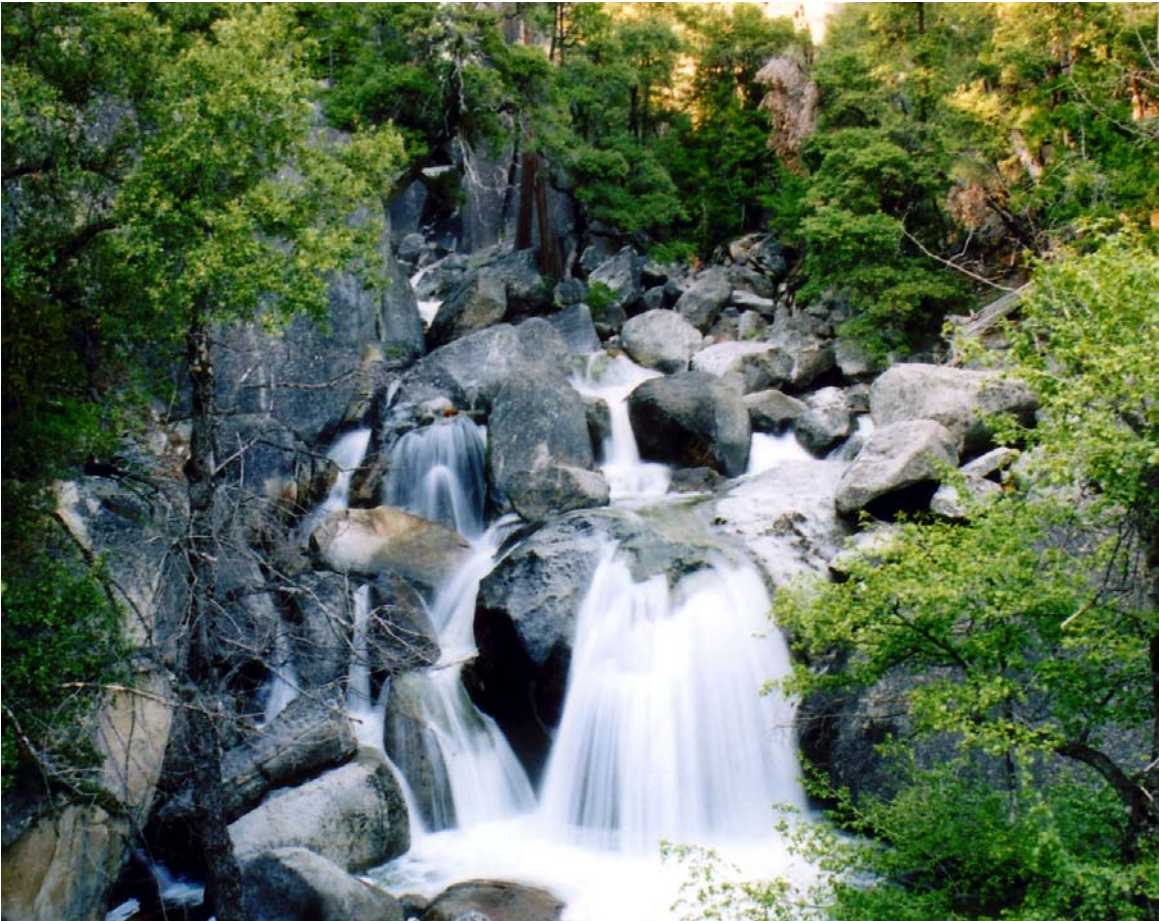


Science project

# Water



*Water is simply just water. Or so it may appear. However, water to us in the western world means something completely different than it does to people in the many third world countries. I have taken a look at the differences between water in Norway and Pakistan.*

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## Introduction

Water is simply just water. Or so it may appear. However, water to us in the western world means something completely different than it does to people in many third world countries.

In this task we were told to work with something about water. I chose to work with the water in an industrial country and a developing country. I thought it may be interesting to find out the differences between Norway and Pakistan when it comes to water. I wanted to see how clean the water is, and what we can do to fix the water-problems in Pakistan. After writing a bit about the water situation in each of the countries, I decided to compare the 2 countries with each other to see the differences. I have learned a lot from this project, and I have liked to work with it. This is something that I am really interested in.



