Module 4: Change Detection and Area Estimation

The goal of this Module is to continue building on the skills you’ve learned during this online training course to produce a change map. You will first create two date transforms of your Landsat derived data to investigate and map regions that have undergone the land cover transitions that you are interested in monitoring and mapping. Then you will build a model, again using the random forests algorithm and training data, to generate a change map. Finally you will use a second set of reference data to update the estimates of areas undergoing change and to assess the accuracy of the resulting map product.

Modules 3 and 4 have been adapted from Exercises and material developed by Dr. Pontus Olofsson, Christopher E. Holden, and Eric L. Bullock at the Boston Education in Earth Observation Data Analysis in the Department of Earth & Environment, Boston University. To learn more about their materials and their work, visit their github site at <https://github.com/beeoda>.