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**GLOBAL WATER SCARCITY:  
THE MONTHLY BLUE WATER  
FOOTPRINT COMPARED TO BLUE  
WATER AVAILABILITY FOR THE  
WORLD'S MAJOR RIVER BASINS**

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FOOTPRINT COMPARED TO BLUE WATER AVAILABILITY  
FOR THE WORLD'S MAJOR RIVER BASINS**

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**Contents**

Summary ..... 5

1. Introduction ..... 7

2. Method and data ..... 9

3. Results ..... 11

    3.1. Monthly natural runoff and blue water availability ..... 11

    3.2. Monthly blue water footprint ..... 11

    3.3. Monthly blue water scarcity per river basin ..... 12

    3.4. Annual average monthly blue water scarcity per river basin ..... 24

    3.5. Global blue water scarcity ..... 24

    3.6. Blue water footprint versus blue water availability in selected river basins ..... 25

4. Discussion and conclusion ..... 31

References ..... 33

Appendix I. Global river basin map ..... 37

Appendix II. Global maps of monthly natural runoff in the world’s major river basins ..... 39

Appendix III. Global maps of monthly blue water availability in the world’s major river basins ..... 43

Appendix IV. Global maps of the monthly blue water footprint in the world’s major river basins ..... 47

Appendix V. The global map of annual average monthly blue water scarcity versus the global map of annual blue water scarcity. .... 51

Appendix VI. Monthly natural runoff for the world’s major river basins ..... 53

Appendix VII. Monthly blue water availability for the world’s major river basins ..... 57

Appendix VIII. Monthly blue water footprint for the world’s major river basins ..... 61

Appendix IX. Monthly blue water scarcity for the world’s major river basins ..... 65



## Summary

Conventional blue water scarcity indicators suffer from four weaknesses: they measure water withdrawal instead of consumptive water use, they compare water use with actual runoff rather than natural (undepleted) runoff, they ignore environmental flow requirements and they evaluate scarcity on an annual rather than a monthly time scale. In the current study, these shortcomings are solved by defining blue water scarcity as the ratio of blue water footprint to blue water availability – where the latter is taken as natural runoff minus environmental flow requirement – and by estimating all underlying variables on a monthly basis.

In this study we make for the first time a global estimate of the blue water footprint of humanity at a high spatial resolution level (a five by five arc minute grid) on a monthly basis. In order to estimate blue water scarcity at river basin level, we aggregated the computed monthly blue water footprints at grid cell level to monthly blue water footprints at river basin level. By comparing the estimates of the monthly blue water footprint with estimates of the monthly blue water availability at river basin level, we assess the intra-annual variability of blue water scarcity for the world's major river basins. Monthly blue water footprints were estimated based on Mekonnen and Hoekstra (2011a). Natural runoff per river basin was estimated by adding estimates of actual runoff from Fekete et al. (2002) and estimates of water volumes already consumed. Environmental flow requirements were estimated based on the presumptive standard for environmental flow protection as proposed by Richter et al. (2011), which can be regarded as a precautionary estimate of environmental flow requirements.

Within the study period 1996-2005, in 223 river basins (55% of the basins studied) with in total 2.72 billion inhabitants (69% of the total population living in the basins included in this study), the blue water scarcity level exceeded one hundred per cent during at least one month of the year, which means that environmental flow requirements were violated during at least one month of the year. In 201 river basins with in total 2.67 billion people there was severe water scarcity, which means that the blue water footprint was more than twice the blue water availability, during at least one month per year.

Global average blue water scarcity – estimated by averaging the annual average monthly blue water scarcity values per river basin weighted by basin area – is 85%. This is the average blue water scarcity over the year within the total land area considered in this study. When we weight the annual average monthly blue water scarcity values per river basin according to population number per basin, global average blue water scarcity is 133%. This is the average scarcity as experienced by the people in the world. This population-weighted average scarcity is higher than the area-weighted scarcity because the water scarcity values in densely populated areas – which are often higher than in sparsely populated areas – get more weight. Yet another way of expressing water scarcity is to take the perspective of the average water consumer. The global water consumption pattern is different from the population density pattern, because intensive water consumption in agriculture is not specifically related to where most people live. If we estimate global blue water scarcity by averaging monthly blue water scarcity values per river basin weighted based on the blue water footprint in the respective month and basin, we calculate a global blue water scarcity at 244%. This means that *the average blue water consumer* in the world experiences a water scarcity of 244%, i.e. operates in a month in a basin in which the blue water footprint

is 2.44 times the blue water availability and in which presumptive environmental flow requirements are thus strongly violated.

The data presented in this report should be taken with care. The quality of the presented blue water scarcity data depends on the quality of the underlying data. The estimates of both monthly blue water footprint and monthly blue water availability per river basin can easily contain an error of  $\pm 20$  per cent, but a solid basis for making a precise error statement is lacking. This obviously needs additional research. Furthermore, improvements in the estimates can be made by including the effect of dams on the blue water availability over time, by accounting for inter-basin water transfers, by distinguishing between surface water, renewable groundwater and fossil groundwater, by improving estimates of environmental flow requirements, by looking at water scarcity at the level of sub-basins, and by considering inter-annual variability as well. Despite this great room for improvement and bringing in more detail, the current study is a milestone in global water scarcity studies by mapping water scarcity for the first time on a monthly basis.



## 1. Introduction

Water is a ubiquitous natural resource covering approximately three-quarters of the Earth's surface, but 97.5 per cent of the water on the planet is saline water (Shiklomanov and Rodda, 2003). Only 2.5 per cent of the global water stock is fresh water, but more than two-thirds of that is locked in the form of ice and snow in the Antarctic, Greenland, arctic islands and mountainous regions. This leaves less than one per cent of the global water resources as freshwater accessible for meeting human needs. Fortunately, however, freshwater is a renewable resource, which means that it is continually replenished through precipitation over land. Renewable, though, does not mean that supply is unlimited. The availability of freshwater is primarily limited by the replenishment rate, not by the existing stocks. Moreover, availability is strongly dependent upon location and time. Globally and on an annual basis there is enough freshwater to meet human needs but the problem is that its spatial and temporal distribution is uneven. Spatial and temporal variation of freshwater availability is often a major determining factor for water scarcity (Postel et al., 1996; Savenije, 2000).

There have been various studies developing water-scarcity indicators and assessing global water scarcity. Water-scarcity indicators are always based on two basic ingredients: a measure of water demand or use and a measure of water availability. One commonly used indicator of water scarcity is population of an area divided by total runoff in that area, called the water competition level (Falkenmark, 1989; Falkenmark et al., 1989) or water dependency (Kulshreshtha, 1993). Many authors take the inverse ratio, thus getting a measure of the per capita water availability. Falkenmark proposes to consider regions with more than 1700 m<sup>3</sup> per year per capita as 'water sufficient', which means that only general water management problems occur. Between 1000-1700 m<sup>3</sup>/yr per capita would indicate 'water stress', 500-1000 m<sup>3</sup>/yr 'chronic water scarcity' and less than 500 m<sup>3</sup>/yr 'absolute water scarcity'. This classification is based on the idea that 1700 m<sup>3</sup> of water per year per capita is sufficient to produce the food and other goods and services consumed by one person. This approach ignores the fact that water resources in a certain area do not necessarily need to be sufficient to feed the people in the area, since people can also import food (Hoekstra and Hung, 2005). Falkenmark's water scarcity indicator is not related to the actual consumption of the people in an area, nor to the efficiency of water use or the way in which the people obtain their water-intensive goods (through self-production or import). When the production of water-intensive goods for the people in a country is for a significant part localised abroad, it may well happen that a country with much less than 1700 m<sup>3</sup>/yr per capita does not experience serious water problems. And 1700 m<sup>3</sup>/yr per capita means much more in a country that uses its water in a highly efficient way and has reduced demand than in an inefficient country that lacks any demand management.

Another common indicator of water scarcity is the ratio of annual water use in a certain area to total annual runoff in that area, called variously the water utilization level (Falkenmark, 1989; Falkenmark et al., 1989), the use-availability ratio (Kulshreshtha, 1993), withdrawal-to-availability ratio (Alcamo and Henrichs, 2002; Oki and Kanae, 2006; Vörösmarty et al., 2000), use-to-resource ratio (Raskin et al., 1996) or criticality ratio (Alcamo et al., 1997, 2000; Cosgrove and Rijsberman, 2000a, 2000b). As a measure of water use, the total water withdrawal is taken. There are four critiques to this approach. First, water withdrawal is not the best indicator of water use when one is interested in the effect of the withdrawal at the scale of the catchment as a whole, because

water withdrawals partly return to the catchment (Perry, 2007). Therefore it makes more sense to express blue water use in terms of consumptive water use, i.e. by considering the blue water footprint (Hoekstra et al., 2011). Second, total runoff is not the best indicator of water availability, because it ignores the fact that part of the runoff needs to be maintained for the environment. Therefore it is better to subtract the environmental flow requirement from total runoff (Smakhtin et al., 2004; Poff et al., 2010). Third, comparing water use to actual runoff from a catchment becomes problematic when runoff has been substantially lowered due to the water use within the catchment. It makes more sense to compare water use to natural or undepleted runoff from the catchment, i.e. the runoff that would occur without consumptive water use within the catchment. Finally, it is not accurate to consider water scarcity by comparing *annual* values of water use and availability (Savenije, 2000). In reality, water scarcity manifests itself at monthly rather than annual scale, due to the intra-annual variations of both water use and availability. In the context of water footprint studies, the 'blue water scarcity' in a catchment is defined such that the four weaknesses are repaired. Blue water scarcity in a river basin is defined here as the ratio of blue water footprint to blue water availability, whereby the latter is defined as natural runoff (through groundwater and rivers) from the basin minus environmental flow requirements (Hoekstra et al., 2011). The blue water scarcity indicator can be calculated over any time period, but in order to capture variability of both the blue water footprint and blue water availability, a time step of a month is much better than a time step of a year. The blue water scarcity as defined here is a physical and environmental concept. It is physical because it compares appropriated to available volumes and environmental because it accounts for environmental flow needs. It is not an economic scarcity indicator, which would use monetary values to express scarcity.

The objective of this study is to assess the intra-annual variability of blue water scarcity for the world's major river basins. We compare the monthly blue water footprint with monthly blue water availability, where the latter is taken as natural runoff minus environmental flow requirement. Based on Mekonnen and Hoekstra (2011a), we make in this study for the first time a global estimate of the blue water footprint of humanity at a high spatial resolution level (a five by five arc minute grid) on a monthly basis. In order to estimate blue water scarcity at river basin level, we aggregated the computed monthly blue water footprints at grid cell level to monthly blue water footprints at river basin level. Natural runoff per river basin was estimated by adding estimates of actual runoff from Fekete et al. (2002) and estimates of water volumes already consumed. Environmental flow requirements were estimated based on the presumptive standard for environmental flow protection as proposed by Richter et al. (2011), which can be regarded as a precautionary estimate of environmental flow requirements.

## 2. Method and data

Following Hoekstra et al. (2011), the blue water scarcity in a river basin in a certain period is defined as the ratio of the total 'blue water footprint' in the river basin in that period to the 'blue water availability' in the catchment and that period. A blue water scarcity of one hundred per cent means that the available blue water has been fully consumed. The blue water scarcity is time-dependent; it varies within the year and from year to year. In this study, we calculate blue water scarcity per river basin on a monthly basis. Blue water footprint and blue water availability are expressed in mm/month. For each month of the year we consider the ten-year average for the period 1996-2005.

Average monthly blue water footprints per river basin for the period 1996-2005 have been derived from the work of Mekonnen and Hoekstra (2011a), who estimated the global blue water footprint at a 5 by 5 arc minute spatial resolution. They reported annual values at country level, whereas in the current report we use the same underlying data to report monthly values at river basin level. Three water-consuming sectors are included: agriculture, industry and domestic water supply. The blue water footprint of crop production was calculated using a daily soil water balance model at the mentioned resolution level as reported earlier in Mekonnen and Hoekstra (2010a,b, 2011b). The blue water footprints of industries and domestic water supply were obtained by spatially distributing national data on industrial and domestic water withdrawals from FAO (2010) according to population densities around the world as given by CIESIN and CIAT (2005) and by assuming that 5% of the industrial withdrawals and 10% of the domestic withdrawals are ultimately consumed, i.e. evaporated, crude estimates based on FAO (2010). Due to a lack of data we have distributed the annual water withdrawal figures equally over the twelve months of the year without accounting for the possible monthly variation.

The monthly blue water availability in a river basin in a certain period was calculated as the 'natural runoff' in the basin minus 'environmental flow requirement'. The natural runoff was estimated by adding the actual runoff and the total blue water footprint within the river basin. Monthly actual runoff data at a 30 by 30 arc minute resolution were obtained from the Composite Runoff V1.0 database (Fekete et al., 2002). These data are based on model estimates that were calibrated against runoff measurements for different periods, with the year 1975 as the mean central year. In order to get the natural (undepleted) runoff, we added the aggregated blue water footprint per basin as in 1975. The latter was estimated to be 74% of the blue water footprint per basin as was estimated by Mekonnen and Hoekstra (2011a) for the central year 2000. The 74% refers to the ratio of global water consumption in 1975 to the global water consumption in 2000 (Shiklomanov and Rodda, 2003).

In order to establish the environmental flow requirement we have adopted the '20 per cent rule' as proposed by Richter et al. (2011) and Hoekstra et al. (2011). Under this rule, 80 per cent of the natural run-off is allocated as 'environmental flow requirement' and the remaining 20 per cent can be considered as blue water available for human use without affecting the integrity of the water-dependent ecosystems. The 20 per cent rule is considered as a general precautionary guideline.

Blue water scarcity values have been classified into four levels of water scarcity:

- **low blue water scarcity** (<100%): the blue water footprint is lower than 20% of natural runoff and does not exceed blue water availability; river runoff is unmodified or slightly modified; environmental flow requirements are not violated.
- **moderate blue water scarcity** (100-150%): the blue water footprint is between 20 and 30% of natural runoff; runoff is moderately modified; environmental flow requirements are not met.
- **significant blue water scarcity** (150-200%): the blue water footprint is between 30 and 40% of natural runoff; runoff is significantly modified; environmental flow requirements are not met.
- **severe water scarcity** (>200%). The monthly blue water footprint exceeds 40% of natural runoff, so runoff is seriously modified; environmental flow requirements are not met.

We considered 405 river basins, which together cover 66% of the global land area (excluding Antarctica) and represent 65% of the global population in 2000 (estimate based on database of CIESIN and CIAT, 2005). We applied river basin boundaries and names as provided by GRDC (2007) (Appendix I). The land areas not covered include for example Greenland, the Sahara desert in North Africa, the Arabian peninsula, the Iranian, Afghan and Gobi deserts in Asia, the Mojave desert in North America and the Australian desert. Also excluded are many smaller pieces of land, often along the coasts, that do not fall within major river basins.

### 3. Results

#### 3.1. *Monthly natural runoff and blue water availability*

Natural runoff and blue water availability vary across basins and over the year as shown on the global maps in Appendices II-III and in tables in Appendices VI-VII. At a global level, monthly runoff is beyond average in the months of January and April to August and below average during the other months of the year. When we look at the runoff per region, we find that most of the runoff in North America occurs in the period of April to June, in Europe from March to June, in Asia between May and September, in Africa in January, August and September, and in South America from January to May (Figure 1). While the Amazon and Congo river basins display relatively low variability over the year, much sharper gradients are apparent in other basins. In some parts of the world, a large portion of the annual runoff occurs within a few weeks or months, generating floods during one part of the year and drought during the other part. Even in otherwise water abundant areas, intra-annual variability can severely limit blue water availability. Under such conditions, considering blue water availability on an annual basis provides an incomplete view of blue water availability per basin. Not only temporal variability of blue water availability is important, but also the spatial variability. The Amazon and Congo River Basins together account for 28% of the natural runoff in the 405 river basins considered in this study. These two basins, however, are sparsely populated, which illustrates how important it is to analyse blue water scarcity at river basin rather than global level.

#### 3.2. *Monthly blue water footprint*

The current study has taken the blue water footprint (consumptive use of ground or surface water) as a measure of freshwater use instead of water withdrawal as used in all earlier water scarcity studies. Agriculture accounts for 92% of the global blue water footprint; the remainder is equally shared between industrial production and domestic water supply (Mekonnen and Hoekstra, 2011a). However, this share varies across river basins and within the year. While the blue water footprint in agriculture varies from month to month depending on the timing and intensity of irrigation, the domestic water supply and industrial production were assumed to remain constant throughout the year. Therefore, for particular months in certain basins one hundred per cent of the blue water footprint can be attributed to industry and domestic water supply. The intra-annual variability of the total blue water footprint is mapped at grid level in Figures 3a-3d. When aggregating the grid data to the level of river basins, we obtain the maps as shown in Appendix IV. The monthly blue water footprints per basin are further tabulated in Appendix VIII. The values on the maps are shown in mm per month and can thus directly be compared. A large blue water footprint throughout the year is observed for the Indus and Ganges river basins, because irrigation occurs here throughout the year. A large blue water footprint during part of the year is estimated for basins such as the Tigris-Euphrates, Huang He (Yellow River), Murray, Guadiana, Colorado (Pacific Ocean) and Krishna. When we consider Europe and North America as a whole, we see a clear peak in the blue water footprint in the months May to September (around the northern summer). In Australia, we see a blue water footprint peak in the months October to March (around the southern summer). One cannot find such profound patterns if one considers the blue water footprint throughout the year in South America, Africa or Asia, because these continents are more heterogeneous (Figure 2).

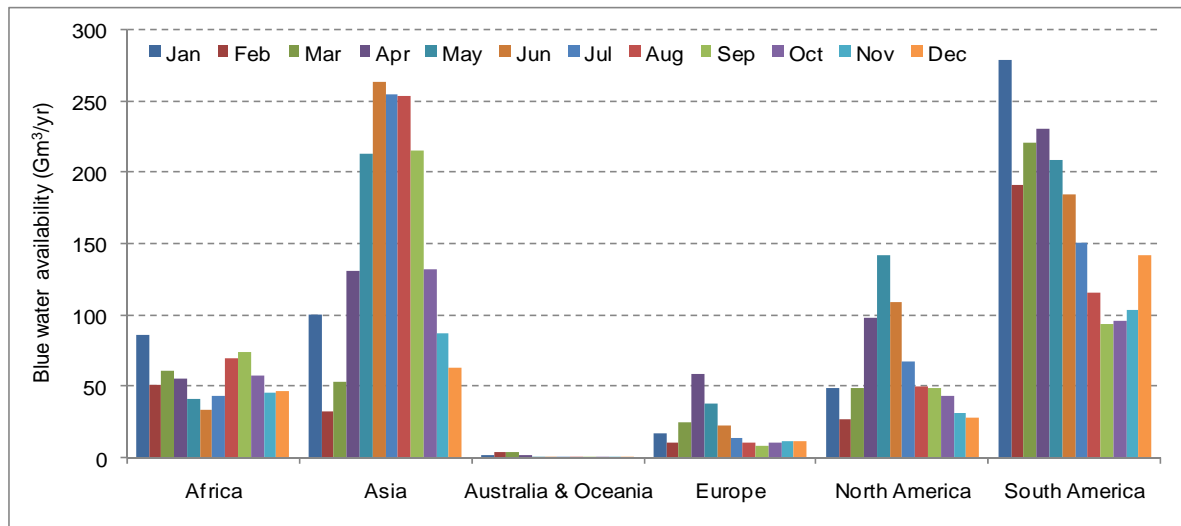


Figure 1. Monthly blue water availability per continent.

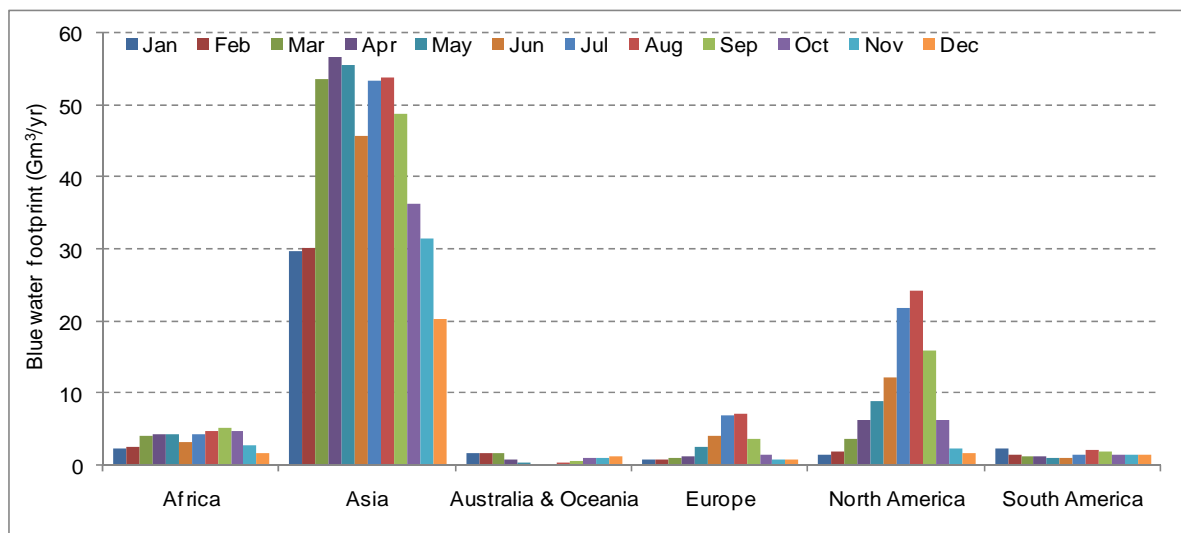


Figure 2. Monthly blue water footprint per continent.

### 3.3. Monthly blue water scarcity per river basin

The blue water scarcity for each of the twelve months of the year for the major river basins in the world is presented in global maps in Figures 4a-4d. In each month that a river basin is coloured in some shade of green, the monthly blue water scarcity is low (smaller than 100%). The blue water footprint does not exceed blue water availability, which means that environmental flow requirements are not violated. River runoff in that month is unmodified or slightly modified. In each month that a river basin is coloured yellow, blue water scarcity is moderate (100-150%). The blue water footprint is between 20 and 30% of natural runoff. Runoff is moderately modified; environmental flow requirements are not met. When a river basin is coloured orange, water scarcity is significant (150-200%). The blue water footprint is between 30 and 40% of natural runoff. Monthly runoff is significantly modified. In each month that a river basin is coloured red, water scarcity is severe (>200%). The monthly blue water footprint exceeds 40% of natural runoff, so runoff is seriously modified. The data shown in Figures 4a-4d are tabulated in Appendix IX.

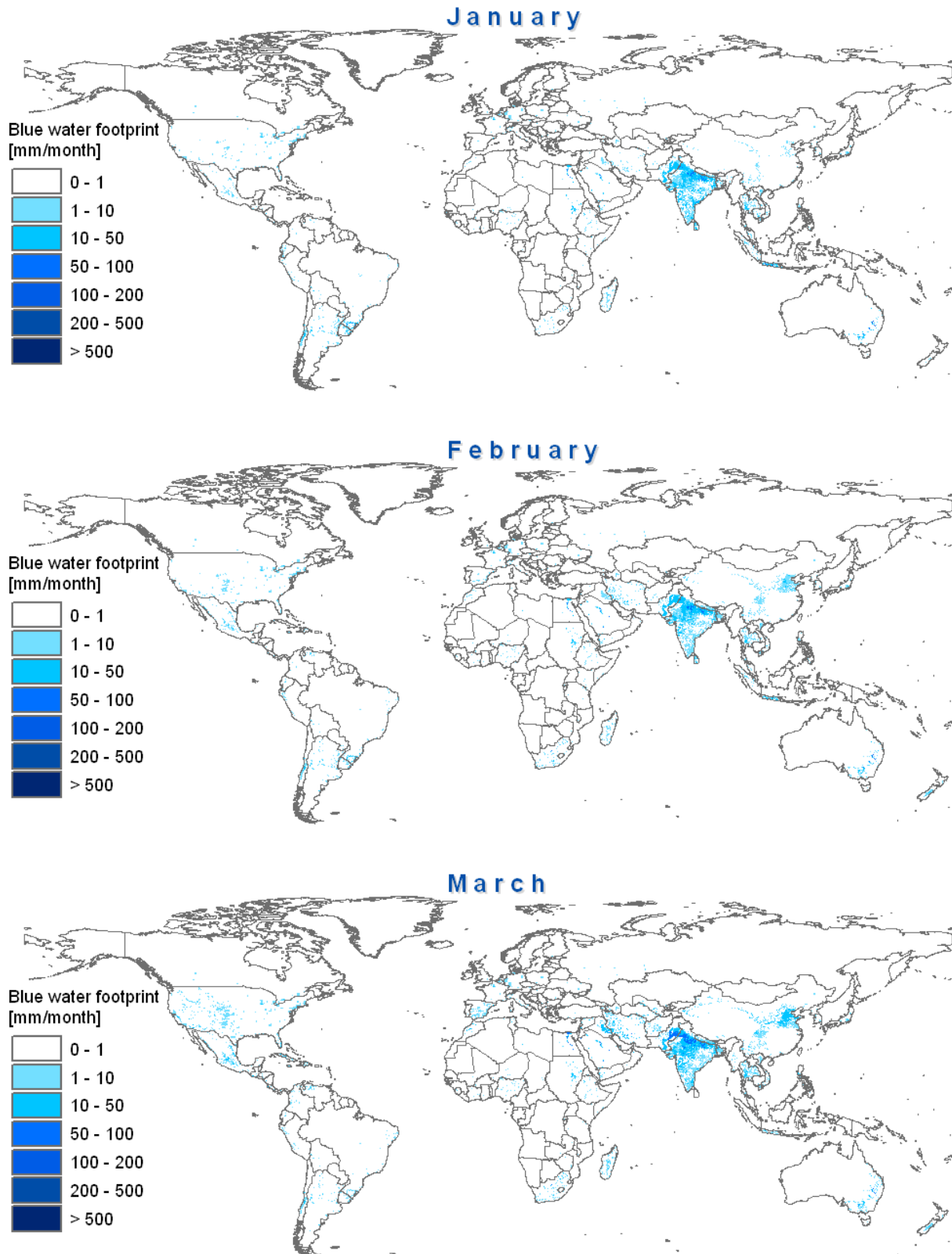


Figure 3a. Monthly blue water footprint (January-March) in the period 1996-2005. The data are shown in mm/month on a 5 by 5 arc minute grid. Data per grid cell have been calculated as the water footprint within a grid cell (in  $m^3$ /month) divided by the area of the grid cell (in  $10^3 m^2$ ).

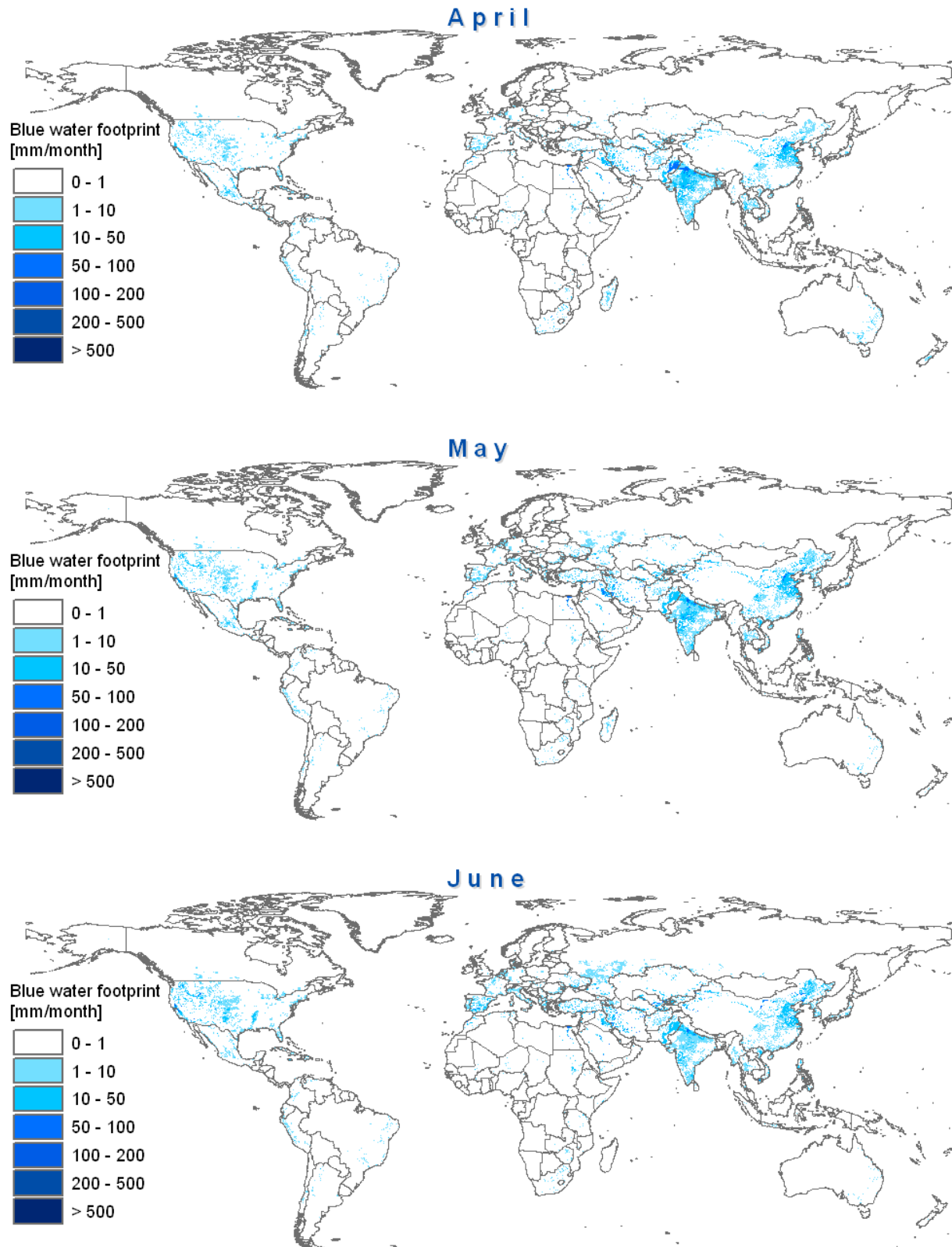


Figure 3b. Monthly blue water footprint (April - June) in the period 1996-2005. The data are shown in mm/month on a 5 by 5 arc minute grid. Data per grid cell have been calculated as the water footprint within a grid cell (in  $m^3$ /month) divided by the area of the grid cell (in  $10^3 m^2$ ).



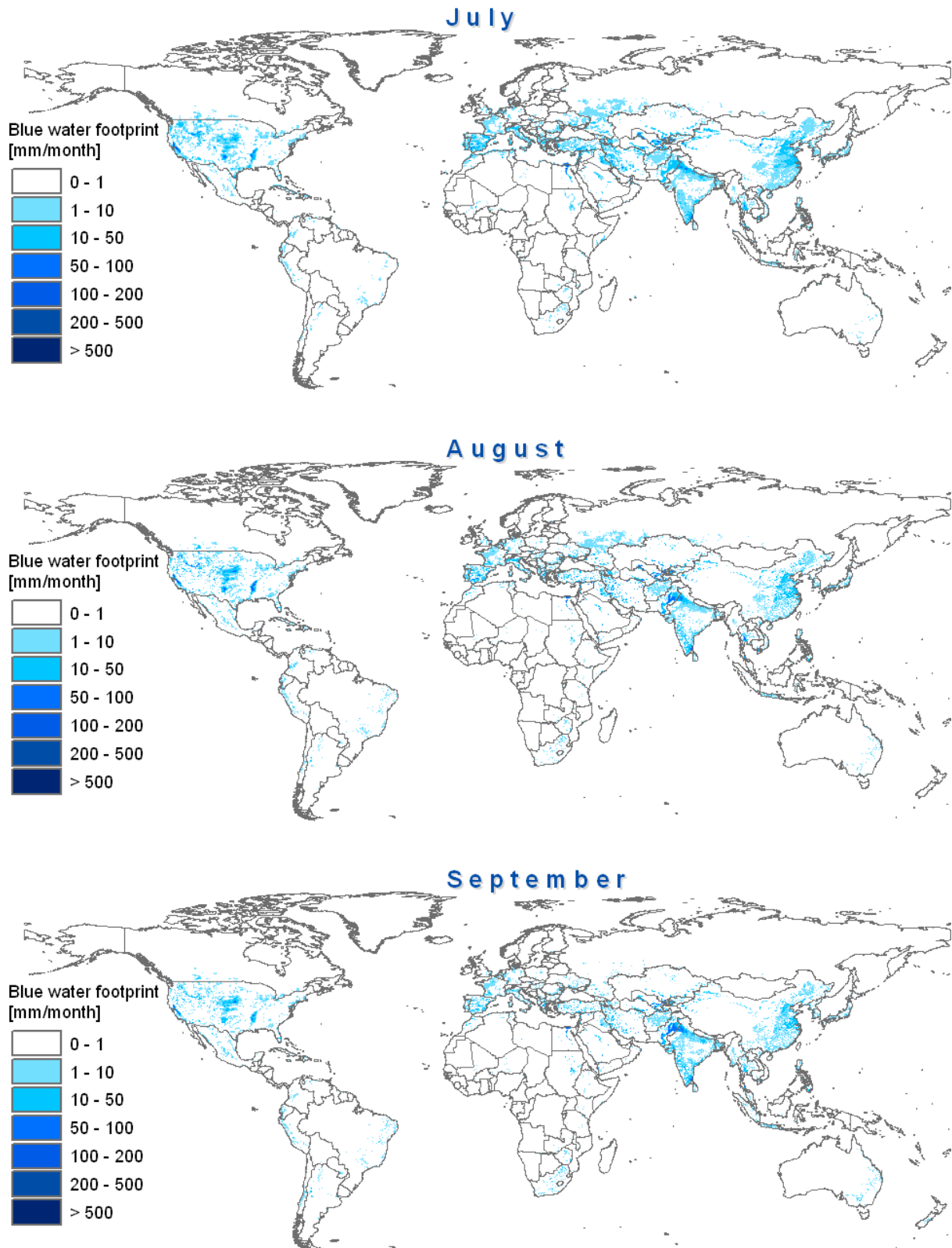


Figure 3c. Monthly blue water footprint (July - September) in the period 1996-2005. The data are shown in mm/month on a 5 by 5 arc minute grid. Data per grid cell have been calculated as the water footprint within a grid cell (in  $m^3$ /month) divided by the area of the grid cell (in  $10^3 m^2$ ).

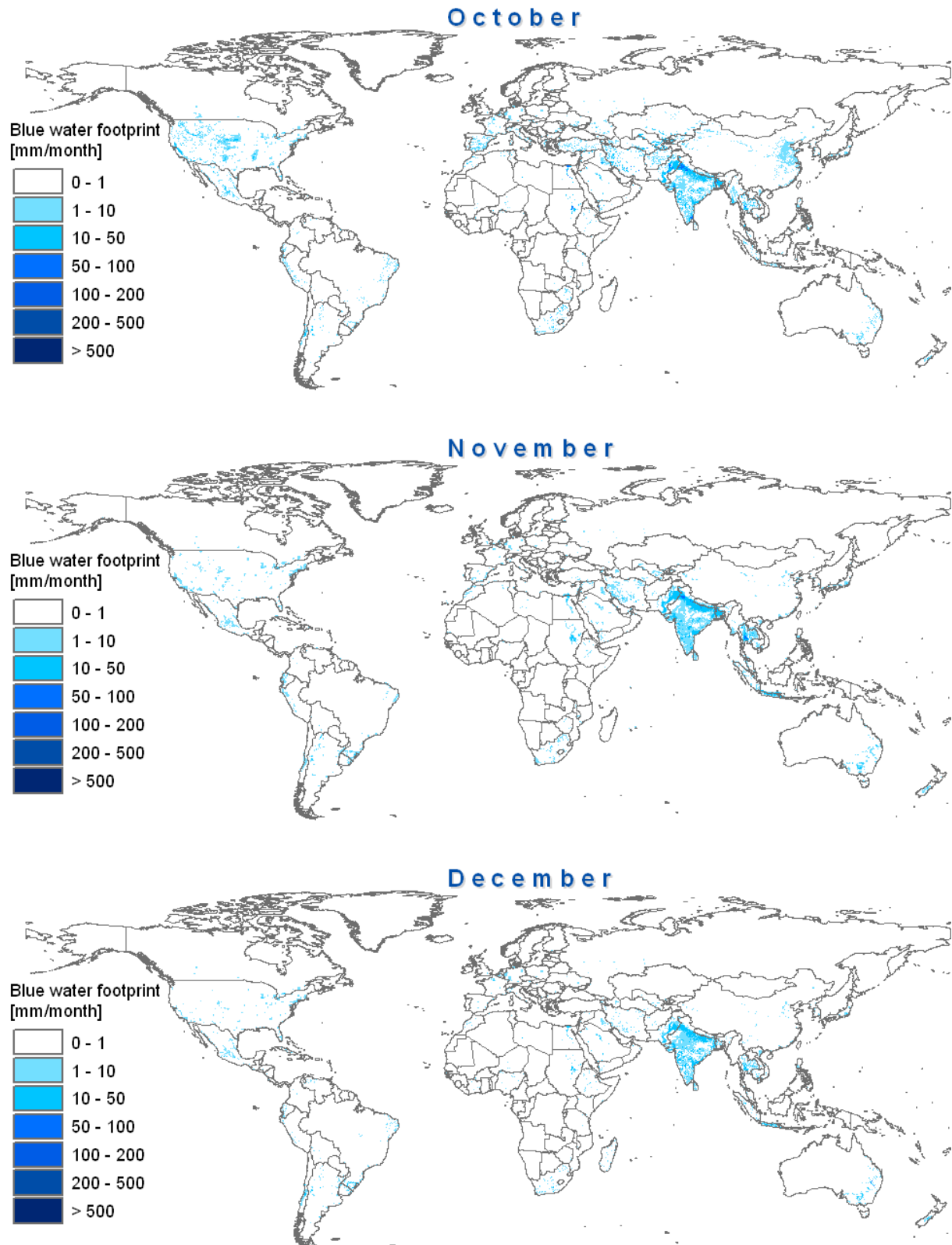


Figure 3d. Monthly blue water footprint (October - December) in the period 1996-2005. The data are shown in mm/month on a 5 by 5 arc minute grid. Data per grid cell have been calculated as the water footprint within a grid cell (in  $m^3$ /month) divided by the area of the grid cell (in  $10^3 m^2$ ).

Table 1 gives an overview of the number of basins and number of people facing low, moderate, significant and severe water scarcity during a given number of months per year. Our analysis shows that 31% of the people living in the river basins analysed in this study have low water scarcity throughout the year, i.e. in every month of the year. About 32% of the people living in the river basins analysed in this study face moderate water scarcity during at least one month per year; 34% of the people face significant water scarcity during at least one month per year; and 67% of the people face severe water scarcity during at least one month per year.

In 223 river basins (55% of the basins studied) with in total 2.72 billion inhabitants (69% of the total population living in the basins included in this study), the blue water scarcity level exceeded hundred per cent during at least one month of the year, which means that environmental flow requirements were violated during at least one month of the year. Figure 5 shows per basin how many months per year environmental flow requirements are violated (water scarcity >100%). In 201 river basins with in total 2.67 billion people there is severe water scarcity during at least one month per year, which means that the blue water footprint is more than twice the blue water availability during at least one month per year.

*Table 1. Number of basins and number of people facing low, moderate, significant and severe water scarcity during a given number of months per year.*

Number of months per year ( <i>n</i> )	Number of basins facing low, moderate, significant and severe water scarcity during <i>n</i> months per year				Number of people (millions) facing low, moderate, significant and severe water scarcity during <i>n</i> months per year			
	Low water scarcity	Moderate water scarcity	Significant water scarcity	Severe water scarcity	Low water scarcity	Moderate water scarcity	Significant water scarcity	Severe water scarcity
0	17	319	344	204	353	2690	2600	1289
1	2	55	45	46	18.6	894	357	440
2	1	26	12	49	0.002	302	672	512
3	4	4	2	33	79.6	69.2	220	182
4	6	1	1	22	35.0	0.14	9.2	345
5	18	0	1	16	897	0	97.8	706
6	9	0	0	10	111	0	0	25.6
7	17	0	0	4	144	0	0	88.0
8	29	0	0	4	293	0	0	254
9	29	0	0	3	66.8	0	0	20.2
10	52	0	0	0	428	0	0	0
11	39	0	0	2	296	0	0	1.8
12	182	0	0	12	1233	0	0	93.3
Total	405	405	405	405	3956	3956	3956	3956

Twelve of the river basins included in this study experience severe water scarcity during twelve months per year. The largest of those basins is the Eyre Lake Basin in Australia, one of the largest endorheic basins in the world, arid and inhabited by only about 86,000 people, but covering about 1.2 million km<sup>2</sup>. The basin that faces severe water scarcity during twelve months a year that inhabits most people is the Yongding He Basin in northern China (serving water to Beijing), with an area of 214,000 km<sup>2</sup> and a population density of 425 persons per km<sup>2</sup>. The next most populated basins with severe water scarcity during the whole year are the Yaqui River Basin in

north-western Mexico (76,000 km<sup>2</sup>, 651,000 people), followed by the Nueces River Basin in Texas, US (44,000 km<sup>2</sup>, 614,000 people), the Groot-Vis (Great Fish) River Basin in Eastern Cape, South Africa (30,000 km<sup>2</sup>, 299,000 people), the Loa River Basin, the main water course in the Atacama Desert in northern Chile (50,000 km<sup>2</sup>, 196,000 people) and the Conception River Basin in northern Mexico (26,000 km<sup>2</sup>, 193,000 people). Finally, a number of small river basins in Western Australia experience year-round severe water scarcity (De Grey, Fortescue, Ashburton, Gascoyne and Murchison). Eleven months of severe water scarcity occurs in the San Antonio River Basin in Texas, US (11,000 km<sup>2</sup>, 915,000 people) and the Groot-Kei River Basin in Eastern Cape, South Africa (19,000 km<sup>2</sup>, 874,000 people). Nine months of severe water scarcity occurs in the Penner River Basin in southern India, a basin with a dry tropical monsoon climate (55,000 km<sup>2</sup>, 10.9 million people), the Tarim River Basin in China, which includes the Taklamakan Desert (1052,000 km<sup>2</sup>, 9.3 million people) and the Ord River Basin, a sparsely populated basin in the Kimberley region of Western Australia. Four basins face severe water scarcity during eight months a year: the Indus, Cauvery and Salinas River Basins and the Dead Sea Basin. Among these, the Indus River basin is the largest (1,139,000 km<sup>2</sup>, 212 million people). Next come the very densely populated Cauvery River Basin in India (91,000 km<sup>2</sup>, 35 million people), the Dead Sea Basin, which includes the Jordan River and extends over parts of Jordan, Israel, West Bank and minor parts of Lebanon and Egypt (35,000 km<sup>2</sup>, 6.1 million people) and the Salinas River Basin in California in the US (13,000 km<sup>2</sup>, 308,000 people). Four other river basins experience severe water scarcity during seven months of the year: the Krishna, Bravo, San Joaquin and Doring River Basins. The largest and most densely populated of those is the Krishna River Basin in India (270,000 km<sup>2</sup>, 77 million people). The Bravo River Basin is situated partly in the US and partly in Mexico (510,000 km<sup>2</sup>, 9.2 million people); the San Joaquin River Basin lies in California, US (34,000 km<sup>2</sup>, 1.7 million people). The Doring River Basin is a relatively sparsely populated basin in South Africa, where it is irrigation of agricultural lands that causes the scarcity of water.

Figure 6 shows per river basin the blue water scarcity in the month of the year in which scarcity is highest and also shows the month in which this occurs. In a range of basins in Africa north of the Equator (Senegal, Volta, Niger, Lake Chad, Nile and Shebelle), the most severe blue water scarcity occurs in February or March due to low runoff. In all of these basins, water is not scarce if considered on an annual basis; scarcity occurs only during a limited period of low runoff. In a number of river basins in Eastern Europe and Asia (Dniepr, Don, Volga, Ural, Ob, Balkhash and Amur), the most severe water scarcity occurs in the months February or March as well. The blue water footprint is not yet large in these months, because the growing period is yet to start, but natural runoff is very low in this period and puts limits to industrial and domestic water supply if environmental flow requirements are to be maintained. In the Yellow and Tarim River Basins, most severe water scarcity is in early spring because runoff is low while water demand for irrigation starts to increase. In the Orange and Limpopo River Basins in South Africa, most severe water scarcity occurs in September-October, in the period in which the blue water footprint is highest while runoff is lowest. In the Mississippi River Basin in the US, severe water scarcity occurs in August-September, when the blue water footprint is largest but runoff low.

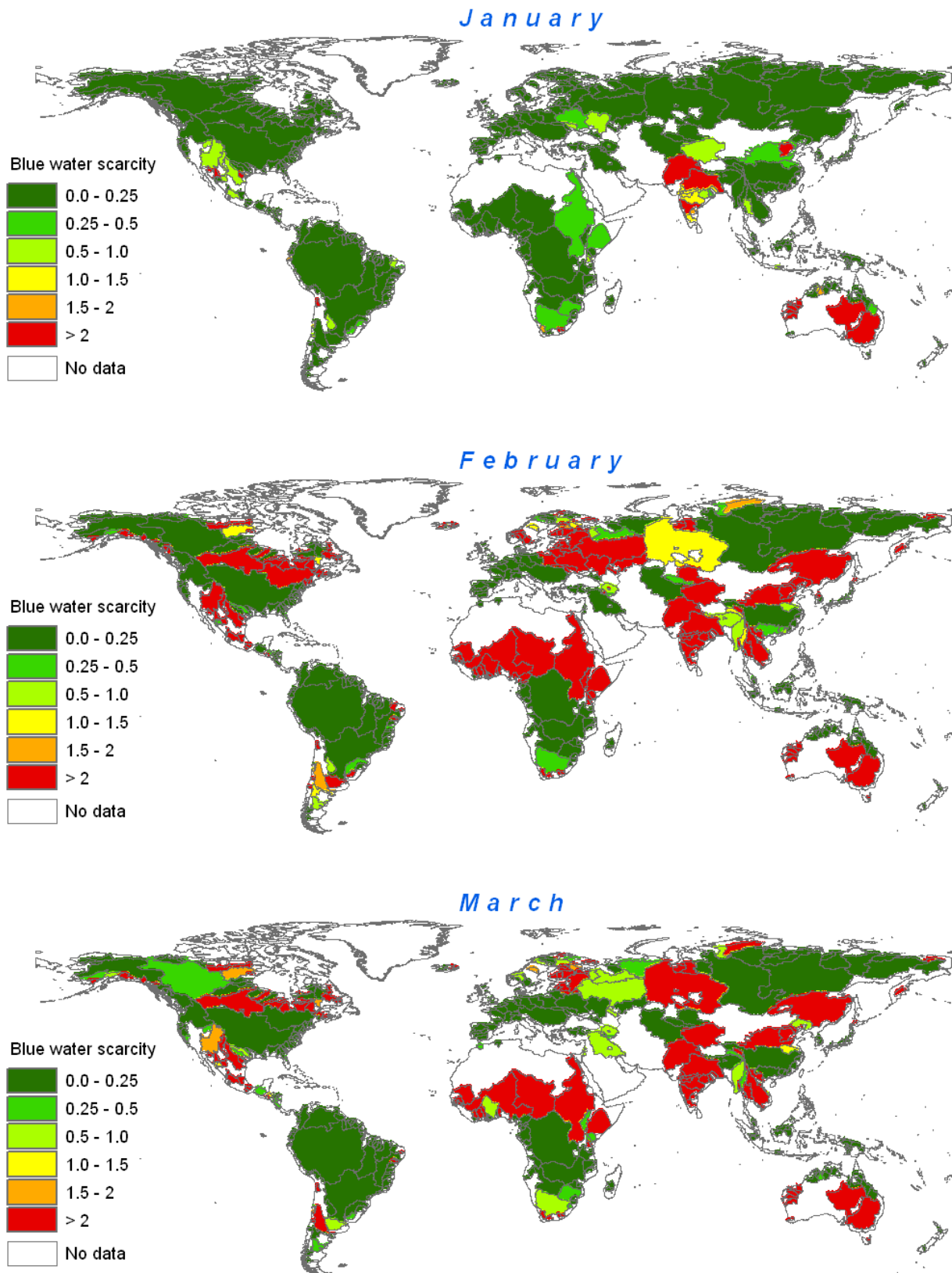


Figure 4a. Monthly blue water scarcity in the world's major river basins (January-March). Period: 1996-2005.

