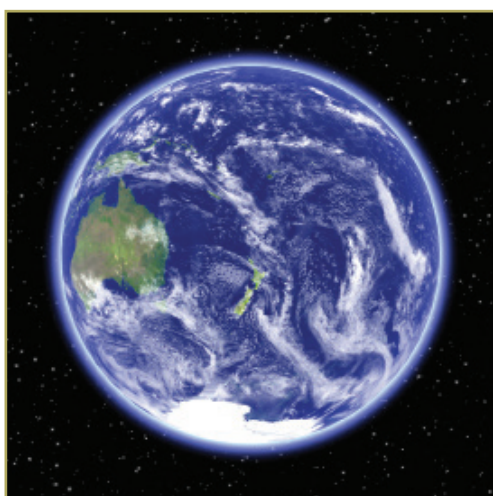


ENVIRONMENTAL STUDIES

Environmental awareness is a crucial part of being a citizen in the 21st century. Greening the economy is a central idea of today and waste management, recycling and energy saving, pollution control to protect air, land and water are, to varying degrees, elements of daily life all over the world. But more people need to act sustainably if Earth's environments are to continue supporting life.

Climate change, exacerbated by human activities, is the most confronting environmental issue of this century. The burning of oil, coal and gas, and deforestation have increased greenhouse gases in the atmosphere; the amount of carbon dioxide alone has risen 35 percent since the industrial revolution. Greenhouse gases trap the sun's heat and temperatures rise, bringing changes to climates and environments everywhere. A degree in Environmental Studies gives students the wide-ranging knowledge and skills with which to be part of the solution to worldwide problems such as climate change, or tackle more local problems such as improving water quality here in Aotearoa.

Photo courtesy Helena Chapman



WHY STUDY ENVIRONMENTAL STUDIES?

More than seven billion humans inhabit the planet. Human activities impact the environments that sustain all other life forms. Studying the complexities is fascinating. The knowledge is empowering and of increasing importance in our personal lives. A multidisciplinary, environmental perspective is required in many areas of work. Regional and

local authorities, government ministries and departments, international organisations, consultancies and private companies have roles that require environmental expertise. Environmental Studies and a major or specialisation in another field such as economics or engineering is a powerful combination for employment both within New Zealand and abroad. Graduates and postgraduates have a good opportunity to gain work in this growing sector of the economy.

WHAT IS ENVIRONMENTAL STUDIES?

An inter-disciplinary subject, Environmental Studies brings together knowledge and perspectives from the physical sciences, geography, politics, economics, psychology, sociology and other disciplines. It looks at the big picture, exploring the complex inter-relationships between technology, people, other living things and the environment. Environmental Studies gives students an understanding of the earth systems associated with environmental change (both natural and human induced), the social, political and economic implications of contemporary environmental issues, human-environment relations and environmental management. Environmental Studies also challenges students to take responsible action.

WHAT SKILLS DO ENVIRONMENTAL GRADUATES DEVELOP?

Problem Solving and Critical Thinking

Students become skilled in analysis and problem solving through engagement with real world problems and examples, as well as theoretical approaches.

Career View explores how degrees and courses relate to employment opportunities and to life/work planning. It includes graduate destination information and current employment issues. Your comments and suggestions are always welcomed.

Wellington Careers and Employment.
wgtn.ac.nz/careers

Through discussion and in writing an argument to support their views, students also learn to critically evaluate and edit their own work.

Multidisciplinary Approach

The ability to understand how the diverse elements of environments impact upon one another is a skill students develop as they examine local and global issues. Environmental Studies brings together knowledge and ways of looking at issues from many different disciplines. The ability to understand and link information and perspectives from diverse sources is vital when addressing the complex interactions between environments and human societies.

Creativity

Students are challenged to identify problems and come up with innovative solutions to a number of issues, from global warming to human attitudes towards the environment. Through assignment and project work students learn to formulate questions and hypotheses and to come up with real world solutions.

Research

Students of Environmental Studies do extensive research using academic and experiential approaches such as fieldwork. They also critique different approaches to research as well as their own assumptions and role in the process.

Communication

Undergraduate study enhances students' ability to read and write well, to understand and communicate complex ideas and information through written work and oral presentations. Discussion and debate are encouraged. Students also learn skills in relationship management within a supportive learning environment.

WHERE DO ENVIRONMENTAL STUDIES GRADUATES WORK?

