

## Problem

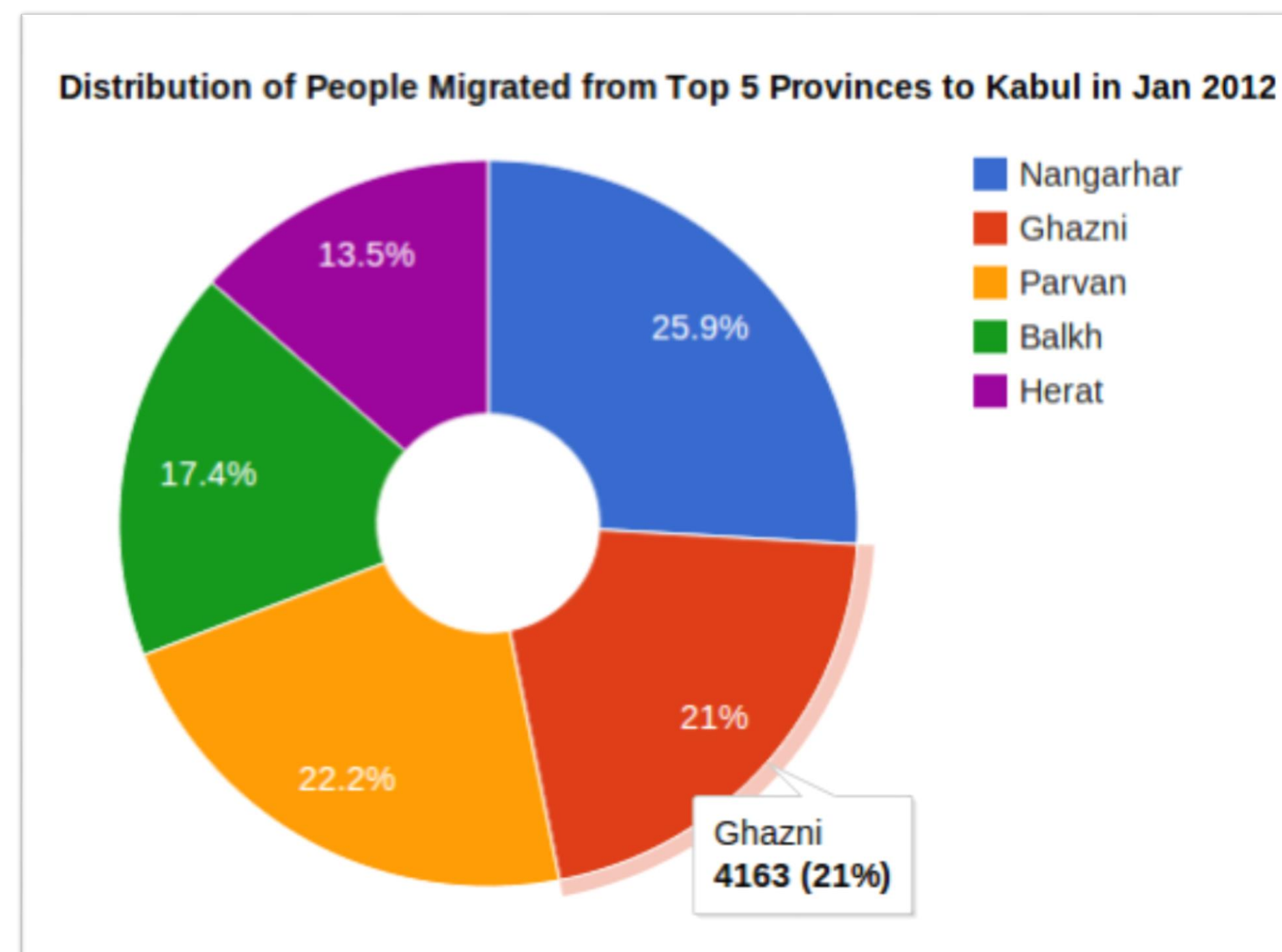
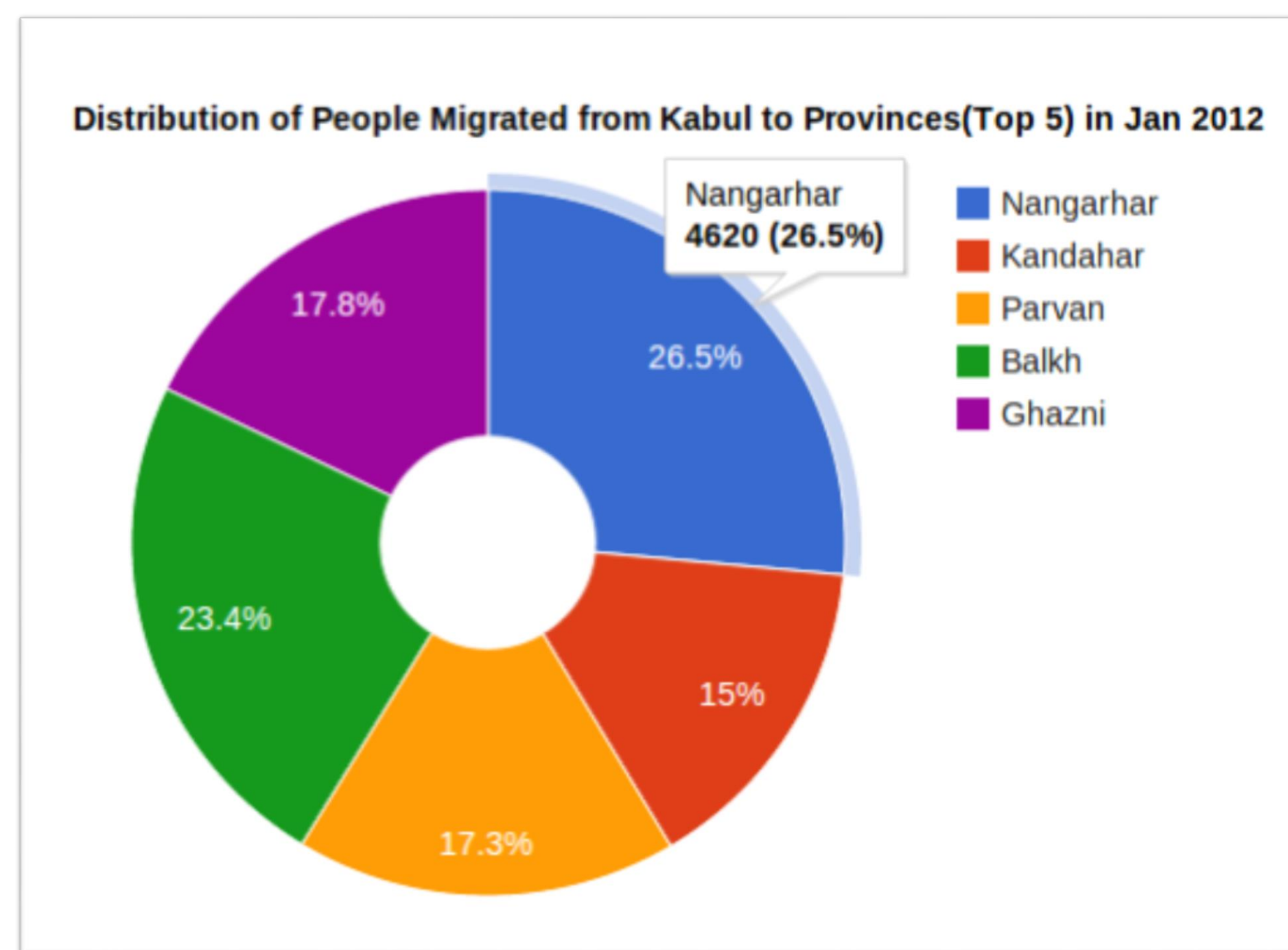
- In underdeveloped countries, philanthropists campaign to promote the well-being of humanity by addressing problems of poverty, healthcare and education.
- Absence of any concrete knowledge about demography or their reaction to events like calamities and bomb blasts makes this endeavor even difficult.

