SDG Problem Definition Document: Reducing Child Mortality

1. Project Title:

Reducing Child Mortality: Leveraging Data to Accelerate Progress towards SDG 3

2. Sustainable Development Goal (SDG) Target:

SDG 3: Good Health and Well-being

- **Goal 3.2**: By 2030, end preventable deaths of newborns and children under 5 years of age. All countries aim to reduce neonatal mortality to at least 12 per 1,000 live births and under-5 mortality to at least 25 per 1,000 live births.

3. Problem Statement:

Child mortality remains a significant challenge in many low and middle-income countries, despite global advancements in healthcare. Neonatal, infant, and under-five mortality rates are especially high in regions where healthcare services, infrastructure, and education are inadequate. This problem is compounded by disparities in access to healthcare for different genders, socioeconomic classes, and regions.

The global community has committed to reducing these mortality rates as part of the SDGs. However, current data shows that many countries are not on track to meet the targets by 2030. Without targeted interventions and data-driven strategies, preventable child deaths will continue to occur at alarming rates, and millions of children will die unnecessarily before their fifth birthday.

4. Scope of the Problem:

- **Geographic Focus**: High-risk regions in Sub-Saharan Africa, South Asia, and conflict-affected areas.
- **Key Focus Areas**:
    1. **Neonatal Mortality**: Deaths occurring within the first 28 days of life.
    2. **Infant Mortality**: Deaths occurring within the first year of life.
    3. **Under-Five Mortality**: Deaths occurring before a child's fifth birthday.

5. Data Analysis Objectives:

The project aims to:

- **Identify regions with the highest mortality rates**: Using data from global health databases, we will pinpoint countries and regions that are significantly lagging in reducing child mortality.

- **Analyze trends over the past decade**: Examine child mortality rates from 2013 to 2022 to determine progress or stagnation in specific regions.
- **Highlight gender-based disparities**: Investigate differences in mortality rates between male and female children to understand how gender impacts child survival.
- **Assess the effectiveness of healthcare interventions**: Identify countries that have successfully reduced mortality rates and determine which interventions (e.g., vaccination programs, maternal health care) have been most impactful.

6. Data Sources:

- **Global Health Databases**: Data collected on infant mortality, neonatal mortality, and under-five mortality from organizations such as the World Health Organization (WHO), UNICEF, and national health departments.
- **Specific Datasets**:
  - Infant Mortality Data (2013-2022)
  - Under-Five Mortality Data (2013-2022)
  - Neonatal Mortality Data (2013-2022)

7. Target Beneficiaries:

- **Primary Beneficiaries**:
  - Newborns, infants, and children under five in high-mortality regions.
  - Mothers and families who lose children due to preventable causes.
- **Secondary Beneficiaries**:
  - Governments and policymakers in high-risk countries who require data to make informed decisions.
  - Healthcare providers and non-governmental organizations (NGOs) working to reduce child mortality through targeted interventions.

8. Key Challenges:

- **Inadequate healthcare infrastructure**: Many high-mortality regions lack access to essential healthcare services, particularly maternal and neonatal care.
- **Conflict and political instability**: In conflict-affected areas, healthcare systems are often under-resourced and unable to provide adequate care to mothers and children.
- **Cultural and socio-economic factors**: Gender discrimination, poverty, and lack of education all contribute to higher child mortality rates.
- **Data gaps and inconsistencies**: In some regions, reliable data on child mortality is limited, making it difficult to track progress and measure the impact of interventions.

9. Goals of the Project:

1. **Reduce neonatal, infant, and under-five mortality** by using data-driven strategies to identify high-risk regions and implement targeted interventions.
2. **Provide actionable insights** to governments, healthcare providers, and NGOs to help guide policy decisions and healthcare strategies.
3. **Promote equity in healthcare access** by addressing disparities in child mortality based on gender, location, and socio-economic status.

4. **Track and monitor progress** towards achieving the SDG 3 target of ending preventable child deaths by 2030.

10. Proposed Solutions and Interventions:

- **Improved healthcare infrastructure**: Invest in healthcare facilities and maternal care programs in high-risk regions.
- **Maternal and newborn care programs**: Expand programs that provide care during pregnancy, childbirth, and the postnatal period.
- **Vaccination and nutrition programs**: Target immunization efforts and nutrition support for newborns, infants, and children in under-served areas.
- **Data monitoring and evaluation**: Implement robust systems to monitor child mortality rates and track the effectiveness of interventions in real time.

11. Conclusion:

Child mortality is a preventable issue that affects millions of families around the world. With concerted efforts, data-driven insights, and targeted healthcare interventions, it is possible to significantly reduce neonatal, infant, and under-five mortality rates. Achieving SDG 3 will require a global effort, focused attention on high-risk regions, and the commitment of both governments and international organizations.