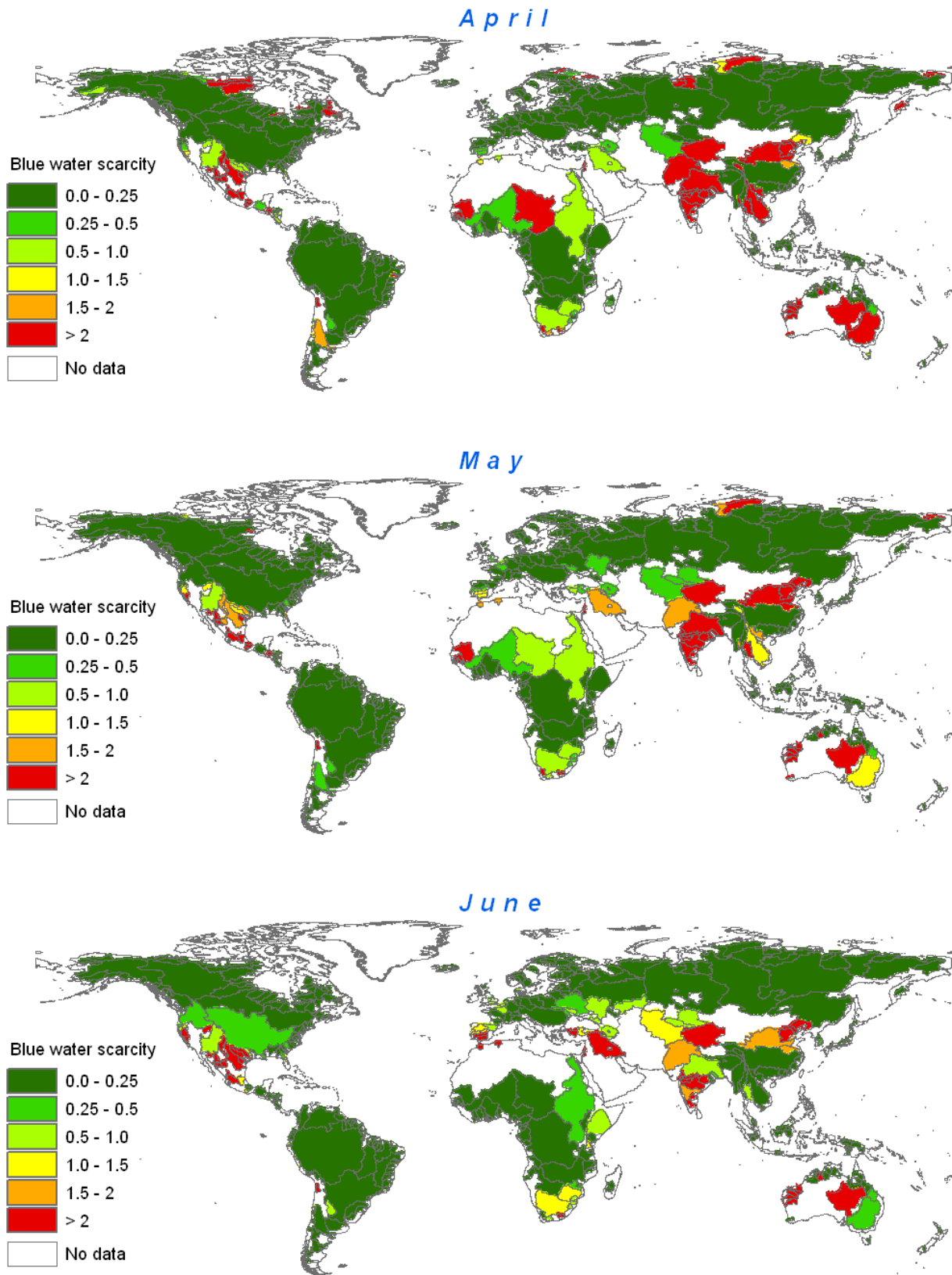


Figure 4b. Monthly blue water scarcity in the world's major river basins (April-June). Period: 1996-2005.

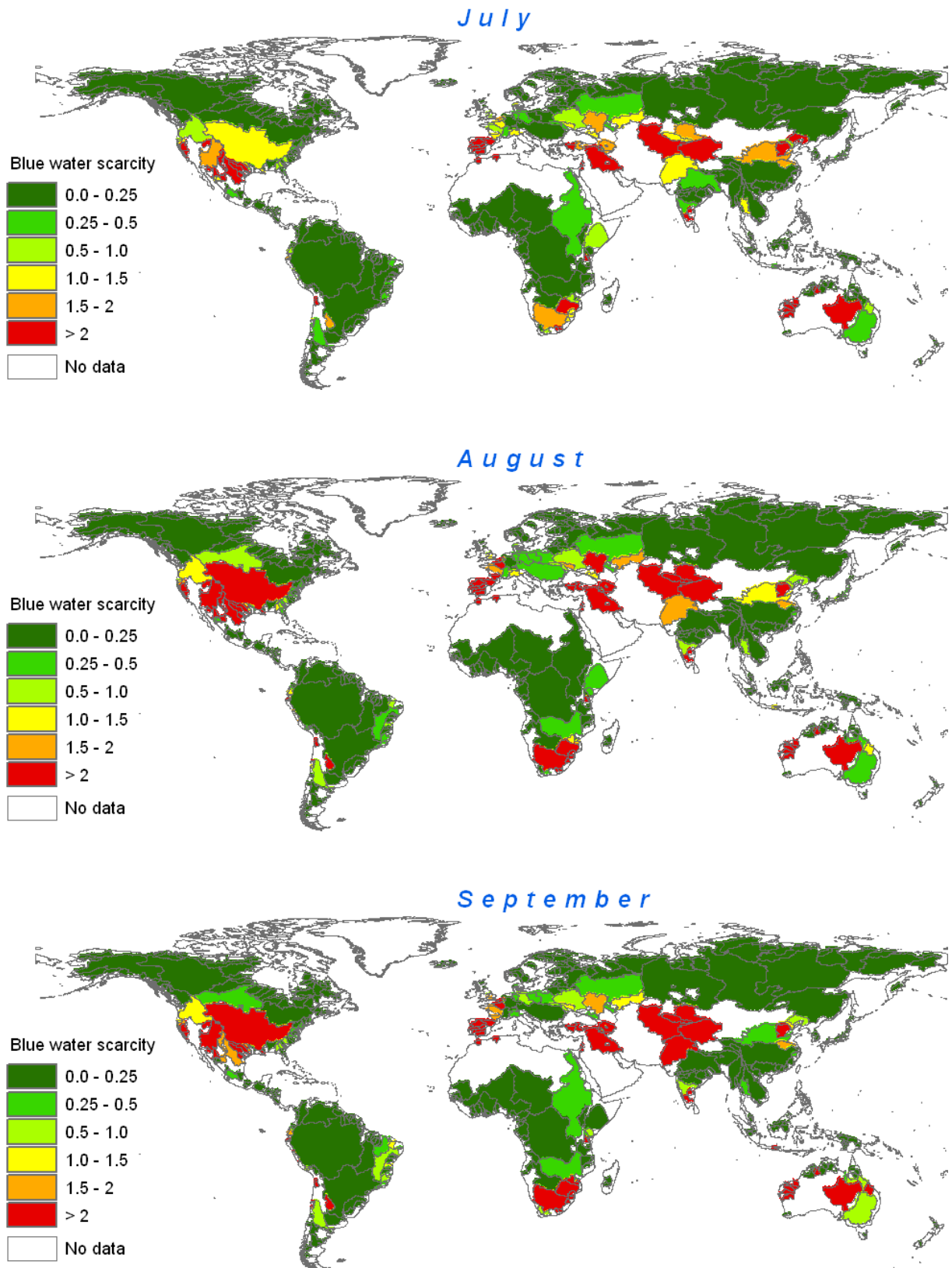


Figure 4c. Monthly blue water scarcity in the world's major river basins (July-September). Period: 1996-2005.

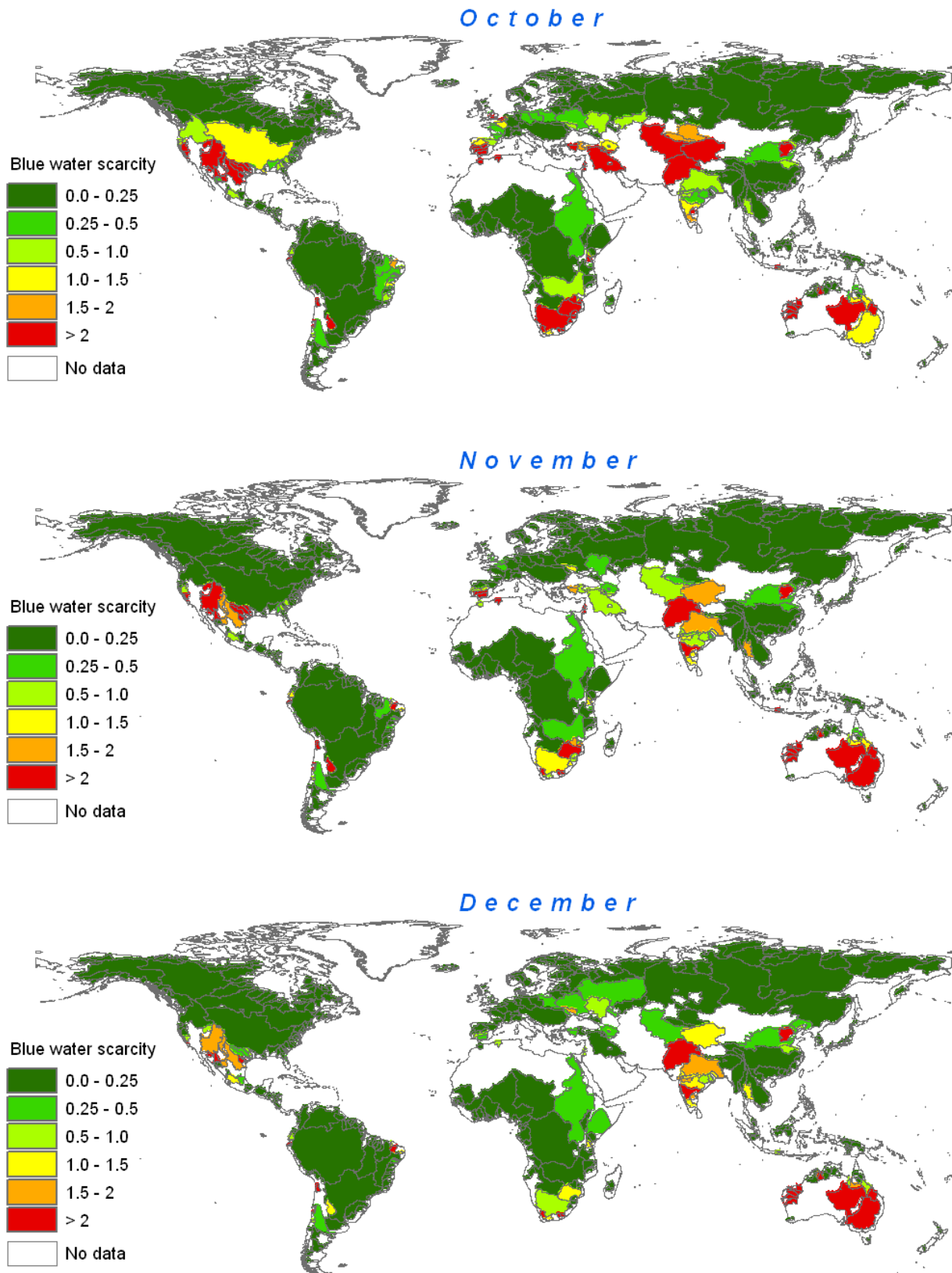


Figure 4d. Monthly blue water scarcity in the world's major river basins (October-December). Period: 1996-2005.



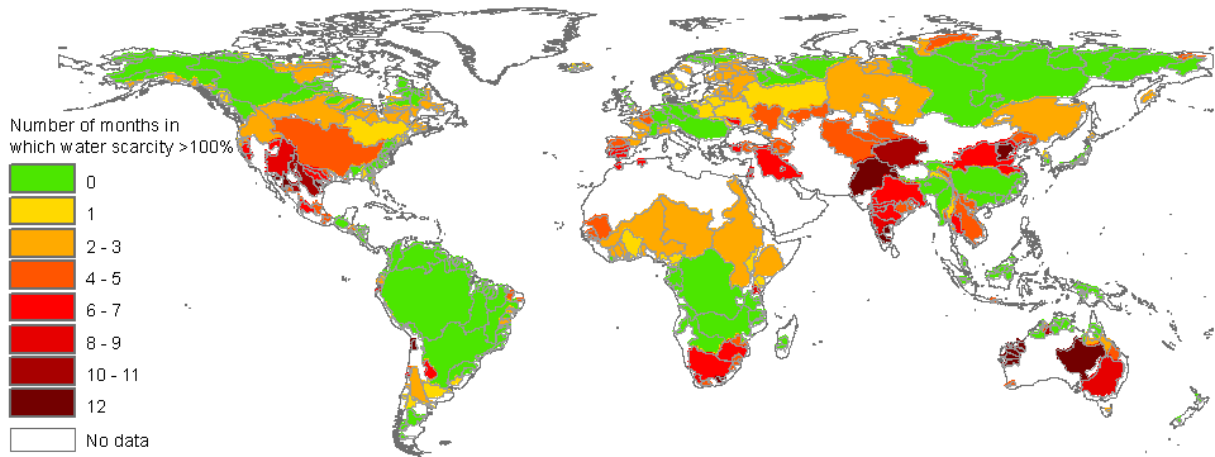


Figure 5. Number of months during the year in which water scarcity exceeds 100% for the world's major river basins. Period 1996-2005.

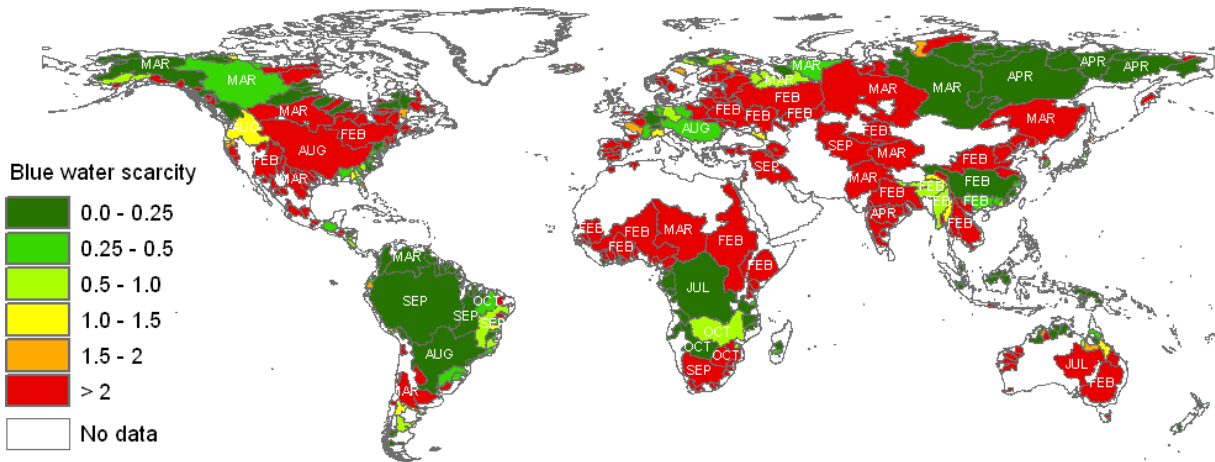


Figure 6. The blue water scarcity per river basin in the month in which blue water scarcity is highest, together with the month in which this highest scarcity occurs. Months are shown only for the largest river basins (with an area > 300,000 km<sup>2</sup>). Period 1996-2005.

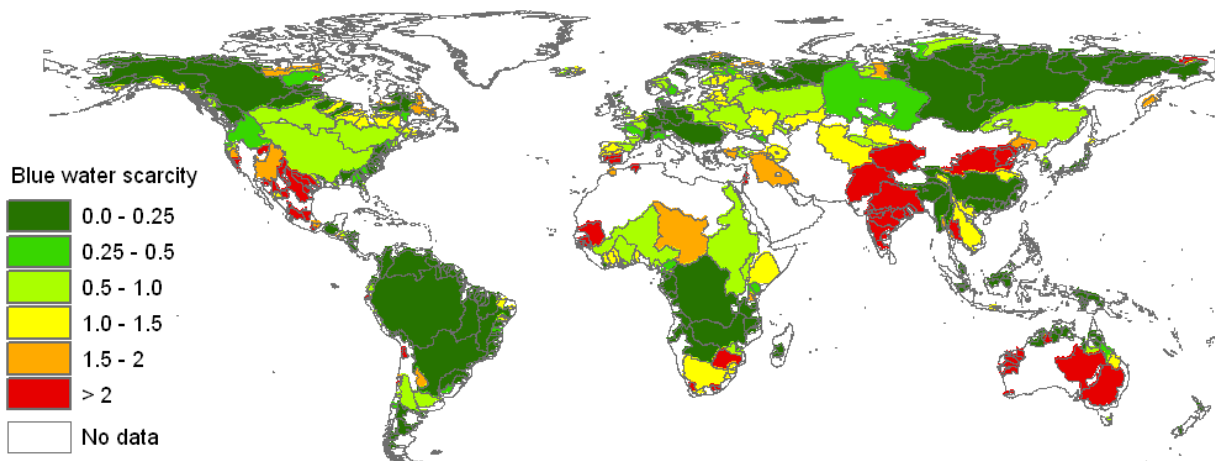


Figure 7. Annual average monthly blue water scarcity in the world's major river basins (calculated by equal weighting the twelve monthly blue water scarcity values per basin). Period 1996-2005.

### 3.4. *Annual average monthly blue water scarcity per river basin*

In order to get an overall picture of blue water scarcity per basin we have combined the monthly scarcity values into an annual average (Figure 7, Appendix IX). Considering the annual average monthly blue water scarcity in the 405 river basins considered, we find that in 264 basins a total number of 2.05 billion people experience low water scarcity (<100%), but in 55 basins 0.38 billion people face moderate water scarcity (100-150%), in 27 basins 0.15 billion people face significant water scarcity (150-200%) and in 59 basins a total of 1.37 billion people face severe water scarcity (>200%). The largest basins in the latter category (in terms of inhabitants) are: the Ganges River Basin (situated mainly in India and Pakistan, inhabiting 454 million people), the Indus River Basin (mainly in Pakistan and India, 212 million people), the Huang He (Yellow River) Basin in China (161 million people), the Yongding He Basin in China (91 million) and the Krishna River Basin in India (77 million people).

Instead of quantifying the overall blue water scarcity in a basin by taking the average of the twelve monthly blue water scarcity values, one could also do that by taking the total annual blue water footprint over the total annual blue water availability. This is the way in which traditionally water scarcity indicators are calculated. Appendix V provides for comparison two blue water scarcity maps: one obtained by averaging the monthly water scarcity values (the same one as in Figure 7) and the second calculated by dividing the annual blue water footprint by the annual blue water availability. For a large number of basins, the second map masks the fact that during part of the year environmental flow requirements are violated. This is for example the case for the Senegal, Lake Chad, Shebelle, Limpopo and Orange river basins in Africa and the Ural, Don and Balkhash basins in Asia.

### 3.5. *Global blue water scarcity*

Global annual runoff from the 405 river basins studied is estimated to be 27,545 Gm<sup>3</sup>/yr. Global annual blue water availability is 20% of that, i.e. 5,509 Gm<sup>3</sup>/yr. The aggregated annual blue water footprint in the basins considered amounts to 731 Gm<sup>3</sup>/yr. Based on these annual global values one would calculate a global blue water scarcity of 13%. If, however, we estimate global blue water scarcity by averaging the annual average monthly blue water scarcity values per river basin, weighting basin data based on basin area, we calculate a global average blue water scarcity of 85%. This means that, sampling over the full year and over the total land area considered in this study, one will measure a blue water scarcity of 85% on average. Since some areas are more densely populated than others, this is not the same as the scarcity experienced by people. When we estimate global blue water scarcity by averaging the annual average monthly blue water scarcity values per river basin weighted based on population number per basin, we calculate a global blue water scarcity at 133%. This figure reflects the blue water scarcity that people in the world on average experience. Yet another way of expressing water scarcity is to take the perspective of the average water consumer. The global water consumption pattern is different from the population density pattern, because intensive water consumption in agriculture is not specifically related to where most people live. If we estimate global blue water scarcity by averaging monthly blue water scarcity values per river basin weighted based on the blue water footprint in the respective month and basin, we calculate a global blue water scarcity at 244%. This means that *the average blue water consumer* in the

world experiences a water scarcity of 244%, i.e. operates in a month in a basin in which the blue water footprint is 2.44 times the blue water availability and in which presumptive environmental flow requirements are thus strongly violated.

From the above it is clear that the 13% scarcity value (global annual blue water footprint over global annual blue water availability) is highly misleading because it is based on the implicit assumption that all blue water available in the world at any point in the year is available for all people in the world – wherever they live – at any (other) point in the year, which is not the case.

### 3.6. *Blue water footprint versus blue water availability in selected river basins*

Figures 8a-8c compare the blue water footprint with the blue water availability within the course of the year for nine selected basins: the Tigris-Euphrates, Indus, Ganges, Huang He, Tarim, Murray, Colorado, Guadiana and Limpopo. The blue water footprints refer to the average over the period 1996-2005. The natural runoff and blue water availability refer to climate averages. The figures show per river basin which parts of the blue water footprint result in slight, moderate, significant and severe hydrological modification of the river. The categories beyond slight modification mean that presumptive environmental flow requirements are violated. Moderate hydrological modification occurs when blue water footprint varies between 20 and 30 per cent of natural runoff; significant modification happens when blue water footprint is 30-40 per cent of natural runoff; and severe modification occurs when blue water footprint exceeds 40 per cent of natural runoff.

The Tigris-Euphrates River Basin extends over four countries: Turkey, Syria, Iraq and Iran. Almost all of the runoff in the two rivers is generated in the highlands of the northern and eastern parts of the basin in Turkey, Iraq and Iran. Precipitation in the basin is largely confined to the winter months from October through April. The high waters occur during the months of March through May as the snows melt on the highlands. The typical low water season occurs from June to December. The basin faces severe water scarcity for five months of the year (June-October). Most of the blue water footprint in the basin is due to evaporation of irrigation water in agriculture, mostly for wheat, barley and cotton, which together account for 52% of the total blue water footprint in the basin.

The Indus River Basin is a densely populated basin (186 persons/km<sup>2</sup>) facing severe water scarcity almost three quarters of the year (September-April). The basin receives around 70% of its precipitation during the months of June to October (Thenkabail et al., 2005). The low-water period in the Indus River Basin is from November through February. The high waters begin in June and continue through October as the snow and glaciers melt from the Tibetan plateau. Over 93% of the blue water footprint related to crop production in Pakistan occurs in the two major agricultural provinces of Punjab and Sindh which lie fully (Punjab) and mostly (Sindh) in the basin. Irrigation of wheat, rice and cotton crops account for 77% of the blue water footprint in the basin. Groundwater abstraction, mainly for irrigation, goes beyond the natural recharge leading to depletion of the groundwater in the basin (Wada et al., 2010).

The Ganges River Basin is one of the most densely populated basins in the world (443 persons/km<sup>2</sup>). The basin is fed by two main headwaters in the Himalayas – the Bhagirathi and Alaknanda – and many other tributaries that drain the Himalayas and the Vindhya and Satpura ranges. The basin faces severe water scarcity for five months of the year (January-May). Most of the blue water footprint in the basin is due to evaporation of irrigation water in agriculture, mostly for wheat, rice and sugar cane. These three crops together are responsible for 85% of the total blue water footprint in the basin. Overexploitation of the aquifers for irrigation is leading to depletion of the groundwater in the basin (Wada et al., 2010).

The Huang He (Yellow River) Basin in China faces severe water scarcity for four months of the year (February-May). The low-water period in the Huang He River Basin is from December through March. The river originates in the Bayankela Mountains of the Tibetan Plateau. The high waters begin in April and continue through October. Most of the blue water footprint in the basin is due to irrigation water use in agriculture, mostly for wheat, maize and rice, which together account for 79% of the blue water footprint in the basin. The dry conditions during part of the year coupled with the large water footprint related to agricultural and industrial production and domestic water supply is leading to a great pressure on the water resources of the basin.

The Tarim River Basin faces severe water scarcity during three quarters of the year (February-October). The low-water period in the Tarim Basin is from October through April. The spring and summer high waters begin in May and continue through September as the snows melt on the Tian Shan and Kunlun Shan mountains. Most of the blue water footprint in the basin is due to evaporation of irrigation water in agriculture, mostly for wheat, rice and maize. These three crops are responsible for 78% of the blue water footprint in the Tarim River Basin.

The Murray River Basin, often called the Murray-Darling River Basin because of the importance of the Darling River that joins the Murray River at Wentworth, is a very important basin for agriculture in Australia. About 78% of the blue water footprint related to crop production in Australia is in the Murray River Basin. Most of the blue water footprint in the basin is due to evaporation of irrigation water in agriculture, mostly for fodder crops, cotton and rice, which together constitute 77% of the blue water footprint within the basin. The basin faces severe water scarcity for half of the year (November-April).

The Colorado River Basin draining into the Pacific Ocean is a basin in the South-western US (with a minor fraction in North-western Mexico). About 75% of the runoff in the basin occurs during the months of April through July. During five months of year (August-November and February) the basin faces severe water scarcity. Most of the blue water footprint in the basin is due to evaporation of irrigation water in agriculture, mostly for fodder crops and cotton, which make 73% of the blue water footprint in the Colorado Basin. The Colorado River is considered the life line of the South-western US providing water to millions of people both within and outside the basin, for irrigated land and hydroelectricity generation (Pontius, 1997). Colorado River water is diverted for use both in and outside of the basin. Annually, more than one third of the river's supply is diverted from the basin, including diversions to cities such as Denver, Colorado Springs, Salt Lake City, Albuquerque, Los Angeles, and San Diego (Pontius, 1997). Due to its overexploitation, little or no freshwater is discharged to the sea in dry years (Postel, 1998).

The Guadiana River Basin is shared by Spain and Portugal but mainly lies in South-Eastern Spain. The basin faces severe water scarcity during half of the year (June-November). The high-water period in the Guadiana Basin is from February through April. Irrigation of maize, grapes and other perennial crops (mainly olives) account for the largest share of the blue water footprint in the basin (55%). Overexploitation of the aquifer for irrigation purposes is a major problem (Wada et al., 2010), occurring mainly in the upper basin (Aldaya and Llamas, 2008).

The Limpopo River Basin faces severe water scarcity during five months of the year (July-November). The low-water period in the Limpopo Basin is from May through December. Most of the blue water footprint in the basin is due to evaporation of irrigation water in agriculture, mostly for fodder crops, cotton and sugar cane, which together account for 52% of the total blue water footprint in the basin.

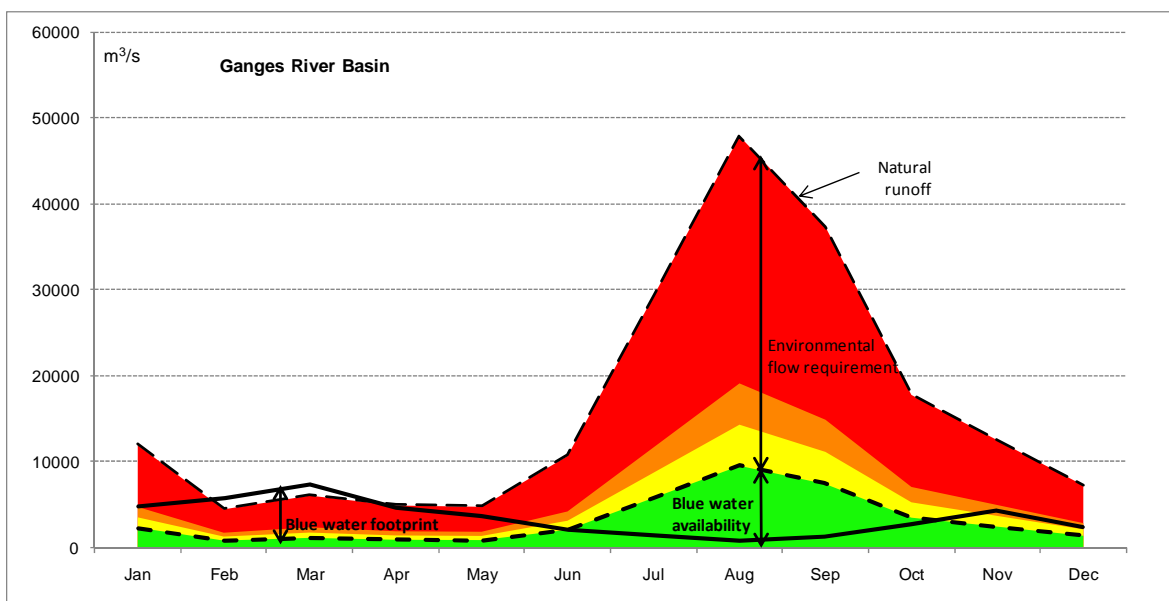
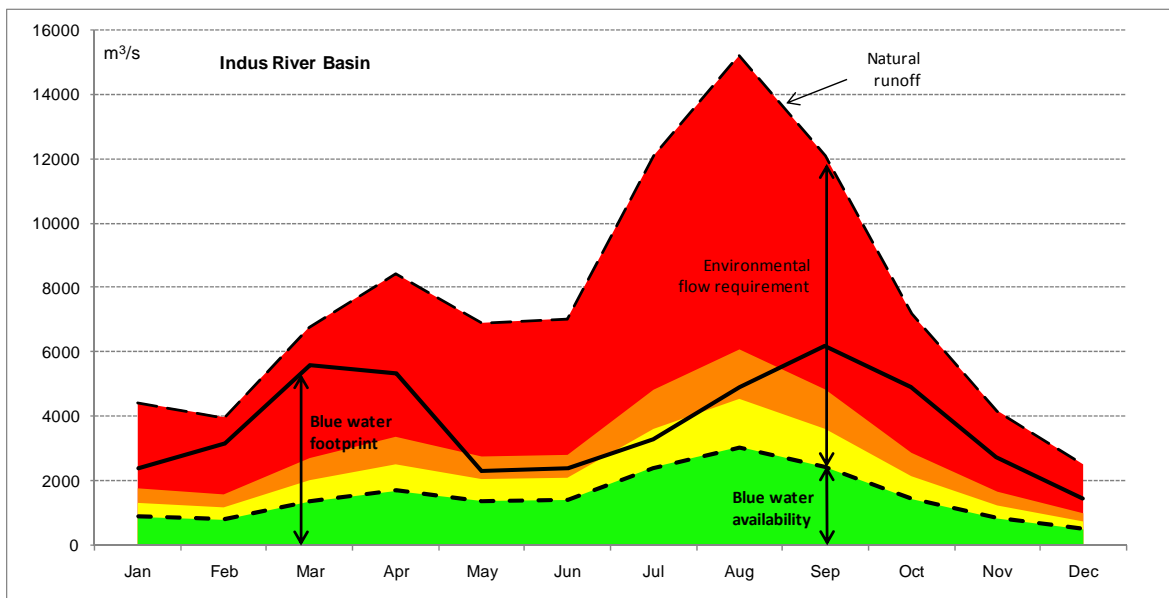
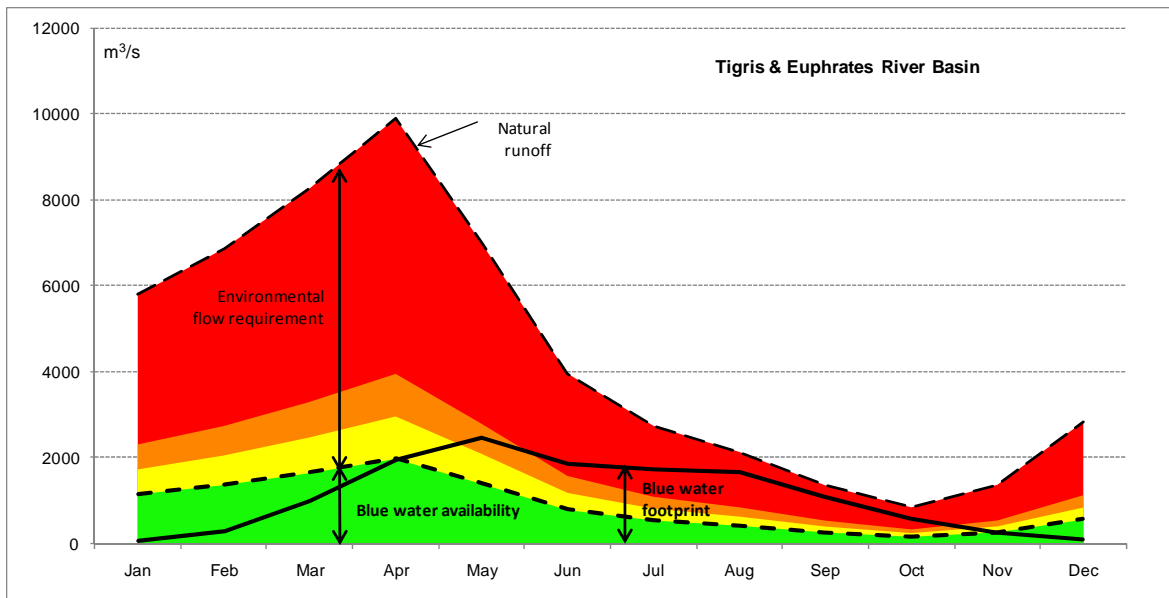


Figure 8a. The blue water footprint over the year compared to blue water availability for selected river basins. Period 1996-2005. Blue water availability – that is natural runoff minus environmental flow requirement – is shown in green. When the blue water footprint moves into the yellow, orange and red colours, water scarcity is moderate, significant and severe, respectively.

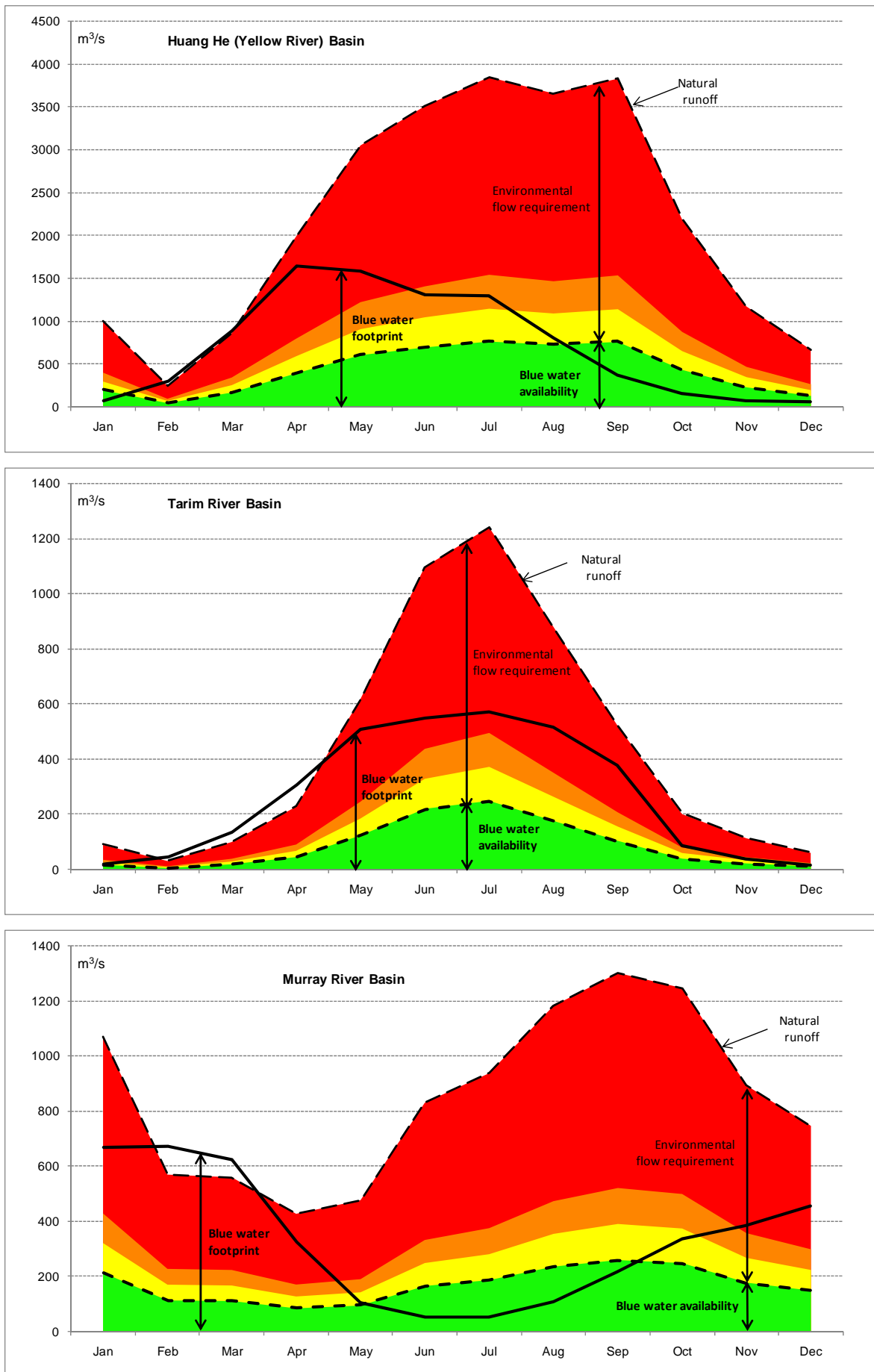


Figure 8b. The blue water footprint over the year compared to blue water availability for selected river basins. Period 1996-2005. Blue water availability – that is natural runoff minus environmental flow requirement – is shown in green. When the blue water footprint moves into the yellow, orange and red colours, water scarcity is moderate, significant and severe, respectively.

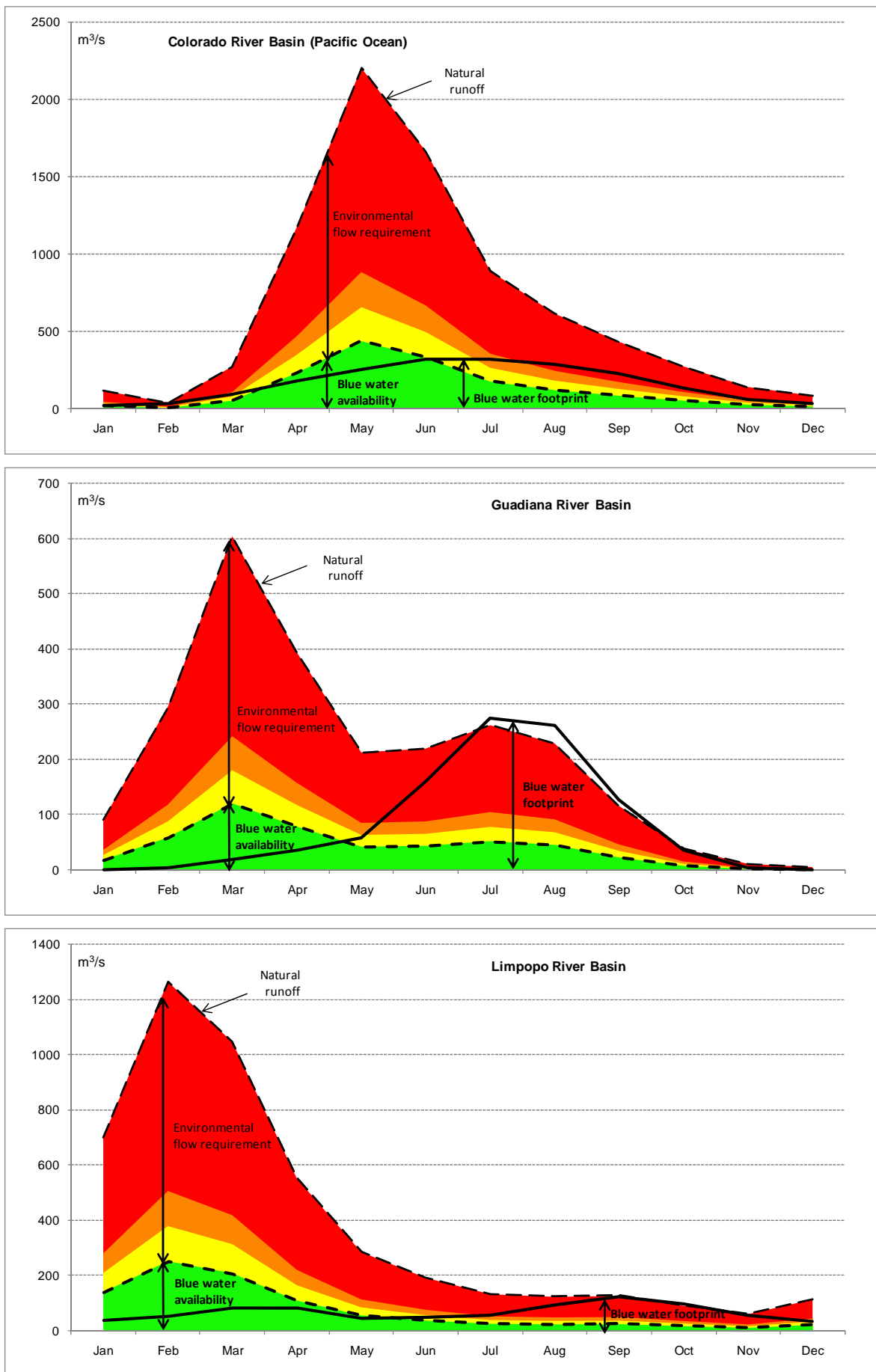


Figure 8c. The blue water footprint over the year compared to blue water availability for selected river basins. Period 1996-2005. Blue water availability – that is natural runoff minus environmental flow requirement – is shown in green. When the blue water footprint moves into the yellow, orange and red colours, water scarcity is moderate, significant and severe, respectively.



#### 4. Discussion and conclusion

The blue water scarcity estimates presented include uncertainties that reflect the uncertainties in input data used and the limitations of the study. The data on actual runoff used are model-based estimates calibrated against long-term runoff measurements (Fekete et al., 2002); the model outcomes include an error of 5% at the scale of large river basins or beyond for smaller river basins. The runoff measurements against which the model is calibrated include uncertainties as well; discharge measurements have an accuracy on the order of  $\pm 10$ -20 per cent (Fekete et al., 2002). Estimates used for the blue water footprints can easily contain an uncertainty of  $\pm 20\%$  (Hoff et al., 2010; Mekonnen and Hoekstra, 2010a,b); uncertainties for relatively small river basins are generally bigger than for large river basins. An important assumption in the study is the presumptive standard on environmental flow requirements based on Richter et al. (2011). Obviously, different estimates of environmental flow requirements will affect the estimates of blue water availability and thus scarcity.

In order to estimate natural (undepleted) runoff in each river basin, we have added the estimated blue water footprint (from Mekonnen and Hoekstra, 2011a) to the estimated actual runoff (from Fekete et al., 2002). In doing so, we overestimate natural runoff in those months in which the blue water footprint (partially) originates from depleting the total water stock in the basin rather than from runoff depletion. At the same time we underestimate the natural runoff in the months in which water is being stored for later consumption. Further, as a result of our approach we overestimate natural runoff in those months and basins in which the blue water footprint (partially) originates from fossil (non-renewable) groundwater, because that part should not be added to actual runoff to get natural runoff. However, data on consumption of renewable versus fossil groundwater are hard to obtain at a global scale.

Our estimates of blue water scarcity could be improved if we would account for the effect of dams and inter-basin water transfers. In cases where dams smoothen blue water availability we may have overestimated blue water scarcity in the dry months to which water is carried over from previous wetter months. In cases where inter-basin water transfers are very substantial, we may have underestimated the water scarcity in the basins from which the water is taken and overestimated it in the basins where it is going to. An example of a basin for which we have thus probably underestimated blue water scarcity is the Colorado basin, which delivers water to many users outside of the basin.

Given the uncertainties and limitations of the study, the figures presented in this study should be taken with caution. However, the spatial and temporal water scarcity patterns and the order of magnitudes of the results presented in this report give a good indication of when and where blue water scarcity is relatively low or high.

The calculated blue water scarcity values per river basin and month are conservative estimates of actual scarcity for two reasons. First, by evaluating water scarcity at the level of whole river basins, we do not capture spatial variations within the basins, so that the blue water footprint may match blue water availability at the basin level while it does not at sub-catchment level. Second, we consider an average year regarding both blue water

availability and footprint, while in many basins inter-annual variations can be substantial, aggravating the scarcity problem in the dryer years.

The water scarcity values presented refer to the period 1996-2005. Continued growth of the water footprint due to growing populations, changing food patterns (for instance in the direction of more meat) and increasing demand for biomass for bio-energy combined with the effects of climate change, are likely to result in growing blue water scarcity in the future (Vörösmarty et al., 2000).

This study has quantified freshwater scarcity only in terms of blue water. For a complete picture of the extent of freshwater scarcity one should also consider the use and availability of green water and water pollution (Savenije, 2000; Rijsberman, 2006; Rockstrom et al., 2009; Hoekstra et al., 2011). Therefore, future research should focus on the development of a complete picture of water scarcity, including green water scarcity and water pollution levels over time.

The current study provides the first global assessment of blue water scarcity in a spatially and temporally explicit way. Water scarcity analysis at a monthly time step provides insight into the real degree of water scarcity that is not revealed in existing annual water scarcity indicators like those employed by for example Vörösmarty et al. (2000), Alcamo and Henrichs (2002), Smakthin et al. (2004) and Oki and Kanae (2006). Ignoring temporal variability in estimating blue water scarcity obscures the fact that scarcity occurs in certain periods of the year and not in others. A similar problem occurs if one would compare the global blue water footprint with global blue water availability. In this case one obscures the fact that scarcity happens in certain basins, generally where most people live, and not equally throughout the world.

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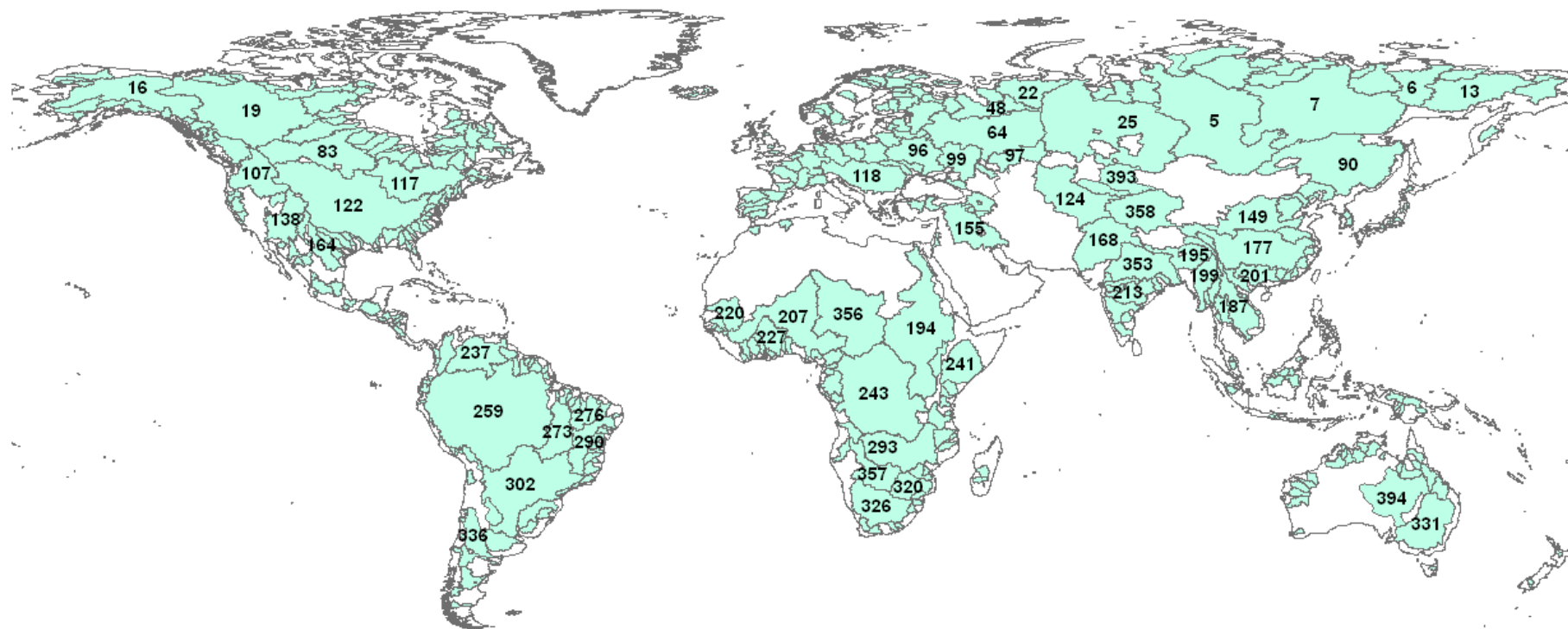
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## Appendix I. Global river basin map



The map shows the basin ID for the largest river basins (area > 300,000 km<sup>2</sup>). Data source: GRDC (2007).

