**Meeting with Gergana** – 16 January

* focus on habitat loss/biodiversity loss rather than effects on climate
* add non zotero references to zotero by inputting info
* add Background sub-heading and combine 3 short paragraphs under one background
* add more concrete topic sentence at start of document
* my prediction is that you can detect the effects, but it is already a well-recognized fact that land use change and socio-political events can be linked
* can frame it like: can you see the signature of this happening from space?
* This study is important for understanding the rate of change and variation across country
* get the CORINE data set to get more classifications (with more classes) after to get more detailed results
  + then can say - from looking at other data, these intensive land classes used to be X class
* LUCAS data set to ground truth classification - use for validation
  + Is field data with abandonment
  + find points of abandonment and compare with visually and statistically to assess accuracy of classification
* join GEE user group

**Meeting with Gergana** – 23 January

Questions beforehand

* If I’m coming from a satellite perspective i.e. is there a marked signature notable from space, should I be focusing the background on satellites? Or why this is important in terms of land-use change? Or both?
* Should my questions allow for different answers after each event? Or is this implied?
* Need to change to more hypothesis testing framework
  + Was thinking of changing more to “how/what” questions but there are no clear answers to this – may make my study less quantifiable
  + E.g. Through land-use change, how marked are key socio-political events in Latvia as detected by satellite imagery?
  + E.g. What is the strength and direction of land-use change for each land-use type?

Notes

* What the results would mean e.g. if there is a signature, it means this…
  + Doesn’t mean we have to change the question
* Is this driver so strong that you can see it for the whole country using satellite data?
  + Is this homogeneous or heterogeneous – implying that the results are different and having different effects
  + Signature is homogeneous – socio-political is main driver
  + Heterogeneous – fine scale variation, socio-political is not main driver or it’s interacting with other aspects
* Overarching question and then specifically look at how (1), (2) and (3) etc.
* Prediction for each question and give reasoning
  + Hypotheses don’t give reasoning, just a statement of what you think will happen

**Meeting with Isla** – 28 January

* Goals for Friday:
  + Finish dissertation plan
  + Do a few GEE tutorials
  + Load MODIS, CORINE, LUH into GEE as different layers and take a few screenshots – can ask Gergana for starter code here
* Better to fully answer first question, then move on to next etc. so can remove a question if I run out of time rather than answering them all poorly
* Should have a full answer to Q1 by end of Feb (as in the result)
* Should write methods as I go
* Prediction figures are a good idea – make in PowerPoint
* Continually work on Introduction
* Set goals in the beginning of each week – super ambitious ones and then ones that absolutely need to get done

**Feedback from Gergana on full plan to consider in future**

* Use active voice
* Make sure first and last sentences are stand-alone and link together
* Can make a conceptual diagram about objectives
* Even if one reference has everything, use a variety of new and old papers
* Potential to make hypotheses even more specific/directional – something to think about
* Split up methods by sub-question to make clearer
* Add model equations

**Meeting with Gergana** – 6February

* How to load LUH dataset – historical states.nc
* Need to include the different stages of abandonment
* Don’t use fusion tables, use import asset as a shape file
* Draw around a few points of abandoned land at a time and see what happens

**Meeting with Gergana** – 27 February

Questions beforehand

* Is this the best choice for getting the agricultural data points? seems like best choice is to use 2012, 2015 and 2018 – Use U410 and filter for the B, D and E land cover (cropland, shrubland and grassland). Also, can filter for U112, D10 and D20, which are stated to be abandoned agricultural land
* Is it okay that the CRS won’t work/assign properly?
  + Think it is fine because the default projection in GEE is WGS84, which is the same as LUCAS
* How do I set the boundary? In the tutorial, they had another file that they needed to combine with but that’s not the case for me
* Feedback about prediction figures

Notes

* CRS("+init=epsg: 3857”): specific for GEE
* atc\_m <- projectRaster(atc\_mar, crs = "+proj=longlat +datum=WGS84 +no\_defs +ellps=WGS84 +towgs84=0,0,0") 🡪 change projection
* bt\_spatial\_df\_m <- SpatialPointsDataFrame(coords\_m, bt\_coords\_m)
* set extent as boundary of Latvia
* exclude any non-natural for U410
* U420 – spontaneously re-vegetated land (land cover) 🡪 add this
* Do trial about just 2012 data and then if time/can do, add 2015 to see change accurately if so
* Feedback about prediction figures in PowerPoint

**Meeting with Gergana** – 6 March

Questions beforehand

* Something has gone wrong with my classifier – abandoned class covering everything! – potential ideas
  + When troubleshooting – thought it may be because I only have one class – was getting errors saying no training data found
    - Changed class value from 0 to one and now everything is abandoned
  + Think it has to do with when I say for it to get training data – no columns (but this was the case for the tutorial I completed on classification?)
  + Could be that the polygons I created represent all bands? But how would I know if this is the issue?
  + Could it be the way that I’m visualizing it that is an issue? But then still one class would be covering a lot of area
  + **Because I’m creating a classification on one class?** 
    - Create an everything else dataset – how do you do that?
* How to apply classification to each year – especially if need to switch to different satellite imagery 🡪 image iteration? <https://developers.google.com/earth-engine/ic_iterating>
  + Would you create a list of images and then iterate through them?
  + How do deal with different pixel size?
* Extensive and intensive datasets – want to confirm that I will be using CORINE?

Notes

* Make a forest class/natural vegetation for another class
  + Something that’s different but similar to abandoned land
* Resolution as fixed effect in analysis but no way to correct for that as of now
* Can map LUCAS on CORINE to see if what you think in LUCAS is intensive/extensive is correct
  + See papers using CORINE/LUCAS for advice
* Conceptual diagram of project
* Diagram of workflow
* Writing 100 words a day
  + Then get feedback as you go and not so overwhelming
* Can write code for graphs as you go as well and for stats models
  + Will help see what results you need as well
* Five key paragraphs of a paper -- on Team Shrub mentorship page
  + Perfect these!
* Perth is 8 hours ahead of time 🡪 Skype at 9am would be 5pm Perth time, or 8am would be 4pm
* <https://code.earthengine.google.com/309ed9d52a82249a21b106798fea495b> - Gergana’s code about going through many images