Many graduates with environmental qualifications are employed in regional councils, city and district councils, and central government ministries such as the Ministry for the Environment and the Department of Conservation. Some of today's key environmental issues dealt with by local and national government include: planning of urban development and land use; management of solid and liquid wastes and toxic



Photo courtesy Ralph Chapman

substances; weed and pest management; ecological restoration and endangered species management.

Public Sector

Government departments, ministries and government agencies employ graduates to entry-level positions such as policy analyst, policy advisor, ministerial writer, communications officer/advisor, researcher and research assistant. Some ministries have graduate development programmes, depending on their recruitment needs and the economic climate. Climate change issues are of interest to Ministries for the Environment; Business, Innovation and Employment; and Primary Industries. The NZ Aid Programme, run by the International Development Group (IDG) in the Ministry of Foreign Affairs and Trade includes issues of climate change, water supply, urban overcrowding and associated public health and environmental problems in some countries. The IDG mission is to support sustainable development in developing countries in order to reduce poverty and to contribute to a more secure, equitable and prosperous world. In addition to a relevant tertiary degree competencies sought include organisational skills, experience of development/ environmental issues, teamwork, excellent oral and written communication, problem solving, relationship management, research and analysis skills.

Local Government

Regional, district and city councils manage a very wide range of services. The following are relevant areas in regional councils for Environmental Studies graduates: transport, air quality, biosecurity, land management and environmental management including policy work, monitoring and investigations, environmental regulations and environment support. Local councils

recruit for positions in policy, planning and advisory in the areas of urban planning, infrastructure, community development and housing. Roles include policy analyst/advisor, resource consent officer, advisor and manager in environment divisions.

Non-Governmental Organisations (NGOs)

NGOs are not-for-profit groups, organised on a local, national or international level. NGOs perform a variety of functions. They bring citizen concerns to governments, advocate for and monitor policies and encourage political participation through provision of information. Some are organised around specific issues such as human rights, environment or health. They provide analysis and expertise, serve as early warning agents and help monitor and implement international agreements. NGOs include international organisations such as Greenpeace, World Wildlife Fund and national organisations such as the Sustainability Trust and the McGuinness Institute. The Sustainability Trust has developed and delivered programmes in insulation and heating, home energy advice, waste reduction, recycling, composting, transport alternatives, community gardens, environmental education for schools and community groups, and capacity building for new or developing community groups. The McGuinness Institute conducts research into environmental issues and future strategies.

Volunteering or doing internships with NGOs is a valuable way to gain experience and start networking at grass-roots level. Volunteers build knowledge of New Zealand agencies and the environmental issues they work with. The experience can also make a difference when applying for jobs.

Social Enterprises

A social enterprise generates its own income, producing goods and services for the market. The income allows it to operate independent of funding from government and philanthropic trusts. The purpose of the enterprise is to achieve social and environmental goals and any profit is directed towards those ends, and not distributed to shareholders. One example is the Community Business and Environment Centre (CBEC) in Kaitia which was set up in 1989 to generate new businesses and jobs. It is community owned – shareholders can vote, but receive no dividends. CBEC business activities include Eco-solutions, CBEC Recycling waste, Healthy Homes and The Garden Centre. Another example is the Conscious Consumers project, a nationwide social enterprise. The project promotes nine practices

that respect people and the environment and reflect current consumer preferences. The organisation accredits cafes and their suppliers, and aims to expand to restaurants, takeaways, bars and caterers. Cafes are given an award for each practice they comply with. Conscious Consumers' vision is "for New Zealand to be a place where it's easy for people to live socially and environmentally responsible lifestyles." Business knowledge and skills are essential to set up and run a successful social enterprise. Conscious Consumers have employed Master of Environmental Studies graduate students.

Trans-Governmental Organisations

Graduates may find roles with United Nations agencies such as the United Nations Environment Programme, United Nations Educational, Scientific and Cultural Organization (UNESCO), United Nations Industrial Development Organization (UNIDO) and others.

Private Sector

The private sector is increasing its involvement in environmental management in New Zealand. Examples are: farmers and forestry companies, building and construction firms, manufacturing industries which create liquid and solid waste, and businesses whose offices consume energy and generate tons of waste. Many organisations are establishing environmental management systems as a way of achieving a "competitive advantage" by reducing their raw material and waste management costs. Others reflect New Zealand's "clean green image" selling products to overseas markets that are free from pesticides and other contaminants or come from sustainably managed forests. Some companies employ environmental advisors. Industry knowledge may be necessary and/or qualifications in environmental studies or science.

