



MINISTRY OF FORESTRY AND WATER AFFAIRS

General Directorate of Water Management



Flood Management Planning in Turkey

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General Directorate of Water Management

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Content



Introduction

Completed Projects

Ongoing Projects

Other Studies

Objectives

Ankara - Eskişehir Road (2010)



Flood; is a natural phenomenon that occurs when a river overflows from it's bed for various reasons damaging nearby settlements, infrastructure, economic and social activities and in general human life.

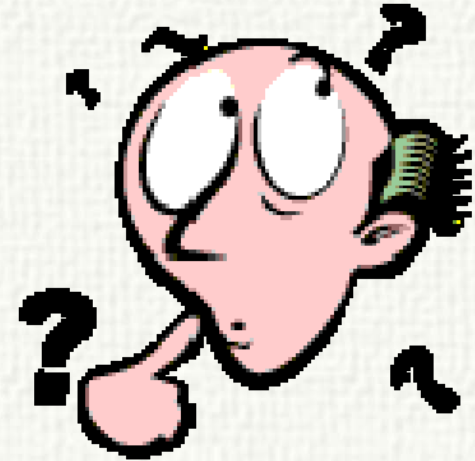


GENERAL INFORMANTION



- In our country among natural disasters, floods are second only to earthquakes in terms of economic losses.
- In our country over the last 60 years (1955-2014) 2563 floods happened and 1496 people lost their lives.
- According to existing data, economic loss caused by floods is approximately 100 million \$ each year.

WHY DO FLOODS HAPPEN?
WHAT CAN BE DONE IN
ORDER TO PROTECT
OURSELVES?





COMPLETED PROJECTS



CAPACITY BUILDING TO IMPLEMENT FLOOD DIRECTIVE



- Project Beginning : 01.08.2012
- Project Finalization : 31.12.2014

Stakeholder Institutions



Basins that are being worked on



LEGEND	GÖSTERİM
Province Borders	İl Sınırları
Basin Borders	Havza Sınırları
Pilot Basin (Flood Directive will be implemented)	Taşkın Direktifinin Uygulanacağı Pilot Havza
Basins which will be quick scanned	Hızlı Tarama Yapılacak Havzalar

Project Components

1

Legal, technical and institutional capacity was built.

2

Pilot implementation of the principles of the directive for Western Black Sea Basin

3

National implementation plan has been prepared



PROJECT OUTPUTS



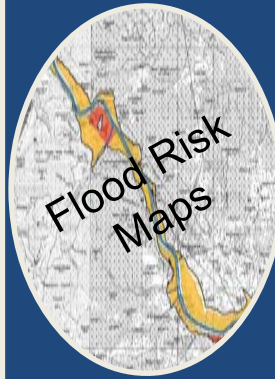
2013

**Preliminary
Flood Risk
Assessment**

Areas under
high flood risk
(APsFRs) were
identified.



Flooded areas
for different
return periods
were found and
shown on map.



Flood risk was
classified and
shown on flood
hazard maps.

2014

**Draft Flood Risk
Management
Plan**

Flood Risk
Management Plan
includes flood
hazard maps and
flood risk maps.
Objectives and
measures needed
in order to
decrease flood risk
were defined.

2014

**Draft National
Implementation
Plan**

By using data
gathered from
Western Blacksea
Basin and three
quick scan basins,
National
Implementation
Plan was prepared
in order to
implement Flood
Directive in all
basins of our
country.



2014

**Guidelines for
Preparation of
Flood
Management
Plans**

Guidelines on
preparation
steps of Flood
Management
Plan was
prepared.

August 2012

December 2014



PREPARATION OF FLOOD MANAGEMENT PLANS



PROJECT STUDIES



PRELIMINARY FLOOD RISK ASSESSMENT

Areas under possible
flood risk were
assessed.



Flooded areas for
different return
periods were shown
on map.



Flood risk was
classified and shown
on flood hazard
maps.

FLOOD MANAGEMENT PLAN

Flood Management Plan
that defines the
objectives and measures
before, during and after
the flood was prepared.





PRELIMINARY FLOOD RISK ASSESSMENT



Areas considered under high risk in Yeşilırmak Basin



As a result of the Preliminary Flood Risk Assessment carried out over 537 settlement areas, by using historical flood data, flood control structure data and modelling studies, a total of 13 settlement areas has been defined as under high risk.

