**Monday, February 17, 2025**

* Added *Indeks Provinsi Membangun* to the indeks calculation formula + reread the *Indeks Desa Membangun SOP*
* Cleaned up Excel data for mangroves, seagrass beds, and coral reefs so that it can be more easily read with R or Python later
* Calculated provincial averages for *Indeks Desa Membangun* and sorted by IDM score + number of left behind and very left behind villages
* Updated ReadMe file in repository (still not finished with Indonesian text in that file)

**Tuesday, February 18, 2025**

* Added “Skor *Padang Lamun*” information to the Indeks formula
* Changed all score values from 1-4 to 0-3 to match previous risk assessment examples + represent scores that demonstrate zero risk
* Started indeks calculation and calculated Indeks Lingkungan Hidup
* Started calculating indeks kerawanan using natural disaster victim data; have not yet added/extrapolated data for 4 new Papuan provinces that didn’t exist in some of the data collection years

**Wednesday, February 19, 2025**

* Calculated Indeks Kerawanan based on number of natural disaster victims
* Added and calculated Indeks Provinsi Membangun based on Indeks Desa Membangun data
* Removed Indeks Tata Kelola + Ekonomi from final Indeks because economic resilience is already measured in the Indeks Desa Membangun, and the two governance metrics did not seem important or useful for this assessment
* Created sheet in YPI Data spreadsheet for final assessment calculations, already includes Indeks Lingkungan Hidup, Indeks Kerawanan, and Indeks Provinsi Membangun
* Started looking into using shapefile to introduce spatial data for the assessment

**Thursday, February 20, 2025**

* Sick day

**Friday, February 21, 2025**

* Sick day

**Monday, February 24, 2025**

* On “YPI Data” spreadsheet, labeled provinces that were not missing any data for initial risk assessment
* Read [“The State of the World’s Mangroves 2024” paper](https://www.mangrovealliance.org/wp-content/uploads/2024/09/SOWM-2024-HR-1.pdf) from Global Mangrove Alliance to look for geospatial data. Potential data can be found here:
  + [A global reanalysis of storm surges and extreme sea levels](https://www.nature.com/articles/ncomms11969)
  + [Global mangrove soil organic carbon stocks dataset at 30 m resolution for the year 2020 based on spatiotemporal predictive machine learning](https://www.sciencedirect.com/science/article/pii/S2352340923007060?via%3Dihub#sec0004)
  + [Frontiers | A High-Resolution Global Dataset of Extreme Sea Levels, Tides, and Storm Surges, Including Future Projections](https://www.frontiersin.org/journals/marine-science/articles/10.3389/fmars.2020.00263/full)
  + [Fishers who rely on mangroves: Modelling and mapping the global intensity of mangrove-associated fisheries - ScienceDirect](https://www.sciencedirect.com/science/article/abs/pii/S027277142030706X?via%3Dihub)
* Started reading this [blog post](https://spyro-soft.com/blog/geospatial/a-guide-to-geospatial-data-analysis-visualisation-mapping) to see how to work with geospatial data

**Tuesday, February 25, 2025**

* Did not get much work done because watched a student present his dissertation and then had to go to class

**Wednesday, February 26, 2025**

* Set up and started using QGIS (open-source GIS software) and found current provincial map of Indonesia, including new provinces in Papua
* Started learning to use QGIS (with Youtube videos mostly, also blogs)
  + Goal is to use QGIS with other spatial data like WDPA, sea level data, or mangrove soil organic carbon data linked above

**Thursday, February 27, 2025**

* Trying to add spatial data to QGIS, not successful with sea level height data or mangrove soil organic carbon stocks data

**Friday, February 28, 2025**

* Same as yesterday
* Worked from home

**Monday, March 3, 2025**

* Successfully added marine protected areas geospatial data (from Coral Reef Atlas) to QGIS project
  + Added M/measure data with area in hectares too, but the points on the map look the same size
* Added World Database of Protected Areas data too, but only points and not the polygons showed up
  + Will try adding this again but with the Asia/Pacific data because I think that there is a problem with the Indonesia data
* Met with Adam, showed first version of indeks calculations and preliminary geospatial data on QGIS
  + Adam will share a Google Drive folder, need to upload my Excel sheet there and add report about the indeks calculations (methods, major results, etc) so that everything I have done is replicable and can be understood/supplemented by YPI
  + Need to continue to mess around with Excel indeks data, consider:
    - Weighting Indeks Desa Membangun more because it itself is created from indeks for economic/social/environmental resilience
    - Filtering by environmental presence index first because YPI prioritizes protecting existing intact ecosystems, and then sorting by final indeks like normal
  + Need to continue trying to add geospatial data on QGIS project (sea level height, WDPA, mangrove soil organic carbon, Global Mangrove Watch, Nusantara Atlas, etc)

**Tuesday, March 11, 2025**

* Returned from vacation in Manado, read notes from Monday to catch up and remember next tasks
* Added “Jumlah Luas” data for hectares of coral reefs + seagrass beds + mangroves for each province where data is available. This data is for show and will not be used for the indeks calculations
* Started writing final report (document titled “Laporan Akhir”)
* Uploaded “sumber data” document, IDM data spreadsheet, and “YPI Data” spreadsheet to the Google Drive for internship results
* Updated thresholds for indeks calculations on “indeks provinsi risiko lingkungan” document