Bibliography

Electronic Photos (Misc) for source Adi Lazos.


Appendix - Dependent Variables and Accuracy Assessment

Dependent Variables

Biochemical Oxygen Demand

Table 1: Biochemical Oxygen Demand versus Forest
Dependent Variable: BIOCHEMICAL_OXYGEN
Included observations: 22

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>41.59303</td>
<td>8.983201</td>
<td>4.630090</td>
<td>0.0002</td>
</tr>
<tr>
<td>FOREST</td>
<td>-41.46469</td>
<td>11.98249</td>
<td>-3.460439</td>
<td>0.0025</td>
</tr>
</tbody>
</table>

R-squared 0.374504  Mean dependent var 12.32273
Adjusted R-squared 0.343229  S.D. dependent var 17.50793
S.E. of regression 14.18867  Akaike info criterion 8.229272
S.D. dependent var 17.50793  Schwarz criterion 8.328458

Figure 1: Biochemical Oxygen Demand versus Forest
Table 2: Biochemical Oxygen Demand versus Urban Area without Slums

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>2.265483</td>
<td>4.956458</td>
<td>0.457077</td>
<td>0.6525</td>
</tr>
<tr>
<td>URBAN_NO_SLUMS</td>
<td>37.69325</td>
<td>13.94790</td>
<td>2.702432</td>
<td>0.0137</td>
</tr>
</tbody>
</table>

R-squared: 0.267483 Mean dependent var: 12.32273
Adjusted R-squared: 0.230858 S.D. dependent var: 17.50793
S.E. of regression: 15.35459 Akaike info criterion: 8.387214
Sum squared resid: 4715.266 Schwarz criterion: 8.486399

Figure 2: Biochemical Oxygen Demand versus Urban Area with No Slums
Table 3: Biochemical Oxygen Demand versus Urban Area with Slums

Dependent Variable: BIOCHEMICAL_OXYGEN
Included observations: 22

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>0.317788</td>
<td>4.726190</td>
<td>0.067240</td>
<td>0.9471</td>
</tr>
<tr>
<td>URBAN_SLUMS</td>
<td>41.52652</td>
<td>12.44322</td>
<td>3.337282</td>
<td>0.0033</td>
</tr>
</tbody>
</table>

R-squared 0.357687  Mean dependent var 12.32273
Adjusted R-squared 0.325571  S.D. dependent var 17.50793
S.E. of regression 14.37815  Akaike info criterion 8.255804
Sum squared resid 4134.622  Schwarz criterion 8.354990

Figure 3: Biochemical Oxygen Demand versus Urban Area with Slums
Table 4: Biochemical Oxygen Demand versus Slums

Dependent Variable: BIOCHEMICAL_OXYGEN
Included observations: 22

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>4.096717</td>
<td>3.292231</td>
<td>1.244359</td>
<td>0.2278</td>
</tr>
<tr>
<td>SLUMS</td>
<td>348.0235</td>
<td>78.59736</td>
<td>4.427928</td>
<td>0.0003</td>
</tr>
</tbody>
</table>

R-squared 0.495033  Mean dependent var 12.32273
Adjusted R-squared 0.469785  S.D. dependent var 17.50793
S.E. of regression 12.74855  Akaike info criterion 8.015221
Sum squared resid 3250.512  Schwarz criterion 8.114406

Figure 4: Biochemical Oxygen Demand versus Slums
Table 5: Biochemical Oxygen Demand versus Forest with 100-meter Buffer

Dependent Variable: BIOCHEMICAL_OXYGEN
Included observations: 22

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>24.19070</td>
<td>5.863545</td>
<td>4.125610</td>
<td>0.0005</td>
</tr>
<tr>
<td>FOREST_100M</td>
<td>-24.77185</td>
<td>10.04556</td>
<td>-2.465950</td>
<td>0.0228</td>
</tr>
</tbody>
</table>

R-squared   0.233156  Mean dependent var  12.32273
Adjusted R-squared   0.194813  S.D. dependent var  17.50793
S.E. of regression   15.71025  Akaike info criterion  8.433012
Sum squared resid    4936.238  Schwarz criterion  8.532197

Figure 5: Biochemical Oxygen Demand versus Forest 100-meter Buffer
Table 6: Biochemical Oxygen Demand versus Forest with 200-meter Buffer

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>25.78238</td>
<td>6.464095</td>
<td>3.988552</td>
<td>0.0007</td>
</tr>
<tr>
<td>FOREST_200M</td>
<td>-28.42011</td>
<td>11.66200</td>
<td>-2.436985</td>
<td>0.0243</td>
</tr>
</tbody>
</table>

