## S.1 Delineation and evaluation of WWTP service areas

**Figure S-1** shows the conceptual design of the method developed to delineate wastewater treatment plant (WWTP) service areas for every WWTP of the HydroWASTE database (Ehalt Macedo et al., 2022) using a population grid (WorldPop; WorldPop & CIESIN, 2018) combined with an urban versus rural classification (Schneider et al., 2010) (see section 2.1.3 of main text for more details on data sources). In the first of a total of six iterative processing steps, every population pixel located within 10 km of any WWTP was temporarily assigned to the closest WWTP by creating Thiessen polygons around all WWTP point locations, where a Thiessen polygon defines the area that is closer to its associated point than to any other point. Then, a rank value was calculated for every population pixel inside each Thiessen polygon indicating its assumed likelihood to be associated with the respective WWTP (see Box S-1 for calculations). The ranking assumed that WWTPs tend to serve populations in the following order of priority (from highest to lowest): (1) residents in closer vicinity to the WWTP; (2) residents in areas of high population density; (3) residents of urban areas (versus rural areas); and (4) residents living in clustered/contiguous areas (versus dispersed single pixels).

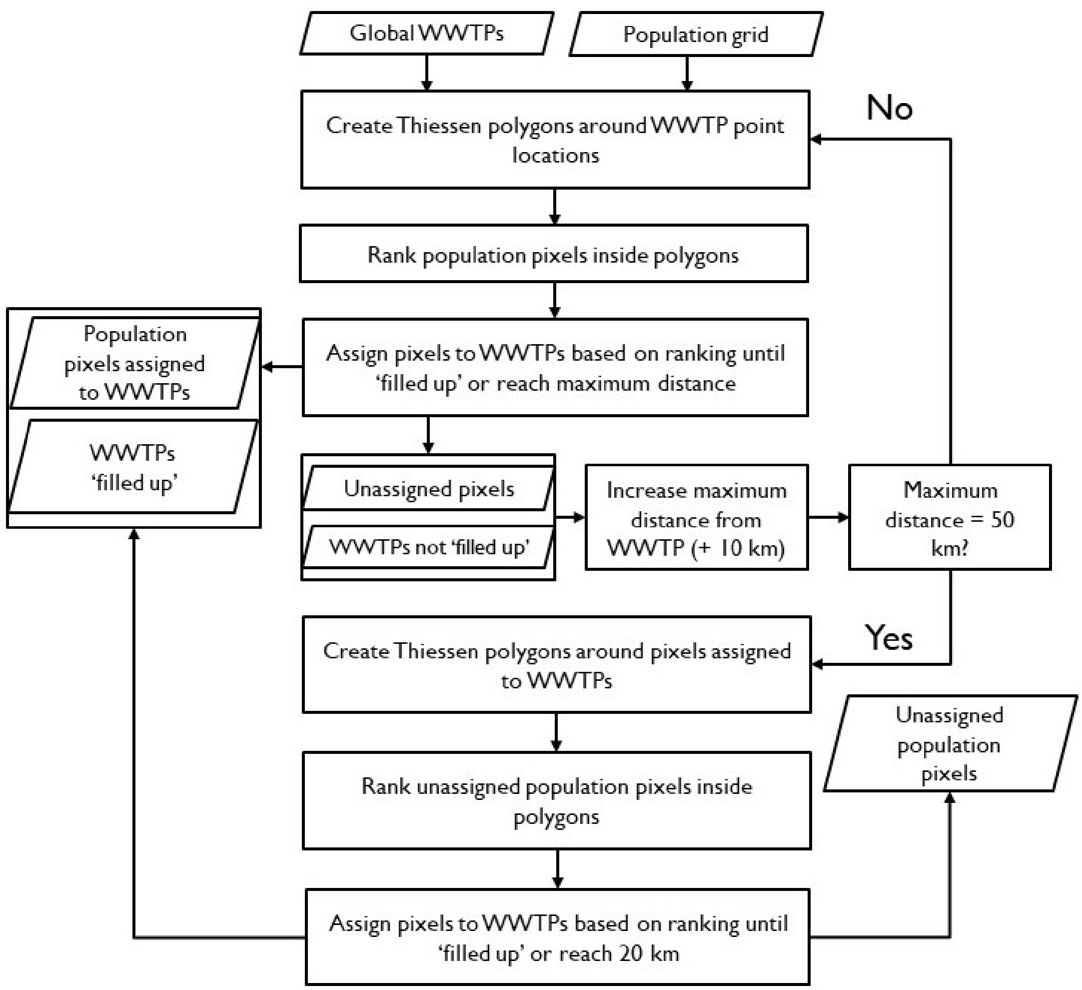



***Figure S-1. Conceptual approach of delineating service areas for wastewater treatment plants (WWTPs).***

***Box S-1. Ranking method to prioritize the likelihood of a population pixel to be associated with a WWTP. The ranking is established for all population pixels inside the Thiessen polygon that surrounds the WWTP.***

A total rank value ($rank_{T,m}$) is calculated for every pixel *m* inside the Thiessen polygon associated with each WWTP based on three criteria: the distance of the pixel to the WWTP ($rank_{D,m}$), the pixel's population count ($rank_{P,m}$), and whether the pixel is located in an urban or rural area ($rank_{urb,m}$), following equations S-1 to S-3:

The value of $rank_{D,m}$ (dimensionless) is normalized between 0 and 100, using the equation:

$$rank_{D,m} = D_{WWTP,m}{}^{-0.8} \qquad \textit{(S-1)}$$

where $D_{WWTP,m}$ is the distance between pixel *m* and the WWTP in decimal degrees.

The value of $rank_{P,m}$ (dimensionless) is also normalized between 0 and 100, using the equation:

$$rank_{P,m} = 20 \times \log_{10} P_m \qquad \textit{(S-2)}$$

where $P_m$ (persons) is the number of people in pixel *m*. Note that only pixels with a population count larger than 10 are assigned to WWTPs.

The value of $rank_{urb,m}$ (dimensionless) is assigned to be 0 for rural areas and 100 for urban areas, according to the urban extent grid.

Finally, the total rank ($rank_{T,m}$; dimensionless) is calculated for each pixel *m* as:

$$rank_{T,m} = (0.5 \times rank_{D,m}) + (0.25 \times rank_{P,m}) + (0.25 \times rank_{urb,m}) \qquad \textit{(S-3)}$$

After ranking all pixels within each Thiessen polygon, they were gradually assigned to their respective WWTP until the summed population was equivalent to the value of 'population served' reported in the WWTP database. After completion of this population assignment, dispersed single pixels or minor clusters were removed if they were not part of the largest contiguous area and did not form their own additional area of at least 9 pixels, assuming that small, isolated population centers are not prioritized to be connected to a WWTP. If a WWTP's 'population served' was reached at the end of this first iteration, the WWTP was assumed to be 'filled up' and its assigned population pixels were removed from the population map. All remaining pixels were classified to be unassigned.

Next, four additional iterations were performed aiming to fill up the remaining WWTPs. In each of these iterations, every unassigned population pixel was temporarily assigned to the closest WWTP that was not yet 'filled up'; i.e., the pixels were temporarily assigned by creating new Thiessen polygons around the remaining WWTPs by using increasingly larger distance thresholds of 20, 30, 40, and 50 km, respectively. The same ranking system was used to permanently assign pixels to the remaining WWTPs. However, an additional constraint was applied in each of the four iterations to avoid excessive service area distances for smaller WWTPs: that is, WWTPs serving less than 10,000 people were not considered in the second iteration, even if they were not yet 'filled up'; WWTPs serving less than

100,000 people were not considered in the third iteration; WWTPs serving less than 600,000 people were not considered in the fourth iteration; and WWTPs serving less than 1.1 million people were not considered in the fifth iteration.

After these 5 iterations (corresponding to a maximum distance of 50 km), one final iteration was performed for all WWTPs that are still not ‘filled up’ (even the smaller WWTPs serving less than 10,000 people). That is, all remaining unassigned pixels within their Thiessen polygon and up to 20 km from the WWTP’s current service area (i.e., from the result of the previous iterations) are ranked and assigned to the respective WWTP, even if they are not contiguous to other pixels already assigned. This additional iteration ensures that remaining unassigned pixels in the proximity of WWTPs of any size not yet ‘filled up’ have a final opportunity to be assigned, including those pixels that were closer to other WWTPs in earlier iterations but were ultimately not assigned to them.

**Evaluation of resulting WWTP service areas**

The population served by WWTPs as spatially assigned by the procedure developed here is by design equal to or lower than the population served as reported in the HydroWASTE database, which is confirmed in **Figure S-*2***. That is, the described procedure delivers the best estimate yet with an intended bias towards underestimating the amount of people served by WWTPs. This design was intentionally chosen to avoid exceeding reported values of populations served while allowing for underestimates which may represent various plausible realities, such as cases in which reported population numbers represent maximum WWTP capacities. From the total 45,348 original points of WWTP locations used in this study, 44,522 (98%) had their population served assigned within one order of magnitude from reported values, with an $R^2$ (coefficient of determination) of 0.96 and a bias (percent error) of -12.7%. Figure S-2 shows that the largest discrepancies were found for smaller WWTPs that are reported to serve less than 10,000 people, likely including cases where WWTP treats industrial wastewaters or serves areas with substantial transient population (e.g., tourists, workers), which are not represented in the population grid. Only two WWTPs with reported capacities of more than 1 million people showed an underestimation due to our service area allocation of more than one order of magnitude. Both are located near a village in Poland with less than 2,000 residents and are likely the result of reporting errors.