Member organisations (medium to large corporates) of Business New Zealand employ sustainability managers/practitioners/specialist advisors or corporate social responsibility managers. The Sustainable Business Network (SBN) defines sustainable business "as the integration of economic growth, social equity and environmental management, both for now and for the future." SBN provides a large membership with advice and support to help business succeed through becoming more sustainable. The organisation's website lists businesses that make this commitment. The Green Building Council is another body with a large membership that accredits environmentally sound practices in the building and construction industry.

Education Sector

Teaching at university level requires a PhD. Graduates can advance their research and teaching skills by undertaking a Master's degree or PhD and may have the opportunity to tutor undergraduate students. Many students also go overseas to study. Teaching in the primary or secondary school systems in New Zealand and overseas are other options as school curriculums include practical and theoretical learning about environmental issues. Education/information roles also exist within NGOs as do educational research and policy work.

Journalism and Communications

Graduates intending to work as permanent editorial staff (reporters, sub-editors, editors) in the media usually require a Diploma in Journalism. It is possible to write freelance for niche publications without an industry qualification. Communications is responsible for promoting an organisation's image and reputation to the public, as well as informing staff and clients about what is happening within the organisation. This may involve writing web content for Intranet or public websites as well as material for pamphlets, articles, annual reports and media releases. At higher levels advisors will advise on communications policy and strategy. Entry-level positions such as communications advisor/officer may require additional qualifications such as media studies or journalism.

Industry Bodies

Membership of industry bodies provides opportunities for learning and networking with future employers.

The Environment Institute of Australia and New Zealand (EIANZ) is a non-profit, politically inde-

pendent professional association that advances and promotes ethical environmental practice, knowledge and awareness. EIANZ holds conferences and facilitates networking among environmental practitioners, and contributes to "effective and responsible policies in the broad field of environmental management."

Environment and Conservation Organisation of Aotearoa New Zealand (ECO) has been the umbrella for environment and conservation groups in New Zealand since 1976. ECO is a non-profit network of 60+ organisations with a concern for conservation and the environment. Membership includes international groups such as Greenpeace and Friends of the Earth, national groups including National Council of Women, and small local and issue-oriented groups.

Development Network (DevNet) links people and organisations involved and interested in the broad field of international development. Members include university students, development practitioners, NGO and government workers, university lecturers, teachers and librarians. Conferences are held every two years. DevNet posts jobs, including environmental roles, in the field of international development.

JOB TITLES

Following is a list of job titles reported in graduate employment destination surveys. Some jobs may require additional qualifications and training.

Climate change specialist • Communications and marketing assistant/advisor • Communications and programme assistant • Community liaison advisor • Environmental education/information officer • Environmental journalist • Environmental planning officer/advisor • Environmental specialist • Green

marketer • Industrial ecologist • International aid and development officer • Marketing assistant/advisor • Media support officer • Policy analyst • Policy assistant/advisor • Programme assistant • Project monitoring and evaluation advisor • Recycling coordinator • Researcher • Resource consent officer



Photo courtesy 350.org

GRADUATE PROFILES

Dylan Muggeridge

Analyst
Ministry for the Environment



I graduated with a Bachelor of Science majoring in Geography in 2010. In the final year of this degree I took an extremely interesting paper on global environmental issues, particularly climate change. I decided that it would be a good idea for my career development to broaden my knowledge about both global and domestic environmental issues, and enrolled in the two-year Master's programme in Environmental Studies offered by the School of Geography, Environment and Earth Sciences. This is a choice that I most definitely do not regret!

The first year of the programme (the Postgraduate Diploma in Environmental Studies) was extremely enjoyable, albeit challenging (in a positive way) at times. The papers touched on many aspects of the environmental sphere in New Zealand and internationally. They helped me develop a better understanding of the issues we are facing today, but also made me realise that there are solutions to these problems. The multidisciplinary aspect of the programme taught me to keep an open mind when considering issues and the up-to-date readings were really enlightening.

The second year of the programme was a combination of a thesis and a 200-hour work placement. My thesis topic focused on sustainable transport, particularly walking and cycling, in New Zealand cities. I was also part of an academic research group at the New Zealand Centre for Sustainable Cities. The combination of the thesis and the practicum gave me my first glimpse into how research is carried out and was great for my career development. I learned a lot from my supervisor and senior researchers, and my work placement was extended into an 18-month research assistant position at the New Zealand Centre for Sustainable Cities. My Master's degree and the research work also helped me gain my first full-time permanent position as an analyst in the Climate Change Research Team at the Ministry for the Environment.

