibitions, special stamps and activities, etc. have been prepared.

**Genetic resources are identified in order to protect biological diversity,
These information is collected in the National Biodiversity Data Base and genetic resources are taken under protection.**



The Identifying, Transferring and Cultivation of Endemic Plant Species which Remained Beneath the Artvin-Deriner Barrage Lake Project.

INTERNATIONAL RELATIONS

Our country continues to share knowledge experiences in this area with experts of the Balkans, the Caucasus, Central Asia, Africa and neighboring countries.



***THANK
YOU...***

