

*General Directorate of Forestry (GDF)*  
*Karadeniz Technical University (KTU)*



**Forest Management Workshop Concept** (Sept. 7-8, 2018, Gölcük)  
**GÖLCÜK Forest District**  
**«Case Study (CS) Area»**

**Sakarya Regional Forest Directorate**

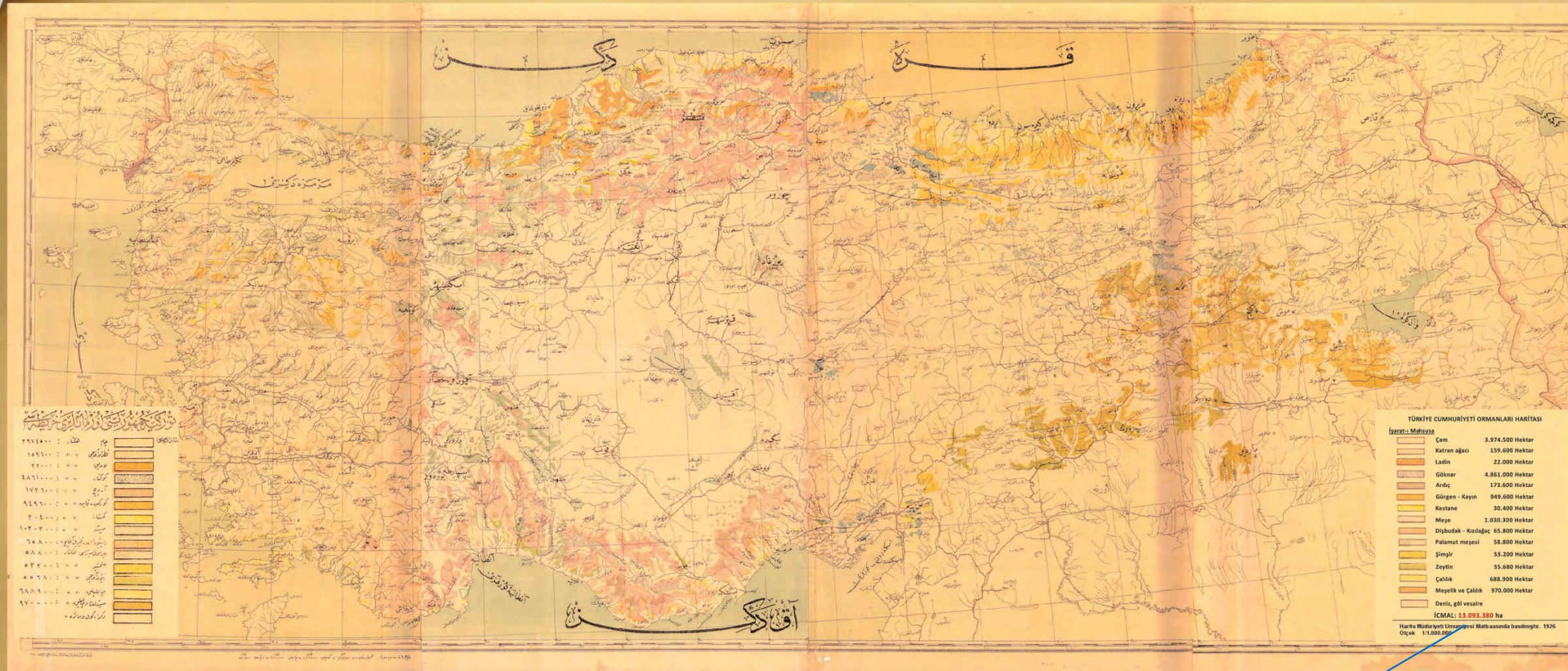
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June 12, 2018, Porto



**Figure: Distribution of Natural Forests in Türkiye as of 1926** (Dağdaş ve Bilge, 2015)

DAĞDAŞ, S., BİLGE, S., 2015: Türkiye Cumhuriyetinin Orman Alanlarını Gösteren İlk Haritası ve Orman Varlığımız Üzerine-(1926). «The First Record of Forest Tree Species Distribution Map for Turkish Territory-(1926)». Orman Mühendisliği Dergisi, Yıl: 52, Sayı: 1-2-3, Ocak/Şubat/Mart 2015, s. 28-30, 36, 36 s.



