



LIGNOPURE

BOOKLET

‘A Drop For Sustainability!’

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A THREAT: CLIMATE CHANGE



What Is Climate Change?

Long-term alterations in Earth's weather patterns, including rising temperatures, extreme weather events, and shifts in ecosystems, caused by human activities.

Why is Climate Change Important?

It disrupts ecosystems, endangers biodiversity, and poses severe threats to human well-being. It accelerates sea level rise, intensifies natural disasters, and necessitating urgent collective action.

How Does Climate Change Affect Us?

Through more frequent and intense heatwaves, storms, and rising sea levels, climate change jeopardizes food and water security, and exacerbates health risks.

What Should We Do?

Individuals and nations must reduce carbon emissions, transition to renewable energy, protect ecosystems, and promote sustainable practices similar to Lignopure.

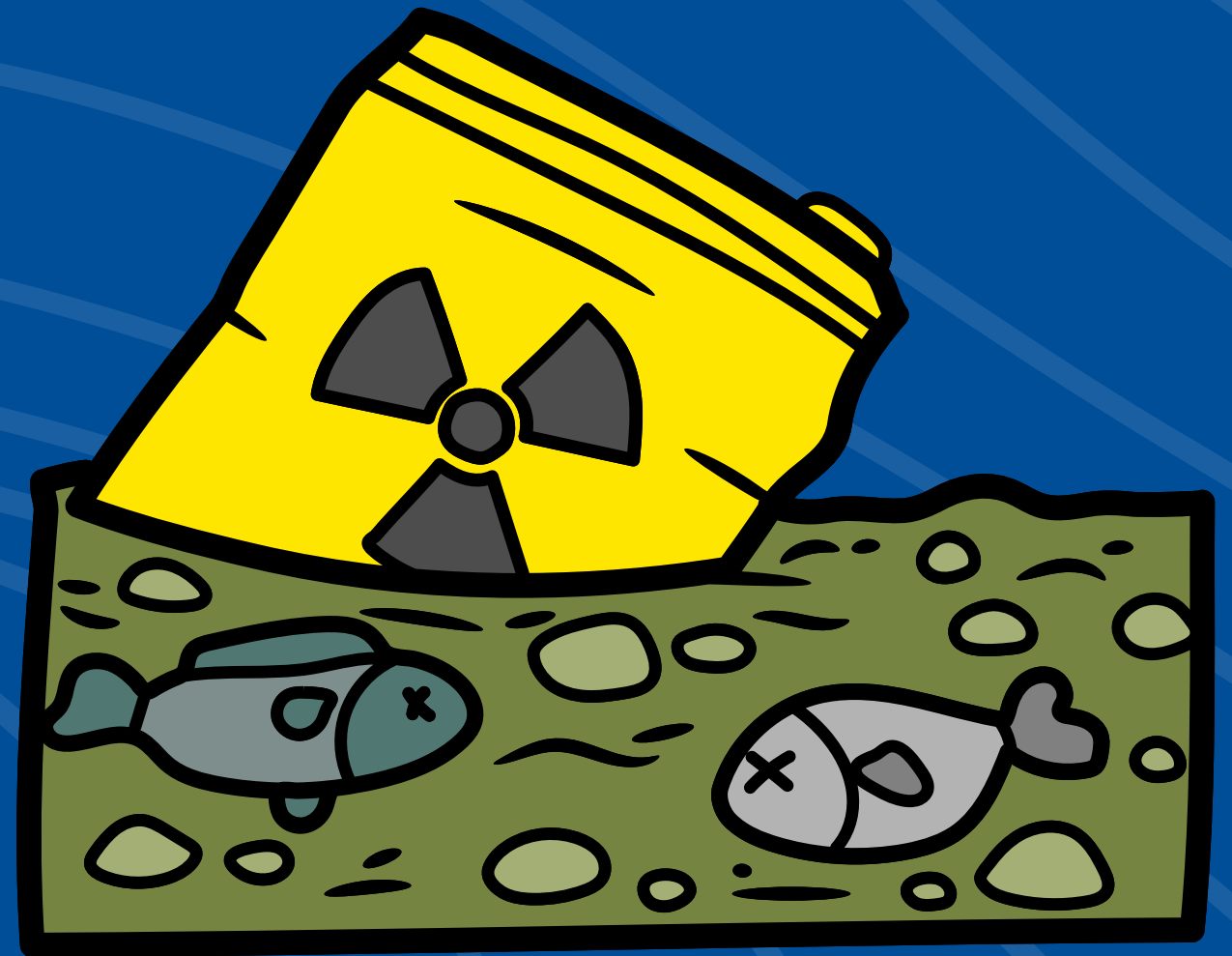


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WATER CONTAMINATION

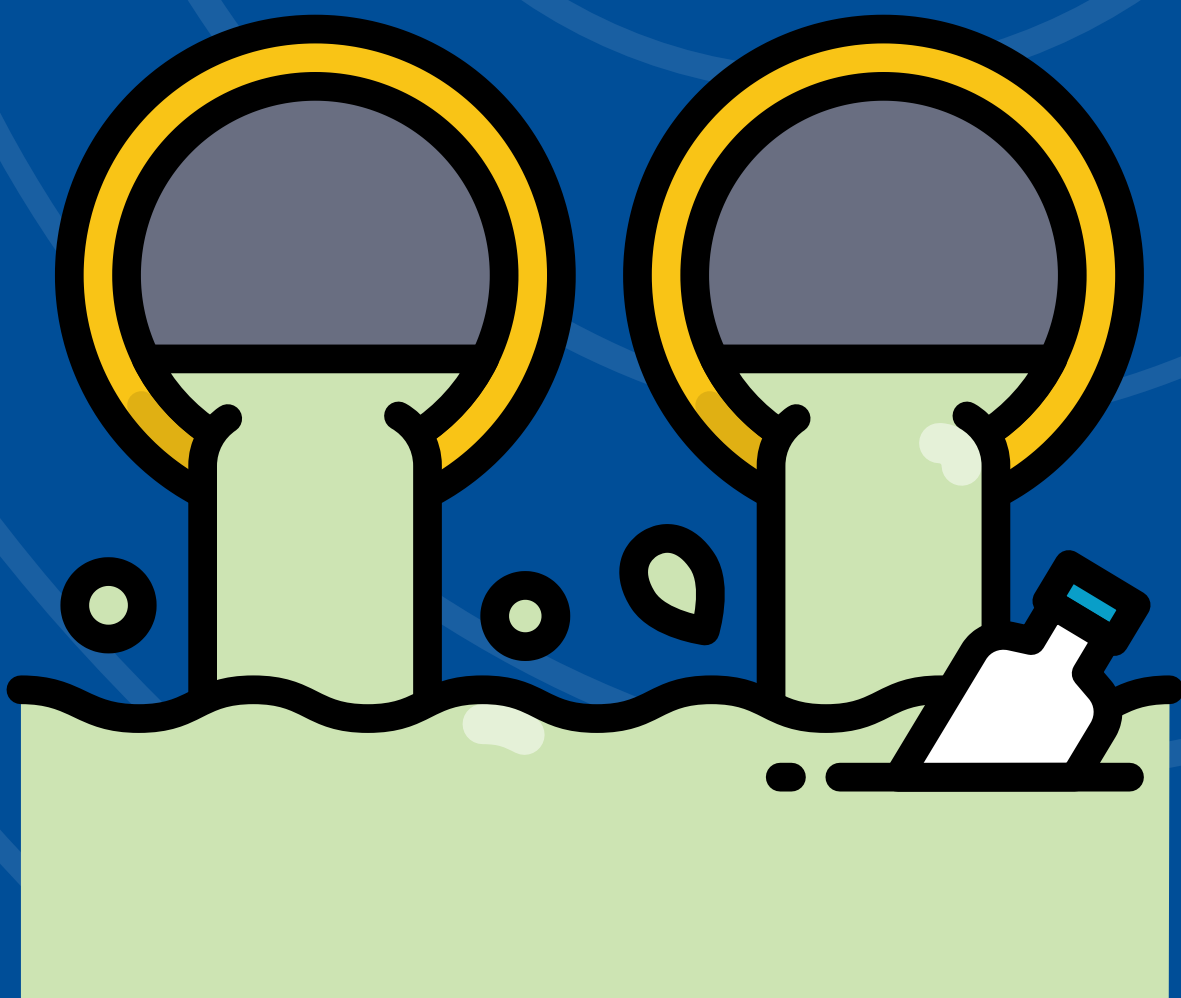
What is Water Contamination?

