Wildfire Scenarios for Assessing Risk of Cover Loss in a Megadiverse Zone

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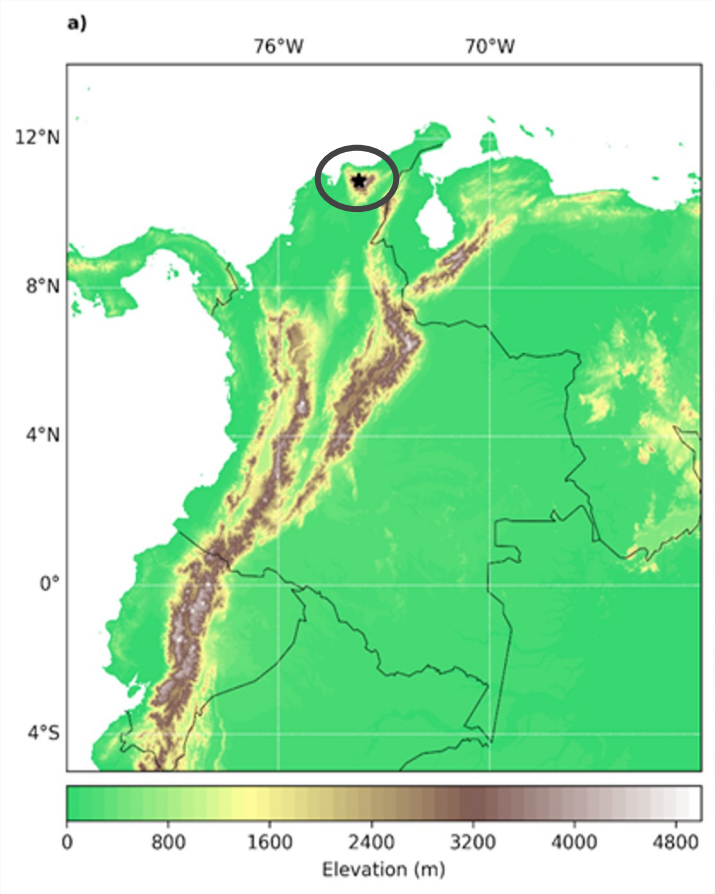
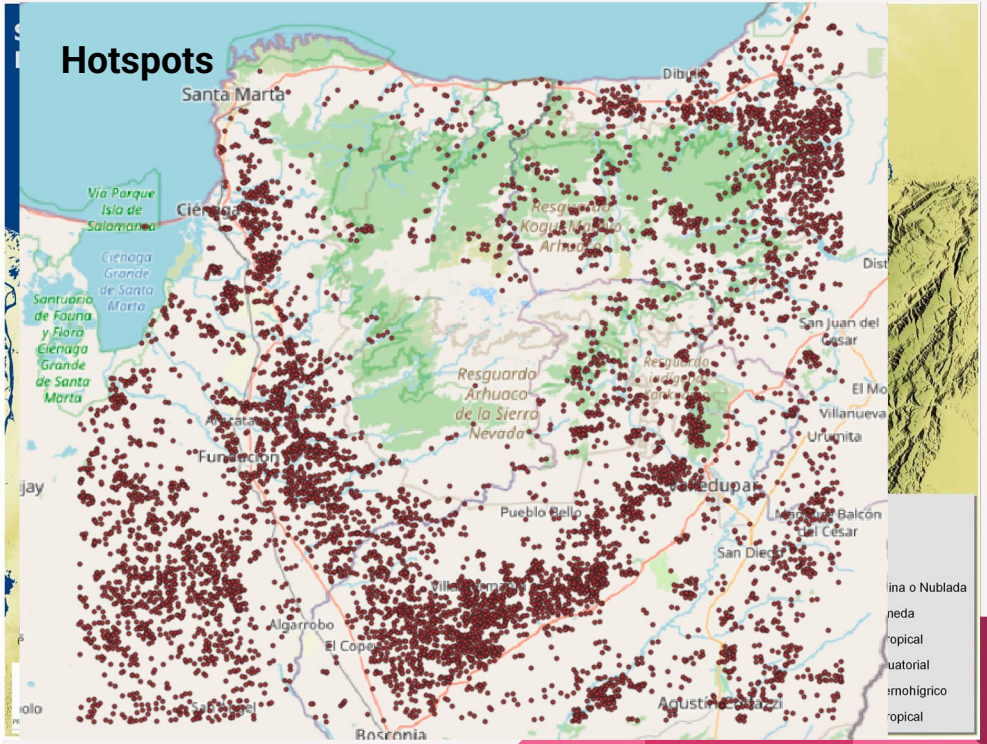
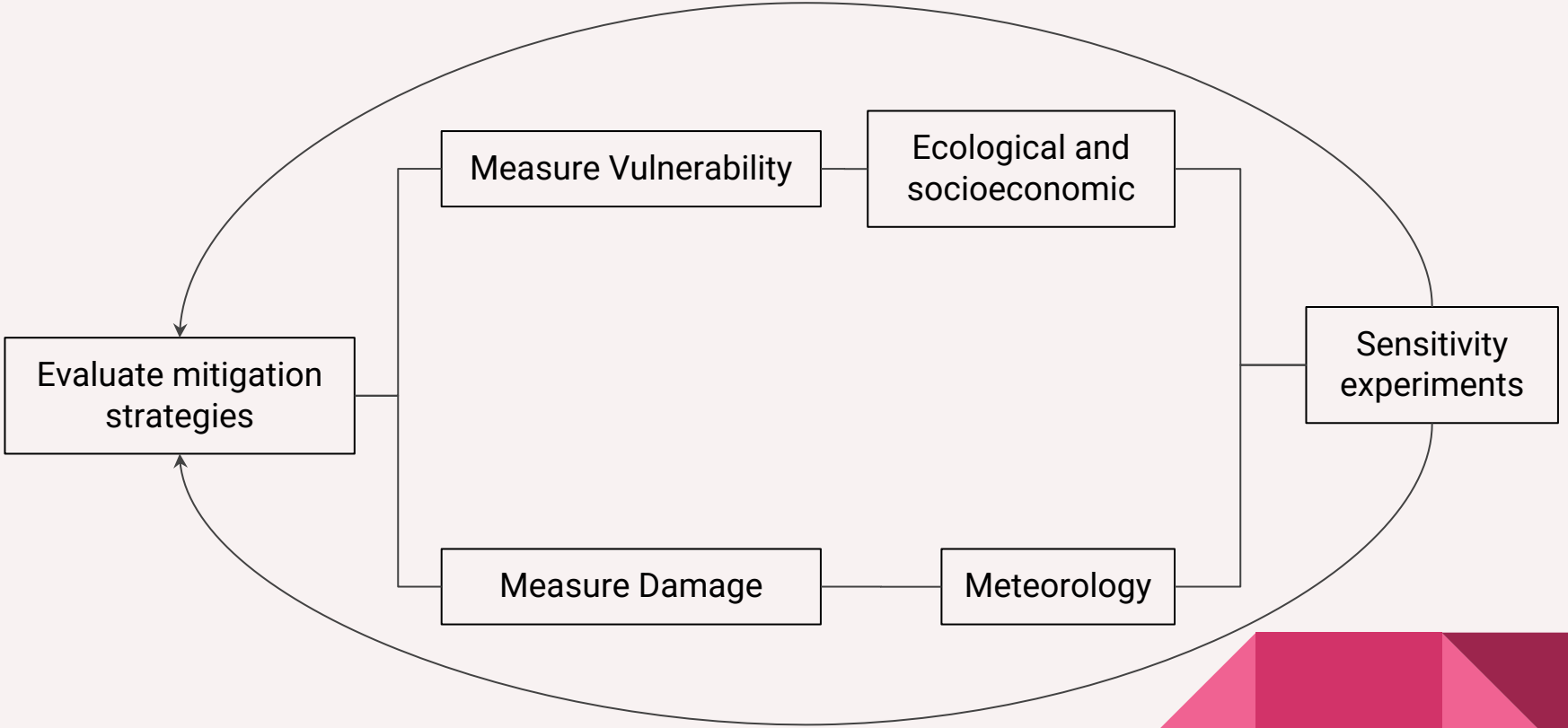
Undergrad. Thesis project

Motivation

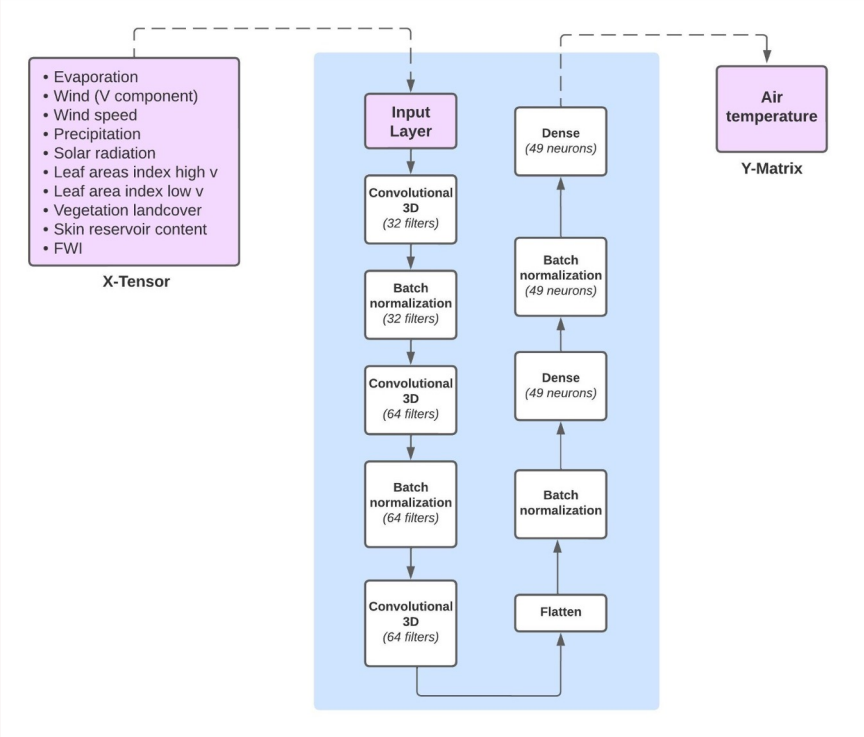

a)
76°W
70°W
12°N
8°N
4°N
0°
4°S
0
800
1600
2400
3200
4000
4800
Elevation (m)