13  
million ha



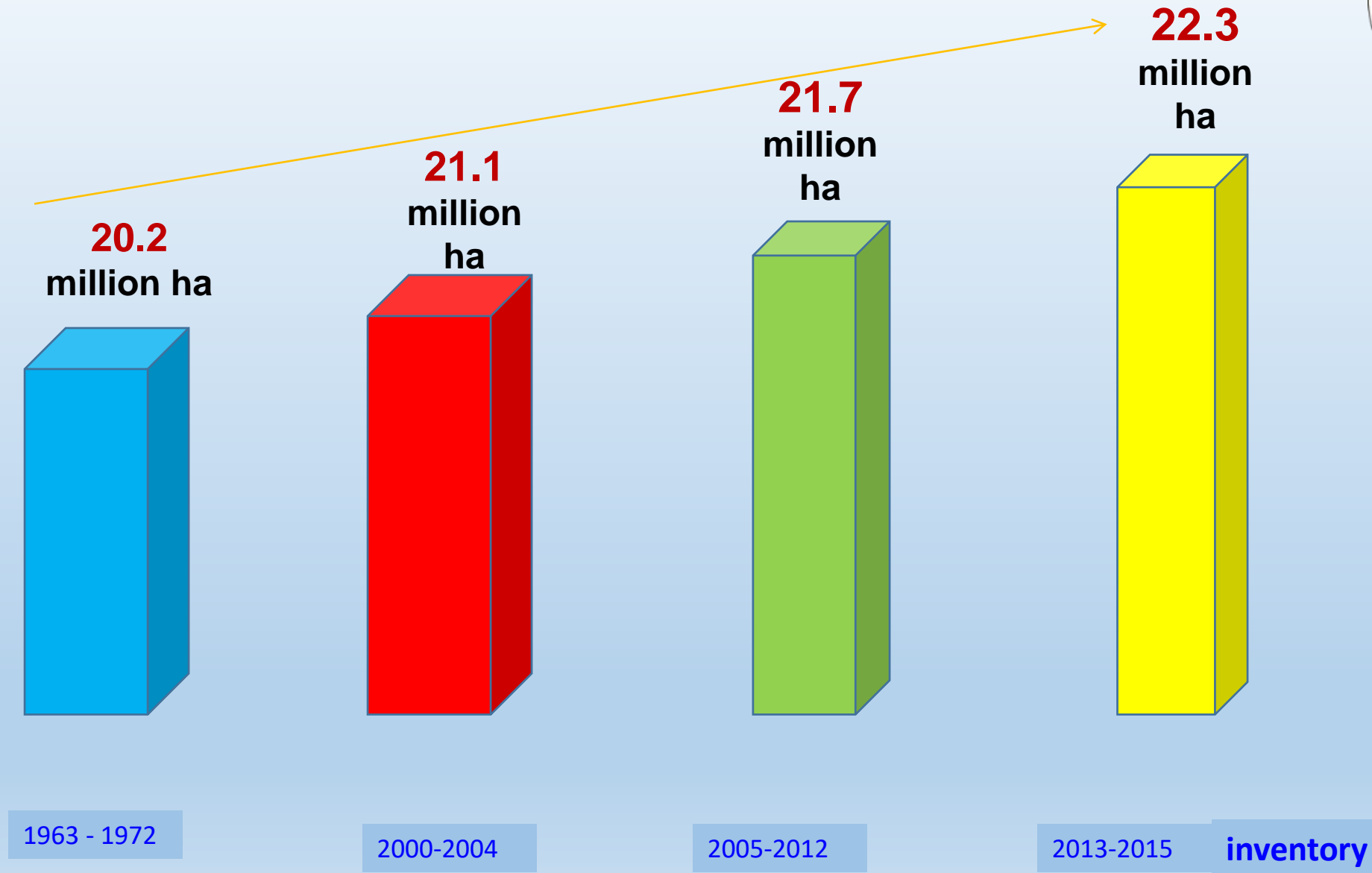
**Figure: Distribution of forested lands in Türkiye as of 2015**

**Distribution of Forested Lands (2015)**  
(State of Turkey's Forest, 2015:32)



Turkish forests are being managed and operated by  
**General Directorate of Forestry**  
under  
**Ministry of Forestry and Water Affairs**

# Forest Resources of Türkiye by selected inventory terms



(Source: State of Turkey's Forest, 2015:8-13)



# STRUCTURE OF THE TURKISH FORESTS

a) «48%» of the Turkish forests consists of pure coniferous species such as:

