In recognition of World Environment Day’s (WED’s) anti-food waste and food loss campaign, WWF South Africa (WWF-SA) is calling on us all to become more discerning in their food choices. This year’s theme, Think.Eat.Save, highlights the negative environmental and social impacts our food choices can have, as a result of the amount of waste generated throughout the value chain. Each year as much as one third of the world’s global food production goes to waste. In South Africa, where some 60% of households experience food insecurity, about ten million tonnes of food waste is generated every year, according to the Council for Scientific and Industrial Research. —WWF—SA

What is Environmental Science?

Environmental science is a huge field that incorporates many different career paths. Some scientists conduct laboratory and field research to better understand natural processes and how they affect living things. Others focus on environmental problems like global warming and deforestation, and determine the best courses of action to protect the planet for future generations. Professionals work in many different settings, including government agencies, private research organizations, nonprofit companies, and universities. When trying to choose the best environmental science career, an individual typically should consider what exactly he or she wants to accomplish in the field and the amount of education and training they are willing to pursue.

A prospective scientist can investigate the duties and responsibilities involved in different types of jobs in order to choose the best environmental science career. Research scientists spend lots of time on field expeditions to observe ecosystems and natural phenomena, and collect organic and inorganic samples for laboratory analysis. They learn how ecosystems and climate have changed in the past, and study how animals come to adapt to dynamic habitats. Researchers typically are required to be meticulous in their work to ensure accurate findings.

Protecting the environment is an environmental scientist's goal when he or she goes to work each day. Achieving that goal requires conducting research that will identify, abate or eliminate pollutants and hazards to the environment or to the health of the population.
ENVIRONMENTAL SCIENCE  Education and Career Paths

Requirements
- be analytical and detail-oriented
- have the ability to collect, compile, evaluate and interpret data within the context of pollution regulations
- be able to work independently and within teams
- have excellent written and oral communication skills

Good technical knowledge is necessary for this job, in particular knowledge of environmental laws and requirements. Technical skills to operate equipment may be required. Social skills are essential, as the inspector must be able to work under adverse circumstances, with people who may be very negative about the work that they are doing.

School Subjects
Grade 12 Certificate meeting degree requirements for a degree course Each institution has its own entry requirements.

Compulsory Subjects: Mathematics (some institutions require Physical Sciences and / or Life Sciences) Recommended Subjects: Physical Sciences, Life Sciences, Geography

Training
Degree: the minimum requirement for this occupation is a bachelor’s degree in biology, chemistry, engineering, environmental sciences, environmental law, or a related subject.

Postgraduate: a post-graduate degree is recommended for advancement into senior positions. Some positions might require registration with a professional association.

It is beneficial to have a working knowledge of environmental management systems, occupational health and safety systems, waste / wastewater legislation, statistics, and accounting procedures.

Possible Career Paths
A junior-level environmental compliance specialist is responsible for monitoring facility operations and preparing reports.

The responsibility of an intermediate-level environmental compliance specialist advances from monitoring facility operations to analyzing reports in order to identify cases of non-compliance and the appropriate enforcement. Other responsibilities include managing overall reporting and conducting internal audits.

A senior-level position requires establishing working relationships with regulatory authorities, and an integrated practice and knowledge of environmental regulations, reporting requirements, standards and codes.

Employer
• municipalities, big and small
• government departments, national or regional
• local authorities
The following proud alumni are examples of Environmental Sciences

**Inekela Iiyambo** holds a Master of Science degree in Environmental Science from The University of the Witwatersrand, South Africa; and Honours degree (Environmental Science)-Rhodes University, South Africa and a Bachelors degree (Fisheries and Aquatic Sciences)-University of Namibia.

He is currently an Environmental Advisor at the Rossing Uranium mine in the Erongo Region. In his day to day activities, he has exposure to different aspects of Environmental Management, such as Air Quality Management, Noise and Vibration, the Environmental Management System (EMS), rehabilitation and Biodiversity Management. He also has great passion for Water Management and nature conservation as well as research and teaching. Inekela intends to venture into academics (UNAM or Polytechnic of Namibia) in the near future.

Other Environmental science related professionals that Graduated or received funding with a DAAD Scholarship:

- Angula Lely
- Kaimbi Lapaka
- Kapalanga Taimi
- Ndombo Birga
- Shifa Rufina
- Thomas Monica
- Amutenya Nangula
- Gariseb Stephanus

Where to study Environmental Sciences

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<td><strong>South African Universities</strong></td>
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<td>University Of South Africa (Unisa)</td>
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<td>University Of Pretoria (Tukkies)</td>
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<td>University Of Witwatersrand (Wits)</td>
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<td>University Of Western Cape</td>
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<td>University Of Cape Town (UCT)</td>
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The environment is everything that isn’t me.
Undergraduate courses

Environmental Science is a four-semester subject which may be taken as a major subject for the degrees of BSc, BEcon, BJourn and BA, subject to the conditions specified below.

The programme takes a multi-disciplinary approach to sustainable environmental management, and aims to attract students from a variety of academic disciplines. Candidates who wish to major in Environmental Science should, however, structure their degrees around a specific sub-discipline of Environmental Science, for example biological resources, earth resources, water resources, environmental policy, environmental economics, or people and the environment. Their choice of additional subjects at the second and third level should thus reflect a specific focus.

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References: http://www.ru.ac.za
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