R-squared 0.228957  Mean dependent var 12.32273
Adjusted R-squared 0.190405  S.D. dependent var 17.50793
S.E. of regression 15.75320  Akaike info criterion 8.438472
Sum squared resid 4963.264  Schwarz criterion 8.537657

Figure 6: Biochemical Oxygen Demand versus Forest 200-meter Buffer
Table 7: Biochemical Oxygen Demand versus Urban Area with 100-meter Buffer

Dependent Variable: BIOCHEMICAL_OXYGEN
Included observations: 22

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>-1.658815</td>
<td>5.916384</td>
<td>-0.280377</td>
<td>0.7821</td>
</tr>
<tr>
<td>URBAN_100M</td>
<td>29.77676</td>
<td>10.55038</td>
<td>2.822341</td>
<td>0.0105</td>
</tr>
</tbody>
</table>

R-squared                0.284836
Mean dependent var       12.32273
Adjusted R-squared       0.249078
S.D. dependent var       17.50793
S.E. of regression       15.17163
Akaike info criterion    8.363240
Sum squared resid        4603.568
Schwarz criterion        8.462425

Figure 7: Biochemical Oxygen Demand versus Urban with Slums 100-meter Buffer
Table 8: Biochemical Oxygen Demand versus Urban Area with 200-meter Buffer

Dependent Variable: BIOCHEMICAL_OXYGEN
Included observations: 22

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>-3.292574</td>
<td>6.778744</td>
<td>-0.485720</td>
<td>0.6324</td>
</tr>
<tr>
<td>URBAN_200M</td>
<td>32.08237</td>
<td>12.17112</td>
<td>2.635941</td>
<td>0.0158</td>
</tr>
</tbody>
</table>

R-squared     0.257835  Mean dependent var 12.32273
Adjusted R-squared 0.220727  S.D. dependent var 17.50793
S.E. of regression 15.45538  Akaike info criterion 8.400299
Sum squared resid 4777.374  Schwarz criterion 8.499485

Figure 8: Biochemical Oxygen Demand versus Urban Area with 200-meter Buffer
Total Phosphates

Table 9: Total Phosphates versus Forest

Dependent Variable: TOTAL_PHOSPHATES
Included observations: 22

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>1.354380</td>
<td>0.448580</td>
<td>3.019262</td>
<td>0.0068</td>
</tr>
<tr>
<td>FOREST</td>
<td>-1.122110</td>
<td>0.598351</td>
<td>-1.875338</td>
<td>0.0754</td>
</tr>
</tbody>
</table>

R-squared | 0.149547    | Mean dependent var | 0.562273  |
Adjusted R-squared | 0.107025   | S.D. dependent var | 0.749774  |
S.E. of regression | 0.708517   | Akaike info criterion | 2.235222 |
Sum squared resid  | 10.03992   | Schwarz criterion  | 2.334408 |

Figure 9: Total Phosphates versus Forest
Table 10: Total Phosphates versus Urban Area without Slums

Dependent Variable: TOTAL_PHOSPHATES
Included observations: 22

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>0.309362</td>
<td>0.236290</td>
<td>1.309247</td>
<td>0.2053</td>
</tr>
<tr>
<td>URBAN_NO_SLUMS</td>
<td>0.947876</td>
<td>0.664941</td>
<td>1.425503</td>
<td>0.1694</td>
</tr>
</tbody>
</table>

R-squared: 0.092232
Mean dependent var: 0.562273
Adjusted R-squared: 0.046844
S.D. dependent var: 0.749774
S.E. of regression: 0.732002
Akaike info criterion: 2.300442
Schwarz criterion: 2.399628

Figure 10: Total Phosphates versus Urban Area with No Slums
### Table 11: Total Phosphates versus Urban Area with Slums

Dependent Variable: TOTAL_PHOSPHATES  
Included observations: 22

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>0.244696</td>
<td>0.234676</td>
<td>1.042699</td>
<td>0.3095</td>
</tr>
<tr>
<td>URBAN_SLUMS</td>
<td>1.098536</td>
<td>0.617859</td>
<td>1.777972</td>
<td>0.0906</td>
</tr>
</tbody>
</table>

R-squared 0.136486  
Mean dependent var 0.562273  
Adjusted R-squared 0.093311  
S.D. dependent var 0.749774  
S.E. of regression 0.713937  
Akaike info criterion 2.250463  
Schwarz criterion 2.349649

