Department of Soil Conservation and Watershed Rehabilitation

Forestry in Turkey and Torrent Control Activities
Turkey is located in the northern hemisphere where the two continents, Europe and Asia meet.

The population is about 81 million.
Area of country : 77.8 million hectares
Turkey has rough geomorphologic landscape structure.

- 46% of Slope degree is more than 40%
- 80% of Slope degree is over 15%.

Turkey’s climates is semi-arid and rains are seen irregular and rain type is sees as shower.
FOREST EXISTENCE IN TURKEY
TOPOGRAPHIC STRUCTURE
EROSION LEVELS

- **Heavy Erosion**: 50%
- **Moderate Erosion**: 27%
- **Highly Heavy Erosion**: 23%

**Moderate Erosion**: 15,593,750 (ha)
**Heavy Erosion**: 28,334,932 (ha)
**Highly Heavy Erosion**: 13,321,203 (ha)
Totally 22.3 million hectares of forest land which comprises 27% of national territory.

Over 99% of the forests are state-owned.

Forest land is composed of 60% coniferous and 40% of broadleaved tree species.

7 million people live either in forests or nearby forests.
Annually:

- 50,000 ha Plantation,
- 80,000 ha Erosion Control,
- 100,000 ha Rehabilitation,
- 10,000 ha Rangeland Rehabilitation,
- 1,000 ha Mining Field Rehabilitation,
- 100 Projects Plantation in Dams,
- 50 Projects Torrent Control,

GDF’s WOKRING REGIONS

- Any field that is either in Forest boundaries or out of Forest boundaries
- River Watersheds
GDF’s WORKING REGIONS

- Rangelands that in Forests or nearby Forests
- Plantation around Dams and Ponds
• Fields that are under risk by Erosion, Avalanche and Torrent
Total 1,444,844 ha.
Erosion Control Practices were implemented.
3 Project plans were prepared to be leading how to conduct future projects on Plantation and Erosion Control between 2013-2019

- Plans includes;
- Rehabilitation of degraded areas, plantation and erosion control
- Taking care of works that were made previous following year
- Research and developing projects,
- Education, publicity and improving capacity activities
335 river watersheds were marked to be worked for torrent control in purpose of reducing lost of lives and preventing possible damage to public.

252 torrent control projects were fulfilled; although, there are 227 foreseen projects between 2013 – 2017
## Facilities Used in Flood Prevention

<table>
<thead>
<tr>
<th>SLOPE REHABILITATION FACILITIES</th>
<th>GULLY REHABILITATION FACILITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Terraces</td>
<td>- Diversion ditches</td>
</tr>
<tr>
<td>- Terraces Made By Labor Force</td>
<td>- Discharging canals</td>
</tr>
<tr>
<td>- Machinery Terraces</td>
<td>- Industrial Facilities</td>
</tr>
<tr>
<td>- Secchi terraces</td>
<td>- Dry stone Wall sills</td>
</tr>
<tr>
<td>- Terraces made by excavators</td>
<td>- Check dam(Mix sill)</td>
</tr>
<tr>
<td>- Terraces made by rubber tyred excavators</td>
<td>- Biological Structures</td>
</tr>
<tr>
<td>- Knitting fence</td>
<td>- Knitting Living sills</td>
</tr>
<tr>
<td>- Line grass planting</td>
<td>- Knitting living sills with fascine</td>
</tr>
<tr>
<td>- Other facilities (Lattice wire fence, Stone cord etc)</td>
<td>- Other Facilities</td>
</tr>
<tr>
<td></td>
<td>- Fascine Earthbag dike</td>
</tr>
<tr>
<td></td>
<td>- Perforated Metal Sheets</td>
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<tr>
<td></td>
<td>- Lattice wire sills</td>
</tr>
</tbody>
</table>
VIEW OF ACTIVITIES

Flowing Terrace

Stone Cordon Wall
VIEW OF ACTIVITIES

Terrace

Terrace With Mini Excavator
Dry stone wall sills

Bag dike
VIEW OF ACTIVITIES

Lattice wire sill

Check dam sill
VIEW OF ACTIVITIES

Knitting sills

Lattice wire fence terrace
APPLICATION EXAMPLES

İskilip Bayat Çayı Sel Kontrol  2016  /  650 Ha

Vezirköprü Kumral Deresi  2015-2016  /  782 Ha
APPLICATION EXAMPLES

Muş- Soğucak Sel Kontrol 2016
APPLICATION EXAMPLES

Malatya-Şiroçayı 2016 – 600 Ha
APPLICATION EXAMPLES

Çakırçeşme-Beloğen Projesi 2015

Adıyaman
APPLICATION EXAMPLES

Çorum 300 ha / 2018
APPLICATION EXAMPLES

Samsun- Mert-Yılanlı Sel Havzası- 2013
APPLICATION EXAMPLES

Van Gölü Havzası Erçek Deresi
APPLICATION EXAMPLES

Mersin-Değnek Sel Havzası 2014
APPLICATION EXAMPLES

Akşehir- 1962

Akşehir- 2010
APPLICATION EXAMPLES

Gerede 1986

Gerede 2015
APPLICATION EXAMPLES

Ağrı - Doğubayazıt 2010
APPLICATION EXAMPLES

Ağrı Doğubayazıt 2018
APPLICATION EXAMPLES

APPLICATION EXAMPLES

APPLICATION EXAMPLES

Ankara – Kurtboğazı 1985

Ankara – Kurtboğazı 2006
APPLICATION EXAMPLES

Malatya-Beydağları 2011
APPLICATION EXAMPLES

Van- Ağzikara Sel Kontrol - 2012
APPLICATION EXAMPLES

Van-Ağzikara Sel Kontrol - 2018
APPLICATION EXAMPLES
APPLICATION EXAMPLES

BELEKLER
APPLICATION EXAMPLES

BELEKLER
Landslides are the major reason for torrents to be a disaster and to cause loss of lives and properties in Eastern Black Sea Region of Turkey.

Landslides induce loss of lives and properties by improving strength of torrent
In purpose of reducing risk of torrent and landslide, torrent control activities such this project have been begun to be implemented in Northeast of Turkey. Check dams have a certain life stand depending on amount of sediment and debris flow in region, Steel Net will provide longer life stand to check dams since they will be built topn of the check dams.
AREAS FOR THE PROJECT
CLEANING IN RIVER
THANK YOU