

Careers in water – The importance of water for jobs

Research, development and innovation is needed to continuously improve water management and so the jobs that people do in water.



Water influences every aspect of our lives, but few people realise just how important water is to jobs – water is not only central to human survival and the environment, it is also important for the economy.

Today, almost half of the world's workers – that is 1.5 billion people – work in water-related sectors and nearly all jobs depend on water and those that ensures its safe delivery. It is estimated that 95% of jobs in the agriculture sector, 30% of jobs in the industry sector, and 10% of jobs in the services sector are heavily dependent on water. Further, worldwide, some of the most water-intensive sectors employ great number of people: 22 million in food and drink (with 40% women), 20 million in chemical, pharmaceutical, and rubber and tyres, as well as 18 million in electronics.

Water supply and wastewater facilities employ about 80% of the workers in the water industry. Jobs in the water sector fall under one of three main categories: water resource management; building, operating and maintaining water infrastructure; and the provision of water-related services, including water supply, sanitation and wastewater management. A number of ancillary jobs also enable employment in water-dependent jobs. These include jobs in regulatory institutions within public administrations, infrastructure financing, real estate, wholesale and retail trade, and construction. Water and sanitation also has a strong impact on workers' lives and health. Around 2 million work-related deaths happen every year. Out of those, 17% are water-related (poor quality drinking water, poor sanitation, poor hygiene and lack of knowledge).

The basic provision of adequate water, sanitation and hygiene services at home and in the workplace enables a robust economy by contributing to a healthy and productive population and workforce, with benefit-to-cost ratios as high as 7 to 1 for basic water and sanitation services in developing countries.

Conversely, people who have the least access to water and sanitation are usually the most likely to have poor access to healthcare and stable jobs, thus feeding the cycle of poverty. In this regard, equality gaps persist between people living in urban and those in rural areas, across genders, and between the richest and poorer segments of the population.

Water also affects workers lives through its presence, quality and quantity. In the irrigation agriculture sector, for example, which represents 70% of freshwater withdrawals worldwide, a farmer's job depends on their ability to manage the available freshwater while at the same time facing challenges such as water resource depletion, drought, climate change and water scarcity.



Around 95% of the jobs in the agricultural sector are heavily dependent on water.

Sustainable water management in its broadest sense, which encompasses ecosystem protection and restoration, integrated water resources management as well as infrastructure development, operation and maintenance, combined with access to a safe, reliable and affordable supply of water and adequate sanitation services, creates an enabling environment for long-term employment opportunities, as well as development and growth across different economic sectors.

Research, development and innovation in the water sector contributes to the continuous improvement of water management, with the related benefits to economic development and decent jobs. In addition to their potential efficiency, effectiveness and performance improvements, innovations can have important implications for waterdependent and water sector employment opportunities.

Innovation resulting from the shift towards a greener economy is changing the range of tasks associated with various jobs, as well as working conditions, due to new technologies, processes and practices. Innovation will change the number and nature of jobs and the required skill sets and competencies.

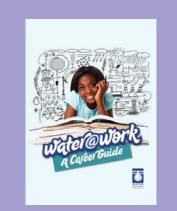
Five facts about water and jobs

- 1. Three out of four jobs that make up the entire global workforce are water-dependent.
- 2. The farming, fisheries and forestry sectors alone, which are among the most heavily water-dependent, employ nearly one billion people.
- 3. Water scarcity and disruptions in the supply of freshwater threaten jobs in water-dependent sectors and limit the growth potential for decent, high-quality jobs across the economy.
- 4. Access to safe and reliable water supply and sanitation services at home, school and the workplace is critical for maintaining a healthy, educated and productive workforce.
- 5. Investments in water-related infrastructure can be highly cost-effective and generate positive returns across different sectors of the economy.

Source: www.unesco.org



Three out of four jobs that make up the entire global workforce are water-dependent.



To explore South African careers in water, read the WRC's Water@Work career guide at http://www.wrc.org.za/Pages/ CareerGuide.aspx

This year water and jobs was the theme of World Water Day. Click here to watch the trailer as well as other videos about water and jobs here,