Gösterim

riskli yerler

Akarsu Ağı

LAYER

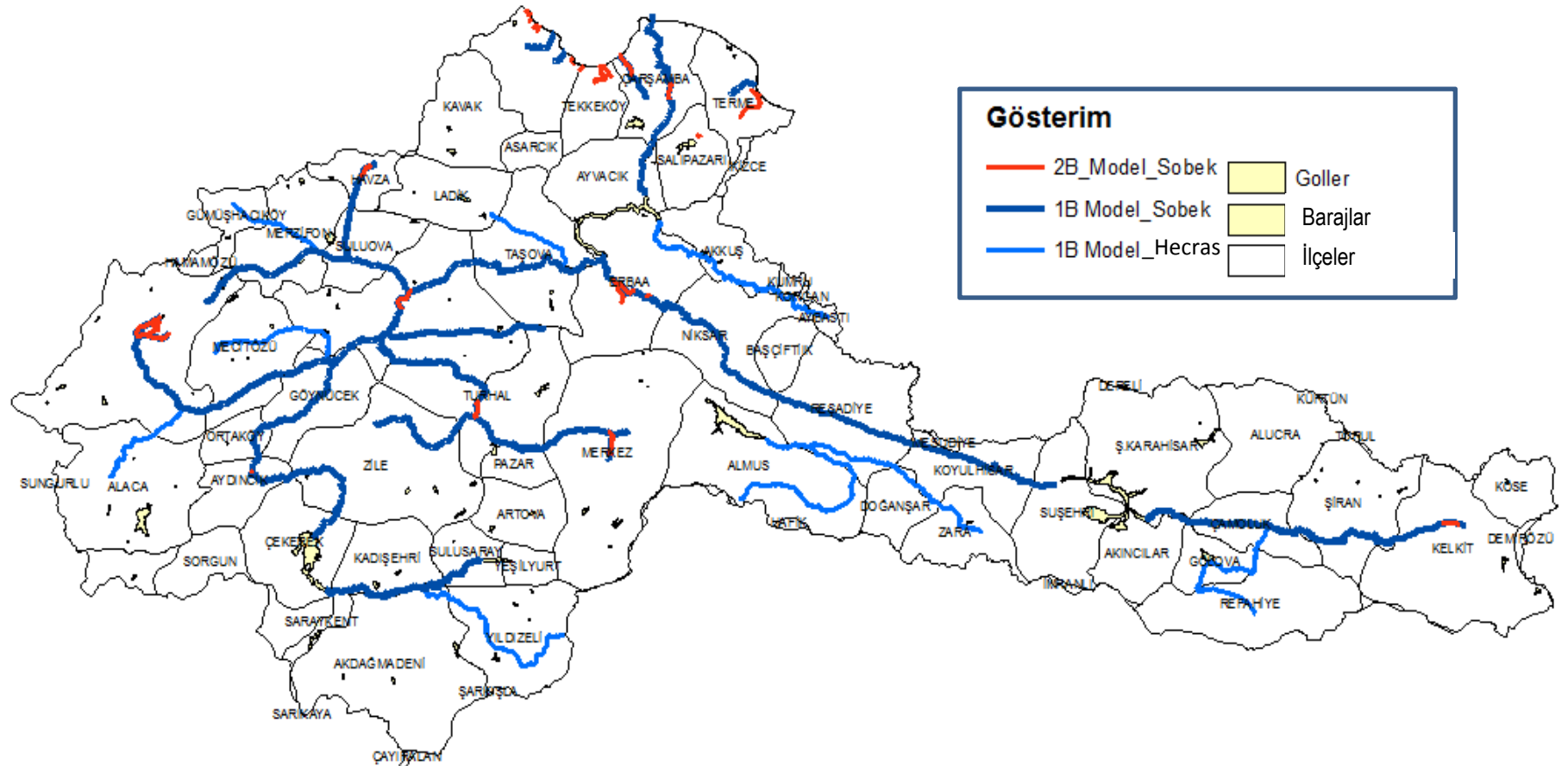
DERE

CAY

NEHIR

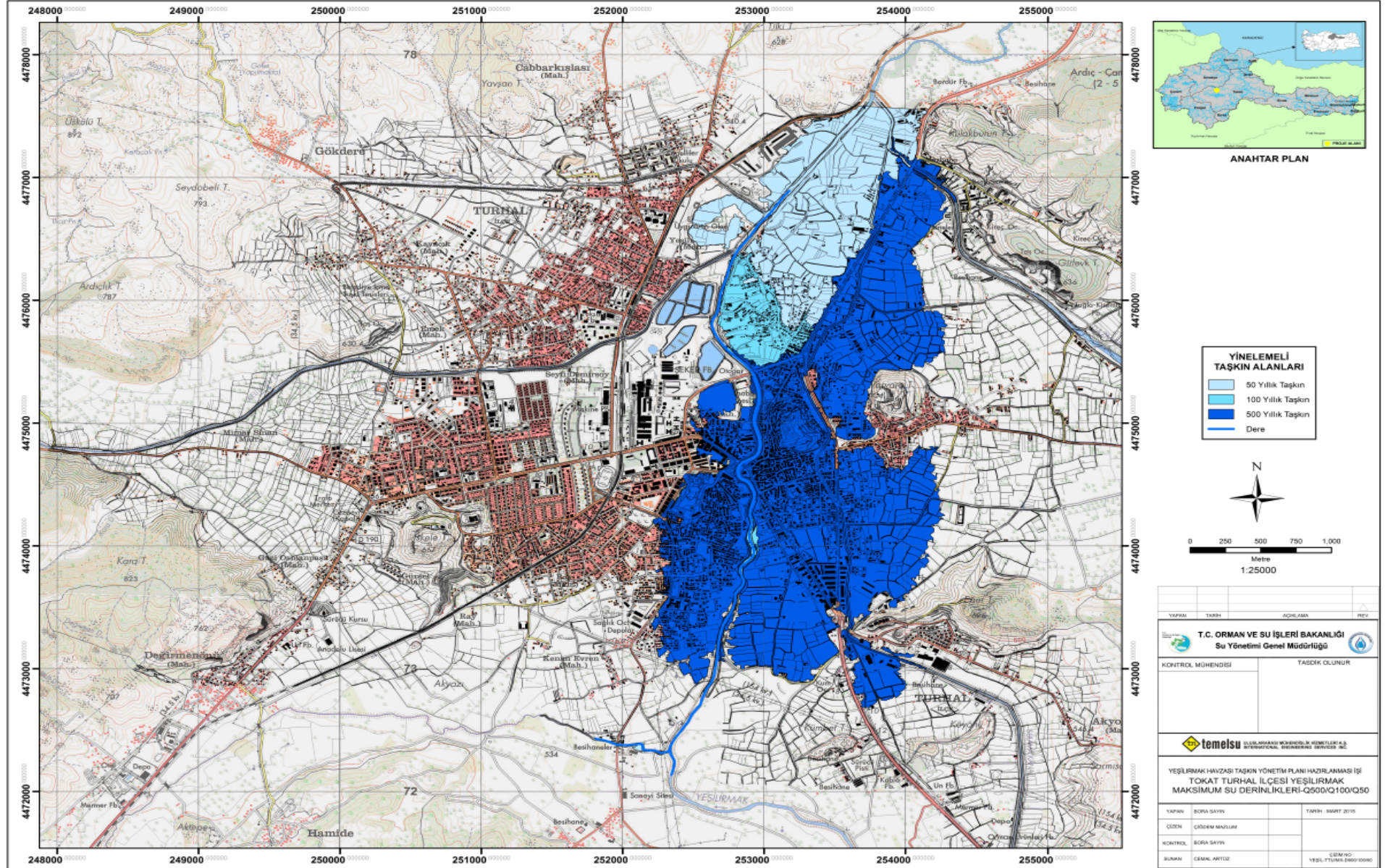


FLOOD HAZARD MAPS



