

**Comparison of Pre and Post Diwali Air Quality Parameters in Cities M. P. State  
(Year 2024)**

| Sr. No. | Location                    | Parameters  |   |  |   |                          |   |
|---------|-----------------------------|-------------|---|--|---|--------------------------|---|
|         |                             | Duration    | PM <sub>2.5</sub><br>(µg/m <sup>3</sup> ) | PM <sub>10</sub><br>(µg/m <sup>3</sup> ) | SO <sub>2</sub><br>(µg/m <sup>3</sup> ) | NO <sub>x</sub><br>(ppb) | NH <sub>3</sub><br>(µg/m <sup>3</sup> ) |
| 1       | Anuppur, Collectorate       | Pre Diwali  | 24.35                                     | 75.42                                    | 11.68                                   | 13.7                     | NA                                      |
|         |                             | Diwali Day  | 21.99                                     | 65.49                                    | 11.65                                   | 13.65                    | NA                                      |
|         |                             | Post Diwali | 24.61                                     | 71.1                                     | 11.43                                   | 13.63                    | NA                                      |
| 2       | Betul , Collector Office    | Pre Diwali  | 55.01                                     | 82.49                                    | 0.35                                    | 61.38                    | NA                                      |
|         |                             | Diwali Day  | 50.78                                     | 69.31                                    | 0.35                                    | 60.93                    | NA                                      |
|         |                             | Post Diwali | NA  | NA                                       | NA                                      | NA                       | NA                                      |
| 3       | Bhopal, Collectorate Office | Pre Diwali  | 66.18                                     | 176.22                                   | 7.64                                    | 20.09                    | 18.12                                   |
|         |                             | Diwali Day  | 68.65                                     | 162.8                                    | 8.18                                    | 15.98                    | 17.74                                   |
|         |                             | Post Diwali | 73.83                                     | 190.07                                   | 8.95                                    | 13.77                    | 19.5                                    |
| 4       | Bhopal, Paryavaran Parisar  | Pre Diwali  | 88.75                                     | 193.7                                    | 5.7                                     | 19.69                    | 42.28                                   |
|         |                             | Diwali Day  | 96.26                                     | 206.72                                   | 5.41                                    | 17.78                    | 39.83                                   |
|         |                             | Post Diwali | 128.21                                    | 216.18                                   | 5.47                                    | 15.57                    | 37.44                                   |
| 5       | Bhopal, T T Nagar           | Pre Diwali  | 60.28                                     | 159.9                                    | 15.92                                   | 27.35                    | 57.28                                   |
|         |                             | Diwali Day  | 71.67                                     | 202.11                                   | 21.37                                   | 23.95                    | 53.75                                   |
|         |                             | Post Diwali | 52.97                                     | 172.48                                   | 21.65                                   | 14.63                    | 42.8                                    |
| 6       | Damoh, Shrivastav Colony    | Pre Diwali  | 23.52                                     | 63.01                                    | 32.99                                   | 7.08                     | NA                                      |
|         |                             | Diwali Day  | 19.72                                     | 60.85                                    | 33.5                                    | 7.14                     | NA                                      |
|         |                             | Post Diwali | 13.51                                     | 53.77                                    | 33.05                                   | 7.09                     | NA                                      |
| 7       | Dewas, Bhopal Chauraha      | Pre Diwali  | 78.94                                     | 170.36                                   | 20.85                                   | 8.1                      | 11.89                                   |
|         |                             | Diwali Day  | 119.73                                    | 173.41                                   | 20.39                                   | 8.13                     | 11.88                                   |
|         |                             | Post Diwali | 119.36                                    | 207.48                                   | 18.88                                   | 8.14                     | 11.92                                   |
| 8       | Gwalior, City Center        | Pre Diwali  | 33.53                                     | 103.03                                   | 23.98                                   | 14.21                    | 19.51                                   |
|         |                             | Diwali Day  | 57.4                                      | 157.31                                   | 16.34                                   | 16.02                    | 17.34                                   |
|         |                             | Post Diwali | 127.59                                    | 213.58                                   | 15.45                                   | 17.12                    | 20.84                                   |
| 9       | Gwalior, DD Nagar           | Pre Diwali  | 84.48                                     | 180.26                                   | 11.77                                   | 15.73                    | 17.14                                   |
|         |                             | Diwali Day  | 102.81                                    | 188.98                                   | 13.3                                    | 16.59                    | 16.64                                   |
|         |                             | Post Diwali | 331.64                                    | 337.31                                   | 12.29                                   | 27.1                     | 23.71                                   |
| 10      | Gwalior, Maharaj bada       | Pre Diwali  | 53.09                                     | 186.35                                   | 9.84                                    | 17.08                    | 13.75                                   |
|         |                             | Diwali Day  | 90.78                                     | 257.76                                   | 10.33                                   | 29.43                    | 14.21                                   |
|         |                             | Post Diwali | 198.55                                    | 361.56                                   | 12.93                                   | 24.72                    | 18.19                                   |
| 11      | Indore, Airport Area        | Pre Diwali  | 63.01                                     | 63.73                                    | 8.51                                    | 12.45                    | 0.21                                    |
|         |                             | Diwali Day  | NA  | 67.83                                    | 8.48                                    | 11.56                    | 0.2                                     |
|         |                             | Post Diwali | NA  | 119.4                                    | 8.48                                    | 11.99                    | 0.23                                    |
| 12      | Indore, Chhoti Gwaltoli     | Pre Diwali  | 113.59                                    | 257.42                                   | 11.65                                   | 38.54                    | 29.79                                   |
|         |                             | Diwali Day  | 131.62                                    | 283.93                                   | 35.41                                   | 44.53                    | 24.19                                   |
|         |                             | Post Diwali | 257.68                                    | 320.07                                   | 39.94                                   | 88.86                    | 13.53                                   |

