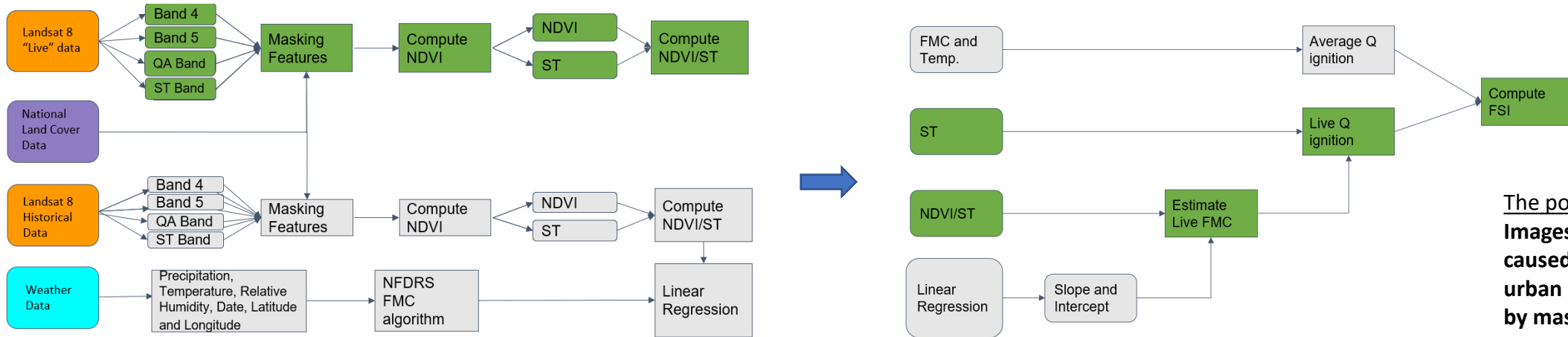
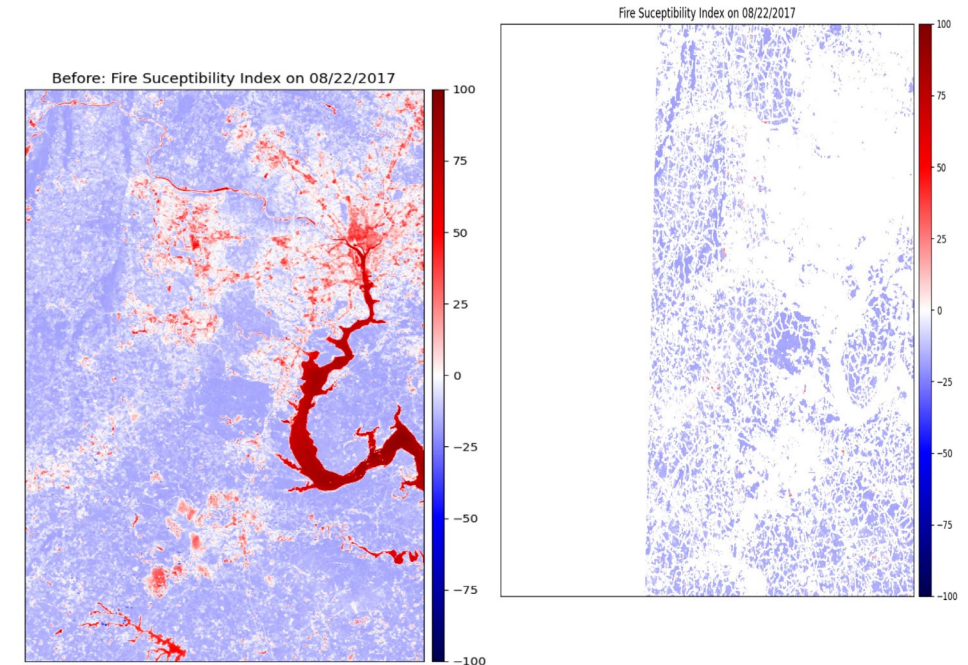


# Wildfire risk, assessment and prediction



The power of **MASKING**:  
**Images below show error**  
**caused by cloud, water and**  
**urban areas. This is resolved**  
**by masking via NLCD**

- **Fire Susceptibility Index (FSI)**: geospatial data that models wildfire risk
- Hindered by 2 factors: broad scale, data intensive
- Biggest challenge: Wildland urban interface (WUI) – 2020 saw 295 fires in VA, 4200 acres burned, 23 structures damaged
- FSI uniquely positioned to help solve these problems:
  - VT used Landsat data for remote sensing, as well as the NFMD\* database to collect FMC, and correlated the two
  - Determined NDVI\*\* using linear regression with correlated FMC
  - Used NLCD\*\*\* data to mask urban and water areas for FSI application



\*National Fuel Moisture Database  
 \*\*Normalized Difference Vegetation Index  
 \*\*\*National Land Cover Database