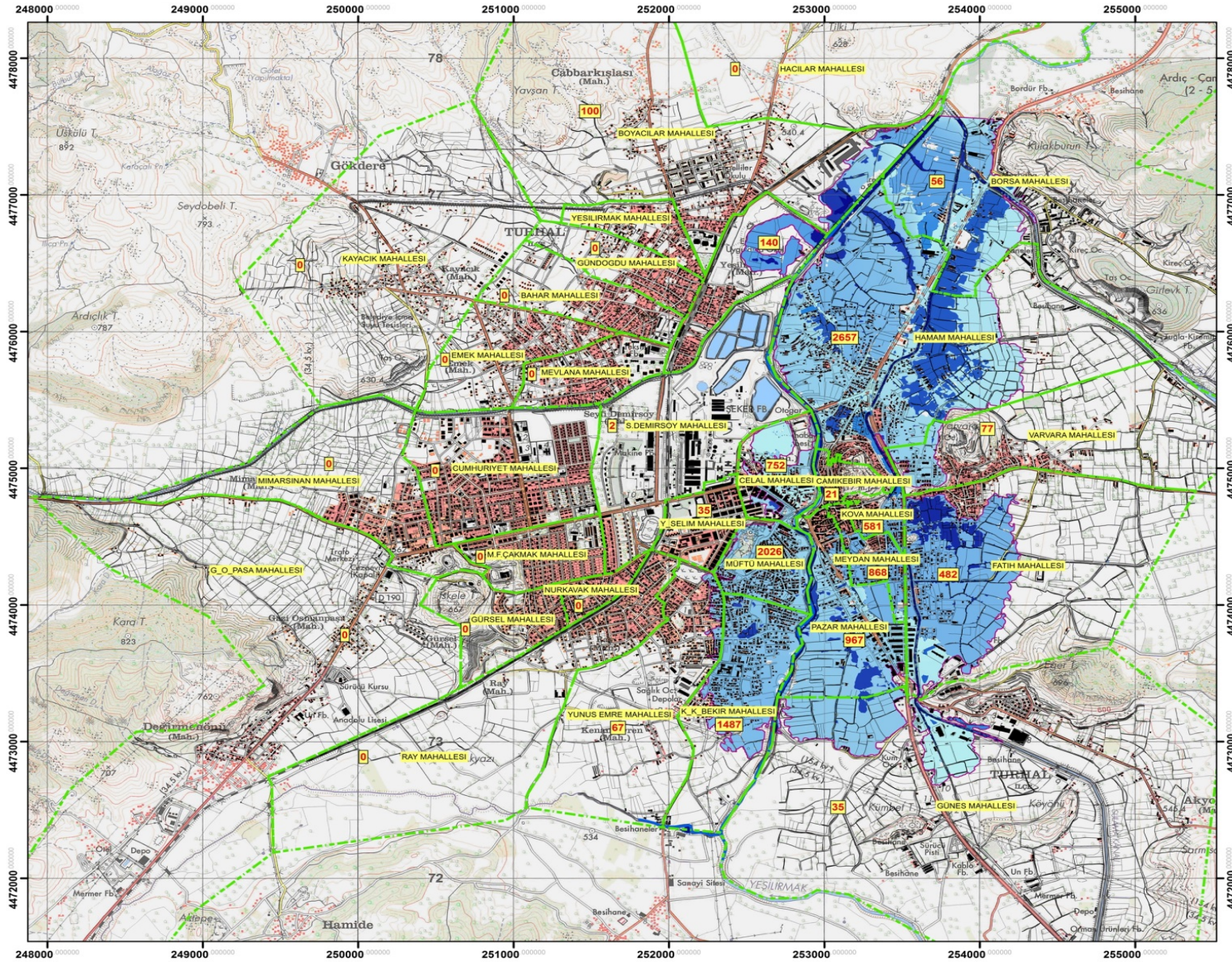


PREPARATION OF FLOOD HAZARD MAPS



PREPARATION OF FLOOD RISK MAPS

Population Affected From Flood (Q500)