Introduction of harmful substances into water bodies, compromising its quality and making it unsafe for consumption or detrimental to ecosystems.



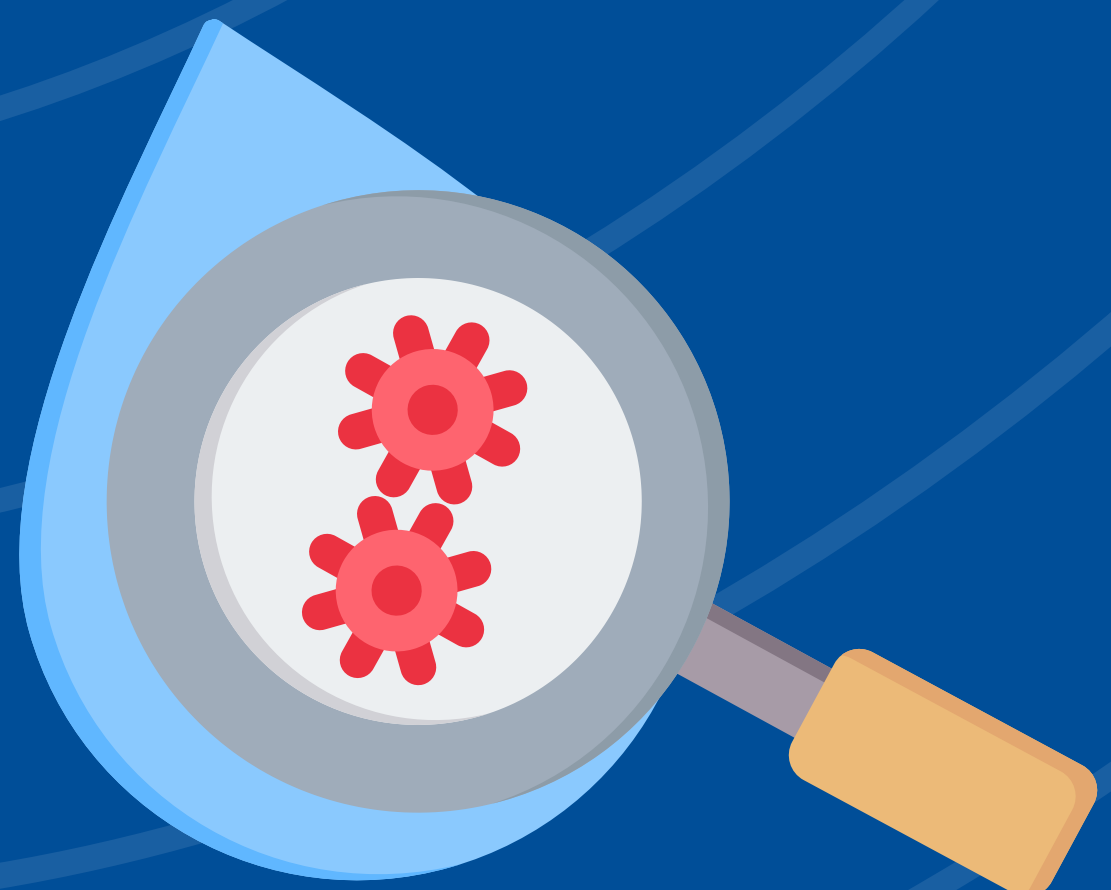
Main Causes of Water Contamination

- Industrial waste
- Agricultural runoff
- Oil spills
- Climate change
- Mining activities
- Seismic events



Top Contaminated Rivers in Turkey

1. Ergene River
2. Great Menderes River
3. Çoruh River
4. **Euphrates River**
5. **Tigris River**



PROBLEMS CAUSED BY WATER CONTAMINATION

Health Issues:

Waterborne diseases such as cholera, dysentery, giardiasis, and hepatitis.



