Model Card - CCI Nepal

Model card

Model Details

Person or organization developing model
Nesta in collaboration with a Data Science Fellow based in Nepal. Built for Nepal Red Cross support and guidance provided by them.

Model date
Models developed between Oct 2021 - July 2022

Model version
Only one version built/shared publicly

Model type
Information about training algorithms, parameters, fairness constraints or other applied approaches, and features

- Total Model: Two (One for Shelter, One for Wash)
- Model: Multi-Output Classification
- Algorithm: Logistic Regression
- Penalty: L2 for Shelter and L1 for Wash
- The above model and parameters were arrived at after testing different models and parameters using grid-search
- Input: Features selected/engineered out of survey questions variables
- Output: Likelihood of Essentialness of each NFRI

Paper or other resources for more information
Link for our report when it's ready:
Github project repository: https://github.com/nestauk/cci_nepal

Intended Use

Use cases that were envisioned during development.

Primary intended uses:

1. Predict the essentialness of an item during the time of flood disaster.

2. Comparison of item essentialness across multiple households/regions.
3. Refinement of NFRI list in future.
4. Pre-Stockpiling of the most essential items during the time of crisis.

Primary intended users:

1. Red Cross staff members

Out-of-scope use cases:

1. The model can not make predictions for other disasters (like Earthquakes, Fires, etc.)
2. The model can not make predictions for districts with different features than the ones we have collected data on.
3. The model can not predict the number of items needed for a household.