

TABLE 5 Climate variability and human activity contributions to runoff changes in the upstream and downstream areas of the Kofarnihon River Basin in Central Asia

| Regions          | Period              | $\Delta R$ | $\Delta P$ | $\Delta PET$ | $\Delta R_{climate}$ |       | $\Delta R_{human}$ |       |
|------------------|---------------------|------------|------------|--------------|----------------------|-------|--------------------|-------|
|                  |                     | (mm)       | (mm)       | (mm)         | mm                   | %     | mm                 | %     |
| Upstream Basin   | Baseline<br>Measure |            |            |              |                      |       |                    |       |
|                  | 1950–1991           |            |            |              |                      |       |                    |       |
|                  | 1992–1996           | 189.6<br>6 | 5.22       | 20.97        | 77.89                | 41.07 | 111.7<br>6         | 58.93 |
|                  | 1997–2001           | –<br>25.71 | –9.13      | 11.18        | –76.64               | 60.08 | 50.93              | 39.92 |
|                  | 2002–2006           | 240.3<br>9 | 35.02      | 8.35         | 245.98               | 97.78 | –5.59<br>256.9     | 2.22  |
|                  | 2007–2011           | 68.86      | –19.45     | 26.12        | –188.06              | 42.26 | 2                  | 57.74 |
|                  | 2012–2016           | 25.01      | 14.29      | 29.16        | 50.46                | 66.48 | –<br>25.44         | 33.52 |
|                  | 1992–2016           | 99.64      | 5.19       | 10.77        | 19.99                | 20.06 | 79.65              | 79.94 |
| Downstream Basin | Baseline<br>Measure |            |            |              |                      |       |                    |       |
|                  | 1950–1991           |            |            |              |                      |       |                    |       |
|                  | 1992–1996           | 166.8<br>9 | 29.81      | 29.63        | 82.87                | 49.66 | 84.02<br>120.4     | 50.34 |
|                  | 1997–2001           | 97.68      | –6.57      | 8.28         | –22.74               | 15.89 | 2                  | 84.11 |
|                  | 2002–2006           | 172.8<br>7 | 42.08      | 16.36        | 74.16                | 42.90 | 98.71              | 57.10 |
|                  | 2007–2011           | 86.49      | –31.04     | 27.08        | –88.29               | 33.56 | 174.7<br>7         | 66.44 |
|                  | 2012–2016           | 101.7<br>0 | –38.51     | 18.17        | –101.52              | 33.31 | 203.2<br>2         | 66.69 |
|                  | 1992–2016           | 46.69      | –0.32      | 8.05         | –11.09               | 7.53  | 136.2<br>2         | 92.47 |