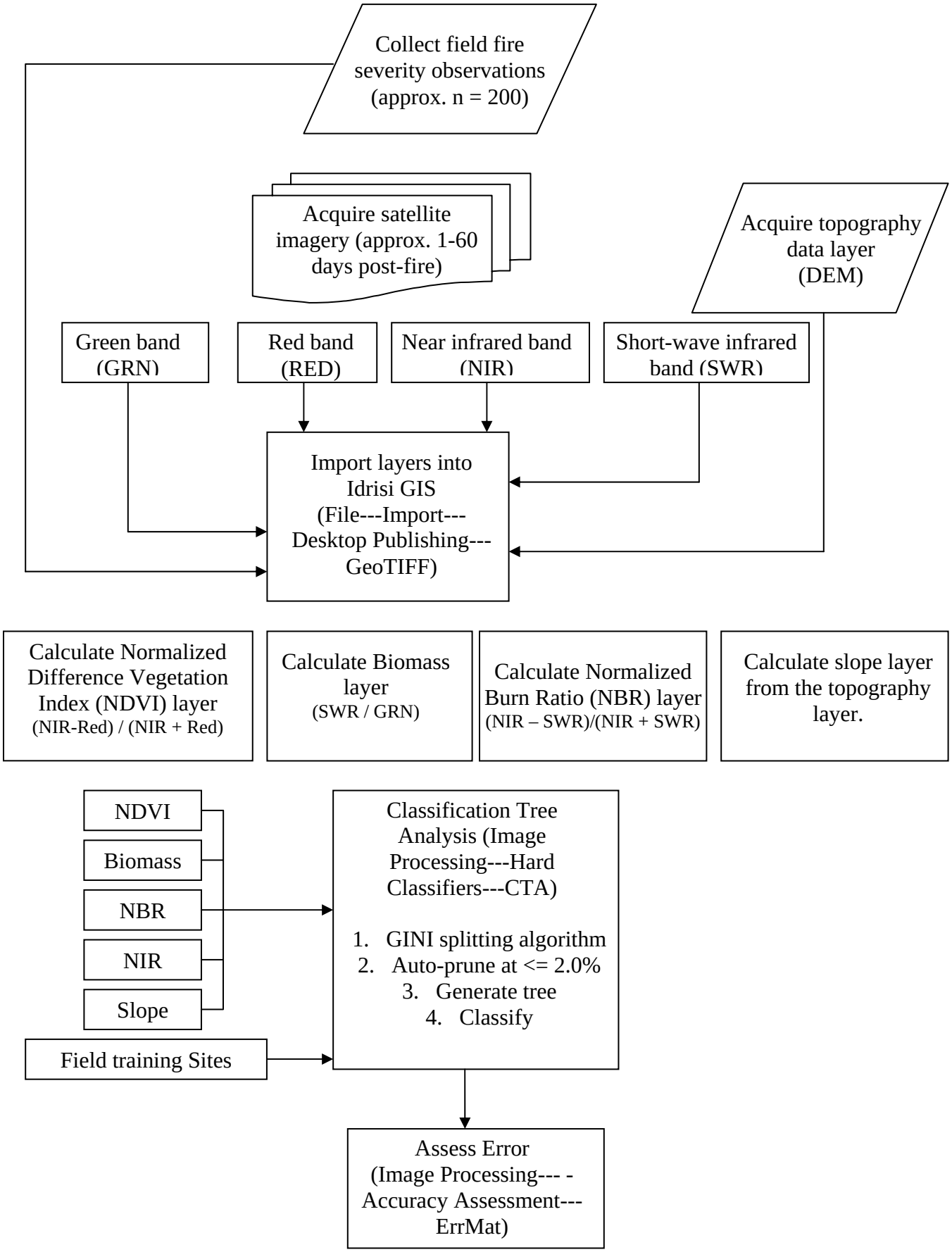
Collect field fire severity observations (approx. n = 200)
Acquire satellite imagery (approx. 1-60 days post-fire)
Acquire topography data layer (DEM)
Green band (GRN)
Red band (RED)
Near infrared band (NIR)
Short-wave infrared band (SWR)
Import layers into Idrisi GIS (File---Import---Desktop Publishing---GeoTIFF)
Calculate Normalized Difference Vegetation Index (NDVI) layer
(NIR-Red) / (NIR + Red)
Calculate Biomass layer
(SWR / GRN)
Calculate Normalized Burn Ratio (NBR) layer
(NIR – SWR)/(NIR + SWR)
Calculate slope layer from the topography layer.
NDVI
Biomass
NBR
NIR
Slope
Field training Sites
Classification Tree Analysis (Image Processing---Hard Classifiers---CTA)
1. GINI splitting algorithm
2. Auto-prune at <= 2.0%
3. Generate tree
4. Classify
Assess Error (Image Processing--- - Accuracy Assessment---ErrMat)