### Figure 11: Total Phosphates versus Urban Area with Slums
Table 12: Total Phosphates versus Slums

Dependent Variable: TOTAL_PHOSPHATES
Included observations: 22

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>0.310701</td>
<td>0.171543</td>
<td>1.811217</td>
<td>0.0852</td>
</tr>
<tr>
<td>SLUMS</td>
<td>10.64340</td>
<td>4.095345</td>
<td>2.598902</td>
<td>0.0172</td>
</tr>
</tbody>
</table>

R-squared 0.252456  Mean dependent var 0.562273
Adjusted R-squared 0.215079  S.D. dependent var 0.749774
S.E. of regression 0.664268  Akaike info criterion 2.106246
Sum squared resid 8.825041  Schwarz criterion 2.205432

Figure 12: Total Phosphates versus Slums
Table 13: Total Phosphates versus Forest with 100-meter Buffer

Dependent Variable: TOTAL_PHOSPHATES
Included observations: 22

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>0.994062</td>
<td>0.261511</td>
<td>3.801227</td>
<td>0.0011</td>
</tr>
<tr>
<td>FOREST_100M</td>
<td>-0.901268</td>
<td>0.448026</td>
<td>-2.011640</td>
<td>0.0579</td>
</tr>
</tbody>
</table>

R-squared: 0.168285
Mean dependent var: 0.562273
Adjusted R-squared: 0.126699
S.D. dependent var: 0.749774
S.E. of regression: 0.700668
Akaike info criterion: 2.212943
Schwarz criterion: 2.312129

Figure 13: Total Phosphates versus Forest with 100-meter Buffer
### Table 14: Total Phosphates versus Forest with 200-meter Buffer

Dependent Variable: TOTAL_PHOSPHATES
Included observations: 22

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>1.050011</td>
<td>0.288260</td>
<td>3.642580</td>
<td>0.0016</td>
</tr>
<tr>
<td>FOREST_200M</td>
<td>-1.029860</td>
<td>0.520056</td>
<td>-1.980289</td>
<td>0.0616</td>
</tr>
</tbody>
</table>

R-squared: 0.163934  Mean dependent var: 0.562273
Adjusted R-squared: 0.122130  S.D. dependent var: 0.749774
S.E. of regression: 0.702499  Akaike info criterion: 2.218162
Sum squared resid: 9.870087  Schwarz criterion: 2.317347

![Figure 14: Total Phosphates versus Forest 200-meter Buffer](image)
Table 15: Total Phosphates versus Urban Area with Slums 100-meter Buffer

Dependent Variable: TOTAL_PHOSPHATES
Included observations: 22

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>0.071706</td>
<td>0.269445</td>
<td>0.266126</td>
<td>0.7929</td>
</tr>
<tr>
<td>URBAN_100M</td>
<td>1.044769</td>
<td>0.480487</td>
<td>2.174397</td>
<td>0.0419</td>
</tr>
</tbody>
</table>

R-squared       0.191200   Mean dependent var 0.562273
Adjusted R-squared 0.150760   S.D. dependent var 0.749774
S.E. of regression 0.690948   Akaike info criterion 2.185005
Sum squared resid 9.548192   Schwarz criterion 2.284190

Figure 15: Total Phosphates versus Urban with Slums 100-meter Buffer
Table 16: Total Phosphates versus Urban with Slums with 200-meter Buffer

Dependent Variable: TOTAL_PHOSPHATES
Included observations: 22

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>0.006965</td>
<td>0.305552</td>
<td>0.022795</td>
<td>0.9820</td>
</tr>
<tr>
<td>URBAN_200M</td>
<td>1.140906</td>
<td>0.548613</td>
<td>2.079617</td>
<td>0.0506</td>
</tr>
</tbody>
</table>

R-squared 0.177794  Mean dependent var 0.562273
Adjusted R-squared 0.136684  S.D. dependent var 0.749774
S.E. of regression 0.696651  Akaike info criterion 2.201444
Sum squared resid 9.706459  Schwarz criterion 2.300630

Figure 16: Total Phosphates versus Urban with Slums with 200-meter Buffer
Dissolved Oxygen

Table 17: Dissolved Oxygen versus Forest

Dependent Variable: DISSOLVED_OXYGEN
Included observations: 22

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>1.383896</td>
<td>1.658384</td>
<td>0.834484</td>
<td>0.4139</td>
</tr>
<tr>
<td>FOREST</td>
<td>6.384693</td>
<td>2.212082</td>
<td>2.886282</td>
<td>0.0091</td>
</tr>
</tbody>
</table>

