**June 19, 2022, Version 2.0**

**Intro and Disadvantages of Previous Approaches**

UN-SDG goal one is to eradicate poverty, but to do so, we first need to know where poverty lies and how poverty differs from one place to another in order to allocate resources in accordance with local needs. [Would be ideal to list some UN led or other poverty alleviation programs].

Yet historically, this has been a daunting task. High-quality data — that is, both granular and updated — are hard to find. This is because:

* either census — the most detailed and granular source of data collected typically every ten years — do not collect information on income or consumption at all;
* or even while they do, given the decade-long duration in between censuses, data can quickly become obsolete and inaccurate, creating issues for intercensal years.
* When census fail to collect information that help us understand the spatial distribution of poverty, we rely on another source: a survey of household income and expenditure that takes place every three years, a much shorter cycle than the census.
  + The issue with this survey, however, is that its data are only available on a much less granular level — a discussion of Sri Lankan administrative geography: Province -> District -> DSD -> GN
  + Besides, one would still be concerned that given the high stakes of poverty alleviation resource distribution and the pace at which our current world changes day by day, three-year is still a relatively lengthy cycle that ideally could be shortened.

**Advantages of Our Current Approach**

This is where our current approach comes into rescue. In the Age of Big Data we now have access to novel sources of data derived from remote sensing and geographic information systems (RS data) as well as mobile operator call detail records (CDR data). Their advantage is they are both granular as well as more frequent and easily updatable.

* [further introduce the two sources and their respective connections to socioeconomic status based on the Steele et al. 2017 article]

**Data Sources**

* RS-CDS: [I could use some help as I’m not privy to the data collection process of this part beyond those introduced in https://lirneasia.net/2022/01/towards-a-better-understanding-of-sri-lankan-cities-using-satellite-imagery/]
* alternative socioeconomic index: cite the earlier white paper and briefly introduce the approach

**Methods**

**Preliminary Results & Discussion**

TBD

**June 17, 2022, Version 1.0**

* Background and Motivating Questions: why we need poverty map?
  + policy implications as introduced in Deichmann 1999
    - e.g. Implication of lack of precise and updated poverty mapping in poverty alleviation programs
  + Goal: to make the case for having easily updatable granular poverty/socioeconomic well-being maps for Sri Lanka
* methodology: what is the issue with the current / existing approach?
  + the two census/survey sources and their respective strengths and weaknesses — connection to administrative geography in Sri Lanka
    - Difficulty of census collecting
  + weakness of small-area estimation solely reliant on census and survey data (2015 Report; Tarozzi & Deaton 2008)
  + how remote sensing and mobile phone call data come into rescue (Chandana 2022)
    - (Royal Society article)
    - Mobile phone data: mobility, relocation frequency
    - Remote sensing: physical characteristics
* Current / Preliminary Results