

Climate Change and Water Management in Europe

Sébastien Mouret – EurEau



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EurEau – Who we are

EurEau is the **European federation of water services**

We represent **38** national associations of **drinking water and wastewater services** in **33** European countries

We represent both **public** and **private** sectors





emivasa Valencia 29/10/2024 12:40:43

Temperature	Mode	Temperature	Mode	Temperature	Mode	Temperature	Mode
24,0°C		22,7°C		24,0°C		20,0°C	

SALIDA

Safe and reliable water services today and tomorrow

Valencia 27, 28, 29 October 2024

Centre de Processament de Dades



Floods and landslides leave 18 dead in Bosnia

6 October 2024

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Paul Kirby Guy Delauney
BBC News BBC Balkans correspondent



Watch: Aerial footage shows flood and landslide destruction

Climate change supercharged Europe floods - scientists

25 September 2024

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Mark Poynting and Greg Brosnan
BBC Climate and Science



Local residents rescue a woman from rising flood waters in the Romanian village of Stobozia Conachi

Central Europe's devastating floods were made much worse by climate change and offer a stark glimpse of the future for the world's fastest-warming continent, scientists say.



Meteo estremo in Sicilia

Case allagate e torrenti esondati nel Catanese, le immagini del disastro a Giarre e Acireale

Decine di interventi dei Vigili del Fuoco per soccorrere le persone intrappolate dall'alluvione

13/11/2024 Vigili del fuoco



Sono decine gli interventi dei Vigili del Fuoco che, mercoledì mattina, hanno risposto all'emergenza in tutto il territorio della provincia di Catania e sono scesi in strada per aiutare le vittime dell'alluvione innescata dalle forti piogge.

Nella frazione di Altarello, a Riposto, un fiume ha rotto gli argini e ha invaso una casa dove vivevano quattro persone, tra cui 2 con disabilità bloccate ai piani bassi della loro abitazione allagata. Sul posto è intervenuto un mezzo anfibo.

Nella vicina Giarre, i pompieri hanno aiutato gli automobilisti bloccati sull'autostrada A18 allagata da un'alluvione lampo.

News > Türkiye

August 25 2024 14:00:01



Severe floods leave one dead, one missing in central provinces

NEVŞEHİR



Teams carried out search operations for a missing person on Aug. 25 after torrential downpours in the Central Anatolian provinces led to widespread flooding, resulting in one death.

Sudden and relentless rainfall wreaked havoc in the central province of **Kırşehir**, killing a 52-year-old shepherd. His body was found near the province about 4 kilometers from the place where he went missing, according to media reports.