R-squared     0.294050  Mean dependent var 5.890909
Adjusted R-squared 0.258753  S.D. dependent var 3.042385
S.E. of regression 2.619363  Akaike info criterion 4.850247
Sum squared resid 137.2212  Schwarz criterion 4.949433

Figure 17: Dissolved Oxygen versus Forest
Table 18: Dissolved Oxygen versus Urban Area with no Slums

Dependent Variable: DISSOLVED_OXYGEN
Included observations: 22

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>7.520082</td>
<td>0.881653</td>
<td>8.529527</td>
<td>0.0000</td>
</tr>
<tr>
<td>URBAN_NO_SLUMS</td>
<td>-6.105929</td>
<td>2.481047</td>
<td>-2.461029</td>
<td>0.0231</td>
</tr>
</tbody>
</table>

R-squared 0.232442  Mean dependent var 5.890909
Adjusted R-squared 0.194064  S.D. dependent var 3.042385
S.E. of regression 2.731268  Akaike info criterion 4.933917
Sum squared resid 149.1965  Schwarz criterion 5.033103

Figure 18: Dissolved Oxygen versus Urban Area with no Slums
Table 19: Dissolved Oxygen versus Urban Area with Slums

Dependent Variable: DISSOLVED_OXYGEN
Included observations: 22

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>7.746508</td>
<td>0.867712</td>
<td>8.927514</td>
<td>0.0000</td>
</tr>
<tr>
<td>URBAN_SLUMS</td>
<td>-6.418738</td>
<td>2.284531</td>
<td>-2.809653</td>
<td>0.0108</td>
</tr>
</tbody>
</table>

R-squared 0.283004  Mean dependent var 5.890909
Adjusted R-squared 0.247154  S.D. dependent var 3.042385
S.E. of regression 2.639777  Akaike info criterion 4.865774
Sum squared resid 139.3684  Schwarz criterion 4.964959

Figure 19: Dissolved Oxygen versus Urban Area with Slums

URBAN WITH SLUMS

DISSOLVED OXYGEN
Table 20: Dissolved Oxygen versus Slums

Dependent Variable: DISSOLVED_OXYGEN
Included observations: 22

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>6.807533</td>
<td>0.718483</td>
<td>9.474872</td>
<td>0.0000</td>
</tr>
<tr>
<td>SLUMS</td>
<td>-38.78023</td>
<td>17.15276</td>
<td>-2.260874</td>
<td>0.0351</td>
</tr>
</tbody>
</table>

R-squared          0.203554  Mean dependent var  5.890909
Adjusted R-squared 0.163731  S.D. dependent var  3.042385
S.E. of regression 2.782191  Akaike info criterion 4.970863
Sum squared resid   154.8118  Schwarz criterion  5.070048

Figure 20: Dissolved Oxygen versus Slums
### Table 21: Dissolved Oxygen versus Forest 100-meter Buffer

Dependent Variable: DISSOLVED_OXYGEN  
Included observations: 22

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>3.803599</td>
<td>1.015135</td>
<td>3.746890</td>
<td>0.0013</td>
</tr>
<tr>
<td>FOREST_100M</td>
<td>4.356815</td>
<td>1.739153</td>
<td>2.505137</td>
<td>0.0210</td>
</tr>
</tbody>
</table>

R-squared          0.238841  Mean dependent var  5.890909  
Adjusted R-squared 0.200783  S.D. dependent var  3.042385  
S.E. of regression 2.719860  Akaike info criterion 4.925546  
Sum squared resid   147.9528  Schwarz criterion  5.024731

![Figure 21: Dissolved Oxygen versus Forest 100-meter Buffer](image-url)
Table 22: Dissolved Oxygen versus Forest 200-meter Buffer

Dependent Variable: DISSOLVED_OXYGEN
Included observations: 22

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>3.435614</td>
<td>1.106136</td>
<td>3.105960</td>
<td>0.0056</td>
</tr>
<tr>
<td>FOREST_200M</td>
<td>5.184366</td>
<td>1.995601</td>
<td>2.597897</td>
<td>0.0172</td>
</tr>
</tbody>
</table>

R-squared: 0.252310  Mean dependent var: 5.890909
Adjusted R-squared: 0.214926  S.D. dependent var: 3.042385
S.E. of regression: 2.695687  Akaike info criterion: 4.907691
Sum squared resid: 145.3345  Schwarz criterion: 5.006877