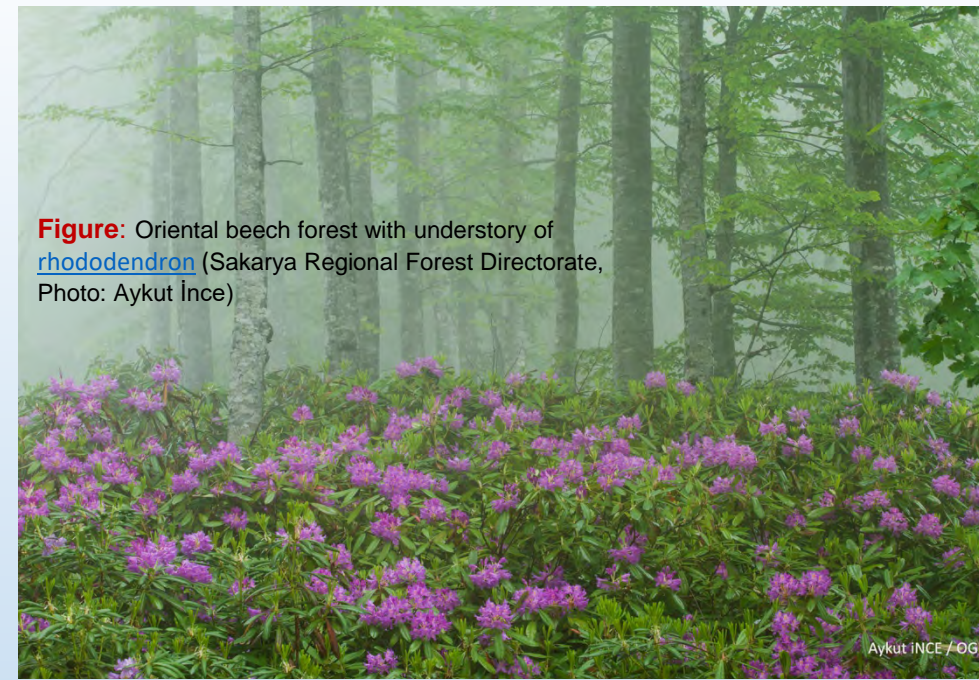
- ✓ *Pinus brutia* (Turkish pine) (one-4th of total forests),
- ✓ *Pinus nigra* (Black pine),
- ✓ *Pinus sylvestris* (Scots pine),
- ✓ *Abies ssp.* (Fir),
- ✓ Oriental spruce,
- ✓ Taurus Cedar,
- ✓ *Juniperus ssp.*,
- ✓ and others.

c) «19%» of the Turkish forests is composed of conifer+broadleaved mixed forests.

(Source: State of Turkey's Forest, 2015:23)



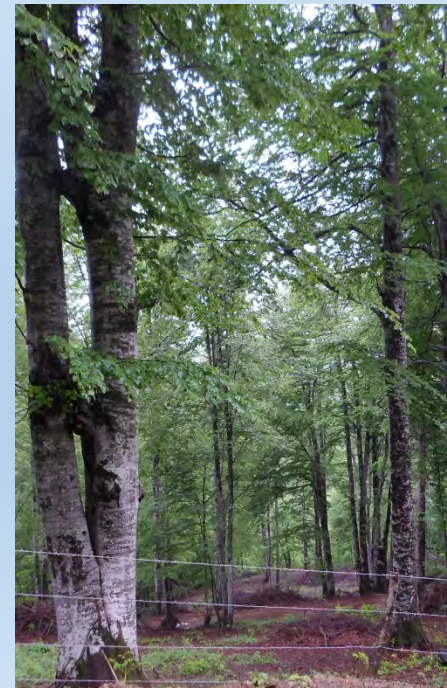
**Figure:** Young stands of Turkish red pine in Aegean Region  
(Köyceğiz-Muğla Regional Forest Directorate, 25.7.2015, S. Dağdaş)



**Figure:** Oriental beech forest with understory of [rhododendron](#) (Sakarya Regional Forest Directorate, Photo: Aykut İnce)

b) «33%» of them consists of pure broadleaved forest trees such as

- ✓ Oak ssp. (totally 17 sp),
- ✓ Oriental beech,
- ✓ Chestnut,
- ✓ Linden
- ✓ European alder,
- ✓ Carpinus,
- ✓ and others.