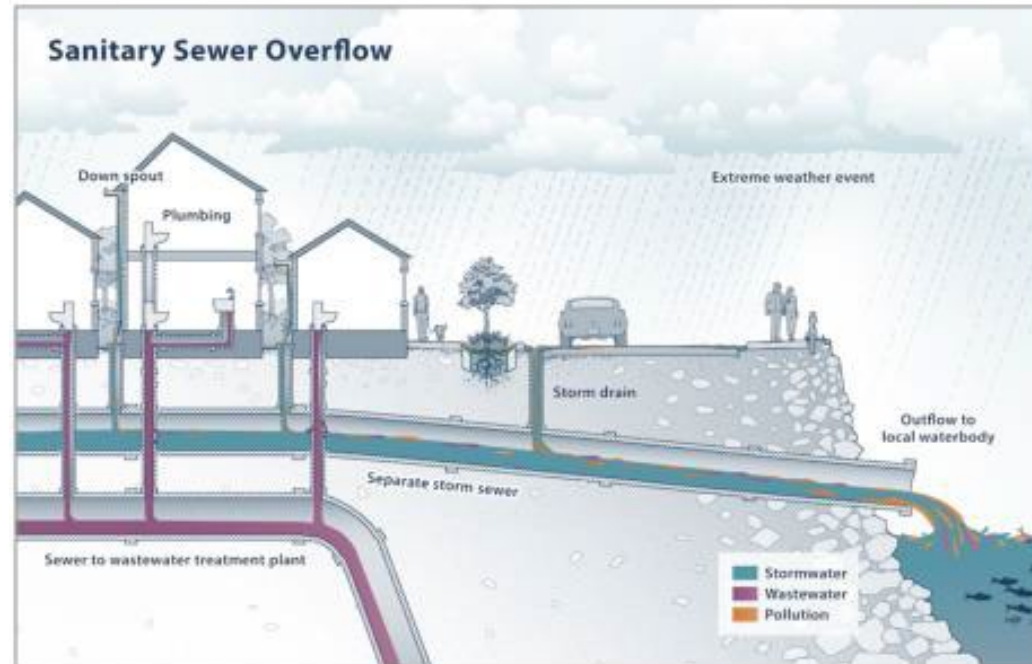
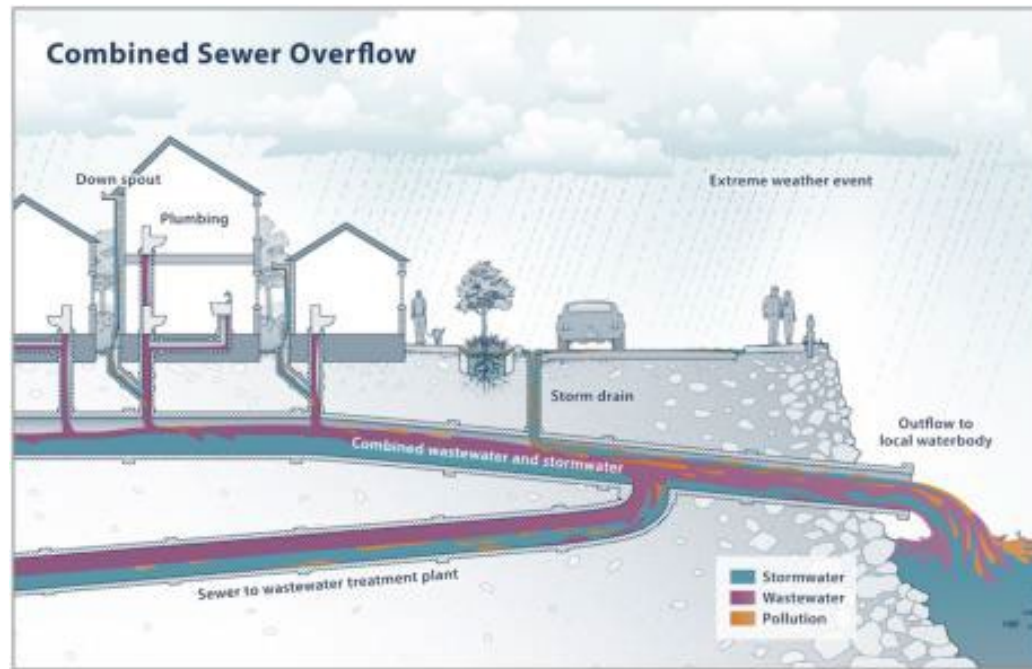
In another **flood**-hit in Kayseri, one person was reported missing, as numerous houses were submerged in floodwaters as a result of the severe flood.

As rescue teams helped people stuck in their homes after landslides in the region, the teams