Figure 22: Dissolved Oxygen versus Forest 200-meter Buffer
Table 23: Dissolved Oxygen versus Urban Area with slums 100-meter Buffer

Dependent Variable: DISSOLVED_OXYGEN
Included observations: 22

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>8.255124</td>
<td>1.038915</td>
<td>7.945910</td>
<td>0.0000</td>
</tr>
<tr>
<td>URBAN_100M</td>
<td>-5.035115</td>
<td>1.852643</td>
<td>-2.717802</td>
<td>0.0133</td>
</tr>
</tbody>
</table>

R-squared      | 0.269712    | Mean dependent var | 5.890909 |
Adjusted R-squared | 0.233197   | S.D. dependent var | 3.042385 |
S.E. of regression    | 2.664133   | Akaike info criterion | 4.884143 |
Sum squared resid | 141.9521   | Schwarz criterion   | 4.983328 |

Figure 23: Dissolved Oxygen versus Urban Area with Slums 100-meter Buffer
Table 24: Dissolved Oxygen versus Urban Area with slums with 200-meter Buffer

Dependent Variable: DISSOLVED_OXYGEN
Included observations: 22

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>8.645605</td>
<td>1.171678</td>
<td>7.378824</td>
<td>0.0000</td>
</tr>
<tr>
<td>URBAN_200M</td>
<td>-5.659650</td>
<td>2.103728</td>
<td>-2.690296</td>
<td>0.0141</td>
</tr>
</tbody>
</table>

R-squared       0.265723   Mean dependent var 5.890909
Adjusted R-squared 0.229010 S.D. dependent var 3.042385
S.E. of regression 2.671398 Akaike info criterion 4.889589
Sum squared resid 142.7274 Schwarz criterion 4.988775

Figure 24: Dissolved Oxygen versus Urban Area with Slums with 200-meter Buffer
Total Suspended Solids

Table 25: Total Suspended Solids versus Forest

Dependent Variable: TOTAL_SOLIDS
Included observations: 22

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>45.40183</td>
<td>10.71336</td>
<td>4.237873</td>
<td>0.0004</td>
</tr>
<tr>
<td>FOREST</td>
<td>-41.90859</td>
<td>14.29031</td>
<td>-2.932658</td>
<td>0.0082</td>
</tr>
</tbody>
</table>

R-squared   0.300711  Mean dependent var  15.81818
Adjusted R-squared  0.265747  S.D. dependent var  19.74754
S.E. of regression  16.92139  Akaike info criterion  8.581542
Sum squared resid   5726.667  Schwarz criterion  8.680727

Figure 25: Total Suspended Solids versus Forest
Table 26: Total Suspended Solids versus Urban Area with no Slums

Dependent Variable: TOTAL_SOLIDS
Included observations: 22

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>5.649162</td>
<td>5.787475</td>
<td>0.976101</td>
<td>0.3407</td>
</tr>
<tr>
<td>URBAN_NO_SLUMS</td>
<td>38.11217</td>
<td>16.28646</td>
<td>2.340115</td>
<td>0.0298</td>
</tr>
</tbody>
</table>

R-squared | 0.214952 | Mean dependent var | 15.81818
Adjusted R-squared | 0.175699 | S.D. dependent var | 19.74754
S.E. of regression | 17.928976 | Akaike info criterion | 8.697223
Sum squared resid | 6428.9760 | Schwarz criterion | 8.796409

Figure 26: Total Suspended Solids versus Urban Area with no Slums
Table 27: Total Suspended Solids versus Urban Area with Slums

Dependent Variable: TOTAL_SOLIDS
Included observations: 22

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>3.671226</td>
<td>5.613099</td>
<td>0.654046</td>
<td>0.5205</td>
</tr>
<tr>
<td>URBAN_SLUMS</td>
<td>42.01777</td>
<td>14.77829</td>
<td>2.843209</td>
<td>0.0100</td>
</tr>
</tbody>
</table>

R-squared: 0.287847  Mean dependent var: 15.81818
Adjusted R-squared: 0.252239  S.D. dependent var: 19.74754
S.E. of regression: 17.07633  Akaike info criterion: 8.599771
Sum squared resid: 5832.018  Schwarz criterion: 8.698957

Figure 27: Total Suspended Solids versus Urban Area with Slums
Table 28: Total Suspended Solids versus Slums

