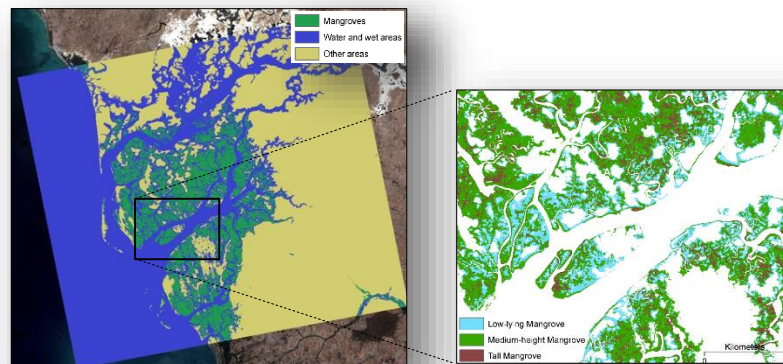


Mangrove inventory and characterization



Description: The Mangrove inventory and characterization workflows provides the needed functionality to perform an accurate delineation of Mangrove extent as well as a detailed characterization of Mangrove communities based on species compositions and/or mangrove structures (e.g. height, density, or biomass). The extent and characterization maps are derived using supervised machine learning algorithms (i.e. Random Forest and Support Vector Machine) that takes a set of training data to establish the relationship between the response variable (i.e. the mangrove classes) and the explanatory variables (cf. the satellite imagery). Training data can be gathered in the field (in-situ data) or collected using secondary sources including High-Resolution satellite imagery, aerial photographs, or if no other option exists the input imagery itself. Ideally, multi-date imagery is used as input for the classification, as accuracies tend to improve when using imagery that captures different stages of the vegetation/water cycle.



Product: Mangrove inventory and characterization

Location: Delta du Saloum, Senegal

Input imagery: Sentinel-1/Sentinel-2

Time period: 2016

Spatial resolution: 10 meters

Accuracy: +85% overall accuracy (individual classes: +70% accuracy)