## Comparison of Pre and Post Diwali Air Quality Parameters in Cities M. P. State (Year 2024)

| Sr. No. | Location                        | Parameters  |   |  |   |                          |   |
|---------|---------------------------------|-------------|---|--|---|--------------------------|---|
|         |                                 | Duration    | PM <sub>2.5</sub><br>(µg/m <sup>3</sup> ) | PM <sub>10</sub><br>(µg/m <sup>3</sup> ) | SO <sub>2</sub><br>(µg/m <sup>3</sup> ) | NO <sub>x</sub><br>(ppb) | NH <sub>3</sub><br>(µg/m <sup>3</sup> ) |
| 13      | Indore, Pologround              | Pre Diwali  | 40.87                                     | 59.41                                    | 15.51                                   | 19.82                    | NA                                      |
|         |                                 | Diwali Day  | 38.28                                     | 65.48                                    | 14.61                                   | 19.57                    | NA                                      |
|         |                                 | Post Diwali | 38.47                                     | 58.25                                    | 15.13                                   | 19.68                    | NA                                      |
| 14      | Indore, Regional Park N Nigam   | Pre Diwali  | 33.71                                     | NA                                       | 47.92                                   | 4.71                     | 2.17                                    |
|         |                                 | Diwali Day  | NA  | NA                                       | NA                                      | NA                       | NA                                      |
|         |                                 | Post Diwali | NA  | NA                                       | NA                                      | NA                       | NA                                      |
| 15      | Indore, Residency Area          | Pre Diwali  | 73.81                                     | 130.8                                    | 22.58                                   | 14.82                    | 1.37                                    |
|         |                                 | Diwali Day  | NA  | 157.91                                   | 23.63                                   | 10.26                    | 0.29                                    |
|         |                                 | Post Diwali | NA  | 209.17                                   | 23.89                                   | 10.35                    | 0.31                                    |
| 16      | Indore, Vijay Nagar             | Pre Diwali  | 30.92                                     | 40.36                                    | 22.62                                   | 25.48                    | NA                                      |
|         |                                 | Diwali Day  | 30.95                                     | 40.24                                    | 22.47                                   | 25.5                     | NA                                      |
|         |                                 | Post Diwali | 31  | 39.65                                    | 22.61                                   | 25.48                    | NA                                      |
| 17      | Jabalpur, Govindh Bhavan Colony | Pre Diwali  | 40.71                                     | 80.48                                    | 3.07                                    | 7.84                     | 11.18                                   |
|         |                                 | Diwali Day  | 59.8                                      | 118.07                                   | 53.37                                   | 7.97                     | 11.13                                   |
|         |                                 | Post Diwali | 83.63                                     | 165.08                                   | 11.67                                   | 8.36                     | 11.14                                   |
| 18      | Jabalpur, Gupteshwar            | Pre Diwali  | 69.25                                     | 88.56                                    | 30.14                                   | 27.6                     | 20.39                                   |
|         |                                 | Diwali Day  | 89.29                                     | 106.93                                   | 26.97                                   | 24.51                    | 19.17                                   |
|         |                                 | Post Diwali | 116.06                                    | 208.63                                   | 24.38                                   | 24.72                    | 19.63                                   |
| 19      | Jabalpur, Marhatal              | Pre Diwali  | 67.92                                     | 108.88                                   | 20.87                                   | 28.27                    | 14.69                                   |
|         |                                 | Diwali Day  | 76.36                                     | 100.67                                   | 22.19                                   | 33.59                    | 16.32                                   |
|         |                                 | Post Diwali | 120.39                                    | 139.66                                   | 23.7                                    | 32.19                    | 26.91                                   |
| 20      | Jabalpur, Suhagi                | Pre Diwali  | 51.09                                     | 101.41                                   | 4.66                                    | 28.19                    | 23.46                                   |
|         |                                 | Diwali Day  | 90.27                                     | 159.57                                   | 6.7                                     | 30.46                    | 23.41                                   |
|         |                                 | Post Diwali | 136.59                                    | 232.29                                   | 12.58                                   | 35.26                    | 23.32                                   |
| 21      | Katni, Gole Bazar               | Pre Diwali  | 48.99                                     | 167.85                                   | 31.14                                   | 28.77                    | 12.13                                   |
|         |                                 | Diwali Day  | 54.09                                     | 174.24                                   | 66.43                                   | 28.21                    | 15.97                                   |
|         |                                 | Post Diwali | 73.8                                      | 209.26                                   | 59.27                                   | 23.01                    | 22.31                                   |
| 22      | Katni, Regional Office          | Pre Diwali  | 25.67                                     | 91.88                                    | 6.65                                    | 25.02                    | NA                                      |
|         |                                 | Diwali Day  | 25.23                                     | 57.65                                    | 6.62                                    | 25.12                    | NA                                      |
|         |                                 | Post Diwali | 25.37                                     | 72.04                                    | 6.63                                    | 25.07                    | NA                                      |
| 23      | Khandwa, Lok Seva Kendra        | Pre Diwali  | 57.13                                     | 69.32                                    | 10.83                                   | NA                       | NA                                      |
|         |                                 | Diwali Day  | 88.02                                     | 108.24                                   | 12.99                                   | NA                       | NA                                      |
|         |                                 | Post Diwali | 110.19                                    | 127.53                                   | 13.5                                    | 28.2                     | 20.37                                   |
| 24      | Khargone, Nagar Palika          | Pre Diwali  | 26.66                                     | 38.62                                    | 12.05                                   | 23.66                    | NA                                      |
|         |                                 | Diwali Day  | 45.69                                     | 50.44                                    | 10.2                                    | 23.66                    | NA                                      |
|         |                                 | Post Diwali | 26.06                                     | 42.46                                    | 12.16                                   | 23.7                     | NA                                      |

## Comparison of Pre and Post Diwali Air Quality Parameters in Cities M. P. State (Year 2024)

| Sr. No. | Location                                | Parameters  |   |  |   |                          |   |
|---------|---|-------------|---|--|---|--------------------------|---|
|         |   | Duration    | PM <sub>2.5</sub><br>(µg/m <sup>3</sup> ) | PM <sub>10</sub><br>(µg/m <sup>3</sup> ) | SO <sub>2</sub><br>(µg/m <sup>3</sup> ) | NO <sub>x</sub><br>(ppb) | NH <sub>3</sub><br>(µg/m <sup>3</sup> ) |
| 25      | Maihar , Sharda Temple                  | Pre Diwali  | 37.35                                     | 34.5                                     | 10.47                                   | 16.96                    | NA                                      |
|         |   | Diwali Day  | 27.68                                     | 34.72                                    | 8.97                                    | 17.95                    | NA                                      |
|         |   | Post Diwali | 47.06                                     | 53.78                                    | 9.89                                    | 17.98                    | NA                                      |
| 26      | Mandideep, Sector New Industrial Area   | Pre Diwali  | 102.49                                    | 208.38                                   | 28.45                                   | 45.74                    | 32.65                                   |
|         |   | Diwali Day  | 74.81                                     | 157.6                                    | 24.57                                   | 28.04                    | 24.3                                    |
|         |   | Post Diwali | 120.84                                    | 208.45                                   | 42.37                                   | 23.26                    | 19.5                                    |
| 27      | Narsinghpur, District Education Office  | Pre Diwali  | 70.38                                     | 105.86                                   | 9.92                                    | 23.11                    | NA                                      |
|         |   | Diwali Day  | 66.98                                     | 101.72                                   | 10.06                                   | 21.31                    | NA                                      |
|         |   | Post Diwali | 79.04                                     | 131.67                                   | 10.12                                   | 18.23                    | NA                                      |
| 28      | Neemuch, Civil Hospital                 | Pre Diwali  | 18.34                                     | 96.23                                    | 17.45                                   | 5.89                     | NA                                      |
|         |   | Diwali Day  | 18.63                                     | 125.31                                   | 17.41                                   | 6.94                     | NA                                      |
|         |   | Post Diwali | 18.37                                     | 124.83                                   | 17.57                                   | 10.2                     | NA                                      |
| 29      | Panna, Collectorate                     | Pre Diwali  | 40.96                                     | 86.92                                    | 9.91                                    | 20.8                     | NA                                      |
|         |   | Diwali Day  | 40.41                                     | 106.98                                   | 9.52                                    | 23.05                    | NA                                      |
|         |   | Post Diwali | 64.58                                     | 131.49                                   | 9.52                                    | 20.19                    | NA                                      |
| 30      | Pithampur, Sector-2 Industrial Area     | Pre Diwali  | 62.94                                     | 96.9                                     | 37.26                                   | 8.93                     | 9.72                                    |
|         |   | Diwali Day  | 52.76                                     | 92.34                                    | 30.54                                   | 7.66                     | 10.98                                   |
|         |   | Post Diwali | 42.55                                     | 71.82                                    | 30.3                                    | 6.38                     | 10.41                                   |
| 31      | Ratlam, Shathri Nagar                   | Pre Diwali  | 54.12                                     | 169.69                                   | 27.61                                   | 29.09                    | NA                                      |
|         |   | Diwali Day  | 154.56                                    | 194.75                                   | 34.58                                   | 28.96                    | NA                                      |
|         |   | Post Diwali | 128.11                                    | 206.97                                   | 37.36                                   | 29.05                    | NA                                      |
| 32      | Sagar, Collectorate Office              | Pre Diwali  | 47.31                                     | 117.13                                   | 5.45                                    | 11.45                    | 34.16                                   |
|         |   | Diwali Day  | 51.14                                     | 133.59                                   | 9.42                                    | 10.92                    | 46.43                                   |
|         |   | Post Diwali | 76.51                                     | 186.91                                   | 6.66                                    | 9.15                     | 48.27                                   |
| 33      | Sagar, Deen Dayal Nagar                 | Pre Diwali  | 23.36                                     | 158.95                                   | 7.21                                    | 11.3                     | NA                                      |
|         |   | Diwali Day  | 49.39                                     | 227.94                                   | 7.42                                    | 11.3                     | NA                                      |
|         |   | Post Diwali | 47.37                                     | 199.46                                   | 7.2                                     | 11.1                     | NA                                      |
| 34      | Singrauli, Surya Kiran Bhawan Dudhichua | Pre Diwali  | 88.56                                     | 218.24                                   | 37.75                                   | 38.12                    | 10.49                                   |
|         |   | Diwali Day  | 102.62                                    | 256.49                                   | 28.31                                   | 29.05                    | 8.58                                    |
|         |   | Post Diwali | 116.63                                    | 249.68                                   | 30.49                                   | 24.81                    | 12.2                                    |
| 35      | Singrauli, Trauma Centre Waidhan        | Pre Diwali  | 83.45                                     | 137.94                                   | 15.01                                   | 11.64                    | NA                                      |
|         |   | Diwali Day  | 72.94                                     | 111.54                                   | 14.52                                   | 11.61                    | NA                                      |
|         |   | Post Diwali | 85.75                                     | 150.67                                   | 14.53                                   | 11.65                    | NA                                      |
| 36      | Ujjain, Mahakaleshwar Temple            | Pre Diwali  | 80.29                                     | 146.84                                   | 7.89                                    | 29.68                    | 35.14                                   |
|         |   | Diwali Day  | 146.82                                    | 184.99                                   | 8.16                                    | 26.18                    | 32.95                                   |
|         |   | Post Diwali | 110.79                                    | 188.51                                   | 9.62                                    | 37.13                    | 17.45                                   |