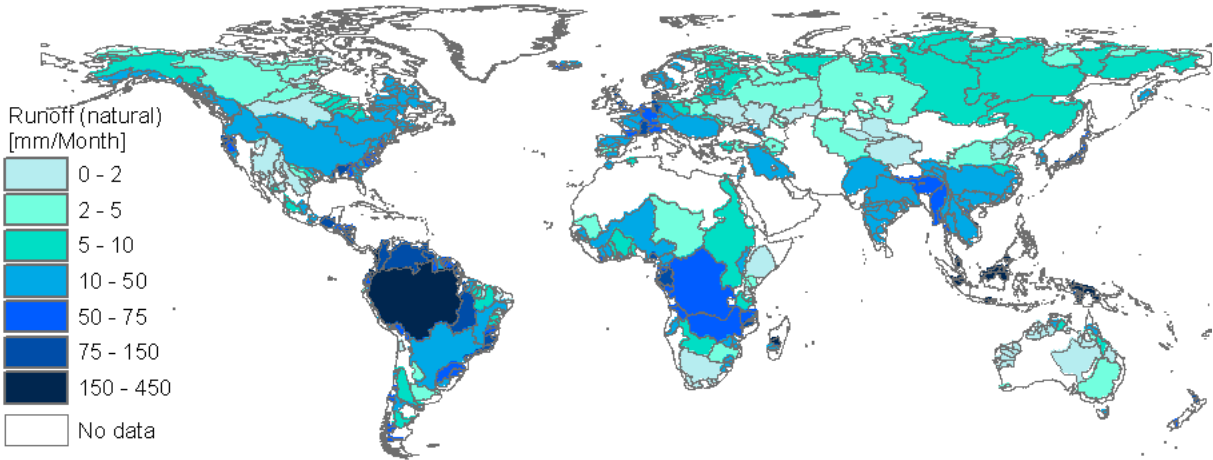
Basin ID	Basin	Basin ID	Basin	Basin ID	Basin	Basin ID	Basin	Basin ID	Basin	Basin ID	Basin
5	Yenisei	64	Volga	122	Mississippi	194	Nile	241	Shebelle	326	Orange
6	Indigirka	83	Nelson	124	Aral Drainage	195	Brahmaputra	243	Congo	331	Murray
7	Lena	90	Amur	138	Colorado (Pacific Ocean)	199	Irrawaddy	259	Amazonas	336	Colorado (Argentina)
13	Kolyma	96	Dniepr	149	Huang He (Yellow River)	201	Xi Jiang	273	Tocantins	353	Ganges
16	Yukon	97	Ural	155	Tigris & Euphrates	207	Niger	276	Rio Parnaiba	356	Lake Chad
19	Mackenzie	99	Don	164	Bravo	213	Godavari	290	Sao Francisco	357	Okavango
22	Pechora	107	Columbia	168	Indus	220	Senegal	293	Zambezi	358	Tarim
25	Ob	117	St.Lawrence	177	Yangtze(Chang Jiang)	227	Volta	302	Parana	393	Balkhash
48	Northern Dvina (Severnaya Dvina)	118	Danube	187	Mekong	237	Orinoco	320	Limpopo	394	Eyre Lake



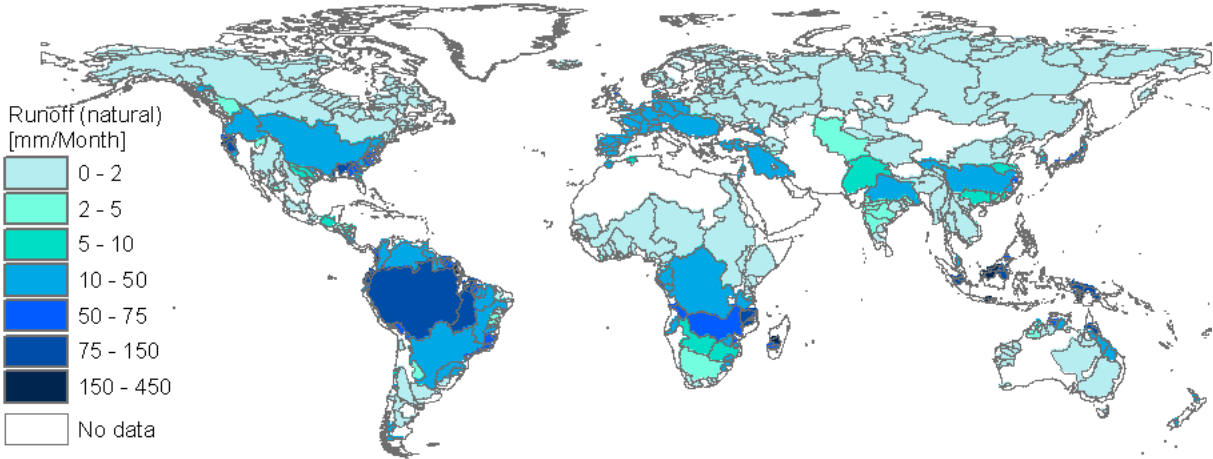


**Appendix II. Global maps of monthly natural runoff in the world's major river basins**

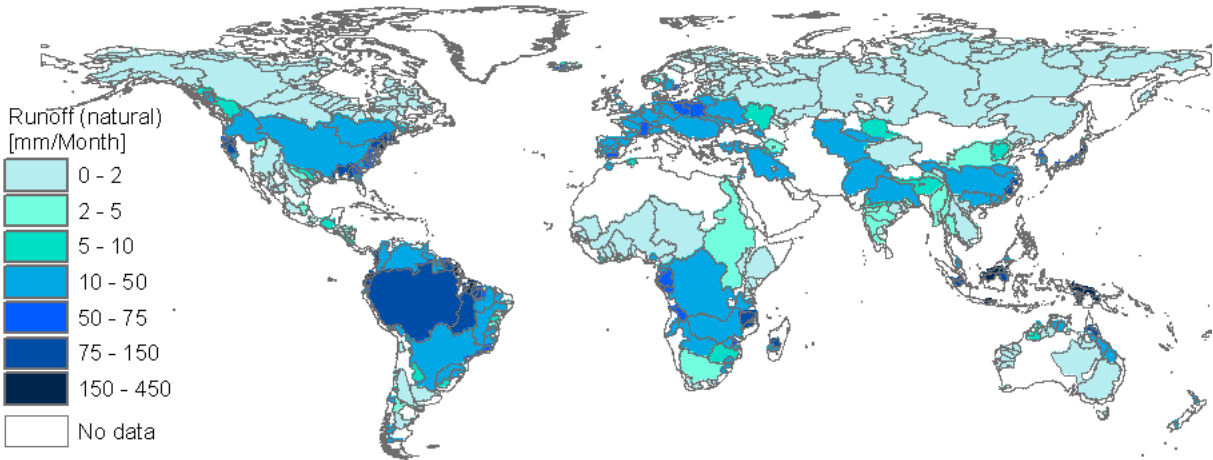
*January*



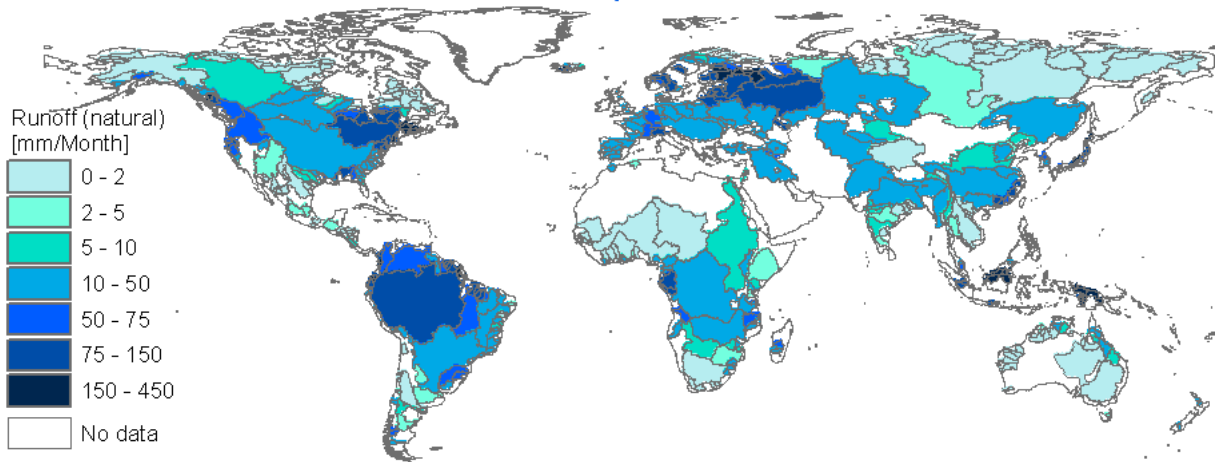
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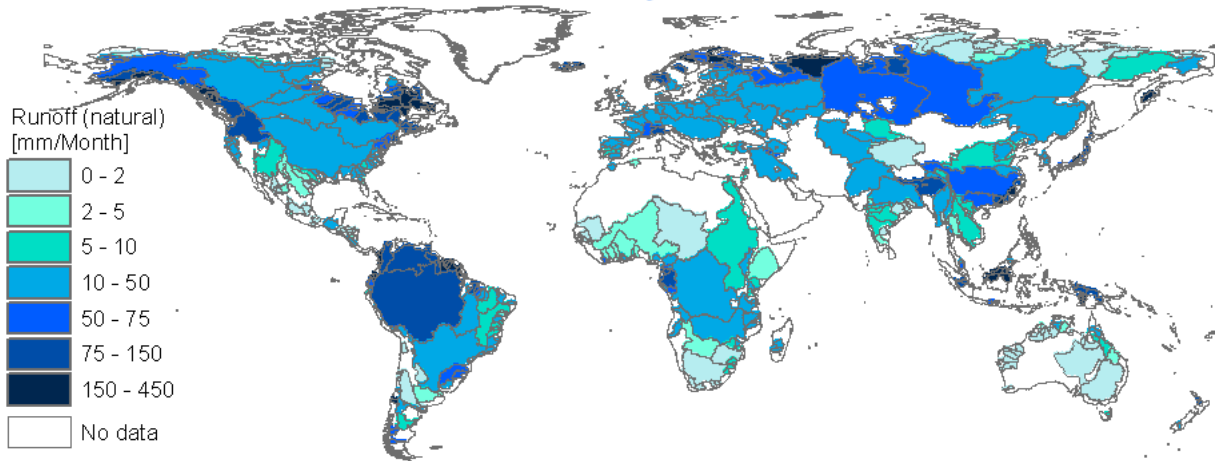
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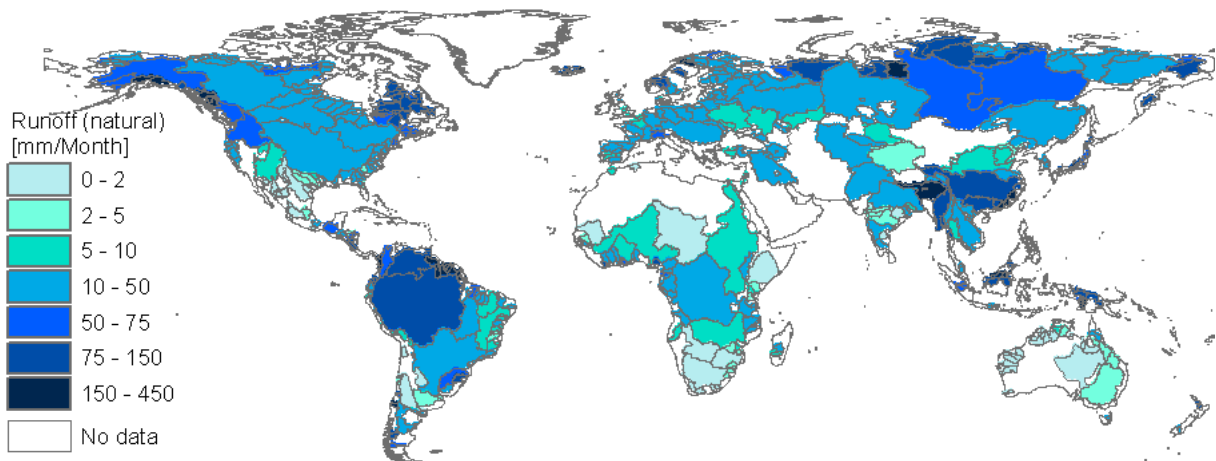
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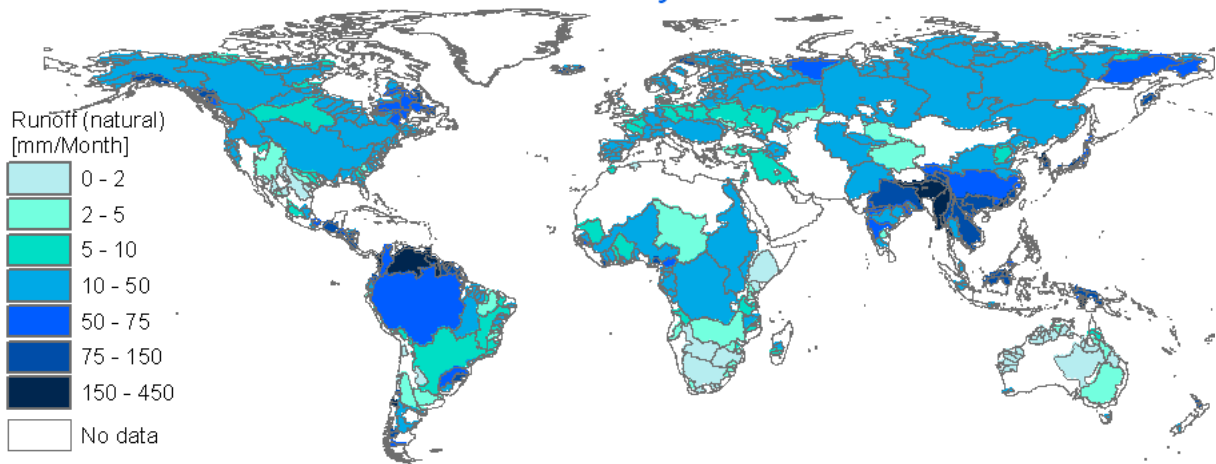
*May*



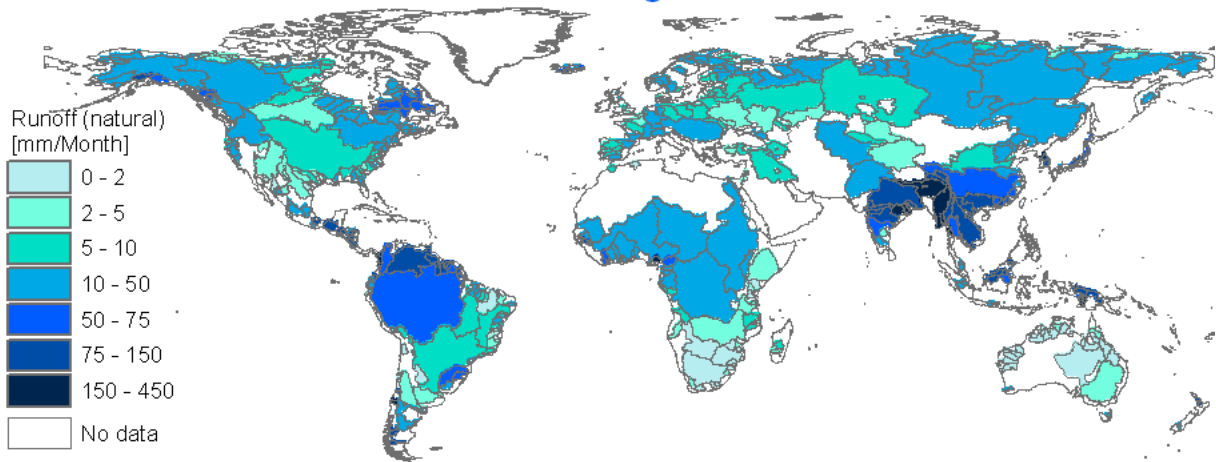
*June*



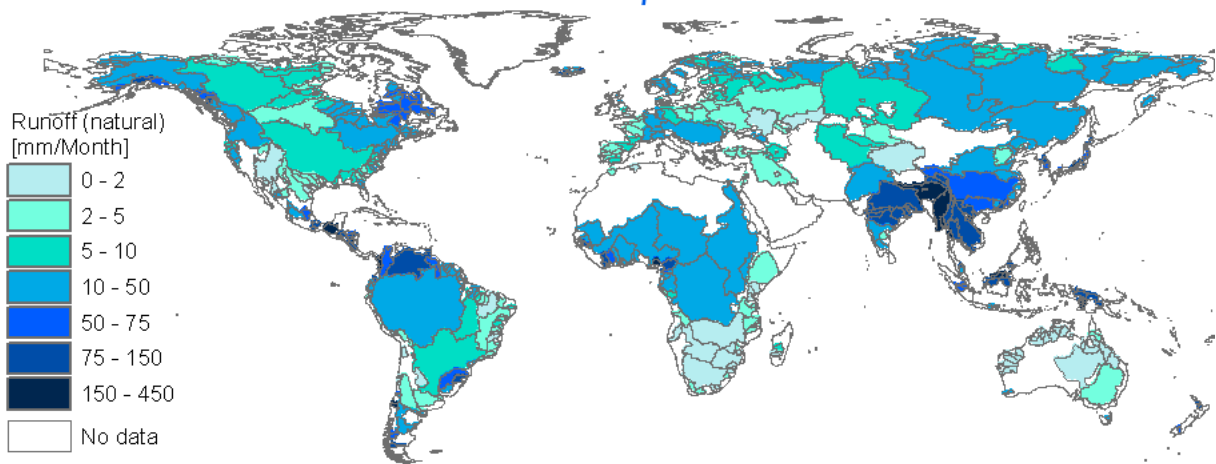
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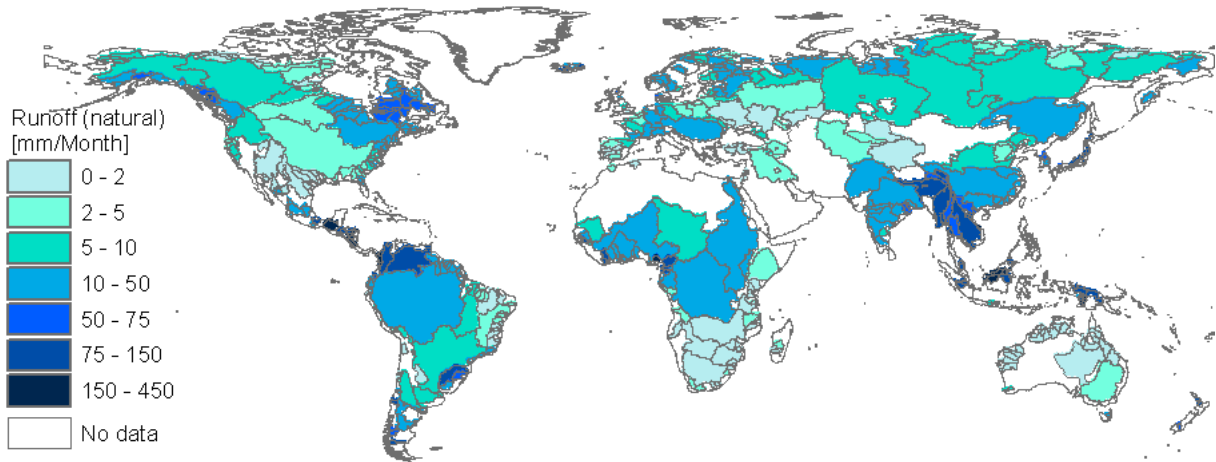
### August



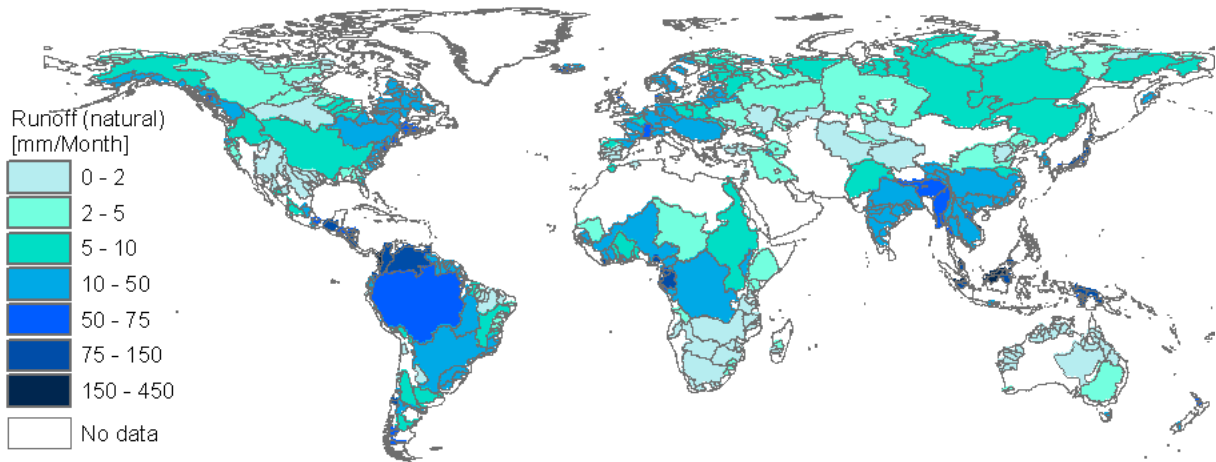
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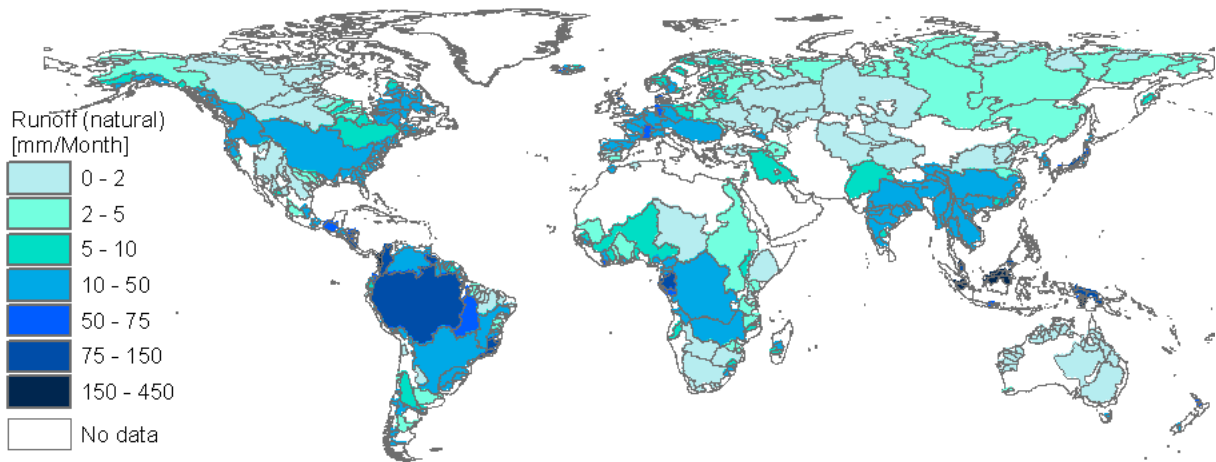
October



November

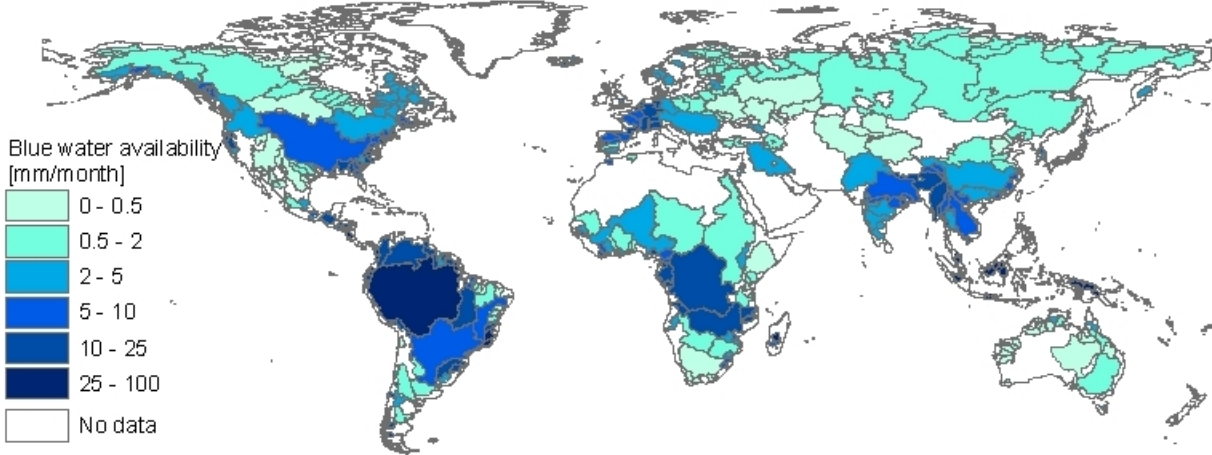


December

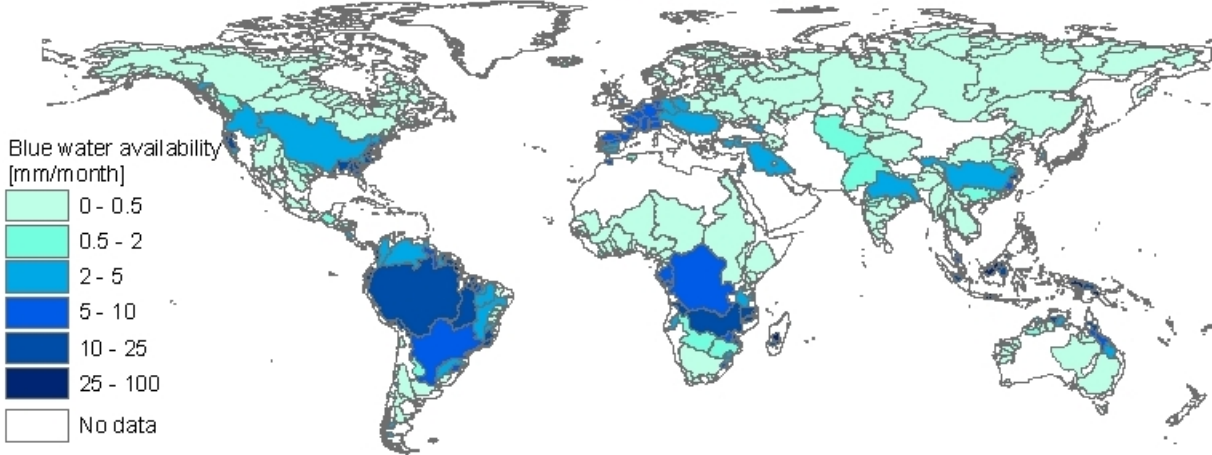


**Appendix III. Global maps of monthly blue water availability in the world's major river basins**

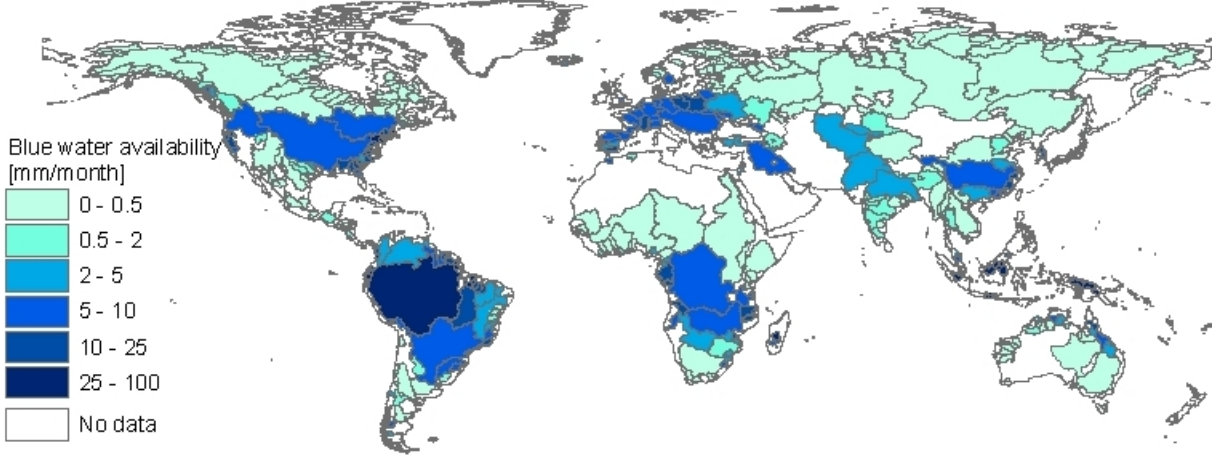
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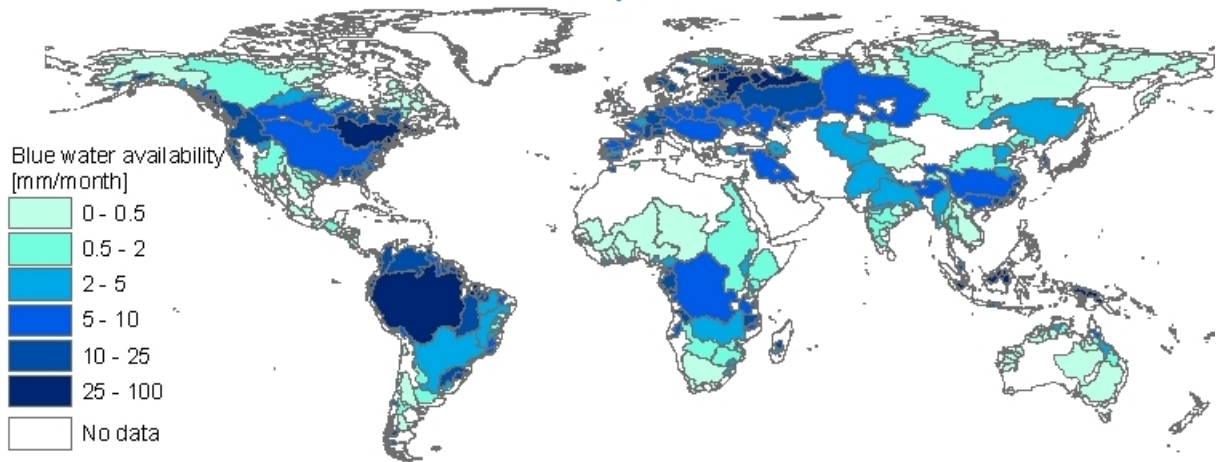
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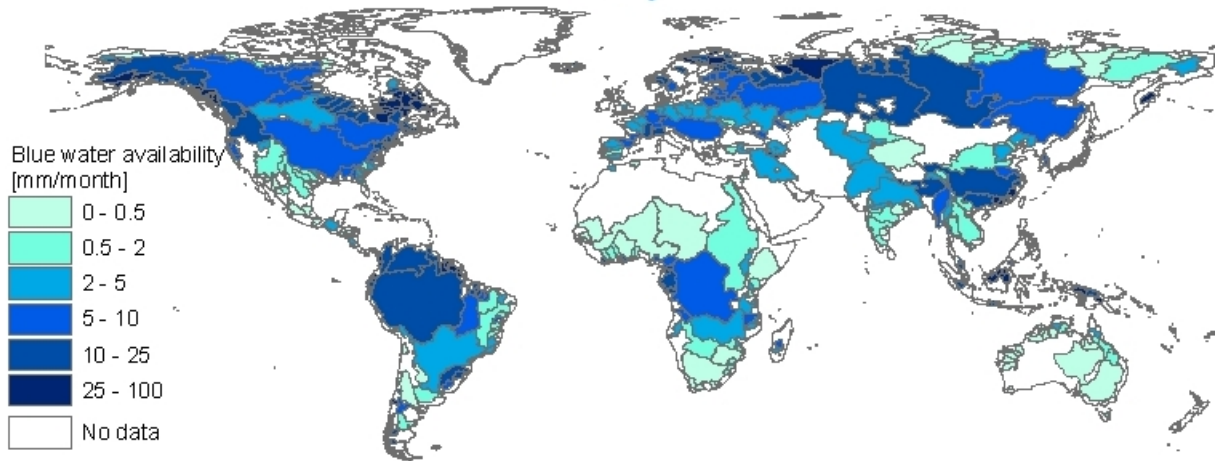
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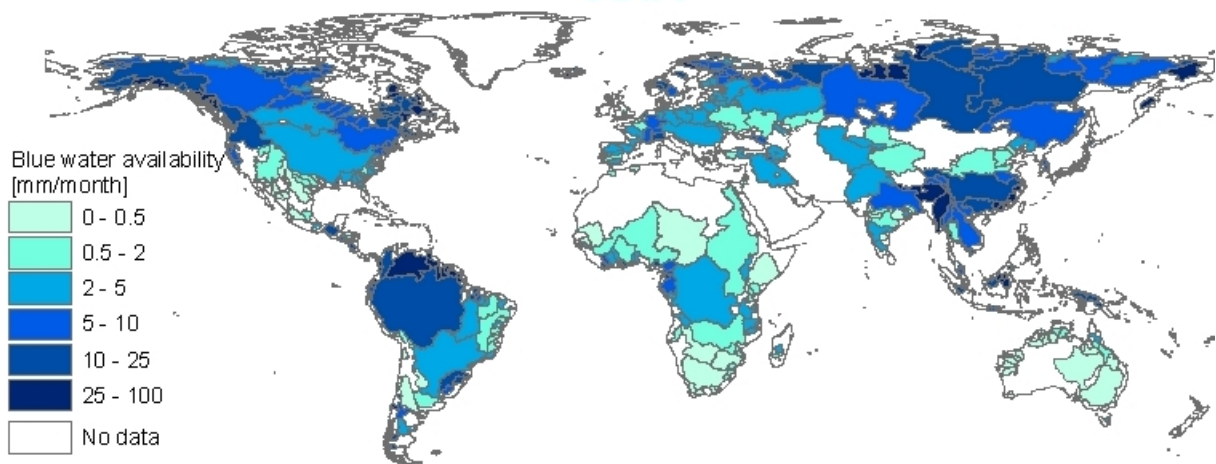
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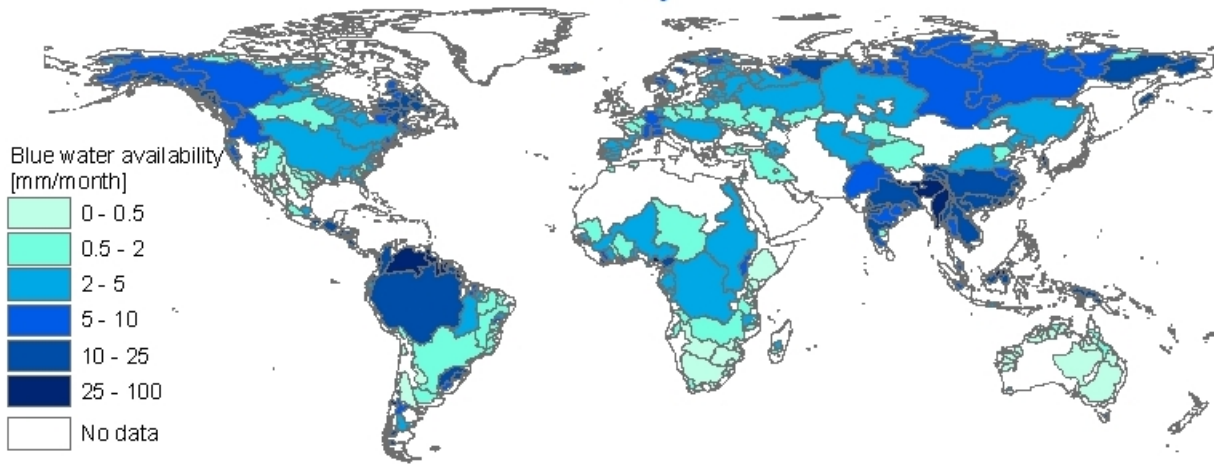
*May*



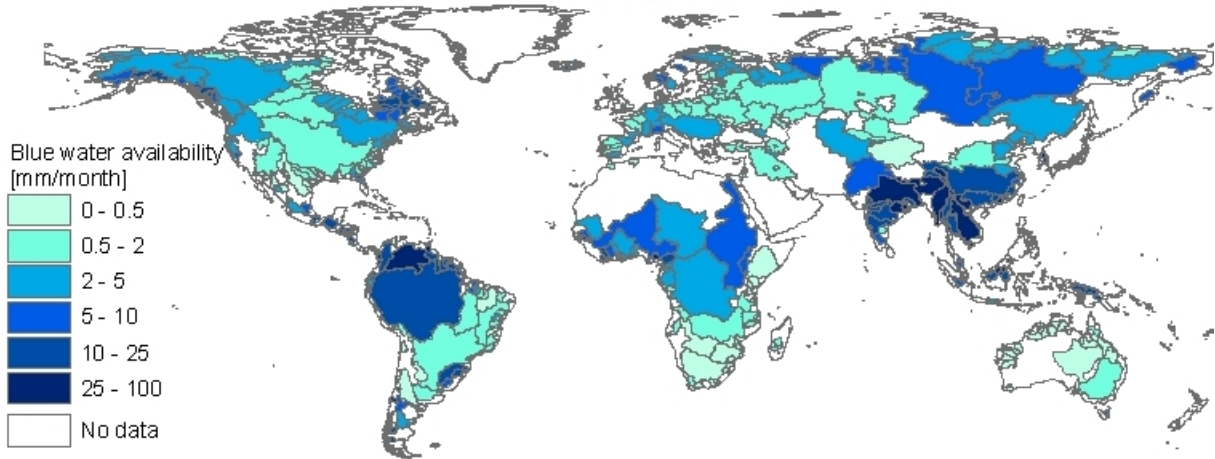
*June*



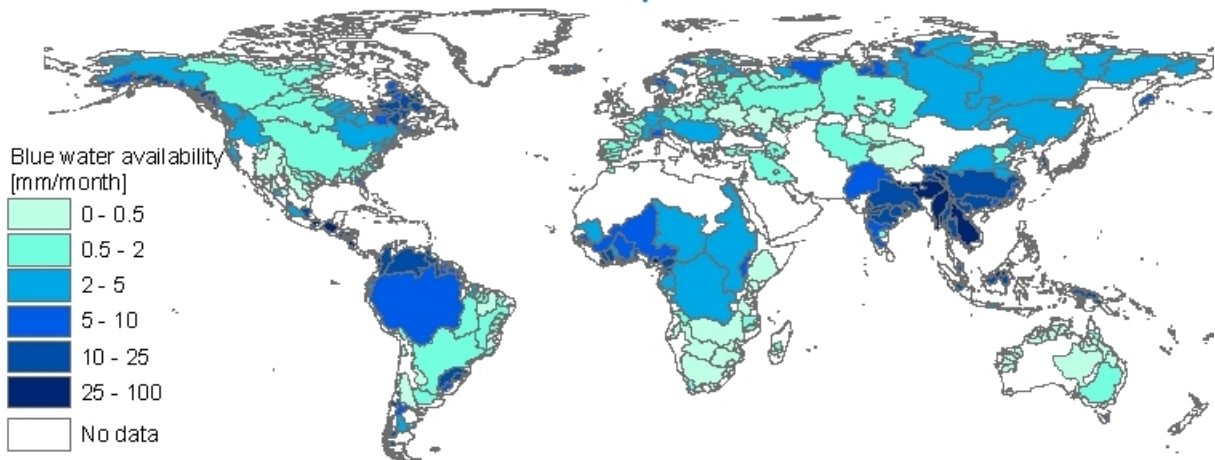
### July



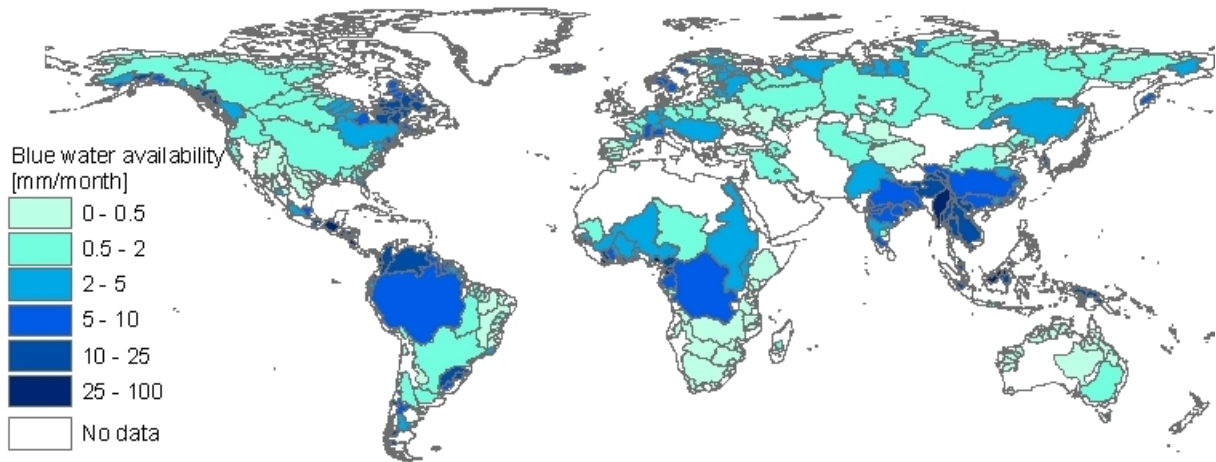
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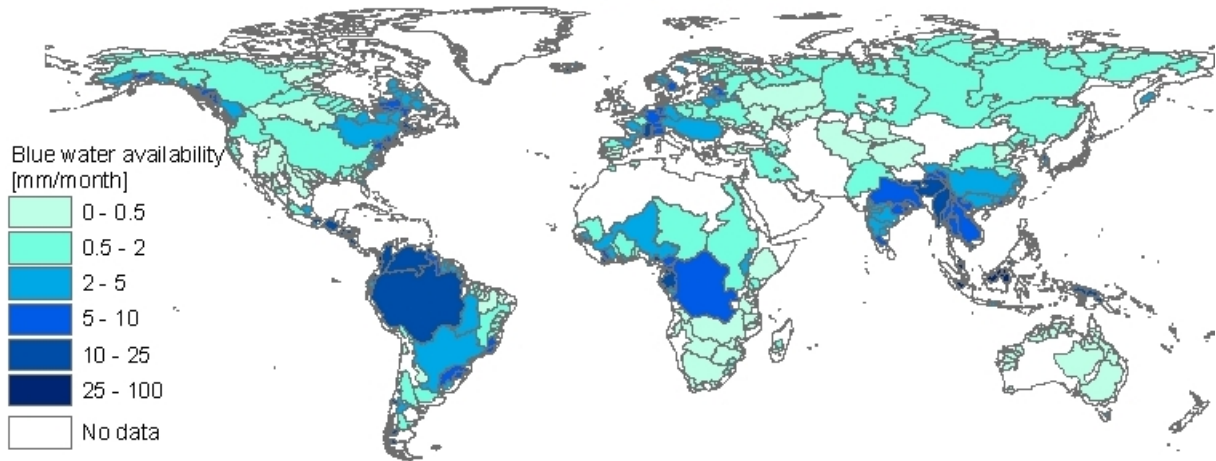
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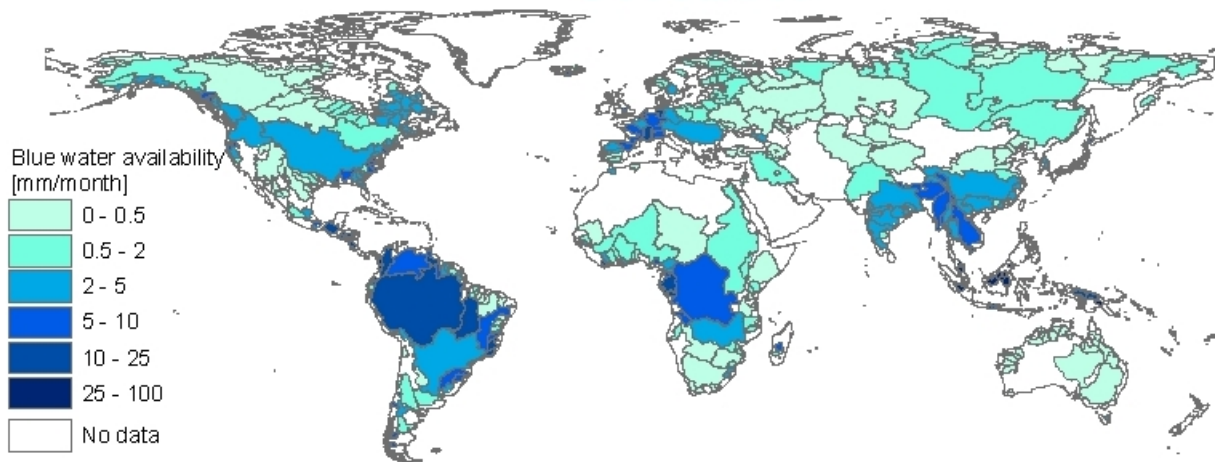
*October*



*November*



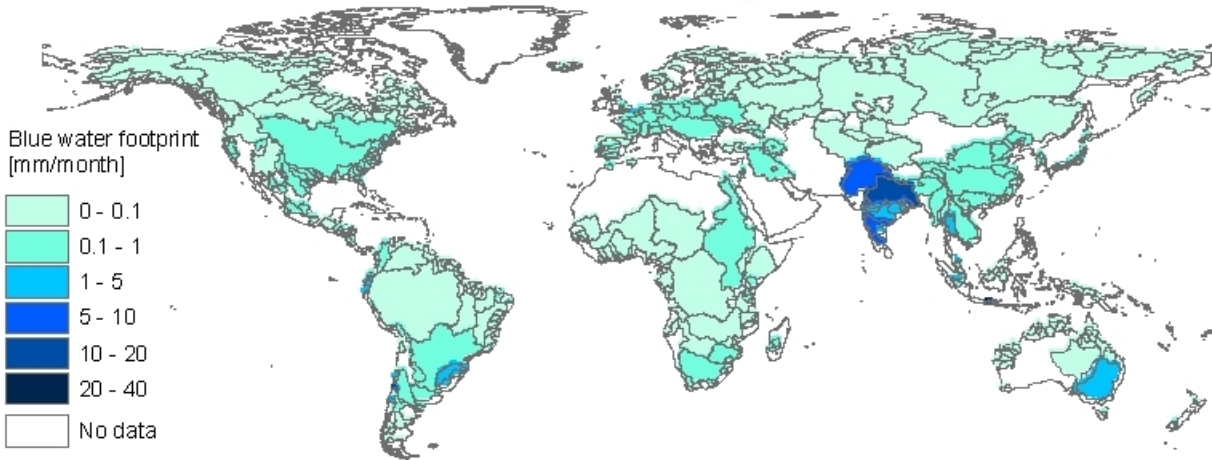
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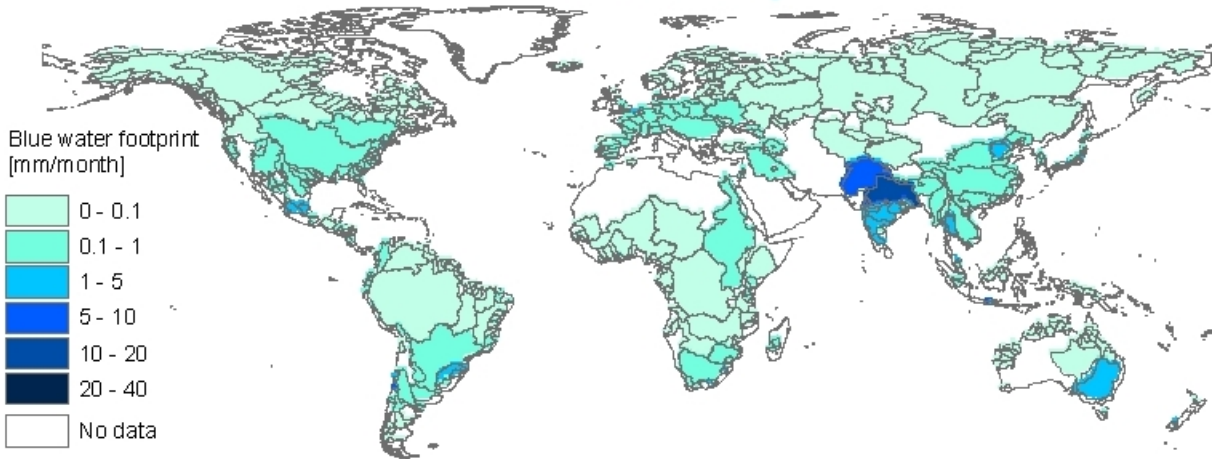