Soil Contamination:

Contaminated water used for irrigation can lead to soil pollution, affecting the quality of crops and vegetation.

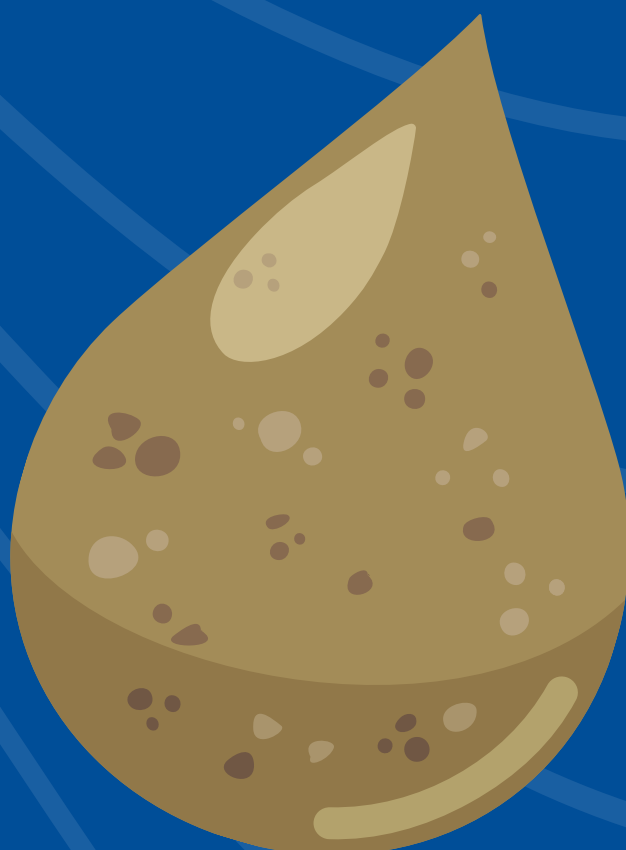


Taste and Odor Issues:

Contaminants can affect the taste and odor of water, making it unappealing and reducing its quality.