ANAHTAR PLAN

GÖSTERİM	
	Mahalle Sınırı
	Etkilenen İnsan Sayısı
	Taşkın Sınırı
	Dere



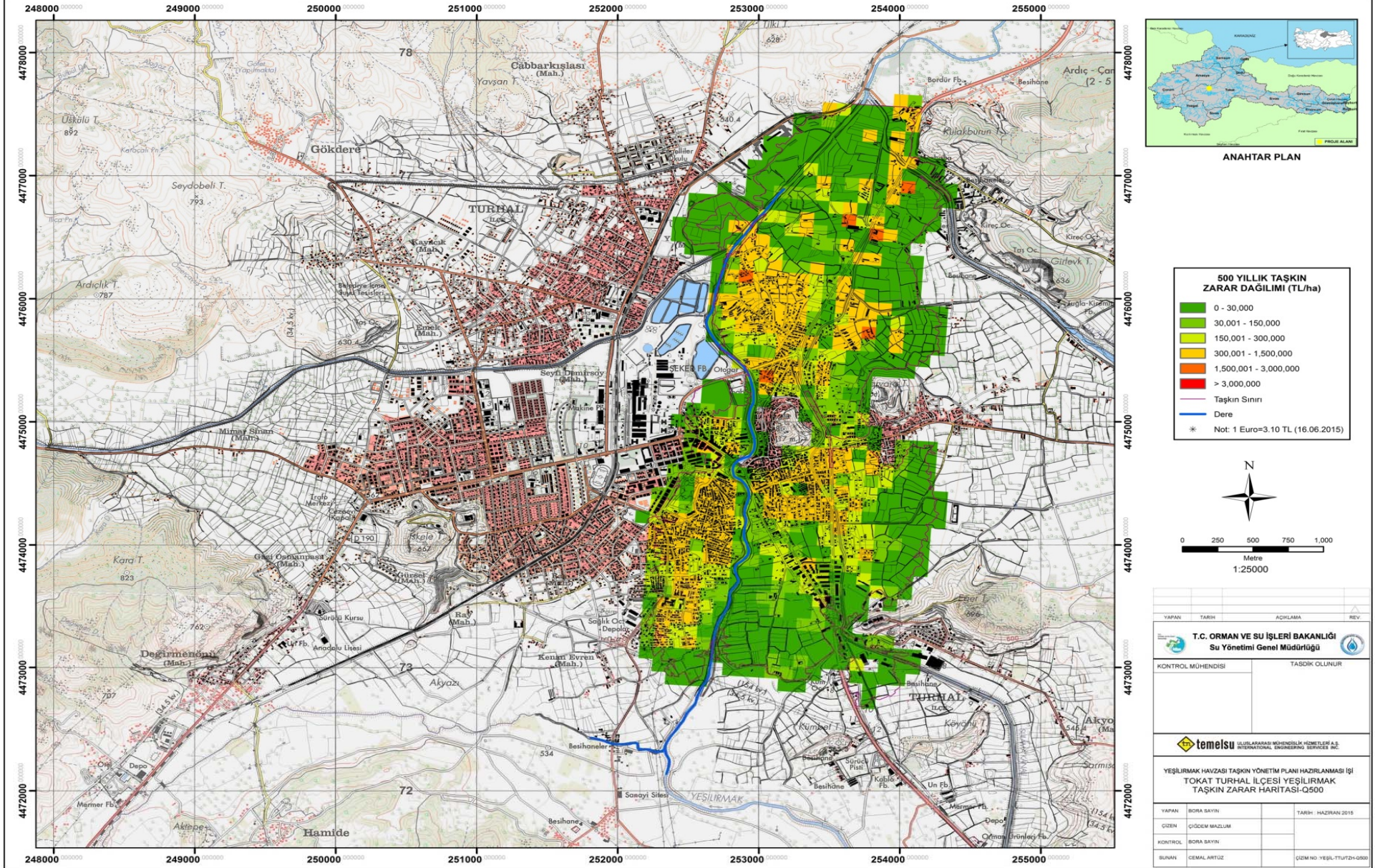
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YAPAN	TARİH	AÇIKLAMA	REV.
 <p>T.C. ORMAN VE SU İŞLERİ BAKANLIĞI Su Yönetimi Genel Müdürlüğü</p>			
KONTROL MÜHENDİSİ		TASDİK OLUNUR	
 temelsu SU YÖNETİMİ MÜHENDİSLİK HİZMETLERİ A.Ş. SULU YÖNETİMİ MÜHENDİSLİK HİZMETLERİ A.Ş.			
<p>YEŞİLIRMAK HAVZASI TAŞKIN YÖNETİM PLANI HAZIRLANMASI İŞİ TOKAT TURHAL İLÇESİ YEŞİLIRMAK TAŞKINDAN ETKİLENEN NÜFUS HARİTASI-Q500</p>			
YAPAN	MEHMET ERAYCI	TARİH	HAZİRAN 2015
ÇİZEN	ÇİDEM MAZLUM		
KONTROL	MEHMET ERAYCI		
BUNAN	CEMAL ARTIÖZ		ÇİZİM NO: YEŞİL-TRTUTEN-0008



