Land Cover Change Matrix

1. Open ‘lc10’ and ‘lc14’
2. Intersect the two layers
3. Fill-up the intersect window using guide below
4. Open attribute table of the intersected layer, compute for area by opening field calculator

- Select geometry > area
- Divide by 10,000 because default is m²
- Update because the column is existing
- Select column of area

5. Select all (ctrl+a) and copy (ctrl+c) to a spreadsheet (excel)
6. Make a pivot table

7. Arrange table AGG14 (row) AGG14_2014 (column), add area

Make sure ‘sum’ is selected and not ‘count’
8. Copy and paste the table into another sheet (so that we can manipulate it, pivot table can’t be manipulated).
9. Insert cells to the row label (because in 2010 there are no classification for wooded grassland and bare land)

<table>
<thead>
<tr>
<th>Row Labels</th>
<th>Annual Cr</th>
<th>Built-up</th>
<th>Closed Fo</th>
<th>Inland We</th>
<th>Mangrove Forest</th>
<th>Open/Barren</th>
<th>Perennial</th>
<th>Shrub</th>
<th>Wooded</th>
<th>Grand Tot</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Crop</td>
<td>350</td>
<td>13.08</td>
<td>2.18</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>531.18</td>
</tr>
<tr>
<td>Built-up</td>
<td>12.31</td>
<td>114.52</td>
<td>1.33</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>165.67</td>
</tr>
<tr>
<td>Closed Forest</td>
<td></td>
<td></td>
<td>50.8</td>
<td>40.7</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>91.5</td>
</tr>
<tr>
<td>Inland Water</td>
<td>7.49</td>
<td>2.85</td>
<td>24.21</td>
<td>0.69</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>71.93</td>
</tr>
<tr>
<td>Mangrove Forest</td>
<td></td>
<td>12.34</td>
<td></td>
<td>5.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>17.54</td>
</tr>
<tr>
<td>Open Forest</td>
<td></td>
<td></td>
<td>40.43</td>
<td>8.15</td>
<td>7627.64</td>
<td>126.77</td>
<td>61.35</td>
<td>322.16</td>
<td>13.31</td>
<td>8199.81</td>
</tr>
<tr>
<td>Perennial Crop</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4506.11</td>
<td>235.6</td>
<td>0.29</td>
<td></td>
<td>5123.99</td>
</tr>
<tr>
<td>Shrub</td>
<td></td>
<td>17.78</td>
<td>8.08</td>
<td>1.49</td>
<td>10.99</td>
<td>266.29</td>
<td>17</td>
<td>329.7</td>
<td>3340.7</td>
<td>3992.03</td>
</tr>
<tr>
<td>Wooded grassland</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grand Total</td>
<td>598.52</td>
<td>216.19</td>
<td>92.72</td>
<td>128.6</td>
<td>14.94</td>
<td>7940.73</td>
<td>147.41</td>
<td>5116.01</td>
<td>3924.93</td>
<td>13.6</td>
</tr>
</tbody>
</table>

10. Add ‘opening’ and ‘closing’ columns. Cut ‘Grand Total’

11. Copy and paste (Transposed) column total into the closing stock