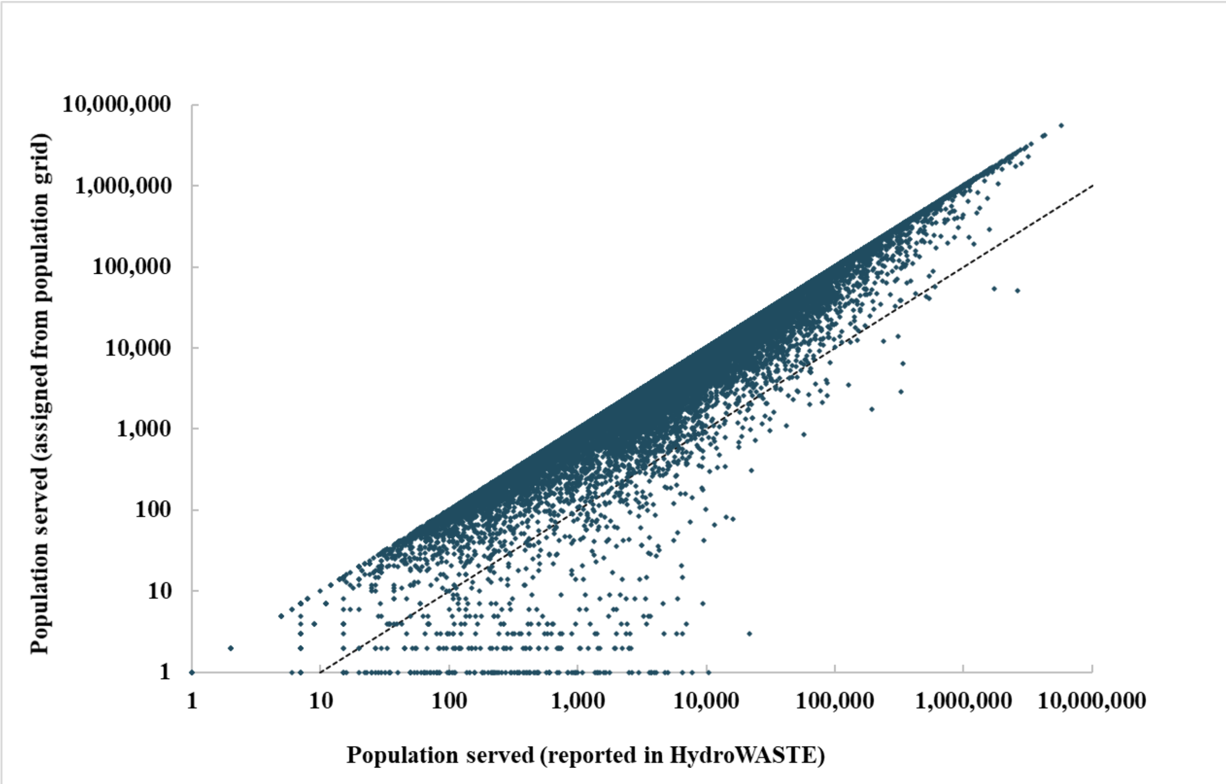



**Figure S-2. Evaluation of the method used to spatially allocate populations from a global population grid to the WWTPs of the HydroWASTE database.**

Table S-1 shows the resulting averages of the service area extents (in km$^2$) resulting from the described allocation method for different reported sizes of WWTPs. For comparison, the WWTP of Montreal, the largest in North America, serves most of the population on the island of Montreal (~2 million people) which covers an area of 473 km² (Source: City of Montreal, Quebec, Canada).

**Table S-1. Averages of estimated service area extents by WWTP size as reported in the HydroWASTE database (in terms of population served).**

| Population served (HydroWASTE) | Average service area extent (km$^2$) |
|---|---|
| 1 - 100 | 0.4 |
| 101 - 1,000 | 1.7 |
| 1,001 - 10,000 | 21.2 |
| 10,001 - 100,000 | 41.4 |
| 100,001 - 1,000,000 | 129.0 |
| > 1,000,000 | 397.2 |

## S.2 Literature sources for Measured Environmental Concentrations of sulfamethoxazole

**Table S-2. Literature sources and numbers of Measured Environmental Concentrations (MECs) of sulfamethoxazole, total and above the Limit of Detection (LOD). Full citations are provided in section S.5 below.**

| Reference | Country | Number of MECs | Number of MECs above LOD |
|---|---|---|---|
| Arsand et al., 2020 | Brazil | **2** | **2** |
| Aydin & Talinli, 2013 | Turkey | 4 | 4 |
| Bagnis et al., 2020 | Kenya | 10 | 10 |
| Barber et al., 2011 | United States | 4 | 0 |
| Batt et al., 2006 | United States | 4 | 2 |
| Bendz et al., 2005 | Sweden | 2 | 2 |
| Böger et al., 2021 | Brazil | 2 | 2 |
| Camacho-Muñoz et al., 2010 | Spain | 4 | 0 |
| Carlson et al., 2013 | Canada | 5 | 4 |
| Chang et al., 2010 | China | 4 | 3 |
| Chau et al., 2018 | Vietnam | 29 | 4 |
| Chaves et al., 2020 | Brazil | 3 | 2 |
| Chitescu et al., 2015 | Romania | 13 | 13 |
| Choi et al., 2008 | South Korea | 4 | 4 |
| Dinh et al., 2018 | France | 4 | 3 |
| Eckberg & Pletsch, 2011 | United States | 17 | 17 |
| Feitosa-Felizzola & Chiron, 2009 | France | 1 | 0 |
| Fick et al., 2011 | Sweden | 5 | 4 |
| Finnegan et al., 2010 | United States | 4 | 4 |
| Fonseca et al., 2020 | Spain | 10 | 2 |
| Hanna et al., 2020 | India | 6 | 6 |
| Joshua et al., 2020 | India | 11 | 11 |
| K'Oreje et al, 2012 | Kenya | 7 | 5 |
| Kairigo et al., 2020 | Kenya | 1 | 0 |
| Kandie et al., 2020 | Kenya | 32 | 16 |
| Kasprzyk-Hordern et al., 2007 | United Kingdom, Poland | 6 | 2 |
| Kasprzyk-Hordern et al., 2008 | United Kingdom | 8 | 7 |
| Khan, et al., 2013 | Pakistan | 11 | 11 |
| Khan, et al., 2012 | Sweden | 1 | 0 |
| Kim & Carlson, 2007 | United States | 4 | 3 |
| Kunkel & Radke, 2016 | Germany | 1 | 1 |
| Li & Radke, 2016 | Sweden, Germany | 6 | 6 |
| Locatelli et al., 2011 | Brazil | 5 | 4 |
| Loper et al., 2007 | United States | 8 | 5 |
| López-Serna et al., 2011 | Spain | 21 | 4 |
| Low et al., 2021 | Malaysia | 2 | 0 |
| Luo et al., 2011 | China | 6 | 6 |
| Managaki et al., 2007 | Vietnam, Japan | 5 | 5 |

| | | | |
|---|---|---|---|
| Osorio et al., 2012 | Spain | 3 | 3 |
| Paíga et al., 2016 | Portugal | 5 | 1 |
| Rivera-Jaimes et al., 2018 | Mexico | 2 | 2 |
| Sharma et al., 2019 | India | 13 | 10 |
| Shimizu et al., 2013 | Vietnam, Philippines | 5 | 5 |
| Sim et al., 2010 | South Korea | 2 | 0 |
| Sörengård et al., 2019 | Sweden | 3 | 0 |
| Spongberg et al., 2011 | Costa Rica | 25 | 2 |
| Stipaničev et al., 2017 | Macedonia | 5 | 5 |
| Tamtam et al., 2008 | France | 4 | 4 |
| ter Laak et al., 2010 | Netherlands | 3 | 3 |
| Vilimanovic et al, 2020 | United States | 9 | 8 |
| Wille et al., 2010 | Belgium | 3 | 3 |
| Zhang et al., 2020 | China | 7 | 7 |
| **Total** | **World** | **361** | **227** |

70

### S.3 Sensitivity to parameter and configuration settings

In addition to the main scenarios presented in Table 1 of the main manuscript, model simulations were conducted to analyze the sensitivity of results with regards to uncertainties inherited by each investigated parameter and configuration setting. Table S-2 shows the additional scenario settings for Scenarios 5 and 6 (i.e., representing a total of 14 sub-scenarios), and Scenario 7, which were implemented to create error bars around the results of baseline Scenario 1.

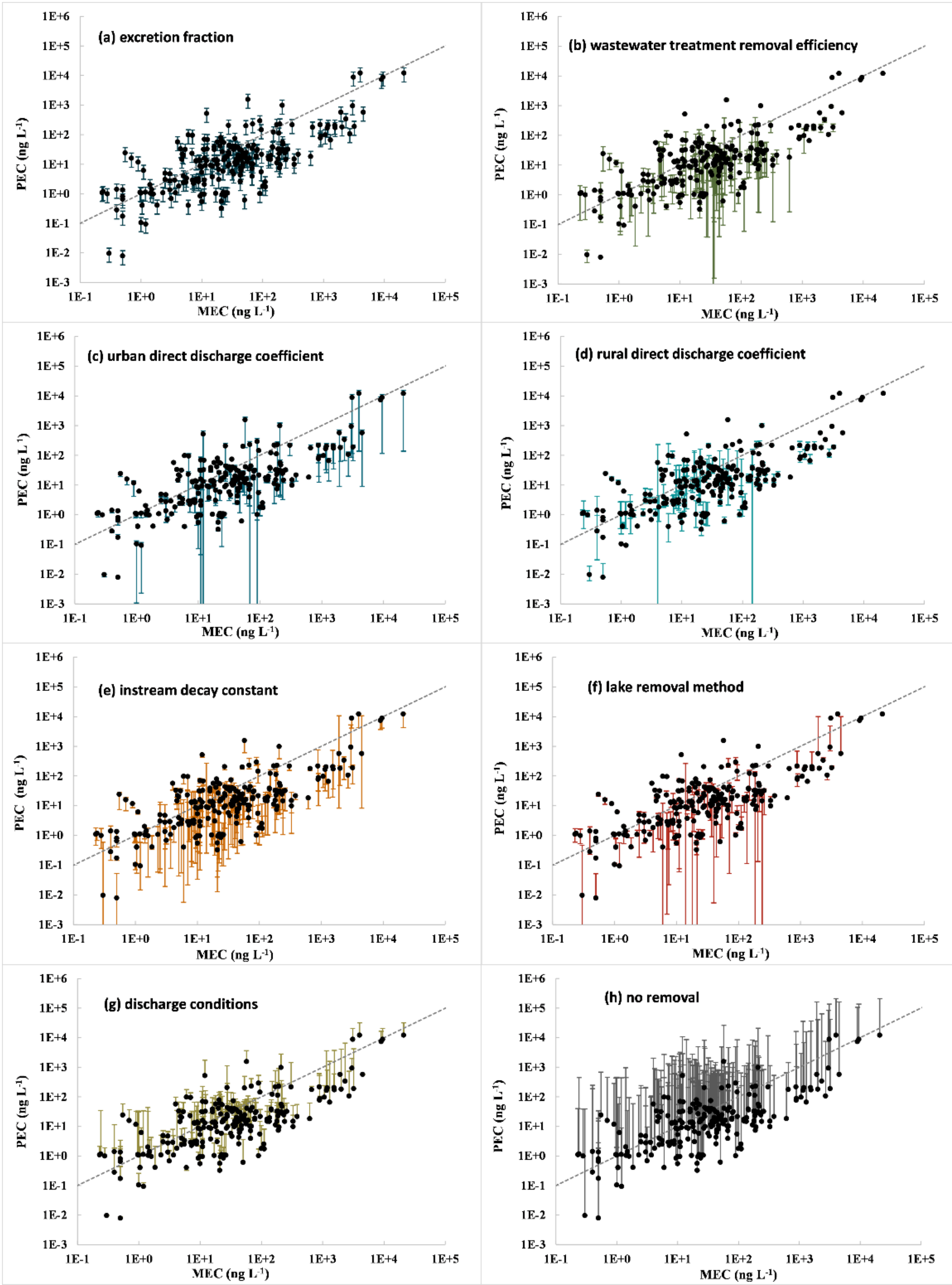
**Table S-3. Additional scenarios and their settings designed to assist in the analysis of uncertainties introduced by selected model parameters and configurations. Scenarios 5 and 6 represent two groups of sub-scenarios (a total of 14 sub-scenarios), where in each iteration the baseline configuration (Scenario 1) is maintained but one target parameter or configuration setting is changed towards their limit that induces lower or higher contamination, respectively.**