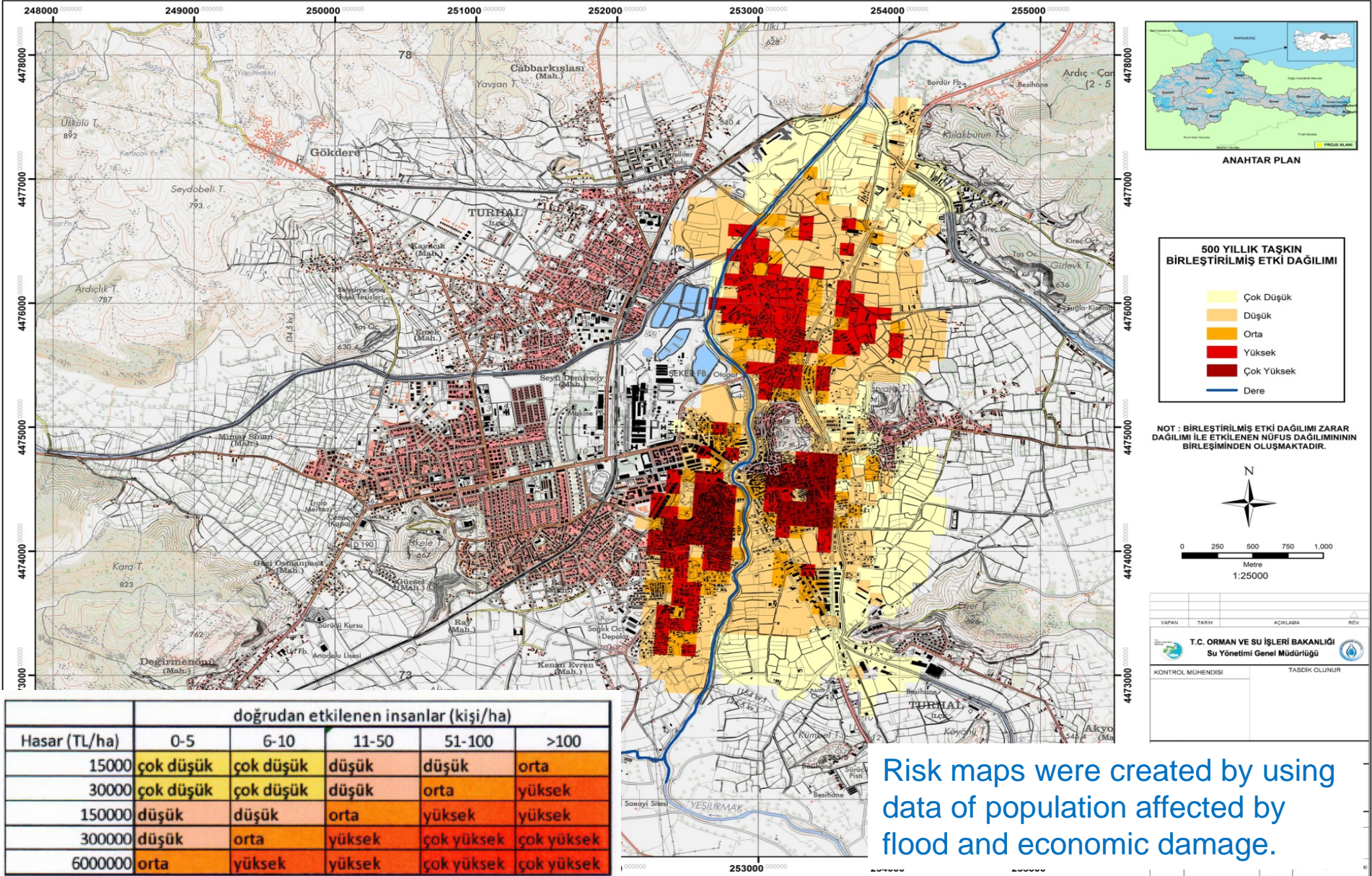
PREPARATION OF FLOOD RISK MAPS

Economic Damage (Q500)



PREPARATION OF FLOOD RISK MAPS

Risk Maps (Q500)





FLOOD MANAGEMENT PLANS (Content)



Executive Summary

Basin Profile

Coordination and Responsible authorities

Flood Hazard and Flood Risk Maps

Before Flood / Risk / Damage Reduction

During Flood / Response

After Flood / Recovery

Implementation, Monitoring and Updating

With Flood Management Plan objectives and measures before the flood, during the flood and after the flood are determined. :



TABLE OF MEASURES (Example From EU Project)



	Name of the under objective	Name of the measure	Type of measure	Location	Geographic coverage of expected effect of the measures	Authorities responsible	Prioritisation for implementation	Status of the measure	Cost and benefits of the measure	Other National Act under which the measure has been implemented (where relevant)	Time of implementation Before, During, After event
1	Ensure the adapted protection against flood in sensitive areas	Kirazlıköprü dam	Structural	Gökırmak river	Gökırmak nehri/bartın-alt havza	DSİ	Very High	Ongoing	Maliyet= 46331000 tl - yıkılma riski - bakım maliyeti de önemli olabilir	law on the establishment of DSI no: 6200	Before flood
2	Managing surface flow at basin scale – appropriate agricultural practices and forest management	Developing good agricultural practices in order to reduce surface flow	Non-structural	Agricultural Areas (Selected)	Downstream of agricultural areas	Ministry of Food, Agriculture and Livestock	Moderate	Not started	+++	(Tarım bakanlığı ilgili kanun)	Before flood
3	Benefiting from natural functions and green infrastructures	Benefiting from some areas for flood propagation or as floodplains	Structural	Selected Areas	Downstream of selected areas	Governors	Moderate	Not started	++++	None	During flood
4	Benefiting from natural functions and green infrastructures	Forest Management and upper basin rehabilitation	Structural	All of the forest land in the basin	All basin	OGM	Moderate	Ongoing	++++	Legislation related to OGM	Before flood
5	Managing construction and landuse in flood prone areas	Providing harmonisation of landuse plans with flood hazard and risk maps	Non-structural	Settlements under risk	Settlements under risk	ÇŞB	Critic	Ongoing	+++++	Law no: 648,2872,3194	Before flood