I gained many skills from this two-year programme. It taught me to be systematic and meticulous when undertaking large research projects. The advice and guidance I received throughout the two years from all the lecturers and from my supervisor were

really special and they were always willing to answer questions. There is also a great sense of camaraderie in this programme between students. The work placement gave me a lot of networking opportunities - interacting with other researchers and central and local government agencies. The programme definitely creates opportunities for career development and potential work.

Laura McKim

Contract worker
Wellington Regional Strategy
Office



After completing my Bachelor degree at Waikato in Screen and Media and Drama, I was drawn to Wellington, where I worked at a small television production house on Cuba Street by day, and helped out with local theatre productions at night and on weekends. But my restless young bones weren't ready to settle, even in a city as exceptional and electric as Wellington. I flew far from these southern shores and was gone for five years, only returning to start Victoria's Environmental Studies postgraduate programme in 2010.

During my years overseas, I'd become increasingly concerned about socio-ecological issues like climate change, biodiversity loss and the negative consequences of consumerism. I was drawn to the Environmental Studies postgraduate programme at Victoria because of the range of papers spanning diverse areas such as economics, ecology, law, psychology, public policy and conservation biology. The trans-disciplinary approach really appealed to me. In my view, the bringing together of frameworks and ideas from different schools of thought and disciplines gives the best chance of developing sustainable solutions for issues that have complex economic, social and ecological dimensions. Environmental Studies is situated at the interface between these dimensions and explores the mutual interplay between human-constructed systems and the ecosystems in which they are embedded. The focus on interconnections between social and natural science is illustrated by the colourful assortment of research interests, vocational experience and academic backgrounds of the Environmental Studies staff.

The Master's thesis process was an amazing journey. I learned a huge amount about different research paradigms and techniques. I loved the opportu-

nity to delve deeply into an interesting topic, and the self-directed nature of writing a thesis was both immensely challenging and awesomely rewarding. Since finishing my Master's in Environmental Studies it feels like there's no shortage of job options and projects to get stuck into. I am currently doing a contract at the Wellington Regional Strategy Office where I am gaining a lot of insight into local government processes and regional planning. For people contemplating Environmental Studies at a postgraduate level I'd say that if, like me, your background is in a totally different field, don't let that deter you. The programme contains people from a bunch of different places and with a range of academic backgrounds, and the diversity only spices up the discussions and debates.

Claire Pascoe

Sustainable Transport Planner
Greater Wellington Regional Council

It was during a four month trip to the Galapagos, where I was devouring every book I could get my hands on about climate change, that I realised I wanted to go back to university and do a Master's in Environmental Studies. I had originally studied Spanish and Marine Biology at undergraduate level. When I enrolled for my Master's I was also involved with some cycle advocacy. By the end of the first year I knew I wanted to do my thesis research on sustainable transport and how it could be encouraged locally.

The first year of my Master's was overflowing with screeds of reading. The diverse range of topics we covered kept it really interesting; the economics part in particular was my favourite. I used to love lugging a very heavy bag full of readings to a sunny spot and spend an afternoon getting through it. For my thesis year, I was extremely lucky to have the support of the Regional Council and the Sustainability Trust to deliver a transport behaviour change programme and evaluate its effectiveness. It was the practical delivery of a programme, including developing resources and coordinating ten volunteers, that I enjoyed the most.

During my Master's I learnt how to learn, which has been pretty useful. The theory we covered in the first year of the degree provided a strong foundation for working in the environmental and sustainability areas; the endless writing you do at university also sets you up well for later in life. After six years of essay



writing, writing a report at work was a breeze. I'd worked closely with the Sustainable Transport team at Greater Wellington Regional Council in 2008 and had developed a good relationship with them. In 2009, they contracted me to deliver another transport behaviour change programme, this time through workplaces, rather than the community. After six months a full-time role in the team came up and before I knew it I had my dream job. Having a strong background in transport behaviour change and an understanding of the surrounding issues was integral to getting it.