**Appendix IV. Global maps of the monthly blue water footprint in the world's major river basins. Period 1996-2005.**

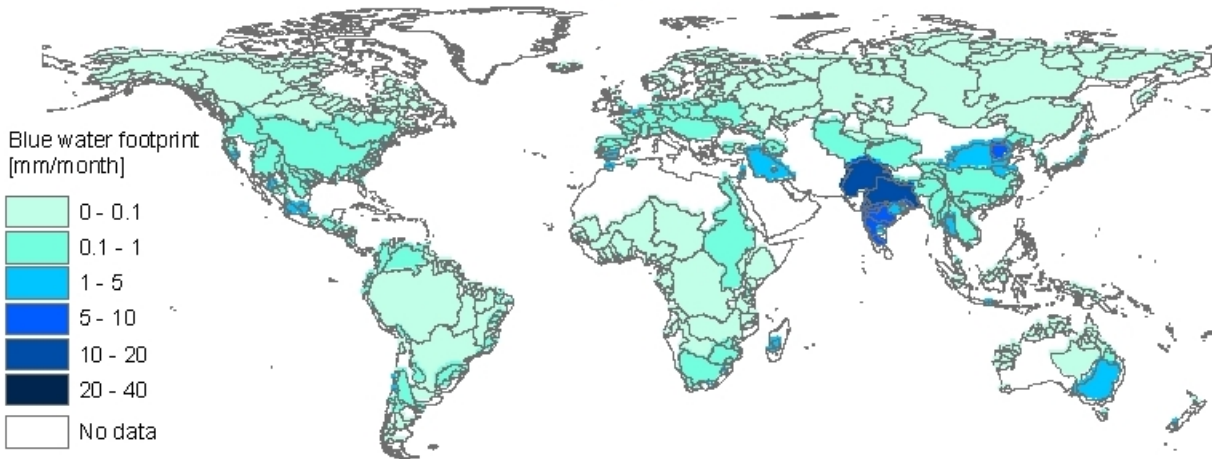
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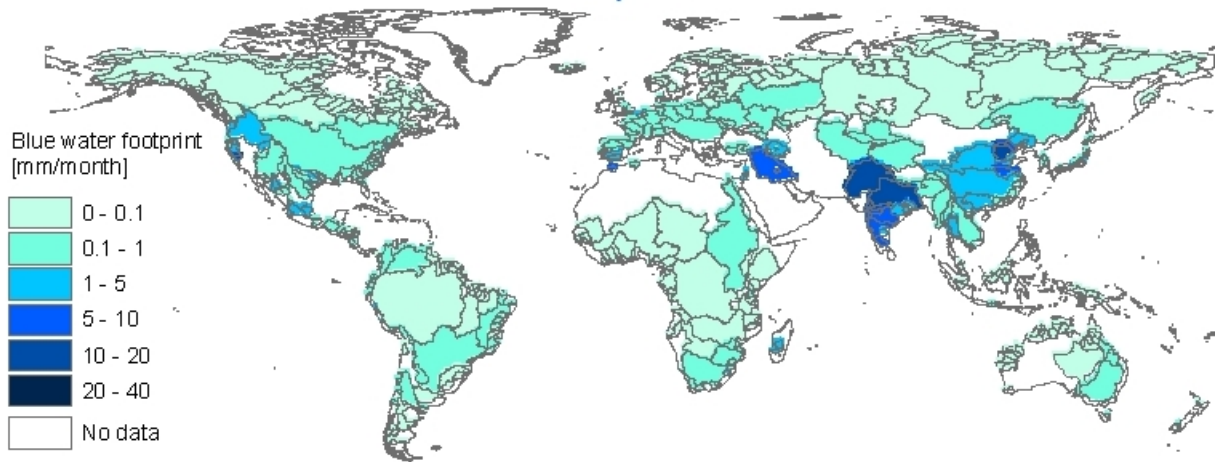
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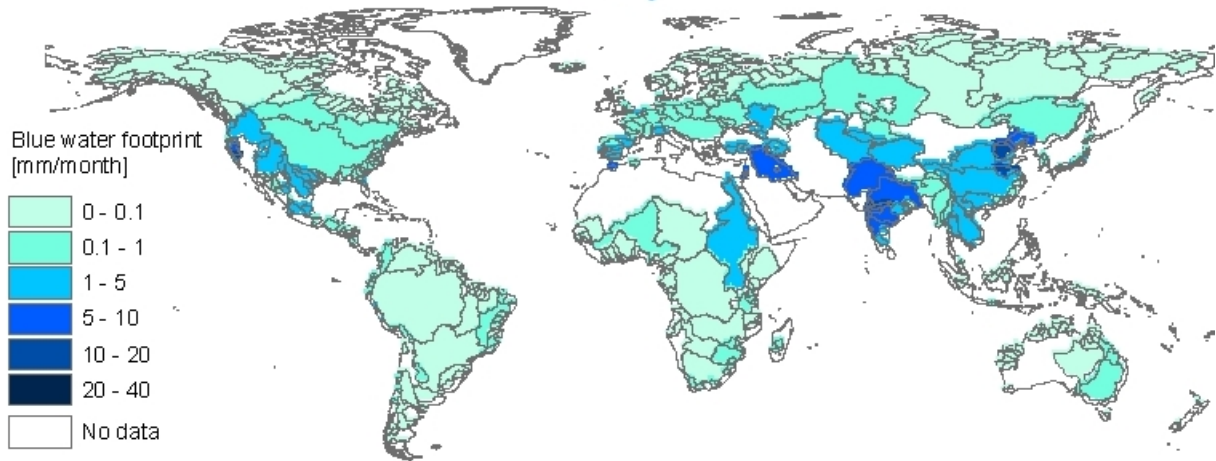
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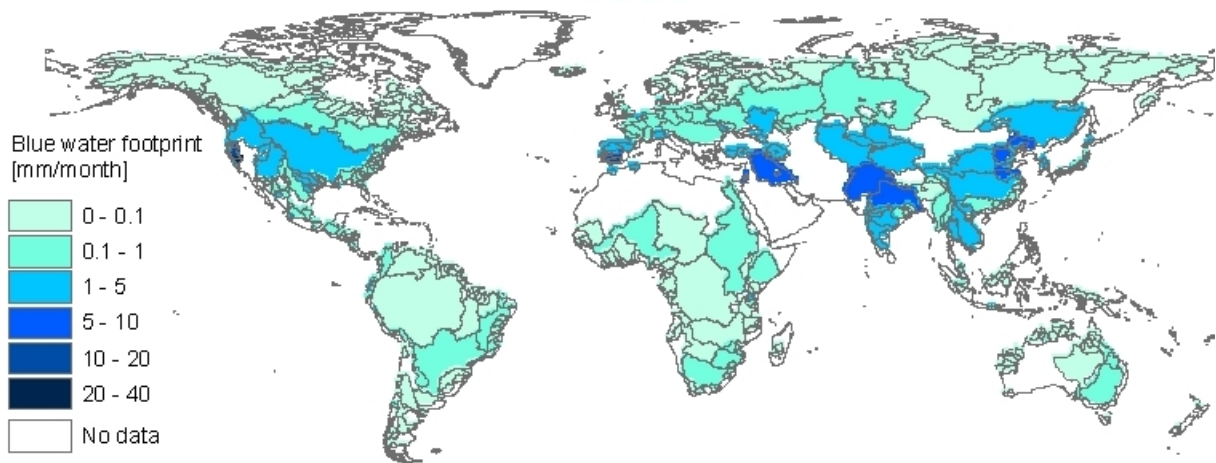
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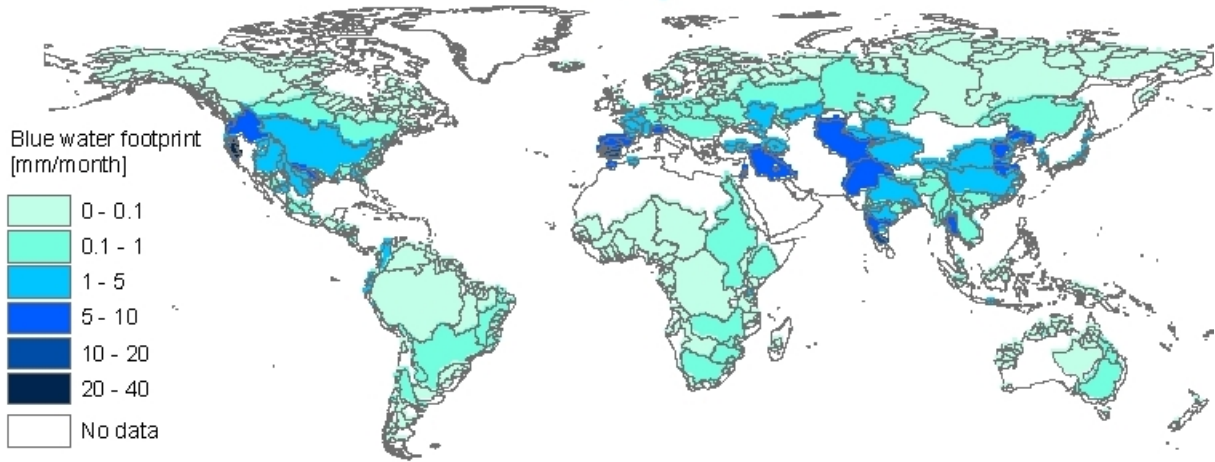
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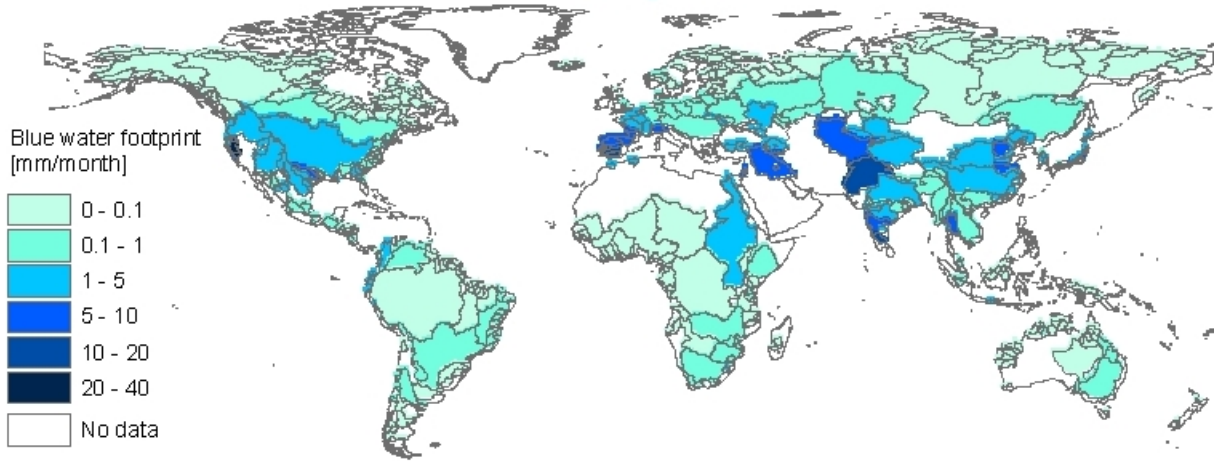
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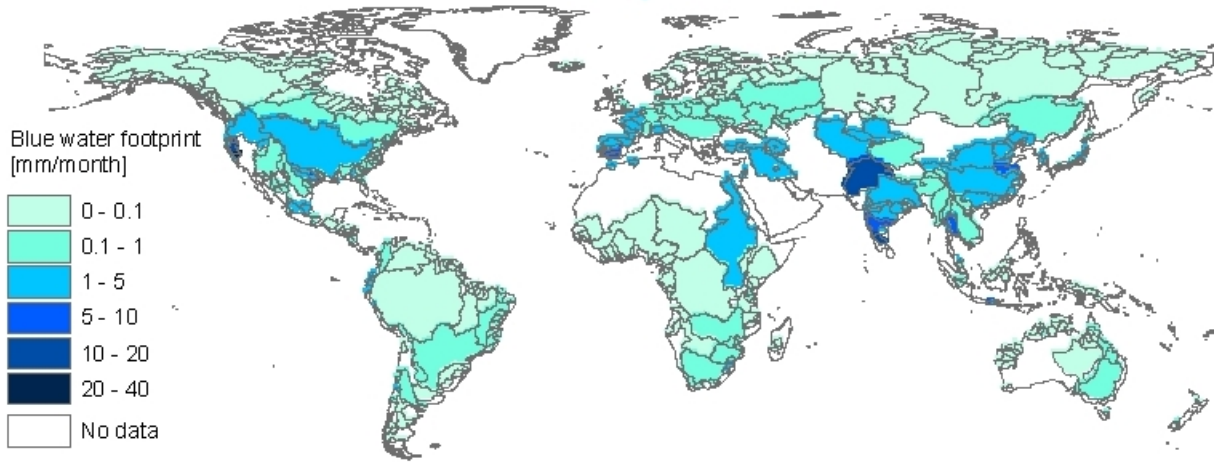
July



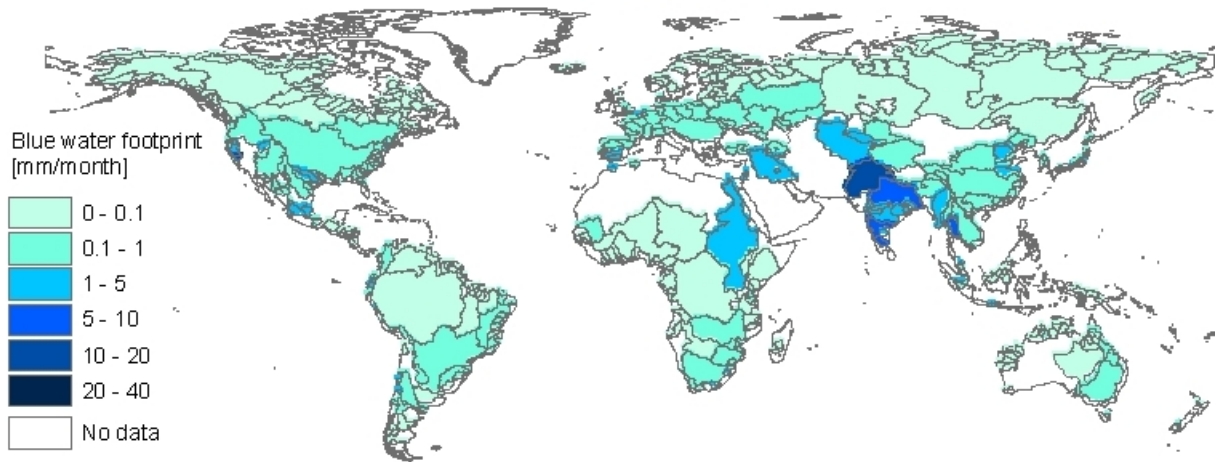
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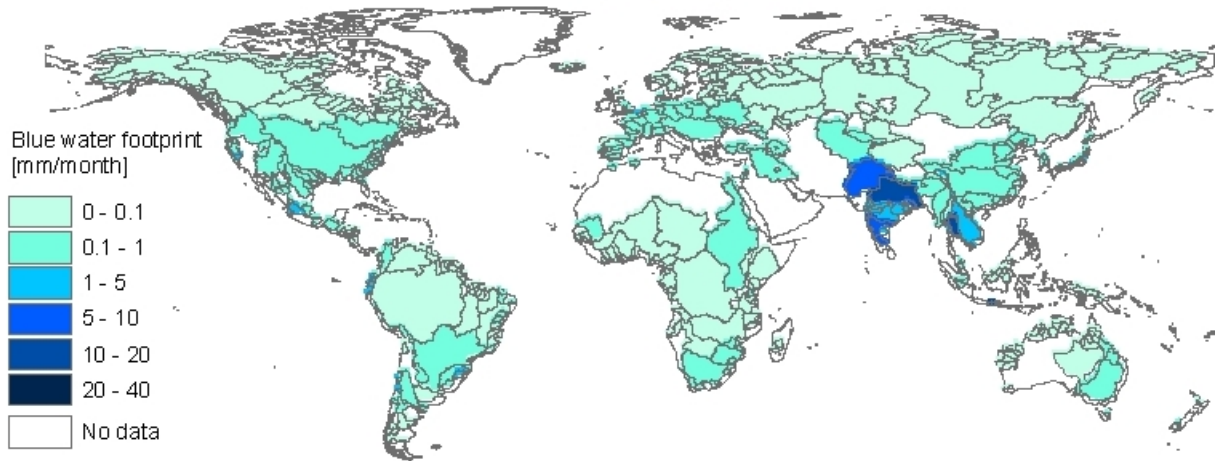
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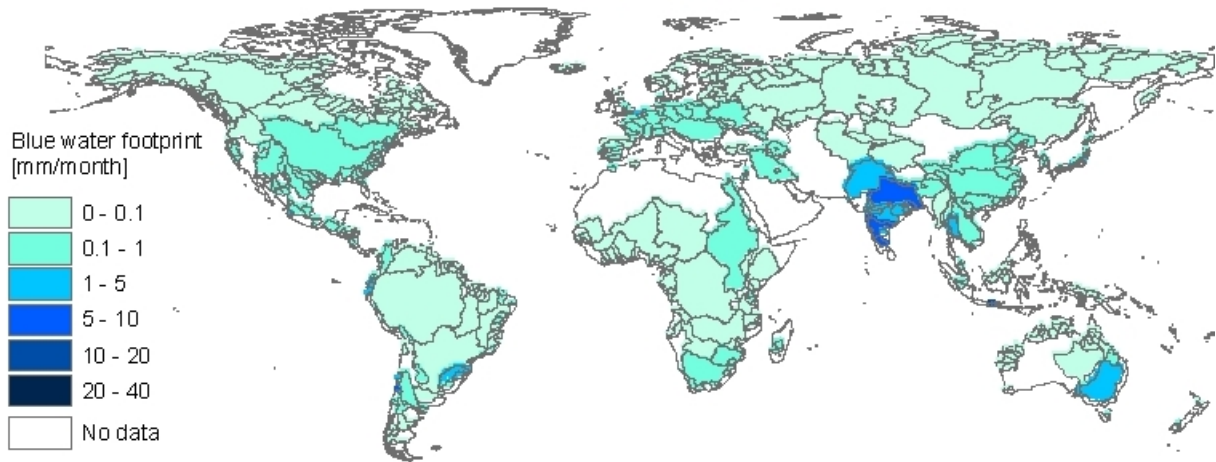
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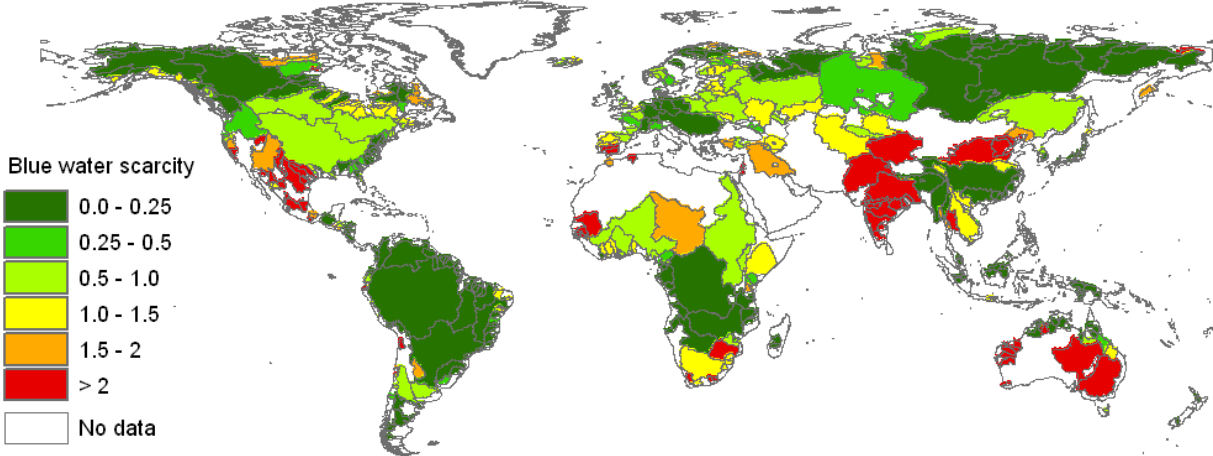
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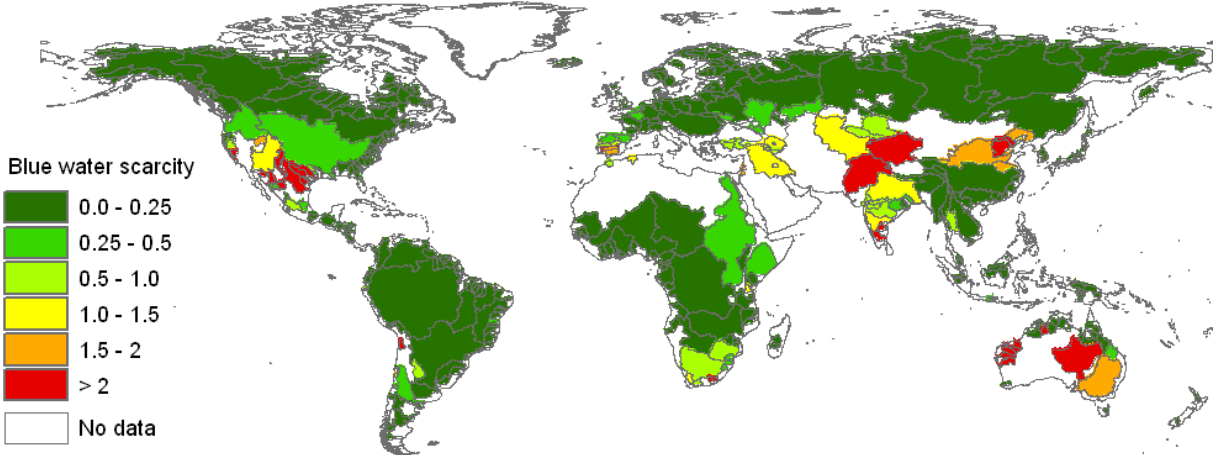
December



**Appendix V. The global map of annual average monthly blue water scarcity versus the global map of annual blue water scarcity. Period 1996-2005.**



*Annual average monthly blue water scarcity in the world's major river basins (calculated by equal weighting the twelve monthly blue water scarcity values per basin). Period 1996-2005.*



*Annual blue water scarcity in the world's major river basins (calculated by dividing the annual blue water footprint by the annual blue water availability per basin). Period 1996-2005.*



Appendix VI. Monthly natural runoff for the world's major river basins

Basin ID	Basin name	Area (km <sup>2</sup> )	Natural runoff (Mm <sup>3</sup> /month)												Average
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	Khatanga	294907.5	1571.7	58.7	35.4	21.4	221.2	25398.5	12884.8	6944.9	4357.0	2419.0	1461.0	882.4	4688.0
2	Olenek	208522.0	1231.0	159.8	96.5	58.3	658.3	16431.9	5510.3	3070.3	1870.4	1106.6	668.3	403.7	2605.5
3	Anabar	85015.5	525.8	85.3	51.5	31.1	18.8	4128.1	2082.3	1011.7	602.5	354.9	214.4	129.5	769.6
4	Yana	233479.4	896.1	72.8	44.0	26.6	159.2	7535.9	6820.7	3807.3	1832.6	1106.8	668.5	403.8	1947.9
5	Yenisei	2558237.3	16135.2	742.2	452.4	7752.7	162714.9	162047.8	97190.0	64240.9	48091.7	24440.8	14455.9	8735.1	50583.3
6	Indigirka	341227.8	1902.5	179.7	108.5	65.6	450.9	16809.8	14507.5	6786.0	3631.1	2176.2	1314.4	793.9	4060.5
7	Lena	2425551.1	15771.8	655.1	396.4	361.9	87091.9	124907.8	84650.4	63046.2	53636.1	23839.3	14390.4	8692.2	39786.6
8	Omoloy	38871.3	26.9	0.7	0.4	0.2	0.2	426.1	277.1	128.9	73.6	43.7	26.4	15.9	85.0
9	Tana (NO, FI)	14518.1	71.8	0.0	0.0	0.0	2851.4	778.3	457.0	276.1	217.4	149.0	77.9	47.1	410.5
10	Colville	57544.7	185.8	1.4	0.8	0.5	45.5	1938.0	1977.6	1034.6	579.1	324.5	196.0	118.4	533.5
11	Alazeya	85493.3	184.1	31.2	18.9	11.4	6.9	1896.8	555.0	314.2	189.8	114.6	69.2	41.8	286.2
12	Anderson	66491.7	54.7	0.4	0.2	0.1	2548.6	797.3	434.9	262.7	158.7	95.8	57.9	35.0	370.5
13	Kolyma	652850.5	3721.1	160.9	97.2	58.8	5342.4	25441.2	35941.4	16207.8	10517.4	5575.9	3367.8	2034.2	9038.8
14	Tuloma	26057.7	94.6	11.6	7.1	4.4	1732.1	547.3	300.0	180.4	119.2	121.3	55.2	33.5	267.2
15	Muonio	37346.5	143.9	13.1	8.0	213.9	2005.5	1110.4	750.1	388.4	294.9	187.3	101.6	61.4	439.9
16	Yukon	829632.3	4850.3	252.5	152.7	943.7	53166.5	48766.9	29776.4	16607.0	12906.1	7648.1	4212.2	2544.3	15152.2
17	Palyavaam	31112.8	106.3	0.0	0.0	0.0	0.0	1878.7	1036.4	526.4	355.2	191.1	115.4	69.7	356.6
18	Kemijoki	55824.7	487.2	3.2	2.0	594.1	8987.0	2448.1	1458.1	934.7	1082.1	1366.4	516.4	312.0	1515.9
19	Mackenzie	1752001.5	5637.8	86.9	53.5	9063.7	79403.5	79172.3	46002.0	24877.4	15732.9	10447.5	5767.0	3484.1	23310.7
20	Noatak	32319.5	156.5	0.8	0.5	0.3	401.9	1980.3	1099.7	624.3	629.7	275.6	166.5	100.6	453.1
21	Anadyr	171275.8	1182.1	1.3	0.8	0.5	2452.2	21998.7	10380.5	5461.5	4105.7	2116.1	1278.1	771.9	4145.8
22	Pechora	312763.3	2459.1	31.2	19.2	1449.0	58305.9	38794.9	16270.2	9630.9	7855.7	4450.1	2542.8	1536.1	11945.4
23	Lule	25127.6	313.1	1.0	0.6	1119.1	3851.3	3784.3	1895.4	1112.2	951.7	683.0	335.9	202.9	1187.5
24	Kalixaelven	17157.6	78.3	6.6	4.0	388.6	1237.8	757.3	351.5	203.1	137.7	118.6	57.6	34.8	281.3
25	Ob	2701040.7	6930.1	198.1	135.9	80842.2	148619.4	68228.3	36839.8	23540.4	18275.7	14074.8	6865.0	4161.9	34059.3
26	Ellice	12599.6	30.5	0.0	0.0	0.0	0.0	958.3	248.8	150.3	90.8	54.8	33.1	20.0	132.2
27	Taz	152086.0	989.9	6.0	3.6	2.2	12922.1	23163.4	7321.6	4370.1	3193.2	1738.0	1049.7	634.0	4616.2
28	Kobuk	30242.4	211.1	31.8	19.2	11.6	2063.7	1100.6	619.7	373.5	338.6	159.6	96.4	58.2	423.7
29	Coppermine	43016.4	28.9	0.1	0.1	0.0	390.0	714.8	246.4	139.9	84.5	51.0	30.8	18.6	142.1
30	Hayes(Trib. Arctic Ocean)	22992.8	27.0	0.0	0.0	0.0	0.0	834.5	225.2	133.1	80.4	48.5	29.3	17.7	116.3
31	Pur	111351.3	740.7	0.3	0.3	0.3	7186.7	15161.5	4615.2	2795.1	2896.5	1331.2	804.1	485.8	3001.5
32	Varzuga	8182.2	47.2	0.0	0.0	0.0	683.9	188.7	110.1	66.6	112.4	140.1	51.2	30.9	119.3
33	Ponoy	13186.0	127.2	0.0	0.0	0.0	1585.1	438.1	255.8	178.3	268.5	394.1	138.1	83.4	289.1
34	Kovda	10227.6	30.6	0.0	0.0	0.0	881.9	280.3	152.3	92.5	71.2	78.0	33.2	20.1	136.7
35	Back	141351.9	327.2	0.0	0.0	0.0	5571.3	8215.3	2637.8	1590.9	990.4	588.0	355.2	214.5	1707.6
36	Kem	42080.8	235.3	0.5	0.4	2642.5	3902.2	1352.6	781.6	490.1	429.8	696.2	253.6	153.2	911.5
37	Nadym	54624.7	383.2	0.2	0.1	0.1	4504.7	7346.2	2354.4	1461.2	1502.8	687.7	415.4	250.9	1575.6
38	Quoich	28217.6	41.6	0.0	0.0	0.0	0.0	1216.3	349.6	199.5	128.2	74.8	45.2	27.3	173.5
39	Mezen	76715.3	372.9	4.5	2.7	3916.9	10521.7	3855.7	2081.0	1250.6	799.5	867.4	386.3	233.3	2024.4
40	Ijoki	16163.3	94.2	0.1	0.1	1326.2	997.0	396.0	232.9	151.1	155.9	299.9	102.3	61.8	318.1
41	Joekulsa A Fjoellum	7311.0	75.0	0.0	0.0	5.7	754.0	592.9	236.8	148.0	147.0	221.4	82.3	49.2	192.7
42	Svarta, Skagafiroi	3429.6	54.9	0.0	29.3	123.6	363.8	392.6	148.0	89.0	76.1	152.2	68.9	36.0	127.9
43	Oulujoki	30554.5	230.9	1.1	0.8	5398.3	1702.8	939.7	562.7	373.1	416.6	710.7	247.3	149.5	894.5
44	Lagarfjot	3285.3	112.9	0.0	0.0	22.3	1190.7	742.9	324.1	231.6	257.6	309.8	128.1	74.0	282.9
45	Thelon	238839.0	478.4	0.1	0.0	0.0	6190.9	10749.7	3370.2	2026.8	1686.6	859.5	519.1	313.5	2182.9
46	Angerman	32372.0	343.5	0.5	0.4	4027.0	3524.6	2685.5	1232.5	833.4	764.3	954.8	371.0	224.1	1246.8
47	Thjorsa	7527.1	422.1	33.1	91.6	1123.0	1723.6	1322.4	662.2	584.0	668.7	840.8	478.5	288.8	686.6
48	Northern Dvina(Severnaya)	323573.1	1021.4	35.1	22.2	44567.2	19378.9	9541.8	5592.3	3376.1	2058.6	2097.6	971.8	587.9	7437.6
49	Oefusa	5678.3	378.5	0.0	323.1	1726.6	690.3	685.2	565.6	398.0	471.2	658.7	434.6	320.1	554.3
50	Nizhny Vyg (Soroka)	31334.1	206.5	0.1	0.1	5451.2	1622.9	926.7	553.6	334.4	420.4	626.2	224.2	135.5	875.1
51	Kuskokwim	118114.0	1269.5	1.4	0.9	0.5	16620.3	7998.3	5470.1	5473.3	5291.7	2398.6	1372.5	829.0	3893.8
52	Vuoksi	62707.4	334.8	1.2	1.2	10528.9	2968.3	1728.3	1039.2	643.3	560.3	960.4	387.0	220.0	1614.4
53	Omega	65894.0	224.9	2.8	1.8	10633.8	3402.5	1902.0	1125.9	680.1	436.9	556.4	234.8	141.1	1611.9
54	Susitna	49470.3	1270.7	2.2	1.4	3654.1	8319.0	8905.7	5269.7	4095.0	4842.3	2738.5	1370.5	827.8	3441.4
55	Kymijoki	33623.1	186.3	1.0	1.0	4570.7	1319.9	758.1	456.3	277.2	216.4	308.4	311.4	122.5	710.7
56	Neva	223309.5	1195.2	10.6	8.8	32169.2	9560.0	5468.9	3272.4	1984.2	1703.3	2586.4	1686.6	773.9	5034.9
57	Ferguson	15200.4	40.3	0.0	0.0	0.0	0.0	1053.5	296.1	171.1	142.1	72.5	43.8	26.4	153.8
58	Copper	64959.7	1090.8	0.0	0.0	17.3	7546.7	10214.6	7440.5	4185.8	3963.1	2215.5	1184.1	715.2	3214.5
59	Gloma	42862.7	563.2	1.3	12.0	3439.3	3368.1	3615.4	2048.4	1487.9	1400.5	1344.1	677.6	369.7	1527.3
60	Kokemaenjoki	26615.9	236.7	1.6	1.5	3662.2	1092.9	616.1	371.5	225.5	147.2	152.9	501.9	154.8	597.1
61	Vaenem-Goeta	51791.5	1198.3	3.2	2259.8	5377.8	2297.5	1379.5	819.2	707.0	791.8	1475.7	1616.9	1037.2	1580.3
62	Thlewiaza	64399.6	91.9	10.3	6.2	3.7	1834.1	666.0	339.5	204.2	198.6	94.1	56.8	34.3	295.0
63	Alsek	28422.0	286.1	0.0	0.0	584.4	2611.7	2770.9	1100.4	738.6	961.8	680.0	310.6	187.6	852.7
64	Volga	1408278.9	3091.7	147.2	747.6	140132.1	51088.9	28581.8	17230.0	10747.1	6887.4	6486.8	3165.6	1902.0	22517.4
65	Dramselv	17364.0	259.8	0.5	97.0	1233.4	1458.1	1401.1	734.0	665.9	720.2	633.0	304.9	170.5	639.9
66	Arnaud	44931.9	564.3	0.0	0.0	0.0	632.5	5641.8	2064.4	1543.3	1878.6	1362.9	612.6	370.0	1222.5
67	Nushagak	29513.6	517.3	0.0	0.0	1308.4	4936.8	1770.2	1042.6	1293.2	1548.5	1382.8	561.6	339.2	1225.1
68	Seal	53439.9	126.4	1.6	1.0	0.6	3534.7	1434.9	728.5	432.3	415.7	241.7	130.6	78.9	593.9
69	Taku	17967.6	430.1	0.0	0.0	806.8	2508.0	2296.9	1033.2	783.7	1027.7	1263.6	467.0	282.0	908.3
70	Narva	58147.0	710.7	1.2	1.2	6018.5	1937.0	1079.4	639.7	420.0	372.9	731.8	1459.3	466.4	1153.2
71	Stikine	51147.5	1826.9	603.3	508.0	1656.9	9699.8	11933.0	5766.5	3728.6	3815.5	3379.2	1948.6	1370.5	3853.1
72	Churchill	298505.0	789.5	20.1	12.3	3400.0	13120.8	7724.3	3761.6	2131.7	1960.1	1724.5	774.9	468.2	2990.7
73	Fuilles (Riviere Aux)	37425.3	673.6	0.0	0.0	0.0	2539.5	5199.5	2051.0	1757.3	1931.8	1773.6	731.3	441.7	1424.9
74	George	39054.1	758.1	0.0	0.0	0.0	4958.0	5039.7	3961.6	2616.4	2618.4	1701.2	823.0	497.1	1914.5
75	Caniapiscau	105690.6	2297.2	0.9	0.5	0.3	16170.7	12475.4							

Basin ID	Basin name	Area (km <sup>2</sup> )	Natural runoff (Mm <sup>3</sup> /month)												Average
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
102	Trent	9052.9	691.4	368.2	303.2	213.3	137.6	80.5	56.5	51.0	49.0	67.1	198.0	402.5	218.2
103	Weser	43140.2	3511.3	2008.3	1895.7	1397.8	902.7	617.5	504.3	484.0	501.8	819.6	1601.5	2294.1	1378.2
104	Attawapiskat	30457.4	121.7	0.0	0.0	0.0	2195.5	613.1	355.5	214.7	350.3	329.0	132.1	79.8	366.0
105	Eastmain	48837.5	1182.9	0.0	0.0	2558.1	9188.6	4899.7	2922.3	2536.0	2987.8	3379.4	1284.2	775.6	2642.9
106	Manicouagan (Riviere)	54205.4	1252.8	0.3	0.2	524.6	8666.6	6924.6	3691.1	2983.3	3220.2	3479.9	1358.9	820.8	2743.6
107	Columbia	668561.9	11960.9	11259.5	20903.3	38188.0	55190.6	36849.4	18551.8	11683.5	7290.7	5462.2	6682.2	7923.4	19328.8
108	Little Mecatina	17902.9	444.5	0.0	0.0	0.0	6156.3	2178.5	1505.7	1078.9	1004.0	1263.0	482.6	291.5	1200.4
109	Natashquan (Riviere)	16948.2	291.0	0.0	0.0	156.2	3726.8	1620.1	1208.4	808.1	691.2	792.3	315.9	190.8	816.7
110	Rhine	190522.1	13179.1	7657.6	8094.3	9602.3	8013.0	6055.1	4779.6	4183.7	3971.9	4514.6	6546.6	8363.7	7080.1
111	Albany	123081.0	813.0	0.1	0.1	8411.8	9204.2	3827.2	2148.3	1306.1	1776.4	2432.0	882.5	533.1	2611.2
112	Saguenay (Riviere)	91366.9	1984.2	1.5	1.5	11245.1	11251.7	8137.7	5058.6	4100.4	4665.6	5748.5	2173.4	1301.6	4639.2
113	Thames	12358.9	726.2	447.7	361.1	237.6	136.9	78.4	49.7	32.4	21.8	18.4	131.8	395.2	219.8
114	Nottaway	118709.0	2188.3	0.2	0.2	13451.3	15987.7	7640.1	5188.1	4271.3	5083.6	6291.3	2438.0	1434.9	5331.3
115	Rupert	16063.4	311.4	0.0	0.0	794.7	3201.0	1189.1	796.1	677.5	758.7	894.3	338.0	204.2	763.8
116	Moose(Trib. Hudson Bay)	105615.2	1000.2	0.6	0.6	11334.0	9979.0	4300.8	2527.6	1594.4	2136.5	3024.6	1085.8	656.0	3136.7
117	St.Lawrence	1055021.5	13835.1	351.1	29605.6	132375.7	51230.9	31947.4	19602.9	13031.9	15304.9	21038.1	22898.9	9715.3	30078.1
118	Danube	793704.8	15369.2	12969.9	30056.7	34399.1	27077.0	19150.4	14083.1	11248.0	10213.5	12685.9	15065.0	12575.3	17907.8
119	Seine	74227.9	3426.9	2491.0	2183.7	1663.9	1005.1	594.9	402.4	304.5	202.7	234.2	696.1	1700.9	1242.2
120	Dniestr	72108.2	407.9	13.3	3147.7	2602.1	1528.5	1130.4	792.2	626.7	510.8	629.4	702.3	272.1	1030.3
121	Southern Bug	60121.0	38.8	7.9	1840.9	967.0	519.4	311.3	205.6	138.9	77.0	43.3	27.5	18.1	349.6
122	Mississippi	3196605.4	79924.0	66571.6	111936.2	102147.6	83552.9	56877.9	36359.7	27329.8	18097.4	12199.9	20013.0	38932.9	54495.2
123	Skagit	7961.0	951.3	342.8	1452.8	1747.8	975.0	491.1	287.0	173.6	108.5	409.0	751.3	600.5	690.9
124	Aral Drainage	1233148.5	2546.9	4161.6	13784.1	20140.9	23937.1	21375.9	17965.9	12930.4	8104.3	3850.2	1674.4	1541.5	11001.1
125	Loire	115943.6	5691.9	3966.2	3912.1	3192.9	2280.7	1475.0	937.1	710.2	546.1	804.6	1839.3	3262.7	2384.9
126	Rhone	97485.2	7316.8	3365.1	5895.8	6325.3	5588.7	4446.6	2690.2	2212.7	2277.1	3477.1	5232.4	5154.7	4498.5
127	Saint John	55151.8	1543.0	1.9	1.9	13364.2	4478.5	3060.9	1929.0	1260.9	1384.3	2179.7	2871.4	1012.4	2757.4
128	Po	73066.6	4276.6	2000.0	3536.1	5530.3	6397.4	4452.6	2941.3	2394.4	2314.0	2947.8	3482.3	2857.2	3594.2
129	Penobscot	21168.9	655.1	0.6	482.1	5554.7	1878.0	1224.9	733.4	451.5	421.6	684.5	1327.0	429.8	1153.6
130	St.Croix	4638.6	170.5	0.1	0.1	1441.8	475.5	301.5	171.5	101.8	88.6	166.9	352.7	111.8	281.9
131	Kuban	58935.7	1008.9	1275.5	1664.7	2123.9	1943.7	1594.5	1393.7	826.2	621.9	471.0	528.0	626.0	1173.2
132	Connecticut	27468.3	934.3	7.8	3116.2	4979.1	2528.5	1556.0	985.4	660.3	761.0	1049.6	1699.4	665.0	1578.5
133	Liao He	194436.5	678.2	20.4	220.6	1657.1	2266.7	2171.0	2661.2	3988.1	2606.5	1383.3	782.0	454.6	1574.1
134	Garonne	55807.2	3122.4	1918.1	2169.4	2289.6	1911.6	1113.4	759.2	594.0	474.6	657.6	1074.9	1915.8	1500.0
135	Ishikari	13783.3	859.4	2.4	2.4	4390.2	1918.3	1080.5	793.8	776.5	1178.1	1434.9	1481.8	564.3	1206.9
136	Merrimack	12645.1	381.1	8.4	3157.8	1789.4	1035.9	634.7	377.8	233.8	212.7	361.4	783.0	252.8	769.1
137	Hudson	36892.8	1000.4	26.3	4477.0	4970.6	2745.5	1656.2	1063.5	725.6	742.5	1044.8	1764.9	728.3	1745.5
138	Colorado(Pacific Ocean)	640463.6	323.3	99.7	738.0	3046.4	5903.7	4320.1	2390.6	1653.7	1126.8	740.4	370.5	231.4	1745.4
139	Klamath	40040.1	3010.5	3574.1	3546.4	3046.4	2001.6	1051.5	698.7	455.6	276.0	146.5	394.9	1495.2	1641.5
140	Ebro	85158.6	4220.1	2820.2	2785.8	2876.1	2619.8	1631.9	1192.1	853.9	509.9	561.7	873.7	2424.5	1947.5
141	Rogue	14526.6	1090.2	1088.4	909.0	858.5	622.6	302.4	190.5	120.0	73.0	41.5	212.2	514.3	501.9
142	Douro	96125.4	3913.4	3031.8	4104.3	2983.9	2057.4	1252.2	1050.6	820.4	404.1	215.0	539.3	1650.2	1835.2
143	Susquehanna	69080.1	2091.9	1240.2	8814.7	5917.2	3887.6	2447.9	1522.7	1002.4	867.5	1337.0	2499.4	1658.8	2774.0
144	Luan He	71071.5	174.3	47.2	147.9	279.9	408.1	214.3	96.0	1219.0	725.2	357.8	190.0	115.8	403.6
145	Kura	182283.3	559.4	187.2	708.9	3035.7	4111.4	2768.8	1901.8	1396.6	913.7	766.2	692.7	413.7	1454.7
146	Dalinghe	22823.1	58.3	3.2	6.3	33.3	66.4	80.0	85.0	386.7	210.1	123.7	64.5	39.6	96.4
147	Delaware	26713.4	1640.3	801.3	4062.4	2255.7	1789.8	1043.1	712.5	568.2	587.3	762.0	1406.7	1294.0	1410.3
148	Sacramento	77208.9	5375.8	6127.3	6249.1	5067.8	3136.9	2369.0	2064.4	1708.0	1170.4	511.3	343.5	1439.3	2963.6
149	Huang He (Yellow River)	988062.6	2702.4	608.3	2320.1	5166.0	8177.4	9102.2	10309.3	9805.2	9930.4	5872.9	3052.0	1802.8	5737.4
150	Kizilirmak	77873.6	199.1	836.5	1201.8	2397.1	1578.7	804.4	537.4	393.4	241.0	132.0	83.4	128.5	711.1
151	Yongding He	214406.5	174.7	403.8	1472.8	2529.4	2501.8	1275.4	1729.3	2397.6	1071.8	442.9	185.1	137.8	1193.5
152	Tejoo	70351.7	2713.3	2202.2	3261.5	2062.1	1343.3	834.4	721.8	559.4	292.8	124.7	136.5	1182.1	1286.2
153	Sakarya	62482.7	348.5	1016.9	1126.0	888.3	508.1	345.2	273.7	242.4	156.9	68.9	26.5	75.1	423.0
154	Eel (Calif.)	7449.9	1366.1	1258.1	927.1	540.6	304.0	173.7	105.4	63.9	38.7	23.2	15.6	579.5	449.6
155	Tigris & Euphrates	832578.6	15514.6	16609.9	22140.0	25647.8	18735.0	10281.7	7368.3	5738.1	3544.0	2291.3	3575.7	7623.3	11589.1
156	Potomac	32380.6	1355.9	1163.5	1705.2	1374.1	948.5	624.9	370.6	255.1	188.4	213.6	392.6	752.3	778.7
157	Guadiana	66020.0	246.7	715.8	1619.0	1022.7	571.6	571.0	703.0	614.9	301.8	105.4	30.3	15.9	543.2
158	Kitakami	9652.4	690.1	172.5	1357.6	1082.6	802.0	551.9	581.1	590.1	631.9	775.8	828.3	528.7	716.1
159	Mogami	6853.1	969.3	827.6	1039.4	774.9	556.2	376.7	392.9	356.7	430.5	519.9	740.8	1023.9	667.4
160	Han-Gang (Han River)	24771.5	814.3	12.5	1372.3	1838.7	1166.9	1200.5	4312.9	3914.3	2697.0	1388.7	1010.5	540.7	1689.1
161	Guadalquivir	56954.8	677.2	1306.6	3139.9	1977.6	1055.0	1003.9	1110.6	955.3	481.2	185.6	65.2	160.4	1009.9
162	San Joaquin	34365.6	707.1	829.3	1285.7	1335.3	1136.9	1098.6	1267.9	1193.7	818.4	322.2	74.9	102.3	847.7
163	James	23528.4	1600.5	1239.3	1248.0	954.0	670.9	429.1	258.7	169.2	122.7	160.2	381.4	857.5	674.3
164	Bravo	510056.3	263.4	84.8	204.6	657.0	1336.3	937.5	913.3	1079.5	1202.6	640.0	304.7	204.1	652.3
165	Shinano, Chikuma	11158.8	1100.6	807.7	800.2	1837.3	1864.2	1290.9	1242.1	1006.9	1172.1	1174.8	1150.4	1044.7	1207.7
166	Roanoke	26801.0	1844.9	1467.9	1460.0	1085.8	725.1	448.3	316.0	238.3	184.2	159.1	332.5	853.9	759.7
167	Naktong	23325.2	508.2	274.7	755.4	983.6	697.6	959.3	1987.4	1879.2	1673.3	882.4	545.1	344.9	957.6
168	Indus	1139075.4	11918.9	9642.7	18198.4	21870.2	18514.4	18264.8	32379.1	40736.0	31344.3	19300.0	10858.9	6757.3	19982.1
169	Tone	15739.3	936.2	260.8	691.8	1057.7	983.0	973.7	1058.8	1240.9	1561.5	1541.0	979.8	683.0	997.3
170	Salinas	12654.6	11.8	34.5	58.5	36.9	32.6	47.2	66.4	68.2	42.9	9.6	2.7	1.6	34.4
171	Pee Dee	46531.3	2824.5	2381.4	2346.1	1609.2	944.6	589.6	563.3	455.2	460.3	379.9	545.7	1384.2	1207.0
172	Chelif	45249.3	234.5	283.5	281.9	175.3	103.2	88.2	81.1	66.7	44.4	17.2	8.8	39.5	118.7
173	Cape Fear	22652.7	1592.2	1301.8	1225.2	817.3	528.8	353.8	389.9	381.5	348.4	265.8	359.7	725.3	690.8