WEB PAGE



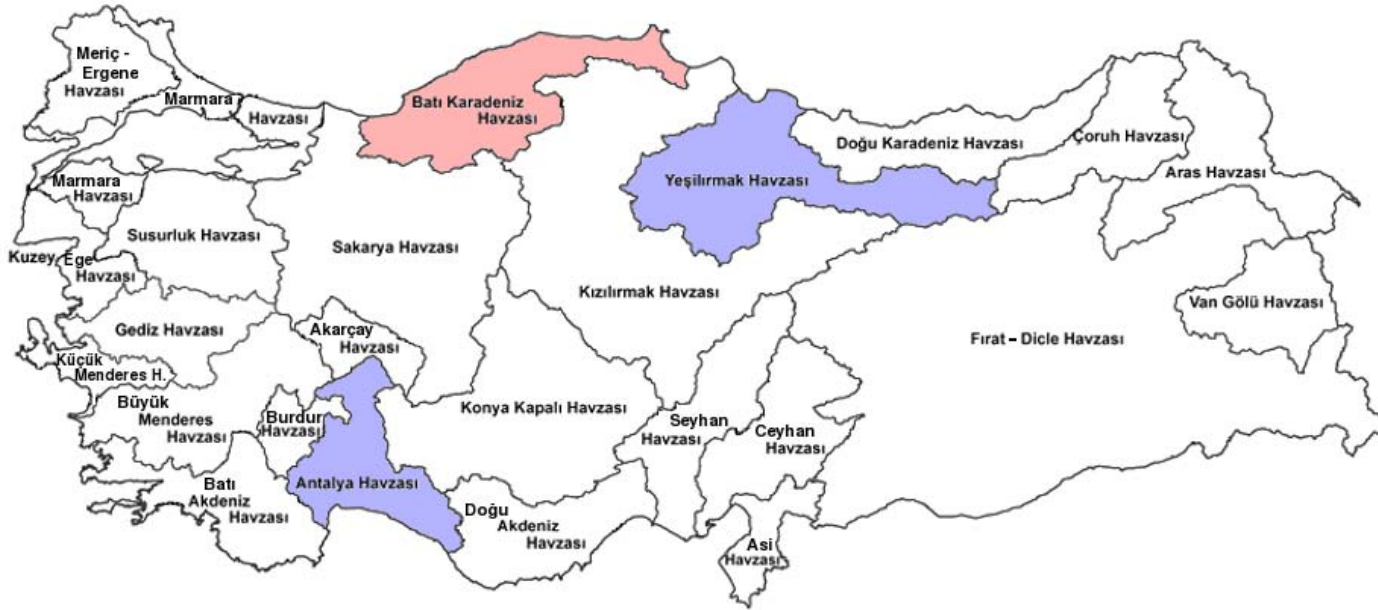
TAŞKIN YÖNETİMİ



Orman, Su Varsa Hayat Var

Anasayfa Mevzuat İletişim

TR ENG

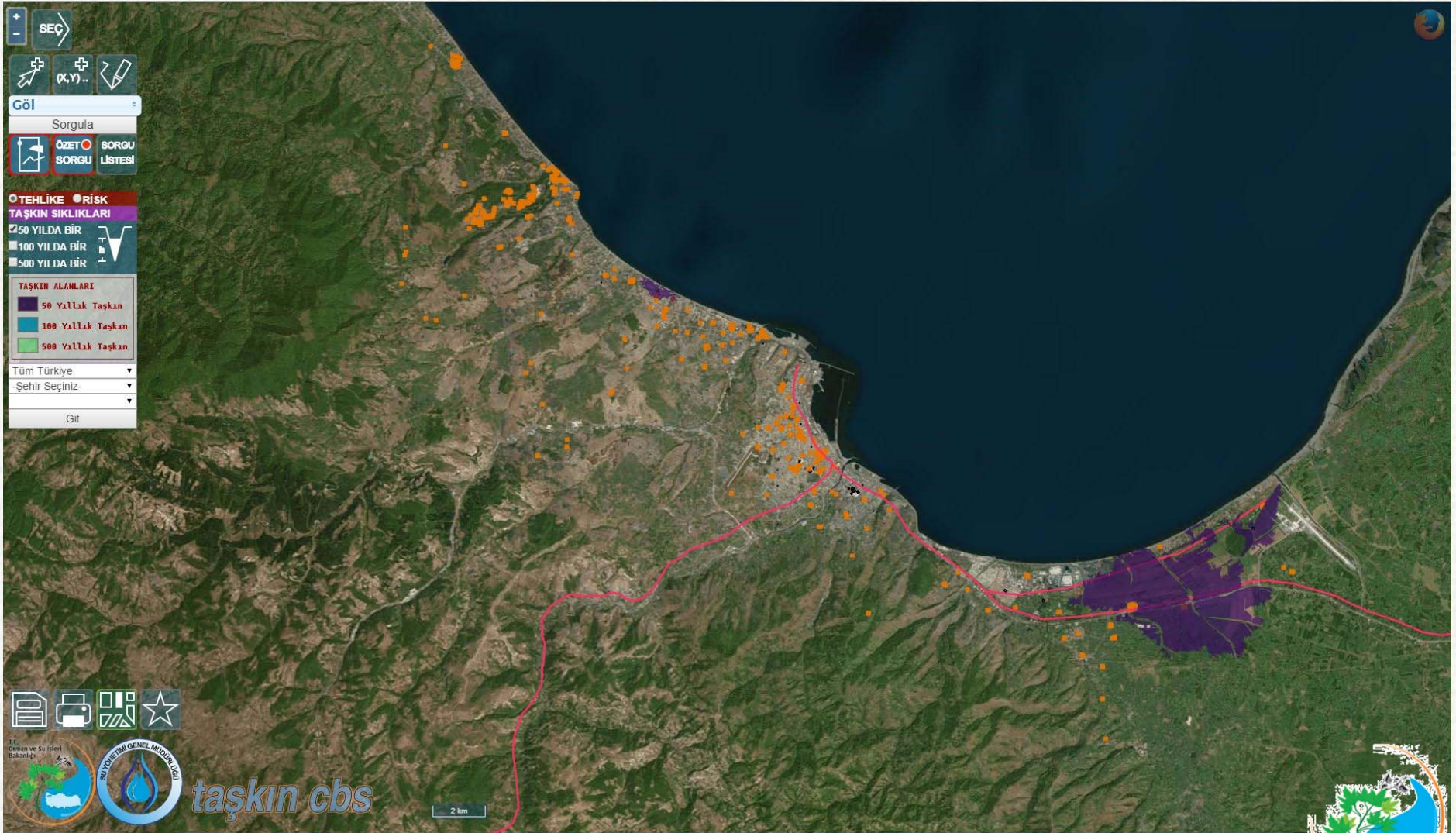


Kapasite Geliştirme Projesi Devam Eden Projeler

taskinyonetimi.ormansu.gov.tr



WEB APPLICATION





LEGISLATION AND POLICY DEVELOPMENT



Ulusal Taşkın Strateji Belirleme Eylem Planı (Taslağı)

2014-2020

Orman ve Su İşleri Bakanlığından
TAŞKIN YÖNETİM PLANLARININ HAZIRLANMASI, UYGULANMASI
HAKKINDA YÖNETMELİK

BİRİNCİ BÖLÜM
Maksat, Kapsam, Dayanak, Tanımlar ve Kısaltmalar

Maksat

MADDE 1 - (1) Bu Yönetmeliğin maksadı; taşkınların insan sağlığı, çevre faaliyetleri üzerindeki olumsuz etkilerinin azaltılmasını sağlamak üzere havza bazında taşkın yönetim planlarının hazırlanması, uygulanması ve izlenmesine ilişkin usul ve esasları belirlemektir.

Kapsam

MADDE 2 - (1) Bu Yönetmelik, su havzalarındaki taşkın yönetim planlarının hazırlanması, uygulanması ve izlenmesine ilişkin usul ve esasları kapsar.

Dayanak

MADDE 3 - (1) Bu Yönetmelik, 29.6.2011 tarihli ve 645 sayılı Orman Kanunu ile Bakanlar Kurulu Kararıyla Kararnamenin 2 nci, 9 uncu ve 16 ncı maddeleri ile hazırlanmıştır.