**Figure:** Old beech forests selected for natural regeneration with fences (Düzce Forest District, Northwestern Türkiye, May, 10, 2018, S. Dağdaş)





# Nation-wide Annual Programmes and Realization of Silvicultural Implementations By Each Forest Tending Component

under the auspices of Silviculture Department-GDF



2018

Components of Silvicultural Implementations conducted by Silviculture Department of GDF	2015	2016	2017
<b>TENDING COMPONENTS</b>	Realized	Realized	Realized
▪ <i>Regeneration Tending</i>	123,358	126,653	130664
▪ <i>Culture Tending</i>	177,990	159,634	139900
▪ <i>Release Cutting</i>	203,097	192.450	182,558
▪ <i>Pruning on conifers</i>	14,395	13,227	12951
▪ <i>First Commercial Thinning</i>	68,363	66,747	67192
▪ <i>Conversion of Coppices to High Forests</i>	87,275	79,867	73207
▪ <i>Thinning programmes</i>	?	?	?
<b>TOTAL (ha)</b>	<b>674.478</b>	<b>638.578</b>	<b>606.471</b>

Components of Silvicultural Implementations	Unit	Nation-wide Annual Programme (ha)
Natural regeneration	ha	25.137
Artificial regeneration	ha	9.468
▪ Regeneration Tending	ha	150.456
▪ Culture Tending	ha	138.334
▪ Release Cutting	ha	180.814
▪ Pruning on conifers	ha	12.862
▪ First Commercial Thinning	ha	73.810
▪ Conversion of Coppices to High Forest	ha	76.185
▪ Forest Rehabilitation	ha	55.000
▪ Establishment of Fire Resistant Forests Project (YARDOP)	ha	8.327
▪ Preparation of silvicultural plans for n/a regeneration sites	Number	104

Some essential (LDN) measures implemented in Turkish Forestry are classified as

- 1- Afforestations,
- 2- Afforestations for Soil Protection & Erosion Control,
- 3- Reforestations,
- 4- Rehabilitations of Degraded Forest Lands,
- 5- Successful Natural Regenerations,
- 6- Converting Coppice Forests to High Forests,
- 7- Improvement on Forest Tending,
- 8- Watershed Rehabilitation Projects,
- 9- Urban Forestry,
- 10- Improving carbon sequestration gained by forest lands,
- 11- Rehabilitation of pastures inside forests,
- 12- Improving relationships with rural people living inside forests or adjacent to the forest lands,
- 13- Combating Wildfires...



**Figure:** Naturally regenerated Turkish red pine (*Pinus brutia* Ten.) young stands, September, 18, 2014, Samsun-Vezirköprü, S. Dağdaş)



## Gölcük "CSA"

Golcuk FDD affiliated to Sakarya RFD that is a part of Eastern Marmara NUTS-2 Region

