Table: Overall Difference (paired t-test)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Non-flooded area | | Flooded area | |
|  | May | June | May | June |
| Mean (SD) | 9126.35 (4927.11) | 7759.558 (4230.25) | 21216.45 (9000.02) | 22583.24 (9230.12) |
| Mean Difference | 1366.79 | | -1366.80 | |
| P-value | <0.001 | | <0.001 | |

Table: Sylhet Difference (paired t-test)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Non-flooded area | | Flooded area | |
|  | May | June | May | June |
| Mean (SD) | 9991.81 (5424.58) | 8750.60 (4718.21) | 18974.83 (7818.98) | 20216.04 (8330.06) |
| Mean Difference | 1241.21 | | -1241.21 | |
| P-value | 0.039 | | 0.039 | |

Table: Sunamganj Difference (paired t-test)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Non-flooded area | | Flooded area | |
|  | May | June | May | June |
| Mean (SD) | 8188.77 (4361.34) | 6685.93 (3512.86) | 23644.87 (9882.40) | 25147.71 (9817.59) |
| Mean Difference | 1502.84 | | -1502.84 | |
| P-value | 0.003 | | 0.003 | |

Table: Descriptive Sylhet

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Wind Speed | Temperature | RH | Rain | Surface Pressure | Water Level |
| Min | 0.74 | 26.03 | 49.50 | 0.00 | 98.73 | 4.40 |
| Mean | 2.07 | 28.76 | 73.24 | 6.06 | 99.14 | 9.05 |
| SD | 0.91 | 1.18 | 9.97 | 6.99 | 0.18 | 2.50 |
| Max | 4.17 | 30.85 | 89.31 | 33.46 | 99.59 | 11.73 |

Table: Correlation Sylhet

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Wind Speed | Temperature | RH | Surface Pressure | Rain | Water Level |
| Wind Speed | 1.00 | -0.39 | 0.54 | 0.01 | 0.61 | 0.54 |
| Temperature | -0.39 | 1.00 | -0.87 | -0.06 | -0.66 | -0.76 |
| RH | 0.54 | -0.87 | 1.00 | -0.16 | 0.77 | 0.82 |
| Surface Pressure | 0.01 | -0.06 | -0.16 | 1.00 | -0.07 | 0.04 |
| Rain | 0.61 | -0.66 | 0.77 | -0.07 | 1.00 | 0.72 |
| Water Level | 0.54 | -0.76 | 0.82 | 0.04 | 0.72 | 1.00 |

Table: Descriptive Sunamganj

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Wind Speed | Temperature | RH | Rain | Surface Pressure | Water Level |
| Min | 0.80 | 26.29 | 45.31 | 0.01 | 99.03 | 4.46 |
| Mean | 2.08 | 29.25 | 72.26 | 6.41 | 99.46 | 8.26 |
| SD | 0.88 | 1.21 | 11.19 | 7.40 | 0.18 | 1.76 |
| Max | 4.22 | 32.01 | 90.25 | 35.93 | 99.90 | 10.27 |

Table: Correlation Sunamganj

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Wind Speed | Temperature | RH | Surface Pressure | Rain | Water Level |
| Wind Speed | 1.00 | -0.48 | 0.64 | -0.08 | 0.59 | 0.33 |
| Temperature | -0.48 | 1.00 | -0.90 | 0.11 | -0.65 | -0.67 |
| RH | 0.64 | -0.90 | 1.00 | -0.26 | 0.67 | 0.72 |
| Surface Pressure | -0.08 | 0.11 | -0.26 | 1.00 | -0.05 | 0.11 |
| Rain | 0.59 | -0.65 | 0.67 | -0.05 | 1.00 | 0.55 |
| Water Level | 0.33 | -0.67 | 0.72 | -0.11 | 0.55 | 1.00 |

Table: Coefficient ARIMAX

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Sylhet | | | Sunamganj | | |
|  | Estimate | 95% CI | P-value | Estimate | 95% CI | P-value |
| Wind Speed | 0.04 | 0.02 to 0.30 | 0.007 | -0.04 | -0.29 to -0.01 | 0.008 |
| Temperature | -0.16 | -0.58 to -0.27 | 0.047 | -0.24 | -0.72 to -0.11 | 0.032 |
| RH | 0.48 | 0.20 to 1.16 | 0.017 | 0.65 | 0.16 to 1.46 | 0.012 |
| Surface Pressure | 0.04 | -0.21 to 0.29 | 0.765 | 0.17 | 0.10 to 0.44 | 0.022 |
| Water Level | -0.32 | -0.41 to -0.02 | 0.008 | 0.01 | 0.01 to 0.05 | 0.009 |
| R-square | 98.70% | | | 98.79% | | |
| RMSE | 0.7901 | | | 0.8069 | | |
| MAE | 0.5550 | | | 0.5497 | | |

|  |
| --- |
| Sylhet |
| E:\Study\ResearchProject\Aminul\Flood\Rplot03.tiff |
| Sunamganj |
| E:\Study\ResearchProject\Aminul\Flood\Rplot05.tiff |