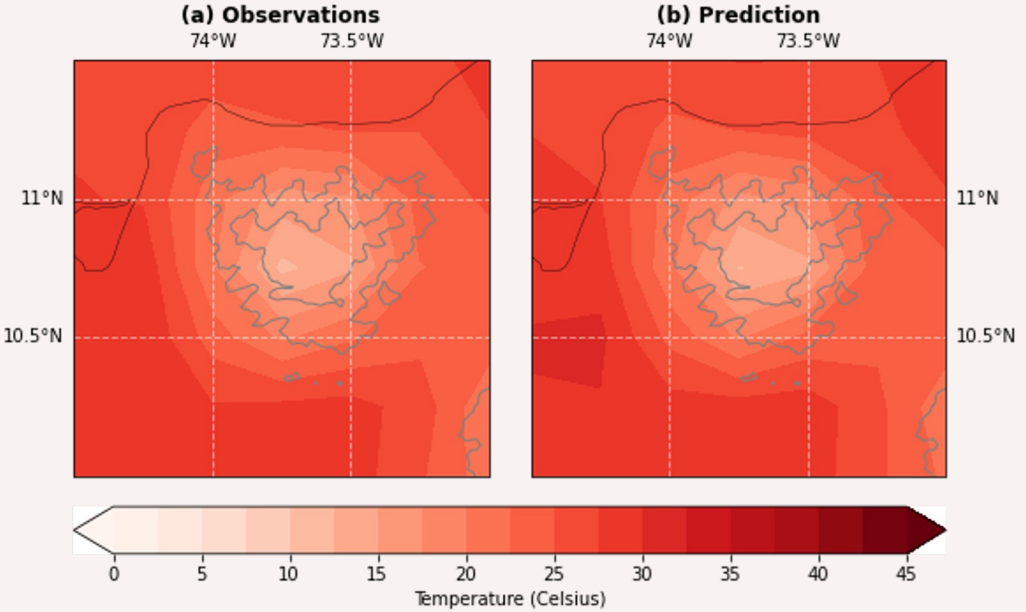

Hotspots
Santa Marta
Ciénaga
Vía Parque Isla de Salamanca
Ciénaga Grande de Santa Marta
Santuario de Fauna y Flora Ciénaga Grande de Santa Marta
Resguardo Arhuaco de la Sierra Nevada
Fundación
Valledupar
Pueblo Bello
San Diego
Algarrobo
El Copey
Bosconia
San Juan del Cesar
Villanueva
Urumita
Dibulla
Tropical
Ecuatorial
Tropical

Our focus


Measure Vulnerability
Ecological and socioeconomic
Evaluate mitigation strategies
Sensitivity experiments
Measure Damage
Meteorology

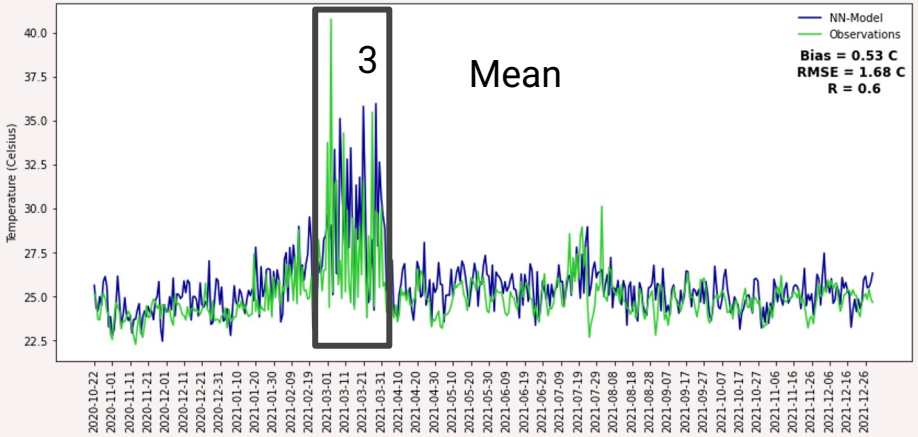
Damage

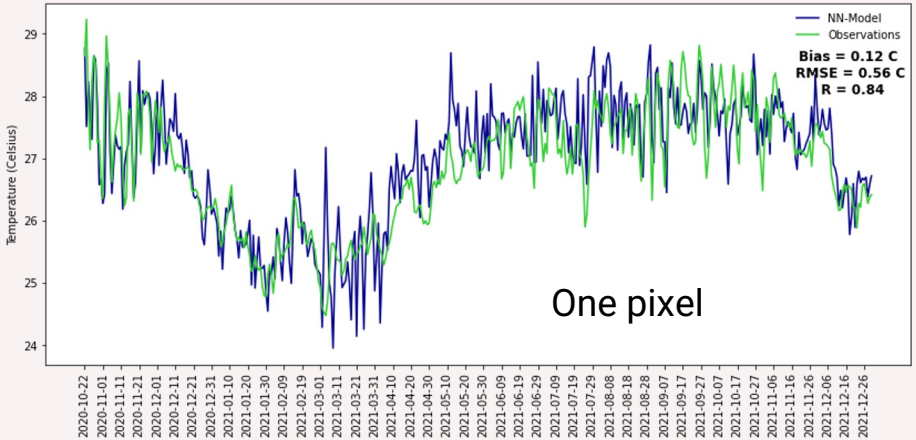




The model overestimates the western part of the domain, but captures the spatial distribution of temperature