| | | | ***Parameter Settings*** | | | | | ***Configuration settings*** | |
|---|---|---|---|---|---|---|---|---|---|
| | **Scenario** | **Parameter or configuration modified from baseline (only for sub-scenarios)** | **Excretion fraction** | **Wastewater treatment removal efficiency (%)** | **Direct discharge coefficient** | | **Instream decay constant $k$ (day$^{-1}$)** | **Lake removal** | **Discharge condition** |
| | | | | | **Urban $ddc_{urb}$** | **Rural $ddc_{urb}$** | | | |
| **1** | **Baseline** | | 0.2 | 49 | 0.8 | 0.5 | 0.13 | CSTR removal | Average-flow |
| **5** | **Lower contamination limits** | | | | | | | | |
| *5a* | | excretion fraction | 0.1 | 49 | 0.8 | 0.5 | 0.13 | CSTR removal | Average-flow |
| *5b* | | wastewater treatment removal efficiency | 0.2 | 100 | 0.8 | 0.5 | 0.13 | CSTR removal | Average-flow |
| *5c* | | urban direct discharge coefficient | 0.2 | 49 | 0 | 0.5 | 0.13 | CSTR removal | Average-flow |
| *5d* | | rural urban direct discharge coefficient | 0.2 | 49 | 0.8 | 0 | 0.13 | CSTR removal | Average-flow |
| *5e* | | instream decay constant | 0.2 | 49 | 0.8 | 0.5 | 2.88 | CSTR removal | Average-flow |
| *5f* | | lake removal | 0.2 | 49 | 0.8 | 0.5 | 0.13 | Full removal | Average-flow |
| *5g* | | discharge condition | this scenario is the same as Scenario 1 | | | | | | |
| **6** | **Upper contamination limits** | | | | | | | | |
| *6a* | | excretion fraction | 0.3 | 49 | 0.8 | 0.5 | 0.13 | CSTR removal | Average-flow |
| *6b* | | wastewater treatment removal efficiency | 0.2 | 0 | 0.8 | 0.5 | 0.13 | CSTR removal | Average-flow |
| *6c* | | urban direct discharge coefficient | 0.2 | 49 | 1 | 0.5 | 0.13 | CSTR removal | Average-flow |
| *6d* | | rural direct discharge coefficient | 0.2 | 49 | 0.8 | 1 | 0.13 | CSTR removal | Average-flow |
| *6e* | | instream decay constant | 0.2 | 49 | 0.8 | 0.5 | 0 | CSTR removal | Average-flow |
| *6f* | | lake removal | 0.2 | 49 | 0.8 | 0.5 | 0.13 | No removal | Average-flow |
| *6g* | | discharge condition | 0.2 | 49 | 0.8 | 0.5 | 0.13 | CSTR removal | Low-flow |
| **7** | **No removal** | | 1 | 0 | 1 | 1 | 0 | No removal | Low-flow |

Figure S-3 presents the findings of the sensitivity assessment with regards to parameter settings (panels a to e), configuration settings (panel f and g), and the no-removal scenario (panel h). Panel a displays sensitivity related to variations in the excretion fractions. In HydroFATE, calculated PECs are directly proportional to the excretion fraction, and since the range reported by the literature is small, the error bars of PECs are also small. Panels b, c, and d show the influence of varying removal levels (i.e., wastewater treatment removal efficiencies or direct discharge values) associated with different types of contaminant pathways (i.e., treated versus untreated urban or rural). Panel e illustrates the sensitivity related to variations in the instream decay constants. The large ranges are due to the large uncertainties reported in literature, involving the different processes of instream decay which are highly variable and depend on various physical, chemical, and biological parameters of the local environment.

Regarding configurations, panel f of Figure S-3 shows the model's sensitivity towards variations in lake removal methods. The CSTR method delivers average results, a compromise between likely overestimation of concentrations (no contaminant removal in lakes) and underestimation of concentrations (full removal in lakes). Panel g shows the sensitivity of results caused by presumed river discharge conditions. For some locations, the difference between MECs and PECs would be substantially decreased if using low flow discharge conditions (instead of average flow conditions) in the model simulations. This analysis demonstrates that cases in which PECs were too low could, in part, be explained by uncertainties within the measurements (i.e., measurements potentially taken at low flow conditions rather than errors in the model predictions.

Finally, panel d of Figure S-3 illustrates the worst-case Scenario 7 which results in the maximum values of PECs based on parameter and configuration settings that corresponding to the elimination of all contaminant removal processes. Most upper limits of the error bars are above the 1:1 line, indicating the critical importance of the removal simulations in the model.




105 **Figure S-3.** ***Sensitivity of estimated antibiotic concentrations to changes in HydroFATE parameter and configuration settings. Black points represent comparisons between the Measured (MEC) and the Predicted (PEC)***

***Environmental Concentrations for Scenario 1 (baseline). The black line in each panel represents the 1:1 correspondence line between predicted and measured concentrations. The error bars represent the range of the resulting PECs using the range of each input parameter and configuration setting as listed for the different scenarios in Table S-2: (a) excretion fraction for Scenarios 5a and 6a; (b) wastewater treatment removal efficiency for Scenarios 5b and 6b; (c) urban direct discharge coefficient for Scenarios 5c and 6c; (d) rural direct discharge coefficient for Scenarios 5d and 6d; and (e) instream decay constant for Scenarios 5e and 6e; (f) lake removal method for Scenario 5f and 6f;and (g) discharge conditions for Scenario 6g. Panel (h) represents a worst-case scenario using parameter and configuration settings as listed for Scenario 7 assuming no removal processes. In all panels, error bars that extend below $10^{-3}$ ng $^{L-1}$ may include predicted zero concentrations.***

## S.4 Country statistics as results of the case study

Table S-4 is a complete version of Table 2 in the main manuscript. It shows country statistics on consumption and emission of SMX to rivers and lakes for different sources and contaminant pathways. Table S-5 is a complete version of Table 3 in the main manuscript. It shows the total length of rivers with a predicted risk quotient ≥ 1 for SMX for different scenarios.

***Table S-4. Population sources s well as, emission and consumption rates of SMX per country by pathway, and global totals.***