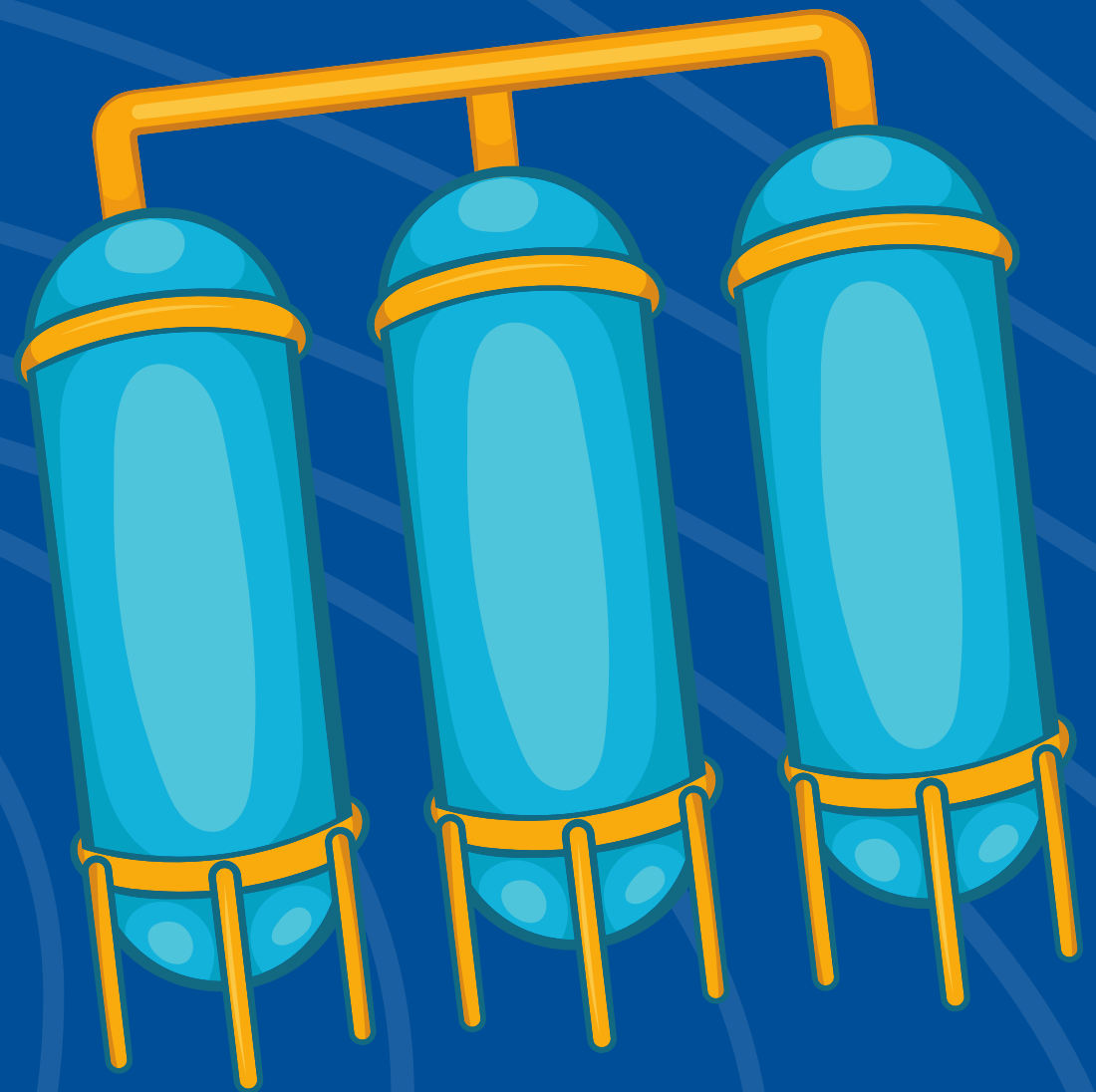


Discoloration: Certain pollutants can cause discoloration of water, raising concerns about its safety and potability.