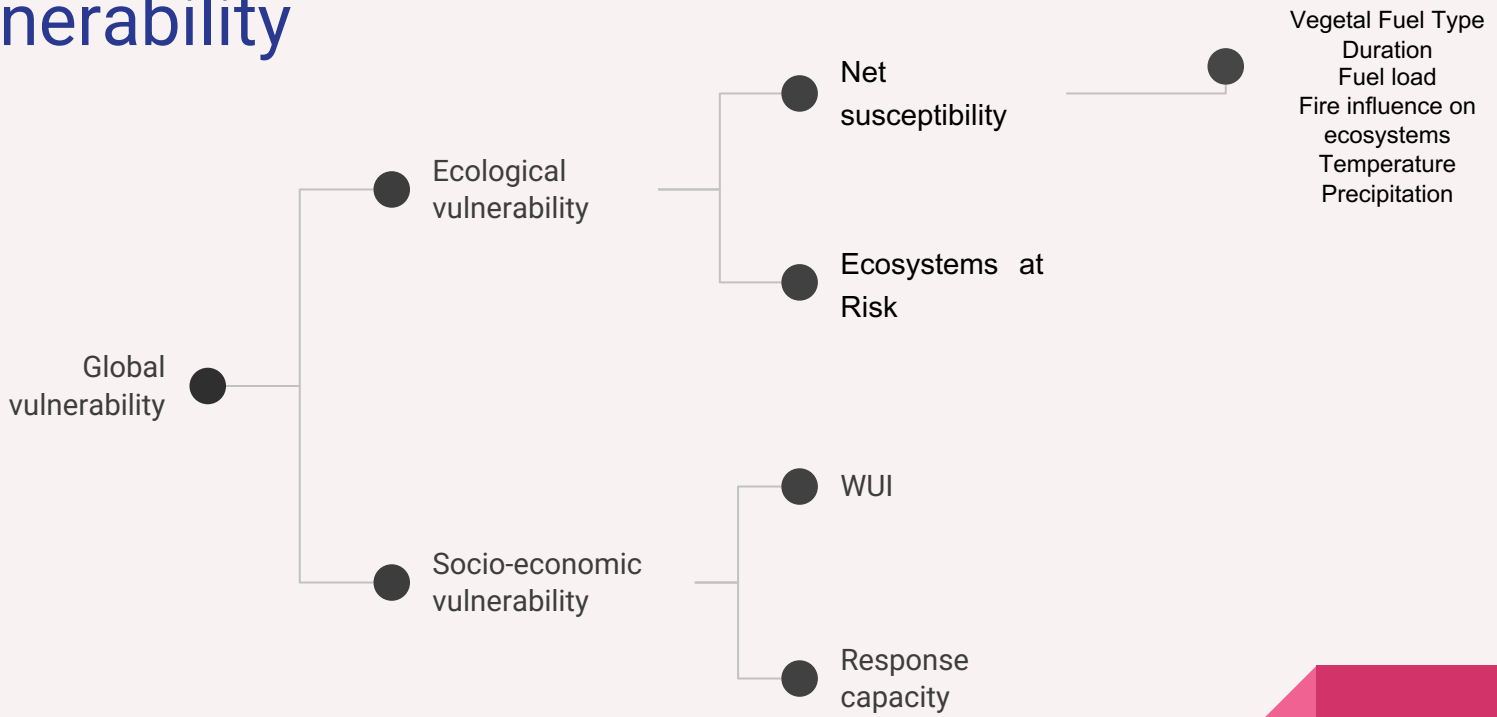
Damage





1. The model overestimates the values but follows the tendency
2. The peaks are over represented which means that the model could be improve maybe by including a different loss function
3. The model captures when wildfires are developing! as seen can be seen in the box in the figure

Vulnerability



Based on the method of Paramo-Rocha (2011)

To be done!! Any ideas???

Monte Carlo to account for the uncertainty in the model

Sensitivity experiments, changing variables from vulnerability and also meteorology e.g. volume of water

Contact

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