| Country/ Territory | Population source (%) | | | Consumption | | Total emission to rivers and lakes | Emission to consumption ratio | Contaminant pathway into rivers or lakes (%) | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Treated (WWTPs and DWTS) | Urban untreated | Rural untreated | Total (kg $y^{-1}$) | per capita (µg $day^{-1}$) | (kg $y^{-1}$) | (%) | Treated (WWTPs and DWTS) | Urban untreated | Rural untreated |
| **Afghanistan** | 3.2 | 11.7 | 85.0 | 11,500 | 1,160 | 794 | 6.9 | 4.8 | 27.6 | 67.6 |
| **Albania** | 35.6 | 26.4 | 38.0 | 1,170 | 1,290 | 118 | 10.1 | 35.9 | 41.9 | 22.2 |
| **Algeria** | 31.0 | 30.8 | 38.3 | 19,500 | 1,730 | 1,960 | 10.1 | 31.4 | 48.9 | 19.7 |
| **Andorra** | 98.0 | 1.0 | 1.0 | 25 | 725 | 3 | 10.2 | 98.0 | 1.6 | 0.4 |
| **Angola** | 4.0 | 13.7 | 82.3 | 4,990 | 647 | 340 | 6.8 | 6.0 | 32.8 | 61.2 |
| **Anguilla** | 0.0 | 97.7 | 2.3 | 1 | 486 | 0 | 15.8 | 0.0 | 98.7 | 1.3 |
| **Antigua and Barbuda** | 0.0 | 99.1 | 0.9 | 9 | 731 | 1 | 15.9 | 0.0 | 99.7 | 0.3 |
| **Argentina** | 38.9 | 43.9 | 17.3 | 9,440 | 729 | 1,120 | 11.9 | 32.5 | 59.9 | 7.6 |
| **Armenia** | 30.0 | 41.4 | 28.6 | 1,310 | 1,310 | 149 | 11.4 | 26.8 | 58.1 | 15.1 |
| **Aruba** | 0.0 | 99.1 | 0.9 | 3 | 748 | 0 | 15.9 | 0.0 | 99.4 | 0.6 |
| **Australia** | 50.9 | 38.6 | 10.5 | 3,180 | 720 | 379 | 11.9 | 43.5 | 51.8 | 4.7 |
| **Austria** | 91.3 | 0.4 | 8.2 | 263 | 85 | 43 | 16.4 | 94.6 | 0.6 | 4.8 |
| **Azerbaijan** | 21.7 | 20.9 | 57.3 | 3,520 | 1,260 | 306 | 8.7 | 25.6 | 38.5 | 35.9 |
| **Bahamas** | 0.0 | 80.0 | 20.0 | 27 | 769 | 4 | 13.7 | 0.0 | 93.4 | 6.6 |
| **Bahrain** | 35.7 | 62.6 | 1.7 | 40 | 748 | 5 | 13.8 | 26.4 | 72.8 | 0.8 |
| **Bangladesh** | 4.8 | 24.5 | 70.6 | 39,400 | 714 | 3,440 | 8.7 | 5.7 | 45.2 | 49.2 |
| **Barbados** | 0.0 | 99.6 | 0.4 | 40 | 750 | 6 | 16.0 | 0.0 | 99.7 | 0.3 |
| **Belarus** | 75.0 | 2.5 | 22.5 | 4,180 | 1,250 | 386 | 9.2 | 82.8 | 4.3 | 12.9 |
| **Belgium** | 94.3 | 0.7 | 4.9 | 1,690 | 445 | 171 | 10.1 | 96.3 | 1.2 | 2.5 |
| **Belize** | 0.0 | 18.0 | 82.0 | 143 | 1,200 | 11 | 7.7 | 0.0 | 39.5 | 60.5 |
| **Benin** | 0.0 | 19.3 | 80.7 | 6,170 | 1,630 | 429 | 7.0 | 0.0 | 44.5 | 55.5 |
| **Bhutan** | 3.9 | 3.2 | 93.0 | 343 | 1,330 | 21 | 6.2 | 6.4 | 8.2 | 85.4 |
| **Bolivia** | 35.7 | 18.4 | 45.9 | 4,640 | 1,230 | 417 | 9.0 | 40.2 | 32.8 | 26.9 |
| **Bonaire, Saint Eustatius and Saba** | 0.0 | 90.9 | 9.1 | 1 | 486 | 0 | 15.1 | 0.0 | 96.7 | 3.3 |
| **Bosnia and Herzegovina** | 21.0 | 15.0 | 64.0 | 4,810 | 3,800 | 398 | 8.3 | 25.9 | 29.0 | 45.1 |
| **Botswana** | 1.3 | 31.1 | 67.6 | 895 | 1,290 | 93 | 10.4 | 1.3 | 58.6 | 40.1 |
| **Brazil** | 29.2 | 41.4 | 29.4 | 77,400 | 1,190 | 8,670 | 11.2 | 26.0 | 59.1 | 14.9 |
| **Brunei** | 0.0 | 79.8 | 20.2 | 64 | 756 | 9 | 14.1 | 0.0 | 90.2 | 9.8 |
| **Bulgaria** | 57.7 | 8.5 | 33.8 | 3,680 | 1,420 | 333 | 9.0 | 65.2 | 15.0 | 19.8 |
| **Burkina Faso** | 1.0 | 16.2 | 82.9 | 11,300 | 1,630 | 745 | 6.6 | 1.5 | 39.2 | 59.4 |
| **Burundi** | 0.9 | 10.6 | 88.5 | 4,820 | 1,340 | 294 | 6.1 | 0.0 | 27.8 | 72.2 |
| **Cote d'Ivoire** | 13.4 | 5.8 | 80.9 | 7,250 | 1,630 | 1,040 | 6.8 | 0.5 | 55.4 | 44.1 |
| **Cambodia** | 1.1 | 26.2 | 72.7 | 14,000 | 1,250 | 493 | 8.4 | 20.1 | 13.5 | 66.4 |
| **Cameroon** | 68.6 | 21.1 | 10.3 | 12,700 | 1,630 | 1,170 | 8.5 | 1.4 | 50.0 | 48.6 |
| **Canada** | 22.8 | 29.6 | 47.6 | 81 | 1,190 | 1,080 | 13.8 | 53.1 | 40.0 | 6.9 |
| **Caspian Sea** | 0.0 | 97.4 | 2.6 | 1 | 696 | 11 | 15.8 | 22.7 | 49.8 | 27.5 |
| **Cayman Islands** | 0.0 | 27.1 | 72.9 | 2,380 | 720 | 0 | 8.0 | 0.0 | 98.7 | 1.3 |
| **Central African Republic** | 0.0 | 6.5 | 93.5 | 8,030 | 1,350 | 190 | 5.6 | 0.0 | 54.1 | 45.9 |
| **Chad** | 69.7 | 9.3 | 21.1 | 2,470 | 1,630 | 453 | 9.9 | 0.0 | 18.6 | 81.4 |
| **Chile** | 43.5 | 9.6 | 46.9 | 31,900 | 418 | 244 | 8.7 | 72.1 | 15.1 | 12.9 |
| **China** | 42.4 | 26.8 | 30.9 | 20,900 | 67 | 2,760 | 10.5 | 51.0 | 18.2 | 30.8 |
| **Colombia** | 0.0 | 15.3 | 84.7 | 193 | 1,090 | 2,190 | 7.5 | 41.2 | 41.4 | 17.4 |
| **Comoros** | 25.3 | 44.6 | 30.1 | 771 | 1,250 | 15 | 11.7 | 0.0 | 32.6 | 67.4 |
| **Costa Rica** | 2.7 | 27.3 | 70.0 | 13,200 | 486 | 90 | 7.9 | 22.1 | 61.2 | 16.8 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Croatia** | 37.8 | 19.4 | 42.9 | 1,440 | 1,070 | 146 | 10.2 | 41.7 | 32.8 | 25.5 |
| **Cuba** | 10.5 | 30.0 | 59.5 | 3,820 | 1,250 | 343 | 9.0 | 11.9 | 53.4 | 34.7 |
| **Curacao** | 0.0 | 98.5 | 1.5 | 21 | 742 | 3 | 15.8 | 0.0 | 99.4 | 0.6 |
| **Cyprus** | 38.4 | 39.4 | 22.3 | 185 | 748 | 21 | 11.4 | 34.3 | 55.2 | 10.5 |
| **Czech Republic** | 86.8 | 1.3 | 11.9 | 5,080 | 1,330 | 490 | 9.6 | 91.8 | 2.1 | 6.1 |
| **DR Congo** | 0.3 | 18.0 | 81.7 | 39,700 | 1,240 | 2,750 | 6.9 | 0.4 | 41.8 | 57.8 |
| **Denmark** | 70.2 | 5.3 | 24.5 | 449 | 750 | 42 | 9.3 | 77.1 | 9.1 | 13.8 |
| **Djibouti** | 0.8 | 31.4 | 67.7 | 292 | 1,220 | 25 | 8.6 | 1.0 | 58.2 | 40.8 |
| **Dominica** | 0.0 | 59.6 | 40.4 | 18 | 1,270 | 2 | 11.9 | 0.0 | 80.5 | 19.5 |
| **Dominican Republic** | 6.4 | 59.0 | 34.6 | 862 | 308 | 107 | 12.4 | 5.2 | 77.4 | 17.3 |
| **East Timor** | 0.0 | 19.8 | 80.2 | 468 | 1,280 | 35 | 7.5 | 0.0 | 42.3 | 57.7 |
| **Ecuador** | 28.3 | 35.3 | 36.4 | 22,700 | 4,130 | 2,430 | 10.7 | 27.0 | 52.9 | 20.2 |
| **Egypt** | 41.1 | 34.5 | 24.5 | 55,500 | 1,920 | 6,020 | 10.8 | 38.2 | 50.8 | 11.0 |
| **El Salvador** | 26.4 | 38.9 | 34.8 | 1,070 | 486 | 118 | 11.0 | 24.6 | 56.9 | 18.5 |
| **Equatorial Guinea** | 0.0 | 0.9 | 99.1 | 195 | 524 | 13 | 6.5 | 0.0 | 2.3 | 97.7 |
| **Eritrea** | 0.0 | 9.5 | 90.5 | 2,320 | 1,660 | 135 | 5.8 | 0.0 | 26.0 | 74.0 |
| **Estonia** | 71.7 | 4.6 | 23.7 | 176 | 877 | 17 | 9.4 | 77.9 | 8.0 | 14.1 |
| **Ethiopia** | 1.2 | 9.9 | 88.9 | 40,400 | 1,210 | 2,450 | 6.1 | 2.0 | 26.1 | 71.9 |
| **Falkland Islands** | 0.0 | 0.0 | 100.0 | 0 | 239 | 0 | 3.6 | 0.0 | 0.0 | 100.0 |
| **Faroe Islands** | 0.0 | 68.5 | 31.5 | 8 | 760 | 1 | 13.1 | 0.0 | 83.8 | 16.2 |
| **Fiji** | 0.0 | 48.5 | 51.5 | 201 | 1,270 | 23 | 11.2 | 0.0 | 69.4 | 30.6 |
| **Finland** | 73.2 | 6.0 | 20.8 | 150 | 143 | 12 | 8.0 | 74.0 | 12.2 | 13.7 |
| **France** | 81.6 | 3.2 | 15.2 | 12,400 | 612 | 1,200 | 9.7 | 86.2 | 5.3 | 8.5 |
| **French Guiana** | 0.3 | 40.4 | 59.2 | 74 | 1,270 | 8 | 10.2 | 0.3 | 63.2 | 36.4 |
| **Gabon** | 0.0 | 30.2 | 69.8 | 865 | 1,070 | 78 | 9.0 | 0.0 | 53.9 | 46.1 |
| **Gambia** | 0.0 | 30.7 | 69.3 | 696 | 1,160 | 60 | 8.6 | 0.0 | 58.1 | 41.9 |
| **Georgia** | 0.6 | 54.5 | 44.8 | 1,670 | 1,290 | 192 | 11.5 | 0.6 | 75.9 | 23.5 |
| **Germany** | 94.9 | 0.2 | 4.9 | 22,700 | 816 | 2,260 | 10.0 | 97.3 | 0.3 | 2.4 |
| **Ghana** | 1.5 | 32.8 | 65.7 | 12,300 | 1,210 | 1,090 | 8.8 | 1.6 | 61.2 | 37.2 |
| **Greece** | 45.3 | 14.4 | 40.3 | 656 | 507 | 60 | 9.2 | 50.4 | 25.5 | 24.0 |
| **Greenland** | 84.6 | 0.6 | 14.9 | 2 | 761 | 0 | 9.6 | 89.7 | 0.9 | 9.4 |
| **Grenada** | 0.0 | 78.0 | 22.0 | 17 | 1,210 | 2 | 13.6 | 0.0 | 91.6 | 8.5 |
| **Guadeloupe** | 0.0 | 89.7 | 10.3 | 27 | 486 | 4 | 15.0 | 0.0 | 96.1 | 3.9 |
| **Guam** | 0.0 | 98.5 | 1.5 | 14 | 777 | 2 | 15.9 | 0.0 | 99.1 | 0.9 |
| **Guatemala** | 15.5 | 21.1 | 63.4 | 2,850 | 486 | 252 | 8.8 | 18.0 | 38.6 | 43.4 |
| **Guernsey** | 0.0 | 100.0 | 0.0 | 3 | 1,910 | 1 | 16.0 | 0.0 | 100.0 | 0.0 |
| **Guinea** | 0.0 | 19.9 | 80.1 | 6,140 | 1,630 | 472 | 7.7 | 0.0 | 41.5 | 58.5 |
| **Guinea-Bissau** | 0.0 | 23.7 | 76.3 | 729 | 1,310 | 57 | 7.9 | 0.0 | 48.2 | 51.8 |
| **Guyana** | 0.0 | 50.8 | 49.2 | 239 | 1,270 | 27 | 11.1 | 0.0 | 73.1 | 26.9 |
| **Haiti** | 0.0 | 28.7 | 71.3 | 4,350 | 1,260 | 372 | 8.6 | 0.0 | 53.7 | 46.3 |
| **Honduras** | 13.2 | 29.6 | 57.2 | 1,480 | 486 | 137 | 9.2 | 14.6 | 51.2 | 34.3 |
| **Hong Kong** | 3.5 | 70.7 | 25.7 | 28 | 360 | 4 | 13.7 | 2.6 | 82.5 | 14.9 |
| **Hungary** | 80.2 | 2.1 | 17.7 | 3,150 | 888 | 294 | 9.3 | 86.3 | 3.6 | 10.1 |
| **Iceland** | 0.0 | 52.5 | 47.5 | 13 | 745 | 1 | 11.5 | 0.0 | 72.9 | 27.0 |
| **India** | 6.1 | 24.8 | 69.1 | 366,000 | 801 | 30,500 | 8.3 | 7.4 | 47.8 | 44.8 |
| **Indonesia** | 4.4 | 32.2 | 63.4 | 74,800 | 904 | 7,170 | 9.6 | 4.6 | 53.8 | 41.6 |
| **Iran** | 22.8 | 37.1 | 40.1 | 34,700 | 1,260 | 3,630 | 10.5 | 22.2 | 56.8 | 21.0 |
| **Iraq** | 23.8 | 18.9 | 57.3 | 17,200 | 1,250 | 1,440 | 8.4 | 29.0 | 36.1 | 35.0 |
| **Ireland** | 53.2 | 4.3 | 42.5 | 260 | 307 | 22 | 8.6 | 63.1 | 7.9 | 29.0 |
| **Isle of Man** | 0.0 | 86.4 | 13.6 | 15 | 789 | 2 | 14.7 | 0.0 | 94.1 | 5.9 |
| **Israel** | 70.6 | 16.7 | 12.7 | 1,460 | 735 | 198 | 13.6 | 64.5 | 29.6 | 5.9 |
| **Italy** | 88.0 | 5.1 | 6.9 | 12,300 | 792 | 1,250 | 10.2 | 88.0 | 8.1 | 3.9 |
| **Jamaica** | 0.0 | 60.8 | 39.2 | 703 | 1,170 | 83 | 11.8 | 0.0 | 82.3 | 17.7 |
| **Japan** | 58.6 | 28.3 | 13.1 | 10,700 | 412 | 1,200 | 11.2 | 52.1 | 40.4 | 7.5 |
| **Jersey** | 0.0 | 99.1 | 0.9 | 3 | 239 | 0 | 16.0 | 0.0 | 99.4 | 0.6 |
| **Jordan** | 63.0 | 17.4 | 19.6 | 910 | 411 | 96 | 10.6 | 61.0 | 26.8 | 12.3 |
| **Kazakhstan** | 35.6 | 8.7 | 55.6 | 7,310 | 1,310 | 582 | 8.0 | 45.4 | 17.6 | 37.1 |
| **Kenya** | 5.4 | 17.4 | 77.2 | 19,700 | 1,180 | 1,420 | 7.2 | 6.6 | 38.6 | 54.8 |
| **Kosovo** | 19.4 | 7.6 | 73.1 | 835 | 1,200 | 60 | 7.1 | 27.7 | 17.0 | 55.3 |
| **Kuwait** | 95.8 | 0.1 | 4.1 | 16 | 40 | 2 | 14.3 | 89.7 | 0.6 | 9.7 |
| **Kyrgyzstan** | 8.4 | 33.3 | 58.3 | 2,150 | 1,240 | 203 | 9.4 | 8.7 | 56.6 | 34.7 |
| **Laos** | 1.1 | 12.3 | 86.7 | 3,200 | 1,260 | 244 | 7.6 | 1.4 | 25.7 | 72.9 |
| **Latvia** | 70.9 | 0.6 | 28.6 | 1,130 | 2,010 | 99 | 8.8 | 82.2 | 1.0 | 16.8 |