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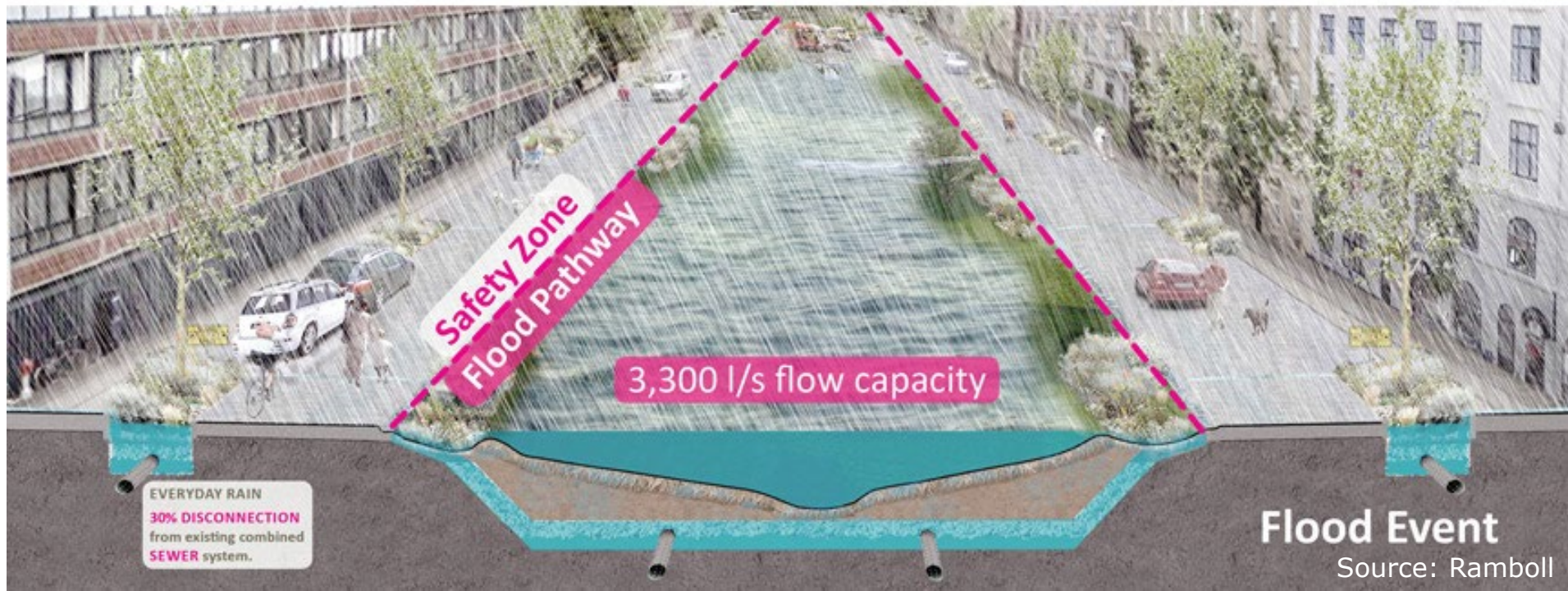
Source: climate.gov







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