

BANA 698 - Group 3
Final Objectives & Research Questions

1. **Objective: Assess the impact of environmental changes on public health outcomes.**
 - **RQ1: Time Series Analysis:** How have the changes in CO2 emissions affected life expectancy and/or mortality rates over the past 4 years?
 - **RQ2: Hypothesis Testing:** Do countries with higher access to clean drinking water have lower poverty rates than those that do not?
 - **RQ3: Multiple Linear Regression:** How do greenhouse gas emissions, access to clean drinking water, and public debt levels predict life expectancy?

2. **Objective: Investigate the impact of access to essential services on poverty reduction**
 - **RQ4: Time Series Analysis:** How has access to electricity and clean drinking water changed over the last 3 years, and how do these trends correlate with poverty rates?
 - **RQ5: Multiple Linear Regression:** How do access to drinking water, electricity, and literacy rates predict poverty levels?
 - **RQ6: Neural Networks:** Can a neural network predict poverty headcount ratios based on historical infrastructure and social indicators such as electricity access, literacy rates, and employment levels?

3. **Objective: Analyze the relationship between education, employment, and social mobility**
 - **RQ7: Time series:** How have changes in adult literacy rates correlated with unemployment rates over the past years?
 - **RQ8: Multiple Linear Regression:** How do literacy rates, unemployment rates by education level, and GDP growth predict poverty levels?
 - **RQ9:** Do countries with higher youth literacy rates have significantly lower youth unemployment rates?
 - **RQ10: Neural Network:** Can a neural network predict trade activity based on education levels, inflation rates, and economic inequality?