

# Mapping UNSW Impact Global Development

<b>Primary SDG</b>	<b>8: DECENT WORK AND ECONOMIC GROWTH</b>
<b>Broad theme</b>	Assessing mineral deposits and research training in economic geology
<b>Research</b>	Mentoring a future Timor-Leste public official in the assessment of mining deposit potential and training them to better understand the geology of Timor-Leste
<b>Impact region</b>	Timor-Leste
<b>Faculty</b>	Science
<b>School/Institute</b>	School of Biological, Earth and Environmental Sciences
<b>Academics</b>	Dr Ian Graham Associate Professor David Cohen
<b>Project partners</b>	Department of Petroleum and Resources (Timor-Leste) – paying for PhD student
<b>Related SDGs</b>	9: Industry, Innovation and Infrastructure

## Elevator pitch

UNSW is training up a Timor-Leste student in economic geology with the view that the student will return to work for the Timor-Leste Government and help them to better manage exploration and maximise income for the state, enhancing quality of life in the country.

## The Challenge: How can Timor-Leste better manage and benefit from mineral exploration?

Timor-Leste generates revenue from offshore oil and gas reserves but little of it has changed the livelihood of villages which still rely on subsistence farming. In 2012, nearly half the population was living in extreme poverty.

On land, Timor-Leste has promising deposits of valuable earth materials like gold, base metals, petroleum and manganese that could be explored. A new mining code in 2016 mitigates risks for exploration companies and reflects the Timor-Leste Government's desire to increase exploration activity and maximise the benefit for its citizens.

## UNSW's solution: Train a Timorese student to assess mineral deposits and advise the government

Ian is overseeing a Timorese PhD student studying mineral deposits in Australia. This student is being funded by the Timor-Leste Government with the view she will return after her PhD to assist with the expansion of government-led exploration activity. She is the only Timor-Leste PhD student in geology in Australia currently funded by the government.

The PhD student is being trained to assess how and where to discover mineral deposits and assess their economic viability. Back in Timor she can help the government draft policies for exploration, and she can liaise with exploration companies using the English-language skills she has developed in her time at UNSW.

**The Impact: More efficient exploration and greater revenue, plus study opportunities for UNSW**

Ian's efforts are empowering Timor-Leste to better manage future mineral exploration and comply with international standards for environmental management. Mining activity will create jobs for locals and result in infrastructure benefits in the surrounding region.

Ian intends to continue his engagement with Timor-Leste in the future. Further funding would provide the opportunity for UNSW researchers to work with the government to identify and assess new deposits, engage exploration companies and ensure the government and its citizens maximise revenue while minimising harm to the environment.

**Researcher**

Ian Graham is a Senior Lecturer at UNSW and research specialist in mineralogy, petrology, ore deposits and gemstones. He is currently advising a number of UNSW researchers working with mining companies in PNG, Indonesia and Laos. After visiting the Giants Causeway in Northern Ireland at the age of 12, Ian became passionate about geology and the processes that lead to the formation of ore deposits.

Ben Falkenmire 19.09.2017