İstanbul

ANKARA



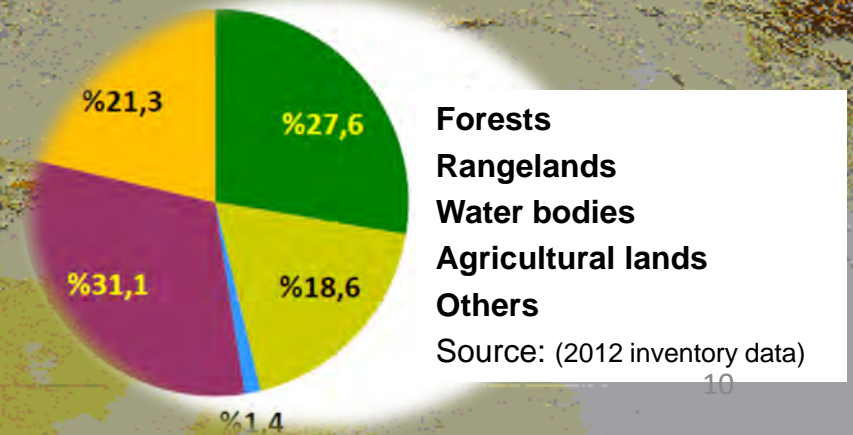
Trabzon



**Total forest land** : 22.3 million ha (28.6%)

**State owned forests:** 99.9 %

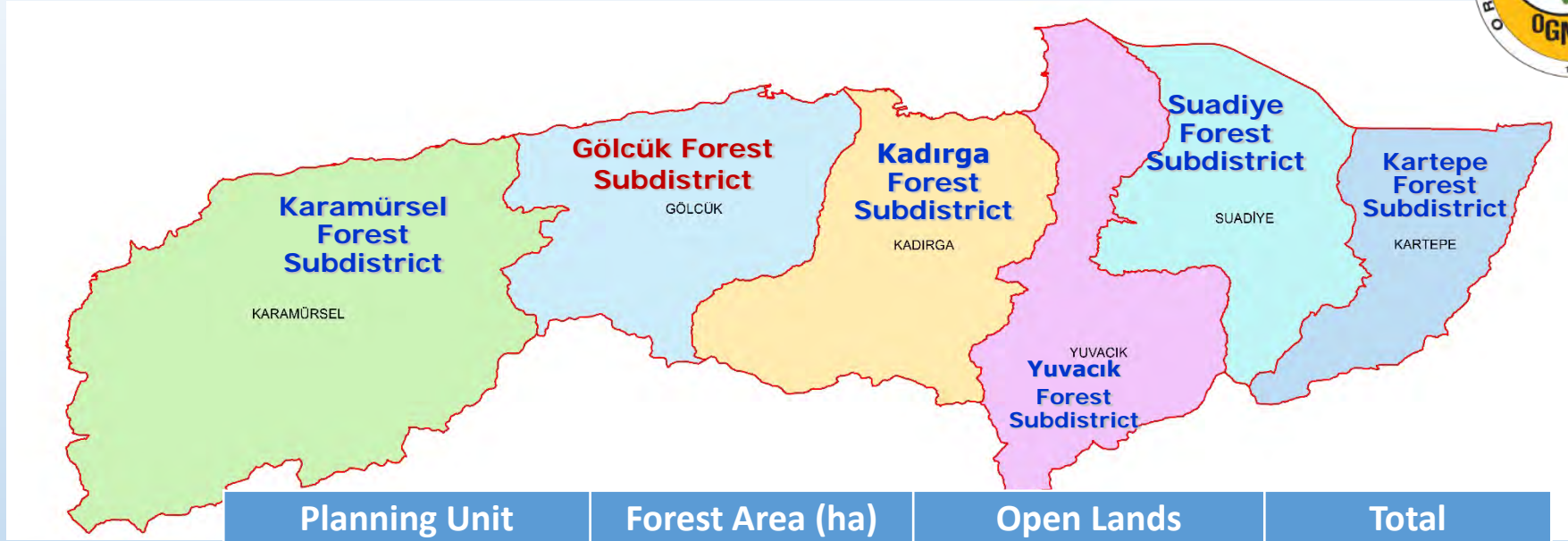
**Natural forests** : 95 %







## Gölcük Forest District (FD) «Planning Units»



Total Forest Cover in  
Gölcük RFD:  
**44.000 ha**

Planning Unit	Forest Area (ha)	Open Lands (ha)	Total (ha)
1. Karamürsel	11,083	14,267	<b>25,351</b>
2. Gölcük	7,384	5,061	<b>12,446</b>
3. Kadirga	7,460	6,050	<b>13,510</b>
4. Yuvacık	7,547	4,891	<b>12,439</b>
5. Suadiye	4,980	6,261	<b>11,242</b>
6. Kartepe	5,552	2,261	<b>7,813</b>