Tanımlar

MADDE 4 - (1) Bu Yönetmelikte geçen;

a) Bakanlık: Orman ve Su İşleri Bakanlığı,

b) Çevresel hedef: Bir su kütlesinin kimyasal, fiziksel, biyolojik ve estetik özelliklerinin en iyi su durumunu,

c) Havza: Nehir havzalarında suyun akmaya başladığı noktaya, nihai noktaya göre suyun toplanma alanı,

ç) Havza yönetim planı: Su havzasındaki su kaynaklarının ve canlı hayatının korunmasını sağlamak üzere su kaynakları için sürdürülebilir bir koruma-kullanım planı olarak hazırlanan plan,

d) Kıyı suları: Kıyı kenar çizgisinden itibaren deniz tarafındaki bir deniz miliyle sınırlanan suları,

e) Nehir havzası: Havzadaki su kaynakları, derelet, nehirler ve göller arası alanı kapsayan bölge.

T.C.
Orman ve Su İşleri
Bakanlığı

TAŞKIN YÖNETİM PLANI HAZIRLANMASI KILAVUZU

2014

T.C.
ORMAN ve SU İŞLERİ BAKANLIĞI

Taşkın Kayıt Formu

Formu Dolduran Personelin

Kurumu ve Görevi: _____
Bölge/İl: _____
Adres: _____
Adı / Soyadı: _____
E-Posta: _____
Telefon: _____
Tarih: _____

Taşkın Meydana Geldiği Yer

Havza: _____ İl: _____ İlçe: _____ Mahalle/Köy: _____
Mevki: _____ Akarsu/Dere Adı: _____ Akarsu Kodu: _____

