

Vlastnoručně sestavený skript, který byl využit k získání průměrných ročních NDVI hodnot pro bakalářskou práci

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// modis NDVI RADIATION

var modisNDVI =
ee.ImageCollection('MODIS/061/MOD13Q1').filterBounds(Fukushima_Daiichi_Radiation)
    .select('NDVI')
    .map(function(img){
        var rescaled_NDVI = img.select('NDVI')
            .multiply(0.0001)
            .rename('NDVI_rescaled');
        return img.addBands(rescaled_NDVI);});

//make a list of years and filter the modisNDVI
var years = ee.List.sequence(2000, 2022, 1).map(function(year){
    var start = ee.Number(year);
    var end = start.add(ee.Number(1));
    var ndviMeanYear = modisNDVI.select('NDVI_rescaled')
        .filter(ee.Filter.calendarRange(start, end, 'year')).mean();
    return ndviMeanYear.set('year', start)
});

//get the ndvi mean for each PA and set the year
var ndviMeanAnnual = ee.ImageCollection(years).map(function(img){
    var reduceRegions = img.reduceRegions({collection: Fukushima_Daiichi_Radiation,
        reducer: ee.Reducer.mean(),
        scale: 250,
        tileScale: 4})
    return reduceRegions.map(function(feet){
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    return feat.set('year', img.get('year'))
  })

}).flatten()

print(ndviMeanAnnual.limit(100))

// modis NDVI CONTROL_2 AREA

var modisNDVICONTROL_2 =
ee.ImageCollection('MODIS/061/MOD13Q1').filterBounds(CONTROL_2_without_radiation)
    .select('NDVICONTROL_2')
    .map(function(img){
        var rescaled_NDVICONTROL_2 = img.select('NDVICONTROL_2')
            .multiply(0.0001)
            .rename('NDVICONTROL_2_rescaled');
        return img.addBands(rescaled_NDVICONTROL_2);});

//make a list of years and filter the modisNDVI
var yearsCONTROL_2 = ee.List.sequence(2000, 2022, 1).map(function(year){
    var startCONTROL_2 = ee.Number(year);
    var endCONTROL_2 = startCONTROL_2.add(ee.Number(1));
    var ndviMeanYearCONTROL_2 = modisNDVI.select('NDVICONTROL_2_rescaled')
        .filter(ee.Filter.calendarRange(startCONTROL_2, endCONTROL_2,
'year')).mean();
    return ndviMeanYearCONTROL_2.set('year', startCONTROL_2)
});

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//get the ndvi mean for each PA and set the year
var ndviMeanAnnualCONTROL_2 = ee.ImageCollection(years).map(function(img){
  var reduceRegionsCONTROL_2 = img.reduceRegions({collection:
CONTROL_2_without_radiation,
      reducer: ee.Reducer.mean(),
      scale: 250,
      tileScale: 4})
  return reduceRegionsCONTROL_2.map(function(feet){
    return feet.set('year', img.get('year'))
  })
}).flatten()
print(ndviMeanAnnualCONTROL_2.limit(100))

//print('NDVI Annual Mean', ndviMeanAnnual.get('mean'));
//Area Comparison
var polygonAreaRadiation = Fukushima_Daiichi_Radiation.area({'maxError': 1});
var polygonAreaCONTROL_2 = CONTROL_2_without_radiation.area({'maxError': 1});
print('polygonAreaRadiation.area(...) =', polygonAreaRadiation);
print('polygonAreaCONTROL_2.area(...) =', polygonAreaCONTROL_2);

// Export data to a CSV
Export.table.toDrive({
  collection: ndviMeanAnnual,
  description: 'ndviMeanAnnual_Export_S2_Fuku',
  fileFormat: 'CSV'})

```

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// Export data to a CSV
Export.table.toDrive({
  collection: ndviMeanAnnualCONTROL_2,
  description: 'ndviMeanAnnual_Control_2_Export_S2_Fuku',
  fileFormat: 'CSV'})
```

<https://code.earthengine.google.com/b5dad5e94f2fc5c9a67b5a05cafc9406>