## Approach

- Leveraging mobile subscribers' activity log, also known as Call Detail Records, as a substitute to census or actual demographic migration information.
- Developing interactive visualizations to get an insight into inter-provincial migration and associating them with Migrated users' Short-term movement.

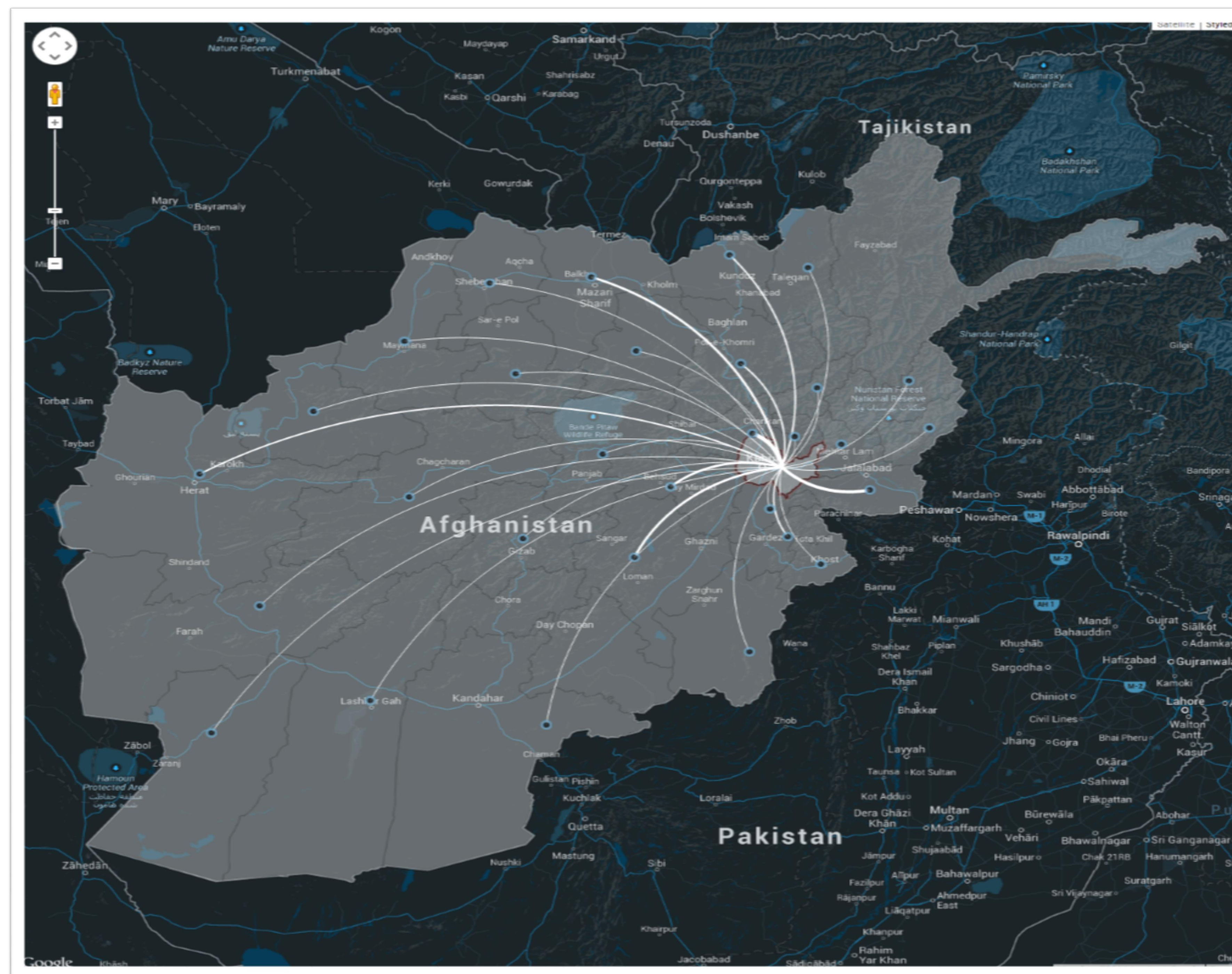
## Top 5 Migrated Provinces

Call Detail Records are used to quantify migration to and from Kabul – the most populous province in Afghanistan



## Migration Map

Google Maps API and D3.js are used to visualize the inter-provincial migration movement. The map is made interactive by giving user an option to view specific migration numbers between any two provinces.



## Granular User Movement Map

Daily movement pattern of migrated users between two provinces with users grouped by their neighborhood towers.



Nangarhar to Kabul



Balkh to Kabul

How It Works ?

Choose a source province to view human migration to all other provinces

Choose a destination province to view granular movement between two provinces

Understand the migration numbers from/to other provinces.