Source: NASA



Before



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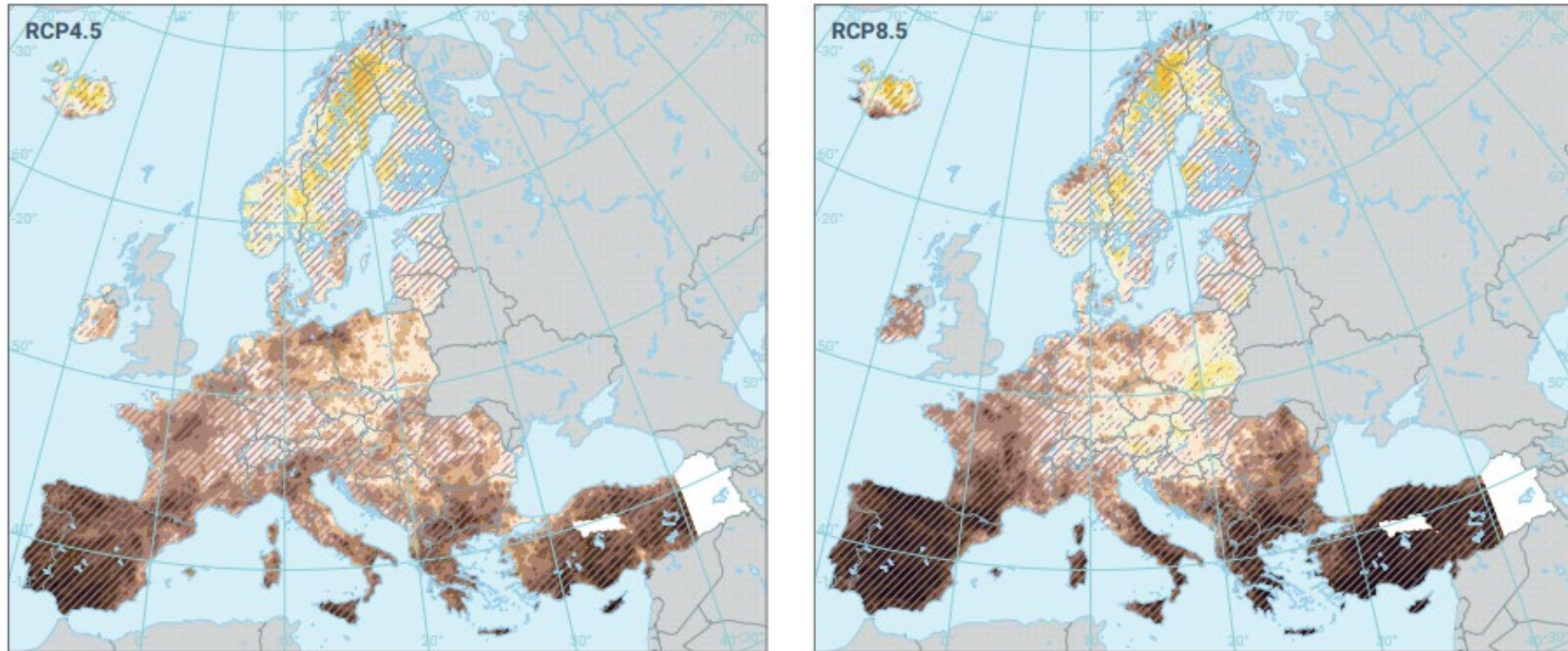