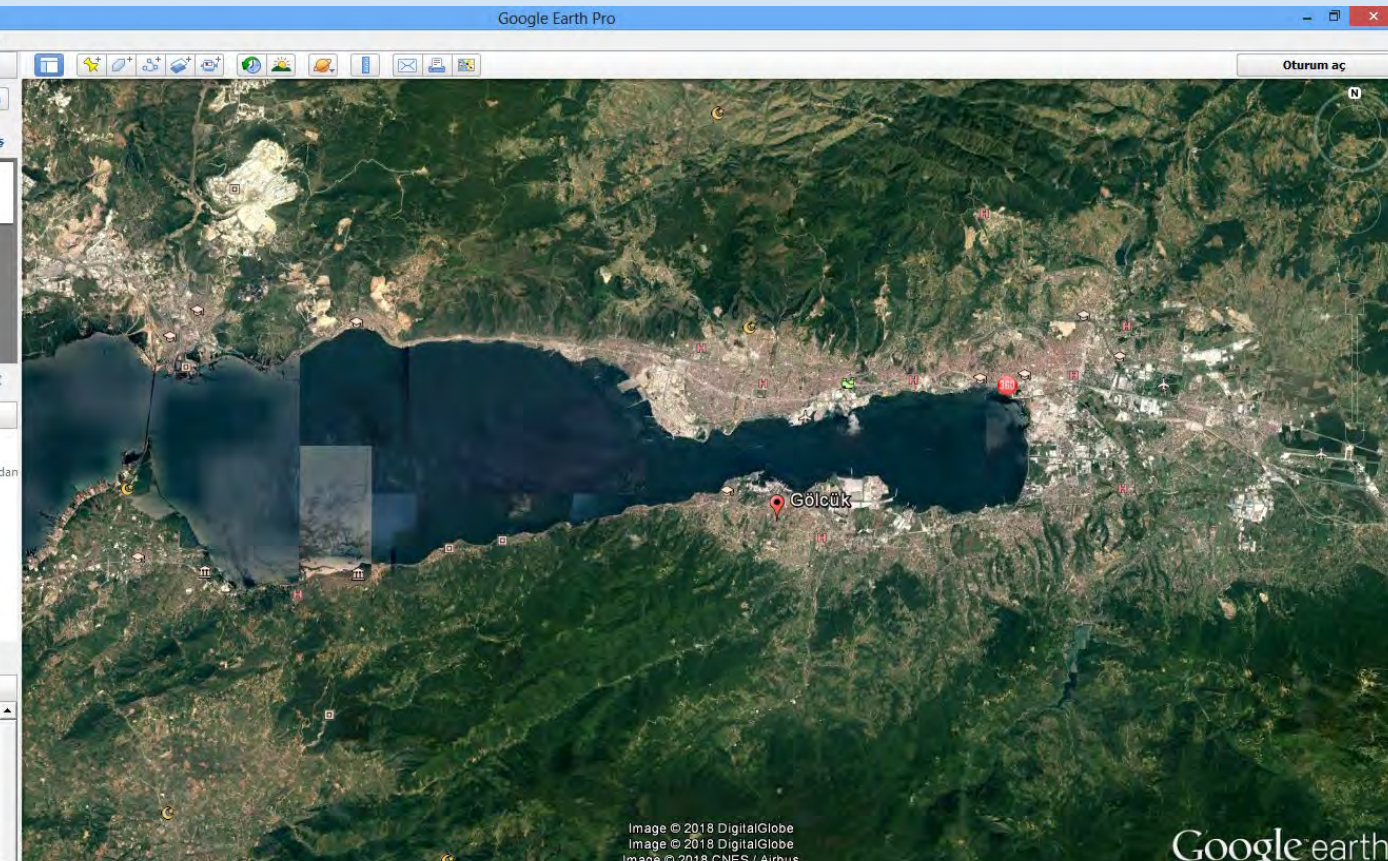
BOLGE MD.	MEŞE	KIZILÇAM	KARAÇAM	KAYIN	SARIÇAM	GÖKNAR	SEDİR	FISTIK ÇAMI	KIZILAĞAÇ	KESTANE	GÜRGEN	KAVAK	İHLAMUR	DİŞBUDAK	OKALİPTUS	Diğer Türler	TOPLAM (ha)
<b>RFD</b>	Quercus ssp.	Turkish red p.	Black pine	Beech	Scots pine	Abies ssp.	Taurus cedar	Stone pine	Alder	Chestnut	Carpinus	Poplar ssp.	Tilia	Acer	Eucalyptus	Others	Total (ha)
SAKARYA	12.313	36.045	22.933	151.205	789	4.444	267	2.276	0	7.640	11.086	76	1.039	4.556	0	96.784	351.453
TURKIYE	5.886.195	5.610.215	4.249.841	1.899.929	1.518.929	584.781	482.391	161.971	146.730	88.443	34.989	16.288	12.574	7.212	1.404	364.683	22.342.935



# Gölcük forests



- Covering 82.801 ha (44.006 forest - 53 %)
- Productive forests: 38.724 ha (**88 %**), Discontinuous (degraded) 5.284,4 ha (12 %)
- Tree ssp: **Oriental beech**, Oak ssp., Chestnut, Pine ssp., Ash, Alder, Poplar ssp.
- State owned / managed area (\* only 245 ha is of privately owned)
- Inventories of forest management plans renewed in **2014-2015 term**.



