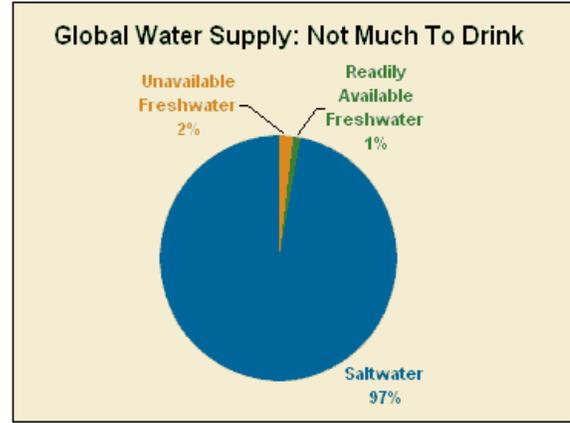


## Water scarcity in nature

There are millions of people all over the world who don't have access to water, or, if they have access, that water is unable to be used. About 70% of the Earth's surface is covered with water and 3% of it is actually freshwater that is fit for human consumption. Around two-thirds of that is tucked in frozen glaciers and unavailable for our use. According to WWF, some 1.1 billion people worldwide lack access to water, and a total of 2.7 billion find water scarce for at least one month of the year.



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Clean drinking water is scarce and there are millions of people across this globe who spends their entire day searching for it. Yet, people who have access to safe, clean drinking water take it for granted and don't use it wisely. Water scarcity involves water crisis, water shortage, water deficit or water stress. Water scarcity can be due to physical water scarcity and economic water scarcity. Physical water scarcity refers to a situation where natural water resources are unable to meet a region's demand and economic water scarcity is a result of poor water management resources. That being said, what are the causes of water scarcity, what are the effects of water scarcity, and are there any solutions that we can start to explore? Here's a quick look at all of those things in a bit more detail. Children of a culture born in a water-rich environment, we have never really learned how important water is to us. We understand it, but we do not respect it. -William Ashworth

### Implementation Cost

Location	Reforestation (one-time USD/ha)	Riparian restoration (one-time USD/ha)	Ag. BMPs (annual payment USD/ha)	Forest Thinning (one time USD/ha)	Forest Protection (one time USD/ha)
North America	\$3,700.00	\$6,700.00	\$188.00	\$2,160.00	\$2,914.00
Europe	\$3,700.00	\$6,700.00	\$188.00	\$2,160.00	\$1,682.00
Oceania	\$3,700.00	\$6,700.00	\$188.00	\$2,160.00	\$2,875.00
South/Latin America	\$2,148.00	\$1,095.00	\$101.00	\$2,160.00	\$2,355.00
Africa	\$800.00	\$643.00	\$101.00	\$2,160.00	\$300.00
Asia	\$750.00	\$643.00	\$101.00	\$2,160.00	\$417.00

## Causes of Water Scarcity

- **Overuse of Water:** Water overuse is a huge issue that a lot of people are dealing with. It may be overused on people, animals, land, or any other number of things. It may also be used for recreational activities without any care about the effects that it may have on the world around them.
- **Pollution of Water:** Water pollution is a huge problem, especially when you're looking at areas that don't necessarily have a good sewage system. Pollution can be anything from oil, to carcasses, to chemicals, and to fecal matter. No matter what it is; it makes a lot of issues for the people who may need to use it.
- **Conflict:** If there is conflict over an area of land, it may be difficult to access the water that is located there. In the worst case scenarios, people could end up dying if they try to access the water in these areas (due to violence). This can result in a variety of other issues, including pollution, which we discussed in the previous point.
- **Distance:** There are a number of areas throughout the entire world that deal with water scarcity because they just aren't close to anywhere that has water. Areas that are considered to be desert, or areas that are secluded, may not have somewhere that the people can get water effectively.
- **Drought:** A drought is, in short, an area which is not getting enough rainfall to be able to sustain the life that is residing there. Some areas are in perpetual drought, whereas other areas may be dealing with a drought on occasion. Droughts are common all over the world, and there is little that can be done to prevent such things from happening.
- **Governmental Access:** In some countries, specifically those with dictatorships, the use of water may be strictly controlled by those in power, causing a scarcity for those who may be located in those areas of the world. These governments use it as a source of control over those that they are governing, which can be a huge problem.