## Water

Water is everywhere. As ice, snow, liquid and steam. According to FN, Earth is the only planet in our solar system which has water today. There are many theories about where water comes from. Probably, water is made by many chemical combinations, and through developing in many years.



Every organism in the world needs water to survive. Without water, there would be no life on Earth. The photosynthesis could not work without water.

70% of the Earth's surface is covered with water. That's why it is a little ironic that the world is standing in front of a water crisis to day. How can we not have enough of it, when more than half of the world is covered with it? The answer is simple, only 3% of the water is available for us. And within these 3% we have all the glaciers around the world. So when we think about it, we don't have that much water that we think.

The water on Earth is not divided fairly. Some countries, like Norway, have more water than they need. In other countries, like Pakistan, people are dying because they don't have enough water.

Today, 1, 2 billion people in the world don't have enough clean water. Around 6000 children die every day. African and Asian women go averagely 6km every day to get water to themselves and their families. 80% of all illnesses and diseases are a result of shortage of water.

Water is a renewing recurs. That means that it goes in circle. The water on Earth evaporates and goes up to the sky, where it makes clouds. Soon it comes too much water in the clouds, so it falls down at the Earth as rainwater.

Today the world is standing in front of a water crisis. But how is this possible? Water goes in circle, so how can we not have enough of it? Why is it less water now than there was before? Well, 70/80 % is going to the farming. And 4% goes to the industry. That does not leave much left. Rest of the water goes to feed the rich people in rich countries. And that's why people in poor countries don't have enough.

We don't take care of the water we have. Pollution destroys a lot of the clean water on Earth. The industrial countries have to focus on this problem. If we don't have enough water, we won't have enough food either. More and more countries have to buy corn from other countries. This affects the whole world.

This is how we used our water in 1990:

Farming: 82 %

Industry: 4 %

House holding: 2 %

Atrophy: 12 %



## **Water in Norway**

Norway is the 4<sup>th</sup> water-richest country in the world. We have a lot of mountains, rivers and lakes, and because of the temperature, we have a lot of rainwater. We can never really understand how it is to not have enough water. Here we almost take it for granted. We use a lot of water in the industry, and that is why Norway is such a rich country. By being the one of the biggest watercraft producers, Norway has managed to be one of the richest countries in the world.

By reading this, you may question why Norway doesn't share the water? Obviously we have enough of it; in fact, we have much more water than we need. We are living in a very lucky country. We have everything we need to survive.

Norway has, together with other countries, signed an agreement which says that we have to help countries which are still developing their industry. In fact, Norway has promised to bisect the lot of humans who don't have accession to clean water within 2015.

But Norway is yet not living up to their promises. Only 18% of the Norwegian water is going to people in poor countries.

If the world keeps going in this speed, millions of people will die because of the shortage of clean water.

Norway, and other rich countries, has to do something about it.

Norway is one of the world's biggest watercraft producers. The Norwegian watercraft is a tradition that is hundreds of years old. It has meant a lot to the economic situation in the country.

The surface water is an important part of the Norwegian landscape. Most of the largest rivers are situated in the south-east of the country, but there are a lot of small rivers along the coast. The four largest Norwegian river systems are covering about 25% of the Norwegian territory. Norway has a total of 455,000 lakes, covering an area that is about 5% of the land area. Six Norwegian lakes have a surface area greater than 100 km<sup>2</sup>. The main ocean areas are the North Sea, the Norwegian Sea and the Barents Sea

## **Pollution**

Many lakes and rivers in Norway are affected by pollution. Acid rain is responsible for the water quality in rivers and lakes. It is mainly a problem in farmed areas. In Southern Norway, many fish stocks have been completely lost.

Norway's marine water is generally healthy. However, human activities are causing problems, both directly and as a result of transport of pollution. In many fjords and harbors, there are high concentrations of chemicals in bottom sediments. This is mainly the result of earlier releases of pollutants from industrial activities.

There are substantial releases of oil and chemicals from the oil and gas industry.

## **Cheap water**

We are only paying 1, 30øre pr liter water in Norway.



## Water in Pakistan

The idea that water is drinkable is not one that most of us think about. The only types of water we distinguish are tap, spring, and mineral. But the fact is that most of the people on this planet do not have access to water that is fit to drink. Well, what do they drink then? The obvious answer is they drink whatever water they can get their hands on.

According to a report by the Leadership for Environment and Development, within the next 25 years, 3 billion people will be facing water shortages.



