

## **Synopsis of the proposed study for NST fellowship 2025-2026**

### **Rebuilding from Ruin: A Time Series Analysis of Economic Growth in War-Torn Countries**

#### **Introduction**

War leaves a devastating impact on economies, dismantling infrastructure, reducing human capital, disrupting trade, and distorting institutional stability. However, post-conflict reconstruction efforts can provide unique opportunities for economic renewal. Many nations have also shown remarkable resilience and recovery. This thesis investigates long-term economic trajectories in war-torn countries using time series data from 1970 to 2024. It aims to identify patterns of economic recovery and understand the influence of variables such as foreign aid, governance, and investment.

#### **Objectives of the Study**

- To analyze long-term economic growth trends in selected war-affected countries from 1970–2024.
- To identify turning points and structural breaks in GDP per capita and related indicators following periods of conflict.
- To evaluate the role of foreign aid, institutional quality, and post-war reconstruction policies in facilitating economic recovery.
- To compare the recovery trajectories of countries affected by different types and durations of conflicts.
- To forecast potential future growth patterns using autoregressive time series models.

#### **Literature Review**

War inflicts devastating economic damage through the destruction of infrastructure, capital flight, loss of human capital, and the breakdown of governance (Collier, 1999; Stewart & FitzGerald, 2001). According to the World Bank (2003), civil wars reduce a country's annual economic growth by about 2.2% on average. The impacts are not limited to the period of conflict, as post-conflict instability, social fragmentation, and institutional erosion often prolong economic stagnation. Key studies, such as those by Collier (1999) and Barro (1991), have explored the macroeconomic aftermath of civil wars, emphasizing the role of institutional strength, international assistance, and initial economic conditions. More recent work incorporates time series econometrics to evaluate how economic indicators like GDP, investment, and trade evolve pre- and post-conflict (e.g., Kang & Meernik, 2005; Hoeffler et al., 2019). Further research, including World Bank reports and IMF data, highlights the importance of state capacity and governance in post-conflict recovery. Studies applying ARDL (Autoregressive Distributed Lag) and VAR (Vector Autoregression) models have proven effective in identifying both short- and long-term dynamics in these contexts.

## **Research Questions**

What are the typical economic trajectories of countries recovering from war? How do conflicts of different intensities and durations affect long-term growth? What role does international aid and institutional quality play in economic rebound?

## **Methodology**

**Data Sources:** (World Bank Development Indicators, UCDP Conflict Data, IMF, UNDP).

**Countries Selected:** Afghanistan, Bosnia and Herzegovina, Iraq, Lebanon, and Mozambique.

**Dependent variable:** The dependent variable is GDP per capita (constant USD)

**Independent variable:** This includes Inflation rate (CPI), Government expenditure (% of GDP), Foreign direct investment (FDI, net inflows % of GDP), Foreign aid (ODA % of GNI), Trade openness, Human capital index/ education expenditure, Unemployment rate, Infrastructure index, Conflict Dummy (1 = war years, 0 = peace years).

- This study employs a quantitative research design using longitudinal time series analysis. Descriptive statistics (Mean, Standard Deviation). ARIMA for forecasting GDP trends, ARDL (Panel Autoregressive Distributed Lag Model) model results reveal significant long-run cointegration among the variables. VAR (Vector Autoregression) to examine interactions among multiple economic variables. Structural Break Tests (Chow Test)-to detect turning points during/after war.

**Software:** Stata for (Regression, Panel data and Time Series), R/RStudio for (All economic method and plotting), Python.

## **Significance of the Study**

This study bridges the gap between conflict economics and time series econometrics, offering a quantitative, historical view of recovery. It provides insights for policymakers, international donors, and post-conflict planners to better structure interventions that promote sustainable development after war.

## **Expected Outcomes**

Identification of common patterns in economic recovery post-conflict. The conflict dummy variable may be strongly negative in both short-run and long-run coefficients in the ARDL model. Understanding of critical time lags between conflict cessation and economic rebound. Foreign aid (ODA) and government spending are expected to positively influence post-war growth. FDI and trade openness may be shown to improve long-term recovery, but only after conflict intensity subsides and stability returns. Policy Implications may highlight the importance of Peace durability, Sound fiscal policy, External financial aid, Institutional rebuilding in accelerating post-war economic recovery.

## **Expected Timeline**

The thesis is expected to be conducted over a four-month period, from 01 September 2025 to 31 September 2025. This timeline includes data preparation, analysis, writing and final submission.

### References

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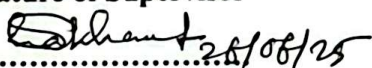
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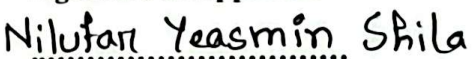
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