| **Lebanon** | 5.1 | 59.0 | 35.8 | 231 | 132 | 30 | 12.8 | 4.1 | 74.2 | 21.7 |
| **Lesotho** | 3.4 | 17.3 | 79.3 | 833 | 1,300 | 85 | 10.2 | 14.2 | 38.6 | 47.2 |
| **Liberia** | 0.0 | 10.8 | 89.2 | 1,660 | 1,240 | 121 | 7.3 | 0.0 | 23.9 | 76.1 |
| **Libya** | 1.8 | 51.7 | 46.5 | 1,950 | 1,220 | 212 | 10.9 | 1.7 | 76.0 | 22.3 |
| **Liechtenstein** | 99.1 | 0.4 | 0.5 | 15 | 750 | 2 | 11.0 | 99.1 | 0.6 | 0.3 |
| **Lithuania** | 84.9 | 0.2 | 14.9 | 620 | 636 | 60 | 9.6 | 91.2 | 0.4 | 8.4 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Luxembourg** | 92.0 | 1.6 | 6.4 | 110 | 622 | 11 | 10.0 | 94.3 | 2.5 | 3.3 |
| **Macedonia** | 8.3 | 45.9 | 45.8 | 997 | 1,280 | 106 | 10.6 | 8.0 | 69.2 | 22.8 |
| **Madagascar** | 0.0 | 11.6 | 88.4 | 10,200 | 1,230 | 716 | 7.0 | 0.0 | 26.4 | 73.6 |
| **Malawi** | 0.0 | 17.3 | 82.7 | 7,290 | 1,260 | 508 | 7.0 | 0.0 | 39.7 | 60.3 |
| **Malaysia** | 65.3 | 4.2 | 30.5 | 1,550 | 198 | 146 | 9.4 | 71.3 | 7.8 | 21.0 |
| **Mali** | 1.3 | 25.0 | 73.7 | 11,000 | 1,630 | 857 | 7.8 | 1.7 | 51.3 | 47.0 |
| **Martinique** | 0.0 | 89.1 | 10.9 | 13 | 486 | 2 | 14.9 | 0.0 | 96.1 | 3.9 |
| **Mauritania** | 0.0 | 29.0 | 71.0 | 1,500 | 1,240 | 126 | 8.4 | 0.0 | 55.3 | 44.7 |
| **Mayotte** | 0.0 | 0.0 | 100.0 | 6 | 1,230 | 0 | 5.4 | 0.0 | 0.0 | 100.0 |
| **Mexico** | 41.0 | 38.3 | 20.7 | 62,400 | 1,500 | 7,310 | 11.7 | 37.1 | 52.8 | 10.1 |
| **Micronesia** | 0.0 | 55.9 | 44.1 | 8 | 1,220 | 1 | 11.9 | 0.0 | 75.3 | 24.7 |
| **Moldova** | 26.1 | 13.7 | 60.2 | 2,170 | 1,610 | 177 | 8.2 | 32.6 | 27.0 | 40.5 |
| **Mongolia** | 25.3 | 27.1 | 47.6 | 1,090 | 1,230 | 105 | 9.6 | 27.0 | 45.4 | 27.6 |
| **Montenegro** | 5.3 | 45.8 | 48.8 | 242 | 1,250 | 27 | 11.0 | 4.9 | 66.3 | 28.8 |
| **Montserrat** | 0.0 | 0.0 | 100.0 | 0 | 486 | 0 | 8.0 | 0.0 | 0.0 | 100.0 |
| **Morocco** | 12.5 | 39.3 | 48.2 | 9,760 | 982 | 999 | 10.2 | 12.4 | 61.5 | 26.1 |
| **Mozambique** | 0.1 | 15.0 | 84.9 | 11,200 | 1,270 | 743 | 6.6 | 0.2 | 36.6 | 63.3 |
| **Myanmar** | 1.2 | 20.4 | 78.3 | 22,800 | 1,290 | 1,850 | 8.1 | 1.5 | 40.2 | 58.3 |
| **Namibia** | 6.8 | 34.7 | 58.5 | 924 | 1,310 | 88 | 9.5 | 7.3 | 58.6 | 34.0 |
| **Nauru** | 0.0 | 73.9 | 26.1 | 0 | 616 | 0 | 13.9 | 0.0 | 84.9 | 15.1 |
| **Nepal** | 4.8 | 18.9 | 76.4 | 13,800 | 1,330 | 1,120 | 8.2 | 6.0 | 37.1 | 56.9 |
| **Netherlands** | 96.2 | 0.4 | 3.4 | 2,490 | 512 | 240 | 9.6 | 97.5 | 0.6 | 1.9 |
| **New Caledonia** | 0.0 | 31.1 | 68.9 | 32 | 738 | 3 | 9.1 | 0.0 | 54.5 | 45.5 |
| **New Zealand** | 49.7 | 23.8 | 26.5 | 597 | 1,130 | 63 | 10.5 | 47.6 | 36.3 | 16.1 |
| **Nicaragua** | 24.1 | 18.8 | 57.2 | 1,090 | 486 | 70 | 6.4 | 4.3 | 46.6 | 49.1 |
| **Niger** | 1.0 | 8.9 | 90.2 | 11,500 | 1,630 | 699 | 6.1 | 1.7 | 23.4 | 75.0 |
| **Nigeria** | 2.0 | 22.3 | 75.6 | 82,200 | 1,240 | 6,430 | 7.8 | 2.7 | 45.7 | 51.7 |
| **North Korea** | 10.3 | 9.0 | 80.7 | 9,850 | 1,270 | 715 | 7.3 | 14.4 | 19.8 | 65.7 |
| **Northern Mariana Islands** | 0.0 | 63.7 | 36.3 | 2 | 1,240 | 0 | 12.5 | 0.0 | 81.5 | 18.5 |
| **Norway** | 35.3 | 24.5 | 40.2 | 419 | 631 | 42 | 10.0 | 35.8 | 39.0 | 25.1 |
| **Oman** | 8.7 | 40.5 | 50.8 | 638 | 716 | 65 | 10.2 | 8.7 | 63.5 | 27.8 |
| **Pakistan** | 6.8 | 29.7 | 63.5 | 224,000 | 3,150 | 19,500 | 8.7 | 7.9 | 54.5 | 37.6 |
| **Palau** | 0.0 | 14.0 | 86.0 | 2 | 1,480 | 0 | 7.2 | 0.0 | 31.0 | 69.0 |
| **Palestine** | 39.6 | 44.1 | 16.4 | 1,440 | 1,270 | 173 | 12.0 | 32.1 | 60.9 | 7.0 |
| **Panama** | 3.8 | 44.7 | 51.5 | 412 | 486 | 44 | 10.6 | 3.7 | 67.3 | 29.1 |
| **Papua New Guinea** | 3.5 | 6.4 | 90.2 | 3,120 | 1,160 | 216 | 6.9 | 5.1 | 14.7 | 80.2 |
| **Paraguay** | 3.8 | 50.5 | 45.7 | 2,810 | 1,240 | 298 | 10.6 | 3.2 | 76.2 | 20.5 |
| **Peru** | 28.9 | 20.6 | 50.5 | 8,800 | 1,260 | 802 | 9.1 | 32.0 | 36.3 | 31.8 |
| **Philippines** | 1.7 | 38.6 | 59.7 | 13,300 | 453 | 1,350 | 10.1 | 0.4 | 61.1 | 38.5 |
| **Poland** | 73.0 | 3.7 | 23.3 | 12,400 | 912 | 1,150 | 9.3 | 80.8 | 6.4 | 12.7 |
| **Portugal** | 77.9 | 3.9 | 18.2 | 1,610 | 971 | 154 | 9.5 | 83.1 | 6.5 | 10.4 |
| **Puerto Rico** | 15.7 | 82.9 | 1.3 | 1,440 | 2,290 | 215 | 14.9 | 10.7 | 88.7 | 0.6 |
| **Qatar** | 86.4 | 5.4 | 8.2 | 632 | 628 | 64 | 10.1 | 87.5 | 8.6 | 3.9 |
| **Republic of Congo** | 12.7 | 37.0 | 50.3 | 2,410 | 1,630 | 237 | 9.8 | 13.2 | 60.4 | 26.5 |
| **Romania** | 48.5 | 11.3 | 40.2 | 10,500 | 1,410 | 944 | 9.0 | 54.8 | 20.0 | 25.2 |
| **Russia** | 49.3 | 22.0 | 28.7 | 33,000 | 696 | 3,190 | 9.7 | 46.9 | 36.4 | 16.7 |
| **Rwanda** | 1.0 | 12.2 | 86.8 | 5,390 | 1,260 | 338 | 6.3 | 1.6 | 31.1 | 67.3 |
| **Saint Kitts and Nevis** | 0.0 | 100.0 | 0.0 | 0 | 1,330 | 0 | 16.0 | 0.0 | 100.0 | 0.0 |
| **Saint Lucia** | 0.0 | 100.0 | 0.0 | 42 | 1,270 | 7 | 17.0 | 0.0 | 94.1 | 6.0 |
| **Saint Pierre and Miquelon** | 0.0 | 0.0 | 100.0 | 6 | 1,190 | 0 | 0.0 | 0.0 | 0.0 | 100.0 |
| **Saint Vincent and the Grenadines** | 0.0 | 99.9 | 0.1 | 12 | 1,250 | 2 | 19.2 | 0.0 | 83.1 | 16.9 |
| **Saint-Martin** | 0.0 | 15.3 | 84.7 | 6 | 960 | 0 | 1.7 | 0.0 | 100.0 | 0.0 |
| **San Marino** | 53.9 | 46.1 | 0.0 | 1 | 716 | 0 | 18.7 | 60.5 | 70.6 | 31.2 |
| **Sao Tome and Principe** | 0.0 | 28.7 | 71.3 | 49 | 1,180 | 4 | 8.7 | 0.0 | 52.9 | 47.1 |
| **Saudi Arabia** | 49.2 | 11.0 | 39.9 | 2,680 | 261 | 242 | 9.0 | 55.6 | 20.1 | 24.3 |
| **Senegal** | 0.8 | 12.3 | 86.9 | 6,500 | 1,630 | 405 | 6.2 | 1.3 | 31.5 | 67.1 |
| **Serbia** | 24.3 | 38.4 | 37.2 | 1,380 | 531 | 159 | 11.6 | 21.5 | 56.6 | 22.0 |
| **Seychelles** | 0.0 | 0.0 | 100.0 | 0 | 1,210 | 0 | 6.1 | 0.0 | 0.0 | 100.0 |
| **Sierra Leone** | 0.0 | 19.6 | 80.4 | 2,250 | 1,110 | 187 | 8.3 | 0.0 | 37.5 | 62.5 |
| **Singapore** | 97.4 | 2.3 | 0.3 | 84 | 349 | 9 | 10.3 | 96.2 | 3.5 | 0.3 |
| **Sint Maarten** | 0.0 | 100.0 | 0.0 | 0 | 960 | 0 | 16.0 | 0.0 | 100.0 | 0.0 |
| **Slovakia** | 67.2 | 5.1 | 27.7 | 1,240 | 611 | 119 | 9.6 | 74.3 | 8.7 | 17.0 |
| **Slovenia** | 71.9 | 4.2 | 23.9 | 1,320 | 1,910 | 125 | 9.4 | 77.7 | 7.1 | 15.2 |
| **Solomon Islands** | 0.0 | 17.3 | 82.7 | 107 | 1,200 | 9 | 8.6 | 0.0 | 32.2 | 67.8 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Somalia** | 0.0 | 4.3 | 95.7 | 3,180 | 963 | 179 | 5.6 | 0.0 | 12.2 | 87.8 |
| **South Africa** | 28.8 | 41.6 | 29.6 | 102,000 | 6,220 | 11,200 | 11.0 | 26.7 | 60.4 | 13.0 |
| **South Korea** | 94.8 | 0.5 | 4.7 | 4,560 | 390 | 457 | 10.0 | 96.5 | 0.9 | 2.5 |
| **South Sudan** | 0.3 | 0.5 | 99.2 | 5,990 | 1,390 | 298 | 5.0 | 0.5 | 1.7 | 97.7 |
| **Spain** | 93.8 | 0.7 | 5.4 | 8,070 | 768 | 807 | 10.0 | 96.0 | 1.2 | 2.8 |
| **Sri Lanka** | 1.2 | 32.2 | 66.6 | 3,020 | 462 | 275 | 9.1 | 1.4 | 56.5 | 42.2 |
| **Sudan** | 1.1 | 15.3 | 83.6 | 17,200 | 1,280 | 1,170 | 6.8 | 1.6 | 36.0 | 62.5 |
| **Suriname** | 0.0 | 65.6 | 34.4 | 232 | 1,200 | 29 | 12.6 | 0.0 | 83.4 | 16.6 |
| **Swaziland** | 10.4 | 14.4 | 75.2 | 563 | 1,460 | 46 | 8.2 | 12.8 | 29.4 | 57.7 |
| **Sweden** | 78.1 | 8.2 | 13.7 | 1,170 | 550 | 69 | 5.9 | 65.2 | 22.2 | 12.7 |
| **Switzerland** | 97.8 | 0.3 | 1.9 | 2,720 | 852 | 233 | 8.6 | 98.3 | 0.5 | 1.2 |
| **Syria** | 18.3 | 37.8 | 43.9 | 11,500 | 1,360 | 1,170 | 10.2 | 17.9 | 59.0 | 23.1 |
| **Taiwan** | 41.6 | 53.5 | 4.8 | 3,780 | 666 | 497 | 13.1 | 32.4 | 65.3 | 2.4 |
| **Tajikistan** | 14.7 | 32.2 | 53.1 | 3,750 | 1,240 | 359 | 9.6 | 15.7 | 53.7 | 30.6 |
| **Tanzania** | 0.1 | 17.8 | 82.0 | 21,400 | 1,270 | 1,460 | 6.8 | 0.2 | 41.8 | 58.0 |
| **Thailand** | 5.9 | 37.8 | 56.3 | 16,400 | 674 | 1,610 | 9.8 | 6.2 | 61.8 | 32.1 |
| **Togo** | 0.0 | 22.8 | 77.1 | 3,670 | 1,630 | 272 | 7.4 | 0.1 | 49.3 | 50.6 |
| **Trinidad and Tobago** | 0.0 | 88.1 | 11.9 | 251 | 746 | 37 | 14.8 | 0.0 | 95.5 | 4.5 |
| **Tunisia** | 28.9 | 19.2 | 51.9 | 2,000 | 797 | 174 | 8.7 | 33.9 | 35.4 | 30.7 |
| **Turkey** | 44.3 | 19.0 | 36.7 | 11,600 | 577 | 1,110 | 9.6 | 46.2 | 31.8 | 22.0 |
| **Turkmenistan** | 1.6 | 35.6 | 62.8 | 3,740 | 1,210 | 341 | 9.1 | 1.8 | 62.4 | 35.8 |
| **Turks and Caicos Islands** | 0.0 | 0.0 | 100.0 | 0 | 702 | 0 | 3.9 | 0.0 | 0.0 | 100.0 |
| **Uganda** | 1.0 | 10.6 | 88.4 | 16,200 | 1,240 | 956 | 5.9 | 1.1 | 28.8 | 70.1 |
| **Ukraine** | 37.3 | 22.3 | 40.4 | 9,240 | 605 | 873 | 9.5 | 37.4 | 38.0 | 24.6 |
| **United Arab Emirates** | 82.0 | 3.2 | 14.8 | 409 | 253 | 44 | 10.7 | 82.9 | 9.0 | 8.1 |
| **United Kingdom** | 94.9 | 1.4 | 3.7 | 3,960 | 239 | 400 | 10.1 | 95.7 | 2.3 | 2.0 |
| **United States** | 76.6 | 10.0 | 13.4 | 291,000 | 3,070 | 28,200 | 9.7 | 76.3 | 16.5 | 7.2 |
| **Uruguay** | 20.2 | 62.0 | 17.8 | 666 | 999 | 87 | 13.0 | 16.9 | 76.6 | 6.5 |
| **Uzbekistan** | 16.9 | 27.2 | 56.0 | 14,300 | 1,250 | 1,310 | 9.1 | 18.9 | 47.7 | 33.4 |
| **Vanuatu** | 0.0 | 27.2 | 72.8 | 43 | 1,210 | 4 | 9.0 | 0.0 | 48.1 | 51.9 |
| **Venezuela** | 17.3 | 51.9 | 30.8 | 16,700 | 1,800 | 1,950 | 11.7 | 15.1 | 71.0 | 13.9 |
| **Vietnam** | 1.0 | 27.7 | 71.3 | 33,400 | 1,030 | 2,890 | 8.7 | 1.2 | 51.2 | 47.6 |
| **Virgin Islands, U.S.** | 0.0 | 97.7 | 2.3 | 6 | 734 | 1 | 15.8 | 0.0 | 98.7 | 1.3 |
| **Western Sahara** | 0.0 | 23.2 | 76.8 | 191 | 1,630 | 15 | 7.6 | 0.0 | 48.4 | 51.6 |
| **Yemen** | 17.4 | 8.8 | 73.8 | 11,400 | 1,250 | 791 | 6.9 | 25.7 | 20.3 | 54.0 |
| **Zambia** | 9.6 | 21.7 | 68.7 | 7,050 | 1,250 | 547 | 7.8 | 12.4 | 44.9 | 42.7 |
| **Zimbabwe** | 19.0 | 18.2 | 62.8 | 6,870 | 1,390 | 551 | 8.0 | 25.6 | 36.3 | 38.1 |
| **Global** | **27.3** | **20.6** | **52.1** | **2,370,000** | **1,074** | **214,000** | **9.0** | **27.8** | **41.9** | **30.3** |