Pakistan was once a water-surplus country. It had huge water-resources of the Indus river system. But now Pakistan has transformed into a water deficit country. The rainfall is not regular, and can't meet the growing needs of water.

The population is growing fast, and the industry is developing. These things have placed greater demands at the water.

Today Pakistan has very little water compared to the population.

### Water resources

The water resources in Pakistan are basically the surface water and rainfall. Below comes some fact about them.

The Surface water: The surface water is based on the flows from the Indus River. It provides 65% of the total river flows. The Pakistani population tries to store as much water as they can during the high-flow periods. Most of this water goes to the farming. The farmers are depending on this water.

Rainfall: Rainwater is neither sufficient nor regular. A large part of it either floods the rivers and causes consequential miseries and damages, or flows into the sea without any economic benefit to the country.

### **The Situation today**

In Pakistan, the inhabitants do not have drinkable water. Unchecked use of chemicals and industrial activity has contributed to environmental and health dangers. Poverty and high population growth caused environmental problems. This means that most people are forced to use unclean water not only for farming, but for drinking as well.

For much of the population, there is often only one water source. It may be a nearby river, or maybe rain water from a catch basin. Typically, the water source is used by both humans and animals. People use it for bathing, washing up, doing laundry, collecting for cooking and drinking. The water is anything but clean.

Drinking water that is unsafe can, and usually does, lead to all sorts of health-related problems, illnesses and diseases.

Pakistan is currently in the midst of what some are saying is the worst water crisis the country has ever seen.

While pollution plays a big role in the shortage of drinking water, some critics mean that a large part of the problem is a result of poor management. As much as 60% of Pakistan's fresh water is allowed to go wasted, flowing back into the sea. Only 40% is used.



## Comparing

I am now going to compare the water situation in Norway and Pakistan. You have already read some facts and got some knowledge about each of the countries. You have read that Norway has much more water than required, while Pakistan has not enough of it. In Norway we are “throwing away” a lot of water, meanwhile people are dying because of the lack of water in Pakistan.

But what does Norway have that Pakistan doesn't? Why is the situation much better in Norway than in Pakistan? What can Norway do to *help* Pakistan?

First of all, Norway is an industrial country. This is a huge advantage. Norway has become a rich country because of the oil. We can afford to use a lot of money to develop our water system. Pakistan, on the other hand, is a poor country. More than half of the population is living in poverty. So how can a poor country like that afford to use money on the water? So one of the things Pakistan *doesn't* have is enough money.

Another thing is that Norway has more lakes and rainwater than Pakistan. In Norway we have great water-clean systems, so the water we drink is always clean. When it rains in Pakistan, people don't care if the water is clean or not. They are just happy they have something to drink.

Norway can try to donate some water to Pakistan. We have more of it than we need, so why don't try to share? Norway is only donating 18% of the water to other countries. Why don't donate more?

The main difference between Pakistan and Norway is that Norway is an industrial country, a rich country, while Pakistan is a developing country. Norway has a lot of money which the country can use to build out the water system. Pakistan has a lot of things to use their money at, F. ex. the poverty. But Pakistan has started to understand the importance of the water systems, and is now going to try to find a solution on the water situation.

## Conclusion

There are many differences between the water in Norway and the water in Pakistan. Here in Norway, we take water for granted. We have much more than we need of it. In Pakistan, thousands of people don't have enough water.

The main difference between Norway and Pakistan is that Norway is a rich, industrial country, while Pakistan is a poor, developing country. Pakistan doesn't have enough money to improve the water systems.

One of the main, most important thing, I've found out is that water in Norway is a very lucky country, and we should be thankful for what we have. We should try to help countries like Pakistan, who are suffering because of the shortage if water.



## Sources

### Books:

“Vann ressurser” by Arne Tollan

“Utenrikspolitikk og vann i midtøsten” av Terje Tvedt og Kjersti Berg

“Vann; Den globale krisen” World watch institute Norden

### Internet:

<http://www.waterinfo.net.pk/>

<http://www.miljolare.no/fagstoff/vann/perm/vannkraftlandet.php>

<http://www.media.uio.no/studier/nettavis2003/na14/brasil.html>

<http://www.wwf.no/core/200404/27c.asp>

[www.panda.org/freshwater/csd](http://www.panda.org/freshwater/csd)