Basin ID	Basin name	Area (km <sup>2</sup> )	Natural runoff (Mm <sup>3</sup> /month)												Average
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
206	Damodar	43096.1	1257.9	111.7	160.8	44.8	15.0	253.7	1494.8	4751.2	4657.8	2147.4	1316.0	850.4	1421.8
207	Niger	2117888.7	21778.0	99.0	256.2	1297.8	4833.0	14794.5	38348.0	80634.7	90704.8	47626.3	23829.5	14278.6	28206.7
208	Narmada	95818.2	2407.1	430.8	900.5	1131.7	1138.1	445.1	7352.7	11663.1	8745.2	3757.6	2295.3	1586.4	3487.8
209	Brahmani River (Bhahmani)	51973.4	1562.1	33.6	53.2	42.6	38.7	549.7	3888.5	7939.2	6035.6	3059.0	1695.6	1049.7	2162.3
210	Mahanadi(Mahahadi)	135061.1	3751.2	108.6	158.0	151.1	158.2	157.6	5209.0	21461.7	14877.9	6698.9	4119.4	2571.8	4951.9
211	Santiago	126222.3	681.2	116.1	243.6	265.3	168.1	205.1	1027.8	2651.8	3112.7	1413.6	791.4	492.4	930.8
212	Panuco	82929.1	1540.6	95.9	186.5	197.5	137.9	362.8	2013.6	2491.4	6156.6	3524.7	1770.8	1046.5	1627.1
213	Godavari	311698.7	6805.4	626.4	1240.0	1477.3	1571.4	891.7	13461.6	27528.4	26621.8	12095.3	7347.2	4834.4	8708.4
214	Tapti	65096.3	1243.3	168.4	306.4	365.6	395.0	149.1	3365.4	5169.5	5115.9	2124.1	1333.7	886.1	1718.5
215	Sittang	34265.3	2254.3	3.3	6.3	6.6	16.9	3852.3	7852.6	10043.8	8332.3	4900.8	2492.4	1478.4	3436.7
216	Armeria	9639.1	60.6	8.1	17.0	28.8	27.6	10.1	3.3	40.7	292.2	147.3	71.6	48.0	62.9
217	Ca	28747.0	1447.9	56.1	26.8	23.3	154.3	584.1	1876.9	2678.4	4330.1	2767.9	1652.1	965.9	1380.3
218	Chao Phraya	188419.1	4183.6	318.1	519.8	537.6	493.6	1640.2	5541.8	9607.1	16009.4	10072.0	5811.4	3059.8	4816.2
219	Krishna	269869.0	4249.9	610.7	1255.2	1355.6	1400.2	3255.5	16600.9	15185.1	11795.9	6710.3	4670.2	327.8	5676.5
220	Senegal	436981.1	1629.1	10.0	15.2	11.7	12.0	447.8	3062.5	8464.3	6863.4	3270.9	1792.3	1076.7	2221.3
221	Papaloapan	39885.1	1877.2	12.4	16.0	15.8	11.5	477.3	2373.0	4411.2	5780.4	4426.4	2194.2	1261.7	1904.8
222	Grisalva	127675.5	11859.4	1204.2	664.4	610.2	1646.9	8622.6	11809.7	13230.5	20505.5	19300.8	10998.3	7877.1	9027.5
223	Verde	18342.8	37.8	2.9	6.5	6.9	4.5	10.1	365.4	850.4	1648.0	893.8	414.1	250.8	402.7
224	Mae Klong	28004.2	1554.4	20.9	34.2	33.5	1076.4	3580.0	5254.6	5831.8	5582.5	3551.6	1715.1	1031.1	2438.9
225	Tranh (Nr Thu Bon)	9459.9	2007.0	45.2	24.6	16.4	71.3	290.8	883.2	1278.8	1770.6	2724.1	2418.9	1615.2	1095.5
226	Penner	54976.4	568.7	34.4	52.1	45.1	43.8	41.5	158.5	151.2	182.9	360.5	1017.5	485.3	261.8
227	Volta	414004.1	2522.1	7.7	80.1	291.8	828.4	2616.6	3570.8	8402.5	11296.3	5427.0	2744.7	1654.9	3286.9
228	Lempa	18088.5	888.1	2.9	7.6	10.3	11.7	547.6	1582.1	1968.2	3042.2	2295.6	976.3	585.2	993.2
229	Gambia	69874.3	750.8	0.3	0.3	0.3	0.3	145.1	922.2	3078.2	3466.5	1537.8	816.1	492.4	934.2
230	Grande De Matagalpa	17991.9	1788.5	87.6	46.4	30.2	37.4	1350.9	2694.3	2443.9	2701.8	2950.2	1748.2	1248.2	1427.3
231	Cauvery	91159.4	2091.4	159.7	385.4	347.3	350.9	1080.8	3669.7	3305.4	2574.1	2347.6	2777.6	1849.0	1744.9
232	San Juan	41659.4	5223.3	533.6	282.7	261.5	1036.0	3952.8	4778.7	4793.9	6119.6	7350.0	4839.9	3921.9	3591.2
233	Geba	12774.4	537.0	3.5	4.3	4.3	3.5	79.2	413.4	1814.0	2305.1	1207.1	582.6	353.4	608.9
234	Corubal	24258.0	882.9	0.4	0.5	0.5	0.4	293.0	1767.6	3594.2	3165.9	2080.6	964.3	579.0	1110.8
235	Magdalena	261204.9	27118.0	3452.3	6430.2	14175.3	21211.1	18633.1	15055.6	15479.8	18291.2	31846.5	31789.4	20916.3	18699.9
236	Comoe	78506.9	447.9	3.4	4.6	105.1	306.0	923.2	676.9	1018.0	1509.8	1021.9	540.3	296.4	571.1
237	Orinoco	952173.4	73559.9	9908.6	16110.2	48197.5	96502.6	137370.7	156922.8	139130.4	112036.3	103445.6	77389.5	46830.9	84783.7
238	Bandama	98751.1	1337.1	4.0	5.7	118.4	306.8	1520.8	1055.3	2949.0	5574.4	3186.6	1473.0	881.5	1534.4
239	Oueme	59842.6	458.8	1.0	1.1	6.9	240.8	976.7	1265.1	1320.9	1893.3	1037.9	499.0	301.2	666.9
240	Sassandra	68097.5	2261.5	1.4	3.2	129.1	309.3	2250.3	3322.8	4638.5	8322.9	5416.1	2603.4	1487.3	2562.2
241	Shebelle	805077.0	1126.2	49.5	54.4	2532.2	1755.0	1025.3	1594.0	2005.1	1944.7	1681.9	1610.5	791.5	1347.5
242	Mono	23899.0	122.1	0.3	14.5	50.7	126.1	330.7	356.9	319.3	472.0	289.3	132.5	80.1	191.2
243	Congo	3698918.1	193908.5	92837.8	126684.3	138968.9	93475.1	62522.2	55481.6	71460.1	90395.6	111123.4	108901.0	123157.3	105743.0
244	Atrato	34619.5	8908.3	2297.1	2736.4	4317.7	5624.4	5876.9	5976.7	6096.9	6689.5	7140.9	7032.0	5537.1	5686.2
245	Cuyuni	85635.0	9798.1	3136.9	2829.9	4268.1	9871.7	13477.9	13021.6	10134.4	5445.8	3587.1	3665.6	6571.4	7150.7
246	Cavally	30665.2	2295.7	105.8	221.1	532.9	1553.0	3418.3	2447.3	1941.8	4204.8	4188.2	2935.7	1654.9	2125.0
247	Tano	15656.1	321.4	0.2	32.5	186.6	547.1	1356.6	700.0	337.1	480.9	810.9	421.8	218.4	451.1
248	Cross	52820.2	3986.4	1.4	608.2	1184.8	2346.5	4731.8	7828.2	9133.6	11624.3	10815.8	4452.2	2614.4	4944.0
249	Sanaga	134252.0	4812.3	3.0	236.5	2004.2	4068.5	5840.0	7929.0	9616.8	13725.9	13358.0	5383.1	3156.1	5844.5
250	Pra	23479.8	378.6	3.2	102.6	282.2	657.8	1316.6	691.0	327.9	645.8	1039.5	483.0	247.6	514.6
251	Davo	8460.3	133.7	0.2	0.2	2.0	9.6	542.8	283.0	126.7	238.1	288.6	192.8	89.5	158.9
252	Essequibo	68788.3	5069.1	1976.6	2110.6	2932.1	7163.7	13057.2	11720.0	7957.4	3936.3	2438.8	1874.9	3105.6	5278.5
253	Kelantan	14419.9	3574.8	439.2	342.5	417.5	434.1	481.7	494.1	561.2	1352.9	2084.8	2431.3	2719.0	1277.8
254	Corantijn	65527.6	1313.6	829.3	1710.9	3554.5	11297.6	13180.8	9711.4	6084.0	3012.4	1811.6	1094.1	692.7	4524.4
255	Coppename	24750.2	1551.1	1394.4	1540.4	2071.4	4023.6	4578.3	3861.0	2331.4	1160.6	695.4	420.0	321.1	1995.7
256	Kinabatangan	14101.7	2820.1	862.7	675.4	672.8	675.3	1148.9	787.8	1142.6	1468.5	1388.6	1249.3	1909.0	1233.4
257	Maroni	65944.9	3849.5	4583.6	5326.3	7656.9	11080.5	10145.5	7092.8	4342.7	2242.1	1349.5	815.1	565.6	4920.8
258	San Juan (Columbia - Pacif	13898.0	6064.5	2203.5	2616.1	3456.3	4124.0	3912.7	3904.9	3971.2	4103.4	4529.7	4529.1	3905.9	3943.4
259	Amazonas	5880854.9	950375.6	705085.8	813922.6	857876.6	713184.6	564388.1	424106.1	299107.1	238076.7	243680.0	298076.1	455711.2	546965.9
260	Pahang	28436.7	5776.0	1292.5	1416.5	1962.1	1937.4	1260.3	863.4	823.6	1395.6	2714.8	3612.5	4175.9	2269.2
261	Nyong	34626.2	1269.1	0.1	386.2	1153.1	1817.1	1504.5	698.1	677.8	2434.6	3389.9	1699.9	832.3	1321.9
262	Oyapock	27075.7	4282.0	4043.5	4817.3	6249.8	6602.9	5755.6	3526.6	2069.9	1131.7	683.3	412.7	586.7	3346.8
263	Rajang	49943.5	20497.2	8513.0	9657.7	10211.2	9935.6	7769.6	6882.1	6855.9	9242.6	11129.0	11855.9	12276.9	10402.2
264	Ntem	33526.9	2055.6	8.3	442.8	1623.3	2595.7	1808.1	791.1	470.6	1558.6	4430.8	3192.8	1428.3	1700.5
265	Ogooue	222662.7	22726.7	7569.4	15733.8	20776.5	19147.2	7950.2	4618.0	2791.3	2505.1	8651.3	23592.1	17443.6	12792.1
266	Rio Araguari	33771.5	4727.0	5377.5	6935.9	8461.5	8118.0	7123.8	4272.9	2486.6	1376.3	831.0	501.9	398.5	4217.6
267	Mira	13264.8	2073.0	1259.4	1291.0	1430.0	2032.3	1959.3	1248.7	1229.1	1355.3	1165.3	1283.2	912.8	1436.6
268	Esmeraldas	19796.2	2922.0	4238.0	5676.0	6743.2	4668.6	2504.1	1398.8	876.1	589.2	579.1	755.5	966.5	2659.8
269	Tana	95715.0	290.5	14.7	38.9	512.9	706.1	333.2	183.6	113.4	69.9	103.6	260.5	305.1	244.4
270	Daule & Vinces	41993.5	2730.9	4080.6	5260.2	4696.3	2419.3	1482.0	915.4	644.8	472.3	447.2	458.1	400.9	2000.7
271	Rio Gurupi	32335.3	491.7	2048.7	4647.2	4513.5	3426.0	2151.5	1412.8	764.6	450.8	272.3	164.5	103.1	1703.9
272	Rio Capim	54888.3	1537.9	5606.4	8799.8	7926.1	5924.9	3782.3	2616.7	1569.4	878.6	525.8	317.7	205.5	3307.6
273	Tocantins	774718.3	82937.0	65826.8	71926.3	45721.6	24110.4	14567.5	8930.8	5585.4	3923.1	3979.0	16536.2	44543.4	32382.3
274	Kouilou	60000.0	4007.3	2400.3	3950.9	5306.6	3068.4	1426.7	862.7	522.5	316.7	191.7	1130.5	3001.1	2182.1
275	Nyanga	12369.1	1159.8	691.5	941.1	1044.4	523.6	267.4	161.5	97.5	58.9	35.6	692.8	805.1	539.9
276	Rio Parnaiba	336584.2	2039.6	3746.9	7333.0	6991.8	3124.0	1723.6	1047.6	641.5	394.0	242.4	157.1	558.8	2333.4
277	Rio Itapicuru	52672.0	84.3	1224.											

Basin ID	Basin name	Area (km <sup>2</sup> )	Natural runoff (Mm <sup>3</sup> /month)												Average
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
310	Macarthur	19673.6	0.4	1.1	55.6	14.5	8.8	5.3	3.2	1.9	1.2	0.7	0.4	0.3	7.8
311	Fitzroy	94043.9	5.5	446.6	490.3	167.3	101.0	61.0	36.9	22.3	13.5	8.1	4.9	3.0	113.4
312	Gilbert	46429.1	183.1	1374.9	1126.1	428.1	256.1	154.7	93.5	56.5	34.2	20.8	12.5	7.6	312.4
313	Mucuri	16732.2	1331.8	412.5	315.0	254.2	167.2	113.9	88.6	50.0	28.9	21.6	212.3	1046.2	336.8
314	Rio Doce	86085.9	12563.7	5298.4	4242.2	2461.5	1301.4	784.3	483.1	302.0	187.0	117.8	2334.5	9099.0	3264.6
315	Save	114957.8	2203.3	3356.1	2440.7	1065.6	627.7	386.7	242.8	173.8	130.9	85.0	41.4	348.7	925.2
316	Burdekin	130426.5	690.0	3679.3	3662.4	1887.1	1001.1	597.8	363.8	227.1	146.3	95.8	59.5	32.7	1036.9
317	Tsribihina	61991.9	9631.8	9804.7	9049.7	4154.5	2354.3	1436.8	893.2	545.1	328.9	198.3	299.2	2841.4	3461.5
318	Buzi	27904.7	1304.7	1917.2	1888.8	752.6	437.8	265.0	160.8	98.8	61.6	38.5	22.6	110.9	588.3
319	Loa	50206.4	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
320	Limpopo	415623.1	1880.1	3058.9	2803.2	1433.2	767.0	501.7	359.2	334.0	330.6	246.8	159.6	308.4	1015.2
321	De Grey	56818.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
322	Paraiba Do Sul	58027.2	7384.0	4105.7	3823.9	2180.1	1239.1	759.3	470.0	308.5	264.6	590.0	1633.4	4400.3	2263.2
323	Fortescue	49924.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
324	Mangoky	43141.1	1857.9	2203.9	1852.5	898.9	518.2	330.4	220.7	136.7	83.0	50.1	56.6	333.7	711.9
325	Fitzroy	142915.3	72.4	1909.6	2134.9	885.3	493.9	300.8	192.9	132.5	101.8	79.8	54.4	35.2	532.8
326	Orange	972388.4	1857.2	2095.4	2246.2	1402.3	807.0	489.5	342.5	319.8	311.7	362.3	534.8	884.1	971.1
327	Ashburton	75842.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
328	Gascoyne	75998.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
329	Rio Ribeira Do Iguape	25697.5	2174.8	1657.5	1425.9	887.3	735.4	782.1	538.1	442.8	601.1	860.6	773.8	987.3	988.9
330	Incomati	46295.7	1039.9	1118.5	1027.4	517.1	276.9	173.5	113.5	83.8	67.7	43.3	129.4	456.6	420.6
331	Murray	1059507.7	2868.3	1379.7	1501.2	1110.5	1279.6	2153.4	2511.6	3164.9	3371.2	3337.6	2314.5	2000.4	2249.4
332	Murchison	91416.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
333	Maputo	30937.8	924.9	719.0	618.4	324.5	179.7	114.6	75.2	58.1	46.2	33.2	112.3	467.1	306.1
334	Uruguay	265504.6	15702.5	5633.7	8112.2	13990.4	16949.4	19158.1	16344.5	15620.3	18876.7	20160.7	12864.3	9587.2	14416.7
335	Tugela	30079.3	758.7	786.8	752.8	372.3	204.5	126.4	86.3	74.3	66.9	64.9	86.0	376.1	313.0
336	Colorado (Argentina)	390631.1	3500.8	346.2	220.9	135.4	373.1	707.2	841.7	929.8	908.5	2371.9	3152.6	2575.4	1338.6
337	Rio Jacui	70798.0	5005.1	2492.1	2901.2	3920.9	4897.0	5793.0	5339.7	5145.1	5743.1	5136.4	3405.9	2794.2	4381.1
338	Huasco	9871.6	92.1	16.5	10.1	6.1	3.7	2.4	1.6	1.4	1.6	1.5	0.6	46.0	15.3
339	Limari	11780.3	118.1	101.5	40.8	21.1	12.6	27.9	18.7	17.6	14.6	15.5	11.4	31.8	36.0
340	Negro (Uruguay)	70756.4	1301.6	86.9	492.1	1499.0	2274.1	3311.9	3222.8	3290.1	3379.1	2823.2	1553.8	846.5	2006.8
341	Groot-Vis	30441.2	10.7	24.1	23.0	13.9	11.7	9.5	9.9	13.2	21.7	27.3	18.9	18.9	16.9
342	Salado	266263.9	1011.5	24.7	73.2	787.5	1228.1	1234.8	1105.6	959.3	1261.2	1567.9	1418.0	767.6	953.3
343	Blackwood	22584.8	79.6	0.6	0.7	0.4	0.1	29.9	254.5	407.6	301.6	166.9	86.8	52.5	115.1
344	Rapel	15689.5	1119.4	178.1	113.7	66.3	510.5	1373.7	1356.5	1185.4	876.8	701.4	412.7	681.5	714.7
345	Negro (Argentina)	130062.1	2461.3	98.8	347.1	1009.8	4025.3	5859.2	6210.5	6075.1	5030.4	4368.0	3162.3	1740.6	3365.7
346	Biobio	24108.6	1512.9	29.1	298.7	919.1	3736.5	4786.4	5042.5	4670.4	4131.1	2973.2	1809.7	1045.2	2579.6
347	Waikato	15358.7	1209.9	436.0	382.1	601.3	1271.4	1642.5	1617.1	1551.8	1388.8	1356.2	1080.3	781.6	1109.9
348	South Esk	10842.5	186.5	8.9	10.5	32.6	76.3	208.6	392.9	471.5	403.2	358.1	217.0	135.7	208.5
349	Chubut	145351.9	837.4	70.0	172.1	336.2	1273.9	2263.3	2596.8	3116.1	2246.4	1454.2	895.8	580.3	1320.2
350	Clutha	17118.9	1029.1	421.2	482.8	693.8	684.7	694.4	642.0	723.7	898.4	957.1	762.4	659.5	720.8
351	Baker	30760.3	1928.9	630.2	1099.0	1638.6	2259.5	2536.2	2753.8	2648.6	2149.0	1882.5	1579.4	1282.9	1865.7
352	Santa Cruz	30599.9	1652.2	385.0	560.0	1181.8	1590.7	1850.7	1577.2	2464.8	3221.0	3226.9	1605.8	1042.5	1696.6
353	Ganges	1024462.6	32182.1	10981.6	16447.4	12896.7	12922.0	27823.6	78624.5	128519.9	96972.9	47842.1	32621.7	19626.1	43121.7
354	Salween	258475.2	8366.0	95.5	592.3	1511.4	2846.6	12055.4	24649.1	32068.1	27586.6	18159.4	9737.1	5522.3	11932.5
355	Hong(Red River)	157656.9	4779.9	80.7	104.5	254.5	1566.3	7439.6	18447.1	22644.5	16383.8	9602.6	5433.7	3149.0	7490.5
356	Lake Chad	2391218.9	6870.6	135.4	144.7	180.2	263.0	1227.0	7989.1	36416.6	27951.2	14050.2	7408.8	4490.9	8927.3
357	Okavango	705055.7	4075.2	6488.8	8619.1	3971.7	2041.0	1233.1	745.9	452.1	274.8	167.1	100.7	882.0	2421.0
358	Tarim	1051731.4	241.9	77.0	269.6	593.6	1657.0	2845.3	3326.7	2360.3	1351.4	540.9	295.2	164.1	1143.6
359	Horton	23926.2	12.4	0.3	0.2	0.1	78.8	314.9	93.6	54.9	33.2	20.0	12.1	7.3	52.3
360	Hornaday	14778.0	12.4	0.0	0.0	0.0	0.0	181.3	145.7	70.2	37.1	22.3	13.5	8.1	40.9
361	Conception	25569.5	0.6	1.8	3.6	4.8	3.8	4.7	4.3	5.9	5.5	4.2	1.5	1.1	3.5
362	Ulua	26392.0	1735.8	77.7	42.4	31.4	19.3	510.5	1791.6	1997.4	3135.9	2748.5	1916.8	1262.0	1272.4
363	Patacua	24232.4	1710.9	118.6	53.8	32.7	19.7	70.9	693.4	892.9	1438.3	2176.2	1802.4	1293.7	858.6
364	Coco	25502.0	2767.8	143.3	70.7	43.3	48.4	1698.7	3244.2	2959.2	3280.5	3939.1	2788.7	2041.2	1918.8
365	Ocona	16063.9	539.4	582.1	517.1	245.1	134.9	80.9	48.8	30.6	19.9	49.2	71.2	235.0	212.9
366	Cuanza	141391.1	10360.7	7565.1	10296.0	8746.9	3552.8	2127.7	1286.3	779.0	472.4	307.3	304.1	5458.5	4271.4
367	Cunene	110545.5	1828.9	2579.9	5240.5	2925.0	1322.8	798.9	482.7	291.8	176.4	112.8	98.1	642.6	1375.0
368	Doring	48855.5	44.0	20.3	25.5	14.8	4.2	92.2	148.6	176.0	136.2	105.1	61.5	43.1	72.6
369	Gamka	45676.2	65.3	14.4	28.8	40.5	41.1	51.1	45.0	62.9	111.5	105.9	87.0	55.8	59.1
370	Groot- Kei	18678.3	2.7	6.5	16.9	12.9	8.5	5.9	5.6	6.2	7.9	8.3	6.0	4.4	7.6
371	Lurio	61172.2	4604.7	6185.0	6089.2	2522.2	1435.2	866.8	523.5	316.3	191.1	115.4	69.7	468.0	1948.9
372	Messalo	24810.9	941.3	1818.6	2197.0	1098.8	548.0	330.8	199.8	120.7	72.9	44.1	26.6	16.1	617.9
373	Rovuma	151948.6	9106.2	15265.1	18092.1	9319.0	4605.3	2779.5	1678.9	1014.2	612.7	370.2	223.6	516.4	5298.6
374	Galana	51921.7	187.2	7.8	34.8	597.5	654.3	327.5	177.5	104.7	64.5	40.0	203.0	196.1	216.2
375	Pyasina	63888.8	470.7	4.9	3.1	2.0	1.3	8582.4	2828.9	1874.0	1803.8	814.2	491.9	297.2	1431.2
376	Popigay	48954.2	84.9	0.8	0.5	0.3	0.2	2052.3	754.1	410.5	251.2	146.9	88.7	53.6	320.3
377	Fuchun Jiang	37697.9	1253.4	1966.9	3249.4	3037.5	4025.8	5573.0	2420.0	1437.2	1282.3	886.7	707.7	572.7	2201.1
378	Min Jiang	60039.7	1710.0	2261.2	6444.7	6263.4	9721.2	10643.9	4850.2	3725.5	2882.6	2049.4	1340.9	880.7	4397.8
379	Han Jiang	30741.5	429.5	189.6	1241.1	2010.5	3792.4	4718.0	2447.5	2125.6	1654.9	782.8	466.3	283.9	1678.5
380	Mamberamo	75416.0	15446.4	9453.9	12610.4	11467.8	9723.6	7842.7	8385.4	7964.6	8697.3	6547.6	7173.3	8630.9	9495.3
381	Lorentz	4299.3	493.1	445.0	515.7	475.1	346.5	253.8	280.8	253.8	345.8	199.3	277.0	262.3	345.7
382	Eilanden	20077.5	5431.2	3334.4	3835.7	3751.0	3567.3	3244.7	3235.3	3090.1	3371.3	2701.3	2824.9	3278.9	3472.2
383	Uwimbu	29373.9	8952.7	5395.2	6379.0	5992.2	6010.0	5432.3	5263.6	5126.4	5387.6	4552.8	4357.4	5401.7	5687.6
384	Sungai Kajan	33171.8	10769.4	4092.4	5488.6	6619.3	6870.7	5795.5	5104.8	4917.8	6431.1	6999.8	7819.9	6829.4	64

**Appendix VII. Monthly blue water availability for the world's major river basins**

Basin ID	Basin name	Blue water availability (Mm <sup>3</sup> /month)												
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average
1	Khatanga	314.3	11.7	7.1	4.3	44.2	5079.7	2577.0	1389.0	871.4	483.8	292.2	176.5	937.6
2	Olenek	246.2	32.0	19.3	11.7	131.7	3286.4	1102.1	614.1	374.1	221.3	133.7	80.7	521.1
3	Anabar	105.2	17.1	10.3	6.2	3.8	825.6	416.5	202.3	120.5	71.0	42.9	25.9	153.9
4	Yana	179.2	14.6	8.8	5.3	31.8	1507.2	1364.1	761.5	366.5	221.4	133.7	80.8	389.6
5	Yenisei	3227.0	148.4	90.5	1550.5	32543.0	32409.6	19438.0	12848.2	9618.3	4888.2	2891.2	1747.0	10116.7
6	Indigirka	380.5	35.9	21.7	13.1	90.2	3362.0	2901.5	1357.2	726.2	435.2	262.9	158.8	812.1
7	Lena	3154.4	131.0	79.3	72.4	17418.4	24981.6	16930.1	12609.2	10727.2	4767.9	2878.1	1738.4	7957.3
8	Omoloy	5.4	0.1	0.1	0.0	0.0	85.2	55.4	25.8	14.7	8.7	5.3	3.2	17.0
9	Tana (NO, FI)	14.4	0.0	0.0	0.0	570.3	155.7	91.4	55.2	43.5	29.8	15.6	9.4	82.1
10	Colville	37.2	0.3	0.2	0.1	9.1	387.6	395.5	206.9	115.8	64.9	39.2	23.7	106.7
11	Alazeya	36.8	6.2	3.8	2.3	1.4	379.4	111.0	62.8	38.0	22.9	13.8	8.4	57.2
12	Anderson	10.9	0.1	0.0	0.0	509.7	159.5	87.0	52.5	31.7	19.2	11.6	7.0	74.1
13	Kolyma	744.2	32.2	19.4	11.8	1068.5	5088.2	7188.3	3241.6	2103.5	1115.2	673.6	406.8	1807.8
14	Tuloma	18.9	2.3	1.4	0.9	346.4	109.5	60.0	36.1	23.8	24.3	11.0	6.7	53.4
15	Muonio	28.8	2.6	1.6	42.8	401.1	222.1	150.0	77.7	59.0	37.5	20.3	12.3	88.0
16	Yukon	970.1	50.5	30.5	188.7	10633.3	9753.4	5955.3	3321.4	2581.2	1529.6	842.4	508.9	3030.4
17	Palyavaam	21.3	0.0	0.0	0.0	0.0	375.7	207.3	105.3	71.0	38.2	23.1	13.9	71.3
18	Kemijoki	97.4	0.6	0.4	118.8	1797.4	489.6	291.6	186.9	216.4	273.3	103.3	62.4	303.2
19	Mackenzie	1127.6	17.4	10.7	1812.7	15880.7	15834.5	9200.4	4975.5	3146.6	2089.5	1153.4	696.8	4662.1
20	Noatak	31.3	0.2	0.1	0.1	80.4	396.1	219.9	124.9	125.9	55.1	33.3	20.1	90.6
21	Anadyr	236.4	0.3	0.2	0.1	490.4	4399.7	2076.1	1092.3	821.1	423.2	255.6	154.4	829.2
22	Pechora	491.8	6.2	3.8	289.8	11661.2	7759.0	3254.0	1926.2	1571.1	890.0	508.6	307.2	2389.1
23	Lule	62.6	0.2	0.1	223.8	770.3	756.9	379.1	222.4	190.3	136.6	67.2	40.6	237.5
24	Kalixaelven	15.7	1.3	0.8	77.7	247.6	151.5	70.3	40.6	27.5	23.7	11.5	7.0	56.3
25	Ob	1386.0	39.6	27.2	16168.4	29723.9	13645.7	7368.0	4708.1	3655.1	2815.0	1373.0	832.4	6811.9
26	Ellice	6.1	0.0	0.0	0.0	0.0	191.7	49.8	30.1	18.2	11.0	6.6	4.0	26.4
27	Taz	198.0	1.2	0.7	0.4	2584.4	4632.7	1464.3	874.0	638.6	347.6	209.9	126.8	923.2
28	Kobuk	42.2	6.4	3.8	2.3	412.7	220.1	123.9	74.7	67.7	31.9	19.3	11.6	84.7
29	Coppermine	5.8	0.0	0.0	0.0	78.0	143.0	49.3	28.0	16.9	10.2	6.2	3.7	28.4
30	Hayes(Trib. Arctic Ocean)	5.4	0.0	0.0	0.0	0.0	166.9	45.0	26.6	16.1	9.7	5.9	3.5	23.3
31	Pur	148.1	0.1	0.1	0.1	1437.3	3032.3	923.0	559.0	579.3	266.2	160.8	97.2	600.3
32	Varzuga	9.4	0.0	0.0	0.0	136.8	37.7	22.0	13.3	22.5	28.0	10.2	6.2	23.9
33	Ponoy	25.4	0.0	0.0	0.0	317.0	87.6	51.2	35.7	53.7	78.8	27.6	16.7	57.8
34	Kovda	6.1	0.0	0.0	0.0	176.4	56.1	30.5	18.5	14.2	15.6	6.6	4.0	27.3
35	Back	65.4	0.0	0.0	0.0	1114.3	1643.1	527.6	318.2	198.1	117.6	71.0	42.9	341.5
36	Kem	47.1	0.1	0.1	528.5	780.4	270.5	156.3	98.0	86.0	139.2	50.7	30.6	182.3
37	Nadym	76.6	0.0	0.0	0.0	900.9	1469.2	470.9	292.2	300.6	137.5	83.1	50.2	315.1
38	Quoich	8.3	0.0	0.0	0.0	0.0	243.3	69.9	39.9	25.6	15.0	9.0	5.5	34.7
39	Mezen	74.6	0.9	0.5	783.4	2104.3	771.1	416.2	250.1	159.9	173.5	77.3	46.7	404.9
40	Iljoki	18.8	0.0	0.0	265.2	199.4	79.2	46.6	30.2	31.2	60.0	20.5	12.4	63.6
41	Joekulsa A Fjoellum	15.0	0.0	0.0	1.1	150.8	118.6	47.4	29.6	29.4	44.3	16.5	9.8	38.5
42	Svarta, Skagafiroi	11.0	0.0	5.9	24.7	72.8	78.5	29.6	17.8	15.2	30.4	13.8	7.2	25.6
43	Oulujoki	46.2	0.2	0.2	1079.7	340.6	187.9	112.5	74.6	83.3	142.1	49.5	29.9	178.9
44	Lagarfjot	22.6	0.0	0.0	4.5	238.1	148.6	64.8	46.3	51.5	62.0	25.6	14.8	56.6
45	Thelon	95.7	0.0	0.0	0.0	1238.2	2149.9	674.0	405.4	337.3	171.9	103.8	62.7	436.6
46	Angerman	68.7	0.1	0.1	805.4	704.9	537.1	246.5	166.7	152.9	191.0	74.2	44.8	249.4
47	Thjorsa	84.4	6.6	18.3	224.6	344.7	264.5	132.4	116.8	133.7	168.2	95.7	57.8	137.3
48	Northern Dvina(Severnaya D	204.3	7.0	4.4	8913.4	3875.8	1908.4	1118.5	675.2	411.7	419.5	194.4	117.6	1487.5
49	Oelfusa	75.7	0.0	64.6	345.3	138.1	137.0	113.1	79.6	94.2	131.7	86.9	64.0	110.9
50	Nizhny Vyg (Soroka)	41.3	0.0	0.0	1090.2	324.6	185.3	110.7	66.9	84.1	125.2	44.8	27.1	175.0
51	Kuskokwim	253.9	0.3	0.2	0.1	3324.1	1599.7	1094.0	1094.7	1058.3	479.7	274.5	165.8	778.8
52	Vuoksi	67.0	0.2	0.2	2105.8	593.7	345.7	207.8	128.7	112.1	192.1	77.4	44.0	322.9
53	Onega	45.0	0.6	0.4	2126.8	680.5	380.4	225.2	136.0	87.4	111.3	47.0	28.2	322.4
54	Susitna	254.1	0.4	0.3	730.8	1663.8	1781.1	1053.9	819.0	968.5	547.7	274.1	165.6	688.3
55	Kymijoki	37.3	0.2	0.2	914.1	264.0	151.6	91.3	55.4	43.3	61.7	62.3	24.5	142.1
56	Neva	239.0	2.1	1.8	6433.8	1912.0	1093.8	654.5	396.8	340.7	517.3	337.3	154.8	1007.0
57	Ferguson	8.1	0.0	0.0	0.0	0.0	210.7	59.2	34.2	28.4	14.5	8.8	5.3	30.8
58	Copper	218.2	0.0	0.0	3.5	1509.3	2042.9	1488.1	837.2	792.6	443.1	236.8	143.0	642.9
59	Gloma	112.6	0.3	2.4	687.9	673.6	723.1	409.7	297.6	280.1	268.8	135.5	73.9	305.5
60	Kokemaenjoki	47.3	0.3	0.3	732.4	218.6	123.2	74.3	45.1	29.4	30.6	100.4	31.0	119.4
61	Vaenern-Goeta	239.7	0.6	452.0	1075.6	459.5	275.9	163.8	141.4	158.4	295.1	323.4	207.4	316.1
62	Thlewiaza	18.4	2.1	1.2	0.7	366.8	133.2	67.9	40.8	39.7	18.8	11.4	6.9	59.0
63	Alsek	57.2	0.0	0.0	116.9	522.3	554.2	220.1	147.7	192.4	136.0	62.1	37.5	170.5
64	Volga	618.3	29.4	149.5	28026.4	10217.8	5716.4	3446.0	2149.4	1377.5	1297.4	633.1	380.4	4503.5
65	Dramselv	52.0	0.1	19.4	246.7	291.6	280.2	146.8	133.2	144.0	126.6	61.0	34.1	128.0
66	Arnaud	112.9	0.0	0.0	0.0	126.5	1128.4	412.9	308.7	375.7	272.6	122.5	74.0	244.5
67	Nushagak	103.5	0.0	0.0	261.7	987.4	354.0	208.5	258.6	309.7	276.6	112.3	67.8	245.0
68	Seal	25.3	0.3	0.2	0.1	706.9	287.0	145.7	86.5	83.1	48.3	26.1	15.8	118.8
69	Taku	86.0	0.0	0.0	161.4	501.6	459.4	206.6	156.7	205.5	252.7	93.4	56.4	181.7
70	Narva	142.1	0.2	0.2	1203.7	387.4	215.9	127.9	84.0	74.6	146.4	291.9	93.3	230.6
71	Stikine	365.4	120.7	101.6	331.4	1940.0	2386.6	1153.3	745.7	763.1	675.8	389.7	274.1	770.6
72	Churchill	157.9	4.0	2.5	680.0	2624.2	1544.9	752.3	426.3	392.0	344.9	155.0	93.6	598.1
73	Feuilles (Riviere Aux)	134.7	0.0	0.0	0.0	507.9	1039.9	410.2	351.5	386.4	354.7	146.3	88.3	285.0
74	George	151.6	0.0	0.0	0.0	991.6	1007.9	792.3	523.3	523.7	340.2	164.6	99.4	382.9
75	Caniapiscau	459.4	0.2	0.1	0.1	3234.1	2495.1	1361.1	1246.0	1333.9	1204.8	498.1	300.8	1011.1
76	Western Dvina (Daugava)	154.5	0.4	0.4	1836.2	595.4	342.7	203.3	123.9	85.1	169.9	309.6	101.5	326.9
77	Aux Melezes	127.5	0.0	0.0	0.0	1086.7	650.2	368.3	345.4	357.4	339.2	138.3	83.5	291.4
78	Baleine, Grande Riviere De L	76.0	0.0	0.0	0.0	854.0	301.2	224.4	196.6	226.2	198.9	82.5	49.8	184.1
79	Spey	95.6	40.7	35.0	27.3	19.8	11.6	8.8	10.5	16.3	31.5	49.2	58.4	33.7
80	Kamchatka	138.0	0.0	0.0	0.0	1920.8	1439.9	1079.8	520.8	383.8	309.4	149.8	90.5	502.7
81	Nass	210.8	0.0	162.1	688.3	1204.1	926.8	409.5	303.2	367.9	521.5	284.1	138.2	434.7
82	Skeena	215.6	0.0	208.4	898.3	1763.9	1432.2	616.5	402.1	387.5	462.7	303.7	141.4	569.4
83	Nelson	339.7	8.1	7.2	5862.3	4172.9	3028.8	1614.9	1003.0	915.9	822.0	360.0	218.1	1529.4
84	Hayes(Trib. Hudson Bay)	68.0	1.4	0.9	0.5	1402.4	755.7	410.9	222.3	159.6	146.2	68.0	41.1	273.1
85	Gudena	51.9	23.1	20.7	15.4	8.4	4.9	3.2	2.1	3.0	11.6	25.0	31.5	

Basin ID	Basin name	Blue water availability (Mm <sup>3</sup> /month)													
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average	
102	Trent	138.3	73.6	60.6	42.7	27.5	16.1	11.3	10.2	9.8	13.4	39.6	80.5	43.6	
103	Weser	702.3	401.7	379.1	279.6	180.5	123.5	100.9	96.8	100.4	163.9	320.3	458.8	275.6	
104	Attawapiskat	24.3	0.0	0.0	0.0	439.1	122.6	71.1	42.9	70.1	65.8	26.4	16.0	73.2	
105	Eastmain	236.6	0.0	0.0	511.6	1837.7	979.9	584.5	507.2	597.6	675.9	256.8	155.1	528.6	
106	Manicouagan (Riviere)	250.6	0.1	0.0	104.9	1733.3	1384.9	738.2	596.7	644.0	696.0	271.8	164.2	548.7	
107	Columbia	2392.2	2251.9	4180.7	7637.6	11038.1	7369.9	3710.4	2336.7	1458.1	1092.4	1336.4	1584.7	3865.8	
108	Little Mecatina	88.9	0.0	0.0	0.0	1231.3	435.7	301.1	215.8	200.8	252.6	96.5	58.3	240.1	
109	Natashquan (Riviere)	58.2	0.0	0.0	31.2	745.4	324.0	241.7	161.6	138.2	158.5	63.2	38.2	163.3	
110	Rhine	2635.8	1531.5	1618.9	1920.5	1602.6	1211.0	955.9	836.7	794.4	902.9	1309.3	1672.7	1416.0	
111	Albany	162.6	0.0	0.0	1682.4	1840.8	765.4	429.7	261.2	355.3	486.4	176.5	106.6	522.2	
112	Saguenay (Riviere)	396.8	0.3	0.3	2249.0	2250.3	1627.5	1011.7	820.1	933.1	1149.7	434.7	260.3	927.8	
113	Thames	145.2	89.5	72.2	47.5	27.4	15.7	9.9	6.5	4.4	3.7	26.4	79.0	44.0	
114	Nottaway	437.7	0.0	0.0	2690.3	3197.5	1528.0	1037.6	854.3	1016.7	1258.3	487.6	287.0	1066.3	
115	Rupert	62.3	0.0	0.0	158.9	640.2	237.8	159.2	135.5	151.7	178.9	67.6	40.8	152.8	
116	Moose(Trib. Hudson Bay)	200.0	0.1	0.1	2266.8	1995.8	860.2	505.5	318.9	427.3	604.9	217.2	131.2	627.3	
117	St.Lawrence	2767.0	70.2	5921.1	26475.1	10246.2	6389.5	3920.6	2606.4	3061.0	4207.6	4579.8	1943.1	6015.6	
118	Danube	3073.8	2594.0	6011.3	6879.8	5415.4	3830.1	2816.6	2249.6	2042.7	2537.2	3013.0	2515.1	3581.6	
119	Seine	685.4	498.2	436.7	332.8	201.0	119.0	80.5	60.9	40.5	46.8	139.2	340.2	248.4	
120	Dniestr	81.6	2.7	629.5	520.4	305.7	226.1	158.4	125.3	102.2	125.9	140.5	54.4	206.1	
121	Southern Bug	7.8	1.6	368.2	193.4	103.9	62.3	41.1	27.8	15.4	8.7	5.5	3.6	69.9	
122	Mississippi	15984.8	13314.3	22387.2	20429.5	16710.6	11375.6	7271.9	5466.0	3619.5	2440.0	4002.6	7786.6	10899.0	
123	Skagit	190.3	68.6	290.6	349.6	195.0	98.2	57.4	34.7	21.7	81.8	150.3	120.1	138.2	
124	Aral Drainage	509.4	832.3	2756.8	4028.2	4787.4	4275.2	3593.2	2586.1	1620.9	770.0	334.9	308.3	2200.2	
125	Loire	1138.4	793.2	782.4	638.6	456.1	295.0	187.4	142.0	109.2	160.9	367.9	652.5	477.0	
126	Rhone	1463.4	673.0	1179.2	1265.1	1117.7	889.3	538.0	442.5	455.4	695.4	1046.5	1030.9	899.7	
127	Saint John	308.6	0.4	0.4	2672.8	895.7	612.2	385.8	252.2	276.9	435.9	574.3	202.5	551.5	
128	Po	855.3	400.0	707.2	1106.1	1279.5	890.5	588.3	478.9	462.8	589.6	696.5	571.4	718.8	
129	Penobscot	131.0	0.1	96.4	1110.9	375.6	245.0	146.7	90.3	84.3	136.9	265.4	86.0	230.7	
130	St.Croix	34.1	0.0	0.0	288.4	95.1	60.3	34.3	20.4	17.7	33.4	70.5	22.4	56.4	
131	Kuban	201.8	255.1	332.9	424.8	388.7	318.9	278.7	165.2	124.4	94.2	105.6	125.2	234.6	
132	Connecticut	186.9	1.6	623.2	995.8	505.7	311.2	197.1	132.1	152.2	209.9	339.9	133.0	315.7	
133	Liao He	135.6	4.1	44.1	331.4	453.3	434.2	532.2	797.6	521.3	276.7	156.4	90.9	314.8	
134	Garonne	624.5	383.6	433.9	457.9	382.3	222.7	151.8	118.8	94.9	131.5	215.0	383.2	300.0	
135	Ishikari	171.9	0.5	0.5	878.0	383.7	216.1	158.8	155.3	235.6	287.0	296.4	112.9	241.4	
136	Merrimack	76.2	1.7	631.6	357.9	207.2	126.9	75.6	46.8	42.5	72.3	156.6	50.6	153.8	
137	Hudson	200.1	5.3	895.4	994.1	549.1	331.2	212.7	145.1	148.5	209.0	353.0	145.7	349.1	
138	Colorado(Pacific Ocean)	64.7	19.9	147.6	609.3	1180.7	864.0	478.1	330.7	225.4	148.1	74.1	46.3	349.1	
139	Klamath	602.1	714.8	709.3	609.3	400.3	210.3	139.7	91.1	55.2	29.3	79.0	299.0	328.3	
140	Ebro	844.0	564.0	557.2	575.2	524.0	326.4	238.4	170.8	102.0	112.3	174.7	484.9	389.5	
141	Rogue	218.0	217.7	181.8	171.7	124.5	60.5	38.1	24.0	14.6	8.3	42.4	102.9	100.4	
142	Douro	782.7	606.4	820.9	596.8	411.5	250.4	210.1	164.1	80.8	43.0	107.9	330.0	367.0	
143	Susquehanna	418.4	248.0	1762.9	1183.4	777.5	489.6	304.5	200.5	173.5	267.4	499.9	331.8	554.8	
144	Luan He	34.9	9.4	29.6	56.0	81.6	42.9	192.8	243.8	145.0	71.6	38.0	23.2	80.7	
145	Kura	111.9	37.4	141.8	607.1	822.3	553.8	380.4	279.3	182.7	153.2	138.5	82.7	290.9	
146	Dalinghe	11.7	0.6	1.3	6.7	13.3	16.0	17.0	77.3	42.0	24.7	12.9	7.9	19.3	
147	Delaware	328.1	160.3	812.5	451.1	358.0	208.6	142.5	113.6	152.4	281.3	258.8	282.1	282.1	
148	Sacramento	1075.2	1225.5	1249.8	1013.6	627.4	473.8	412.9	341.6	234.1	102.3	68.7	287.9	592.7	
149	Huang He (Yellow River)	540.5	121.7	464.0	1033.2	1635.5	1820.4	2061.9	1961.0	1986.1	1174.6	610.4	360.6	1147.5	
150	Kizilirmak	39.8	167.3	240.4	479.4	315.7	160.9	107.5	78.7	48.2	26.4	16.7	25.7	142.2	
151	Yongding He	34.9	80.8	294.6	505.9	500.4	255.1	345.9	479.5	214.4	88.6	37.0	27.6	238.7	
152	Tejo	542.7	440.4	652.3	412.4	268.7	166.9	144.4	111.9	58.6	24.9	27.3	236.4	257.2	
153	Sakarya	69.7	203.4	225.2	177.7	101.6	69.0	54.7	48.5	31.4	13.8	5.3	15.0	84.6	
154	Eel (Calif.)	273.2	251.6	185.4	108.1	60.8	34.7	21.1	12.8	7.7	4.6	3.1	115.9	89.9	
155	Tigris & Euphrates	3102.9	3322.0	4428.0	5129.6	3747.0	2056.3	1473.7	1147.6	708.8	458.3	715.1	1524.7	2317.8	
156	Potomac	271.2	232.7	341.0	274.8	189.7	125.0	74.1	51.0	37.7	42.7	78.5	150.5	155.7	
157	Guadiana	49.3	143.2	323.8	204.5	114.3	114.2	140.6	123.0	60.4	21.1	6.1	3.2	108.6	
158	Kitakami	138.0	34.5	271.5	216.5	160.4	110.4	116.2	118.0	126.4	155.2	165.7	105.7	143.2	
159	Mogami	193.9	165.5	207.9	155.0	111.2	75.3	78.6	71.3	86.1	104.0	148.2	204.8	133.5	
160	Han-Gang (Han River)	162.9	2.5	274.5	367.7	233.4	240.1	862.6	782.9	539.4	277.7	202.1	108.1	337.8	
161	Guadalquivir	135.4	261.3	628.0	395.5	211.0	200.8	222.1	191.1	96.2	37.1	13.0	32.1	202.0	
162	San Joaquin	141.4	165.9	257.1	267.1	227.4	219.7	253.6	238.7	163.7	64.4	15.0	20.5	169.5	
163	James	320.1	247.9	249.6	190.8	134.2	85.8	51.7	33.8	24.5	32.0	76.3	171.5	134.9	
164	Bravo	52.7	17.0	40.9	131.4	267.3	187.5	182.7	215.9	240.5	128.0	60.9	40.8	130.5	
165	Shinano, Chikuma	220.1	161.5	160.0	367.5	372.8	258.2	248.4	201.4	234.4	235.0	230.1	208.9	241.5	
166	Roanoke	369.0	293.6	292.0	217.2	145.0	89.7	63.2	47.7	36.8	31.8	66.5	170.8	151.9	
167	Naktong	101.6	54.9	151.1	196.7	139.5	191.9	397.5	375.8	334.7	176.5	109.0	69.0	191.5	
168	Indus	2383.8	1928.5	3639.7	4374.0	3702.9	3653.0	6475.8	8147.2	6268.9	3860.0	2171.8	1351.5	3996.4	
169	Tone	187.2	52.2	138.4	211.5	196.6	194.7	211.8	248.2	312.3	308.2	196.0	136.6	199.5	
170	Salinas	2.4	6.9	11.7	7.4	6.5	9.4	13.3	13.6	8.6	1.9	0.5	0.3	6.9	
171	Pee Dee	564.9	476.3	469.2	321.8	188.9	117.9	112.7	91.0	92.1	76.0	109.1	276.8	241.4	
172	Chelif	46.9	56.7	56.4	35.1	20.6	17.6	16.2	13.3	8.9	3.4	1.8	7.9	23.7	
173	Cape Fear	318.4	260.4	245.0	163.5	105.8	70.8	78.0	76.3	69.7	53.2	71.9	145.1	138.2	
174	Tenryu	117.0	58.2	102.3	167.8	149.7	172.3	163.3	144.9	205.3	177.7	127.2	87.8	139.4	
175	Santee	161.0	158.9	150.4	99.3	59.7	38.7	34.8	34.0	28.1	24.8	30.1	79.1	74.9	
176	Kiso	130.5	43.6	70.5	169.7	167.3	179.4	192.4	150.0	193.6	156.0	121.6	84.2	138.2	
177	Yangtze(Chang Jiang)	8149.3	4134.6	9668.1	17316.8	22991.0	27351.4	23858.2	22676.6	20204.9	13565.9	8255.8	5104.0	15273.0	
178	Yodo	212.7	107.2	130.9	142.7	116.6	148.8	135.1	102.0	153.6	164.1	130.5	126.5	139.2	
179	Sebou	211.8	216.2	249.7	187.0	106.6	69.2	56.9	40.2	28.4	15.3	39.4	112.7	111.1	
180	Alabama River & Tombigbee	1879.6	2154.0	2446.6	1722.6	965.9	536.9	335.5	211.0	134.2	84.3	93.0	669.7	936.1	
181	Savannah	300.2	314.1	331.7	211.7	116.8	72.2	54.4	38.1	37.5	33.0	47.7	114.6	139.3	
182	Gono (Go)	91.5	48.9	53.0	55.2	43.6	70.8	74.0	38.3	54.7	55.2	45.9	53.8	57.1	
183	Huai He	254.3	206.3	475.5	869.7	886.2	875.0	951.0	760.1	737.9	380.1	230.6	164.7	565.9	
184	Apalachicola	577.9	7												