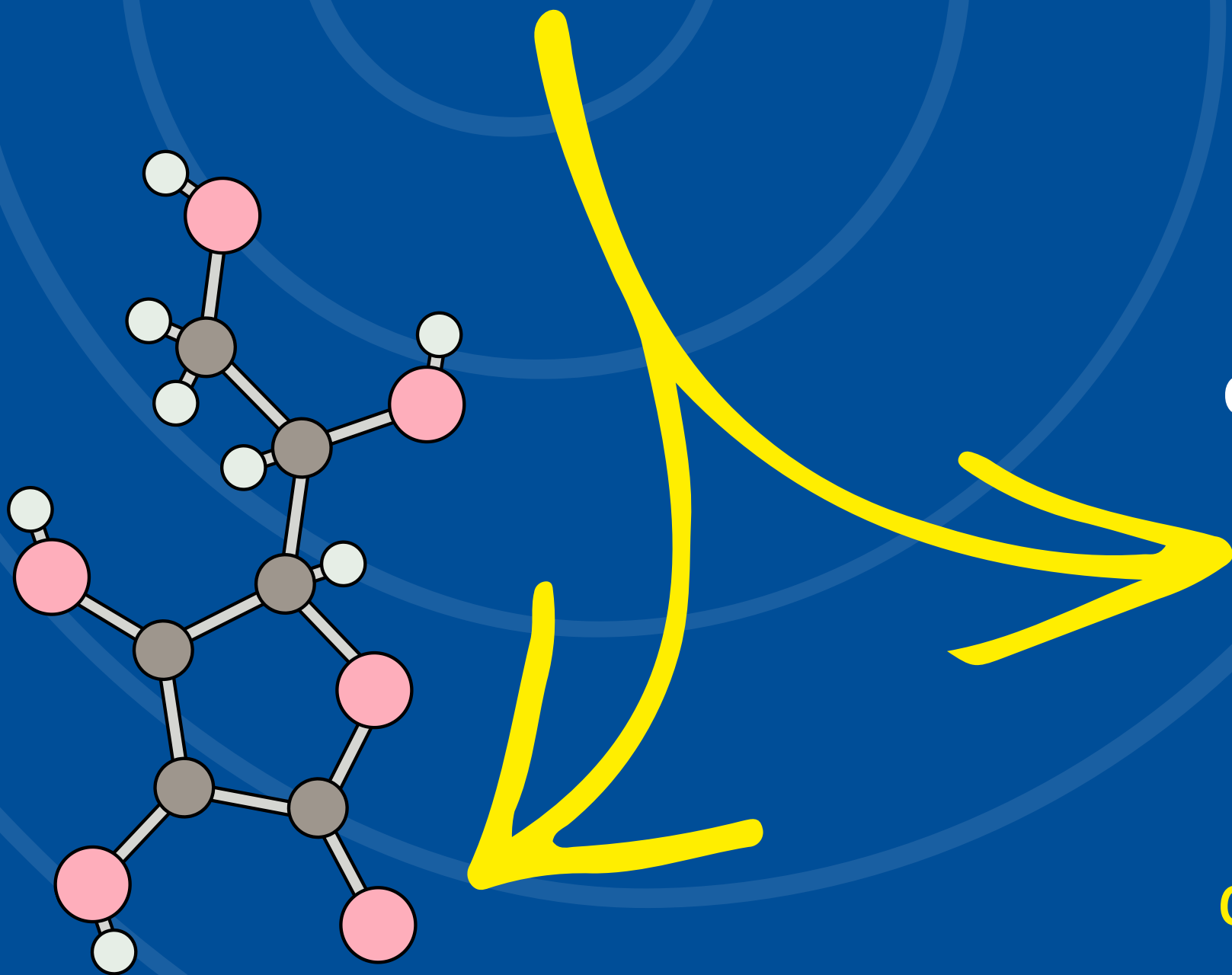


SOLUTION: LIGNOPURE

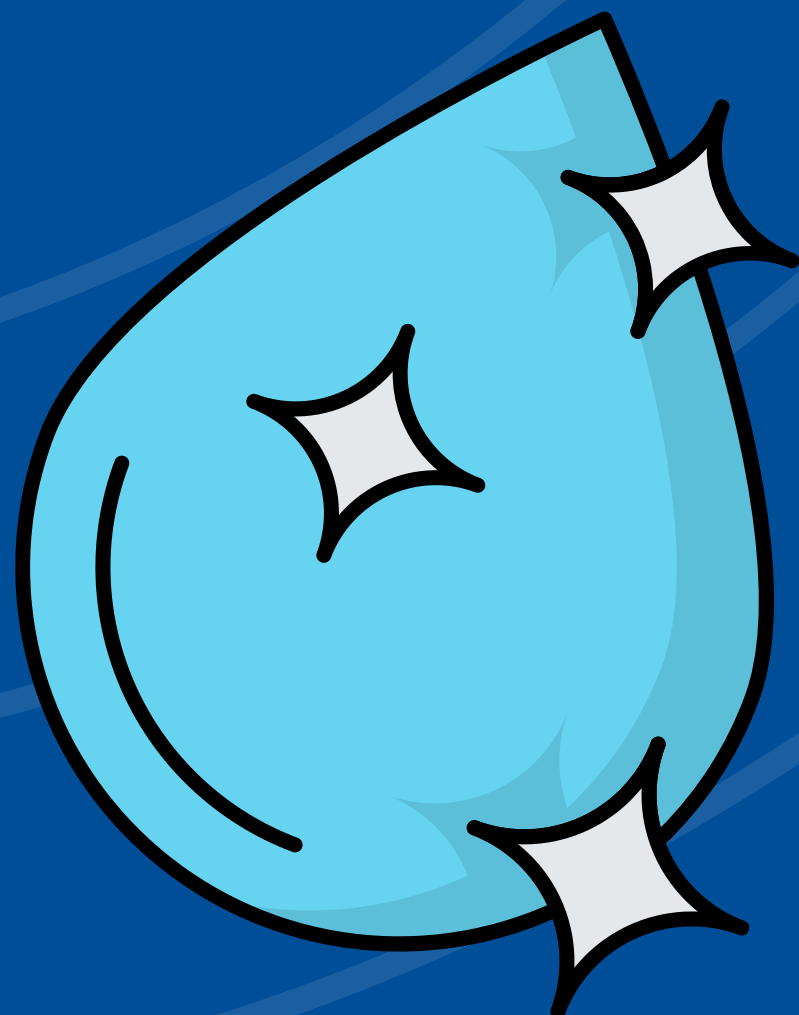
Lignopure is an innovative bio-based solution, carefully formulated with an agricultural waste **rice husk**.