**Comparison of Pre and Post Diwali Air Quality Parameters in Cities M. P. State  
(Year 2023)**

| Sr. No. | Location                    | Parameters  |   |  |   |                          |   |
|---------|-----------------------------|-------------|---|--|---|--------------------------|---|
|         |                             | Duration    | PM <sub>2.5</sub><br>(µg/m <sup>3</sup> ) | PM <sub>10</sub><br>(µg/m <sup>3</sup> ) | SO <sub>2</sub><br>(µg/m <sup>3</sup> ) | NO <sub>x</sub><br>(ppb) | NH <sub>3</sub><br>(µg/m <sup>3</sup> ) |
| 1       | Anuppur, Collectorate       | Pre Diwali  | 55.82                                     | 38.73                                    | 15.25                                   | 13.88                    | NA                                      |
|         |                             | Diwali Day  | 38.32                                     | 73.57                                    | 15.41                                   | 13.72                    | NA                                      |
|         |                             | Post Diwali | 57.71                                     | 92.39                                    | 21.01                                   | 15.69                    | NA                                      |
| 2       | Betul , Collector Office    | Pre Diwali  | 82.32                                     | 152.66                                   | 32.01                                   | 29.31                    | NA                                      |
|         |                             | Diwali Day  | 87.65                                     | 112.36                                   | 32.11                                   | 31.82                    | NA                                      |
|         |                             | Post Diwali | 87.82                                     | 119.89                                   | 31.96                                   | 27.81                    | NA                                      |
| 3       | Bhopal, Collectorate Office | Pre Diwali  | 73.35                                     | 128.65                                   | 15.96                                   | 13.13                    | 18.58                                   |
|         |                             | Diwali Day  | 137.03                                    | 183.71                                   | 19.74                                   | 12.93                    | 23.96                                   |
|         |                             | Post Diwali | 157.97                                    | 179.36                                   | 20.73                                   | 16.19                    | 23.69                                   |
| 4       | Bhopal, Paryavaran Parisar  | Pre Diwali  | 72.07                                     | 124.95                                   | 8.71                                    | 17.47                    | 13.17                                   |
|         |                             | Diwali Day  | 125.40                                    | 164.56                                   | 11.30                                   | 31.75                    | 12.75                                   |
|         |                             | Post Diwali | 198.72                                    | 260.75                                   | 12.25                                   | 48.74                    | 13.40                                   |
| 5       | Bhopal, T T Nagar           | Pre Diwali  | 62.86                                     | 149.64                                   | 29.05                                   | 18.83                    | 11.20                                   |
|         |                             | Diwali Day  | 133.42                                    | 217.35                                   | 30.30                                   | 22.27                    | 12.72                                   |
|         |                             | Post Diwali | 166.41                                    | 220.55                                   | 32.30                                   | 29.52                    | 12.88                                   |
| 6       | Damoh, Shrivastav Colony    | Pre Diwali  | 30.44                                     | 59.11                                    | 21.71                                   | 8.57                     | NA                                      |
|         |                             | Diwali Day  | 23.93                                     | 52.44                                    | 21.90                                   | 8.54                     | NA                                      |
|         |                             | Post Diwali | 22.52                                     | 57.54                                    | 22.12                                   | 8.59                     | NA                                      |
| 7       | Dewas, Bhopal Chauraha      | Pre Diwali  | 61.57                                     | 109.48                                   | 28.30                                   | 3.01                     | 4.12                                    |
|         |                             | Diwali Day  | 108.50                                    | 157.96                                   | 32.45                                   | 3.54                     | 4.65                                    |
|         |                             | Post Diwali | 89.09                                     | 128.88                                   | 26.79                                   | 12.03                    | 12.57                                   |
| 8       | Dewas, Govt. MG Hospital    | Pre Diwali  | 93.35                                     | 162.80                                   | 19.57                                   | 45.89                    | NA                                      |
|         |                             | Diwali Day  | 86.68                                     | 104.09                                   | 27.35                                   | 35.16                    | NA                                      |
|         |                             | Post Diwali | 110.62                                    | 147.40                                   | 21.17                                   | 27.88                    | NA                                      |
| 9       | Gwalior, City Center        | Pre Diwali  | 55.98                                     | 83.15                                    | 24.33                                   | 2.01                     | 7.63                                    |
|         |                             | Diwali Day  | 80.86                                     | 128.42                                   | 28.25                                   | 1.96                     | 7.71                                    |
|         |                             | Post Diwali | 223.64                                    | 275.65                                   | 16.71                                   | 2.01                     | 7.90                                    |
| 10      | Gwalior, DD Nagar           | Pre Diwali  | 59.20                                     | 126.29                                   | 12.45                                   | 12.56                    | 37.13                                   |
|         |                             | Diwali Day  | 100.19                                    | 156.50                                   | 18.87                                   | 14.95                    | 29.25                                   |
|         |                             | Post Diwali | 262.68                                    | 360.81                                   | 19.09                                   | 31.35                    | 43.98                                   |
| 11      | Gwalior, Maharaj bada       | Pre Diwali  | 41.48                                     | 135.79                                   | 10.51                                   | 12.82                    | 34.52                                   |
|         |                             | Diwali Day  | 69.42                                     | 181.05                                   | 26.42                                   | 22.86                    | 23.47                                   |
|         |                             | Post Diwali | 261.43                                    | 354.83                                   | 22.07                                   | 24.28                    | 7.80                                    |
| 12      | Gwalior, Phool Bagh         | Pre Diwali  | 47.54                                     | 68.71                                    | 28.15                                   | NA                       | NA                                      |
|         |                             | Diwali Day  | 70.48                                     | 101.63                                   | 28.97                                   | NA                       | NA                                      |
|         |                             | Post Diwali | 229.98                                    | 276.08                                   | 32.99                                   | NA                       | NA                                      |