Basin ID	Basin name	Blue water availability (Mm <sup>3</sup> /month)												
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average
206	Damodar	251.6	22.3	32.2	9.0	3.0	50.7	299.0	950.2	931.6	429.5	263.2	170.1	284.4
207	Niger	4355.6	19.8	51.2	259.6	966.6	2958.9	7669.6	16126.9	18141.0	9525.3	4765.9	2855.7	5641.3
208	Narmada	481.4	86.2	180.1	226.3	227.6	89.0	1470.5	2332.6	1749.0	751.5	459.1	317.3	697.6
209	Brahmani River (Bhahmani)	312.4	6.7	10.6	8.5	7.7	109.9	777.7	1587.8	1207.1	611.8	339.1	209.9	432.5
210	Mahanadi(Mahahadi)	750.2	21.7	31.6	30.2	31.6	31.5	1041.8	4292.3	2975.6	1339.8	823.9	514.4	990.4
211	Santiago	136.2	23.2	48.7	53.1	33.6	41.0	205.6	530.4	622.5	282.7	158.3	98.5	186.2
212	Panuco	308.1	19.2	37.3	39.5	27.6	72.6	402.7	498.3	1231.3	704.9	354.2	209.3	325.4
213	Godavari	1361.1	125.3	248.0	295.5	314.3	178.3	2692.3	5505.7	5324.4	2419.1	1469.4	966.9	1741.7
214	Tapti	248.7	33.7	61.3	73.1	79.0	29.8	673.1	1033.9	1023.2	424.8	266.7	177.2	343.7
215	Sittang	450.9	0.7	1.3	1.3	3.4	770.5	1570.5	2008.8	1666.5	980.2	498.5	295.7	687.3
216	Armeria	12.1	1.6	3.4	5.8	5.5	2.0	0.7	8.1	58.4	29.5	14.3	9.6	12.6
217	Ca	289.6	11.2	5.4	4.7	30.9	116.8	375.4	535.7	866.0	553.6	330.4	193.2	276.1
218	Chao Phraya	836.7	63.6	104.0	107.5	98.7	328.0	1108.4	1921.4	3201.9	2014.4	1162.3	612.0	963.2
219	Krishna	850.0	122.1	251.0	271.1	280.0	651.3	3320.2	3037.0	2359.2	1342.1	934.0	685.6	1175.3
220	Senegal	325.8	2.0	3.0	2.3	2.4	89.6	612.5	1692.9	1372.7	654.2	358.5	215.3	444.3
221	Papaloapan	375.4	2.5	3.2	3.2	2.3	95.5	474.6	882.2	1156.1	885.3	438.8	252.3	381.0
222	Grisalva	2371.9	240.8	132.9	122.0	329.4	1724.5	2361.9	2646.1	4101.1	3860.2	2199.7	1575.4	1805.5
223	Verde	75.7	0.6	1.3	1.4	0.9	2.0	73.1	170.1	329.6	178.8	82.8	50.2	80.5
224	Mae Klong	310.9	4.2	6.8	6.7	215.3	716.0	1050.9	1166.4	1116.5	710.3	343.0	206.2	487.8
225	Tranh (Nr Thu Bon)	401.4	9.0	4.9	3.3	14.3	58.2	176.6	255.8	354.1	544.8	483.8	323.0	219.1
226	Penner	113.7	6.9	10.4	9.0	8.8	8.3	31.7	30.2	36.6	72.1	203.5	97.1	52.4
227	Volta	504.4	1.5	16.0	58.4	165.7	523.3	714.2	1680.5	2259.3	1085.4	548.9	331.0	657.4
228	Lempa	177.6	0.6	1.5	2.1	2.3	109.5	316.4	393.6	608.4	459.1	195.3	117.0	198.6
229	Gambia	150.2	0.1	0.1	0.1	0.1	29.0	184.4	615.6	693.3	307.6	163.2	98.5	186.8
230	Grande De Matagalpa	357.7	17.5	9.3	6.0	7.5	270.2	538.9	488.8	540.4	590.0	349.6	249.6	285.5
231	Cauvery	418.3	31.9	77.1	69.5	70.2	216.2	733.9	661.1	514.8	469.5	555.5	369.8	349.0
232	San Juan	1044.7	106.7	56.5	52.3	207.2	790.6	955.7	958.8	1223.9	1470.0	968.0	784.4	718.2
233	Geba	107.4	0.7	0.9	0.9	0.7	15.8	82.7	362.8	461.0	241.4	116.5	70.7	121.8
234	Corubal	176.6	0.1	0.1	0.1	0.1	58.6	353.5	718.8	633.2	416.1	192.9	115.8	222.2
235	Magdalena	5423.6	690.5	1286.0	2835.1	4242.2	3726.6	3011.1	3096.0	3658.2	6369.3	6357.9	4183.3	3740.0
236	Comoe	89.6	0.7	0.9	21.0	61.2	184.6	135.4	203.6	302.0	204.4	108.1	59.3	114.2
237	Orinoco	14712.0	1981.7	3222.0	9639.5	19300.5	27474.1	31384.6	27826.1	22407.3	20689.1	15477.9	9366.2	16956.7
238	Bandama	267.4	0.8	1.1	23.7	61.4	304.2	211.1	589.8	1114.9	637.3	294.6	176.3	306.9
239	Oueme	91.8	0.2	0.2	1.4	48.2	195.3	253.0	264.2	378.7	207.6	99.8	60.2	133.4
240	Sassandra	452.3	0.3	0.6	25.8	61.9	450.1	664.6	927.7	1664.6	1083.2	520.7	297.5	512.4
241	Shebelle	225.2	9.9	10.9	506.4	351.0	205.1	318.8	401.0	388.9	336.4	322.1	158.3	269.5
242	Mono	24.4	0.1	2.9	10.1	25.2	66.1	71.4	63.9	94.4	57.9	26.5	16.0	38.2
243	Congo	38781.7	18567.6	25336.9	27793.8	18695.0	12504.4	11096.3	14292.0	18079.1	22224.7	21780.2	24631.5	21148.6
244	Atrato	1781.7	459.4	547.3	863.5	1124.9	1175.4	1195.3	1219.4	1337.9	1428.2	1406.4	1107.4	1137.2
245	Cuyuni	1959.6	627.4	566.0	853.6	1974.3	2695.6	2604.3	2026.9	1089.2	717.4	733.1	1314.3	1430.1
246	Cavally	459.1	21.2	44.2	106.6	310.6	683.7	489.5	388.4	841.0	837.6	587.1	331.0	425.0
247	Tano	64.3	0.0	6.5	37.3	109.4	271.3	140.0	67.4	96.2	162.2	84.4	43.7	90.2
248	Cross	797.3	0.3	121.6	237.0	469.3	946.4	1565.6	1826.7	2324.9	2163.2	890.4	522.9	988.8
249	Sanaga	962.5	0.6	47.3	400.8	813.7	1168.0	1585.8	1923.4	2745.2	2671.6	1076.6	631.2	1168.9
250	Pra	75.7	0.6	20.5	56.4	131.6	263.3	138.2	65.6	129.2	207.9	96.6	49.5	102.9
251	Davo	26.7	0.0	0.0	0.4	1.9	108.6	56.6	25.3	47.6	57.7	38.6	17.9	31.8
252	Essequibo	1013.8	395.3	422.1	586.4	1432.7	2611.4	2344.0	1591.5	787.3	487.8	375.0	621.1	1055.7
253	Kelantan	715.0	87.8	68.5	83.5	86.8	96.3	98.8	112.2	270.6	417.0	486.3	543.8	255.6
254	Corantijn	262.7	165.9	342.2	710.9	2259.5	2636.2	1942.3	1216.8	602.5	362.3	218.8	138.5	904.9
255	Coppename	310.2	278.9	308.1	414.3	804.7	915.7	772.2	466.3	232.1	139.1	84.0	64.2	399.1
256	Kinabatangan	564.0	172.5	135.1	134.6	135.1	229.8	157.6	228.5	293.7	277.7	249.9	381.8	246.7
257	Maroni	769.9	916.7	1065.3	1531.4	2216.1	2029.1	1418.6	868.5	448.4	269.9	163.0	113.1	984.2
258	San Juan (Columbia - Pacific)	1212.9	440.7	523.2	691.3	824.8	782.5	781.0	794.2	820.7	905.9	905.8	781.2	788.7
259	Amazonas	190075.1	141017.2	162784.5	171575.3	142636.9	112877.6	84821.2	59821.4	47615.3	48736.0	59615.2	91142.2	109393.2
260	Pahang	1155.2	258.5	283.3	392.4	387.5	252.1	172.7	164.7	279.1	543.0	722.5	835.2	453.8
261	Nyong	253.8	0.0	77.2	230.6	363.4	300.9	139.6	135.6	486.9	678.0	340.0	166.5	264.4
262	Oyapock	856.4	808.7	963.5	1250.0	1320.6	1151.1	705.3	414.0	226.3	136.7	82.5	117.3	669.4
263	Rajang	4099.4	1702.6	1931.5	2042.2	1987.1	1553.9	1376.4	1371.2	1848.5	2225.8	2371.2	2455.4	2080.4
264	Ntem	411.1	1.7	88.6	324.7	519.1	361.6	158.2	94.1	311.7	886.2	638.6	285.7	340.1
265	Ogooue	4545.3	1513.9	3146.8	4155.3	3829.4	1590.0	923.6	558.3	501.0	1730.3	4718.4	3488.7	2558.4
266	Rio Araguari	945.4	1075.5	1387.2	1692.3	1623.6	1424.8	854.6	497.3	275.3	166.2	100.4	79.7	843.5
267	Mira	414.6	251.9	258.2	286.0	406.5	391.9	249.7	245.8	271.1	233.1	256.6	182.6	287.3
268	Esmeraldas	584.4	847.6	1135.2	1348.6	933.7	500.8	279.8	175.2	117.8	115.8	151.1	193.3	532.0
269	Tana	58.1	2.9	7.8	102.6	141.2	66.6	36.7	22.7	14.0	20.7	52.1	61.0	48.9
270	Daule & Vinces	546.2	816.1	1052.0	939.3	483.9	296.4	183.1	129.0	94.5	89.4	91.6	80.2	400.1
271	Rio Gurupi	98.3	409.7	929.4	902.7	685.2	430.3	282.6	152.9	90.2	54.5	32.9	20.6	340.8
272	Rio Capim	307.6	1121.3	1760.0	1585.2	1185.0	756.5	523.3	313.9	175.7	105.2	63.5	41.1	661.5
273	Tocantins	16587.4	13165.4	14385.3	9144.3	4822.1	2913.5	1786.2	1117.1	784.6	795.8	3307.2	8908.7	6476.5
274	Kouilou	801.5	480.1	790.2	1061.3	613.7	285.3	172.5	104.5	63.3	38.3	226.1	600.2	436.4
275	Nyanga	232.0	138.3	188.2	208.9	104.7	53.5	32.3	19.5	11.8	7.1	138.6	161.0	108.0
276	Rio Paraiba	407.9	749.4	1466.6	1398.4	624.8	344.7	209.5	128.3	78.8	48.5	31.4	111.8	466.7
277	Rio Itapecuru	16.9	245.0	652.0	650.7	330.3	176.7	104.2	62.9	38.1	23.1	13.9	8.5	193.5
278	Rio Acarau	4.5	6.4	162.1	215.4	129.3	60.3	35.9	22.0	13.6	8.4	5.2	3.3	55.5
279	Pangani	6.9	4.5	7.0	40.6	98.7	48.0	30.5	17.4	12.0	7.7	5.7	5.5	23.7
280	Rio Pindare	50.7	460.9	943.4	905.1	534.9	283.1	163.0	97.8	59.1	35.7	21.6	13.1	297.4
281	Sepik	3075.2	1911.1	2533.1	2436.2	1879.5	1484.8	1359.2	1362.5	1541.5	1620.1	1617.0	1836.5	1888.1
282	Rio Mearim	71.3	542.7	1089.1	931.5	464.4	250.6	149.1	90.2	54.6	33.0	20.0	12.3	309.1
283	Chira	15.2	41.7	75.9	68.3	27.6	17.3	12.4	10.4	7.6	4.4	4.6	3.4	24.1
284	Rufiji	367.2	765.4	1536.8	1760.9	805.4	425.8	257.1	155.8	94.7	57.6	35.3	83.8	528.8
285	Rio Jaguaribe	12.8	2.3	323.9	548.9	312.5	172.4	103.1	64.0	42.7	28.4	18.5	12.1	136.8
286	Purari	1417.8	840.0	1040.9	1067.0	892.0	707.0	590.5	613.0	770.6	723.2	727.2	843.2	852.7
287	Ruvu	24.3	24.5	72.4	190.5	144.4	57.5	34.8	21.2	13.0	7.9	4.8	14.7	50.8</

Basin ID	Basin name	Blue water availability (Mm <sup>3</sup> /month)													
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average	
310	Macarthur	0.1	0.2	11.1	2.9	1.8	1.1	0.6	0.4	0.2	0.1	0.1	0.1	1.6	
311	Fitzroy	1.1	89.3	98.1	33.5	20.2	12.2	7.4	4.5	2.7	1.6	1.0	0.6	22.7	
312	Gilbert	36.6	275.0	225.2	85.6	51.2	30.9	18.7	11.3	6.8	4.2	2.5	1.5	62.5	
313	Mucuri	266.4	82.5	63.0	50.8	33.4	22.8	17.7	10.0	5.8	4.3	42.5	209.2	67.4	
314	Rio Doce	2512.7	1059.7	848.4	492.3	260.3	156.9	96.6	60.4	37.4	23.6	466.9	1819.8	652.9	
315	Save	440.7	671.2	488.1	213.1	125.5	77.3	48.6	34.8	26.2	17.0	8.3	69.7	185.0	
316	Burdekin	138.0	735.9	732.5	377.4	200.2	119.6	72.8	45.4	29.3	19.2	11.9	6.5	207.4	
317	Tsribihina	1926.4	1960.9	1809.9	830.9	470.9	287.4	178.6	109.0	65.8	39.7	59.8	568.3	692.3	
318	Buzi	260.9	383.4	377.8	150.5	87.6	53.0	32.2	19.8	12.3	7.7	4.5	22.2	117.7	
319	Loa	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
320	Limpopo	376.0	611.8	560.6	286.6	153.4	100.3	71.8	66.8	66.1	49.4	31.9	61.7	203.0	
321	De Grey	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
322	Paraiba Do Sul	1476.8	821.1	764.8	436.0	247.8	151.9	94.0	61.7	52.9	118.0	326.7	880.1	452.6	
323	Fortescue	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
324	Mangoky	371.6	440.8	370.5	179.8	103.6	66.1	44.1	27.3	16.6	10.0	11.3	66.7	142.4	
325	Fitzroy	14.5	381.9	427.0	177.1	98.8	60.2	38.6	26.5	20.4	16.0	10.9	7.0	106.6	
326	Orange	371.4	419.1	449.2	280.5	161.4	97.9	68.5	64.0	62.3	72.5	107.0	176.8	194.2	
327	Ashburton	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
328	Gascoyne	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
329	Rio Ribeira Do Iguape	435.0	331.5	285.2	177.5	147.1	156.4	107.6	88.6	120.2	172.1	154.8	197.5	197.8	
330	Incomati	208.0	223.7	205.5	103.4	55.4	34.7	22.7	16.8	13.5	8.7	25.9	91.3	84.1	
331	Murray	573.7	275.9	300.2	222.1	255.9	430.7	502.3	633.0	674.2	667.5	462.9	400.1	449.9	
332	Murchison	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
333	Maputo	185.0	143.8	123.7	64.9	35.9	22.9	15.0	11.6	9.2	6.6	22.5	93.4	61.2	
334	Uruguay	3140.5	1126.7	1622.4	2798.1	3389.9	3831.6	3268.9	3124.1	3775.3	4032.1	2572.9	1917.4	2883.3	
335	Tugela	151.7	157.4	150.6	74.5	40.9	25.3	17.3	14.9	13.4	13.0	17.2	75.2	62.6	
336	Colorado (Argentina)	700.2	69.2	44.2	27.1	74.6	141.4	168.3	186.0	181.7	474.4	630.5	515.1	267.7	
337	Rio Jacui	1001.0	498.4	580.2	784.2	979.4	1158.6	1067.9	1029.0	1148.6	1027.3	681.2	558.8	876.2	
338	Huasco	18.4	3.3	2.0	1.2	0.7	0.5	0.3	0.3	0.3	0.3	0.1	9.2	3.1	
339	Limari	23.6	20.3	8.2	4.2	2.5	5.6	3.7	3.5	2.9	3.1	2.3	6.4	7.2	
340	Negro (Uruguay)	260.3	17.4	98.4	299.8	454.8	662.4	644.6	658.0	675.8	564.6	310.8	169.3	401.4	
341	Groot-Vis	2.1	4.8	4.6	2.8	2.3	1.9	2.0	2.6	4.3	5.5	3.8	3.8	3.4	
342	Salado	202.3	4.9	14.6	157.5	245.6	247.0	221.1	191.9	252.2	313.6	283.6	153.5	190.7	
343	Blackwood	15.9	0.1	0.1	0.1	0.0	6.0	50.9	81.5	60.3	33.4	17.4	10.5	23.0	
344	Rapel	223.9	35.6	22.7	13.3	102.1	274.7	271.3	237.1	175.4	140.3	82.5	136.3	142.9	
345	Negro (Argentina)	492.3	19.8	69.4	202.0	805.1	1171.8	1242.1	1215.0	1006.1	873.6	632.5	348.1	673.1	
346	Biobio	302.6	5.8	59.7	183.8	747.3	957.3	1008.5	934.1	826.2	594.6	361.9	209.0	515.9	
347	Waikato	242.0	87.2	76.4	120.3	254.3	328.5	323.4	310.4	277.8	271.2	216.1	156.3	222.0	
348	South Esk	37.3	1.8	2.1	6.5	15.3	41.7	78.6	94.3	80.6	71.6	43.4	27.1	41.7	
349	Chubut	167.5	14.0	34.4	67.2	254.8	452.7	519.4	623.2	449.3	290.8	179.2	116.1	264.0	
350	Clutha	205.8	84.2	96.6	138.8	136.9	138.9	128.4	144.7	179.7	191.4	152.5	131.9	144.2	
351	Baker	385.8	126.0	219.8	327.7	451.9	507.2	550.8	529.7	429.8	376.5	315.9	256.6	373.1	
352	Santa Cruz	330.4	77.0	112.0	236.4	318.1	370.1	315.4	493.0	644.2	645.4	321.2	208.5	339.3	
353	Ganges	6436.4	2196.3	3289.5	2579.3	2584.4	5564.7	15724.9	25704.0	19394.6	9568.4	6524.3	3925.2	8624.3	
354	Salween	1673.2	19.1	118.5	302.3	569.3	2411.1	4929.8	6413.6	5517.3	3631.9	1947.4	1104.5	2386.5	
355	Hong (Red River)	956.0	16.1	20.9	50.9	313.3	1487.9	3689.4	4528.9	3276.8	1920.5	1086.7	629.8	1498.1	
356	Lake Chad	1374.1	27.1	28.9	36.0	52.6	245.4	1597.8	7283.3	5590.2	2810.0	1481.8	898.2	1785.5	
357	Okavango	815.0	1297.8	1723.8	794.3	408.2	246.6	149.2	90.4	55.0	33.4	20.1	176.4	484.2	
358	Tarim	48.4	15.4	53.9	118.7	331.4	569.1	665.3	472.1	270.3	108.2	59.0	32.8	228.7	
359	Horton	2.5	0.1	0.0	0.0	15.8	63.0	18.7	11.0	6.6	4.0	2.4	1.5	10.5	
360	Hornaday	2.5	0.0	0.0	0.0	0.0	36.3	29.1	14.0	7.4	4.5	2.7	1.6	8.2	
361	Conception	0.1	0.4	0.7	1.0	0.8	0.9	0.9	1.2	1.1	0.8	0.3	0.2	0.7	
362	Ulua	347.2	15.5	8.5	6.3	3.9	102.1	358.3	399.5	627.2	549.7	383.4	252.4	254.5	
363	Patacua	342.2	23.7	10.8	6.5	3.9	14.2	138.7	178.6	287.7	435.2	360.5	258.7	171.7	
364	Coco	553.6	28.7	14.1	8.7	9.7	339.7	648.8	591.8	656.1	787.8	557.7	408.2	383.8	
365	Ocona	107.9	116.4	103.4	49.0	27.0	16.2	9.8	6.1	4.0	9.8	14.2	47.0	42.6	
366	Cuanza	2072.1	1513.0	2059.2	1749.4	710.6	425.5	257.3	155.8	94.5	61.5	60.8	1091.7	854.3	
367	Cunene	365.8	516.0	1048.1	585.0	264.6	159.8	96.5	58.4	35.3	22.6	19.6	128.5	275.0	
368	Doring	8.8	4.1	5.1	3.0	0.8	18.4	29.7	35.2	27.2	21.0	12.3	8.6	14.5	
369	Gamka	13.1	2.9	5.8	8.1	8.2	10.2	9.0	12.6	22.3	21.2	17.4	11.2	11.8	
370	Groot-Kei	0.5	1.3	3.4	2.6	1.7	1.2	1.1	1.2	1.6	1.7	1.2	0.9	1.5	
371	Lurio	920.9	1237.0	1217.8	504.4	287.0	173.4	104.7	63.3	38.2	23.1	13.9	93.6	389.8	
372	Messalo	188.3	363.7	439.4	219.8	109.6	66.2	40.0	24.1	14.6	8.8	5.3	3.2	123.6	
373	Rovuma	1821.2	3053.0	3618.4	1863.8	921.1	555.9	335.8	202.8	122.5	74.0	44.7	103.3	1059.7	
374	Galana	37.4	1.6	7.0	119.5	130.9	65.5	35.5	20.9	12.9	8.0	40.6	39.2	43.2	
375	Pyasina	94.1	1.0	0.6	0.4	0.3	1716.5	565.8	374.8	360.8	162.8	98.4	59.4	286.2	
376	Popigay	17.0	0.2	0.1	0.1	0.0	4015.5	150.8	82.1	50.2	29.4	17.7	10.7	64.1	
377	Fuchun Jiang	250.7	393.4	649.9	607.5	805.2	1114.6	484.0	287.4	256.5	177.3	141.5	114.5	440.2	
378	Min Jiang	342.0	452.2	1288.9	1252.7	1944.2	2128.8	970.0	745.1	576.5	409.9	268.2	176.1	879.6	
379	Han Jiang	85.9	37.9	248.2	402.1	758.5	943.6	489.5	425.1	331.0	156.6	93.3	56.8	335.7	
380	Mamberamo	3089.3	1890.8	2522.1	2293.6	1944.7	1568.5	1677.1	1592.9	1739.5	1309.5	1434.7	1726.2	1899.1	
381	Lorentz	98.6	89.0	103.1	95.0	69.3	50.8	56.2	50.8	69.2	39.9	55.4	52.5	69.1	
382	Eilanden	1086.2	666.9	767.1	750.2	713.5	648.9	647.1	618.0	674.3	540.3	565.0	655.8	694.4	
383	Uwimbu	1790.5	1079.0	1275.8	1198.4	1202.0	1086.5	1052.7	1025.3	1077.5	910.6	871.5	1080.3	1137.5	
384	Sungai Kajan	2153.9	818.5	1097.7	1323.9	1374.1	1159.1	1021.0	983.6	1286.2	1400.0	1564.0	1365.9	1295.6	
385	Sungai Mahakam	3721.2	1575.3	2027.0	2751.3	2520.0	1933.7	1366.3	1130.0	1190.3	1480.5	2230.6	2523.3	2037.5	
386	Sungai Kapuas	5898.3	2671.2	3045.5	3103.2	2702.7	2058.3	1478.7	1321.6	1787.3	2755.1	3458.7	3524.5	2817.1	
387	Batang Kuantan	764.1	292.1	346.4	463.4	365.1	215.1	128.1	105.1	167.7	345.0	515.9	520.5	352.4	
388	Batang Hari	2183.7	907.2	1090.0	1250.5	958.0	564.2	353.4	308.1	487.6	882.3	1254.6	1435.3	972.9	
389	Flinders	0.1	18.0	5.6	3.1	1.9	1.1	0.7	0.4	0.3	0.2	0.1	0.1	2.6	
390	Leichhardt	6.4	7.0	2.4	1.4	0.9	0.5	0.3	0.2	0.1	0.1	0.0	0.0	1.6	
391	Escaut (Schelde)	270.3	141.2	120.8	94.5	57.0	33.8	22.3	16.0	11.0	12.7	74.7	149.2	83.6	
392	Issyk-Kul	60.1	9.7	426.4	677.0	859.2	798.0	600.5	334.3	214.4	117.0	76.9	41.0	351.2	
393	Balkhash	54.7	1.2	439.8	809.3	818.0	581.4	420.5	273.7	181.0	82.5	89.0	36.3	315.6	
394	Eyre Lake	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
395	Lake Mar Chiquita	98.0	118.9	205.2	100.8										

## Appendix VIII. Monthly blue water footprint for the world's major river basins

Period: 1996-2005

Basin ID	Basin name	Blue water footprint (10 <sup>3</sup> m <sup>3</sup> /month)												Average
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	Khatanga	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
2	Olenek	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3	11.3
3	Anabar	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
4	Yana	46.4	46.4	46.4	46.4	46.4	46.4	46.4	46.4	46.4	46.4	46.4	46.4	46.4
5	Yenisei	14005.0	14005.0	14010.8	22586.1	67379.7	87527.4	79042.8	56657.6	32477.7	18324.4	14275.6	14012.4	36192.1
6	Indigirka	79.1	79.1	79.1	79.1	79.1	79.1	79.1	79.1	79.1	79.1	79.1	79.1	79.1
7	Lena	2433.3	2433.3	2433.3	2433.4	2434.3	2436.8	2447.0	2468.5	2445.9	2433.4	2433.3	2433.3	2438.8
8	Omoloy	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
9	Tana (NO, FI)	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6
10	Colville	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
11	Alazeya	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6	12.6
12	Anderson	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
13	Kolyma	261.7	261.7	261.7	261.7	261.7	262.0	262.3	264.3	262.8	261.7	261.7	261.7	262.1
14	Tuloma	397.5	397.5	397.5	397.5	397.5	397.5	397.5	397.5	397.5	397.5	397.5	397.5	397.5
15	Muonio	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0	110.0
16	Yukon	709.7	709.7	709.7	733.2	864.6	869.9	819.9	756.4	751.8	725.8	712.9	710.3	756.2
17	Palyavaam	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8
18	Kemijoki	322.5	322.5	322.5	322.5	322.5	322.5	322.5	322.5	322.5	322.5	322.5	322.5	322.5
19	Mackenzie	3302.6	3302.6	3302.7	3524.1	3876.2	3757.9	3650.4	3685.7	3512.4	3419.4	3324.3	3302.9	3496.8
20	Noatak	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3
21	Anadyr	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3	21.3
22	Pechora	1147.7	1147.7	1147.7	1147.7	1147.7	1147.7	1147.7	1147.7	1147.7	1147.7	1147.7	1147.7	1147.7
23	Lule	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.2
24	Kalixaelven	62.1	62.1	62.1	62.1	62.1	62.1	62.1	62.1	62.1	62.1	62.1	62.1	62.1
25	Ob	55630.5	55630.5	55641.7	95861.9	304570.9	399138.7	534705.8	460741.0	242699.8	102971.4	57227.1	55632.2	201704.3
26	Ellice	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	Taz	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6
28	Kobuk	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1	11.1
29	Coppermine	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
30	Hayes(Trib. Arctic Ocean)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31	Pur	372.7	372.7	372.7	372.7	372.7	372.7	372.7	372.7	372.7	372.7	372.7	372.7	372.7
32	Varzuga	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
33	Ponoy	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
34	Kovda	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8	62.8
35	Back	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
36	Kem	147.8	147.8	147.8	147.8	147.8	147.8	147.8	147.8	147.8	147.8	147.8	147.8	147.8
37	Nadym	82.7	82.7	82.7	82.7	82.7	82.7	82.7	82.7	82.7	82.7	82.7	82.7	82.7
38	Quoich	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
39	Mezen	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7	79.7
40	Iijoki	138.9	138.9	138.9	138.9	139.0	139.1	139.1	139.6	139.2	139.0	138.9	138.9	139.0
41	Joekulsa A Fjoellum	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
42	Svarta, Skagafiroi	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
43	Oulujoki	435.0	435.0	435.0	435.0	445.6	464.0	490.9	525.1	480.8	440.8	435.0	435.0	454.7
44	Lagarljot	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
45	Thelon	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5
46	Angerman	117.4	117.4	117.4	117.4	117.4	117.4	117.4	117.4	117.4	117.4	117.4	117.4	117.4
47	Thjorsa	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
48	Northern Dvina(Severnaya D	3254.5	3254.5	3254.5	3256.1	3650.4	3924.0	3905.7	3715.4	3340.4	3254.5	3254.5	3254.5	3443.2
49	Oelfusa	22.4	22.4	22.4	22.4	22.4	22.4	22.4	22.4	22.4	22.4	22.4	22.4	22.4
50	Nizhny Vyg (Soroka)	164.6	164.6	164.6	164.6	164.6	164.6	164.6	164.6	164.6	164.6	164.6	164.6	164.6
51	Kuskokwim	57.6	57.6	57.6	57.6	59.3	59.5	58.4	57.6	57.6	57.6	57.6	57.6	58.0
52	Vuoksi	1650.8	1650.8	1650.8	1650.8	1715.7	1799.9	1953.7	2144.8	1886.8	1667.7	1650.8	1650.8	1756.1
53	Onega	333.5	333.5	333.5	333.5	381.5	426.0	423.5	383.5	338.8	333.5	333.5	333.5	357.3
54	Susitna	152.5	152.5	152.5	153.5	187.7	189.8	163.9	153.7	152.6	152.6	152.5	152.5	159.7
55	Kymijoki	1285.5	1285.5	1285.5	1285.5	1364.7	1421.1	1488.1	1625.0	1456.9	1296.9	1285.5	1285.5	1363.8
56	Neva	8027.9	8027.9	8027.9	8045.8	10574.5	12074.7	11011.0	11704.2	8871.9	8031.5	8027.9	8027.9	9204.4
57	Ferguson	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
58	Copper	24.9	24.9	24.9	24.9	24.9	24.9	24.9	24.9	24.9	24.9	24.9	24.9	24.9
59	Gloma	1728.4	1728.4	1728.4	1729.2	1903.1	2987.3	4253.9	4640.8	2178.8	1728.5	1728.4	1728.4	2338.6
60	Kokemaenjoki	1710.1	1710.1	1710.1	1710.1	1914.1	2077.2	2256.1	2597.0	2145.7	1723.1	1710.1	1710.1	1914.5
61	Vaenem-Goeta	2650.5	2650.5	2650.5	2652.1	2858.8	3208.6	3451.6	3187.7	2747.6	2651.0	2650.5	2650.5	2834.2
62	Thlewiata	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
63	Alsek	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6
64	Volga	116047.3	116047.3	116127.0	151487.2	607847.6	798852.7	1124796	963030.8	356041.0	162975.0	120668.5	116099.0	395835.0
65	Dramselv	642.5	642.5	642.5	642.5	654.1	826.0	1109.7	905.7	702.3	642.5	642.5	642.5	724.6
66	Arnaud	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67	Nushagak	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4
68	Seal	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2
69	Taku	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8
70	Narva	1601.6	1601.6	1601.6	1604.9	1893.4	1940.6	2045.5	2297.4	1791.2	1607.8	1601.6	1601.6	1765.7
71	Stikine	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
72	Churchill	605.0	605.0	605.1	680.2	814.0	750.3	759.1	763.2	704.7	665.2	616.8	605.6	681.2
73	Feuilles (Riviere Aux)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
74	George	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
75	Caniapiscau	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
76	Western Dvina (Daugava)	2902.1	2902.1	2902.1	3089.8	4952.7	4524.9	4328.4	4954.4	3556.7	2913.7	2902.1	2902.1	3569.3
77	Aux Melezes	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
78	Baleine, Grande Riviere De L	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
79	Spey	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4	26.4
80	Kamchatka	48.9	48.9	48.9	48.9	48.9	48.9	48.9	48.9	49.0	48.9	48.9	48.9	48.9
81	Nass	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9
82	Skeena	300.1	300.1	300.1	300.1	300.1	300.1	300.1	300.1	300.1	300.1	300.1	300.1	300.1
83	Nelson	36043.3	36119.7	37077.4	98166.3	181129.3	204530.0	355878.4	533170.5	281797.3	108523.6	55374.7	39680.0	163957.5
84	Hayes(Trib. Hudson Bay)	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9	96.9
85	Gudena	400.5	400.5	400.5	402.4	1175.8	2941.0	3637.7	1889.1	1014.8	415.5	400.5	400.5	1123.2
86	Skjern A	144.1	144.1	144.1	144.4	303.4	1367							

Basin ID	Basin name	Blue water footprint (10 <sup>3</sup> m <sup>3</sup> /month)												
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average
102	Trent	3851.8	3851.8	3856.6	3867.3	4113.6	4724.6	7918.2	7500.9	5254.9	3919.6	3851.8	3851.8	4713.6
103	Weser	18785.6	18785.6	18786.8	18885.3	19314.9	21212.5	29191.0	36488.8	30603.1	19801.2	18785.8	18785.6	22452.2
104	Attawapiskat	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
105	Eastmain	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
106	Manicouagan (Riviere)	92.6	92.6	92.6	92.6	92.6	92.8	92.8	92.9	92.7	92.6	92.6	92.6	92.7
107	Columbia	34262	35262	180824	848539	1447369	2311177	3409891	2913847	1540886	615283	129775	41987	1125758
108	Little Mecatina	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
109	Natashquan (Riviere)	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
110	Rhine	122345.5	122345.5	122352.6	123279.3	135280.2	140236.7	145768.4	176128.5	150043.6	124553.1	122345.5	122345.5	133918.7
111	Albany	128.2	128.2	128.2	128.2	128.2	128.3	128.6	128.8	128.8	128.2	128.2	128.2	128.4
112	Saguenay (Riviere)	2088.6	2088.6	2088.6	2088.6	2102.2	2206.7	2155.3	2134.6	2095.1	2088.6	2088.6	2088.6	2109.5
113	Thames	7697.0	7697.0	7697.1	7699.1	7726.2	7880.7	8220.7	8141.2	7885.4	7709.7	7697.0	7697.0	7812.4
114	Nottaway	293.0	293.0	293.0	293.0	293.2	293.3	293.3	293.1	293.0	293.0	293.0	293.0	293.1
115	Rupert	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
116	Moose(Trib. Hudson Bay)	815.6	815.6	815.6	815.7	821.0	824.1	827.2	823.3	816.0	815.6	815.6	815.6	818.4
117	St.Lawrence	383010.0	383010.0	383187.1	386034.2	408783.9	451638.1	537777.5	564415.6	478676.0	402709.1	383289.8	383022.3	428796.1
118	Danube	172885.0	172888.3	176401.4	214410.4	349900.8	428431.0	640658.5	692509.3	429867.8	245115.7	174598.8	172895.0	322546.8
119	Seine	46280.8	46280.8	46499.4	48950.3	49473.4	72701.6	118179.0	116779.5	116779.5	56640.6	46296.5	46280.8	71713.7
120	Dniestr	13797.1	13797.1	13851.0	21101.3	69002.6	80201.6	60248.9	113028.4	63236.6	20506.5	13898.7	13797.1	41372.2
121	Southern Bug	5970.1	5970.1	5970.1	8880.2	28585.4	34379.8	50055.3	50401.7	21160.3	8384.4	6097.0	5970.1	19318.7
122	Mississippi	476071.5	553677.1	1066448	1676456	2574769	3671826	9923789	12809395	8325019	2696248	679909	513391	3747250
123	Skagit	428.9	428.9	428.9	429.4	436.7	908.0	1462.7	1546.0	820.1	431.6	428.9	428.9	681.6
124	Aral Drainage	51679.1	48145.8	215735.5	1182471	2320721	4541763	8587253	8909592	6123848	2291408	281293	100329	2887853
125	Loire	23162.6	23162.6	23736.9	26573.5	39703.4	65121.6	165091.3	251733.7	171018.7	48758.7	23288.3	23162.6	73709.5
126	Rhone	28384.8	28529.3	29642.5	32065.3	41461.0	58054.0	141031.2	150460.5	72119.4	32102.8	28758.1	28384.9	55916.2
127	Saint John	2582.5	2582.5	2582.5	2582.5	2587.8	2736.4	3219.2	4622.8	2960.2	2594.6	2582.5	2582.5	2851.3
128	Po	40929.7	40933.9	41954.4	44063.6	126507.8	202893.7	617810.5	620682.7	211145.4	53621.6	40929.9	40929.7	173533.6
129	Penobscot	765.3	765.3	765.3	765.5	767.3	777.6	865.5	1048.9	825.9	770.4	765.3	765.3	804.0
130	St.Croix	120.1	120.1	120.1	120.1	120.2	124.5	129.3	135.6	124.2	120.1	120.1	120.1	122.9
131	Kuban	6573.6	6573.6	6573.6	10296.5	77019.1	160897.1	291432.5	165757.2	37165.1	9876.5	6599.1	6573.6	65444.8
132	Connecticut	10498.8	10498.8	10499.1	10554.3	10865.5	12300.3	12701.8	10951.6	10645.2	10524.8	10506.4	10498.8	10920.4
133	Liao He	25918.6	27536.5	43955.3	421314	1382065	1906167	1116163	667477	467166	49664.8	33284.3	30489.8	514266.7
134	Garonne	9783.0	9804.2	11113.9	13422.2	20437.9	38994.0	217419.2	288619.9	187398.5	45387.3	11066.3	9783.0	71935.8
135	Ishikari	3230.4	3230.4	3230.4	3254.8	3378.9	14603.7	15213.4	19830.1	11559.0	3991.3	3230.4	3230.4	7331.9
136	Merrimack	11384.4	11384.4	11384.5	11418.1	11515.8	11710.1	11758.7	11498.9	11424.6	11408.5	11387.6	11384.5	11471.7
137	Hudson	19701.2	19701.2	19702.3	19776.2	19909.2	20191.0	21219.1	21213.9	20235.2	19767.0	19718.1	19701.3	20069.6
138	Colorado(Pacific Ocean)	51531.4	79016.8	258871.8	465243.9	688780.7	833506.3	868950.9	785259.8	598564.3	367116.3	152984.9	88178.4	436500.5
139	Klamath	695.1	695.1	875.6	28761.1	81554.8	127597.5	176238.8	151941.9	92866.9	28794.6	2489.8	695.1	57767.2
140	Ebro	4822.5	10975.0	46643.5	78434.8	122848.5	275459.1	587776.7	525750.6	242242.7	68777.9	11223.1	5629.7	165048.7
141	Rogue	1317.7	1317.7	1366.0	4252.0	11582.2	20252.7	27198.1	23091.3	14726.5	4929.1	1336.1	1317.7	9390.6
142	Douro	5884.1	7786.1	20223.4	41082.9	74657.3	252660.6	601045.1	614466.1	242744.1	45678.2	7325.7	5886.8	159953.4
143	Susquehanna	20293.7	20293.8	20304.9	20419.3	20885.0	21594.8	24593.3	26111.7	22846.0	20997.1	20312.5	20294.9	21578.9
144	Luan He	14156.1	63826.7	198095.8	369022.7	439376.3	226806.4	192323.3	207433.2	160173.2	62890.7	14435.4	11342.7	163323.5
145	Kura	26370.9	30851.7	107105.3	282772.4	308423.7	521039.7	733223.8	807810.5	455357.5	167331.3	53554.5	38164.1	294333.8
146	Dalinghe	3816.9	4321.7	6670.5	24989.9	66489.8	97171.0	50590.6	36848.1	27222.0	6012.0	4571.4	4326.1	27752.5
147	Delaware	32242.6	32244.3	32284.9	32560.0	34246.2	37078.2	37708.9	34841.7	33292.8	32505.0	32316.5	32254.2	33631.3
148	Sacramento	15241.3	15248.2	48730.6	287969	667890	1235885	1591869	1566041	1081215	300097	40641	15584	572201
149	Huang He (Yellow River)	217673	738449	2375921	4267862	4256628	3400184	3466422	2159613	992897	434435	188078	176407	1889547
150	Kizilirmak	4234.6	4254.3	7119.9	39274	119425	168870	187790	206397	129236	49110	14939	5399	78004
151	Yongding He	99988.0	545652.6	1990251	3417354	3359369	1712020	1842686	1930023	1020618	352702	102495	96961	1372510
152	Tejo	11231.7	14362.0	30236.9	47754.6	82013.5	223938.2	441127.2	433196.6	200765.3	50828.6	14147.8	11245.0	130070.6
153	Sakarya	5368.1	5386.4	8192.8	31515.7	95507.6	139487.4	174554.7	209581.8	140841.5	50135.6	9821.4	5927.5	73026.7
154	Eel (Calif.)	188.2	188.2	188.5	235.2	657.9	1102.8	1441.8	1205.3	846.8	282.0	190.2	188.2	559.6
155	Tigris & Euphrates	205397.3	718731.7	2729822	5090895	6654136	4850558	4639864	4544688	2850413	1543961	664503	264649	2896468
156	Potomac	17093.4	17093.9	17117.0	17504.4	18009.5	18871.4	19799.9	20398.5	18608.5	17477.1	17133.5	17096.7	18017.0
157	Guadiana	2588.8	11643.9	52785.6	92804.4	158832.5	420029.3	737694.5	702725.4	330357.8	95626.3	12663.1	3155.2	218408.9
158	Kitakami	2130.2	2130.8	2134.3	2137.7	2162.4	7457.6	19066.8	45846.8	28745.3	3920.7	2130.2	2131.7	9999.5
159	Mogami	1860.1	1860.1	1861.2	1880.2	1927.3	6926.2	10796.2	31753.9	14549.3	3721.7	1860.1	1860.1	6738.0
160	Han-Gang (Han River)	16927.3	16934.6	16961.0	17284.7	21933.1	37684.3	27829.3	22227.9	27161.2	17042.1	16943.4	16938.6	21322.3
161	Guadalquivir	6527.2	33894.1	123992.3	189770.9	279532.8	689193	1097659	1047458	503164	161945.8	34484.8	10685.8	348192.2
162	San Joaquin	8455.2	9670.6	92792.8	399075.9	658744.8	1062562	1459542	1459787	1013340	379470.4	66973.1	13882.9	552024.8
163	James	4539.4	4540.4	4547.5	4915.6	5152.6	5472.9	6092.1	6322.3	5119.3	4966.6	4569.3	4540.0	5064.8
164	Bravo	52585.2	100575.1	248393.7	392946.1	525645.7	497835.0	599657.0	567057.2	464507.0	286434.9	105140.1	72297.3	326089.5
165	Shinano, Chikuma	3548.2	3548.2	3550.4	3587.8	3678.9	6456.5	16274.8	37548.0	13720.9	4472.4	3548.3	3548.5	8623.6
166	Roanoke	7459.3	7460.9	7501.9	9261.5	11279.4	12219.9	14283.4	15908.4	11010.0	9934.4	7680.5	7460.6	10121.7
167	Naktong	11953.1	12079.3	12273.1	12489.7	20491.6	78141.3	58368.7	55497.2	57360.2	12754.4	12180.0	12134.1	29643.6
168	Indus	6455179	7692491	14959408	13807935	6182331	6262009	8796342	13190821	16068994	13120835	7128949	3924286	9799132
169	Tone	16652.4	16658.4	16684.8	16921.1	17434.2	30252.3	54229.0	105699.7	50170.4	20794.1	16652.7	16658.4	31612.5
170	Salinas	1560.7	1560.7	1714.9	8299.6	24644.6	52141.5	82755.9	87842.6	55421.4	11439.2	2716.4	1588.6	27640.5
171	Pee Dee	13141.8	13137.8	13237.6	14886.2	17965.8	19219.3	20735.8	21667.2	17175.0	14965.9	13358.8	13144.5	16053.0
172	Chelif	2243.7	4486.6	11906.5	19297.1	32072.6	55384.2	71153.4	66882.8	45925.4	14779.6	5989.0	3961.0	27840.2
173	Cape Fear	8243.5	8240.8	8485.1	10325.2	15144.1	15161.8	13943.7	14504.2	11093.5	9492.9	8437.9	8244.8	10943.1
174														



Basin ID	Basin name	Blue water footprint (10 <sup>3</sup> m <sup>3</sup> /month)												Average
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
206	Damodar	321001.6	150895.6	217247.6	60473.5	20235.7	18013.7	57510.2	38370.4	50884.2	128180.7	281488.4	245126.1	132452.3
207	Niger	117175.3	133775.1	159994.2	102340.4	247266.2	227449.8	190715.7	142446.1	193011.8	207068.0	64979.2	72785.9	154917.3
208	Narmada	591222	582117	1216831	1529310	1537921	408983.0	38561.8	50038.6	112396.8	249632.9	212263.3	398514.2	577316.0
209	Brahmani River (Bhahmani)	108131.9	45430.0	71957.7	57563.0	52284.8	23326.4	23378.5	18202.0	31067.4	69816.1	110970.6	105337.9	59788.9
210	Mahanadi(Mahahadi)	493904.3	146732.8	213472.7	204175.8	213763.2	76145.2	93534.4	66762.9	209738.6	494316.1	598494.6	475411.3	273871.0
211	Santiago	69433.9	156850.1	329195.1	358517.6	227133.2	88512.1	63621.5	80404.7	178113.9	230843.2	139603.3	107577.7	169150.5
212	Panuco	59147.5	128380.2	251479.9	266556.7	186223.8	80759.8	60191.8	75690.8	96250.7	104272.6	69303.7	80568.1	121568.8
213	Godavari	1403293	846541	1675666	1996301	2123564	823832	551196	539414	663656	1168966	1408048	1423182	1218638
214	Tapti	276668.3	227566.1	414078.5	494077.2	533823.8	201524.6	90419.5	118814.1	198954.2	310907.4	278697.0	277175.7	285225.5
215	Sittang	3465.5	4516.6	8520.0	8858.3	5784.9	35071.4	17130.2	7752.7	31031.5	44533.4	9145.4	2562.4	14864.4
216	Armeria	3496.4	10961.6	23001.5	38879.1	37308.7	13663.1	4419.5	2587.5	2146.6	13316.5	11430.0	13509.5	14560.0
217	Ca	10049.8	9707.5	7879.1	11152.4	40910.6	18897.3	12304.8	4239.3	4066.4	4907.1	5918.1	6333.7	11363.8
218	Chao Phraya	500052	429799	702371	726552	447428	309828	1301998	1314239	977560	1175695	2152860	752664	899254
219	Krishna	2085475	825245	1692112	1831925	1892192	1086965	1892192	1679785	2348322	1758006	2152860	2233875	199152
220	Senegal	26195.1	13556.4	20473.6	15815.1	16250.3	15939.4	41069.3	35983.9	35292.4	59240.1	51877.4	28735.1	30035.7
221	Papaloapan	5755.1	10892.1	18931.4	19716.5	14544.8	7490.8	7494.8	11051.7	6995.3	12754.2	9045.0	9997.6	11222.4
222	Grisalva	9068.6	12611.1	38902.8	60109.3	42527.8	15144.1	9803.9	13796.8	8004.6	8094.8	14728.7	24789.5	21465.2
223	Verde	1688.1	3855.9	8808.5	9301.3	6019.0	2591.5	2556.6	2616.5	3248.5	2719.8	3776.9	4438.0	3041.7
224	Mae Klong	25670.1	28215.2	46157.7	45329.9	20724.5	11506.4	52439.2	66338.2	44699.2	24524.1	55270.0	32920.0	37816.2
225	Tranh (Nr Thu Bon)	4406.8	4982.2	3362.2	4165.1	26187.3	28753.8	26879.3	12805.6	1545.2	1535.0	1631.9	2428.4	9890.3
226	Penner	183705.0	46423.6	70472.3	60887.3	59123.8	56079.9	214195.2	204265.8	247099.0	191439.6	245016.4	187965.9	147222.8
227	Volta	9567.8	10442.0	12602.1	8230.3	5987.6	8736.4	7358.4	5708.3	6382.8	10244.7	7843.7	7902.8	8417.3
228	Lempa	8417.2	3985.4	10300.0	13889.0	6041.7	3074.9	2889.5	2900.3	2579.5	3108.5	6446.6	9496.9	6094.1
229	Gambia	331.1	367.9	421.2	366.2	382.3	290.1	1097.0	855.3	818.6	1268.8	342.0	338.4	573.2
230	Grande De Matagalpa	566.0	594.8	3029.8	4736.1	1566.4	402.8	637.9	1219.1	440.0	276.3	199.7	523.6	1182.7
231	Cauvery	458718	207070	515498	458868	442335	449788	1508522	1507427	1445163	774266	560226.2	465899.2	732815.0
232	San Juan	9649.7	9142.5	18721.9	27753.9	9814.9	4224.3	5693.1	9177.3	6153.5	3690.4	3351.3	6276.3	9470.8
233	Geba	3460.3	4754.7	5841.6	5808.9	4717.1	1657.3	372.7	80.4	279.3	318.8	2963.3	4028.0	2856.9
234	Corubal	386.5	521.0	617.3	612.7	529.8	236.9	108.2	90.1	111.3	141.8	329.7	445.6	344.2
235	Magdalena	36962.3	40595.1	109023.0	121897.9	126453.2	143794.5	277591.3	321763.7	124292.8	46851.9	36228.9	37982.4	118619.8
236	Comoe	3723.0	4563.1	6155.5	805.2	2893.7	2868.3	2656.4	2317.6	2150.1	4090.6	4433.9	5521.1	3764.9
237	Orinoco	51166.0	75192.9	148018.5	116530.6	58659.7	56289.8	84861.4	118091.2	86830.9	29194.6	26893.7	62694.2	76202.0
238	Bandama	3618.5	5359.1	7722.2	6704.9	5053.7	1699.8	1779.8	1487.8	1212.6	2538.2	5959.7	8605.1	4311.8
239	Oueme	965.2	1307.5	1498.3	1155.2	861.4	648.6	653.4	607.9	634.5	587.3	956.1	1201.2	923.1
240	Sassandra	1176.2	1950.1	4275.9	3602.8	2184.4	742.6	559.7	581.4	547.9	844.0	2016.3	3249.2	1810.9
241	Shebelle	78624.7	60600.1	38694.8	18624.5	18867.7	141778.8	217842.5	123581.2	47896.3	37851.8	28963.6	48183.1	71792.4
242	Mono	400.3	450.1	431.1	311.4	284.5	257.8	253.3	276.6	256.5	244.1	277.6	336.7	315.0
243	Congo	7425.3	9630.1	9895.9	9371.1	19489.5	31988.4	33458.0	35361.3	32674.7	24805.9	8041.2	5782.6	18993.7
244	Atrato	596.3	596.9	620.1	682.7	619.3	595.2	595.6	597.3	595.9	595.0	595.0	595.2	607.1
245	Cuyuni	188.7	205.4	258.7	243.8	192.8	173.8	173.5	201.6	217.8	210.9	201.0	199.8	205.6
246	Cavally	224.8	264.5	339.2	278.6	162.7	136.0	154.8	174.3	168.0	190.3	225.8	270.4	215.8
247	Tano	207.1	226.5	206.9	166.7	153.9	149.5	155.2	169.7	189.7	158.2	161.4	201.3	178.8
248	Cross	1586.0	1864.2	1722.9	1362.9	1270.9	1236.3	1224.4	1224.2	1222.4	1226.9	1382.7	1766.8	1424.2
249	Sanaga	1625.2	2104.0	1347.5	1037.7	567.7	531.5	466.5	444.4	446.7	507.6	1440.6	2049.2	1047.4
250	Pra	4539.5	4288.5	3579.0	1338.1	879.6	617.9	973.8	1169.3	854.9	487.4	486.7	2106.0	1776.7
251	Davo	176.9	219.2	214.8	197.5	105.9	84.7	106.8	161.7	147.3	142.5	147.0	237.7	161.8
252	Essequibo	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8
253	Kelantan	39173.4	29665.9	1797.7	1179.2	1582.4	3175.2	4628.0	5039.6	30769.7	16146.9	8351.1	4871.7	12198.4
254	Corantijn	53.6	53.6	53.6	53.6	73.0	58.8	156.3	249.1	923.1	548.6	193.2	68.3	207.1
255	Coppename	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1
256	Kinabatangan	235.4	201.9	201.9	205.0	211.2	210.0	209.7	255.4	322.7	253.0	231.7	234.9	231.1
257	Maroni	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
258	San Juan (Columbia - Pacific)	990.4	1280.5	2848.2	2452.2	2799.0	3381.4	6309.4	6367.6	2508.4	1066.0	871.8	995.3	2655.8
259	Amazonas	90048.9	82160.0	98044.1	250757.2	285935.4	217698.9	191979.8	286579.2	288724.7	205464.6	148718.1	82683.1	185732.8
260	Pahang	21420.6	9762.1	1971.7	2172.3	2408.5	4547.0	6821.8	6363.9	19897.8	10406.4	9369.4	6314.9	8454.7
261	Nyong	125.9	125.8	125.5	125.3	125.0	125.0	125.1	125.1	125.0	125.0	125.0	125.4	125.3
262	Oyapock	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
263	Rajang	1381.3	401.3	276.8	275.4	281.3	277.3	297.9	297.1	642.4	454.9	647.3	1066.2	524.9
264	Ntem	182.2	183.4	180.7	179.4	178.9	178.9	178.9	178.9	178.9	178.9	178.9	180.3	179.9
265	Ogooue	600.6	546.4	478.0	302.8	265.3	369.3	713.9	1155.4	842.7	478.2	246.6	337.6	528.1
266	Rio Araguari	24.8	24.8	24.8	24.8	24.8	24.8	24.8	24.8	24.8	24.8	24.8	24.8	24.8
267	Mira	5669.4	4594.5	3362.4	2750.4	3808.6	5730.0	12593.3	24869.5	19047.6	6104.3	5516.5	3371.0	8118.1
268	Esmeraldas	14478.9	11223.3	8395.3	7066.1	8790.7	11571.1	27996.9	53475.8	38916.5	17927.0	24302.0	13038.1	19810.1
269	Tana	11163.8	11021.9	3741.6	1002.6	920.8	2771.7	6243.1	8141.2	7988.8	4856.0	1270.2	4218.5	5278.3
270	Daule & Vinces	76294.6	27282.6	15585.9	10387.3	21676.0	48581.3	111075.1	180108.2	150194.0	76443.7	131809.0	71459.2	76741.4
271	Rio Gurupi	199.6	185.4	185.1	185.5	192.2	228.4	253.2	267.7	261.0	235.6	215.4	200.1	217.4
272	Rio Capim	483.6	471.3	471.3	471.0	473.7	480.5	487.3	498.7	524.3	509.9	510.5	486.3	489.1
273	Tocantins	17599.9	11559.6	10800.6	20018.0	13298.0	17296.2	21141.7	23947.2	20498.2	11143.5	10846.6	11621.8	15814.3
274	Kouilou	80.2	80.6	78.7	78.8	328.9	2036.2	2923.4	3622.1	3720.0	2881.4	637.8	78.6	1378.9
275	Nyanga	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
276	Rio Parnaiba	7330.6	5752.8	4658.7	6687.2	13878.3	19976.6	23026.0	25728.3	24345.8	20674.2	13068.3	11625.1	14729.3
277	Rio Itapicuru	1038.7	919.8	862.8	976.1	1843.3	2457.8	2708.8	2785.4	2449.8	1974.0	1276.0	1055.5	1695.7
278	Rio Acarau	706.2	808.0	582.4	481.1	1001.3	2657.1	3081.1	3854.0	4372.7	4049.2	3535.8	2922.3	2337.6
279	Pangani	6122.5	21481.4	20589.8	13511.5	23766.6	57621.2	68179.9	35271.8	31027.4	22244.9	7098.8	5938.5	26071.2
280	Rio Pindare	469.5	433.7	429.4	436.5	460.4	528.3	560.4						

