LandUse LandCver classification using google earth engine(supervised classification)

Code:

```
var image = ee.ImageCollection("LANDSAT/LC08/C02/T1_TOA")
var image_L8 =image.filterBounds(ROI)
                .filterDate('2021-01-01','2021-12-31')


                .median()
                .clip(ROI)
Map.addLayer(image_L8,imageVisParam)
Map.centerObject(ROI)
var training = waterbody.merge(residental).merge(forest)
var bands=['B1','B2','B3','B4','B5','B6','B7']
var label ='class'
var input =image_L8.select(bands)
print(training.size())
var trainImage = input.sampleRegions({collection:training,properties:[label],scale:30})
print(trainImage)
var trainingData= trainImage.randomColumn();
var trainSet=trainingData.filter(ee.Filter.lessThan('random',0.8));
var testSet= trainingData.filter(ee.Filter.greaterThanOrEquals('random',0.8));
//classification models
var classifier =ee.Classifier.smileCart().train(trainSet,label,bands)
//classify the image
var classified=input.classify(classifier);
//define a palette for the classification
var landcoverPalette=[
  '#09B3F7','#FF3C33','156924'
 ];
Map.addLayer(classified.clip(ROI),{palette:landcoverPalette,min:1,max:3},'CLASSIFICATION CART');
```

```
//export classified map
Export.image.toDrive({
  image:classified,
  description:"landsat_8_cart",
  scale:10,
  region:ROI,
  maxPixels:1e13,
})
```