## Comparison of Pre and Post Diwali Air Quality Parameters in Cities M. P. State (Year 2023)

| Sr. No. | Location                              | Parameters  |   |  |   |                          |   |
|---------|---------------------------------------|-------------|---|--|---|--------------------------|---|
|         |                                       | Duration    | PM <sub>2.5</sub><br>(µg/m <sup>3</sup> ) | PM <sub>10</sub><br>(µg/m <sup>3</sup> ) | SO <sub>2</sub><br>(µg/m <sup>3</sup> ) | NO <sub>x</sub><br>(ppb) | NH <sub>3</sub><br>(µg/m <sup>3</sup> ) |
| 13      | Indore, Airport Area                  | Pre Diwali  | NA  | 21.62                                    | 3.92                                    | 5.36                     | 0.18                                    |
|         |                                       | Diwali Day  | NA  | 39.09                                    | 4.57                                    | 4.05                     | 0.18                                    |
|         |                                       | Post Diwali | NA  | 65.75                                    | 4.30                                    | 5.58                     | 0.19                                    |
| 14      | Indore, Chhoti Gwaltoli               | Pre Diwali  | 135.52                                    | 233.82                                   | 18.56                                   | 34.46                    | 16.65                                   |
|         |                                       | Diwali Day  | 117.76                                    | 165.65                                   | 32.59                                   | 24.81                    | 11.25                                   |
|         |                                       | Post Diwali | 130.84                                    | 173.66                                   | 16.96                                   | 51.20                    | 26.39                                   |
| 15      | Indore, Regional Park                 | Pre Diwali  | 80.77                                     | 129.31                                   | 3.81                                    | 19.57                    | NA                                      |
|         |                                       | Diwali Day  | 58.35                                     | 90.95                                    | 1.55                                    | 21.67                    | NA                                      |
|         |                                       | Post Diwali | 55.17                                     | 88.26                                    | 1.50                                    | 11.41                    | NA                                      |
| 16      | Indore, Regional Park N Nigam         | Pre Diwali  | 26.13                                     | 54.68                                    | 47.86                                   | 7.71                     | 0.35                                    |
|         |                                       | Diwali Day  | 28.05                                     | 51.88                                    | 43.88                                   | 6.79                     | 0.29                                    |
|         |                                       | Post Diwali | 53.92                                     | 104.25                                   | 43.16                                   | 7.17                     | 0.37                                    |
| 17      | Indore, Residency Area                | Pre Diwali  | 53.98                                     | 57.29                                    | 26.21                                   | 0.54                     | 1.10                                    |
|         |                                       | Diwali Day  | 28.84                                     | 46.24                                    | 25.11                                   | 0.35                     | 0.31                                    |
|         |                                       | Post Diwali | NA  | 64.67                                    | 24.48                                   | 0.32                     | 0.27                                    |
| 18      | Jabalpur, Marhatal                    | Pre Diwali  | 98.33                                     | 215.91                                   | 6.99                                    | 41.51                    | 11.92                                   |
|         |                                       | Diwali Day  | 144.95                                    | 241.69                                   | 6.09                                    | 22.16                    | 12.72                                   |
|         |                                       | Post Diwali | 157.21                                    | 238.29                                   | 13.20                                   | 27.73                    | 5.66                                    |
| 19      | Katni, Gole Bazar                     | Pre Diwali  | 98.03                                     | 212.02                                   | 29.50                                   | 29.47                    | 13.29                                   |
|         |                                       | Diwali Day  | 125.82                                    | 220.16                                   | 15.06                                   | 23.18                    | 13.96                                   |
|         |                                       | Post Diwali | 162.74                                    | 276.55                                   | 14.07                                   | 50.44                    | 16.73                                   |
| 20      | Katni, Regional Office                | Pre Diwali  | 20.05                                     | 61.48                                    | 10.02                                   | 18.02                    | NA                                      |
|         |                                       | Diwali Day  | 20.25                                     | 61.95                                    | 10.11                                   | 18.21                    | NA                                      |
|         |                                       | Post Diwali | 20.11                                     | 61.61                                    | 10.05                                   | 18.10                    | NA                                      |
| 21      | Khandwa, Lok Seva Kendra              | Pre Diwali  | 64.80                                     | 76.57                                    | 45.04                                   | 35.04                    | 0.53                                    |
|         |                                       | Diwali Day  | 77.97                                     | 102.33                                   | 50.22                                   | 44.66                    | 1.80                                    |
|         |                                       | Post Diwali | 133.98                                    | 153.14                                   | 49.34                                   | 38.50                    | 0.24                                    |
| 22      | Khargone, Nagar Palika                | Pre Diwali  | NA  | 137.89                                   | 16.35                                   | NA                       | NA                                      |
|         |                                       | Diwali Day  | NA  | 186.55                                   | 14.38                                   | NA                       | NA                                      |
|         |                                       | Post Diwali | NA  | 118.58                                   | 15.24                                   | NA                       | NA                                      |
| 23      | Maihar , Sharda Temple                | Pre Diwali  | 74.07                                     | 131.10                                   | 11.60                                   | 36.56                    | NA                                      |
|         |                                       | Diwali Day  | 58.54                                     | 100.82                                   | 10.76                                   | 29.07                    | NA                                      |
|         |                                       | Post Diwali | 64.29                                     | 112.03                                   | 11.01                                   | 26.10                    | NA                                      |
| 24      | Mandideep, Sector New Industrial Area | Pre Diwali  | 44.99                                     | 104.79                                   | 38.83                                   | 39.83                    | 29.41                                   |
|         |                                       | Diwali Day  | 71.74                                     | 130.88                                   | 72.34                                   | 34.41                    | 29.37                                   |
|         |                                       | Post Diwali | 95.75                                     | 197.93                                   | 40.28                                   | 34.13                    | 42.59                                   |