Dependent Variable: TOTAL_SOLIDS
Included observations: 22

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>7.472357</td>
<td>4.045944</td>
<td>1.846876</td>
<td>0.0796</td>
</tr>
<tr>
<td>SLUMS</td>
<td>353.0926</td>
<td>96.59120</td>
<td>3.655536</td>
<td>0.0016</td>
</tr>
</tbody>
</table>

R-squared 0.400532  Mean dependent var 15.81818
Adjusted R-squared 0.370559  S.D. dependent var 19.74754
S.E. of regression 15.66717  Akaike info criterion 8.427520
Sum squared resid 4909.203  Schwarz criterion 8.526705

Figure 28: Total Suspended Solids versus Slums
Table 29: Total Suspended Solids versus Forest 100-meter Buffer

Dependent Variable: TOTAL_SOLIDS
Included observations: 22

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>26.58961</td>
<td>6.959004</td>
<td>3.820893</td>
<td>0.0011</td>
</tr>
<tr>
<td>FOREST_100M</td>
<td>-22.48305</td>
<td>11.92233</td>
<td>-1.885794</td>
<td>0.0739</td>
</tr>
</tbody>
</table>

R-squared = 0.150967  Mean dependent var = 15.81818
Adjusted R-squared = 0.108516  S.D. dependent var = 19.74754
S.E. of regression = 18.64532  Akaike info criterion = 8.775576
Sum squared resid = 6952.960  Schwarz criterion = 8.874761

Figure 29: Total Suspended Solids versus Forest 100-meter Buffer
Table 30: Total Suspended Solids versus Forest with 200-meter Buffer

Dependent Variable: TOTAL_SOLIDS
Included observations: 22

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>26.91881</td>
<td>7.778431</td>
<td>3.460699</td>
<td>0.0025</td>
</tr>
<tr>
<td>FOREST_200M</td>
<td>-23.43902</td>
<td>14.03322</td>
<td>-1.670253</td>
<td>0.1104</td>
</tr>
</tbody>
</table>

R-squared   0.122412  Mean dependent var  15.81818
Adjusted R-squared  0.078533  S.D. dependent var  19.74754
S.E. of regression  18.95627  Akaike info criterion  8.808655
Sum squared resid  7186.806  Schwarz criterion  8.907841

Figure 30: Total Suspended Solids versus Forest with 200-meter Buffer
Table 31: Total Suspended Solids versus Urban Area with Slums with 100-meter Buffer

Dependent Variable: TOTAL_SOLIDS
Included observations: 22

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>3.247174</td>
<td>7.141260</td>
<td>0.454706</td>
<td>0.6542</td>
</tr>
<tr>
<td>URBAN_100M</td>
<td>26.77272</td>
<td>12.73463</td>
<td>2.102355</td>
<td>0.0484</td>
</tr>
</tbody>
</table>

R-squared 0.180996
Mean dependent var 15.81818
Adjusted R-squared 0.140045
S.D. dependent var 19.74754
S.E. of regression 18.31263
Akaike info criterion 8.739567
Schwarz criterion 8.838753

Figure 31: Total Suspended Solids versus Urban Area with Slums with 100-meter Buffer
Table 32: Total Suspended Solids versus Urban Area with Slums with 200-meter Buffer

Dependent Variable: TOTAL_SOLIDS
Included observations: 22

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>2.996580</td>
<td>8.246581</td>
<td>0.363372</td>
<td>0.7201</td>
</tr>
<tr>
<td>URBAN_200M</td>
<td>26.34258</td>
<td>14.80660</td>
<td>1.779111</td>
<td>0.0904</td>
</tr>
</tbody>
</table>

R-squared: 0.136637
Mean dependent var: 15.81818
Adjusted R-squared: 0.093469
S.D. dependent var: 19.74754
S.E. of regression: 18.80201
Akaike info criterion: 8.792313
Schwarz criterion: 8.891498

Figure 32: Total Suspended Solids versus Urban Area with Slums with 200-meter Buffer
Accuracy Assessment

Figure 33: Image 1 and Image 2

Table 33: Image 1 Accuracy Assessment

<table>
<thead>
<tr>
<th>Classification</th>
<th>Overall Acc.</th>
<th>Kappa Acc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forest</td>
<td>0.9222</td>
<td>0.8833</td>
</tr>
<tr>
<td>Urban</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ground Truth</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 34: Image 2 Accuracy Assessment

<table>
<thead>
<tr>
<th>Classification</th>
<th>Overall Acc.</th>
<th>Kappa Acc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forest</td>
<td>0.9222</td>
<td>0.8833</td>
</tr>
<tr>
<td>Urban</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ground Truth</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>