Basin ID	Basin name	Blue water footprint (10 <sup>3</sup> m <sup>3</sup> /month)												
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average
310	Macarthur	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
311	Fitzroy	11.9	12.0	12.4	14.1	14.2	13.9	14.3	14.9	15.2	15.3	14.4	12.5	13.8
312	Gilbert	7.4	7.0	69.2	192.1	192.0	166.5	177.4	213.7	246.0	244.9	166.5	86.0	147.4
313	Mucuri	398.8	697.6	722.2	893.4	1042.3	1273.0	1400.9	1994.9	1783.8	1336.8	535.7	375.9	1037.9
314	Rio Doce	4008.0	11396.5	10312.4	13025.3	15031.5	19754.2	25232.1	29963.7	24373.8	18958.1	6088.4	3693.6	15153.1
315	Save	7032.9	7311.8	12439.9	22876.0	18101.7	21476.8	25475.9	52038.5	66437.5	48232.1	15712.5	7525.0	25388.4
316	Burdekin	1069.8	1069.6	6076.7	16014.8	13433.7	13045.9	15661.6	19538.3	24172.3	24665.8	17069.6	5682.5	13125.1
317	Tsribihina	60722.5	42436.5	88041.6	170196.4	57454.6	3648.5	3562.4	3689.5	3846.5	3978.5	2776.9	19607.2	38330.1
318	Buzi	339.3	168.7	571.0	1950.0	2369.0	2285.2	2411.6	3704.3	4836.8	4651.0	1881.5	694.8	2155.3
319	Loa	348.3	348.2	349.1	344.5	338.5	344.2	350.9	378.1	394.9	396.1	358.0	357.0	359.0
320	Limpopo	98842.0	124195.8	219628.8	213847.8	120149.9	125648.9	151835.7	249928.3	325116.1	260022.0	144978.1	90398.9	177049.4
321	De Grey	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
322	Paraiba Do Sul	8096.7	7902.6	9838.7	14156.2	11371.2	13191.8	16284.0	18864.9	14871.9	14426.4	8900.6	7285.8	12099.2
323	Fortescue	9.8	9.8	10.1	10.2	10.2	10.0	10.1	10.3	10.5	10.7	10.5	10.2	10.2
324	Mangoky	36833.8	29713.2	51243.5	62417.9	19314.3	3491.1	3051.9	3056.3	3009.5	3297.2	2252.2	12760.5	19203.4
325	Fitzroy	6135.8	9673.2	46656.6	47241.2	30687.5	22800.7	29204.9	39198.8	53174.6	56851.7	42674.6	29016.8	34443.0
326	Orange	122068.9	208326.4	240318.1	173615.7	83286.4	99538.7	127434.9	195558.1	238623.5	235041.8	144597.6	110597.0	164917.3
327	Ashburton	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1
328	Gascoyne	16.1	26.1	37.7	31.0	21.7	16.8	14.0	28.0	40.4	42.4	37.7	32.1	28.7
329	Rio Ribeira Do Iguape	2155.1	2072.6	2145.4	2360.0	2087.9	2051.4	2090.6	2154.1	2099.0	2084.0	2155.9	2158.7	2134.6
330	Incomati	6744.6	10034.5	17801.4	28995.5	20121.8	20976.2	24492.5	35427.8	44482.0	30139.7	16687.2	10339.6	22186.9
331	Murray	1796675	1629509	1677274	851276	281547	141682	147848	291593	566450	902256	998880	1224788	875815
332	Murchison	19.2	30.4	35.3	27.4	16.5	13.9	12.6	22.6	35.9	41.7	37.9	30.9	27.0
333	Maputo	1657.9	1863.0	6406.3	16175.1	15406.1	17843.1	19266.3	28775.0	32439.2	26730.3	13692.5	9878.1	15844.4
334	Uruguay	674173.3	302717.3	105062.7	9149.2	4500.7	4538.6	4675.7	6884.4	7069.2	75991.9	222852.6	345000.7	146884.7
335	Tugela	12844.4	32307.0	51653.7	31877.5	17955.0	18187.8	24585.7	38346.7	45657.8	41740.0	25547.1	13318.7	29501.8
336	Colorado (Argentina)	164413.7	128020.2	103199.4	45559.1	35233.9	27627.6	63043.9	118507.8	170003.6	212465.5	229930.1	151341.9	120778.9
337	Rio Jacui	259052.2	109321.3	47759.7	2362.1	2136.7	2126.9	2125.6	2146.1	2192.2	28141.6	82757.9	131107.2	55935.8
338	Huasco	880.5	669.4	596.5	320.6	233.5	377.0	420.7	900.5	1491.4	1703.2	575.0	678.5	737.2
339	Limari	33036.7	20409.8	15231.9	4343.8	2483.7	1128.7	1359.8	4913.1	11224.6	15815.0	12289.3	17019.2	11604.6
340	Negro (Uruguay)	77510.1	40088.3	24714.6	1701.7	169.3	169.0	169.1	173.3	185.6	2311.3	17959.6	32370.9	16460.2
341	Groot-Vis	14526.3	32500.4	31051.4	18743.8	15831.9	12788.2	13412.8	17802.9	29350.8	36957.0	25499.1	25607.1	22839.3
342	Salado	30690.2	31714.2	12777.0	4173.2	2776.8	2699.5	3138.3	3343.9	6448.3	7055.3	7087.4	7698.1	9966.8
343	Blackwood	677.8	868.2	921.3	540.3	112.5	58.0	56.5	62.1	86.6	400.3	621.9	777.6	431.9
344	Rapel	160994.9	92143.4	63877.9	14339.2	2676.0	1202.5	1193.5	3295.0	25200.3	76379.7	56481.3	90362.1	49012.2
345	Negro (Argentina)	22754.5	22634.3	16810.0	7621.7	3348.7	1700.5	2238.0	4931.8	8688.9	13110.6	21027.1	23140.1	12333.9
346	Biobio	28414.2	15065.1	11595.8	3916.5	5844.3	5712.0	5919.4	6177.5	11895.2	15852.7	5911.7	15700.7	11000.4
347	Waikato	805.3	884.8	1470.9	936.2	772.1	771.2	771.2	771.2	771.2	772.8	793.6	862.8	865.3
348	South Esk	4363.8	7720.4	9018.2	3485.7	1054.4	242.4	114.1	376.1	1709.8	3617.7	4179.9	5909.2	3482.6
349	Chubut	4565.2	9149.9	10672.0	6480.2	3205.9	1252.6	1584.8	3762.2	6442.3	9430.3	10387.5	10851.3	6482.0
350	Clutha	2540.9	17233.5	17807.5	11223.5	1629.9	204.3	188.7	925.2	7142.1	10489.7	13228.7	10746.4	7780.0
351	Baker	25.4	66.4	107.7	64.7	33.7	27.0	29.0	38.7	70.2	137.0	122.6	111.6	69.5
352	Santa Cruz	29.0	136.8	175.6	95.3	34.8	18.5	17.8	36.9	91.7	181.2	210.6	166.2	99.5
353	Ganges	13158709	14044732	19911407	12435642	10053368	5544274	3941654	2382353	3662445	7534298	11330417	6754745	9229504
354	Salween	18910.2	21222.2	34782.4	73001.7	71107.9	75090.7	40034.7	32003.0	47800.8	46577.3	20138.6	13490.7	41180.0
355	Hong (Red River)	86812.4	94924.2	106398.9	217194.1	516481.4	257551.0	115094.1	89732.2	76564.6	35708.5	39272.1	55205.2	140911.5
356	Lake Chad	123841.3	182360.2	195207.9	192937.9	45619.4	47440.0	34137.9	24381.8	34770.1	57186.8	45197.3	63649.7	87227.5
357	Okavango	850.3	939.6	1358.4	2321.6	2706.3	2777.0	3170.3	4094.5	4792.1	4473.7	2363.9	1472.9	2610.1
358	Tarim	46367	103636	364031	795438	1367750	1424510	1536483	1380857	981231	229859	96323	39023	697126
359	Horton	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
360	Hornaday	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
361	Conception	863.2	2402.2	4812.7	6493.5	5091.4	6316.2	5835.4	8031.6	7388.1	5674.9	2054.4	1500.2	4705.3
362	Ulua	7388.7	5158.9	11597.1	15430.8	9677.7	6025.2	3696.0	2598.1	1529.4	873.7	1227.4	5331.4	5877.9
363	Patacua	684.0	319.0	962.4	1424.5	722.7	403.1	517.0	290.0	288.6	149.5	167.7	575.7	542.0
364	Coco	694.7	582.3	1181.1	1487.5	561.4	289.3	280.7	274.2	256.1	223.7	233.4	511.1	548.0
365	Ocona	1388.9	1328.2	1458.9	5571.7	6039.9	2802.8	1669.3	2565.0	3477.2	3202.9	2475.2	1547.2	2793.9
366	Cuanza	868.5	1178.4	738.4	660.0	1308.7	2689.8	3287.9	4779.9	5424.3	5051.3	1988.5	1595.4	2464.3
367	Cunene	184.8	215.9	172.6	214.8	387.3	485.7	548.8	643.5	658.0	475.7	299.6	198.5	373.8
368	Doring	13480.3	27491.8	34498.5	19964.9	5689.1	2413.1	2085.1	6704.6	22058.4	44962.5	32514.2	28071.5	19994.5
369	Gamka	2715.0	13051.7	17664.1	12790.1	7396.2	6211.1	4523.1	5661.0	15664.3	22727.4	12638.5	11656.3	11058.3
370	Groot- Kei	2443.3	5945.1	6908.7	4971.3	4848.2	4427.5	5461.1	7147.2	9965.5	10746.6	7337.2	5007.8	6267.5
371	Lurio	42.1	42.1	42.5	65.9	79.2	78.9	85.1	104.1	120.3	121.2	72.7	49.4	75.3
372	Messalo	9.9	9.7	10.0	10.2	15.2	15.4	25.7	41.2	55.8	55.8	13.7	10.9	22.8
373	Rovuma	368.1	278.2	236.9	380.9	604.4	438.8	401.0	464.3	501.0	509.2	345.7	331.1	405.0
374	Galana	4086.6	4402.9	2121.7	1109.4	1314.2	2968.8	4794.7	5148.0	4916.8	4405.9	1807.1	2100.7	3264.7
375	Pyasina	462.7	462.7	462.7	462.7	462.7	462.7	462.7	462.7	462.7	462.7	462.7	462.7	462.7
376	Popigay	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
377	Fuchun Jiang	9387.7	9389.8	9394.0	14416.1	31425.8	25890.3	120394.7	93993.7	98617.9	20451.1	10449.3	9426.9	37769.8
378	Min Jiang	8168.5	8157.3	8156.7	8768.9	14877.9	16995.3	92286.1	71040.8	63069.9	11420.9	9325.7	8428.1	26724.7
379	Han Jiang	8406.5	8240.3	8206.6	9470.7	17858.6	21719.8	60040.3	39510.8	41152.2	10352.2	9234.2	8624.0	20234.7
380	Mamberamo	123.4	123.9	123.3	123.0	123.1	123.5	123.2	124.1	126.2	126.8	125.8	124.6	124.2
381	Lorentz	4.5	4.6	4.5	4.5	4.5	4.5	4.6	4.6	4.7	4.7	4.6	4.5	4.6
382	Eilanden	15.9	16.5	15.9	15.6	15.6	15.6	15.9	16.0	16.6	16.9	17.3	16.6	16.2
383	Uwimbu	16.9	18.2	19.4	18.5	22.2	29.7	38.1	42.2	40.7	34.4	27.9	20.3	27.4
384	Sungai Kajan	412.8	124.0	27.6	27.7	28.2	29.3	30.4	28.2	556.1	441.0	119.7	276.4	175.1
385	Sungai Mahakam	1603.6	820.3	288.3	267.0	293.8	278.8	503.9	607.6	3384.0	2255.0	1350.9	990.5	1053.6
386	Sungai Kapuas	1123.8	772.5	494.9	455.4	463.5	467.5	502.7						

## Appendix IX. Monthly blue water scarcity for the world's major river basins

Period: 1996-2005

Basin ID	Basin name	Population	Water scarcity (%)													Number of months per year that a basin faces low, moderate, significant or severe water scarcity					
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average	Low	Moderate	Significant	Severe		
1	Khatanga	4633	0.0028	0.0748	0.1238	0.2050	0.0198	0.0002	0.0003	0.0006	0.0010	0.0018	0.0030	0.0051	0.0084	0.0140	0.0198	12	0	0	0
2	Olenek	5960	0.0046	0.0353	0.0585	0.0968	0.0086	0.0003	0.0010	0.0018	0.0030	0.0051	0.0084	0.0140	0.0198	0.0198	12	0	0	0	
3	Anabar	1402	0.0025	0.0155	0.0257	0.0425	0.0704	0.0003	0.0006	0.0013	0.0022	0.0037	0.0062	0.0102	0.0151	0.0151	12	0	0	0	
4	Yana	24517	0.0259	0.3188	0.5276	0.8731	0.1459	0.0031	0.0034	0.0061	0.0127	0.0210	0.0347	0.0575	0.1691	0.1691	12	0	0	0	
5	Yenisei	8453280	0.4340	9.4345	15.4851	1.4567	0.2070	0.2701	0.4066	0.4410	0.3377	0.3749	0.4938	0.8021	2.5119	2.5119	12	0	0	0	
6	Indigirka	41777	0.0208	0.2202	0.3645	0.6032	0.0877	0.0024	0.0027	0.0058	0.0109	0.0182	0.0301	0.0498	0.1180	0.1180	12	0	0	0	
7	Lena	1284810	0.0771	1.8572	3.0693	3.3623	0.0140	0.0098	0.0145	0.0196	0.0228	0.0510	0.0845	0.1400	0.7268	0.7268	12	0	0	0	
8	Omoloy	2881	0.1015	4.0716	6.7148	11.0455	18.0938	0.0064	0.0098	0.0212	0.0371	0.0624	0.1034	0.1712	3.3699	3.3699	12	0	0	0	
9	Tana (NO, FI)	6523	0.1020	675.0062	675.2675	675.4256	0.0026	0.0094	0.0160	0.0265	0.0337	0.0491	0.0940	0.1556	168.85	168.85	9	0	0	3	
10	Colville	980	0.0134	1.8170	3.0031	4.9577	0.0546	0.0013	0.0013	0.0024	0.0043	0.0077	0.0127	0.0210	0.8247	0.8247	12	0	0	0	
11	Alazeya	6649	0.0342	0.2015	0.3336	0.5521	0.9136	0.0033	0.0113	0.0200	0.0332	0.0549	0.0909	0.1506	0.1999	0.1999	12	0	0	0	
12	Anderson	90	0.0055	0.8612	1.4246	2.3554	0.0001	0.0004	0.0007	0.0011	0.0019	0.0031	0.0052	0.0086	0.3890	0.3890	12	0	0	0	
13	Kolyma	138225	0.0352	0.8134	1.3456	2.2250	0.0245	0.0051	0.0036	0.0082	0.0125	0.0235	0.0389	0.0643	0.3833	0.3833	12	0	0	0	
14	Tuloma	209338	2.1008	17.0752	27.8103	44.8351	0.1147	0.3631	0.6625	1.1014	1.6666	1.6387	3.5976	5.9357	8.9085	8.9085	12	0	0	0	
15	Muonio	57777	0.3821	4.1849	6.9009	0.2570	0.0274	0.0495	0.0733	0.1416	0.1864	0.2935	0.5410	0.8952	1.1611	1.1611	12	0	0	0	
16	Yukon	130852	0.0732	1.4055	2.3239	0.3885	0.0081	0.0089	0.0138	0.0228	0.0291	0.0475	0.0846	0.1396	0.3788	0.3788	12	0	0	0	
17	Palyavaam	7831	0.0697	623.8062	643.3724	655.8221	663.5607	0.0039	0.0072	0.0141	0.0209	0.0388	0.0642	0.1064	215.57	215.57	8	0	0	4	
18	Kemijoki	148981	0.3310	50.0359	79.0074	0.2714	0.0179	0.0659	0.1106	0.1725	0.1490	0.1180	0.3123	0.5168	10.926	10.926	12	0	0	0	
19	Mackenzie	494118	0.2929	18.9941	30.8799	0.1944	0.0244	0.0237	0.0397	0.0741	0.1116	0.1636	0.2882	0.4740	4.2967	4.2967	12	0	0	0	
20	Noatak	2044	0.0331	6.2836	10.3406	16.9507	0.0129	0.0026	0.0047	0.0083	0.0082	0.0188	0.0311	0.0514	2.8122	2.8122	12	0	0	0	
21	Anadyr	11240	0.0090	8.3700	13.7465	22.4602	0.0043	0.0005	0.0010	0.0019	0.0026	0.0050	0.0083	0.0138	3.7186	3.7186	12	0	0	0	
22	Pechora	605994	0.2334	18.4129	29.9508	0.3960	0.0098	0.0148	0.0353	0.0596	0.0730	0.1290	0.2257	0.3736	4.1595	4.1595	12	0	0	0	
23	Lule	35562	0.1025	32.5938	52.3104	0.0287	0.0083	0.0085	0.0169	0.0289	0.0337	0.0470	0.0956	0.1582	7.1194	7.1194	12	0	0	0	
24	Kalixaelven	35032	0.3964	4.7001	7.7466	0.0799	0.0251	0.0410	0.0883	0.1529	0.2255	0.2618	0.5390	0.8919	1.2624	1.2624	12	0	0	0	
25	Ob	29372200	4.0137	140.4324	204.6547	0.5929	1.0247	2.9250	7.2572	9.7862	6.6400	3.6580	4.1680	6.6834	32.653	32.653	10	1	0	1	
26	Ellice	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	12	0	0	0	
27	Taz	15085	0.0144	2.3835	3.9372	6.4939	0.0011	0.0006	0.0020	0.0033	0.0045	0.0082	0.0136	0.0225	1.0737	1.0737	12	0	0	0	
28	Kobuk	2198	0.0264	0.1753	0.2902	0.4803	0.0027	0.0051	0.0090	0.0149	0.0164	0.0349	0.0578	0.0956	0.1007	0.1007	12	0	0	0	
29	Coppermine	431	0.0499	11.7395	19.2179	31.2356	0.0037	0.0020	0.0058	0.0103	0.0171	0.0282	0.0468	0.0774	5.2028	5.2028	12	0	0	0	
30	Hayes(Trib. Arctic Ocean)	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	12	0	0	0	
31	Pur	196795	0.2516	675.6757	675.6757	675.6757	0.0259	0.0123	0.0404	0.0667	0.0643	0.1400	0.2318	0.3836	169.02	169.02	9	0	0	3	
32	Varzuga	4145	0.0832	675.6757	675.6757	675.6757	0.0057	0.0208	0.0356	0.0589	0.0349	0.0280	0.0766	0.1269	168.96	168.96	9	0	0	3	
33	Ponoy	3407	0.0254	675.6757	675.6757	675.6757	0.0020	0.0074	0.0126	0.0181	0.0120	0.0082	0.0234	0.0387	168.93	168.93	9	0	0	3	
34	Kovda	33176	1.0261	675.6757	675.6757	675.6757	0.0356	0.1121	0.2062	0.3396	0.4410	0.4030	0.9453	1.5637	169.34	169.34	9	0	0	3	
35	Back	11	0.0001	675.6757	675.6757	675.6757	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0002	168.92	168.92	9	0	0	3	
36	Kem	75620	0.3140	135.2620	197.9660	0.0280	0.0189	0.0546	0.0945	0.1508	0.1719	0.1061	0.2914	0.4823	27.912	27.912	10	1	1	0	
37	Nadym	43644	0.1079	207.2609	285.6964	370.3467	0.0092	0.0056	0.0176	0.0283	0.0275	0.0601	0.0995	0.1647	71.985	71.985	9	0	0	3	
38	Quoich	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	12	0	0	0	
39	Mezen	42092	0.1069	8.8700	14.5605	0.0102	0.0038	0.0103	0.0192	0.0319	0.0499	0.0460	0.1032	0.1708	1.9985	1.9985	12	0	0	0	
40	Iijoki	62828	0.7374	675.6757	675.6757	0.0524	0.0697	0.1756	0.2987	0.4619	0.4464	0.2317	0.6793	1.1239	112.97	112.97	10	0	0	2	
41	Joekulsa A Fjoellum	762	0.0150	675.6757	675.6757	0.1984	0.0015	0.0019	0.0048	0.0076	0.0077	0.0051	0.0137	0.0229	112.64	112.64	10	0	0	2	
42	Svarta, Skagafiroi	2060	0.0554	675.6757	0.1037	0.0246	0.0084	0.0077	0.0206	0.0342	0.0400	0.0200	0.0442	0.0845	56.343	56.343	11	0	0	1	
43	Oulujoki	196925	0.9418	194.5674	270.9785	0.0403	0.1309	0.2469	0.4362	0.7037	0.5771	0.3101	0.8793	1.4547	39.272	39.272	10	0	1	1	
44	Lagarfljot	3054	0.0400	675.6757	675.6757	0.2021	0.0038	0.0061	0.0139	0.0195	0.0175	0.0146	0.0352	0.0609	112.65	112.65	10	0	0	2	
45	Thelon	2168	0.0151	104.2937	156.8097	225.3312	0.0012	0.0007	0.0021	0.0036	0.0043	0.0084	0.0140	0.0231	40.542	40.542	9	1	1	1	
46	Angerman	66555	0.1709	108.7415	162.8558	0.0146	0.0167	0.0219	0.0476	0.0704	0.0768	0.0615	0.1582	0.2619	22.708	22.708	10	1	1	0	
47	Thjorsa	1985	0.0065	0.0826	0.0299	0.0024	0.0016	0.0021	0.0041	0.0047	0.0041	0.0033	0.0057	0.0095	0.0130	0.0130	12	0	0	0	
48	Northern Dvina(Severna)	1718380	1.5931	46.3197	73.3917	0.0365	0.0942	0.2056	0.3492	0.5502	0.8113	0.7758	1.6744	2.7678	10.714	10.714	12	0	0	0	
49	Oelfusa	7587	0.0296	675.6757	0.0347	0.0065	0.0162	0.0163	0.0198	0.0281	0.0238	0.0170	0.0258	0.0350	56.327	56.327	11	0	0	1	
50	Nizhny Vyg (Soroka)	86906	0.3985	675.6757	675.6757	0.0151	0.0507	0.0888	0.1487	0.2461	0.1958	0.1314	0.3671	0.6075	112.80	112.80	10	0	0	2	
51	Kuskokwim	11404	0.0227	20.4901	33.2636	53.3575	0.0018	0.0037	0.0053	0.0053	0.0054	0.0120	0.0210	0.0347	8.9353	8.9353	12	0	0	0	
52	Vuoksi	750077	2.4651	675.6757	675.6757	0.0784	0.2890	0.5207	0.9400	1.6671	1.6837	0.8682	2.1329	3.7524	113.8124	113.8124	10	0	0	2	
53	Onega	176080	0.7413	59.1222	92.5763	0.0157	0.0561	0.1120	0.1881	0.2819	0.3877	0.2997	0.7102	1.1819	12.9728	12.9728	12	0	0	0	
54	Susitna	30093	0.0600	34.0115	54.5130	0.0210	0.0113	0.0107	0.0156	0.0188	0.0158	0.0279	0.0557	0.0921	7.4044	7.4044	12	0	0	0	
55	Kymijoki	587655	3.4503	675.6757	675.6757	0.1406	0.5170	0.9373	1.6307	2.9313	3.3671	2.1029	2.0639	5.2481	114.4784	114.4784	10	0	0	2	
56	Neva	4244810	3.3585	378.5483	458.3735	0.1251	0.5531	1.1039	1.6824	2.9494	2.6044	1.5526	2.3799	5.1865	71.5348	71.5348	10	0	0	2	

Basin ID	Basin name	Population	Water scarcity (%)													Number of months per year that a basin faces low, moderate, significant or severe water scarcity			
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average	Low	Moderate	Significant	Severe
57	Ferguson	7	0.0006	675.6757	675.6757	675.6757	675.6757	0.0000	0.0001	0.0001	0.0002	0.0003	0.0005	0.0008	225.2254	8	0	0	4
58	Copper	4949	0.0114	675.6757	675.6757	0.7201	0.0017	0.0012	0.0017	0.0030	0.0031	0.0056	0.0105	0.0174	112.6773	10	0	0	2
59	Gloma	759489	1.5345	675.6757	72.0236	0.2514	0.2825	0.4131	1.0384	1.5595	0.7779	0.6430	1.2754	2.3375	63.1510	11	0	0	1
60	Kokemaenjoki	773376	3.6118	531.9680	580.8959	0.2335	0.8757	1.6857	3.0361	5.7593	7.2883	5.6361	1.7038	5.5237	95.6848	10	0	0	2
61	Vaenern-Goeta	1485740	1.1060	407.7808	0.5864	0.2466	0.6221	1.1629	2.1068	2.2544	1.7350	0.8982	0.8196	1.2777	35.0497	11	0	0	1
62	Thlewiaza	52	0.0019	0.0168	0.0279	0.0462	0.0001	0.0003	0.0005	0.0008	0.0009	0.0018	0.0030	0.0050	0.0088	12	0	0	0
63	Alsek	1032	0.0115	675.6757	675.6757	0.0056	0.0013	0.0012	0.0030	0.0045	0.0034	0.0048	0.0106	0.0175	112.6179	10	0	0	2
64	Volga	61273800	18.7675	394.2596	77.6644	0.5405	5.9489	13.9749	32.6405	44.8040	25.8475	12.5620	19.0591	30.5202	56.3824	11	0	0	1
65	Dramselv	282181	1.2364	675.6757	3.3103	0.2605	0.2243	0.2948	0.7559	0.6801	0.4876	0.5076	1.0535	1.8838	57.1975	11	0	0	1
66	Arnaud	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	12	0	0	0
67	Nushagak	1469	0.0072	675.6757	675.6757	0.0028	0.0008	0.0021	0.0036	0.0029	0.0024	0.0027	0.0066	0.0110	112.6161	10	0	0	2
68	Seal	1075	0.0284	2.2860	3.7765	6.2298	0.0010	0.0025	0.0049	0.0083	0.0086	0.0149	0.0275	0.0455	1.0362	12	0	0	0
69	Taku	1896	0.0137	675.6757	675.6757	0.0073	0.0024	0.0026	0.0057	0.0075	0.0057	0.0047	0.0126	0.0209	112.6195	10	0	0	2
70	Narva	1216700	1.1267	675.6757	675.6757	0.1333	0.4887	0.8989	1.5987	2.7350	2.4014	1.0986	0.5488	1.7169	113.6749	10	0	0	2
71	Stikine	1568	0.0027	0.0083	0.0098	0.0030	0.0005	0.0004	0.0009	0.0013	0.0013	0.0015	0.0026	0.0036	0.0030	12	0	0	0
72	Churchill	90521	0.3832	15.0663	24.5885	0.1000	0.0310	0.0486	0.1009	0.1790	0.1798	0.1929	0.3980	0.6467	3.4929	12	0	0	0
73	Feuilles (Riviere Aux)	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	12	0	0	0
74	George	32	0.0001	675.6757	675.6757	675.6757	0.0000	0.0000	0.0000	0.0000	0.0000	0.0001	0.0001	0.0002	168.9190	9	0	0	3
75	Caniapiscau	921	0.0013	3.5727	5.8949	9.7045	0.0002	0.0002	0.0005	0.0005	0.0005	0.0005	0.0012	0.0020	1.5983	12	0	0	0
76	Western Dvina (Daugava)	2722530	1.8779	675.6757	675.6757	0.1683	0.8318	1.3203	2.1295	3.9982	4.1818	1.7154	0.9372	2.8599	114.2810	10	0	0	2
77	Aux Melezes	0	0.0000	0.0001	0.0001	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	12	0	0	0
78	Baleine, Grande Riviere	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	12	0	0	0
79	Spey	33166	0.0276	0.0648	0.0754	0.0967	0.1335	0.2276	0.3020	0.2516	0.1623	0.0838	0.0536	0.0452	0.1270	12	0	0	0
80	Kamchatka	25845	0.0354	675.6757	675.6757	675.6757	0.0025	0.0034	0.0045	0.0094	0.0128	0.0158	0.0326	0.0540	168.9331	9	0	0	3
81	Nass	2984	0.0095	675.6757	0.0123	0.0029	0.0017	0.0022	0.0049	0.0066	0.0054	0.0038	0.0070	0.0144	56.3122	11	0	0	1
82	Skeena	44896	0.1392	675.6757	0.1440	0.0334	0.0170	0.0210	0.0487	0.0746	0.0774	0.0649	0.0988	0.2122	56.3839	11	0	0	1
83	Nelson	5565740	10.6111	445.2628	517.9683	1.6745	4.3406	6.7529	22.0372	53.1586	30.7679	13.2025	15.3836	18.1928	94.9461	10	0	0	2
84	Hayes(Trib. Hudson Bay)	14490	0.1425	6.8887	11.3298	18.5545	0.0069	0.0128	0.0236	0.0436	0.0607	0.0662	0.1425	0.2359	3.1256	12	0	0	0
85	Gudena	450260	0.7725	1.7341	1.9385	2.6081	14.0339	59.5984	112.0430	88.2416	34.2315	3.5815	1.6054	1.2729	26.8051	11	1	0	0
86	Skjern A	165149	0.2051	0.5425	0.5953	0.8109	2.9862	23.6276	71.7729	25.0077	2.3335	0.4362	0.3745	0.3153	10.7506	12	0	0	0
87	Neman	5486880	3.0800	675.6757	0.8975	0.2769	1.3269	2.4125	3.9804	8.6425	9.0307	5.0106	1.4274	4.6861	59.7039	11	0	0	1
88	Fraser	1293950	1.0887	4.1076	1.8251	0.3172	0.2112	0.3932	1.0526	2.0592	1.9651	1.2463	1.3723	1.7180	1.4464	12	0	0	0
89	Severn(Trib. Hudson Bay)	6792	0.0383	675.6757	675.6757	0.0234	0.0028	0.0068	0.0125	0.0196	0.0159	0.0134	0.0353	0.0584	112.6315	10	0	0	2
90	Amur	66165300	2.3397	521.2252	583.0320	5.2005	13.2247	21.5499	13.8500	7.6117	5.1800	1.6269	2.4543	3.7789	98.4228	10	0	0	2
91	Tweed	410100	0.2833	0.6803	0.7247	1.0310	1.4757	2.3049	3.6323	3.2983	2.0209	0.9507	0.5236	0.4457	1.4476	12	0	0	0
92	Grande Riviere De La Be	558	0.0039	675.6757	675.6757	675.6757	0.0006	0.0009	0.0016	0.0017	0.0015	0.0014	0.0036	0.0059	168.9207	9	0	0	3
93	Grande Riviere	1489	0.0018	5.7732	9.5054	15.5940	0.0002	0.0005	0.0008	0.0008	0.0007	0.0006	0.0017	0.0028	2.5735	12	0	0	0
94	Winisk	6079	0.0228	9.8254	16.1141	0.0059	0.0020	0.0046	0.0083	0.0137	0.0086	0.0082	0.0212	0.0351	2.1725	12	0	0	0
95	Churchill, Fleuve (Labrad	8629	0.0169	675.6757	675.6757	675.6757	0.0019	0.0026	0.0048	0.0061	0.0063	0.0064	0.0156	0.0258	168.9261	9	0	0	3
96	Dniestr	33021400	34.2662	644.7999	2.9522	1.8461	14.6912	31.8020	64.5964	95.0040	78.3234	40.3521	20.2612	49.4290	89.8603	11	0	0	1
97	Ural	4062630	11.9059	675.6757	23.3896	1.3940	18.1114	52.6754	129.1008	160.5030	107.4429	53.2321	7.6609	17.9977	104.9241	8	2	1	1
98	Wisla	23550100	22.6110	565.7106	1.6714	3.1849	5.9859	10.3701	15.0563	25.8574	32.2579	28.8399	18.5007	25.2522	62.9415	11	0	0	1
99	Don	20897900	64.4618	675.6757	4.7994	3.6403	44.5117	98.6588	173.9061	221.6794	155.5283	87.4480	47.4902	93.6223	139.2852	8	0	2	2
100	Oder	16525600	14.5180	8.0910	2.5429	4.5794	7.8959	12.7310	21.5003	33.8586	40.1718	33.2572	23.9127	14.3275	18.1155	12	0	0	0
101	Elbe	22408100	7.8282	8.6254	4.5717	6.2122	10.5238	16.7054	31.3110	47.9542	53.0333	29.1750	15.3961	12.0486	20.2821	12	0	0	0
102	Trent	4841180	2.7855	5.2313	6.3598	9.0636	14.9442	29.3306	70.0186	73.5479	53.5746	29.1935	9.7287	4.7846	25.7136	12	0	0	0
103	Weser	8503490	2.6750	4.6770	4.9551	6.7554	10.6979	17.1769	28.9395	37.6986	30.4952	12.0798	5.8649	4.0944	13.8425	12	0	0	0
104	Attawapiskat	1414	0.0388	675.6757	675.6757	675.6757	0.0022	0.0077	0.0133	0.0220	0.0135	0.0144	0.0358	0.0592	168.9362	9	0	0	3
105	Eastmain	441	0.0012	675.6757	675.6757	0.0006	0.0002	0.0003	0.0005	0.0006	0.0005	0.0004	0.0011	0.0019	112.6132	10	0	0	2
106	Manicouagan (Riviere)	13858	0.0370	133.5983	195.8103	0.0883	0.0053	0.0067	0.0126	0.0156	0.0144	0.0133	0.0341	0.0564	27.4744	10	1	1	0
107	Columbia	6607400	1.4323	1.5659	4.3253	11.1100	13.1125	31.3598	91.9018	124.6989	105.6750	56.3217	9.7105	2.6495	37.8219	10	2	0	0
108	Little Mecatina	148	0.0011	675.6757	675.6757	675.6757	0.0001	0.0002	0.0003	0.0005	0.0005	0.0004	0.0010	0.0017	168.9194	9	0	0	3
109	Natashquan (Riviere)	512	0.0059	675.6757	675.6757	0.0110	0.0005	0.0011	0.0014	0.0021	0.0025	0.0022	0.0054	0.0090	112.6160	10	0	0	2
110	Rhine	56921700	4.6416	7.9885	7.5579	6.4193	8.4413	11.5801	15.2490	21.0493	18.8882	13.7944	9.3442	7.3141	11.0223	12	0	0	0
111	Albany	19183	0.0789	597.3591	626.0996	0.0076	0.0070	0.0168	0.0300	0.0493	0.0361	0.0264	0.0726	0.1203	101.9920	10	0	0	2
112	Saguenay (Riviere)	317070	0.5263	675.6757	675.6757	0.0929	0.0934	0.1356	0.2130	0.2603	0.2245	0.1817	0.4805	0.8023	112.8635	10	0	0	2
113	Thames	9674080	5.2995	8.5971	10.6581	16.2026	28.2215	50.2499	82.6659	125.7066	181.2369	209.5284	29.2017	9.7392	63.1089	9	1	1	1
114	Nottaway	43834	0.0669	675.6757	675.6757	0.0109	0.0092	0.0192	0.0283	0.0343	0.0288	0.0233	0.0601	0.1021	112.6445	10	0	0	2
115	Rupert	405	0.0043	675.6757	675.6757	0.0017	0.0004	0.0011	0.0017	0.0020	0.0018	0.0015	0.0040	0.0066	112.6147	10	0	0	2
116	Moose(Trib. Hudson Bay)	122363	0.4077	675.6757	675.6757	0.0360	0.0411	0.0958											

Basin ID	Basin name	Population	Water scarcity (%)													Number of months per year that a basin faces low, moderate, significant or severe water scarcity			
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average	Low	Moderate	Significant	Severe
117	St.Lawrence	67620200	13.8419	545.4291	6.4715	1.4581	3.9896	7.0685	13.7168	21.6552	15.6380	9.5709	8.3692	19.7123	55.5768	11	0	0	1
118	Danube	81752800	5.6244	6.6650	2.9345	3.1165	6.4612	11.1859	22.7457	30.7838	21.0441	9.6610	5.7948	6.8744	11.0743	12	0	0	0
119	Seine	15598100	6.7525	9.2895	10.6471	14.7092	29.5846	61.1069	146.8458	256.4547	287.9891	120.9339	33.2525	13.6047	82.5975	8	2	0	2
120	Dniestr	7441530	16.9121	517.4823	2.2002	4.0546	22.5723	35.4739	38.0277	90.1716	61.9030	16.2897	9.8951	25.3527	70.0279	11	0	0	1
121	Southern Bug	3142420	76.8793	375.9074	1.6215	4.5917	27.5152	55.2275	121.7122	181.4849	137.4037	96.9215	110.9800	165.0687	112.9428	6	3	2	1
122	Mississippi	74637300	2.9783	4.1585	4.7636	8.2060	15.4080	32.2782	136.4669	234.3489	230.0058	110.5027	16.9867	6.5933	66.8914	8	2	0	2
123	Skagit	84033	0.2254	0.6255	0.1476	0.1228	0.2240	0.9245	2.5482	4.4518	3.7794	0.5276	0.2854	0.3571	1.1850	12	0	0	0
124	Aral Drainage	41542800	10.1457	5.7845	7.8255	29.3549	48.4753	106.2356	238.9880	344.5198	377.8139	297.5714	83.9983	32.5417	131.9379	7	1	0	4
125	Loire	7807270	2.0347	2.9200	3.0338	4.1613	8.7043	22.0751	88.0863	177.2334	156.5951	30.3008	6.3309	3.5496	42.0854	10	0	2	0
126	Rhone	10014800	1.9397	4.2390	2.5139	2.5347	3.7094	6.5279	26.2119	33.9993	15.8360	4.6164	2.7481	2.7533	8.9691	12	0	0	0
127	Saint John	413278	0.8368	675.6757	675.6757	0.0966	0.2889	0.4470	0.8344	1.8331	1.0692	0.5952	0.4497	1.2754	113.2565	10	0	0	2
128	Po	17513200	4.7853	10.2335	5.9323	3.9838	9.8874	22.7836	105.0241	129.6094	45.6243	9.0951	5.8769	7.1624	29.9998	10	2	0	0
129	Penobscot	154142	0.5841	675.6757	0.7938	0.0689	0.2043	0.3174	0.5901	1.1616	0.9795	0.5628	0.2884	0.8904	56.8431	11	0	0	1
130	St.Croix	20303	0.3522	675.6757	675.6757	0.0416	0.1264	0.2065	0.3771	0.6663	0.7005	0.3598	0.1702	0.5370	112.9074	10	0	0	2
131	Kuban	3470690	3.2577	2.5768	1.9744	2.4240	19.8129	50.4537	104.5573	100.3110	29.8801	10.4852	6.2496	5.2503	28.1027	10	2	0	0
132	Connecticut	2068580	5.6187	675.6757	1.6846	1.0599	2.1486	3.9526	6.4447	8.2932	6.9942	5.0139	3.0912	7.8939	60.6559	11	0	0	1
133	Liao He	30133000	19.1097	675.6757	99.6168	127.1244	304.8617	439.0090	209.7096	83.6845	89.6144	17.9521	21.2823	33.5319	176.7643	7	1	0	4
134	Garonne	3327680	1.5666	2.5558	2.5616	2.9311	5.3458	17.5111	143.1932	242.9600	197.4104	34.5109	5.1475	2.5532	54.8539	9	1	1	1
135	Ishikari	1941950	1.8794	675.6757	675.6757	0.3707	0.8807	6.7579	9.5823	12.7697	4.9059	1.3908	1.0900	2.8622	116.1534	10	0	0	2
136	Merrimack	2246250	14.9354	675.6757	1.8026	3.1904	5.5582	9.2252	15.5636	24.5880	26.8594	15.7829	7.2716	22.5172	68.5808	11	0	0	1
137	Hudson	4379560	9.8465	375.0408	2.2004	1.9893	3.6258	6.0957	9.9765	14.6175	13.6265	9.4600	5.5863	13.5255	38.7992	11	0	0	1
138	Colorado(Pacific Ocean)	7754730	79.7069	396.3014	175.3947	76.3586	58.3344	96.4685	181.7437	237.4291	265.6072	247.9226	206.4792	190.5687	184.3596	4	0	3	5
139	Klamath	137158	0.1155	0.0972	0.1234	4.7205	20.3720	60.6751	126.1271	166.7335	168.2307	98.2703	3.1524	0.2325	54.0708	9	1	2	0
140	Ebro	2922480	0.5714	1.9458	8.3717	13.6356	23.4459	84.4004	246.5271	307.8509	237.5284	61.2230	6.4230	1.1610	82.7570	9	0	0	3
141	Rogue	259989	0.6043	0.6053	0.7514	2.4764	9.3018	33.4833	71.4001	96.2397	100.8183	59.3425	3.1487	1.2811	31.6211	11	1	0	0
142	Douro	3744450	0.7518	1.2841	2.4637	6.8841	18.1437	100.8852	286.0590	374.5032	300.3399	106.2433	6.7914	1.7837	100.5111	7	2	0	3
143	Susquehanna	4004120	4.8504	8.1816	1.1518	1.7254	2.6861	4.4109	8.0755	13.0251	13.1681	7.8524	4.0634	6.1172	6.2757	12	0	0	0
144	Luan He	11171900	40.6013	675.6757	669.8436	659.1398	538.3246	529.2606	99.7530	85.0840	110.4373	87.8970	37.9980	48.9623	298.5814	6	1	0	5
145	Kura	13773500	23.5702	82.3959	75.5428	46.5739	37.5081	94.0909	192.7674	289.2142	249.1927	109.1950	38.6577	46.1282	107.0697	8	1	1	2
146	Dalinghe	4434800	32.7215	675.6757	530.5943	374.7101	500.5914	607.4404	297.5394	47.6497	64.7698	24.2975	35.4255	54.6333	270.5040	6	0	0	6
147	Delaware	6415590	9.8284	20.1188	3.9736	7.2174	9.5669	17.7733	26.4605	30.6618	28.3452	21.3289	11.4869	12.4629	16.6021	12	0	0	0
148	Sacramento	3015150	1.4176	1.2443	3.8990	28.4117	106.4581	260.8481	385.5495	458.4496	461.8997	293.4702	59.1489	5.4137	172.1842	6	1	0	5
149	Huang He (Yellow River)	160715000	40.2741	606.9570	512.0211	413.0700	260.2670	186.7782	168.1211	110.1254	49.9929	36.9866	30.8125	48.9252	205.3609	5	1	2	4
150	Kizilirmak	4460330	10.6316	2.5429	2.9622	8.1919	37.8241	104.9648	174.7334	262.3530	268.1615	186.0780	89.5153	21.0046	97.4136	7	1	2	2
151	Yongding He	91200200	286.2163	675.6757	675.6756	675.5242	671.3816	671.1957	532.7863	402.4871	476.1050	398.2000	276.7953	351.9047	507.8290	0	0	0	12
152	Tejo	6898760	2.0697	3.2608	4.6354	11.5790	30.5276	134.1858	305.5540	387.2062	342.8249	203.7484	51.8405	4.7565	123.5157	7	1	0	4
153	Sakarya	5654860	7.7009	2.6484	3.6381	17.7389	93.9823	202.0147	318.9012	432.3547	448.7133	363.6168	185.3198	39.4876	176.3430	6	0	1	5
154	Eel (Calif.)	37126	0.0689	0.0748	0.1016	0.2175	1.0821	3.1752	6.8418	9.4333	10.9481	6.0815	6.0945	0.1623	3.6901	12	0	0	0
155	Tigris & Euphrates	49255700	6.6195	21.6357	61.6492	99.2464	177.5861	235.8823	314.8527	396.0092	402.1457	336.9194	92.9189	17.3580	180.2353	6	0	1	5
156	Potomac	3494420	6.3034	7.3461	5.0191	6.3696	9.4937	15.0985	26.7116	39.9776	49.3820	40.9168	21.8213	11.3635	19.9836	12	0	0	0
157	Guadiana	1600650	5.2463	8.1340	16.3023	45.3729	138.9251	367.7714	524.6432	571.3846	547.3274	453.6875	209.0782	99.0733	248.9122	5	1	0	6
158	Kitakami	1280540	1.5433	6.1761	0.7860	0.9873	1.3481	6.7558	16.4070	38.8480	22.7465	2.5269	1.2858	2.0159	8.4522	12	0	0	0
159	Mogami	1118180	0.9595	1.1238	0.8954	1.2132	1.7325	9.1934	13.7396	44.5097	16.8981	3.5791	1.2555	0.9083	8.0007	12	0	0	0
160	Han-Gang (Han River)	11656000	10.3937	675.6757	6.1798	4.7003	9.3983	15.6956	3.2263	2.8393	5.0354	6.1362	8.3838	15.6635	63.6107	11	0	0	1
161	Guadalquivir	3947090	4.8193	12.9703	19.7447	47.9808	132.4748	343.2478	494.1784	548.2352	522.8575	436.3505	264.3832	33.3088	238.3793	5	1	0	6
162	San Joaquin	1681380	5.9791	5.8303	36.0868	149.4313	289.7051	483.6142	575.5677	611.4535	619.0987	588.8786	447.1712	67.8311	323.3873	4	1	0	7
163	James	909948	1.4181	1.8318	1.8219	2.5763	3.8401	6.3774	11.7747	18.6882	20.8571	15.5023	5.9899	2.6471	7.7771	12	0	0	0
164	Bravo	9249380	99.8352	593.1914	606.9206	299.0507	196.6735	265.5203	328.3067	262.6538	193.1332	223.7791	172.5347	177.0785	284.8898	1	0	4	7
165	Shinano, Chikuma	2132990	1.6119	2.1965	2.2185	0.9764	0.9867	2.5008	6.5511	18.6446	5.8533	1.9035	1.5422	1.6983	3.8903	12	0	0	0
166	Roanoke	1471790	2.0216	2.5413	2.5691	4.2650	7.7776	13.6281	22.5980	33.3760	29.8914	31.2296	11.5492	4.3687	13.8180	12	0	0	0
167	Naktong	8178290	11.7602	21.9826	8.1241	6.3491	14.6878	40.7267	14.6850	14.7665	17.1394	7.2267	11.1726	17.5886	15.5174	12	0	0	0
168	Indus	212208000	270.7959	398.8750	411.0093	315.6796	166.9598	171.4230	135.8337	161.9062	256.3308	339.9180	328.2552	290.3750	270.6135	0	1	3	8
169	Tone	10010500	8.8940	31.9324	12.0587	7.9994	8.8675	15.6751	25.6082	42.6992	16.0653	6.7471	8.4982	12.1949	16.4366	12	0	0	0
170	Salinas	307941	65.8643	22.6341	14.6492	112.6020	378.0436	552.2125	622.6955	644.4752	645.7482	594.9864	502.3882	498.1959	387.8746	3	1	0	8
171	Pee Dee	2599190	2.3264	2.7585	2.8212	4.6255	9.5098	16.2990	18.4061	23.8015	18.6572	19.6964	12.2404	4.7480	11.3242	12	0	0	0
172	Chelif	3854910	4.7836	7.9126	21.1215	55.0402	155.3315	314.1290	438.4401	501.3637	517.4367	429.2877	338.6147	50.1252	236.1322	5	0	1	6
173	Cape Fear	1625860	2.5888	3.1652	3.4626	6.3163	14.3185	21.4248	17.8820	19.0107	15.9212	17.8595	11.7286	5.6840	11.6135	12	0	0	0
174	Tenryu	1398320	1.9207	3.8599															