**Comparison of Pre and Post Diwali Air Quality Parameters in Cities M. P. State  
(Year 2023)**

| Sr. No. | Location                                   | Parameters  |   |  |   |                          |   |
|---------|--|-------------|---|--|---|--------------------------|---|
|         |  | Duration    | PM <sub>2.5</sub><br>(µg/m <sup>3</sup> ) | PM <sub>10</sub><br>(µg/m <sup>3</sup> ) | SO <sub>2</sub><br>(µg/m <sup>3</sup> ) | NO <sub>x</sub><br>(ppb) | NH <sub>3</sub><br>(µg/m <sup>3</sup> ) |
| 25      | Pithampur, Sector-2<br>Industrial Area     | Pre Diwali  | 59.35                                     | 148.05                                   | 14.64                                   | 5.75                     | 7.74                                    |
|         |  | Diwali Day  | 59.08                                     | 113.82                                   | 14.05                                   | 6.66                     | 8.18                                    |
|         |  | Post Diwali | 112.84                                    | 168.79                                   | 14.05                                   | 11.54                    | 11.61                                   |
| 26      | Ratlam, Shathri Nagar                      | Pre Diwali  | 54.78                                     | 147.73                                   | 9.76                                    | 34.23                    | NA                                      |
|         |  | Diwali Day  | 125.75                                    | 122.89                                   | 12.20                                   | 34.19                    | NA                                      |
|         |  | Post Diwali | 105.20                                    | 195.12                                   | 13.49                                   | 35.18                    | NA                                      |
| 27      | Rewa, Collector Office                     | Pre Diwali  | 37.24                                     | 96.68                                    | 2.08                                    | 24.61                    | NA                                      |
|         |  | Diwali Day  | 42.19                                     | 99.40                                    | 7.87                                    | 36.69                    | NA                                      |
|         |  | Post Diwali | 121.07                                    | 131.02                                   | 0.50                                    | 53.53                    | NA                                      |
| 28      | Rewa, Regional Office                      | Pre Diwali  | 123.56                                    | 152.73                                   | NA                                      | 57.91                    | NA                                      |
|         |  | Diwali Day  | 63.99                                     | 195.31                                   | NA                                      | 60.55                    | NA                                      |
|         |  | Post Diwali | 58.63                                     | 214.85                                   | NA                                      | 60.37                    | NA                                      |
| 29      | Sagar, Collectorate<br>Office              | Pre Diwali  | 86.31                                     | 156.39                                   | 9.56                                    | 13.20                    | 22.43                                   |
|         |  | Diwali Day  | 106.23                                    | 153.38                                   | 6.57                                    | 12.90                    | 21.69                                   |
|         |  | Post Diwali | 73.50                                     | 107.39                                   | 5.86                                    | 11.18                    | 28.31                                   |
| 30      | Sagar, Deen Dayal<br>Nagar                 | Pre Diwali  | 25.07                                     | 62.33                                    | 6.80                                    | 14.90                    | NA                                      |
|         |  | Diwali Day  | 38.30                                     | 197.96                                   | 7.11                                    | 14.92                    | NA                                      |
|         |  | Post Diwali | 39.08                                     | 192.72                                   | 7.03                                    | 15.09                    | NA                                      |
| 31      | Satna, Bandhavgar<br>Colony                | Pre Diwali  | 25.01                                     | 256.99                                   | 6.74                                    | 26.46                    | NA                                      |
|         |  | Diwali Day  | 24.94                                     | 220.54                                   | 6.33                                    | 26.44                    | NA                                      |
|         |  | Post Diwali | 25.00                                     | 223.34                                   | 6.64                                    | 26.41                    | NA                                      |
| 32      | Singrauli, Surya Kiran<br>Bhawan Dudhichua | Pre Diwali  | 69.26                                     | 133.21                                   | 25.55                                   | 40.42                    | 14.12                                   |
|         |  | Diwali Day  | 93.43                                     | 217.60                                   | 49.60                                   | 28.26                    | 23.73                                   |
|         |  | Post Diwali | 83.56                                     | 145.64                                   | 41.03                                   | 33.12                    | 17.40                                   |
| 33      | Singrauli, Trauma<br>Centre Waidhan        | Pre Diwali  | 108.60                                    | 223.88                                   | 13.99                                   | 10.43                    | NA                                      |
|         |  | Diwali Day  | 215.03                                    | 323.95                                   | 14.07                                   | 5.90                     | NA                                      |
|         |  | Post Diwali | 133.46                                    | 210.90                                   | 13.77                                   | 6.41                     | NA                                      |
| 34      | Ujjain, Mahakaleshwar<br>Temple            | Pre Diwali  | 69.22                                     | 156.22                                   | 11.40                                   | 10.66                    | 27.50                                   |
|         |  | Diwali Day  | 120.96                                    | 200.65                                   | 37.44                                   | 15.36                    | 23.44                                   |
|         |  | Post Diwali | 131.79                                    | 206.59                                   | 19.35                                   | 11.52                    | 27.85                                   |



**Comparison of Pre and Post Diwali Air Quality Parameters in Cities M. P. State  
(Year 2022)**

| Sr. No. | Location                   | Parameters  |   |  |   |                          |   |
|---------|----------------------------|-------------|---|--|---|--------------------------|---|
|         |                            | Duration    | PM <sub>2.5</sub><br>(µg/m <sup>3</sup> ) | PM <sub>10</sub><br>(µg/m <sup>3</sup> ) | SO <sub>2</sub><br>(µg/m <sup>3</sup> ) | NO <sub>x</sub><br>(ppb) | NH <sub>3</sub><br>(µg/m <sup>3</sup> ) |
| 01      | Betul , Collector Office   | Pre Diwali  | 70.49                                     | 108.89                                   | 66.07                                   | 4.63                     | 4.63                                    |
|         |                            | Diwali Day  | 78.88                                     | 123.63                                   | 66.36                                   | 4.69                     | 4.69                                    |
|         |                            | Post Diwali | 81.27                                     | 125.90                                   | 66.32                                   | 4.65                     | 4.65                                    |
| 02      | Bhopal, Paryavaran Parisar | Pre Diwali  | 85.48                                     | 122.56                                   | 5.33                                    | 13.32                    | 21.43                                   |
|         |                            | Diwali Day  | 115.68                                    | 150.59                                   | 6.38                                    | 18.48                    | 22.66                                   |
|         |                            | Post Diwali | 164.64                                    | 240.40                                   | 5.32                                    | 23.52                    | 28.96                                   |
| 03      | Bhopal, T T Nagar          | Pre Diwali  | 57.16                                     | 196.40                                   | 20.63                                   | 17.03                    | 13.16                                   |
|         |                            | Diwali Day  | 88.49                                     | 209.07                                   | 24.65                                   | 14.22                    | 13.48                                   |
|         |                            | Post Diwali | 95.09                                     | 198.05                                   | 24.91                                   | 11.29                    | 16.22                                   |
| 04      | Damoh, Shrivastav Colony   | Pre Diwali  | 18.00                                     | 42.00                                    | 18.65                                   | 12.95                    | NA                                      |
|         |                            | Diwali Day  | NA  | NA                                       | 16.49                                   | 12.94                    | NA                                      |
|         |                            | Post Diwali | NA  | NA                                       | NA                                      | NA                       | NA                                      |
| 05      | Dewas, Bhopal Chauraha     | Pre Diwali  | 28.80                                     | 137.48                                   | 12.98                                   | 11.81                    | 20.78                                   |
|         |                            | Diwali Day  | 55.71                                     | 196.09                                   | 18.47                                   | 13.97                    | 22.75                                   |
|         |                            | Post Diwali | 73.08                                     | 177.00                                   | 26.74                                   | 13.02                    | 24.24                                   |
| 06      | Dewas, Govt. MG Hospital   | Pre Diwali  | 15.64                                     | 37.98                                    | 78.18                                   | 31.04                    | NA                                      |
|         |                            | Diwali Day  | 15.64                                     | 37.98                                    | 91.27                                   | 32.37                    | NA                                      |
|         |                            | Post Diwali | 15.64                                     | 37.98                                    | 97.34                                   | 29.20                    | NA                                      |
| 07      | Gwalior, City Center       | Pre Diwali  | 113.42                                    | 198.76                                   | 28.49                                   | 34.16                    | 16.67                                   |
|         |                            | Diwali Day  | 128.71                                    | 201.18                                   | 25.81                                   | 22.21                    | 17.60                                   |
|         |                            | Post Diwali | 101.88                                    | 156.62                                   | 22.83                                   | 15.03                    | 14.42                                   |
| 08      | Gwalior, Maharaj bada      | Pre Diwali  | 145.12                                    | 376.55                                   | 46.31                                   | 32.90                    | 40.00                                   |
|         |                            | Diwali Day  | 138.96                                    | 305.80                                   | 20.15                                   | 24.48                    | 22.69                                   |
|         |                            | Post Diwali | 140.77                                    | 248.12                                   | 17.15                                   | 19.58                    | 39.94                                   |
| 09      | Indore, Chhoti Gwaltoli    | Pre Diwali  | 56.94                                     | 252.33                                   | 21.45                                   | 119.14                   | 23.84                                   |
|         |                            | Diwali Day  | 58.79                                     | 198.00                                   | 40.03                                   | 71.68                    | 22.49                                   |
|         |                            | Post Diwali | 108.72                                    | 196.11                                   | 31.39                                   | 55.24                    | 24.43                                   |
| 10      | Jabalpur, Marhatal         | Pre Diwali  | 59.55                                     | 149.45                                   | 22.15                                   | 28.00                    | 15.12                                   |
|         |                            | Diwali Day  | 133.58                                    | 202.69                                   | 30.07                                   | 39.39                    | 18.39                                   |
|         |                            | Post Diwali | 132.11                                    | 204.27                                   | 43.01                                   | 24.37                    | 20.91                                   |
| 11      | Katni, Gole Bazar          | Pre Diwali  | 69.54                                     | 182.35                                   | 6.53                                    | 16.55                    | 12.89                                   |
|         |                            | Diwali Day  | 96.60                                     | 159.97                                   | 4.69                                    | 15.45                    | 10.78                                   |
|         |                            | Post Diwali | 124.88                                    | 213.67                                   | 9.39                                    | 17.98                    | 9.14                                    |
| 12      | Katni, Regional Office     | Pre Diwali  | 55.68                                     | 175.61                                   | 6.41                                    | 28.18                    | NA                                      |
|         |                            | Diwali Day  | 55.66                                     | 154.73                                   | 5.53                                    | 26.36                    | NA                                      |
|         |                            | Post Diwali | 87.96                                     | 144.93                                   | 11.77                                   | 22.72                    | NA                                      |