Don't let climate change bring you down. That first year is pretty heavy in facts about the earth's impending collapse. Find something specific you're interested in and focus your energies there. If you're writing a thesis, try not to spend the entire year feeling stressed out and sorry for yourself. That year is an absolute joy. You'll look back on it as one of the best years of your life where you had ultimate freedom, worked to your own timetable and got to take a really close look into something you are interested in.

Ben Gleisner

National Director
Conscious Consumers

When I left school at 17 I had many experiences that eventually brought me to Environmental Studies at Victoria. I went straight into medicine and soon discovered that wasn't for me. Next I tried chemical engineering and did two years before deciding I wanted to be more active and "out there." I'd already liked working part-time in hospitality, so (now 21) I moved down to Dunedin and bought a café. That gave me experience working in an urban economy, but after three years I moved to Golden Bay and worked with a charitable trust.

At 25 I thought it was time to learn some theory and bigger picture stuff. When working with the trust and in my café I'd noticed that there were issues relating to the environment, uses of resources, waste management and so on; how people and the economy work within the environment. I wanted to learn more and enrolled at Victoria University for a Bachelor of Science, majoring in Environmental Studies. I went on to do a two-year Master's in Environmental Studies with a thesis on climate change policy.



Taking economics and public policy papers as well made for a useful combination. I enjoyed the people and the supportive culture of Environmental Studies. It was a really nice group of people that had a common purpose – and not just to get rich. The area of study was quite broad; you are taught things that you can apply in lots of different areas. It also didn't mean that after a year you knew what your life was going to be like for the next 25 years, which was nice. We did lots of practical activities too - field trips, labs and things that were more real world, as well as a work place practicum at Master's level. It was a great course.

When I applied for my first job at Treasury as a policy analyst I realised that at least half the skills they wanted were things I learned when I was studying – research, being analytical, learning how to think and apply theory. Written and oral communication and relationship management were also important. Within the supportive and diverse culture of Environmental Studies you could challenge things and debate issues, as well as practice presenting in front of others. Tutoring and giving peer-support during my Master's studies also helped with leadership skills.

Following my stint at Treasury, I am now National Director of Conscious Consumers. We are a growing social enterprise that accredits businesses for their social and environmental performance and builds consumer loyalty to the brand. I'd advise students to think about the application of an Environmental Studies degree - whether it is to do with the commerce side of things, marketing and brand development, more about science or working within the environment. The environment is a factor of growing importance in every area of our work and lives.

Amélie Goldberg

Policy and Finance Analyst
Institute of Industrial Productivity,
Paris

An outdoorsy upbringing, starting my school's very first "Ecology Club", and plenty of David Attenborough documentaries developed my passion for the environment. When I started to think about going to university, it seemed that a Bachelor of Science majoring in both Environmental Studies and Ecology and Biodiversity was the natural step. I liked the idea of taking a hard science, i.e. ecology, that



would enable me to learn the scientific method, and complementing it with the Environmental Studies major, which looked at the wider environmental, social and economic issues that were having an impact on the biological systems I was studying.

After an exchange abroad to the University of California Berkeley, I decided to go straight into a Master's in Environmental Studies, again at Victoria. The interdisciplinary aspect of the course seemed to be matched by none other in New Zealand at the time. I also began to realise that the most difference I believed I could make personally was less in labs or in the field and more in policy and economics areas. I particularly enjoyed the combination of courses from different disciplines – policy, conservation management, Māori resource management, economics and law – each with an environmental slant. It was up to each individual student to bring these approaches together to tackle and help solve complex environmental problems that they were particularly interested in.

Shortly after graduating, I started a position at the Ministry for the Environment as a policy analyst in the climate change team. I supported work around the emissions trading scheme and international climate change negotiations. I worked particularly intensively leading up to the United Nations Framework Convention on Climate Change (UNFCCC) Copenhagen negotiations and on New Zealand's 2020 emissions reduction target policy.

After nearly two and a half years with the great experience I had attained there, I packed my bags and decided to test the career waters in Paris. I was lucky to land a job at the Institute for Industrial Productivity, which focuses on energy efficiency and greenhouse gas mitigation in the industry sector. This position builds very nicely on my studies, as it is my job to collect best practice information from around the world and develop useful research and tools to assist industrial companies and policymakers in implementing practical energy efficiency measures. We also convene key players in government and business to share cross-regional best practices based on successful models.

I absolutely recommend the Environmental Studies programme. For students contemplating the undergraduate major, I think it matches well with another perhaps more "traditional" major like biology, engineering, law or economics.