After

Source: H+N+S

Map 4.3

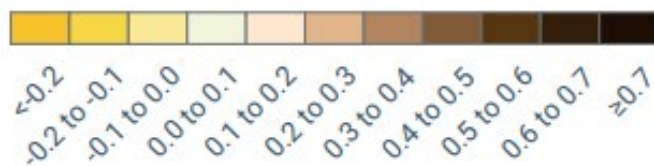
Projected change in meteorological drought frequency between the periods 1981-2010 and 2041-2070 under two climate change scenarios




Reference data: © EuroGeographics, © FAO (UN), © TurkStat Source: European Commission – Eurostat/GISCO

Projected change in meteorological drought frequency between the periods 1981-2010 and 2041-2070 under two climate change scenarios

Number of events per 10 years



 At least two thirds of the simulations used agree on the sign of change

 No data

 Outside coverage





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How can we respond?

Additional resources

While respecting environmental limits

Unconventional water resources

Where appropriate:

Desalination

Water reuse

Demand reduction

Reducing leakage

Informing consumers





Source: Drop by Drop



Source: Water UK



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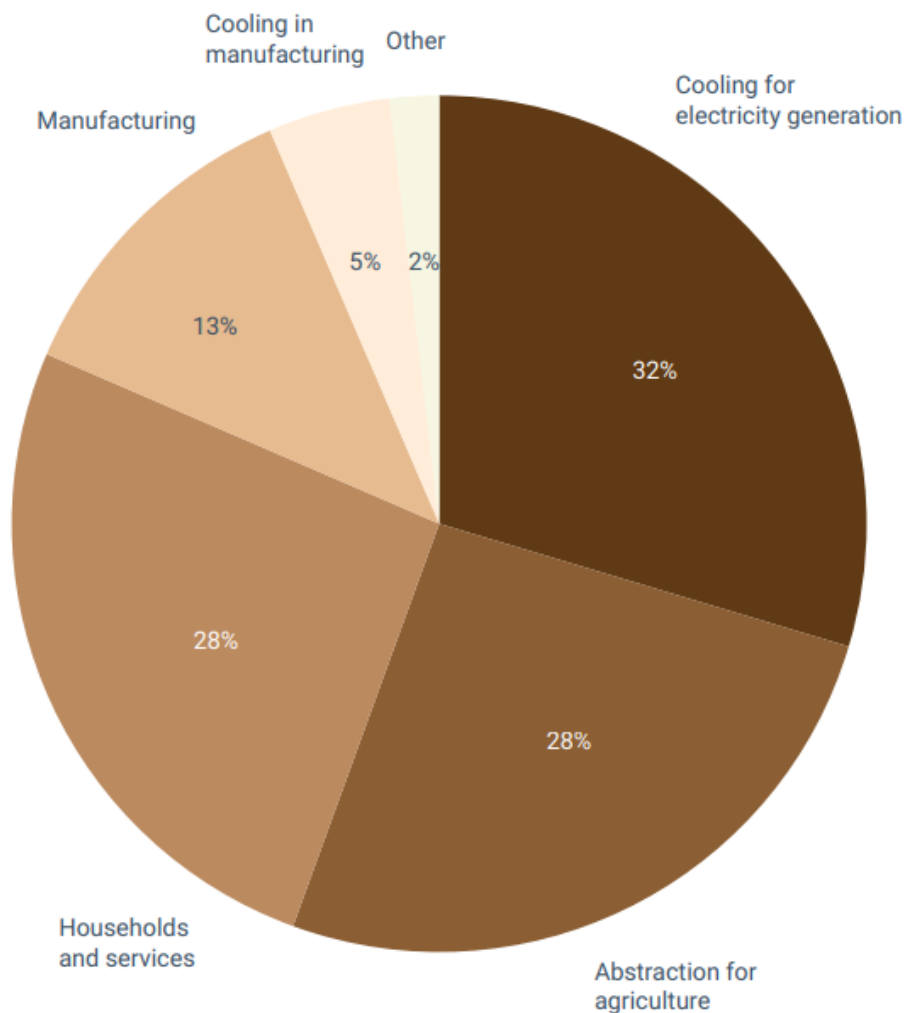
Comment éviter le gaspillage?

- Premier ennemi: **les fuites**. Elles peuvent représenter quelque 20 % de notre consommation totale. Comment repérer une fuite? Vérifiez que votre compteur d'eau n'évolue pas la nuit ou durant votre absence. Si le compteur n'indique pas le même chiffre le lendemain matin ou à votre retour (et que vous n'avez fait tourner aucune machine), c'est qu'il y a un problème et qu'il vous faut faire la chasse aux robinets qui gouttent ou aux fuites...
- Fermez bien les **robinets** ! Un robinet qui goutte, c'est 5 l gaspillés chaque jour. Si le robinet goutte, il suffit souvent de remplacer le joint défectueux. Si le problème ne vient pas du joint, il faut changer le robinet.
- Préférez les **douches** (consommation: environ 50 l) aux bains (consommation: environ 150 l).
- Ne faites pas tourner une **machine à laver** le linge ou la vaisselle si elle n'est pas pleine.
- Ne laissez **pas couler l'eau** pendant que vous vous brossez les dents.
- Utilisez une **chasse d'eau 'économique'**, qui utilise 2 à 3 fois moins d'eau que la chasse traditionnelle.
- Si possible, utilisez de **l'eau de pluie** pour laver votre voiture et arroser vos jardins. Quand arroser? Cela dépend des saisons. En été, il vaut mieux arroser le soir, car pendant la journée, l'eau peut s'évaporer à cause de la chaleur. En automne et au printemps, préférez le matin.