**Comparison of Pre and Post Diwali Air Quality Parameters in Cities M. P. State  
(Year 2022)**

| Sr. No. | Location                                | Parameters  |   |  |   |                          |   |
|---------|---|-------------|---|--|---|--------------------------|---|
|         |   | Duration    | PM <sub>2.5</sub><br>(µg/m <sup>3</sup> ) | PM <sub>10</sub><br>(µg/m <sup>3</sup> ) | SO <sub>2</sub><br>(µg/m <sup>3</sup> ) | NO <sub>x</sub><br>(ppb) | NH <sub>3</sub><br>(µg/m <sup>3</sup> ) |
| 13      | Maihar , Sharda Temple                  | Pre Diwali  | 18.23                                     | 50.42                                    | 8.60                                    | 27.24                    | NA                                      |
|         |   | Diwali Day  | 16.41                                     | 39.12                                    | 8.76                                    | 25.85                    | NA                                      |
|         |   | Post Diwali | 22.86                                     | 54.79                                    | 8.62                                    | 25.49                    | NA                                      |
| 14      | Mandideep, Sector New Industrial Area   | Pre Diwali  | 35.76                                     | 155.48                                   | 112.82                                  | 49.58                    | 21.77                                   |
|         |   | Diwali Day  | 55.24                                     | 217.39                                   | 128.25                                  | 41.89                    | 21.55                                   |
|         |   | Post Diwali | 53.79                                     | 178.84                                   | 35.77                                   | 35.18                    | 22.67                                   |
| 15      | Narsinghpur, District Education Office  | Pre Diwali  | NA  | 167.91                                   | 11.07                                   | 43.76                    | NA                                      |
|         |   | Diwali Day  | NA  | 143.14                                   | 10.70                                   | 31.16                    | NA                                      |
|         |   | Post Diwali | NA  | 142.20                                   | 10.95                                   | 30.48                    | NA                                      |
| 16      | Pithampur, Sector-2 Industrial Area     | Pre Diwali  | 59.95                                     | 167.90                                   | 12.20                                   | 7.78                     | 9.18                                    |
|         |   | Diwali Day  | 39.64                                     | 113.44                                   | 11.74                                   | 5.06                     | 8.95                                    |
|         |   | Post Diwali | 53.90                                     | 129.43                                   | 12.02                                   | 4.28                     | 12.63                                   |
| 17      | Ratlam, Shathri Nagar                   | Pre Diwali  | 58.08                                     | 164.40                                   | 33.50                                   | 35.13                    | NA                                      |
|         |   | Diwali Day  | 129.28                                    | 191.54                                   | 31.64                                   | 35.00                    | NA                                      |
|         |   | Post Diwali | 117.73                                    | 159.79                                   | 33.73                                   | 38.46                    | NA                                      |
| 18      | Rewa, Collector Office                  | Pre Diwali  | 23.41                                     | 33.87                                    | 11.94                                   | 36.15                    | NA                                      |
|         |   | Diwali Day  | 67.03                                     | 124.83                                   | 20.64                                   | 43.18                    | NA                                      |
|         |   | Post Diwali | 90.35                                     | 176.77                                   | 20.85                                   | 42.08                    | NA                                      |
| 19      | Rewa, Regional Office                   | Pre Diwali  | 36.82                                     | 51.48                                    | 14.15                                   | 55.10                    | NA                                      |
|         |   | Diwali Day  | 35.31                                     | 70.57                                    | 17.88                                   | 55.10                    | NA                                      |
|         |   | Post Diwali | NA  | NA                                       | NA                                      | NA                       | NA                                      |
| 20      | Sagar, Collectorate Office              | Pre Diwali  | 50.53                                     | 122.10                                   | 5.71                                    | 10.70                    | 10.91                                   |
|         |   | Diwali Day  | 88.09                                     | 161.46                                   | 10.38                                   | 14.20                    | 11.13                                   |
|         |   | Post Diwali | 77.75                                     | 130.37                                   | 2.83                                    | 8.21                     | 12.94                                   |
| 21      | Sagar, Deen Dayal Nagar                 | Pre Diwali  | 28.48                                     | 162.73                                   | 10.16                                   | 7.96                     | NA                                      |
|         |   | Diwali Day  | 20.87                                     | 198.28                                   | 7.65                                    | 7.87                     | NA                                      |
|         |   | Post Diwali | 21.13                                     | 105.45                                   | 7.48                                    | 7.92                     | NA                                      |
| 22      | Satna, Satna Cement Works               | Pre Diwali  | 11.14                                     | 43.82                                    | 5.44                                    | 14.01                    | NA                                      |
|         |   | Diwali Day  | 11.13                                     | 30.11                                    | 6.56                                    | 13.98                    | NA                                      |
|         |   | Post Diwali | 11.13                                     | 32.75                                    | 7.36                                    | 14.01                    | NA                                      |
| 23      | Singrauli, Surya Kiran Bhawan Dudhichua | Pre Diwali  | 73.66                                     | 184.18                                   | 24.40                                   | 89.48                    | 33.68                                   |
|         |   | Diwali Day  | 82.83                                     | 152.50                                   | 16.58                                   | 79.31                    | 34.24                                   |
|         |   | Post Diwali | 62.40                                     | 134.44                                   | 8.02                                    | 76.98                    | 37.36                                   |
| 24      | Ujjain, Mahakaleshwar Temple            | Pre Diwali  | 80.59                                     | 179.15                                   | 11.61                                   | 20.70                    | 35.73                                   |
|         |   | Diwali Day  | 120.64                                    | 166.47                                   | 31.57                                   | 20.92                    | 37.68                                   |
|         |   | Post Diwali | 79.54                                     | 117.47                                   | 12.91                                   | 15.06                    | 39.81                                   |