This unique composition is designed to effectively address water contamination issues in both **agricultural** and **drinking water contexts**.



Unlike existing solutions to water contamination, Lignopure stands for a **biodegradable** and **multifunctional** solution aligning with its **cost-effectiveness** and **improved agricultural waste management**.



DETAILED DESCRIPTION : LIGNOPURE

A Lignocellulosic Biomass: Rice Husk

Composed of polysaccharides (cellulose and hemicelluloses) and an aromatic polymer (lignin). Lignopure is made of rice husk.



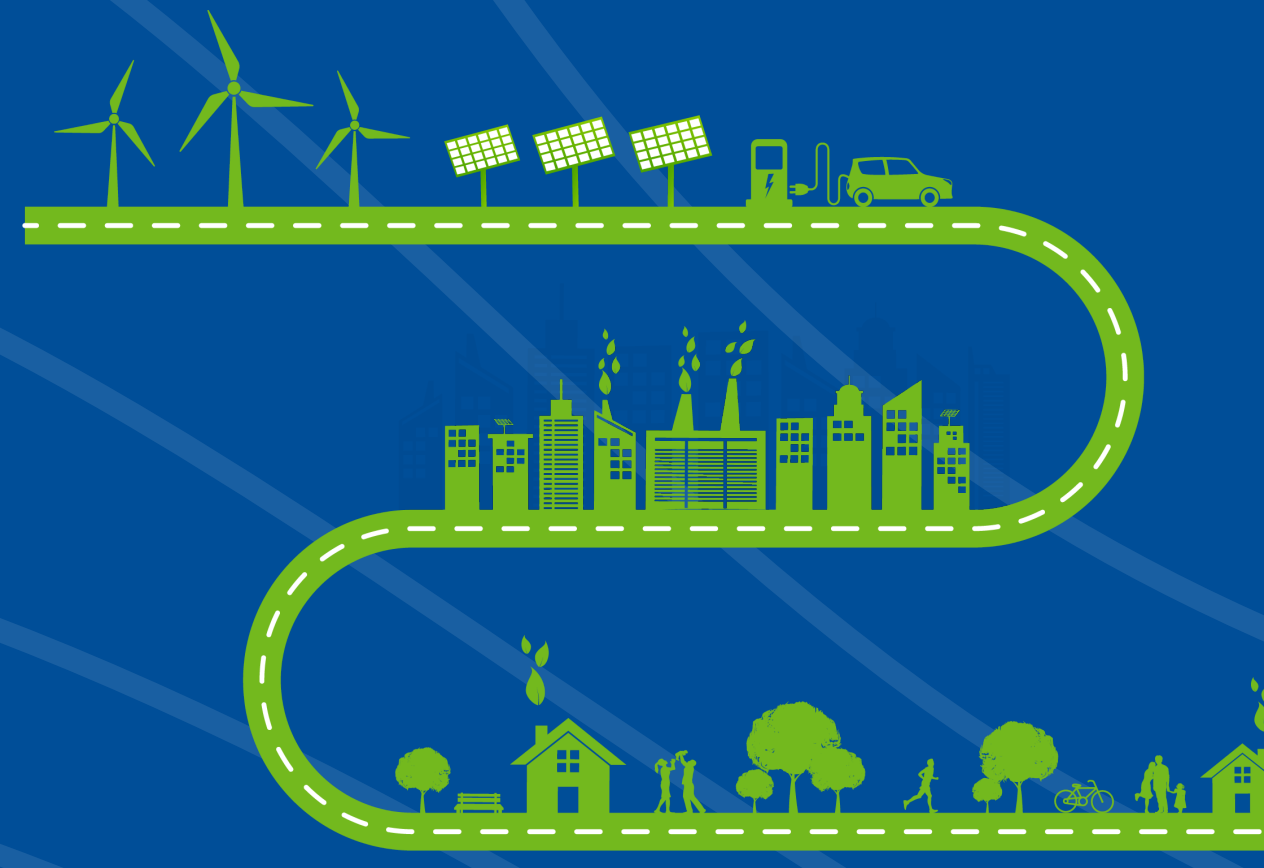
How Does It Work?