Taşkın Kontrol Yapısı Var mı? ☐ Evet ☒ Hayır

Taşkın Kontrol Yapısı: _____ Tasarım Tekerrür Periyodu: _____ Tasarım Esas Yağış Şiddeti (kg/1sa/m2): _____ Kesit Karakteristikleri: _____

Taşkın Kodu: _____ Başlangıç Tarihi: _____ Taşkın Süresi: _____
Taşkın Debişi: _____ Taşkın Tekerrür Periyodu: _____ Yağış Şiddeti (kg/1sa/m2): _____

Taşkın Çeşidi

☐ Nehir Taşkını ☐ Ani Taşkın
☐ Kıyı Taşkını ☐ Yeraltı Sularından Kaynaklanan Taşkın
☐ Şehir Selleri ☐ Depolamalı Tesislerin Yıkılması
☐ Diğer _____

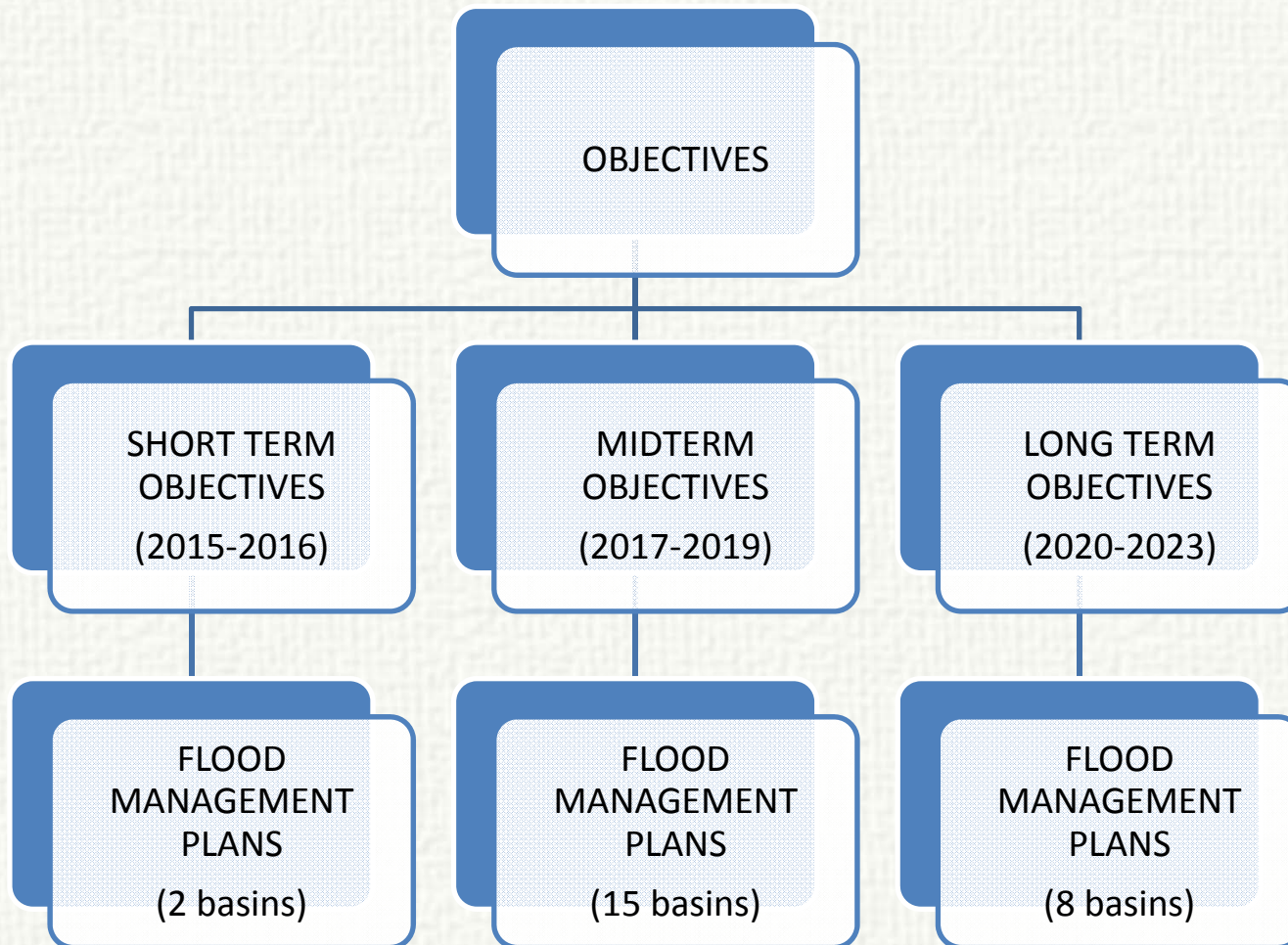
Taşkın Sebepleri

☐ Aşırı Yağışlar ☐ Kesit Yetersizliği
☐ Kar Erimesi ☐ Akarsu Yatağının Dolmuş Olması
☐ Sedde, Kanal vs. Yarılmaları ☐ Akarsu Yatağına Suni Müdahaleler
☐ Bend Yıkılması ☐ Köprü, Menfez vs. Yetersizliği/Tıkanması
☐ Kentsel Alt Yapıdan Kaynaklı ☐ Diğer _____

Taşkın Özeti



OBJECTIVES





MINISTRY OF FORESTRY AND WATER AFFAIRS

General Directorate of Water Management



Thank you for your attention

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Department of Flood and Drought Management
General Directorate of Water Management