**Comparison of Pre and Post Diwali Air Quality Parameters in Cities M. P. State  
(Year 2021)**

| Sr. No. | Location                              | Parameters  |   |  |   |                          |   |
|---------|---------------------------------------|-------------|---|--|---|--------------------------|---|
|         |                                       | Duration    | PM <sub>2.5</sub><br>( $\mu\text{g}/\text{m}^3$ ) | PM <sub>10</sub><br>( $\mu\text{g}/\text{m}^3$ ) | SO <sub>2</sub><br>( $\mu\text{g}/\text{m}^3$ ) | NO <sub>x</sub><br>(ppb) | NH <sub>3</sub><br>( $\mu\text{g}/\text{m}^3$ ) |
| 1       | Anuppur, Collectorate                 | Pre Diwali  | 49.57   | 48.34  | 3.67  | 11.21                    | NA  |
|         |                                       | Diwali Day  | 46.88   | 52.08  | 4.18  | 11.24                    | NA  |
|         |                                       | Post Diwali | 40.54   | 44.82  | 4.88  | 11.28                    | NA  |
| 2       | Bhopal, T T Nagar                     | Pre Diwali  | 95.42   | 218.19   | 23.62   | 42.06                    | 15.25   |
|         |                                       | Diwali Day  | 111.63  | 167.95   | 32.57   | 26.86                    | 13.44   |
|         |                                       | Post Diwali | 136.29  | 200.86   | 33.47   | 48.59                    | 15.05   |
| 3       | Damoh, Shrivastav Colony              | Pre Diwali  | 44.91   | 39.68  | 19.49   | 25.30                    | NA  |
|         |                                       | Diwali Day  | 41.56   | 35.23  | 19.73   | 25.21                    | NA  |
|         |                                       | Post Diwali | 50.16   | 42.86  | 20.06   | 25.29                    | NA  |
| 4       | Dewas, Bhopal Chauraha                | Pre Diwali  | 31.60   | 72.53  | 13.47   | 14.80                    | 19.52   |
|         |                                       | Diwali Day  | 43.66   | 92.37  | 16.70   | 14.49                    | 21.96   |
|         |                                       | Post Diwali | 44.42   | 79.77  | 17.79   | 11.71                    | 24.55   |
| 5       | Gwalior, City Center                  | Pre Diwali  | 93.30   | 158.68   | 19.56   | 36.68                    | 20.74   |
|         |                                       | Diwali Day  | 102.44  | 124.72   | 26.02   | 23.95                    | 18.58   |
|         |                                       | Post Diwali | 200.32  | 242.76   | 19.27   | 27.54                    | 20.34   |
| 6       | Gwalior, Phool Bagh                   | Pre Diwali  | 94.20   | 77.76  | 16.24   | NA                       | NA  |
|         |                                       | Diwali Day  | 120.88  | 70.52  | 11.54   | NA                       | NA  |
|         |                                       | Post Diwali | 196.28  | 67.50  | 10.29   | NA                       | NA  |
| 7       | Indore, Chhoti Gwaltoli               | Pre Diwali  | 105.54  | 169.41   | 19.24   | 112.07                   | 27.06   |
|         |                                       | Diwali Day  | 103.72  | 160.00   | 40.07   | 119.61                   | 29.59   |
|         |                                       | Post Diwali | 144.82  | 196.47   | 50.12   | 136.40                   | 30.20   |
| 8       | Jabalpur, Marhatal                    | Pre Diwali  | 79.19   | 199.80   | 7.28  | 47.18                    | 24.19   |
|         |                                       | Diwali Day  | 101.94  | 223.77   | 24.51   | 39.98                    | 24.95   |
|         |                                       | Post Diwali | 126.35  | 225.80   | 21.89   | 38.81                    | 20.04   |
| 9       | Katni, Gole Bazar                     | Pre Diwali  | 117.31  | 305.63   | 15.55   | 43.10                    | 20.72   |
|         |                                       | Diwali Day  | 101.06  | 223.65   | 12.98   | 28.72                    | 25.93   |
|         |                                       | Post Diwali | 122.00  | 200.12   | 15.72   | 34.99                    | 21.30   |
| 10      | Katni, Regional Office                | Pre Diwali  | 97.66   | 242.31   | 4.98  | 57.78                    | NA  |
|         |                                       | Diwali Day  | 84.34   | 224.22   | 4.58  | 51.46                    | NA  |
|         |                                       | Post Diwali | 66.86   | 228.88   | 4.81  | 39.78                    | NA  |
| 11      | Mandideep, Sector New Industrial Area | Pre Diwali  | 77.45   | 211.10   | 164.87  | 47.19                    | 20.55   |
|         |                                       | Diwali Day  | 62.34   | 157.88   | 136.90  | 27.38                    | 17.79   |
|         |                                       | Post Diwali | 94.13   | 191.41   | 72.74   | 28.58                    | 21.83   |
| 12      | Pithampur, Sector-2 Industrial Area   | Pre Diwali  | 71.23   | 111.29   | 28.60   | 14.27                    | 21.93   |
|         |                                       | Diwali Day  | 82.03   | 125.94   | 31.34   | 13.92                    | 22.43   |
|         |                                       | Post Diwali | 137.88  | 185.28   | 30.22   | 16.88                    | 22.51   |

**Comparison of Pre and Post Diwali Air Quality Parameters in Cities M. P. State  
(Year 2021)**

| Sr. No. | Location                                | Parameters  |   |  |   |                          |   |
|---------|---|-------------|---|--|---|--------------------------|---|
|         |   | Duration    | PM <sub>2.5</sub><br>(µg/m <sup>3</sup> ) | PM <sub>10</sub><br>(µg/m <sup>3</sup> ) | SO <sub>2</sub><br>(µg/m <sup>3</sup> ) | NO <sub>x</sub><br>(ppb) | NH <sub>3</sub><br>(µg/m <sup>3</sup> ) |
| 13      | Ratlam, Shathri Nagar                   | Pre Diwali  | 52.18                                     | 125.10                                   | 7.63                                    | 28.73                    | NA                                      |
|         |   | Diwali Day  | 80.77                                     | 157.76                                   | 7.85                                    | 24.22                    | NA                                      |
|         |   | Post Diwali | 55.49                                     | 124.77                                   | 8.35                                    | 22.26                    | NA                                      |
| 14      | Rewa, Collector Office                  | Pre Diwali  | 30.14                                     | 98.08                                    | 8.18                                    | 22.21                    | NA                                      |
|         |   | Diwali Day  | 39.62                                     | 111.59                                   | 7.26                                    | 22.04                    | NA                                      |
|         |   | Post Diwali | 29.68                                     | 98.22                                    | 6.41                                    | 22.10                    | NA                                      |
| 15      | Rewa, Regional Office                   | Pre Diwali  | 52.18                                     | 75.20                                    | 3.63                                    | 16.69                    | NA                                      |
|         |   | Diwali Day  | 43.20                                     | 88.49                                    | 3.84                                    | 16.69                    | NA                                      |
|         |   | Post Diwali | 60.71                                     | 88.61                                    | 3.99                                    | 16.79                    | NA                                      |
| 16      | Sagar, Deen Dayal Nagar                 | Pre Diwali  | 26.05                                     | 204.94                                   | 7.13                                    | 17.55                    | NA                                      |
|         |   | Diwali Day  | 28.93                                     | 223.48                                   | 7.13                                    | 17.53                    | NA                                      |
|         |   | Post Diwali | 41.32                                     | 143.85                                   | 8.26                                    | 17.60                    | NA                                      |
| 17      | Satna, Satna Cement Works               | Pre Diwali  | 19.06                                     | 71.31                                    | 17.37                                   | 20.95                    | NA                                      |
|         |   | Diwali Day  | 28.30                                     | 87.93                                    | 17.53                                   | 21.13                    | NA                                      |
|         |   | Post Diwali | 42.67                                     | 89.05                                    | 18.25                                   | 21.81                    | NA                                      |
| 18      | Singrauli, Surya Kiran Bhawan Dudhichua | Pre Diwali  | 74.54                                     | 202.45                                   | 73.03                                   | 57.99                    | 45.69                                   |
|         |   | Diwali Day  | 111.14                                    | 211.98                                   | 69.10                                   | 49.55                    | 48.08                                   |
|         |   | Post Diwali | 115.90                                    | 210.39                                   | 36.25                                   | 38.54                    | 43.22                                   |
| 19      | Ujjain, Mahakaleshwar Temple            | Pre Diwali  | 69.15                                     | 137.88                                   | 8.85                                    | 16.85                    | 24.18                                   |
|         |   | Diwali Day  | 105.96                                    | 172.45                                   | 31.49                                   | 18.24                    | 16.67                                   |
|         |   | Post Diwali | 104.00                                    | 172.98                                   | 12.94                                   | 13.70                    | 21.04                                   |