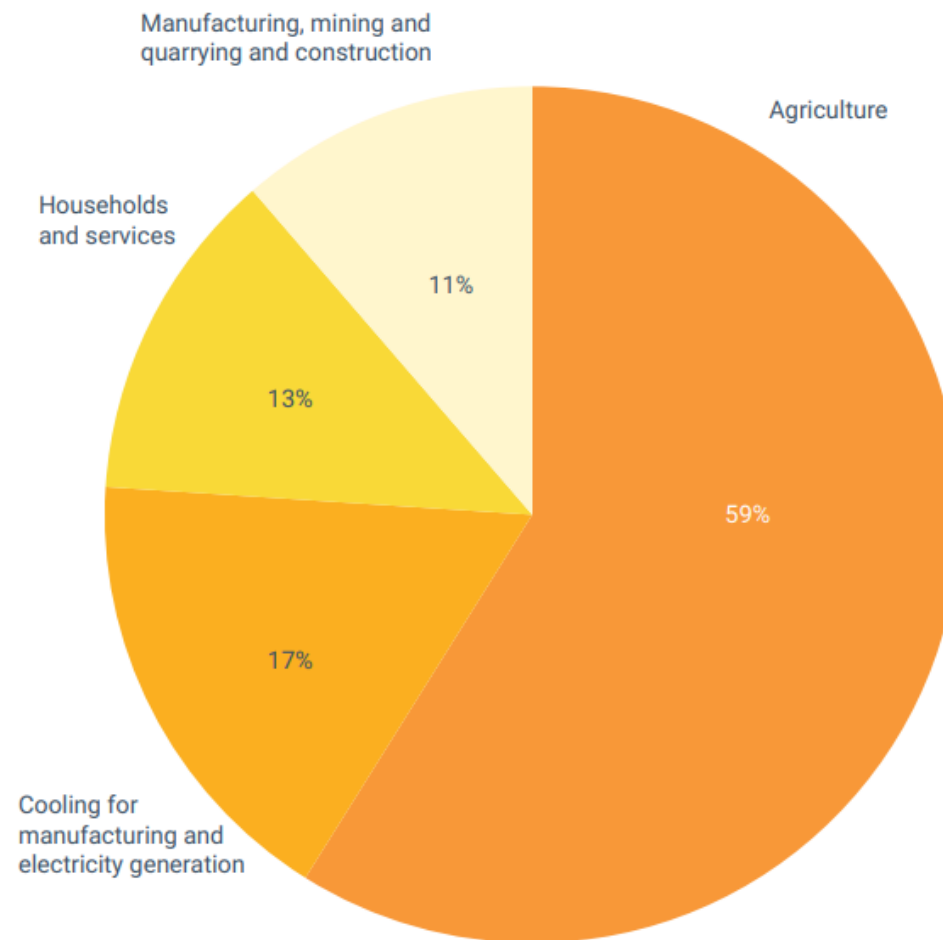
Source: Vivaqua



Water abstraction (2019)