**Figure:** Natural scene of Gölcük CSA (Photo: Uzey Karahalil-16.09.2017)





ALTERFOR

## Major interests

- ✓ Timber and wood production
- ✓ Water production
- ✓ Soil protection
- ✓ Nature protection
- ✓ Fire prevention
- ✓ Biodiversity conservation
- ✓ NWFP (*chestnut, mushrooms, medicinal and aromatic plants*)
- ✓ Recreation, aesthetic and eco-tourism facilities for metropolitan city dwellers (Istanbul, İzmit, and Sakarya)
- ✓ Regulation of climate warming
- ✓ Pest and disease control



**Figure:** A monument chestnut tree in Gölcük CSA (Photo: Uzay Karahalil, 16.09.2017).



**Figure:** Short rotation coppice FMM in Gölcük CSA (Photo: Uzay Karahalil, 16.09.2017).





## Workshop Organization

- ✓ The workshops will be organized by GDF in Sept. and Oct. 2018 in collaboration with KTU
- ✓ Two days' workshop for Gölcük FD of Sakarya RFD in September and one day for Ankara in October
- ✓ At least 20 prominent participants will participate.
- ✓ Especially prominent participants from Planning, Silviculture, Pest and Disease Departments of GDF and Sakarya RFD's representatives should be together with local stakeholders.



Workshop #1, Gölcük, focuses on the details of the project implementation

Workshop #2, Ankara, focuses on the philosophy of the project

### Stakeholders Workshop # 1 (Participatory Stakeholder Meeting)

Focuses on the interest and conflicts on the development of forest management planning policies and practices

### Stakeholders Workshop # 2 (National Stakeholder Meeting)

Focuses on the development & assessment of forest management planning strategies with ES in mind



**Figures:** Natural regeneration site of Oriental beech in Gölcük CSA in 2016 and successful germination in 2017 (Photos: Halil Karademir)





# ALTERFOR

## Draft Agenda for Turkish ALTERFOR MEETINGS



# ALTERFOR

## ALTERFOR 1: Stakeholder Meeting Program (for two days)

**Location** : İzmit Poplar and Fast Growing Forest Trees Research Institute Meeting Hall

**Date** : 7-8 /09/ 2018

**Time** : 9:30 - 17:30

**Focus:** Development and implementation of forest management planning strategies for DSS through scenario analysis (including the global scenarios) with management options focusing on the ALTERFOR ES.



# ALTERFOR

## ALTERFOR 2: National Stakeholder Meeting Program

**Location** : General Directorate of Forestry Meeting Hall - Ankara

**Date** : 19 /10/ 2018

**Time** : 9:30 - 17:00

**Focus** : Introduction of the project followed by the policy and development of alternative forest management pathways based on the current implementation

### 10.8. (TR) Gölcük (GDF)

Two workshops will be organized in September and October 2018, one in Gölcük and one in Ankara, respectively. The two workshops will focus on the details of the project implementation (participatory stakeholder meeting in Gölcük) and on the philosophy of the project (national stakeholder meeting in Ankara).

Wrapping up – Vilis Brukas

- Workshops are important milestones, they help to consolidate the work and give meaning of what we do to others.
- The focuses of two workshops per case study were differentiated in different ways, but differentiation by stakeholder interests is the most common strategy
- Take home message is: workshops have to be relevant for stakeholders, communication is important, case study teams have a good chance to raise domestic visibility of the project by communicating the events to relevant media.



## The Principle Aims of the Workshop/s

- ✓ Highlight important forest policy problems, interests and conflicts
- ✓ Assess / Enhance implementation potential of alternative forest management pathways by practitioners.
- ✓ Brainstorm the implementation capacity with local, practical knowledge
- ✓ Discuss the inventory, assessment and integration of important ESs (*Ecosystem Services*)
- ✓ Develop forest management strategies, and (*upon availability of improved DSS*)
- ✓ Submit the results of the analysis based on the DSS



## Linking FMMs to the interests of stakeholders

- ✓ GDF and representatives of the wood industry  
will be able **to see the changes in total amount of timber,**  
considering three different scenarios if Continuous Cover Forestry (CCF) is included.
- ✓ Water bottling plants  
will be able to see the trend & quality of water production within the Gölcük State Forest Enterprise.
- ✓ Local chestnut collectors  
will be able to monitor the amount of chestnut production over time.
- ✓ Finally, outputs of different forest values  
will be displayed and will be discussed with the stakeholders,..