60 minutes is enough for Lignopure to absorb heavy metals and dye pollutants in water sources. Additionally, it can be implemented to any water filtration system!



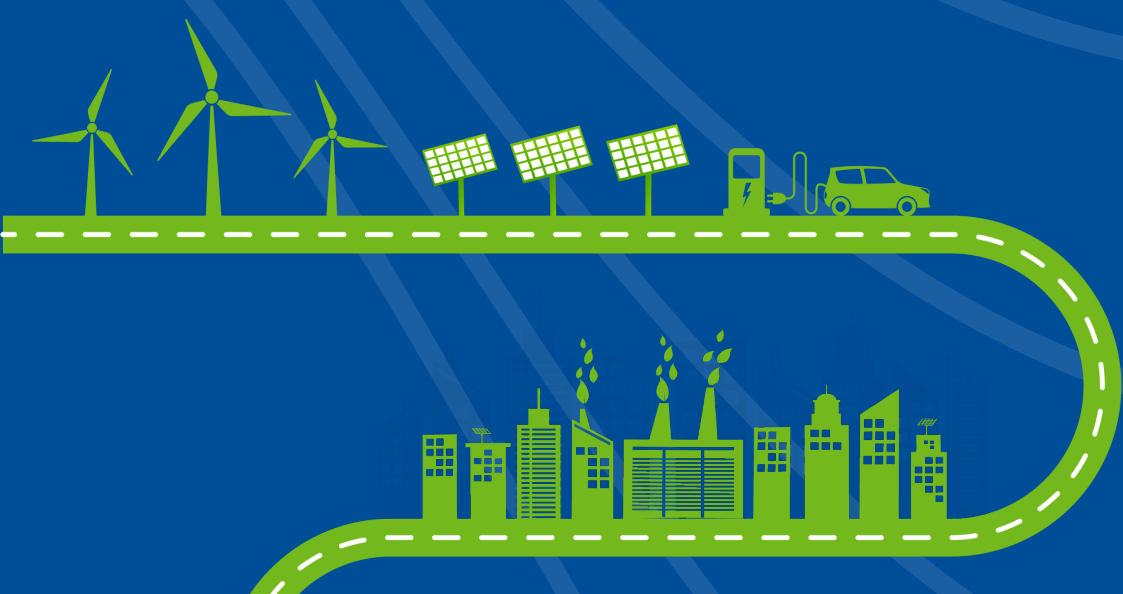
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ENVIRONMENTAL IMPACT



Lignopure;

- Replaces harmful chemicals in water treatment, minimizing pollution and protecting ecosystems, and lessens the chemical dependence
- Decomposes naturally, avoiding harmful residues and ensuring safer water disposal.
- Uses renewable resources: Utilizes sawdust, a waste product, promoting circular economy and reducing reliance on virgin materials.
- Absorbes both natural and human threat: landslides dump muddy sediment, fractured rocks release toxic metals, while damaged infrastructure spills chemicals and sewage, all polluting the water and endangering ecosystems and potentially human health.



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SOCIAL IMPACT

Decentralized and cost-effective water treatment can provide safe and clean drinking water to communities lacking access to existing infrastructure.



Results in improved public health, reduced waterborne diseases, and empowered vulnerable populations.



Provides an alternative water source in emergencies and natural disasters.



Builds self-reliance and resilience in communities facing water scarcity. Fosters local ownership and management of water resources.

Empowers communities to adapt to climate change and water scarcity challenges.



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‘A Pure Future Is Possible!’

Contact Us: lignopure@gmail.com



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