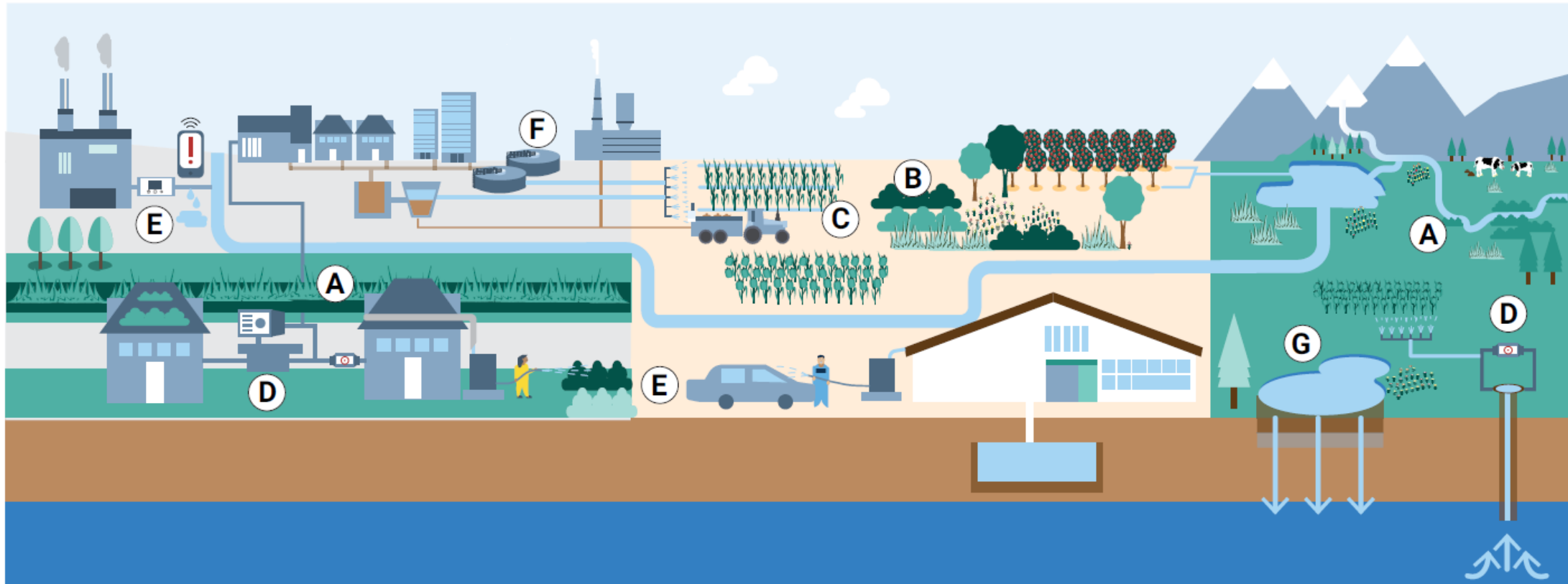


Water consumption (2019)



Source: Adapted from EEA, 2022f.

Figure 4.1 Addressing water scarcity, drought and flood pressures in Europe

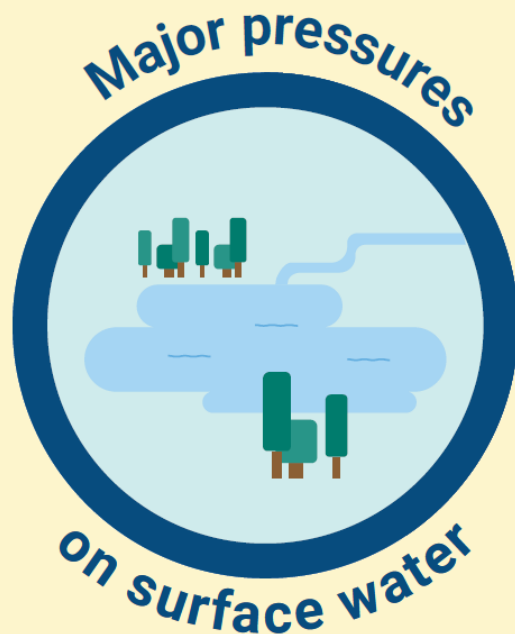


- (A)** Natural water retention measures: green infrastructure, swales, floodplain restoration
- (C)** Changing crops for less water-intensive species
- (F)** Water re-use, rainwater harvesting, desalination if using sustainable energy and preventing pollution by brine
- (B)** Sustainable farming: restoring soil carbon which holds water, riparian buffers, woody features
- (D)** Metering, abstraction control and enforcement
- (G)** Groundwater recharge
- (E)** Water saving and demand reduction: leakage control, water use efficiency, economic incentives

Source: EEA.



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52% Diffuse atmospheric pollution

51% Natural form and function (hydromorphology)

35% Diffuse pollution (excluding atmospheric)

29% Diffuse agricultural pollution

18% Point source pollution



34% Diffuse pollution

32% Diffuse agricultural pollution

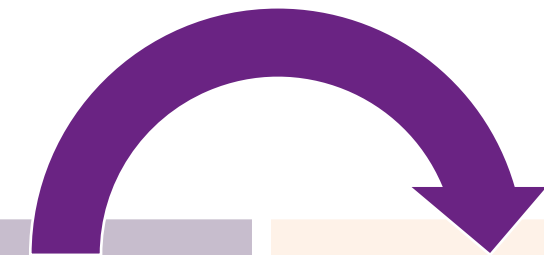
18% Abstraction





Obligation to implement quaternary treatment in many urban wastewater treatment plants

Extended Producer Responsibility: companies selling pharma & cosmetics products contribute to funding





PROJEKTE & FORSCHUNG

Hacke und Striegel – Mechanische Unkrautbekämpfung für den Grundwasserschutz

Das Projekt „Hacke und Striegel“ ist seit 2020 eine Erfolgsgeschichte. Dank spezieller Geräte zur mechanischen Unkrautbekämpfung kann der Einsatz von chemischen Pflanzenschutzmitteln reduziert werden.







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Thank you

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