PROPOSAL:

Project 3 analysis of water quality in Australia

Analysis of Water Quality to Identify Sources of Contamination and their Impact on Aquatic Ecosystems and Human Health

Water quality is extremely essential for the well-being of humans and the environment. Contaminants such as; chemicals, pollutants, and pathogens can have a detrimental impact on aquatic ecosystems and human health. Therefore meaning it is crucial to analyse water quality data to identify sources of contamination and assess their impact on aquatic ecosystems and human health. This proposal outlines a plan to analyse water quality data to identify sources of contamination and their impact on aquatic ecosystems and human health.

The primary objectives of this analysis are to:
Identify the sources of water contamination and their distribution in the study area Analyse the impact of water contamination on water quality parameters, such as pH, temperature, and DO(Dissolved oxygen). Evaluate the impact of water contamination on aquatic ecosystems Evaluate the potential health risks associated with contaminated water Assess the effectiveness of current strategies for maintaining water quality.

This analysis will involve collecting and examining water quality data from various sources, including government reports, academic publications, and relevant databases. The data will include water quality parameters such as pH, temperature, and dissolved oxygen, as well as data on land use and human activity in the surrounding areas.
The data will be analysed using statistical software to identify trends and patterns in water quality parameters over time and across different locations. Regression analysis will be used to examine the relationship between land use and water quality.
To evaluate the impact of water contamination on aquatic ecosystems, I will examine ecological indices such as the Macroinvertebrate Community Index (MCI) and the Australian River Assessment System (AUSRIVAS). These indices provide a measure of the health of aquatic ecosystems based on the presence and abundance of indicator species.
To evaluate the potential health risks associated with contaminated water, I will examine data on waterborne diseases such as cholera, typhoid, and hepatitis A. I will also assess the effectiveness of current strategies for maintaining water quality by reviewing relevant policies and regulations.

This analysis is expected to provide insights into the sources of water contamination and their impact on aquatic ecosystems and human health. The findings will help inform policies and strategies for maintaining water quality in the study area. Additionally, the analysis will contribute to the body of knowledge on water quality and provide a basis for future research in this area.

Conclusion:

This proposal outlines a plan for analysing water quality data to identify sources of contamination and assess their impact on aquatic ecosystems and human health. The analysis is expected to provide valuable insights into the state of water quality in the study area and inform strategies for maintaining it.

Water Pollution in Australia

- Stormwater runoff
- sewage discharge
- agricultural runoff
- Industrial Discharge
- Mining Activities

Other;

Aboriginal communities, Northern Territory, WA and QLD having the least drinkable water sources in 2022?

Etc

Data sites:

API: https://www.bom.gov.au/water/waterdata/online/map.shtml
API: https://www.npi.gov.au/api
API: https://www.csiro.au/en/Research/Farming-food/Water-analytics