Basin ID	Basin name	Population	Water scarcity (%)													Number of months per year that a basin faces low, moderate, significant or severe water scarcity				
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average	Low	Moderate	Significant	Severe	
177	Yangtze(Chang Jiang)	384680000	5.5283	17.2126	11.7748	11.5620	13.3125	8.5542	15.6841	17.0608	16.9491	3.7668	4.3236	7.2708	11.0833	12	0	0	0	
178	Yodo	9644530	7.5438	14.9677	12.2609	11.3046	14.0340	14.1401	27.3315	69.7814	20.6915	12.8104	12.2940	12.6815	19.1534	12	0	0	0	
179	Sebou	5479260	1.7819	9.9324	31.5372	100.3633	189.5124	244.0286	358.7259	404.5834	443.7186	415.5307	54.6944	4.5120	188.2434	5	1	1	5	
180	Alabama River & Tombig	4334600	1.1688	1.0200	0.8986	1.2943	2.4599	4.5674	8.5748	15.1598	19.5147	27.8426	23.7343	3.2806	9.1263	12	0	0	0	
181	Savannah	1169380	1.9746	1.8903	1.8254	3.1089	6.3785	11.6685	20.1934	35.1206	22.5242	22.1579	12.7507	5.2044	12.0664	12	0	0	0	
182	Gono (Go)	401466	0.7303	1.3650	1.2623	1.2219	1.5958	1.5962	1.9689	9.4080	2.8538	2.1066	1.4572	1.2420	2.2340	12	0	0	0	
183	Huai He	97812600	33.4197	71.5866	119.4559	188.0230	219.8403	180.7065	170.8470	175.0978	157.2574	61.7709	40.1425	55.1803	122.7773	5	1	5	1	
184	Apalachicola	2955040	2.5999	1.9579	1.7538	3.2208	9.0261	24.4480	57.9332	118.4749	69.9666	84.7772	39.5737	7.3062	35.0865	11	1	0	0	
185	Brazos	2820050	19.7793	27.7950	82.0398	85.4496	151.8955	336.8153	550.8470	588.0450	589.4493	528.1561	235.3045	33.1992	269.0646	5	0	1	6	
186	Altamaha	2410710	4.6015	2.7306	2.4612	4.6898	10.7761	22.1374	57.8049	97.3083	71.5234	87.5740	86.8512	14.4416	38.5750	12	0	0	0	
187	Mekong	57932400	12.3358	542.9847	498.2955	401.3573	106.0829	11.7486	3.8749	2.4673	1.3115	5.7499	16.6577	18.7187	135.1321	8	1	0	3	
188	Colorado(Caribbean Sea	1667260	16.6459	17.2566	49.8600	63.7693	128.0822	312.8500	524.6241	575.8852	588.7752	532.6195	278.5448	30.8401	259.9794	5	1	0	6	
189	Trinity(Texas)	5421320	23.3551	16.8322	19.0178	16.7809	20.3936	50.2478	95.9932	135.5451	169.6865	219.2555	264.9780	53.7843	90.4892	8	1	1	2	
190	Pearl	622766	0.7954	0.7841	0.7407	0.9314	1.5158	2.7893	4.3945	7.0634	10.2373	16.0423	10.6245	2.0961	4.8346	12	0	0	0	
191	Sabine	574473	1.3129	1.1026	1.2626	1.9101	4.2617	9.2614	22.2782	26.7980	23.4671	27.3880	17.7125	4.9445	11.8083	12	0	0	0	
192	Suwannee	591333	1.4411	1.2149	1.3052	4.1156	17.1669	28.2970	24.0252	28.1527	13.7796	16.3179	8.7693	2.8865	12.2893	12	0	0	0	
193	Yaqui	650988	404.2541	675.6755	675.6756	675.6756	675.6756	675.6756	675.6756	250.5996	310.8147	503.2978	515.6314	485.9912	403.2406	521.0173	0	0	0	12
194	Nile	162346000	38.5270	354.7252	201.6237	86.4836	82.7682	48.2911	30.2173	19.8592	26.4915	45.5698	45.2959	34.9249	84.5648	10	0	0	2	
195	Brahmaputra	67163100	1.6833	70.0130	23.8291	3.0296	0.7335	0.1694	0.3071	0.2151	0.4419	4.0634	7.2488	2.3632	9.5081	12	0	0	0	
196	St.Johns	2904720	19.4408	42.7819	39.7337	74.1969	162.0649	144.1655	26.5662	19.1254	9.9614	10.8456	22.4084	32.7319	50.3352	10	1	1	0	
197	Nueces	613863	675.6743	675.6749	675.6751	675.6755	675.6752	675.6753	675.6755	675.6755	675.6746	675.6746	675.6740	675.6750	675.6749	0	0	0	12	
198	San Antonio	915156	198.8614	240.6859	433.5750	341.8816	338.9698	514.4076	600.5378	613.2690	605.9256	603.3652	616.2703	272.7311	448.3734	0	0	1	11	
199	Irrawaddy	33594300	1.1496	90.9567	55.0533	17.4552	4.9089	2.8269	0.6764	0.3952	1.2952	4.6669	2.4424	1.1483	15.2479	12	0	0	0	
200	Fuerte	451617	4.3915	38.8037	148.9398	339.8166	448.0738	550.9719	126.1502	29.1728	14.4828	34.5163	18.9086	12.4246	147.2211	7	2	0	3	
201	Xi Jiang	64672700	6.6942	27.7119	19.1185	18.3400	10.3819	3.5193	3.5946	3.5650	10.6248	2.8209	3.7413	7.2284	9.7784	12	0	0	0	
202	Bei Jiang	20750800	14.1003	25.1564	4.6480	2.1680	2.6122	2.8824	10.4037	9.4536	17.4334	9.4659	14.2933	22.3420	11.2466	12	0	0	0	
203	San Pedro	655008	5.1070	602.6954	649.7472	664.7234	669.8990	668.4536	13.4018	8.2431	11.4964	20.5754	9.2937	15.0474	278.2236	7	0	0	5	
204	Dong Jiang	13460600	6.7918	55.2253	5.1972	2.1345	2.1079	1.9961	5.1450	3.7808	6.2448	4.1643	6.6615	10.6558	9.1754	12	0	0	0	
205	Mahi	11043000	132.7826	675.6757	675.6757	675.6757	675.6757	675.6746	4.7137	4.5698	12.7792	54.6350	73.8168	126.8988	315.7144	5	2	0	5	
206	Damodar	28679500	127.5951	675.6756	675.6755	675.6754	675.6743	35.4953	19.2365	4.0380	5.4623	29.8462	106.9484	144.1211	264.6203	5	3	0	4	
207	Niger	76930900	2.6902	675.6754	312.3036	39.4287	25.5809	7.6870	2.4866	0.8833	1.0640	2.1739	1.3634	2.5488	89.4905	10	0	0	2	
208	Narmada	17017200	122.8058	675.6757	675.6757	675.6757	675.6757	459.4030	2.6223	2.1452	6.4262	33.2170	46.2384	125.6064	291.7639	5	2	0	5	
209	Brahmani River (Bhahm	12475600	34.6118	675.6754	675.6755	675.6754	675.6754	21.2191	3.0061	1.1463	2.5737	11.4115	32.7222	50.1750	238.2973	8	0	0	4	
210	Mahanadi(Mahahadi)	27697000	65.8328	675.6755	675.6755	675.6756	675.6756	241.5154	8.9781	1.5554	7.0487	36.8955	72.6433	92.4294	269.1334	7	0	0	5	
211	Santiago	17991900	50.9682	675.3602	675.5849	675.6253	675.6277	215.7790	30.9512	15.1601	28.6112	81.6495	88.2003	109.2353	276.8961	6	1	0	5	
212	Panuco	17860400	19.1964	669.4510	674.3028	674.8926	674.9985	111.3068	14.9464	15.1905	7.8169	14.7918	19.5689	38.4952	244.5798	7	1	0	4	
213	Godavari	62327300	103.1021	675.6756	675.6756	675.6757	675.6757	461.9437	20.4729	9.7974	12.4645	48.3230	95.8224	147.1925	300.1518	5	2	0	5	
214	Tapti	16927600	111.2669	675.6757	675.6757	675.6757	675.6757	675.6751	13.4339	11.4919	19.4448	73.1863	104.4853	156.4100	322.3414	4	2	1	5	
215	Sittang	3191060	0.7687	675.6756	675.6753	675.6742	170.8964	4.5520	1.0907	0.3859	1.8621	4.5434	1.8346	0.8666	184.4855	8	0	1	3	
216	Armeria	527007	28.8422	675.6755	675.6757	675.6757	675.6756	675.6751	675.6739	31.8112	3.6735	45.2147	79.7751	140.5961	365.3304	5	1	0	6	
217	Ca	2652080	3.4704	86.4786	146.7855	239.4712	132.6064	16.1764	3.2780	0.7914	0.4695	0.8864	1.7911	3.2786	52.9570	9	2	0	1	
218	Chao Phraya	26782400	59.7635	675.6756	675.6756	675.6756	453.2333	94.4499	117.4699	68.3993	30.5308	58.3648	185.2274	122.9915	268.1214	5	2	1	4	
219	Krishna	76933400	245.3534	675.6757	675.6757	675.6757	675.6756	166.8924	41.7935	55.3102	99.5401	130.9926	244.5514	325.8470	334.4153	3	1	1	7	
220	Senegal	5134070	8.0396	675.6757	675.6756	675.6755	675.6752	17.7970	6.7052	2.1256	2.5710	9.0557	14.4721	13.3435	231.4010	8	0	0	4	
221	Papaloapan	2581550	1.5329	440.5472	590.3716	623.4348	632.2959	7.8466	1.5792	1.2527	0.6051	1.4407	2.0611	3.9618	192.2441	8	0	0	4	
222	Grisalva	7036680	0.3823	5.2361	29.2770	49.2502	12.9115	0.8782	0.4151	0.5214	0.1952	0.2097	0.6696	1.5735	8.4600	12	0	0	0	
223	Verde	862403	2.2286	675.6757	675.6757	675.6755	675.6752	127.9443	3.4983	1.5385	0.9856	1.5216	4.5604	8.8476	237.8189	7	1	0	4	
224	Mae Klong	1568040	8.2570	675.6757	675.6756	675.6757	9.6270	1.6070	4.9898	5.6876	4.0035	3.4525	16.1126	15.9632	174.7273	9	0	0	3	
225	Tranh (Nr Thu Bon)	1024560	1.0979	55.0936	68.4557	126.8919	183.6169	49.4382	15.2173	5.0067	0.4364	0.2817	0.3373	0.7517	42.2188	10	1	1	0	
226	Penner	10924200	161.5024	675.6753	675.6755	675.6754	675.6749	675.6748	675.6754	675.6753	675.6754	265.5422	120.3981	193.6592	512.2086	0	1	2	9	
227	Volta	19863000	1.8968	675.6756	78.6677	14.1039	3.6142	1.6694	1.0304	0.3397	0.2825	0.9439	1.4289	2.3877	65.1700	11	0	0	1	
228	Lempa	4213240	4.7391	675.6755	675.6750	675.6755	257.6035	2.8078	0.9132	0.7368	0.4239	0.6771	3.3014	8.1138	192.1952	8	0	0	4	
229	Gambia	1354970	0.2205	675.6757	675.6757	675.6757	675.6661	0.9998	0.5948	0.1389	0.1181	0.4125	0.2095	0.3437	225.4776	8	0	0	4	
230	Grande De Matagalpa	546853	0.1582	3.3943	32.6235	78.4210	20.9298	0.1491	0.1184	0.2494	0.0814	0.0468	0.0571	0.2097	11.3699	12	0	0	0	
231	Cauvery	35203300	109.6682	648.4223	668.8554	660.5701	630.2426	208.0887	205.5354	228.0259	280.7166	164.9089	100.8473	125.9844	335.9888	0	3	1	8	
232	San Juan	3736210	0.9237	8.5666	33.1123	53.0572	4.7371	0.5343	0.5957	0.9572	0.5028	0.2510	0.3462	0.8002	8.6987	12	0	0	0	
233	Geba	387732	3.2221	675.6752	675.6757	675.6757	675.6746	10.4641	0.4508	0.0222	0.0606	0.1320	2.5431							

Basin ID	Basin name	Population	Water scarcity (%)													Number of months per year that a basin faces low, moderate, significant or severe water scarcity			
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average	Low	Moderate	Significant	Severe
237	Orinoco	12007900	0.3478	3.7943	4.5939	1.2089	0.3039	0.2049	0.2704	0.4244	0.3875	0.1411	0.1738	0.6694	1.0434	12	0	0	0
238	Bandama	4221850	1.3532	675.6648	675.6698	28.3204	8.2374	0.5589	0.8432	0.2523	0.1088	0.3983	2.0230	4.8811	116.5259	10	0	0	2
239	Oueme	5845060	1.0520	675.6731	675.6651	83.1975	1.7886	0.3320	0.2583	0.2301	0.1676	0.2829	0.9581	1.9938	120.1333	10	0	0	2
240	Sassandra	3066420	0.2600	675.6600	675.6674	13.9575	3.5306	0.1650	0.0842	0.0627	0.0329	0.0779	0.3872	1.0923	114.2481	10	0	0	2
241	Shebelle	16003600	34.9067	612.4913	355.5055	3.6776	5.3756	69.1419	68.3314	30.8164	12.3147	11.2524	8.9919	30.4396	103.6038	10	0	0	2
242	Mono	1579850	1.6390	675.6757	14.9133	3.0690	1.1277	0.3899	0.3549	0.4332	0.2718	0.4218	1.0480	2.1007	58.4537	11	0	0	1
243	Congo	67996100	0.0191	0.0519	0.0391	0.0337	0.1042	0.2558	0.3015	0.2474	0.1807	0.1116	0.0369	0.0235	0.1171	12	0	0	0
244	Atrato	511458	0.0335	0.1299	0.1133	0.0791	0.0551	0.0506	0.0498	0.0490	0.0445	0.0417	0.0423	0.0538	0.0619	12	0	0	0
245	Cuyuni	145229	0.0096	0.0327	0.0457	0.0286	0.0098	0.0064	0.0067	0.0099	0.0200	0.0294	0.0274	0.0152	0.0201	12	0	0	0
246	Cavally	1042910	0.0490	1.2503	0.7671	0.2614	0.0524	0.0199	0.0316	0.0449	0.0200	0.0227	0.0385	0.0817	0.2199	12	0	0	0
247	Tano	1228240	0.3222	675.6661	3.1827	0.4467	0.1407	0.0551	0.1108	0.2517	0.1973	0.0975	0.1913	0.4607	56.7602	11	0	0	1
248	Cross	8986060	0.1989	675.6730	1.4163	0.5751	0.2708	0.1306	0.0782	0.0670	0.0526	0.0567	0.1553	0.3379	56.5844	11	0	0	1
249	Sanaga	3878220	0.1689	346.2430	2.8487	0.2589	0.0698	0.0455	0.0294	0.0231	0.0163	0.0190	0.1338	0.3246	29.1817	11	0	0	1
250	Pra	4090460	5.9948	675.6743	17.4438	2.3710	0.6686	0.2346	0.7046	1.7829	0.6619	0.2344	0.5039	4.2527	59.2106	11	0	0	1
251	Davo	588070	0.6617	675.6472	675.6561	50.0920	5.4919	0.0780	0.1887	0.6382	0.3093	0.2468	0.3811	1.3276	117.5599	10	0	0	2
252	Essequibo	54058	0.0021	0.0053	0.0049	0.0035	0.0015	0.0008	0.0009	0.0013	0.0026	0.0043	0.0055	0.0033	0.0030	12	0	0	0
253	Kelantan	628031	5.4791	33.7696	2.6244	1.4121	1.8227	3.2957	4.6835	4.4899	11.3713	3.8726	1.7174	0.8959	6.2862	12	0	0	0
254	Corantijn	114915	0.0204	0.0323	0.0157	0.0075	0.0032	0.0022	0.0080	0.0205	0.1532	0.1514	0.0883	0.0493	0.0460	12	0	0	0
255	Coppename	14206	0.0032	0.0036	0.0033	0.0024	0.0012	0.0011	0.0013	0.0022	0.0043	0.0072	0.0120	0.0157	0.0048	12	0	0	0
256	Kinabatangan	230078	0.0417	0.1170	0.1495	0.1524	0.1564	0.0914	0.1331	0.1118	0.1099	0.0911	0.0927	0.0615	0.1090	12	0	0	0
257	Maroni	35367	0.0011	0.0010	0.0008	0.0006	0.0004	0.0004	0.0006	0.0010	0.0020	0.0032	0.0054	0.0078	0.0020	12	0	0	0
258	San Juan (Columbia - Pa	480299	0.0817	0.2906	0.5444	0.3547	0.3394	0.4321	0.8079	0.8017	0.3057	0.1177	0.0962	0.1274	0.3583	12	0	0	0
259	Amazonas	24646600	0.0474	0.0583	0.0602	0.1461	0.2005	0.1929	0.2263	0.4791	0.6064	0.4216	0.2495	0.0907	0.2316	12	0	0	0
260	Pahang	1771880	1.8543	3.7764	0.6960	0.5536	0.6216	1.8039	3.9506	3.8633	7.1287	1.9166	1.2968	0.7561	2.3515	12	0	0	0
261	Nyong	1096870	0.0496	675.6446	0.1624	0.0543	0.0344	0.0416	0.0896	0.0923	0.0257	0.0184	0.0368	0.0753	56.3604	11	0	0	1
262	Oyapock	10588	0.0007	0.0008	0.0006	0.0005	0.0005	0.0005	0.0009	0.0015	0.0027	0.0045	0.0075	0.0053	0.0022	12	0	0	0
263	Rajang	317541	0.0337	0.0236	0.0143	0.0135	0.0142	0.0178	0.0216	0.0217	0.0348	0.0204	0.0273	0.0434	0.0239	12	0	0	0
264	Ntem	406302	0.0443	11.0546	0.2040	0.0553	0.0345	0.0495	0.1131	0.1901	0.0574	0.0202	0.0280	0.0631	0.9928	12	0	0	0
265	Ogooue	605645	0.0132	0.0361	0.0152	0.0073	0.0069	0.0232	0.0773	0.2070	0.1682	0.0276	0.0052	0.0097	0.0497	12	0	0	0
266	Rio Araguari	30047	0.0026	0.0023	0.0018	0.0015	0.0015	0.0017	0.0029	0.0050	0.0090	0.0149	0.0247	0.0311	0.0083	12	0	0	0
267	Mira	616715	1.3675	1.8240	1.3023	0.9616	0.9370	1.4622	5.0426	10.1169	7.0269	2.6192	2.1495	1.8466	3.0547	12	0	0	0
268	Esmeraldas	2570700	2.4775	1.3241	0.7395	0.5640	0.9415	2.3105	10.0075	30.5209	33.0273	15.4778	16.0838	6.7447	10.0183	12	0	0	0
269	Tana	4247120	19.2127	375.8837	48.1058	0.9774	0.6521	4.1596	16.9985	35.9034	57.1415	23.4372	2.4377	6.9134	49.3186	11	0	0	1
270	Daule & Vincas	3751960	13.9686	3.3430	1.4815	1.1059	4.4798	16.3902	60.6700	139.6644	158.9934	85.4623	143.8609	89.1320	59.8794	9	2	1	0
271	Rio Gurupi	223991	0.2029	0.0453	0.0199	0.0206	0.0281	0.0531	0.0896	0.1751	0.2895	0.4326	0.6547	0.9705	0.2485	12	0	0	0
272	Rio Capim	571249	0.1572	0.0420	0.0268	0.0297	0.0400	0.0635	0.0931	0.1589	0.2984	0.4849	0.8036	1.1830	0.2818	12	0	0	0
273	Tocantins	4743730	0.1061	0.0878	0.0751	0.2189	0.2758	0.5937	1.1836	2.1437	2.6125	1.4003	0.3280	0.1305	0.7630	12	0	0	0
274	Kouilou	807229	0.0100	0.0168	0.0100	0.0074	0.0536	0.7136	1.6943	3.4664	5.8734	7.5137	0.2821	0.0131	1.6379	12	0	0	0
275	Nyanga	30486	0.0054	0.0091	0.0067	0.0060	0.0120	0.0235	0.0388	0.0643	0.1065	0.1762	0.0091	0.0078	0.0388	12	0	0	0
276	Rio Parnaiba	3699600	1.7971	0.7677	0.3177	0.4782	2.2212	5.7951	10.9900	20.0542	30.8995	42.6523	41.5831	10.4016	13.9965	12	0	0	0
277	Rio Itapecuru	970703	6.1615	0.3755	0.1323	0.1500	0.5581	1.3908	2.6008	4.4310	6.4331	8.5553	9.1479	12.4667	4.3669	12	0	0	0
278	Rio Acarau	461902	15.8625	12.7158	0.3593	0.2234	0.7741	4.4087	8.5772	17.5252	32.1879	48.1271	67.4395	89.0113	24.7677	12	0	0	0
279	Pangani	2174380	88.2215	472.8166	294.6398	33.2641	24.0884	120.0783	223.4145	202.5709	259.5573	287.4497	123.4709	107.9109	186.4569	3	3	0	6
280	Rio Pindare	516722	0.9264	0.0941	0.0455	0.0482	0.0861	0.1866	0.3439	0.5884	0.9674	1.5131	2.2514	3.6318	0.8903	12	0	0	0
281	Sepik	785225	0.0022	0.0036	0.0027	0.0028	0.0037	0.0046	0.0051	0.0051	0.0045	0.0043	0.0043	0.0038	0.0039	12	0	0	0
282	Rio Mearim	932065	1.4793	0.1622	0.0757	0.1021	0.2560	0.6420	1.1831	2.0247	3.2475	4.8225	5.7084	8.7104	2.3678	12	0	0	0
283	Chira	651347	174.6999	33.9354	6.3394	8.7798	40.3058	68.8075	165.3222	306.1386	369.0289	355.5859	492.7430	526.3405	212.3356	5	0	2	5
284	Rufiji	4582130	2.4406	1.0543	0.4023	0.8508	4.4086	4.4748	5.1931	7.7746	12.0128	16.8223	13.6279	6.8470	6.3258	12	0	0	0
285	Rio Jaguaribe	2096590	68.8366	466.7195	2.4304	1.6979	7.9839	20.5539	38.2575	76.3461	133.2660	183.4794	218.7694	253.3118	122.6377	7	1	1	3
286	Purari	797242	0.0047	0.0080	0.0064	0.0063	0.0075	0.0095	0.0113	0.0109	0.0087	0.0092	0.0092	0.0079	0.0083	12	0	0	0
287	Ruvu	699351	15.2213	8.1296	2.0866	0.4224	1.8886	4.0788	6.9238	13.5320	21.0324	28.3475	28.9166	12.0853	11.8887	12	0	0	0
288	Rio Paraiba	1211910	32.7233	675.6733	420.0547	12.3624	5.7990	2.8894	5.2031	14.3150	49.8369	79.9357	110.4506	137.1682	128.8676	8	2	0	2
289	Solo (Bengawan Solo)	11102900	58.3992	20.0205	7.9293	0.8994	2.2037	14.2910	46.6175	108.2436	230.0418	242.2164	549.0959	78.4498	113.2007	8	1	0	3
290	Sao Francisco	12442500	0.4975	1.2217	2.0719	6.2990	13.0405	12.1858	13.3456	25.2916	53.3544	47.5678	5.9127	1.0704	15.1549	12	0	0	0
291	Brantas	8995650	50.2390	14.9720	5.4566	1.0062	2.0734	11.0350	43.0118	107.2374	216.3039	199.4313	528.4865	96.6738	106.3272	8	1	1	2
292	Santa	451672	4.8787	4.1867	4.5013	22.4432	43.6664	66.9804	89.0366	188.7395	275.8517	76.8814	34.9435	12.5740	68.7236	10	0	1	1
293	Zambezi	31680200	0.1293	0.1102	0.2331	1.3208	3.2198	5.6709	11.1580	25.5249	49.8170	67.4901	38.8983	0.7894	17.0301	12	0	0	0
294	Rio Vaza-Barris	421962	47.1500	675.6751	675.6735	675.6738	15.4400	5.3401	5.1094	11.2700	31.2962	47.9492	55.3091	78.5342	193.7017	9	0	0	3
295	Rio Itapicuru	958302	23.2680	675.6657	675.6663	219.8450	16.3850	5.4203	2.5623	5.7552	16.4367	27.7379	32.5217	47.0646	145.6940	9	0	0	3
296	Rio Paraguacu	1628730	7.6704	14.0149	10.9471														

Basin ID	Basin name	Population	Water scarcity (%)													Number of months per year that a basin faces low, moderate, significant or severe water scarcity			
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average	Low	Moderate	Significant	Severe
297	Canete	121491	4.9261	3.8108	7.0143	25.7931	56.2745	67.2111	78.7459	152.3570	214.0894	65.1895	34.8903	13.0981	60.2833	10	0	1	1
298	Rio De Contas	1401840	9.8947	26.3594	19.3951	14.9852	20.4628	20.8767	25.1751	57.5198	102.6657	114.9763	29.8845	16.8139	38.2508	10	2	0	0
299	Roper	4047	0.0116	0.0028	0.0321	0.5520	1.3942	2.1681	3.8012	7.2841	12.9356	18.7131	12.1980	3.5788	5.2226	12	0	0	0
300	Daly	14918	0.0208	0.0057	0.0298	0.4878	1.2276	1.9815	3.4464	6.3148	11.1303	15.1508	7.8003	2.2804	4.1563	12	0	0	0
301	Drysdale	2146	0.0833	0.0077	0.0081	0.0227	0.0375	0.0621	0.1028	0.1701	0.2816	0.4662	0.7715	1.2768	0.2742	12	0	0	0
302	Parana	67514000	1.7575	1.9263	1.7004	3.0949	2.8060	4.0867	8.6645	13.4237	11.3002	7.1899	4.2850	1.8313	5.1722	12	0	0	0
303	Durack	2230	116.4511	1.2153	1.3806	3.8102	6.2805	10.3353	16.9429	27.5985	44.5008	70.6311	109.1528	163.7028	47.6668	9	2	1	0
304	Rio Prado	612921	0.6076	2.0205	1.7438	2.0883	4.4410	4.8956	6.4880	15.4129	29.0811	36.5853	4.8304	0.8814	9.0897	12	0	0	0
305	Victoria	1365	9.2937	0.0681	0.0993	0.2545	0.4213	0.6973	1.1537	1.9080	3.1532	5.2048	8.5737	14.0740	3.7418	12	0	0	0
306	Mitchell(N. Au)	24393	0.1582	0.0210	0.0625	0.7574	1.9291	3.1371	5.6061	10.8940	20.7780	33.3659	33.2746	23.1982	11.0985	12	0	0	0
307	Majes	102829	1.8541	1.1713	1.2730	7.1602	14.1027	11.8875	13.0938	32.4381	68.5776	67.5880	60.2720	3.7370	23.5963	12	0	0	0
308	Ord	2473	187.4022	0.6472	31.4538	492.6930	604.2727	641.0176	658.8949	666.9659	670.7995	672.0764	671.7298	637.3952	494.6123	2	0	1	9
309	Jequitinhonha	887101	0.1124	0.4506	0.5438	1.1624	2.2427	3.5666	5.8719	11.6911	19.9807	17.9190	0.8099	0.1356	5.3739	12	0	0	0
310	Macarthur	542	1.4032	0.5125	0.0099	0.0380	0.0629	0.1041	0.1723	0.2853	0.4722	0.7815	1.2928	2.1378	0.6060	12	0	0	0
311	Fitzroy	5856	1.0917	0.0134	0.0126	0.0422	0.0700	0.1143	0.1945	0.3345	0.5653	0.9424	1.4660	2.1022	0.5791	12	0	0	0
312	Gilbert	2708	0.0201	0.0025	0.0307	0.2243	0.3749	0.5382	0.9487	1.8899	3.5926	5.9015	6.6340	5.6811	2.1532	12	0	0	0
313	Mucuri	300173	0.1497	0.8457	1.1463	1.7572	3.1161	5.5901	7.9047	19.9405	30.9097	30.9969	1.2615	0.1796	8.6498	12	0	0	0
314	Rio Doce	3858470	0.1595	1.0755	1.2154	2.6458	5.7751	12.5936	26.1170	49.6085	65.1541	80.4818	1.3040	0.2030	20.5278	12	0	0	0
315	Save	3185290	1.5960	1.0893	2.5484	10.7342	14.4194	27.7717	52.4642	149.7387	253.8579	283.6111	189.6368	10.7908	83.1882	8	1	1	2
316	Burdekin	69307	0.7752	0.1454	0.8296	4.2433	6.7094	10.9123	21.5235	43.0089	82.5870	128.6848	143.4621	86.8582	44.1450	10	2	0	0
317	Tsiribihina	2396510	3.1522	2.1641	4.8643	20.4832	12.2018	1.2696	1.9941	3.3839	5.8470	10.0308	4.6400	3.4502	6.1235	12	0	0	0
318	Buzi	1034320	0.1300	0.0440	0.1512	1.2956	2.7059	4.3122	7.4987	18.7498	39.2685	60.4391	41.7130	3.1325	14.9534	12	0	0	0
319	Loa	195523	674.4448	472.1909	607.8330	632.4686	648.4432	659.2330	665.8354	670.1252	672.4545	673.7322	674.3757	674.8878	643.8354	0	0	0	12
320	Limpopo	15637400	26.2870	20.3005	39.1750	74.6057	78.3268	125.2193	211.3371	374.0882	491.6445	526.7694	454.1434	146.5567	214.0378	5	2	0	5
321	De Grey	5408	672.7772	673.7507	674.4039	674.3645	675.1990	675.6690	675.6757	675.6757	675.6757	675.6757	675.6757	674.0889	674.8860	0	0	0	12
322	Paraiba Do Sul	6927710	0.5483	0.9624	1.2865	3.2467	4.5883	8.6873	17.3242	30.5797	28.1061	12.2260	2.7246	0.8279	9.2590	12	0	0	0
323	Fortescue	4790	674.5364	674.1375	673.6447	674.8881	675.4909	675.5005	675.6757	675.6547	675.6757	675.6757	675.6757	674.4168	675.0810	0	0	0	12
324	Mangoky	587027	9.9129	6.7411	13.8310	34.7203	18.6365	5.2827	6.9149	11.1760	18.1266	32.9155	19.8911	19.1208	16.4391	12	0	0	0
325	Fitzroy	149743	42.3454	2.5328	10.9273	26.6818	31.0640	37.8992	75.6954	147.9544	261.0738	356.1580	392.4099	411.6918	149.7028	7	1	0	4
326	Orange	12665700	32.8642	49.7104	53.4935	61.9032	51.6015	101.6656	186.0131	305.7296	382.7930	324.3907	135.1996	62.5468	145.6593	6	2	1	3
327	Ashburton	4969	673.4873	672.9598	672.0020	673.6575	675.4399	674.7150	675.5395	675.4329	675.6757	675.6757	675.6757	675.2947	674.6296	0	0	0	12
328	Gascoyne	2333	674.8632	674.9795	674.8524	675.1512	675.6757	674.8473	675.5338	675.0089	675.6124	675.6757	675.6757	675.6380	675.2928	0	0	0	12
329	Rio Ribeira Do Iguape	2463300	0.4955	0.6252	0.7523	1.3299	1.4195	1.3115	1.9425	2.4326	1.7460	1.2108	1.3930	1.0933	1.3127	12	0	0	0
330	Incomati	2416140	3.2429	4.4857	8.6634	28.0364	36.3277	60.4590	107.8731	211.2914	328.4360	347.8524	64.4914	11.3213	101.0401	8	1	0	3
331	Murray	2348090	313.1940	590.5329	558.6605	383.2971	110.0151	32.8968	29.4332	46.0665	84.0121	135.1662	215.7873	306.1292	233.7659	4	2	0	6
332	Murchison	4823	675.3872	675.5117	675.0409	675.2079	675.5240	674.6891	675.6757	675.2720	675.5262	675.6558	675.6390	675.6757	675.4004	0	0	0	12
333	Maputo	1264770	0.8962	1.2957	5.1801	24.9260	42.8674	77.8780	128.1391	247.7764	350.9579	402.6263	60.9584	10.5749	112.8397	8	1	0	3
334	Uruguay	5047190	21.4671	26.8667	6.4756	0.3270	0.1328	0.1185	0.1430	0.2204	0.1872	1.8847	8.6617	17.9928	7.0398	12	0	0	0
335	Tugela	1784420	8.4649	20.5303	34.3064	42.8165	43.9071	71.9421	142.3818	257.8979	341.0814	321.5249	148.4465	17.7059	120.9171	7	2	0	3
336	Colorado (Argentina)	3267980	23.4825	184.8779	233.5774	168.2108	47.2207	19.5317	37.4520	63.7277	93.5580	44.7878	36.4664	29.3826	81.8563	9	0	2	1
337	Rio Jacui	2577790	25.8790	21.9339	8.2311	0.3012	0.2182	0.1836	0.1990	0.2086	0.1909	2.7394	12.1493	23.4607	7.9746	12	0	0	0
338	Huasco	25972	4.7782	20.3041	29.5344	26.4111	31.5862	78.3115	131.7629	312.1076	474.2243	551.7213	481.9567	7.3783	179.1731	7	1	0	4
339	Limari	141848	139.9159	100.5135	186.4540	103.0468	98.2377	20.2110	36.2739	139.8417	384.1582	509.8300	539.3160	267.2765	210.4229	3	4	1	4
340	Negro (Uruguay)	531221	29.7743	230.5629	25.1088	0.5676	0.0372	0.0255	0.0262	0.0263	0.0275	0.4093	5.7794	19.1204	25.9555	11	0	0	1
341	Groot-Vis	299461	675.6744	675.6753	675.6753	675.6752	675.6756	675.6755	675.6755	675.6755	675.6755	675.6754	675.6749	675.6754	675.6753	0	0	0	12
342	Salado	1880050	15.1703	641.7866	87.2711	2.6498	1.1305	1.0931	1.4193	1.7429	2.5565	2.2500	2.4991	5.0147	63.7153	11	0	0	1
343	Blackwood	27692	4.2553	675.6735	675.6716	675.6729	675.6757	0.9701	0.1109	0.0761	0.1436	1.1992	3.5819	7.4110	226.7035	8	0	0	4
344	Rapel	740153	71.9134	258.6146	280.9435	108.0733	2.6210	0.4377	0.4399	1.3898	14.3699	54.4493	68.4283	66.2961	77.3314	9	1	0	2
345	Negro (Argentina)	709780	4.6225	114.5823	24.2157	3.7739	0.4160	0.1451	0.1802	0.4059	0.8636	1.5007	3.3247	6.6473	13.3898	11	1	0	0
346	Biobio	655158	9.3906	259.0017	19.4113	2.1306	0.7821	0.5967	0.5869	0.6613	1.4397	2.6659	1.6334	7.5106	25.4842	11	0	0	1
347	Waikato	322699	0.3328	1.0146	1.9248	0.7785	0.3036	0.2348	0.2385	0.2485	0.2777	0.2849	0.3673	0.5520	0.5465	12	0	0	0
348	South Esk	55674	11.7021	434.2671	427.5318	53.5044	6.9091	0.5809	0.1452	0.3988	2.1204	5.0508	9.6303	21.7726	81.1345	10	0	0	2
349	Chubut	211573	2.7257	65.3402	31.0141	9.6363	1.2583	0.2767	0.3051	0.6037	1.4339	3.2425	5.7976	9.3494	10.9153	12	0	0	0
350	Clutha	33929	1.2345	20.4574	18.4430	8.0888	1.1902	0.1471	0.1470	0.6392	3.9747	5.4799	8.6757	8.1475	6.3854	12	0	0	0
351	Baker	14456	0.0066	0.0526	0.0490	0.0197	0.0075	0.0053	0.0053	0.0073	0.0163	0.0364	0.0388	0.0435	0.0240	12	0	0	0
352	Santa Cruz	10013	0.0088	0.1777	0.1568	0.0403	0.0109	0.0050	0.0057	0.0075	0.0142	0.0281	0.0656	0.0797	0.0500	12	0	0	0
353	Ganges	454094000	204.4411	639.4690	605.3067	482.1237	389.0013	99.6327	25.0663	9.2684	18.8839	78.7413	173.6638	172.0857	241.4737	5	0	2	5
354	Salween	6599400	1.1302	111.0741	29.3610	24.1507	12.4901	3.1144	0.8121	0.4990	0.8664	1.2825	1.0341	1.2215	15.5863	11	1	0	0



Basin ID	Basin name	Population	Water scarcity (%)													Number of months per year that a basin faces low, moderate, significant or severe water scarcity			
			Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average	Low	Moderate	Significant	Severe
357	Okavango	1774000	0.1043	0.0724	0.0788	0.2923	0.6630	1.1260	2.1253	4.5283	8.7200	13.3841	11.7382	0.8349	3.6390	12	0	0	0
358	Tarim	9311040	95.8349	672.6885	675.1602	670.0141	412.7105	250.3262	230.9349	292.5217	363.0419	212.4870	163.1360	118.8740	346.4775	1	1	1	9
359	Horton	36	0.0097	0.3755	0.6214	1.0283	0.0015	0.0004	0.0013	0.0022	0.0036	0.0060	0.0099	0.0164	0.1730	12	0	0	0
360	Hornaday	54	0.0145	25.7006	41.5101	66.0803	102.7594	0.0010	0.0012	0.0026	0.0049	0.0081	0.0134	0.0222	19.6765	11	1	0	0
361	Conception	192706	675.6757	675.6757	675.6755	675.6755	675.6756	675.6757	675.6746	675.6753	675.6750	675.6756	675.6757	675.6746	675.6754	0	0	0	12
362	Ulua	2716130	2.1283	33.2055	136.7360	245.3472	251.2633	5.9008	1.0315	0.6504	0.2439	0.1589	0.3202	2.1122	56.5915	9	1	0	2
363	Patacua	537974	0.1999	1.3443	8.9439	21.7591	18.3719	2.8444	0.3728	0.1624	0.1003	0.0343	0.0465	0.2225	4.5335	12	0	0	0
364	Coco	694398	0.1255	2.0310	8.3508	17.1824	5.8016	0.0852	0.0433	0.0463	0.0390	0.0284	0.0418	0.1252	2.8250	12	0	0	0
365	Ocona	68271	1.2874	1.1409	1.4107	11.3676	22.3827	17.3298	17.0950	41.8566	87.2211	32.5782	17.3791	3.2915	21.1950	12	0	0	0
366	Cuanza	2845470	0.0419	0.0779	0.0359	0.0377	0.1842	0.6321	1.2781	3.0681	5.7417	8.2183	3.2695	0.1461	1.8943	12	0	0	0
367	Cunene	1370200	0.0505	0.0418	0.0165	0.0367	0.1464	0.3039	0.5684	1.1026	1.8648	2.1089	1.5262	0.1545	0.6601	12	0	0	0
368	Doring	167084	153.1973	675.6757	675.6755	675.6753	675.6749	13.0879	7.0137	19.0497	81.0016	213.8185	264.2183	325.8076	314.9913	4	0	1	7
369	Gamka	278648	20.7730	453.7032	307.0933	157.9746	90.0574	60.7700	50.2047	45.0117	70.2177	107.3440	72.6695	104.5300	128.3624	7	2	1	2
370	Groot- Kei	873587	454.0911	456.3257	204.9661	192.0700	285.7526	377.9932	490.5297	575.4422	628.2712	648.2796	611.6115	569.3782	457.8926	0	0	1	11
371	Lurio	1250340	0.0046	0.0034	0.0035	0.0131	0.0276	0.0455	0.0813	0.1645	0.3147	0.5250	0.5213	0.0528	0.1464	12	0	0	0
372	Messalo	288385	0.0053	0.0027	0.0023	0.0047	0.0139	0.0233	0.0643	0.1706	0.3824	0.6334	0.2569	0.3399	0.1583	12	0	0	0
373	Rovuma	1993910	0.0202	0.0091	0.0065	0.0204	0.0656	0.0789	0.1194	0.2289	0.4089	0.6877	0.7730	0.3206	0.2283	12	0	0	0
374	Galana	5589040	10.9165	281.5583	30.5241	0.9284	1.0042	4.5320	13.5066	24.5948	38.0919	55.0147	4.4509	5.3556	39.2065	11	0	0	1
375	Pyasina	244329	0.4915	47.0906	74.5599	115.1182	171.4470	0.0270	0.0818	0.1235	0.1283	0.2842	0.4704	0.7784	34.2167	10	1	1	0
376	Popigay	845	0.0094	0.9669	1.5994	2.6441	4.3665	0.0004	0.0011	0.0019	0.0032	0.0054	0.0090	0.0149	0.8019	12	0	0	0
377	Fuchun Jiang	10914100	3.7448	2.3870	1.4455	2.3731	3.9030	2.3228	24.8749	32.6997	38.4521	11.5320	7.3822	8.2303	11.6123	12	0	0	0
378	Min Jiang	9729770	2.3885	1.8038	0.6328	0.7000	0.7652	0.7984	9.5136	9.5344	10.9399	2.7864	3.4774	4.7848	4.0104	12	0	0	0
379	Han Jiang	9672140	9.7869	21.7308	3.3061	2.3554	2.3545	2.3018	12.2656	9.2942	12.4331	6.6124	9.9011	15.1884	8.9609	12	0	0	0
380	Mamberamo	442054	0.0040	0.0066	0.0049	0.0054	0.0063	0.0079	0.0073	0.0078	0.0073	0.0097	0.0088	0.0072	0.0069	12	0	0	0
381	Lorentz	16096	0.0045	0.0051	0.0044	0.0048	0.0065	0.0089	0.0081	0.0090	0.0068	0.0118	0.0083	0.0086	0.0072	12	0	0	0
382	Eilanden	55731	0.0015	0.0025	0.0021	0.0021	0.0022	0.0024	0.0025	0.0026	0.0025	0.0031	0.0031	0.0025	0.0024	12	0	0	0
383	Uwimbu	58827	0.0009	0.0017	0.0015	0.0015	0.0019	0.0027	0.0036	0.0041	0.0038	0.0038	0.0032	0.0019	0.0026	12	0	0	0
384	Sungai Kajan	92999	0.0192	0.0152	0.0025	0.0021	0.0020	0.0025	0.0030	0.0029	0.0432	0.0315	0.0077	0.0202	0.0127	12	0	0	0
385	Sungai Mahakam	891886	0.0431	0.0521	0.0142	0.0097	0.0117	0.0144	0.0369	0.0538	0.2843	0.1523	0.0606	0.0393	0.0644	12	0	0	0
386	Sungai Kapuas	1606700	0.0191	0.0289	0.0162	0.0147	0.0171	0.0227	0.0340	0.0372	0.0618	0.0271	0.0187	0.0186	0.0263	12	0	0	0
387	Batang Kuantan	1519730	2.8211	3.0608	0.2400	0.2084	0.3146	1.0426	2.3173	2.9105	9.9064	5.1021	2.7841	1.9424	2.7208	12	0	0	0
388	Batang Hari	2049480	0.8612	0.9287	0.0969	0.0792	0.1676	0.4931	0.9628	1.4025	3.6364	2.0243	1.0064	0.6505	1.0258	12	0	0	0
389	Flinders	6334	16.4188	0.1479	2.3064	6.2021	9.3989	12.8657	23.1964	45.3361	83.9322	128.9076	149.4369	159.4244	53.1311	9	2	1	0
390	Leichhardt	6430	0.2065	0.1982	1.0076	2.2161	3.5819	5.3255	9.2949	17.1238	30.4700	48.5751	63.4573	76.7928	21.5208	12	0	0	0
391	Escaut (Schelde)	9448070	10.5740	20.2440	23.6613	30.4949	56.0009	99.7116	163.8537	244.0545	292.3902	227.4405	38.2835	19.1539	102.1553	8	0	1	3
392	Issyk-Kul	3325290	6.4377	39.8246	1.3156	12.5627	38.5639	69.1434	108.5862	204.1123	227.2760	165.3870	31.0648	11.4322	76.3089	8	1	1	2
393	Balkhash	5182190	14.4406	675.6757	6.0052	21.7479	44.9506	77.6184	157.1146	261.8551	300.4459	179.9099	17.4527	23.2170	148.3695	7	0	2	3
394	Eyre Lake	86249	674.3073	674.7129	675.4052	675.5506	675.6234	675.6234	675.6616	675.6513	675.6459	675.6263	675.5155	675.3102	675.3861	0	0	0	12
395	Lake Mar Chiquita	4096920	75.0833	61.2397	24.5206	42.4430	41.9168	74.2884	154.8408	268.7374	410.8614	324.0478	235.4769	112.5411	152.1664	6	1	1	4
396	Lake Turkana	8701300	4.0102	675.6729	34.6764	0.5005	0.3998	0.2868	0.2343	0.4719	0.6393	0.7622	0.9919	3.0301	60.1397	11	0	0	1
397	Dead Sea	6149610	4.1131	7.7788	51.5262	214.3257	371.6238	444.3434	531.1691	573.7264	568.3607	568.8242	531.6836	68.5694	328.0037	4	0	0	8
398	Suriname	102802	0.0166	0.0190	0.0174	0.0125	0.0077	0.0073	0.0092	0.0150	0.0300	0.0499	0.0826	0.0691	0.0280	12	0	0	0
399	Lake Titicaca	2690710	3.8339	3.3416	3.0617	4.2793	4.7054	7.1890	9.4926	14.4444	18.3273	13.4872	15.3962	5.8656	8.6187	12	0	0	0
400	Lake Vattern	405048	3.2906	675.6757	0.5556	0.6713	1.7349	3.6514	7.3175	11.3250	11.8803	4.4041	1.8303	4.1894	60.5438	11	0	0	1
401	Great Salt Lake	2224190	86.3922	23.8773	37.9263	69.3490	103.8457	229.3599	368.6795	422.2226	417.9784	408.9415	235.0614	99.9358	208.6308	5	1	0	6
402	Lake Taymur	6188	0.0081	157.0790	225.6940	306.5597	391.1833	0.0004	0.0009	0.0018	0.0023	0.0045	0.0075	0.0124	90.0462	8	0	1	3
403	Daryacheh-Ye Orumieh	4306830	13.2194	37.5978	33.2275	27.3501	32.7817	90.7096	172.8032	266.8108	271.1349	206.4550	65.4205	32.5219	104.1694	8	0	1	3
404	Van Golu	893956	3.5935	675.6757	3.9109	0.8077	3.1849	18.9333	29.9880	51.1923	59.5154	20.0438	3.5220	6.1803	73.0456	11	0	0	1
405	Ozero Sevan	412357	58.7163	675.6757	143.7254	7.7445	8.3609	41.9546	105.3181	174.5054	159.6708	78.9532	40.2273	88.2488	131.9251	7	2	2	1



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