**Comparison of Pre and Post Diwali Air Quality Parameters in Cities M. P. State  
(Year 2020)**

| Sr. No. | Location                              | Parameters  |   |  |   |                          |   |
|---------|---------------------------------------|-------------|---|--|---|--------------------------|---|
|         |                                       | Duration    | PM <sub>2.5</sub><br>( $\mu\text{g}/\text{m}^3$ ) | PM <sub>10</sub><br>( $\mu\text{g}/\text{m}^3$ ) | SO <sub>2</sub><br>( $\mu\text{g}/\text{m}^3$ ) | NO <sub>x</sub><br>(ppb) | NH <sub>3</sub><br>( $\mu\text{g}/\text{m}^3$ ) |
| 1       | Anuppur, Collectorate                 | Pre Diwali  | 43.39   | 96.20  | 18.59   | 11.10                    | NA  |
|         |                                       | Diwali Day  | 37.35   | 68.99  | 18.22   | 10.98                    | NA  |
|         |                                       | Post Diwali | 53.35   | 81.17  | 18.13   | 11.14                    | NA  |
| 2       | Bhopal, T T Nagar                     | Pre Diwali  | 73.10   | 178.21   | 12.00   | 32.82                    | 29.15   |
|         |                                       | Diwali Day  | 86.77   | 161.36   | 29.35   | 19.91                    | 25.07   |
|         |                                       | Post Diwali | 101.72  | 157.79   | 23.61   | 14.90                    | 16.94   |
| 3       | Damoh, Shrivastav Colony              | Pre Diwali  | 49.09   | 85.76  | 32.45   | 25.34                    | NA  |
|         |                                       | Diwali Day  | 67.06   | 103.68   | 32.14   | 25.29                    | NA  |
|         |                                       | Post Diwali | 54.03   | 95.93  | 32.07   | 25.30                    | NA  |
| 4       | Dewas, Bhopal Chauraha                | Pre Diwali  | 57.79   | 103.73   | 9.09  | 18.55                    | 32.16   |
|         |                                       | Diwali Day  | 87.33   | 127.73   | 11.38   | 17.01                    | 31.69   |
|         |                                       | Post Diwali | 44.47   | 75.01  | 11.41   | 11.40                    | 33.88   |
| 5       | Gwalior, City Center                  | Pre Diwali  | 149.16  | 238.91   | 20.71   | 57.63                    | 34.19   |
|         |                                       | Diwali Day  | 155.86  | 206.64   | 25.20   | 30.57                    | 29.76   |
|         |                                       | Post Diwali | 115.42  | 155.64   | 24.98   | 13.34                    | 30.44   |
| 6       | Gwalior, Phool Bagh                   | Pre Diwali  | 171.56  | 274.01   | 28.21   | 103.21                   | NA  |
|         |                                       | Diwali Day  | 251.07  | 313.04   | 26.49   | 83.45                    | NA  |
|         |                                       | Post Diwali | 228.80  | 262.49   | 25.01   | 40.35                    | NA  |
| 7       | Indore, Chhoti Gwaltoli               | Pre Diwali  | 72.44   | 141.20   | 10.44   | 40.68                    | 19.68   |
|         |                                       | Diwali Day  | 89.00   | 125.60   | 23.71   | 55.87                    | 18.52   |
|         |                                       | Post Diwali | 113.89  | 176.64   | 30.65   | 53.27                    | 17.50   |
| 8       | Jabalpur, Marhatal                    | Pre Diwali  | 56.83   | 136.15   | 8.76  | 31.98                    | 19.65   |
|         |                                       | Diwali Day  | 71.92   | 148.79   | 13.82   | 19.75                    | 18.73   |
|         |                                       | Post Diwali | 105.97  | 162.79   | 10.13   | 16.23                    | 15.42   |
| 9       | Katni, Gole Bazar                     | Pre Diwali  | 58.38   | 124.55   | 7.93  | 17.31                    | 24.73   |
|         |                                       | Diwali Day  | 90.22   | 167.78   | 8.29  | 17.29                    | 25.04   |
|         |                                       | Post Diwali | 92.78   | 158.14   | 7.89  | 15.01                    | 31.46   |
| 10      | Maihar , Sharda Temple                | Pre Diwali  | 22.23   | 41.35  | 11.47   | 11.48                    | NA  |
|         |                                       | Diwali Day  | 31.84   | 55.80  | 11.44   | 11.12                    | NA  |
|         |                                       | Post Diwali | 28.47   | 47.79  | 11.46   | 11.69                    | NA  |
| 11      | Mandideep, Sector New Industrial Area | Pre Diwali  | 50.38   | 86.82  | 22.91   | 45.11                    | 26.20   |
|         |                                       | Diwali Day  | 59.26   | 77.71  | 27.82   | 27.03                    | 21.41   |
|         |                                       | Post Diwali | 39.02   | 65.80  | 28.10   | 21.63                    | 15.78   |
| 12      | Neemuch, Civil Hospital               | Pre Diwali  | 113.67  | 130.67   | 6.59  | 9.39                     | NA  |
|         |                                       | Diwali Day  | NA  | NA   | NA  | NA                       | NA  |
|         |                                       | Post Diwali | 180.26  | 209.66   | 8.94  | 11.78                    | NA  |

**Comparison of Pre and Post Diwali Air Quality Parameters in Cities M. P. State  
(Year 2020)**

| Sr. No. | Location                                   | Parameters  |   |  |   |                          |   |
|---------|--|-------------|---|--|---|--------------------------|---|
|         |  | Duration    | PM <sub>2.5</sub><br>(µg/m <sup>3</sup> ) | PM <sub>10</sub><br>(µg/m <sup>3</sup> ) | SO <sub>2</sub><br>(µg/m <sup>3</sup> ) | NO <sub>x</sub><br>(ppb) | NH <sub>3</sub><br>(µg/m <sup>3</sup> ) |
| 13      | Pithampur, Sector-2<br>Industrial Area     | Pre Diwali  | 72.26                                     | 125.99                                   | 19.88                                   | 14.08                    | 32.98                                   |
|         |  | Diwali Day  | 58.93                                     | 85.81                                    | 12.43                                   | 8.23                     | 29.94                                   |
|         |  | Post Diwali | 36.21                                     | 60.74                                    | 10.99                                   | 6.59                     | 17.42                                   |
| 14      | Ratlam, Shathri Nagar                      | Pre Diwali  | 64.11                                     | 176.79                                   | 4.48                                    | 15.54                    | NA                                      |
|         |  | Diwali Day  | 128.86                                    | 228.00                                   | 5.12                                    | 15.77                    | NA                                      |
|         |  | Post Diwali | 86.54                                     | 190.55                                   | 4.86                                    | 15.72                    | NA                                      |
| 15      | Sagar, Deen Dayal<br>Nagar                 | Pre Diwali  | 46.65                                     | 84.88                                    | 4.21                                    | NA                       | NA                                      |
|         |  | Diwali Day  | 50.75                                     | 72.72                                    | 4.73                                    | NA                       | NA                                      |
|         |  | Post Diwali | 55.56                                     | 87.18                                    | 4.84                                    | NA                       | NA                                      |
| 16      | Satna, Satna Cement<br>Works               | Pre Diwali  | 16.68                                     | 57.56                                    | 8.39                                    | 7.28                     | NA                                      |
|         |  | Diwali Day  | 17.24                                     | 60.20                                    | 8.44                                    | 7.31                     | NA                                      |
|         |  | Post Diwali | 17.19                                     | 57.74                                    | 8.44                                    | 7.32                     | NA                                      |
| 17      | Singrauli, Surya Kiran<br>Bhawan Dudhichua | Pre Diwali  | 93.17                                     | 214.92                                   | 115.40                                  | 30.33                    | 11.41                                   |
|         |  | Diwali Day  | 116.63                                    | 244.84                                   | 78.81                                   | 27.99                    | 11.87                                   |
|         |  | Post Diwali | 116.30                                    | 214.23                                   | 75.44                                   | 21.71                    | 12.55                                   |
| 18      | Ujjain, Mahakaleshwar<br>Temple            | Pre Diwali  | 64.72                                     | 117.05                                   | 7.90                                    | 12.03                    | 27.15                                   |
|         |  | Diwali Day  | 136.87                                    | 201.80                                   | 28.20                                   | 16.26                    | 24.90                                   |
|         |  | Post Diwali | 123.90                                    | 187.56                                   | 14.62                                   | 18.66                    | 25.99                                   |