**What power resources does this stakeholder have to push the application of ALTERFOR research results through in practice?**

- ✓ **Gölcük Forest District Directorate (FDD) is the main responsible body for all kind of activities and has big influence on the forest related outputs or applications within the CSA.**
- ✓ **Nearly all the forests are belong to Gölcük FDD.**
- ✓ **Although there are different expectations from the forests, Gölcük FDD which is the dominant stakeholder works in harmony with other stakeholders such as wood industry, natural water companies, mushroom collectors, villagers, cooperatives, recreational offices or conservationists.**
- ✓ **If DSS outputs are adopted by all stakeholders, results will be easy to implement, since it is advantageous to be an organization that is responsible for the forests.**



## Stakeholders

## Position

1. General Directorate of Forestry (GDF)		Management & Policy (non-academic partner)
2. Karadeniz Technical University (KTU)		Research Body (academic partner)
3. Gölcük Forest District Directorate (GFDD)		Local State Forest Management Body
4. Nature Protection and National Parks Reg. D. (İstanbul)		Policy and Management
5. "Kastamonu Entegre" Private Wood Industry		Wood Industry
6. Forest Villagers' Cooperatives		NWFP + local NGOs
7. "Abant Su" Natural Spring Water Company		Private sector + NGO
8. Forest Villagers		Local NGOs + NWFP
9. Recreational Officers		
10. Municipalities		Local authorities



**Figure:** Forest villages inside Turkish red pine forests  
(March, 14, 2018, İzmir Regional Forest Directorate  
Manisa- Turgutlu, S. Dağdaş)

# Case Study Areas

(Country Code) Name (s)	Area, 1000 ha (% forest)	Forest Ownership (%)	Main Stakeholders	Main <u>ES</u>	Available DSS (s)
(SWE) Kronoberg County	847 (77)	83 Private	FOA <sup>1</sup> , ENGO <sup>2</sup> , forest industry, Swedish Forest Agency, public	Timber, Biodiversity,	Heureka
		17 Public		Water, Recreation	HoSim
(LTU) Telšiai	254 (34)	63 Private	Institute of Forest Management Planning, state forest managers, PFO <sup>3</sup> , ENGO, regional park	Timber, Biodiversity	Kupolis
		37 Public		Water, Recreation	
(SVK) Podpolanie	34 (57)	7 Private	State forest managers, PFO, ENGO, general public	Timber, Biodiversity	Sibyla
		93 Public		Water, Recreation	
(IRL) Barony of Moycullen	81 (16)	22 Private	Forest service, advisory services, PFO, ENGO, industries, public, fisheries, investment bodies	Timber, Biodiversity	Growfor
		78 Public		Water, Recreation	Remsoft
(ITA) Veneto	76 (100)	74 Private	PFO, logging enterprises, municipalities, regional forest administration, ENGO	Timber, Biodiversity	InVEST
		26 Public		Water, Erosion control	RockyFO
					CO2Fix
(PRT) Sousa Valley	15 (10)	100 Private	FOA, forest owner federation, forest industry, forest service, local municipality, other NGO	Timber, Recreation	StandSim
		0 Public			SADfLOR
(DEU) Augsburg Western Forests (AWF)	150 (33)	50 Private	PFO, ENGOS, forest service forest industry, general public (stable ownership structure for decades)	Timber, Biodiversity, Recreation, Water, Soil protection	SILVA
		50 Public			
(DEU) Lieberose - Schlaubetal (LS)	90 (37)	44 Private	PFO (their share steadily increasing), forest service ENGOS, forest industry, general public	Timber, Biodiversity,	SILVA
		56 Public		Recreation, Soil protection	
(NLD) Netherlands	3,734 (11)	52 Private	Government: National, Regional & Owners: Owner association, State forestry, National Trust, NIPF & General public	Timber, recreation, biodiversity	EFISCEN-space
		48 Public			
(TR)  TURKIYE	83 (53) 44 kha forest	0,56 Private 99,44 Public	PFO; Government (GDF is the responsible body) municipalities, forest villagers, natural spring water industry	Timber, recreation, biodiversity, soil protection, water protection & production, pest and disease control, fire prevention	? to be clarified in August, 2018

<sup>1</sup> Forest Owners' Association (FOA); <sup>2</sup> Environmental Non-governmental Organisations (ENGOS); <sup>3</sup> Private Forest Owners (PFO)





Thank you  
all of you!



The project leading to this application has received funding from the European Union's Horizon research and innovation programme under grant agreement No 676754.



**Figure:** Collaborative growing on Turkish pine (Antalya RFD, Silviculture Department, Photo archive, Said Dağdaş)