**Table S-5. Total length of rivers per country with a predicted risk quotient (RQ) ≥ 1 for SMX for Scenarios 2 (low-flow conditions) and 1 (average-flow conditions).See** Error! Reference source not found. **(main manuscript) for scenario settings. The total length of rivers is extracted for each country from the RiverATLAS database (Linke et al., 2019) accounting for all rivers in the world with long-term annual average discharge above 0.1 $m^3 s^{-1}$ (i.e., a global total of 23.9 million km). The increase in length of rivers presenting risk of exposure based on specific conditions was calculated by running the model for the pertinent scenario but changing the parameters and configurations accordingly.**

| Country/ Territory | Total length of analyzed rivers (km) | RQ ≥ 1 at low-flow conditions | | | | RQ ≥ 1 at average-flow conditions | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Length of rivers (km) | % of total length | % increase in length without instream decay | % increase in length without lake removal | Length of rivers (km) | % of total length | % increase in length without instream decay | % increase in length without lake removal |
| **Aland** | 44 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Afghanistan** | 79,500 | 4570 | 5.8 | 12.0 | 0.2 | 108 | 0.1 | 11.9 | 0.0 |
| **Albania** | 8,090 | 19.2 | 0.2 | 0.0 | 28.7 | 0 | 0.0 | 0.0 | 0.0 |
| **Algeria** | 94,100 | 8990 | 9.6 | 6.9 | 10.6 | 985 | 1.0 | 16.1 | 16.4 |
| **Andorra** | 86 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Angola** | 227,000 | 513 | 0.2 | 1.2 | 10.2 | 107 | 0.0 | 0.0 | 0.0 |
| **Anguilla** | 2 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Antigua and Barbuda** | 36 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Argentina** | 329,000 | 3950 | 1.2 | 11.4 | 49.5 | 250 | 0.1 | 4.8 | 0.0 |
| **Armenia** | 3,810 | 261 | 6.8 | 0.0 | 2.1 | 66.7 | 1.7 | 2.3 | 0.0 |
| **Australia** | 680,000 | 2590 | 0.4 | 33.4 | 31.9 | 0 | 0.0 | 0.0 | 0.0 |
| **Austria** | 22,600 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Azerbaijan** | 13,700 | 348 | 2.5 | 8.5 | 9.1 | 34.2 | 0.2 | 0.0 | 8.8 |
| **Bahamas** | 1,450 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Bangladesh** | 57,300 | 1500 | 2.6 | 2.1 | 2.3 | 44.3 | 0.1 | 0.0 | 2.4 |
| **Barbados** | 80 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Belarus** | 43,000 | 15.3 | 0.0 | 0.0 | 182.8 | 15.3 | 0.0 | 0.0 | 0.0 |
| **Belgium** | 7,670 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Belize** | 6,730 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Benin** | 21,300 | 179 | 0.8 | 0.0 | 14.3 | 19.9 | 0.1 | 36.8 | 0.0 |
| **Bhutan** | 9,960 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Bolivia** | 212,000 | 757 | 0.4 | 7.7 | 13.8 | 123 | 0.1 | 0.0 | 24.9 |
| **Bonaire, Saint Eustatius and Saba** | 4 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Bosnia and Herzegovina** | 13,400 | 18.4 | 0.1 | 0.0 | 98.3 | 0 | 0.0 | 0.0 | 0.0 |
| **Botswana** | 27,500 | 2270 | 8.2 | 16.1 | 49.0 | 42.4 | 0.2 | 72.9 | 1089.5 |
| **Brazil** | 2,410,000 | 4160 | 0.2 | 5.2 | 20.7 | 411 | 0.0 | 1.3 | 4.1 |
| **Brunei** | 2,390 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Bulgaria** | 23,100 | 30.6 | 0.1 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Burkina Faso** | 26,000 | 2290 | 8.8 | 14.6 | 76.6 | 106 | 0.4 | 7.4 | 143.8 |
| **Burundi** | 5,770 | 99.4 | 1.7 | 0.0 | 0.0 | 9.08 | 0.2 | 0.0 | 0.0 |
| **Cote d'Ivoire** | 70,000 | 430 | 0.6 | 0.8 | 35.7 | 120 | 0.2 | 3.0 | 53.4 |
| **Cambodia** | 58,600 | 56.5 | 0.1 | 19.0 | 4.8 | 0 | 0.0 | 0.0 | 0.0 |
| **Cameroon** | 126,000 | 846 | 0.7 | 17.1 | 4.4 | 69.6 | 0.1 | 0.0 | 2.2 |
| **Canada** | 2,060,000 | 92.6 | 0.0 | 79.1 | 135.9 | 24.6 | 0.0 | 25.3 | 0.0 |
| **Caspian Sea** | 664 | 27.9 | 4.2 | 0.0 | 157.8 | 0 | 0.0 | 0.0 | 0.0 |
| **Cayman Islands** | 12 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Central African Republic** | 126,000 | 26 | 0.0 | 0.0 | 0.0 | 14.5 | 0.0 | 0.0 | 0.0 |
| **Chad** | 85,100 | 5910 | 6.9 | 11.1 | 3.0 | 64.5 | 0.1 | 15.0 | 70.9 |
| **Chile** | 140,000 | 1160 | 0.8 | 1.7 | 0.9 | 0 | 0.0 | 0.0 | 0.0 |
| **China** | 1,440,000 | 5730 | 0.4 | 17.1 | 21.9 | 43 | 0.0 | 60.9 | 124.3 |
| **Colombia** | 469,000 | 298 | 0.1 | 5.2 | 2.8 | 35.9 | 0.0 | 0.0 | 23.5 |
| **Comoros** | 498 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Costa Rica** | 22,100 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Croatia** | 13,500 | 21.4 | 0.2 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Cuba** | 25,100 | 96.8 | 0.4 | 10.1 | 66.6 | 0 | 0.0 | 0.0 | 0.0 |
| **Cyprus** | 1,520 | 126 | 8.3 | 0.0 | 29.9 | 0 | 0.0 | 0.0 | 0.0 |
| **Czech Republic** | 17,000 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Democratic Republic of the Congo** | 552,000 | 712 | 0.1 | 8.1 | 7.8 | 225 | 0.0 | 2.4 | 2.5 |
| **Denmark** | 9,760 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Djibouti** | 1,340 | 289 | 21.6 | 0.0 | 0.0 | 9.72 | 0.7 | 0.0 | 0.0 |
| **Dominica** | 179 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Dominican Republic** | 11,300 | 5.93 | 0.1 | 0.0 | 81.9 | 0 | 0.0 | 0.0 | 0.0 |
| **East Timor** | 3,010 | 24.9 | 0.8 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |

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|---|---|---|---|---|---|---|---|---|---|
| **Ecuador** | 94,700 | 657 | 0.7 | 0.7 | 16.9 | 178 | 0.2 | 0.0 | 6.7 |
| **Egypt** | 5,970 | 877 | 14.7 | 38.9 | 13.9 | 202 | 3.4 | 3.1 | 2.3 |
| **El Salvador** | 6,770 | 27.7 | 0.4 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Equatorial Guinea** | 10,700 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Eritrea** | 14,200 | 2360 | 16.6 | 17.2 | 1.4 | 79.6 | 0.6 | 38.8 | 0.0 |
| **Estonia** | 10,100 | 14.7 | 0.1 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Ethiopia** | 185,000 | 10800 | 5.8 | 14.0 | 2.8 | 301 | 0.2 | 5.7 | 24.2 |
| **Falkland Islands** | 1,780 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Faroe Islands** | 243 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Fiji** | 5,860 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Finland** | 75,900 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **France** | 140,000 | 12 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **French Guiana** | 32,400 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Gabon** | 84,100 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Gambia** | 1,400 | 112 | 8.0 | 0.0 | 0.0 | 14 | 1.0 | 0.0 | 0.0 |
| **Georgia** | 19,500 | 41.4 | 0.2 | 0.0 | 48.3 | 5.95 | 0.0 | 0.0 | 238.1 |
| **Germany** | 84,000 | 33.3 | 0.0 | 53.1 | 0.0 | 19 | 0.0 | 0.0 | 0.0 |
| **Ghana** | 48,600 | 735 | 1.5 | 32.6 | 18.6 | 227 | 0.5 | 0.0 | 19.9 |
| **Greece** | 23,500 | 60.3 | 0.3 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Greenland** | 287,000 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Grenada** | 31 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Guadeloupe** | 317 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Guam** | 158 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Guatemala** | 37,400 | 80.1 | 0.2 | 3.8 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Guernsey** | 1 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Guinea** | 68,500 | 255 | 0.4 | 3.0 | 0.0 | 0.976 | 0.0 | 0.0 | 0.0 |
| **Guinea-Bissau** | 8,590 | 68.1 | 0.8 | 0.0 | 0.0 | 6.3 | 0.1 | 0.0 | 0.0 |
| **Guyana** | 71,000 | 19.6 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Haiti** | 6,070 | 77.4 | 1.3 | 16.1 | 0.0 | 39.1 | 0.6 | 0.0 | 0.0 |
| **Honduras** | 33,300 | 30.6 | 0.1 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Hong Kong** | 163 | 0.947 | 0.6 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Hungary** | 16,900 | 16.2 | 0.1 | 35.8 | 155.5 | 7.43 | 0.0 | 0.0 | 0.0 |
| **Iceland** | 42,700 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **India** | 776,000 | 111000 | 14.3 | 8.2 | 16.9 | 3630 | 0.5 | 12.3 | 30.7 |
| **Indonesia** | 705,000 | 1060 | 0.2 | 3.7 | 3.0 | 28.7 | 0.0 | 0.0 | 0.0 |
| **Iran** | 201,000 | 16800 | 8.3 | 6.8 | 2.5 | 1120 | 0.6 | 2.2 | 3.3 |
| **Iraq** | 36,600 | 5960 | 16.3 | 5.0 | 7.5 | 211 | 0.6 | 19.3 | 9.4 |
| **Ireland** | 21,200 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Isle of Man** | 126 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Israel** | 3,420 | 1010 | 29.4 | 5.1 | 19.8 | 74.8 | 2.2 | 0.0 | 0.0 |
| **Italy** | 75,500 | 239 | 0.3 | 0.0 | 11.2 | 23.9 | 0.0 | 0.0 | 0.0 |
| **Jamaica** | 2,650 | 41.7 | 1.6 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Japan** | 126,000 | 3.5 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Jersey** | 6 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Jordan** | 2,520 | 638 | 25.3 | 11.7 | 15.2 | 75.3 | 3.0 | 0.0 | 0.0 |
| **Kazakhstan** | 153,000 | 3150 | 2.1 | 15.2 | 61.2 | 127 | 0.1 | 37.0 | 13.9 |
| **Kenya** | 88,600 | 1600 | 1.8 | 12.3 | 27.4 | 348 | 0.4 | 22.4 | 16.7 |
| **Kiribati** | 1 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Kosovo** | 2,820 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Kuwait** | 172 | 16.3 | 9.5 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Kyrgyzstan** | 34,000 | 962 | 2.8 | 1.0 | 16.7 | 0 | 0.0 | 0.0 | 0.0 |
| **Laos** | 72,500 | 52.8 | 0.1 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Latvia** | 16,000 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Lebanon** | 2,520 | 34.4 | 1.4 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Lesotho** | 4,890 | 22 | 0.5 | 41.4 | 165.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Liberia** | 38,700 | 32.4 | 0.1 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Libya** | 42,600 | 3650 | 8.6 | 25.5 | 4.0 | 30.2 | 0.1 | 0.0 | 4.6 |
| **Liechtenstein** | 53 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Lithuania** | 15,400 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Luxembourg** | 675 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Macao** | 2 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Macedonia** | 5,420 | 16.2 | 0.3 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Madagascar** | 172,000 | 220 | 0.1 | 0.0 | 7.2 | 10.8 | 0.0 | 0.0 | 0.0 |
| **Malawi** | 20,800 | 915 | 4.4 | 3.2 | 8.8 | 38 | 0.2 | 0.0 | 0.0 |
| **Malaysia** | 129,000 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Mali** | 84,800 | 2860 | 3.4 | 4.4 | 6.1 | 119 | 0.1 | 23.4 | 6.9 |
| **Malta** | 17 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Martinique** | 270 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Mauritania** | 33,200 | 2770 | 8.3 | 3.1 | 2.3 | 0 | 0.0 | 0.0 | 0.0 |
| **Mayotte** | 56 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |

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| **Mexico** | 270,000 | 10400 | 3.8 | 9.3 | 26.8 | 1370 | 0.5 | 10.4 | 22.6 |
| **Micronesia** | 136 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Moldova** | 6,250 | 33.5 | 0.5 | 0.0 | 100.1 | 0 | 0.0 | 0.0 | 0.0 |
| **Mongolia** | 70,800 | 1650 | 2.3 | 12.3 | 12.6 | 26.2 | 0.0 | 0.0 | 0.0 |
| **Montenegro** | 4,300 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Montserrat** | 3 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Morocco** | 52,800 | 3440 | 6.5 | 7.8 | 5.7 | 389 | 0.7 | 1.4 | 0.0 |
| **Mozambique** | 163,000 | 1210 | 0.7 | 14.1 | 63.7 | 54.2 | 0.0 | 532.8 | 0.0 |
| **Myanmar** | 249,000 | 672 | 0.3 | 3.7 | 6.4 | 8.83 | 0.0 | 0.0 | 31.8 |
| **Namibia** | 35,400 | 1760 | 5.0 | 31.3 | 28.7 | 45.6 | 0.1 | 0.0 | 72.1 |
| **Nauru** | 4 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Nepal** | 48,600 | 622 | 1.3 | 6.3 | 0.9 | 6.1 | 0.0 | 0.0 | 0.0 |
| **Netherlands** | 8,620 | 27.3 | 0.3 | 0.0 | 62.0 | 0 | 0.0 | 0.0 | 0.0 |
| **New Caledonia** | 4,300 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **New Zealand** | 91,100 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Nicaragua** | 42,100 | 76.7 | 0.2 | 3.7 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Niger** | 49,900 | 7960 | 15.9 | 8.2 | 7.8 | 292 | 0.6 | 41.0 | 59.5 |
| **Nigeria** | 201,000 | 8880 | 4.4 | 8.0 | 13.1 | 525 | 0.3 | 46.8 | 91.4 |
| **North Korea** | 29,600 | 353 | 1.2 | 2.0 | 29.1 | 7.85 | 0.0 | 0.0 | 0.0 |
| **Northern Mariana Islands** | 44 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Norway** | 92,600 | 12.4 | 0.0 | 0.0 | 36.9 | 0 | 0.0 | 0.0 | 0.0 |
| **Oman** | 13,900 | 4540 | 32.6 | 4.6 | 0.5 | 0 | 0.0 | 0.0 | 0.0 |
| **Pakistan** | 102,000 | 34200 | 33.5 | 7.4 | 3.9 | 8600 | 8.4 | 5.6 | 3.9 |
| **Palau** | 68 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Palestina** | 1,030 | 675 | 65.6 | 0.5 | 0.3 | 118 | 11.5 | 18.1 | 0.0 |
| **Panama** | 26,900 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Papua New Guinea** | 190,000 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Paraguay** | 63,800 | 166 | 0.3 | 70.3 | 41.7 | 60.3 | 0.1 | 0.0 | 0.0 |
| **Peru** | 425,000 | 882 | 0.2 | 0.0 | 7.3 | 39.1 | 0.0 | 36.6 | 0.0 |
| **Philippines** | 107,000 | 368 | 0.3 | 0.7 | 2.9 | 10.4 | 0.0 | 0.0 | 0.0 |
| **Poland** | 64,700 | 12.9 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Portugal** | 21,500 | 91 | 0.4 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Puerto Rico** | 2,270 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Republic of Congo** | 88,500 | 52.2 | 0.1 | 0.0 | 0.0 | 16.5 | 0.0 | 0.0 | 20.3 |
| **Romania** | 51,700 | 132 | 0.3 | 0.0 | 6.8 | 25 | 0.0 | 31.1 | 0.0 |
| **Russia** | 3,430,000 | 2310 | 0.1 | 5.8 | 47.3 | 93.3 | 0.0 | 70.0 | 20.2 |
| **Rwanda** | 4,900 | 48.4 | 1.0 | 0.0 | 0.0 | 22.4 | 0.5 | 0.0 | 0.0 |
| **Saint Kitts and Nevis** | 1 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Saint Lucia** | 156 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Saint Pierre and Miquelon** | 27 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Saint Vincent and the Grenadines** | 61 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Saint-Martin** | 1 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **San Marino** | 1 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Sao Tome and Principe** | 259 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Saudi Arabia** | 72,300 | 11600 | 16.0 | 12.7 | 0.1 | 84.2 | 0.1 | 14.4 | 6.0 |
| **Senegal** | 18,400 | 1140 | 6.2 | 8.7 | 6.2 | 97.4 | 0.5 | 0.0 | 0.0 |
| **Serbia** | 15,400 | 13.9 | 0.1 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Seychelles** | 11 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Sierra Leone** | 31,500 | 87 | 0.3 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Singapore** | 161 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Sint Maarten** | 2 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Slovakia** | 11,000 | 21 | 0.2 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Slovenia** | 5,520 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Solomon Islands** | 9,180 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Somalia** | 42,500 | 7280 | 17.2 | 6.8 | 0.0 | 17.3 | 0.0 | 96.0 | 0.0 |
| **South Africa** | 107,000 | 12500 | 11.6 | 13.8 | 51.0 | 3540 | 3.3 | 30.6 | 73.6 |
| **South Korea** | 25,700 | 61.1 | 0.2 | 0.0 | 3.1 | 0 | 0.0 | 0.0 | 0.0 |
| **South Sudan** | 74,500 | 841 | 1.1 | 4.2 | 15.7 | 68.1 | 0.1 | 18.7 | 0.0 |
| **Spain** | 90,500 | 405 | 0.4 | 5.1 | 11.4 | 6.8 | 0.0 | 34.3 | 0.0 |
| **Sri Lanka** | 18,800 | 19.8 | 0.1 | 0.0 | 15.8 | 0 | 0.0 | 0.0 | 0.0 |
| **Sudan** | 100,000 | 15200 | 15.1 | 7.7 | 1.5 | 344 | 0.3 | 24.8 | 26.8 |
| **Suriname** | 46,400 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Svalbard and Jan Mayen** | 13,300 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Swaziland** | 3,450 | 45.4 | 1.3 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Sweden** | 103,000 | 30.1 | 0.0 | 0.0 | 189.6 | 0 | 0.0 | 0.0 | 0.0 |
| **Switzerland** | 13,000 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Syria** | 12,400 | 2000 | 16.1 | 3.1 | 6.6 | 211 | 1.7 | 4.5 | 0.0 |
| **Taiwan** | 13,100 | 14.6 | 0.1 | 0.0 | 26.7 | 3.25 | 0.0 | 0.0 | 0.0 |
| **Tajikistan** | 28,200 | 602 | 2.1 | 0.9 | 1.1 | 11.5 | 0.0 | 0.0 | 0.0 |

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| **Tanzania** | 161,000 | 2260 | 1.4 | 5.6 | 15.5 | 260 | 0.2 | 6.0 | 13.0 |
| **Thailand** | 135,000 | 657 | 0.5 | 2.2 | 21.3 | 52.7 | 0.0 | 15.4 | 0.0 |
| **Togo** | 12,800 | 61.2 | 0.5 | 20.1 | 29.9 | 12.8 | 0.1 | 0.0 | 0.0 |
| **Trinidad and Tobago** | 1,240 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Tunisia** | 14,300 | 1480 | 10.4 | 7.7 | 2.5 | 22.4 | 0.2 | 69.5 | 0.0 |
| **Turkey** | 151,000 | 1660 | 1.1 | 6.8 | 7.1 | 0 | 0.0 | 0.0 | 0.0 |
| **Turkmenistan** | 15,000 | 4140 | 27.5 | 5.7 | 10.7 | 464 | 3.1 | 1.5 | 0.0 |
| **Uganda** | 33,900 | 336 | 1.0 | 5.6 | 1.8 | 107 | 0.3 | 2.6 | 0.0 |
| **Ukraine** | 97,900 | 583 | 0.6 | 7.8 | 46.3 | 0 | 0.0 | 0.0 | 0.0 |
| **United Arab Emirates** | 1,020 | 661 | 65.0 | 1.7 | 2.5 | 0 | 0.0 | 0.0 | 0.0 |
| **United Kingdom** | 69,500 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **United States** | 1,780,000 | 11800 | 0.7 | 14.6 | 29.3 | 1330 | 0.1 | 22.5 | 65.2 |
| **Uruguay** | 49,200 | 56 | 0.1 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Uzbekistan** | 19,100 | 3620 | 19.0 | 9.7 | 19.8 | 340 | 1.8 | 7.0 | 35.0 |
| **Vanuatu** | 2,870 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Venezuela** | 286,000 | 1560 | 0.5 | 3.7 | 8.5 | 394 | 0.1 | 2.6 | 9.4 |
| **Vietnam** | 110,000 | 1020 | 0.9 | 0.3 | 3.0 | 116 | 0.1 | 0.0 | 0.0 |
| **Virgin Islands, U.S.** | 28 | 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Western Sahara** | 10,300 | 61.2 | 0.6 | 0.0 | 0.0 | 0 | 0.0 | 0.0 | 0.0 |
| **Yemen** | 22,200 | 8170 | 36.8 | 3.1 | 0.1 | 771 | 3.5 | 4.6 | 2.0 |
| **Zambia** | 134,000 | 788 | 0.6 | 4.9 | 41.7 | 179 | 0.1 | 0.0 | 5.7 |
| **Zimbabwe** | 54,600 | 660 | 1.2 | 17.1 | 168.2 | 117 | 0.2 | 66.1 | 45.7 |
| **Global** | **23,900,000** | **390,000** | **1.6** | **23.7** | **14.6** | **30,100** | **0.1** | **39.1** | **25.3** |

## S.5 References


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