## Effects of Water Scarcity

- **Lack of Access to Drinking Water:** The biggest problem that happens when you have water scarcity is that people are not able to get fresh, clean drinking water. The human body can only go so long without water, and a lack of drinking water can result in a number



Source: irri.org

of other problems, which we discuss below.

- **Hunger:** If there is no water that can be used in order to help water the crops, then you are going to have people that are going hungry. Animals will also die, which will result in a lack of meat as well. Water scarcity, in short, causes starvation to occur en masse for both people and animals that are located in the area.
- **Lack of Education:** Water scarcity makes it difficult for people to get the education that they need or that they deserve. Why? Mainly, because those children are either too sick to go to school (which we will discuss below), or they are working to help get water to the home and the family.
- **Diseases:** If you don't have clean water access, then you will be more likely to get diseases from the water that you do have. Whether you're drinking the water or using it for bathing, those diseases will get into the body and, in a number of cases, the people carrying those diseases will pass away.
- **Sanitation Issues:** Without access to clean water, there is no way to clean food, dishes, or people. When people are not given access to proper sanitation, disease (which we talked about above) ends up becoming much more of an issue than it would have been otherwise. It also causes mental health issues, including depression and anxiety.
- **Poverty:** All in all, people who are dealing with water scarcity are often stuck in poverty as well. These people are not able to get the resources that they need in order to be able to thrive, and instead are just barely surviving through these difficult times.

### Five Conservation Strategies to help secure water for cities

	Strategy	Description
	<b>Forest Protection</b>	Purchase of easements, land rental, fencing out cattle, and funding for park guards to maintain watershed services
	<b>Reforestation</b>	Restoration and planting of native trees, grasses, and shrubs in critical areas to reduce erosion and related sediment transport
	<b>Agricultural Best Management Practices</b>	Implementation of cover crops, contour farming to prevent—and wetland and terrace construction to trap—sediment and nutrient runoff
	<b>Riparian Restoration</b>	River bank restoration and protection to reduce erosion and improve water quality
	<b>Forest Fuel Reduction</b>	Conducting controlled burns and/or mechanical treatment to reduce wildfire severity and related sediment and ash pollution

## Solutions for Water Scarcity

- **Education:** There are plenty of opportunities out there that people can use in order to learn more about the world around them. By educating those who are not dealing with water scarcity, they can be in a position to help. Those who are dealing with it can get educated on how they can prevent the problem from becoming even worse in the future.
- **Recycle Water:** There are plenty of technologies out there that allow you to recycle rainwater and other water that you may be using in your home. Consider learning about how you can recycle water. Not only does it help to prevent scarcity, but it can save you some money as well.
- **Advance Technology Related to Water Conservation:** There has been a lot of work in the world of water conservation, but there is also a lot that needs to be done in order to ensure that the rest of the world is able to conserve water. Putting money and effort into conservation could be life saving.
- **Improve Practices Related to Farming:** Farming and irrigation are often a huge culprit when it comes to water scarcity. Because of that, we need to improve practices so that we don't use as much water and those who are using water are using it to its fullest potential. Technology also needs to advance in this manner.
- **Improve Sewage Systems:** Clean drinking water starts with a good sewage system. Without proper sanitation, the water in an area becomes ridden with disease and any number of other problems. By improving the sewage systems in these areas, we can prevent water scarcity from becoming any worse.
- **Support Clean Water Initiatives:** There are organizations located all over the world that are looking to bring clean water to areas that don't have it. Consider donating to these organizations, either with your time, your skills, or your finances (whichever you can afford to give to them).

So, as we can see, there are a lot of things that we need to consider when we're looking at water scarcity and how we can deal with it. If we start to look at this issue as a whole, and we work hard to make sure that we are able to make a difference when it comes to this widespread issue, we're going to be in a much better place to help people all over the world in preventing this issue from getting worse.

Source: <http://www.conserve-php>