**Introduction**

- Coastal environments are undergoing rapid changes due to the impacts of climate change, which has affected the land cover.
- There is therefore the need for accurate and timely information about the nature and extent of land cover and how it is changing over time.
- This information provides understanding into climate variability driven land cover

**Methodology**

- Development of legend FAO LCCS
- Verification of legend in the field using GPS, camera and drone
- Segmentation of Landsat images using e-Cognition (FAO)
- Interpretation of the land cover using (MadCat/QGIS)

**Data and Source**

<table>
<thead>
<tr>
<th>Data</th>
<th>Year</th>
<th>Resolution</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Landsat OLI</td>
<td>2015</td>
<td>30m</td>
<td>USGS</td>
</tr>
<tr>
<td>Landsat TM</td>
<td>2000</td>
<td>30m</td>
<td>USGS</td>
</tr>
<tr>
<td>Google Earth</td>
<td>2015</td>
<td>2.5m-6mcm</td>
<td>Google Earth</td>
</tr>
<tr>
<td>Ground Truth Data</td>
<td>2015</td>
<td>2.5cm</td>
<td>Using Drone</td>
</tr>
</tbody>
</table>

**Study Area**

**Preliminary Results**

- In all 17 classes have been identified and modelled (Figure 3)
- These classes were then validated in the field, sampling from over 30 points.
- The main classes identified include wetlands, savanna grassland, water bodies, mangroves and cropland
- The segmentation of the Landsat image resulted in about 7000 segments
- The segments are currently being interpreted into the Land cover as shown in Figure 4

**Summary**

- Literature Cited: