



Australia Awards

Australia Awards Global Tracer Facility

Samoa Case Study:
Engineering and
Information Technology

December 2019



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Australian Department of Foreign Affairs and Trade

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Contents

Abbreviations and Acronyms	4
Executive Summary	5
1. Introduction	8
1.1 Objectives	8
1.2 Scope	9
1.3 Country context	9
1.4 Australia Awards in Samoa	9
1.5 Alumni and other interview participants	10
2. Development Outcomes	11
2.1 Introduction	11
2.2 Background	12
2.3 Skills developed on award	12
2.4 Alumni contributions	13
2.5 Factors influencing these outcomes	20
3. Public Diplomacy Outcomes	24
3.1 Introduction	24
3.2 Background	25
3.3 Networks and links developed on award	25
3.4 Factors influencing these outcomes	28
4. Alumni Views of Australia	32
4.1 Introduction	32
4.2 Examples of positive views of Australia, Australians and Australian expertise	33
5. Conclusion	36
6. Alumni Profiles	37
7. References	44
Annex 1: Methodology	45
Annex 2: Case Study Propositions	51

Abbreviations and Acronyms

ACEO	Assistant Chief Executive Officer
ACIAR	Australian Centre for International Agricultural Research
CEO	Chief Executive Officer
DFAT	Department of Foreign Affairs and Trade (Australian Government)
ICT	Information and Communications Technology
IT	Information Technology
ICT	Information and Communications Technology
LTA	Land Transport Authority (Government of Samoa)

MFAT	Ministry of Foreign Affairs and Trade (Government of Samoa)
SCB	Scholarships and Alumni Branch (DFAT)
SROS	Scientific Research Organisation of Samoa
TTM	Tupua Tamasese Meaole (Hospital)
UK	United Kingdom
UTS	University of Technology, Sydney
VU	Victoria University

Executive Summary

This report has been developed based on interviews with seven alumni and various stakeholders to examine the long-term outcomes of Australia Awards scholarship alumni from Samoa. The alumni of focus for this Case Study undertook scholarships in Australia in studies relating to engineering and information technology, and graduated between 2011 and 2016. This research was conducted by the Department of Foreign Affairs and Trade's (DFAT) Australia Awards Global Tracer Facility (the Facility) in October 2019.

The overall aim of the Australia Awards is to help 'partner countries progress their development goals and have positive relationships with Australia that advance mutual interests'. This aim is extrapolated in four long-term outcomes for the Australia Awards, which form the basis of the findings for the alumni from this Case Study.

Outcome 1: 'Alumni are using their skills, knowledge and networks to contribute to sustainable development'

Alumni in this Case Study have used the skills and knowledge developed in Australia to make contributions in:

- **infrastructure development**—managing the design and construction of new telecommunications towers across Samoa, providing technical assistance in the upgrading of roads and bridges, developing new information technology networks, and improving vital services such as water and electricity.
- **developing renewable energy capacity**—with input into projects which are developing Samoa's renewables industry in key areas of solar, hydro and biomass gasification.
- **improving scientific and medical practice**—through policy and cultural change to ensure procurement of the most appropriate equipment, training programs which support good practice, and improved equipment maintenance in Samoa's key hospital and scientific research organisation.
- **building capacity of Samoans**—by sharing their new skills and knowledge within their workplaces in order to increase the skill-base of colleagues, and promoting engineering and science within their communities to inspire the next generation.

For the alumni in this Case Study, Australia Awards long-term Outcome 1—development contributions—is being **achieved**.

Outcome 2: ‘Alumni are contributing to cooperation between Australia and partner countries’

Alumni in this Case Study have strong and ongoing relationships with Australians through connections that were developed while on their Australia Awards scholarship. Cooperation with contacts made in Australia include:

- **ongoing communication with lecturers and tutors**—for technical help and ideas relating to engineering projects in Samoa.
- **friendships with people met on award**—especially with fellow students and housemates.
- **collaboration with an Australian information technology (IT) business**—continuing a relationship built during an internship resulting in assistance and advice in developing IT networks in Samoa.

In addition to the connections established on award, many of the alumni also have regular contact with Australians and Australian organisations through their work. Most of these connections are not directly a result of relationships forged while on award but reflect the strong relationship between Australia and Samoa in a range of industries.

For alumni in this Case Study, Australia Awards long-term Outcome 2—cooperation with Australia—is being **achieved**.

Outcome 3: ‘Effective, mutually advantageous partnerships between institutions and businesses in Australia and partner countries.’

There were no specific examples of ongoing, formal business partnerships with Australia facilitated as a result of the award among the alumni in this Case Study.

For alumni in this Case Study, Australia Awards long-term Outcome 3—partnerships with Australia—is **not achieved**.

Outcome 4: ‘Alumni view Australia, Australians, and Australian expertise positively’

Alumni in this Case Study hold strong, positive views of Australia. Key elements in the building of these positive views are:

- **the high quality of education and prestige related to their Australian qualifications**, which led to alumni being highly sought after for jobs. These alumni also found the skills they learnt on award were relevant and useful in their work.

- **support from the Australia Awards** while in Australia, such as help with orientation, accommodation, and academic aspects of life on award.
- **experiences of Australia lifestyle**, which were overwhelmingly positive.

For alumni in this Case Study, Australia Awards long-term Outcome 4—positive views of Australia is being **achieved**.

Factors contributing to achieving these outcomes

Based on the evidence collected in this Case Study, the success of the scholarship for these alumni has been due to a number of important factors, including:

- **the relevance of their qualification** to the development needs of Samoa,
- **the demand for engineers** in Samoa, and
- **support on award** that ensured this group of alumni were able to complete their degree and return to make contributions to their country.

Challenges to achieving these outcomes

The most pertinent challenge to achieving the outcomes of the Australia Awards identified in this Case Study was the relative **lack of opportunity for alumni to undertake internships with Australian organisations** as a part of their engineering degree. Alumni highlighted that the difficulty in gaining an internship within Australian engineering firms comes from the fact that that these companies were looking for interns who they could ‘convert’ into graduate engineers on completion of their degree. When companies realised that the Australia Awards scholars are bonded to return home to Samoa, the interest in investing in these students seemed to wane.

For most alumni in this Case Study, and for the Australia Awards, this was a missed opportunity. The experience of one alumna in this Case Study who was able to secure a placement (as part of the now ceased Australia Awards Prime Minister’s Pacific Program) demonstrates that internships within Australian organisations can result in beneficial ongoing relationships between alumni and Australians well beyond the completion of the scholarship.



Global Tracer Facility

Australia Awards alumni in Samoa – applying new skills to build their country

Australia Awards alumni are contributing to:



Infrastructure development



Improving scientific and medical practice



Developing renewable energy capacity



Building capacity of Samoans

Australia Awards results

1 Alumni provided strong examples of development contributions

Achieved



“This an achievement that I’m proud of, knowing that I am able to contribute to making people’s lives easier, especially with how they register their vehicles. Because previously people were sent between the two islands, Upolu and Sava’i; they needed to come here to get some paperwork. But with this centralised web-based system, it actually can make their lives easier.”



2 Alumni are contributing to cooperation between Australia and Samoa

Achieved



“When I encountered a problem when I’d just finished my graduation, I relayed it back to one of my telecommunications tutors in Australia and he helped me. So that’s a very good working relationship. I managed to solve that issue with the assistance from the tutor... So I shared that knowledge and skills with the team and off they go... That guy from the university, I’ve learnt a lot from him!”



3 Alumni support effective institutional partnerships between Australia and Samoa

Not achieved



“I did apply [for an internship in Australia] in the final year, when we had to do work experience. But sadly, once they found out you’re on a scholarship and they know you had to go back and serve your bond, it was kind of hard. From the company’s perspective, they don’t want to invest in you, as you’re going to go back anyway. So that was a bit of a barrier [in getting experience and links with Australian companies].”



4 Alumni view Australia and Australian expertise positively

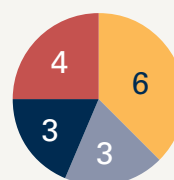
Achieved



“If I had to weigh the graduates from Australia compared to other graduates, I can say that they are very reliable in terms of knowledge and what they do. You can tell that the Australian graduates that are working with us can do so much more and they are also very fast learners and it’s really easy for them to pick up something from training on the job. They have contributed a lot to the workforce, from what I see.”



Participants: Alumni who completed scholarships between 2011-2016



Case study participants:

- Female alumni
- Male alumni
- Colleagues of alumni
- Stakeholders

1. Introduction

The Australia Awards Global Tracer Facility (the Facility) is a project which commenced in 2016 and is funded by DFAT. Through this project, DFAT assesses the development contributions and public and economic diplomacy outcomes of Australia's investment in the Australia Awards. The key research and reporting activities being undertaken by the Facility are a quantitative Global Tracer Survey and qualitative Case Studies, which are prepared concurrently throughout the project.

This report provides the key findings of the Samoa Case Study, which focussed on Samoan alumni who completed their scholarship between 2011 and 2016 in areas relating to the engineering and infrastructure development. The majority of the data collection for this Case Study was undertaken by Facility researchers in Samoa in October 2019.

1.1 Objectives

The Facility seeks to generate high-quality information on former scholarship holders, with a focus on less recent alumni. This information provides a strong evidence base for country programs and the Scholarships and Alumni Branch (SCB) of DFAT to evaluate the impact of Australia Awards on alumni and, on their home institutions and countries.

All research by the Facility is undertaken with close reference to the long-term outcomes of the Australia Awards. These outcomes underpin the interviews, surveys and the reporting of the Facility. The long-term outcomes are detailed in the *Australia Awards Global Strategy: Investing in the next generation of global leaders for development 2016–2018* (DFAT, 2016) (the Strategy) and the *Australia Awards Global Monitoring and Evaluation Framework* (DFAT, 2017) (the Framework). They are:

- **Outcome 1:** Alumni are using their skills, knowledge and networks to contribute to sustainable development.
- **Outcome 2:** Alumni are contributing to cooperation between Australia and partner countries.
- **Outcome 3:** Effective, mutually advantageous partnerships between institutions and businesses in Australia and partner countries.
- **Outcome 4:** Alumni view Australia, Australians and Australian expertise positively.

In addition to these long-term outcomes, gender and disability inclusion are overarching cross-cutting priorities of Australia's aid priorities outlined in the *2017 Foreign Policy White Paper* (Australian Government, 2017). These themes are incorporated in the analysis of this report where relevant.

1.2 Scope

The Facility's specific focus is on alumni of DFAT's Australia Awards and previous Australian Government-funded scholarship programs, awards and fellowships. For each Case Study undertaken by the Facility, this focus is further refined to a specific cohort of alumni based on the years they completed their scholarship and particular field of education or sector.

For this Samoa Case Study, the research focus is on alumni who completed their scholarships between 2011 and 2016 and studied a course relating to engineering or information technology in order to focus on the overall thematic theme of the Case Study—engineering and infrastructure development.

1.3 Country context

Samoa is a country comprising two main islands and a number of smaller islands in the Pacific Ocean. Its population of just under 200,000 is mainly concentrated on its two largest islands—the larger, but less populated Savai'i, and Upolu where the capital of the country, Apia, is located. Samoa's economy is traditionally based in fishing and agriculture. It is a country that depends on foreign aid, with Australia, China and New Zealand being the largest donors between 2011 and 2017, while the World Bank and European Union also contribute significantly to Samoa.¹

Key challenges to Samoa's development include the development of both human resource capacity and infrastructure, and upgrades and improvements to health and education provision. These goals underpin both the Government of Samoa's *Strategy for the Development of Samoa 2016/17–2019/20* (Government of Samoa, 2016), and Australia's *Aid Investment Plan Samoa 2016–16 to 2018–19* (DFAT 2015).

Of particular relevance to this Case Study is Australia's commitment to two infrastructure development programs. The Samoa Economic Infrastructure Program focuses on improving transport infrastructure, especially in terms of access to ports and markets to stimulate economic activity; and the Samoa Power Sector Expansion Program which helps with the construction and rehabilitation of power generation facilities in the country.²

1.4 Australia Awards in Samoa

The Australia Awards are widely recognised as a highly prestigious scholarship in Samoa. In its most recent intake, for 2020 commencements, 56 Australia Awards scholarships were offered to Samoans (of which 41 were for study in Australia, five for study in Fiji and ten for an online degree with an Australian provider).

Typically, there have been two broad entry points into the Australia Awards for Samoans. One is through academic achievement in the National University of Samoa's Foundation Year with the top students in selected subject areas gaining a scholarship (for example, in this Case Study many of the alumni gained their scholarship by being among the top five students in the Science Foundation Year for their cohort). The other entry point is through direct application to the Australia Awards, with this option generally being taken up by candidates with professional work experience who are looking to build on their skills and expertise through higher education. The Samoan Ministry of Foreign Affairs and Trade, and the Public Service Commission are actively involved in the Australia Awards and work closely with the Australian High Commission in Apia on the development and identification of priority areas for the awarding of scholarships each year.

¹ <https://pacificaidmap.lowyinstitute.org/>

² <https://dfat.gov.au/geo/samoa/development-assistance/Pages/enabling-economic-growth.aspx>

1.5 Alumni and other interview participants

Seven alumni were interviewed as fitting the focus population of this Case Study. Each had studied in Australia and completed their scholarship between 2011 and 2016. All had undertaken a qualification relating in either engineering or information technology. The seven alumni of focus are introduced below, with their scholarship details and current occupation. Detailed profiles are provided in at the end of the report.



Ms Patience Kinnane

Bachelor of Engineering
(Electrical and Electronic
Engineering), Victoria
University, 2011–2014

Senior Engineer Development,
Electric Power Corporation of
Samoa



Mr John Faamau

Bachelor of Engineering
(Civil Engineering), University
of Technology Sydney,
2012–2016

Graduate Civil Engineer,
Kramer-Ausenco



Mr Siu Fanolua

Bachelor of Engineering
(Electrical and Electronic
Engineering), Victoria
University, 2011–2014

Senior Engineer Development,
Electric Power Corporation
of Samoa



Ms Moon Chan

Bachelor of Biomedical
Engineering, The University
of Sydney, 2007–2012

Principal Research Scientist,
Scientific Research
Organisation of Samoa
(SROS)



Ms Tausalaatoa Kolose

Master of Information Technology, The University of Newcastle, 2013

Manager of Information Technology Division, Land Transport Authority



Ms Sunema Talapusi

Bachelor of Biomedical Engineering, The University of Queensland, 2009–2013

Principal Biomedical Engineer, Main Hospital Tupua Tamasese Meaole (TTM)



Mr Leupena Malasia

Bachelor of Engineering (Electrical and Electronic Engineering), Victoria University, 2008–2011

Manager, Wireless Engineering & Transmission, Bluesky Samoa

In addition to the seven alumni, interviews with a further nine people were carried out as part of this Case Study. These were intended to build an understanding of the Samoan context, to further explore the contributions of alumni, and to better understand the Australia Awards in Samoa. The nine other participants included three employers/colleagues of alumni, four stakeholders from ministries of the Government of Samoa and two staff from the Australian High Commission in Apia. Further details on interview participants can be seen in the Methodology section (Annex 1).

2. Development Outcomes

This Case Study demonstrates the impact that alumni can make within the first few years post-award. Most alumni interviewed described finding work easily which enabled them to use their skills in technical and managerial roles.

Through their work, alumni are making development contributions in Samoa in various areas of infrastructure development and are able to pass on their new knowledge to colleagues.

2.1 Introduction

This chapter details the development impact of alumni and explores the Australia Awards long-term Outcome 1: 'Alumni are using their skills, knowledge and networks to contribute to sustainable development'. The analysis and discussion explore the following Case Study propositions:

- alumni use their skills, knowledge and networks to contribute to partner-country development goals
- alumni develop skills, knowledge and networks on-award that enable and are used to contribute to achieving partner-country development goals
- alumni understand, value and want to contribute to partner-country development goals.

The alumni of focus in this Case Study have all made contributions to development in Samoa. These contributions span a variety of activities across civil, electronic, hydro, and biomedical engineering, as well as information technology. The examples discussed in this chapter help to demonstrate that for the group of focus in this Case Study, long-term Outcome 1 of the Australia Awards is being achieved.

2.2 Background

This Case Study explores the outcomes of Samoan alumni who completed a degree in engineering or information technology during the period 2011 to 2016. Both these areas of study are critical for the development of infrastructure in Samoa.

The *Strategy for Development of Samoa*, developed in 2016 by the Government of Samoa and focussed on the 2016/17 to 2019/20 financial years, includes Infrastructure as the third of its four 'Priority Areas' (Government of Samoa, 2016). Within the Infrastructure Priority Areas are four key outcomes:

- Access to clean water and sanitation sustained;
- Transport systems and networks improved;
- Improved and affordable country-wide information and communication technology (ICT) connectivity; and
- Quality energy supply.

The key outcomes of the country's Infrastructure Priority Areas facilitate connectivity, mobility and safety of Samoans. These aspects also enable the achievement of other priorities for the country, which focus on Economic, Social and Environmental development. Overall, the approach in the Government of Samoa's plan also aligns with Australia's interests in the country, as detailed in the *Aid Investment Plan Samoa 2016–16 to 2018–19* (DFAT 2015).

The examples provided in this chapter show that the alumni of focus in this Case Study have contributed to each of these four key aspects of the Strategy for Development of Samoa.

2.3 Skills developed on award

This chapter highlights examples of contributions that draw on the skills and knowledge acquired by alumni while on award. While these skills are implicit throughout the analysis that follows, a list of skills identified by the alumni is provided here to highlight the breadth in knowledge gained by alumni on award.

'Soft'/interpersonal/generic skills include:

- stakeholder engagement
- communication
- understanding of different perspectives/intercultural competency
- project management
- research processes

'Hard'/ technical skills include:

- civil engineering design and planning
 - electrical and electronics engineering
 - computer networking
 - use and maintenance of medical and scientific equipment
 - coding in telecommunications
 - intellectual property rights
-

2.4 Alumni contributions

The contributions of alumni featured in this Case Study are summarised in the section below. These contributions are discussed in relation to four particular areas: infrastructure development, renewable energy capacity, improving use of scientific and medical instruments, and building capabilities of Samoans.

2.4.1. Infrastructure development

Alumni interviewed for this Case Study have made significant contributions to the development and maintenance of infrastructure in Samoa. This includes projects relating to transport infrastructure, electricity supply, water, and communications and information technology (IT).

Ms Tausalaatoa Kolose is the Manager of Information Technology at Samoa's Land Transport Authority (LTA). She was awarded an Australia Awards scholarship in 2013 to undertake a Master in Information Technology at the University of Newcastle after working for the engineering division at the LTA for several years. Ms Kolose returned to the LTA following her scholarship and has since progressed in her career and levels of responsibility. Two years after her return, Ms Kolose was promoted to her current position, where she has been managing several major projects.

Ms Kolose was recently involved in a project upgrading the LTA system used for vehicle registration, inspections and transfers, and traffic offence notices. This new system is an online web-based system that can be accessed remotely and is used across Samoa's two main islands, linking them together where previously there were separate systems. Ms Kolose incorporated the skills and knowledge she learnt on award, particularly in relation to project management, to help complete this system upgrade. New upgrading projects are also in the planning stages, further building the infrastructure of the LTA and creating substantial efficiencies for Samoans:

This an achievement that I'm proud of, knowing that I am able to contribute to making people's lives easier, especially with how they register their vehicles, because previously people were sent between the two islands, Upolu and Sava'i; they needed to come here to get some paperwork. But with this centralised web-based system, it actually can make their lives easier. And it won't end here. There's also another project that's in the pipeline, of digital payments, where we can pay online. Again, it's all for the betterment of our people—instead of them coming into the offices, standing in long queues. I know Australia is up here, but this is where we're headed.

Mr John Faamau completed a civil engineering degree at the University of Technology, Sydney for his Australia Awards scholarship in 2016 after finishing in the top five for science in his Foundation Year at the National University of Samoa. He also worked for the Land Transport Authority on return to Samoa and was responsible for the project management of road and infrastructure works. This included a bridge to the main port, retaining walls along a cliff face, and the construction of disaster roads for villagers to reach higher ground in case of tsunamis. In his current role, as a key civil engineer in a private engineering firm, Mr Faamau has been involved with building the Natural Resources Ministry's operation centre for emergencies and projects for the Church of Latter Day Saints as well as other building projects.

Mr Leupena Malasia took leave from his position at Bluesky Samoa, a large telecommunications provider in Samoa, to complete a Bachelor of Engineering (Electrical and Electronic Engineering) at Victoria University. On return in 2011, he worked as an engineer at Bluesky Samoa, and has subsequently progressed in the company, moving to senior engineer and then to his current position as the manager of Wireless and Transmission. Mr Malasia's work has involved the commissioning of 10 telecommunication towers for mobile phone coverage across Samoa, including rural areas. This has broadened the range of telecommunications to reach families in more remote areas. After completing this initial commission, Mr Malasia and his team are continuing to commission more sites.

In this work, Mr Malasia drew on the expertise he gained from his scholarship and was assisted by his lecturers from Victoria University with technical advice, including help in developing the relevant coding script required for establishing these towers.

Mr Malasia's contribution is also an example of the way that increasing local capabilities leads to savings on infrastructure development. He estimates that his work with the construction of the mobile telecommunication sites saved his company about 200,000 tala (over AUD\$100,000) because rather than bringing in an overseas consultant, he used the skills he learnt from his degree to do the work within his team:

That commission [building mobile phone towers], that's how I saved the company money. Instead of asking an international vendor to do the scripting and commission this new site, I did it myself with the research I learnt from the scholarship. I used it here to research how to commission a new site, develop the data script; you have to understand the code and everything. The skills from there [Victoria University], I learnt and applied here.



Examples of infrastructure projects and needs in Samoa linked to alumni contributions.

Top two images: bridge project connecting Apia town to its Port; middle images: evidence of landslide blocking road in north-west Upolu; bottom left image: large redevelopment of waterfront, Apia; bottom right image: tsunami evacuation routes, Apia.

Photos: Australia Awards Global Tracer Facility





Solar farm near Apia developed by alumni Siu Fanolua (Photo: Australia Awards Global Tracer Facility)

When **Ms Patience Kinnane** returned from her award in 2013 after studying a Bachelor of Civil Engineering at Victoria University, she worked for the Samoan Water Authority as the team lead for non-revenue water. Her role involved utilising the technical skills she had learnt on award towards maintaining and repairing the infrastructure with her team:

I found out with the Water Authority, with the rural team, they had a lot of issues with leakages and network out in the rural sites, so I was a team lead for non-revenue water. So it's a lot of finding leaks, and then they had no maps and anything in the way of pipework, when and who got fed into where and a lot of illegal connections and all of this and that, and just monitoring, water monitoring and projects and improvements and stuff, which is good.

Mr Siu Fanolua's first project at Samoa's Electric Power Corporation when he returned from award was to solve a low voltage issue on Savai'i, Samoa's largest island. Since then he has also worked for the distribution team as a project engineer to install and commission extra protection for the transmission and to undertake maintenance on the system. Like many of the alumni in this Case Study, Mr Fanolua received an Australia Awards scholarship on the basis of his strong academic achievement in his Foundation Year at the National University of Samoa. He completed a Bachelor of Engineering in electrical and electronic engineering at Victoria University in 2014 and is now a Senior Engineer at the Electric Power Corporation of Samoa. Mr Fanolua says the knowledge he gained on award has helped him in these projects:

A lot of things that we have been studying at uni, it's really helped us... In terms of designing and planning, I think that's the main knowledge that I've gained from VU which I apply to my job at the moment.

2.4.2. Developing Renewable Energy capacity

Samoa is making strides towards being totally reliant on renewable energy, with the target of 100 per cent renewable energy by 2025.³ Two of the alumni in this Case Study have been involved in projects that build Samoa's renewables capacity in areas such as biomass gasification, solar and hydroelectricity.

Ms Moon Chan, a Principal Scientist at the Scientific Research Organisation of Samoa (SROS), has been involved in the development of the biomass gasification plant, which was due to be completed by the end of 2019. Ms Chan's work aims to determine which fuels will produce the highest amount of energy but are also the most sustainable in terms of plant growth:

Under the biomass gasification project, we were assigned the role of looking into the different feed stocks and determining feasibility, as well as looking into the harvesting, whether it would grow back in time to continue to sustain the plant. So that was our role. And also looking to which piece would be most optimal to give us the higher calorific value [for achieving the best output from the plant].

Ms Chan gained a scholarship after finishing in the top five for science in her Foundation Year at the National University of Samoa, and completed a Bachelor of Biomedical Engineering at the University of Sydney in 2012. Ms Chan highlighted that her studies in Australia, in particular in project management, helped contribute to the success of this project. The SROS is in partnership with the Electrical Power Corporation and the Ministry of Natural Resources and Environment to build this plant, which will contribute to achieving the Samoan renewables target.

Mr Fanolua has also been involved in renewables projects. He was the project engineer for the installation of an 80 kilowatt solar farm just outside of Apia and is also currently running a small project installing solar generators in homes that live off the main power grid. Many families are unable to afford to construct a line to connect them to the grid so Mr Fanolua's team have received Government funding to install rooftop solar systems. They have currently connected 14 families.

Mr Fanolua is also the commissioning engineer for Samoa's hydro power plants, with the refurbishment of three hydro plants and the commissioning of a 2 megawatt generator.

Now I'm a commissioning engineer for hydro stations, hydro power plants. I went to China last month and we just finished commissioning our 2 megawatt generator. We also have refurbished three hydro plants. I was also the commissioning engineer for those three plants.

2.4.3. Improving medical equipment to enhance health outcomes

Two alumni have contributed to development in the science and medical field with their degree in biomedical engineering. The examples below show that these alumni are applying the new skills gained on award relating to the use and maintenance of technical equipment in hospitals and clinics. This contribution is strengthening the healthcare system in Samoa, ensuring doctors, nurses and other health practitioners have reliable instruments for diagnosis and treatment of patients. In addition to the increasing infrastructure quality in this area, these examples demonstrate the contribution of alumni to Key Outcome 6 of the *Strategy for Development of Samoa*, which is 'A Healthy Samoa'.

Ms Sunema Talapusi received her Australia Awards scholarship based on her academic performance in the National University of Samoa's Science Foundation Year, and completed a Bachelor of Electrical and Biomedical Engineering at the University of Queensland in 2013. On her return, she joined Samoa's main hospital, Tupua Tamasese Meaole (TTM), as a Biomedical Officer. Since then she has become the Principal Biomedical Engineer and her role has given her responsibility for the procurement, maintenance, and use of medical instruments and equipment in Samoa's healthcare system. She is hands-on in the hospital; using the equipment with patients to assist doctors and instructing them on how to use it correctly. The knowledge she gained while on award led to a reduction in operator error and has created a better relationship between the biomedical engineers and the other hospital staff through increased understanding of the role they play.

We started changing the view of the doctors and the nurses regarding the Biomedical Department. So before, they would always say, "Okay, the biomed team is coming to break down our machines and write them off." But with slow, small steps, we were able to change their outlook on biomed, that we were actually here to help and fix the machines.



Tupua Tamasese Meaole Hospital, Apia (Photo: Australia Awards Global Tracer Facility)

Her position in the hospital also means she oversees the procurement of equipment and donations. This has ensured that the equipment they use are safe and as up to date as possible, rather than having to rely on outdated and potentially dangerous machines.

[Since we began this process], we were able to change what we ordered, the medical equipment that we ordered. So I'm heavily involved in the procurement of medical equipment, because before we used to be recipients of donations and they were obsolete models, they weren't used anymore, so just changing that, just saying, "No, there's a donation policy." So now we use a donation policy, like anything older than five years or if the parts are not available, we don't want it, thank you very much.

Ms Talapusi's contributions have led to an increase in the hospital's capabilities, which, is demonstrably improving the health of Samoans. Ms Talapusi is seeing this in the way in which the equipment is being used to save lives, as well as improve recovery times:

We see the success stories that we've had, some of the medical equipment that we have now [is] saving lives. [I've been involved] firsthand saving a baby's life, another old lady's life... just seeing patients who were bedridden for three months and now just walking around town. And it's ongoing...

The improvement in technology available and the skills of people like Ms Talapusi to facilitate its use, means that some procedures that in the past involved flying people to hospitals in Australia or New Zealand, can now be done in Samoa. This is not only a massive saver in costs for the Government of Samoa, but also means a larger volume of patients are able to be treated each year for some procedures. For example, Ms Talapusi noted that her biomedical engineering team acquired and now routinely maintain a 'lithotripsy laser where kidney stones can be broken down' at the hospital in Apia. Prior to this instrument being utilised, about 10 Samoans per year were treated for kidney stones—and all of these were flown overseas for the treatment. Now that they have the machine, and the expertise to run it, the hospital is treating Samoans in Apia for this health issue 'every week'. This outcome specifically contributes Samoa's goal in its Strategy for the Development of Samoa to reduce the number of 'patients sent overseas for treatment' (Government of Samoa, 2016, p. 8).

Ms Chan has also used her biomedical engineering training to improve the use and maintenance of medical equipment in Samoa. In her work at the Kidney Foundation when she first arrived home from award, Ms Chan maintained and calibrated the dialysis machines, drawing on the skills that she had learnt on award in Australia:

While I was down at the Kidney Foundation, I mainly implemented my skills on electronics. So it was mainly on maintaining a system, understanding which component was going wrong. So that's where part of my engineering skills are utilised.

In her current role, Ms Chan is responsible for the use and maintenance of scientific equipment. She is an auditor for the SROS labs and involved in the procurement of new instruments.

2.4.4. Building capabilities of Samoans

As noted earlier, there is a strong need for engineers in Samoa in order to more effectively develop infrastructure for the country. One of the stakeholders interviewed for this Case Study, Mr Kalavini Maualaivao of the Samoan Ministry of Works, pointed out that by growing local skills and knowledge not only would Samoa become less dependent on overseas expertise, in addition, the aid Samoa receives would be put to use in-country rather than being spent on overseas consultants.

My observation of how the development of the nation is going at the moment: it's really at a fast pace and we need all this different expertise to be within country to support the developments, to keep the developments going. We get a lot of aid money but then it's flushed out again because we keep bringing in foreigners like foreign consultants or technical advisors and technical assistants from abroad. But for a small country like Samoa, we'd like to rely on our own people to push our development through, and we would like to have many awards so that we can take our people to pursue the needed degrees or get the right competencies and then bring them back in.

All alumni in this Case Study not only demonstrate this benefit of increasing local capabilities, but are also helping build capacity of their work colleagues through sharing their expertise and skills. These contributions are discussed in relation to three broad categorisations below; formal workplace training, informal workplace training and sharing of knowledge in the community.

2.4.4.1. Formal training in the workplace

Ms Talapusi's work growing the biomedical engineering department in Samoa's main hospital has involved training the doctors and nurses in the use of the medical equipment by holding regular, formal training sessions. Before she joined the hospital, there was limited knowledge of how the equipment was used and what was involved in repairing the machines. Building that relationship between hospital staff and the biomedical engineering department not only improved efficiency but saved the hospital money through the reduction in machine write-offs.

So before I started, there was a lot of operator errors... So then we started training the users. We started training the nurses, the doctors, on how to use the medical equipment.

Ms Talapusi also worked to help change the culture in relation to the use of and respect for the instrumentation in the hospital:

We also have tags on [each piece of equipment to show] how much it costs. So like, "If you break me, then you have to pay for me," or "Use your brain because I don't have one," and "I cost \$6,000." You have to put costs on the medical equipment for people to know that these are expensive and we're all taxpayers. So, I have to make it personalised for the nurses and the doctors.

When Ms Chan joined the SROS, she found the report writing skills of the people who reported to her were lacking, so she gave them training. In addition to this, she taught them the research skills she had learnt in Australia, how to understand and use the equipment they have safely, and how to problem-solve when things go wrong.

I try to make sure that they're up to scratch because from their initial reports they sent me, it was like, no, we need training there. And also with regards to actual implementation of our testing procedures, when we look into the research pathways of the renewable energy sources or of our testing here in microbiology, I always try and make sure they understand the procedure as in like why this step is important, what effect it has and so that way if anything goes wrong, they are able to trace back.

2.4.4.2. Informal training in the workplace

Alumni have also passed on skills and knowledge to their co-workers in less formal settings. Ms Kinnane shared her knowledge learnt on award with her team at the Samoa Water Authority to create a deeper understanding of their work in the maintenance of the water supply. She worked with her team to show them not only 'how' to do things but also 'why' they were doing it. This led to a greater understanding and enthusiasm for the work. Ms Kinnane also stated that as most of these people had come straight from high school it was an opportunity for them to learn more skills.

It was all new to them, so they were all curious and they loved it, which was good. And it was a good team bonding thing because then they all started to compete against each other, who would get certain things right and stuff.

2.4.4.3. Sharing knowledge in the community

Some alumni have also committed to sharing knowledge within their community and encouraged the next generation to pursue careers in engineering. Mr Fanolua is a volunteer lecturer in physics and maths for a study centre run by his church community for high school students. He is credited by his community as the reason why more students are pursuing scholarships overseas.

I was the very first person from my Sunday school to get an award to go to Australia. After me, then my brother, my cousins and some students from my village all got a scholarship to go overseas to do studies. I know about this when they came back, they do some speech in front of our church community, and they always mention me, that I was their motivation.

Ms Talapusi's need for more biomedical engineers in the hospital prompted her to speak to physics students at the National University of Samoa to promote the work she does. Her interactive lecture to the Foundation Year prompted four students to approach her for work experience and now there are two students studying biomedical engineering, one in Australia and one in New Zealand.

2.5 Factors influencing these outcomes

2.5.1. Enabling factors

A number of factors aided alumni in successfully contributing to development in Samoa. This included the high demand for engineers in Samoa, the relevance of the skills they learnt on award, and the support they received, both academically and personally, while studying on award.

2.5.1.1. Engineering in demand

Engineering is a growing field in Samoa, with high demand for engineers in all areas. As mentioned earlier, there are currently many large infrastructure projects occurring and the need to increase local capacity means that alumni are in high demand. Ms Sharon Aiafi, Assistant Chief Executive Officer (ACEO) in the Ministry of Foreign Affairs and Trade (MFAT) commented that this is an issue which is of interest to the Prime Minister as well.

It's a very important sector that still needs developing, because we've got so many infrastructure projects going on at the moment and we've always had to tap into a lot of overseas expertise... The Prime Minister continues to emphasise that we would like to continue to build this sector when it comes to capacity in this sector and see it developed.

Most of the alumni interviewed reported it to be easy to find work once they returned from award, with those who did their internships in Samoa given a position at the same organisation once they returned.

Finding work was easy, I think because there's a lack of us engineers...I think everyone was fighting over engineers, which is good. (Ms Kinnane)

I didn't really have any problems coming back, because, when I finished my last internship, they just offered me a job, saying, "Once you finish, we have a spot ready for you." I said, "Great. I'll take it." (Mr Faamau)

2.5.1.2. Relevance of skills

Alumni attributed the skills they learnt on award as being particularly important in equipping them with the ability to contribute to development.

Both technical and soft skills alumni learnt on award have been key to their ability to contribute to development. All alumni mentioned the high-level technical engineering knowledge they gained on award, with each finding a particular specialisation to focus on in the second half of their degree. In terms of the non-technical skills, alumni particularly reported learning skills like stakeholder engagement, which have been helpful when interacting with clients and the public. Mr Faamau's quote below exemplifies these aspects:

You use everything from your soft skills and your technical skills as well. I think the biggest thing I learnt from working in AusAID, being a Government agency, is managing your stakeholders, because you deal with the public as well as the contractors and all that, which is something that was new to me. You don't really learn those things in school, the learning that you learn on paper [subject], but actually performing them is pretty tough. But it's great.

Skills related to project management have also been helpful for alumni. Mr Fanolua's work commissioning solar generators for rural families drew on his knowledge learnt from university in order to complete the project successfully.

In terms of designing and planning, I think that's the main knowledge that I've gained from Victoria University which I apply to my job at the moment, especially this minor project for the rooftop solar, because I firstly had to start with a feasibility study, so whether it is feasible for us to do this.

2.5.1.3. Support on award

Alumni reported receiving substantial support while on award, from both their university and Australia Awards liaison officers. When Mr Faamau found himself struggling with his studies he was offered support from the university in the form of extra tutorials and advice.

The [scholarship] actually offered some consultations with professionals, things like how do you manage your time; they offered those sessions for any student that didn't do well in that semester. They have these extra consultations which they, I wouldn't say forced you to go to, but recommended you to go to pretty strongly.

Ms Kolose also made use of the additional tutorials when completing difficult subjects:

There were also additional tutorials that were offered, especially because there were some engineering papers [subjects] that were quite difficult, but there were extra tutorials that were also offered by the scholarship for us when we needed the assistance, which is different from the actual tutorials of the course. But they were extra tutorials that our international officer informed us about that we could take, that would be paid for by AusAID to assist us, especially with the harder courses.

Some alumni also completed a foundation year in Australia, involving bridging courses to build academic knowledge and skills before beginning their degree. Ms Talapusi found this to be helpful to her studies as it gave her a way to ease in to studying in Australia:

That helped us, more of us were more successful at completing our degree because we went to a foundation first and then you went to university.

2.5.2. Challenging factors

While all alumni were able to find employment and make meaningful contributions following their scholarship, some factors were described which challenged them in their studies and in contributing to development on return.

2.5.2.1. On-award factors

While on award, some alumni experienced homesickness and trouble adjusting to a different lifestyle in Australia. Many of the alumni were also quite young when they came to Australia and most had never left Samoa. Almost all the alumni were undergraduates and were adjusting to the university workload. Ms Talapusi described the difficulty she faced when moving to Australia.

It was hardest culturally, we're very family orientated, our foundation is with the church, on God and also with family. So breaking away from family was hard, so homesickness was what I was scared of when I first left home.

Ms Chan was not yet 18 when she came to Australia and had to live in a homestay-style hostel. She also experienced homesickness but found the counselling she received to be helpful.

For the first few months, I was really homesick. It was my first time away from home, so I found I was very homesick, but then the counselling at the college I was at was really good. They were always available, they were very kind and they were quite understanding.

Mr Faamau also had difficulty settling into a lifestyle away from his family for the first time. He struggled to balance socialising and his studies initially but refocussed himself in order to complete his degree on time.

I'm not going to lie. It was pretty tough. And it was the first time out of parents' guidance, you could say. Like it got to a stage where it was really hard to balance the social and academic life. I did fail some subjects. But then you sort of wake up, "Okay, this is not what I came here for." You get back to it.

2.5.2.2. Workplace limitations

Some alumni also experienced limitations within their workplace when they returned to Samoa which made contributing to development difficult, such as small professional fields, outsourcing of work, and having access to technology.

When Ms Chan returned home in 2012, biomedical engineering was a virtually non-existent field in Samoa. With limited jobs in her area of expertise, she had to take a position in a similar field, assisting in the repair and maintenance of dialysis machines and reverse osmosis equipment, until she found a relevant position at the Scientific Research Organisation of Samoa.

One of the challenges I face was when I came here, there wasn't really a field for biomedical engineering. So we didn't really have the centre [at the hospital] that we have now. It was newly established after a few years after I came back.

Mr Faamau also changed jobs after working in the role he had with the Land Transport Authority after returning from Australia. He chose to change from the public to the private sector because he recognised an opportunity to better use his skills and knowledge:

[In my previous job] most of the technical work is outsourced to firms like the one that I'm in now, so I didn't really get to tap and use much of the technical skills per se... So I was thinking: I've got to jump, because you're outside; you don't want to be complacent, the industry and the field is evolving.

Ms Talapusi commented about the difficulty she faced when returning to Samoa and not having access to the technology she had in Australia.

It was hard at first because the skills and the technology that I used in Australia are not available here, so the big machines that we use to make stuff, that make the boards are not available here. So I found that very hard. There were no tools and equipment to use to test our medical equipment.

Women in engineering in Samoa

Alumnae in this Case Study have been challenging gender based stereotypes in Samoan society and pursuing careers in engineering. Some alumnae described how their teachers in school discouraged them from pursuing engineering “[the teachers] stressed doctors and lawyers were for girls, engineers for boys”. However, for some, like Ms Kinnane, it just pushed them harder:

When the teachers said that females can never be engineers, I'm like, "What is this 'engineering' that we apparently can't do?" And [my interest] just stemmed from that!

Some alumnae are finding they have to work hard for their expertise to be recognised, especially as a women early in their careers. One alumna described the type of workplace environment she joined as being male-dominated and she found it difficult to be taken seriously as a professional in her field:

I still have issues here being a female and being young, younger than the rest, so we still have the old boys club in other departments. So they go through my senior officer... It's just part of the culture and also I think it's the chief system that we have... So, you still get the respect, but there's also that restraint like, "Oh, yeah, she's just a girl with no mataitai," chief title. And I'm way younger than them. So there's also another culture where you respect your elders.

This appears to be a changing trend, however, with more women currently in senior engineering positions in various companies and agencies. As highlighted by Ms Kolose, the current CEO of the Land Transport Authority, who is also the vice president of the Institute of Professional Engineers Samoa, is a woman and there are increasing numbers of women in executive roles:

I think that women have come a long way and I've also seen that there's an increase in women in the senior management level—the Assistant CEO level. So there's a lot of females in the ACEO level. As well as in the engineering side, there are quite a lot of female graduates in the area of engineering.

Alumni have also been involved in encouraging girls to study engineering in the wider community. Ms Chan was a judge for the National Science Fair competition in 2018 which had as its theme “Powering Change: Women in Innovation and Creativity.”⁴ The competition theme celebrated the achievements of women in science and engineering and encouraged girls to continue to contribute to science, inventions and creations.

3. Public Diplomacy Outcomes

Alumni in this Case Study have ongoing connections with Australian friends, students and lecturers who they met while on award. While these links have predominantly been social in nature, some alumni have maintained contact with lecturers (and in one case an Australian business) who have helped provide technical assistance on projects in their work. Alumni also work closely with Australians in their current jobs, though these links were not formed while on award. An opportunity lost here is that many of these alumni had to return home to complete the internships required as part of their engineering degree, rather than have an opportunity to work within an Australian organisation.

3.1 Introduction

This chapter explores the extent to which alumni are contributing to two of the Australia Awards long-term outcomes:

- Outcome 2: 'Alumni are contributing to cooperation between Australia and partner countries', and;
- Outcome 3: 'Effective, mutually advantageous partnerships between institutions and businesses in Australia and partner countries.'

The *Australia Awards Global Monitoring and Evaluation Framework* (the Framework) describes Outcome 2—cooperation—as being the connections and networks between alumni and Australia which represent the people-to-people links such as alumni associations, friendships, or professional connections with former lecturers. Outcome 3—partnerships—has a slightly different emphasis, and 'looks beyond the individual links'. By doing this, Outcome 3 'articulates Australia's intention to see organisational links' occur as formal partnerships (DFAT, 2017).

The 'seeds' for these outcomes are intended to have been developed on award. The Framework suggests that during their time on award, scholars 'build relationships with Australians, other awardees, and Australian organisations and businesses' and act to catalyse or enhance links between organisations. Further to this, it is anticipated that alumni engagement and support then assist as a post-award mechanism to maintain alumni's relationships with Australia.

This chapter explores the extent to which alumni in this Case Study have been able to develop and maintain connections and professional networks with people and organisations based on their time on award in Australia. The findings from this group of alumni suggest that while Outcome 2—cooperation is being achieved, Outcome 3—partnerships, is not achieved for the group of focus in this Case Study.

3.2 Background

Australia and Samoa have a strong bilateral relationship that has been developed over many decades. On a political level, Australia's recent 'Stepping-Up' in the Pacific has further increased engagement between the two countries and this is reflected in a growth in aid and further regional cooperation activities being undertaken by both countries.⁵

Australian links with Samoa are also fostered through its diaspora, according to the 2016 Australian Census about 76,000 residents in Australia identify as having Samoan ancestry.⁶ As such, this diaspora cultivates links and cultural understanding between these two countries.

DFAT identifies the Australia Awards as being one of the key mechanisms for furthering people-to-people links with Samoa. There are a number of other programs and policies of note in helping to build relationships and understanding between these two countries. These include the Australian Volunteers Program,⁷ the New Colombo Plan⁸ (which supports Australian students to undertake work-focussed learning activities in Samoa), Australia's Seasonal Worker Programme⁹ (designed to support Samoan participation in short-term rural harvest labour), the Pacific Labour Scheme,¹⁰ and the Australia Pacific Training Coalition.¹¹

3.3 Networks and links developed on award

All of the alumni in this Case Study have ongoing connections with Australians. In most cases this is through friendships developed with fellow students on award and in some cases, alumni also have ongoing relationships with their lecturers or tutors. These interactions with Australia are a direct outcome of their scholarship. For this group of alumni, the evidence relating to relationships developed as part of the award tend to fit more in relation to cooperation and people-to-people links (which align with Outcome 2) than with formal partnerships and organisational links (Outcome 3). In fact, in this Case Study there were no specific partnerships identified between organisations fostered as a result of the award experiences of these particular alumni.

This is not uncommon across the case studies undertaken by the Facility, a finding also apparent in its survey data collections. For example, in the Facility's Global Tracer Survey, responses for those from the Pacific who have returned from award in similar years to the alumni in this Case Study suggest that connections with friends in Australia, and fellow Australia Awards alumni are relatively common. Specifically, half of all alumni from the Pacific in the 2011–2016 completion group continue to have frequent contact with friends from Australia, and 40 per cent have frequent contact with other alumni from the Australia Awards. However, only one in five indicated they have frequent contact with Australian businesses or professional associations (Edwards & Taylor, 2019).

The following list summarises the types of networks and links alumni of focus in this Case Study developed on award, and as indicated above, the analysis suggests that these tend to be related to Australia Awards Outcome 2 rather than Outcome 3. The discussion in the sections below elaborates on these types of connections with examples from the alumni interviewed.

5 <https://dfat.gov.au/geo/samoa/Pages/stepping-up-in-samoa.aspx>

6 <https://dfat.gov.au/geo/samoa/Pages/samoa-country-brief.aspx>

7 <https://dfat.gov.au/geo/samoa/development-assistance/Pages/volunteers-samoa.aspx>

8 <https://dfat.gov.au/people-to-people/new-colombo-plan/pages/new-colombo-plan.aspx>

9 <https://www.employment.gov.au/seasonal-worker-programme>

10 <https://dfat.gov.au/geo/pacific/engagement/pacific-labour-mobility/Pages/default.aspx>

11 <https://www.aptc.edu.au/>

Outcome 2—Cooperation

- Friendships made with other students while on award
- Ongoing communication with lecturers and tutors
- Technical assistance support developed with an Australian company through internship

Outcome 3—Partnerships

- [No specific professional partnerships between organisations in Australia and Samoa as a result of Australia Awards]

In addition to the relationships that have been established as a direct consequence of the scholarships, it is important to highlight that many of the alumni in this Case Study have active professional relationships with Australians and Australian organisations developed as part of their current work. Some of these examples are also discussed in at the end of this section.

3.3.1. Friendships established in Australia

All alumni in this Case Study continue to enjoy friendships with people who they met during their time studying in Australia. These friendships mainly focus on social aspects, as exemplified by Ms Moon: 'I made quite a diverse range of friends there. I still keep in contact with some of them...They're happily working there, or some have moved on to do higher degrees as well.'

The access to, and prevalence of, digital media platforms has been key to the ease with which these relationships are maintained. Alumni mentioned Facebook in particular as being a specific means for communication with their friends from Australia.

While most of these friendships are currently focussed on social connections, there was some acknowledgement from alumni that given the common working backgrounds they have with their former classmates, there may be opportunities in the future for professional collaborations. For example, when asked about the potential for business cooperation in the future Mr Faamau suggested that when the time came, he would 'definitely tap into the connections' in Australia.

3.3.2. Ongoing support from lecturers in Australia

An important cooperative relationship highlighted by many of the alumni in this Case Study was the ongoing assistance they receive from the lecturers and tutors who taught them while in Australia. Alumni expressed gratitude and deep respect for their former teachers, who now offer mentorship and technical help in a range of work-related opportunities. For example, Mr Malasia found that help from his lecturer on an issue he encountered in his work not long after returning from Australia was critical to helping build a sustainable project with Samoan (rather than international) expertise:

When I encountered one problem, one issue here, when I'd just finished my graduation, I relayed it back to one of the telecommunications tutors there [in Australia] and he helped me. So that's a very good working relationship with a mate and the tutor there. I managed to solve that issue with the assistance from the tutor... So I shared that knowledge and skills with the team and off they go...That guy from the university, I've learnt a lot from him!

Others, noted similar generous help that they have received because of their ongoing connections with their lecturers, including Mr Fanolua: 'the most important person back at uni was my Professor...and we still keep in touch', and Mr Faamau: 'from my professors, when I have a question during work, I just flick them an email for advice'.

3.3.3. Collaboration with Australian business developed on award

One alumna, Ms Kolose, made an important connection with an Australian company while in Australia. Directly after completing her Masters degree, Ms Kolose participated in an internship that was part of the Australia Awards Prime Minister's Pacific Program.¹² This internship involved a placement in an Australian information technology services company in Brisbane for three months. Ms Kolose built a strong connection with this the people she worked with in this company while undertaking her internship. For Ms Kolose, this worked very well as a kind of 'add-on' to the Masters she had gained on her Australia Awards scholarship.

On her return to Samoa, this relationship was extremely helpful to Ms Kolose while she was developing the new information technology infrastructure for the Land Transport Authority discussed in the previous chapter. Her contacts within the Australian company provided her with ongoing, informal technical advice. The fact that Ms Kolose had spent a three-month internship embedded in the networking team in this company was clearly seen by her as an important ingredient in consolidating a reliable ongoing connection:

I communicate with them, especially in the area of technology, because Australia is advanced, and I email them about some of the issues and then they help...I don't think I would get that sort of continuous assistance if it wasn't for the internship.

3.3.4. Partnerships with Australians and Australian organisations (formed after award)

Many of the alumni in this Case Study have regular contact and connection with Australians and Australian organisations in the work that they do. Most of these connections are not directly a result of relationships forged while on award, and are therefore not discussed prominently in the sections above.

However, these connections with Australia are worth mentioning in the context of discussing outcomes of the Australia Awards, because they demonstrate the extent to which alumni are connecting with Australia in their working lives and using the intercultural competencies gained through study in Australia. Some examples of these 'formed-after-award' connections are provided below.

Ms Chan's organisation, the Scientific Research Organisation of Samoa, engages with Australia on a range of research projects—particularly in collaboration with the Australian Centre for International Agricultural Research (ACIAR). While Ms Chan's current research does not overlap with this organisation, in her previous positions she was involved in microbiological testing in joint SROS-ACIAR projects. Ms Chan specifically mentioned 'deep ties' that SROS has with ACIAR, which currently involve projects relating to fruit production and postharvest handling systems (SROS, 2016) and research into Taro Leaf Blight (SROS, 2018).

Other alumni from this Case Study have come into contact with Australians through contract and consulting work carried out on Government or donor funded projects in Samoa. Mr Faamau, Ms Kolose, Mr Malasia, Ms Kinnane and Ms Talapusi each mentioned working alongside consultants from Australia in a range of technical areas in recent years.

¹² <https://scopeglobal.com/program/australia-awards-prime-ministers-pacific-program/>



The Scientific Research Organisation of Samoa, which has ‘deep ties’ with the Australian Centre for International Agricultural Research (ACIAR). (Photo: SROS)

Ms Talapusi’s experience is illustrative of this kind of connection. Her biomedical unit at the hospital receives support from a technical advisor sponsored by DFAT who works across the Pacific:

...it’s an advisory role and they’re like a fly-in, fly-out advisor, so every three months they come here for three weeks to see our progress... [Our current advisor] has been with us since 2014, so he’s assisted us to develop the biomed area.

These kinds of relationships continue to foster relationships with Australia for alumni, and tend to be helping alumni to continue making strong contributions with the skills and knowledge that they gained while in Australia.

3.4 Factors influencing these outcomes

The factors summarised below influenced the outcomes for this group of alumni in the formation of partnerships and cooperation with Australia. These factors are explored further in the discussion that follows.

Enabling cooperation and partnerships

- The existing, strong relationship between Australia and Samoa
- Group work initiated as part of studies
- Digital communication platforms (particularly social media)

Challenges to cooperation and partnerships

- Internships in Australia not possible for many of this group—a lost opportunity for building professional links
 - Context for alumni—only recently returned and developing career, so they have had limited time for embedding links
-

3.4.1. Enabling factors

Alumni in this Case Study mentioned a number of aspects that have facilitated their engagement with Australians. These include elements of their on-award experience (such as group work), as well as contextual aspects (i.e. the strong Australia-Samoa bilateral relationship, and the existence of digital technologies to support connections).

While on award, alumni mentioned that group work and project-based activities were an important means of meeting and making connections with classmates. Ms Kinnane illustrated this aspect in relation to her experience:

The first years [of the course] were just with the international students; we all knew what we were all going through and we all understood each other. It was hard to kind of make friends with people from Australia, only because I think different cultures and different goals I guess...But then the last year, because we had to do a thesis at the end, I spent a lot of time with the Australians and international students and a whole bunch of different people to do our group project which was good!

Another enabler was noted in the background to this chapter—the strong ongoing relationship between Australia and Samoa. This relationship, alongside our relatively close geographic proximity, means that Australians and Australian organisations are involved in various aspects of the work in Samoa. In some ways this means that Samoan's with international degrees and employment in technical areas such as engineering and information technology inevitably come into contact with Australians as part of their work. The fact that these alumni have an Australian qualification means that they can often more effectively work alongside Australians. Essentially, this is a product of both a recognition among Australians of the qualifications as well as the intercultural competencies built on award. In the engineering field this was mentioned by one of the employers of an alumni, who noted that having an Australian engineering qualification when working in the Pacific 'gives you a good image...so I think you'll be taken seriously'.

The digital and social media platforms for connecting with people while on award and maintaining this link after award is also a practical element benefitting the cohort of alumni explored in this Case Study. Similar findings to this came through in the Facility's Global Tracer Survey for alumni who completed their studies between 2011 and 2016, and were also apparent in the Costa Rica Case Study by the Facility, which explored outcomes of a cohort who had completed their awards at a similar time to this group. This outcome differs from older cohorts of alumni for whom these platforms were not as common while on award.

Australia Awards as a vehicle to developing bilateral cooperation

Interviews during this Case Study suggest that, as a part of the Australian aid program in Samoa, the Australia Awards are substantial and important in promoting and maintaining positive bilateral relationships between Australia and Samoa.

Among the stakeholders interviewed from the Government of Samoa, a consistent theme was that the flexibility and responsiveness of the Australian High Commission in Apia was an integral part of their positive perceptions of the Australia Awards. Stakeholders from both the Ministry of Foreign Affairs and Trade, and the Public Service Commission highlighted this, with the following quotes exemplifying the sentiment:

They [the Australian High Commission in Apia] ask us, "How is this working?" They like to have this open dialogue and yes, we're all for that. For us both, we're only an email away and phone call away. Just make it happen and we'll be there!

Working with our colleagues at the Australian High Commission, my counterpart, we have an excellent working rapport.

As a part of this sentiment, the elements of flexibility and speed of response was also particularly highlighted:

The process that we have with the Australian High Commission, a lot of the decisions can be done from this end. I assume that they would every now and then have to liaise with the Canberra office and they can seek guidance. But a lot of the decisions they have [the authority] to make—and they're very quick to come back to us with their position and with feedback.

Further to this, the engagement of alumni of the Australia Awards can be an important avenue to consolidating relationships between Australia and Samoa. For example, the value of alumni in high positions was noted during an interview at the Australian High Commission in Apia emphasising a theme seen across many of the Facility case studies; that the Australia Awards:

does give us an entry point or a great way to build relationships with people...and it gives us the sort of common understanding that we're able to build our relationships through. We have seen alumni move through into more senior positions in Government and they have influenced and shaped policies and decisions.

3.4.2. Challenging factors

An important consideration in exploring outcomes of this cohort is that these alumni have only recently returned from their scholarship and are generally still in the process of consolidating their careers. As such, most have not had the opportunity to, or reached the level in their career where the opportunity to leverage connections for the purpose of professional partnerships has arisen.

More specifically to the Australia Awards and the experience in Australia on scholarship, a critical factor that potentially limited the development of networks for these alumni was the relative inaccessibility of Australian-based internships. Six of the alumni in this Case Study completed an engineering degree, which requires an industry-based placement as part of the criteria for completion. However, only one was able to secure a placement in Australia. The others had to return to Samoa to find opportunities for placements to satisfy this aspect of their qualification.

While there were advantages in returning home to Samoa for placements (each of these alumni was easily able to transition into work following their degree), for the alumni, the inability to be able to secure a placement within an Australian organisation certainly appears to be a lost opportunity. Stakeholders in the Samoan Ministry of Works, Transport and Infrastructure and the Ministry of Foreign Affairs and Trade (MFAT) highlighted this issue. Ms Tagaloa Sharon Aiafi, Assistant CEO in MFAT, summed up this sentiment:

I would certainly see the benefits of our scholarship awardees actually having that opportunity to work with an Australian firm. I think there's so much to gain in terms of not necessarily only networking but really all the mentoring and working with some of the best, and then they are able to come back [and share the skills and networks].

Alumni highlighted that the challenge in gaining an internship within Australian engineering firms was that these companies were looking for interns who they could 'convert' into graduate engineers on completion of their degree. When they realise that the Australia Awards scholars are bonded to return home to Samoa, the interest in investing in these students without the chance to hire them on completion was not appealing. On this issue, two alumni clearly articulated their frustration. Ms Talapusi described her experience as follows:

I did consider Australia [for my placement] but it was very hard because the companies were looking at getting students who will join them right after they graduate. But because of my scholarship's conditions, we weren't allowed to stay in Australia. We had to come back and serve our bond. So a lot of us got rejected... [The companies] didn't want to teach you this skill and then you leave.

Mr Faamau was equally frustrated by this situation:

I did apply. But sadly, once they found out you're on scholarship and they know you had to go back and serve your bond, it was kind of hard. From the company's perspective, they don't want to invest in you, as you're going to go back anyway... They're not willing to invest like that, which, fair enough, I don't blame them for their side. But I tried three or four times. Even through friends [who had connections into engineering firms], it still didn't work out.

Had these alumni been able to undertake placements in Australia, it is likely that the connections and relationships built as a result would have been valuable to the alumni and their employers in Samoa—and a potential link into the Pacific for the Australian companies. Certainly the example of Ms Kolose, who was able to secure a placement as part of the now ceased Australia Awards Prime Minister's Pacific Program and has subsequently maintained a beneficial professional relationship with the company she was placed in, shows that internships can result in benefits well beyond the completion of the scholarship.

Alumni engagement by Australia Awards in Samoa

The interviews with alumni and stakeholders in this Case Study offered some insight into current engagement and future opportunities for the Australia Awards. While it is important to note that this particular this Case Study explores this issue among a small subset of Samoan alumni, the information collected from the participants in the focussed sample did result in some perspectives that are worth documenting.

Current practice and events

The main conduit for alumni engagement in Samoa is an annual tertiary education roadshow, facilitated by the Australian High Commission in Apia and organised through Austrade. A number of the alumni in this Case Study have been involved in this event over recent years, often in terms of helping with their Australian university's presence in the event: 'they usually need assistance to set up their booth to promote the uni'. While this event is an opportunity for alumni to connect with university staff and some former students, it is primarily focussed on attracting 'the next batch of students', as articulated by one alumni.

Other events mentioned during interviews included alumni dinners organised by individual universities (often in conjunction with the roadshow), informal gatherings to farewell Australia Awards recipients and ad hoc events such as a farewell event for the Australian High Commissioner to Samoa.

Future opportunity and interest

The theme of renewed emphasis on alumni engagement is something which permeates many of the country and region programs of the Australia Awards, and Samoa is no different. While Samoan Australia Awards alumni do have contact with the High Commission in Apia and with their universities, the contact is relatively ad hoc. Opportunities for further or different types of engagement are certainly possible and alumni involved in this Case Study were interested in engaging.

Enthusiasm for future engagement mentioned by alumni generally focussed on developing networking opportunities that were industry-sector based. Networking both within Samoa as well as more widely among alumni was mentioned as being of potential benefit. At the local level, one alumna highlighted the possibilities, indicating that linking in with other Samoan alumni in the public sector in her field would be useful:

Some of the alumni are also IT people, so that's where we can share our work and also knowing what other ministries are doing, the process with each ministry. Because these networks, they make it sometimes easier for us to connect with other ministries, especially when it comes to working through the Government process, if you know people in the office, it will be easier for you to share information.

Thinking about Australia-Samoa connections, another alumna mentioned the potential for building and sharing expertise between the two countries in engineering, highlighting the potential to:

...learn and bounce ideas off and how they do stuff where they work, I think, engineering wise, because it's easier to learn from people's experiences than it is to try and research and do the paperwork and documentation. I think that just the learning side of it. Because with our plant [at the Samoa Water Authority] we have no one really to bounce ideas off on how they do things differently in Australia. So, it'd be nice to see if there is that community, just to see what everyone does and get ideas.

Another aspect highlighted by some alumni was the potential benefit an alumni network would have in providing support for those returning from award—helping in reintegration:

I think integrating back into Samoa is a good thing that they should maybe try [for returning alumni]. I know they just assume you're going home so you should be fine, but [the fact is] you've moved to Australia to study, you adapt to that culture and that change, and then they throw you back into a different culture and different lifestyle...I don't know if there's like an alumni group or something with the Australia Awards. But something like that would be good.

The Australian High Commission in Apia is continuing to work with alumni to build further ideas about the most useful means for supporting engagement in the future.

4. Alumni Views of Australia

Alumni have enduring, positive views of Australia. These views have developed as a result of the high quality of education they received, the support they enjoyed as Australia Awards scholars, and the exposure to Australian experiences and lifestyle while on award.

4.1 Introduction

The aim of Outcome 4 of the Australia Awards is that ‘alumni view Australia, Australians, and Australian expertise positively’. To achieve Outcome 4, the Australia Awards Monitoring and Evaluation program logic (DFAT, 2017) identifies three key components for building a positive view of Australia:

- alumni were able to establish links within Australia
- alumni had positive experiences on award in Australia, through both living and studying in Australia
- alumni continue to have positive experiences in their interactions with Australia and Australians post-award.

Outcome 4 of the Australia Awards recognises that long-lasting positive personal and professional attitudes to Australia are ‘fundamental to alumni contributing to cooperation between Australia and their home countries, and more broadly to the bilateral relationship’ (DFAT, 2016). As is apparent through this quote from the Monitoring and Evaluation Framework, this outcome is also a significant basis for the achievement of Outcome 2—cooperation, discussed in the previous chapter.

The alumni in this Case Study maintain strong, positive views of Australia, Australians and Australian expertise as a result of their time studying and living in Australia, demonstrating achievement of Outcome 4. While these views were consolidated through their experiences in Australia, all alumni in this Case Study were relatively familiar with Australia prior to undertaking their scholarship, so had assumptions and expectations of what the experience would involve before they left for their studies. This is slightly different to some of the other alumni explored in Facility case studies—especially those from regions further away from Australia like Africa or Latin America—where prior knowledge of Australia was more limited.

4.2 Examples of positive views of Australia, Australians and Australian expertise

The positive views of alumni can be summarised in three overall areas: 1) the quality and prestige of Australian education, 2) support provided by Australia Awards while at university, and 3) Australian experiences and lifestyle. These three elements are common themes among alumni from all different parts of the globe. Of the fifteen previous case studies undertaken by the Facility, most have these three elements discussed as core themes in relation to the achievement of Outcome 4 of the Australia Awards.

Specific examples from the Samoan alumni and other stakeholders involved in this Case Study are detailed below in relation to the three underlying themes.

4.2.1. Australian education quality and prestige

Overall, the alumni in this Case Study felt the education they received in Australia was of very high standard. Ms Talapusi, who was familiar with educational systems elsewhere in the world through the experiences of her family, noted: 'You can just tell the difference...the calibre and standard is very high'.

A critical element contributing to alumni's positive perceptions of Australian expertise comes as a result of the interaction and relationships they formed with their lecturers and tutors while on award. For some of the alumni, these interactions were a new, fresh way of learning. For example, Ms Chan relayed her experience as follows:

My lecturers are very open. They have an open-door policy. When I had any difficulties, I would always go to them. They're approachable. For that I was grateful...Here in our culture, usually if you ask questions they [teachers] sort of think you're insulting them, saying that they're not teaching you properly. So when I first went there, I had that mindset as well, so I didn't really ask much. But after a while, you start to see that they're fine with you asking. It's how everyone does it. And then I started opening up.

Other alumni highlighted the importance of lecturers' connections with industry, and the benefits to the quality of the teaching and content as a result. Mr Faamau's experience reflects the feelings of other alumni in the Case Study:

[At my uni they] have professionals that are actually working, coming in and teaching. So, when we have tutorials with these professionals, they're the ones who are actually in the field working as well. You get access to really feel their expertise. To me, that was great. The industry-based learning is not textbook learning the traditional way. The quality of the education at UTS [University of Technology, Sydney] especially was top notch.

This perception of quality was not only held by those who received an award to study in Australia, it is clearly something that permeates the understanding of industry and Government in Samoa. All alumni in this Case Study easily found work on return to Samoa, and alumni and stakeholders in the interviews pointed to the 'pulling-power' of an Australian degree. One alumni noting 'I see the level in terms of the power my degree holds [in my profession]'. While a Government stakeholder emphasised, 'certainly Australian education would be very highly ranked in terms of employers'. This perception was also seen in the workplace itself, as noted by a colleague of one of the alumni:

If I had to weigh the graduates from Australia compared to other graduates, I can say that they are very reliable in terms of knowledge and what they do. You can tell that the Australian graduates that are working with us can do so much more and they are also very fast learners and it's really easy for them to pick up something from training on the job. They have contributed a lot to the workforce, from what I see.

It is also important to highlight the prestige that the Australia Awards have in the Samoan context, and the role this has in further emphasising the power that Australian degrees have in the employment market. As noted in the introduction to this report, the Australia Awards are allocated in Samoa on the basis of achievement in Foundation Year at the National University of Samoa, as well as through direct applications. The Foundation Year aspect in particular is significant (the top students in each cohort get an Australia Awards scholarship), with one stakeholder saying that as a result of this ‘I have always seen the scholarships of Australia like the top of the ladder, the most sought-after awards’. The fact that the graduates from this program come home to make substantial contributions to their workplace and country further embeds this respect and recognition of Australian education being of very high calibre.

4.2.2. Support on award from the Australia Awards

A benefit of the Australia Awards themselves is the built-in support networks provided to students while in Australia. Alumni in this Case Study specifically mentioned the value they place on the levels of support provided by Australia Awards liaison officers during their studies. This support and the recognition that there was a need for help in integration and academic aspects has greatly shaped the positive perceptions of Australia that these alumni have.

Integration and orientation support was consistently mentioned by alumni as an important factor contributing to their positive experience. For example, Ms Talapusi noted:

In terms of arriving there, everything ran smoothly, because, compared to my other international friends, we were very well taken care of. Other scholarships, they were just dumped in Australia but there was no support, so I think we were very blessed from a DFAT point of view. When we first got there, we were put together with the international school—the students from everywhere else—and then we had a four-week orientation and that was paid for by the Australia Awards. So that helped us smoothly to go into the university.

From an academic point of view, the alumni in this Case Study were also very positive about the help and guidance they received as Australia Awards scholars. As mentioned in the previous chapter, some alumni in this cohort were given an initial ‘foundation year’ in Australia to help better prepare them for university—a support aspect they were particularly glad to have received.

In addition, support in the form of Australia Awards liaison officers to guide alumni towards additional tutorial support was available to alumni, ‘if I needed to know and understand things, I visited [my liaison officer], and support was always there’ and ‘we were able to tap into that because we had information given to us by AusAID, like extra tutorials...’ and ‘I found they [the liaison officers] were easy to contact, like as soon as you emailed them for something you need or any difficulties you had, they would reply immediately. So I was grateful for the support system there.’

4.2.3. Australian experiences and lifestyle

The ‘Australian lifestyle’ experienced by alumni has also left an important positive impression of Australia. Alumni in this Case Study were able to experience a range of aspects of Australia as a result of their scholarship. For example, Ms Chan remembered, ‘they took us to Sovereign Hill and took us around to introduce the culture’, and Ms Talapusi highlighted the fact that because of the award support she was able to travel and see some of Australia.

While each alumni enjoyed their experience of Australian a slightly different way, Mr Faamau’s quote below emphasises the enthusiasm and positivity for Australia and Australians that came through the alumni interviews:

Australia was great, the variety of food was great, it’s very multicultural, especially where I was living, lots of ethnicities, and loved the sports, there’s a lot of sports. I loved the Aussies, especially the footy, yes, loved the footy. Yes, so overall, my experience was great.

Creating opportunity: merit, equity and the Australia Awards

The Australia Awards balance a difficult line between equity and merit, and the experience of these alumni in Samoa demonstrate that this balance being achieved. A clear outcome of this Case Study is that none of the alumni interviewed here would have been able to study in their field of expertise without a scholarship—engineering degrees are simply not offered in Samoa. Most of the alumni interviewed specifically mentioned that their family could not afford to fund international study, so the scholarship offered them their only chance to access an engineering degree.

Alumni knew that in order to secure a scholarship, their best chance was to succeed academically—and for five of the alumni in the case study this meant excelling in their Foundation Year at the National University of Samoa. In each case, there was recognition that if they worked hard, they would give themselves a chance. A number of quotes from alumni emphasised this—and articulate the balance between equity and merit that is being achieved in these cases:

We didn't come from a rich family...my parents told me if I don't get a scholarship they don't have enough money to send me to university...so we just studied hard.

My parents couldn't afford to send me for tertiary education overseas...so the only way to learn and get where I wanted to get was to study hard and get the scholarship.

My motivation during that time was my parents, I'm the second eldest [of six siblings] and only my Dad was working...So I was trying hard to get this scholarship.

These alumni overcame disadvantage to secure an Australia Awards scholarship and went on successfully complete their studies and return to support their families and communities.

It's a great opportunity, and I didn't want to lose that. I'm so grateful to the Australian Government for providing this opportunity. Now I've got a good job and it's a good provider for our parents and especially for my family.

5. Conclusion

This Case Study examined the long-term outcomes of a group of Australia Awards alumni from Samoa who studied engineering or information technology and returned from their award between 2011 and 2016. This cohort of alumni have made notable contributions to the ongoing development of Samoa's infrastructure.

Infrastructure development was identified by the Government of Samoa as one of the four priority areas in its *Strategy for the Development of Samoa 2016/17–2019/20*. The alumni in this Case Study returned to Samoa during the design and implementation of this strategy—a time where demand for their skills was substantial. Importantly, all the alumni in this Case Study have been able to contribute to the development of infrastructure in Samoa, drawing on expertise gained in Australia in electrical, civil, hydro, telecommunications and biomedical engineering.

The broad coverage of alumni contributions in this Case Study is the result of the specific relevance of their skills and qualifications to the development needs of Samoa. Numerous stakeholders interviewed for this research highlighted the acute need for local engineers, and emphasised the role that Australian universities play in developing these skills given that the National University of Samoa does not offer engineering degree qualifications.

As these alumni continue in their careers, the informal relationships they have with Australians remains strong. All the alumni in this Case Study remain connected with Australia in some way—through friendships developed during study, by ongoing support provided by lecturers from their award, or because they come into contact with Australian contractors or aid organisations through the work that they do.

However, an aspect that the Australia Awards strives for, but is not evident in this Case Study is the development of formal, professional links between Samoan and Australian businesses or organisations. This finding is common across research into alumni outcomes in a range of different contexts by the Facility. Alumni in this Case Study identified internships as a potential means to developing professional links on award. However, the challenge for Australia Awards scholars in securing placements in Australia is the recruitment purpose internships serve for Australian firms. Engineering companies often utilise internships as a pathway to identifying prospective graduates for employment. Australia Awards alumni perceived this to be a barrier due to the conditions of their award requiring their immediate return to Samoa following graduation. The fact that most in this group were not able to secure a placement in Australia seems to be a missed opportunity in terms of gaining experience in the Australian workforce and the potential for future professional links between Australian and Samoan organisations.

Of the two alumni who did secure internships in Australia, the example of Ms Kolose, who was able to secure a placement as part of the now ceased Australia Awards Prime Minister's Pacific Program, demonstrates that placements within Australian organisations can result in beneficial ongoing relationships between alumni and Australians well beyond the completion of the scholarship.

Overall, this research confirms the strong outcomes and contributions of this group of Samoan alumni to the development goals of their country and the nurturing of ongoing friendships and connections with Australians. Further work in the future to maintain Australian connections with these alumni through a formal alumni association or sustained contact with the Australian High Commission in Apia may result in further bilateral relationships and in this critical area of infrastructure development. Furthermore, discussions led by DFAT with Australian firms to identify and secure placements and internships for Australia Awards recipients that are of mutual benefit, may increase the likelihood of building formal relationships between Australian and Samoan organisations in the future.

6. Alumni Profiles



Mr John Faamau

‘UTS I would say was the best uni for me. The reason is because they actually have professionals that are actually working, coming in and teaching... So when we have tutorials with these professionals, they’re the ones who are actually in the field working as well... So to me, that was great. The industry-based learning is not textbook learning the traditional way. So to me, the quality of the education at UTS especially was top notch.’

Scholarship

Australian Development Scholarship

Years

2012–2016

Degree

Bachelor of Engineering (Civil Engineering)

University

University of Technology, Sydney

Current position

Graduate Civil Engineer, Kramer-Ausenco

Brief biography

Mr Faamau has recently commenced a position with engineering firm Kramer-Ausenco as a graduate civil engineer, working on a number of projects in Samoa. Prior to his award, he completed a Foundation Year at the National University of Samoa. For his Australia Awards scholarship, Mr Faamau studied a Bachelor of Civil Engineering at the University of Technology, Sydney, where he developed a range of skills to bring back to Samoa. During his studies, Mr Faamau undertook an internship at Samoa’s Land Transport Authority, and on completion of his degree in 2016, he was offered an engineering position there. In this work, Mr Faamau was involved in a range of infrastructure projects, contributing to the design and project management of bridges, road works and retaining walls across Samoa. With his recent move into the private sector in Samoa, Mr Faamau will continue to contribute to Samoa’s infrastructure projects, and further utilise his design engineering skills.



Mr Leupena Malasia

‘If I didn’t get the scholarship from Australia, I wouldn’t [be able to] help the community here in Samoa, especially people in the remote areas. The people living in the remote areas came to the regulators and said: “These are the under-served areas. We don’t have any communication. Please can you help us?” I was able to help these communities in the remote areas. They were very excited when they got the mobile service there! So, that’s a benefit that came from this scholarship, from the Australian scholarship.’

Scholarship

Australian Development Scholarship

Years

2008–2011

Degree

Bachelor of Engineering (Electrical and Electronic Engineering)

University

Victoria University

Current position

Manager, Wireless Engineering & Transmission, Bluesky Samoa

Brief biography

Mr Malasia manages the wireless engineering aspects of one of Samoa’s largest mobile telecommunications companies. For his Australia Awards scholarship, Mr Malasia focussed on an area of engineering where there were very few Samoan’s qualified at the time—electronics. Taking leave from his job to undertake this study, he returned to Samoa in 2011 and expanded the areas that he was able to contribute to at Bluesky. In the period since completing his award, Mr Malasia has helped to build capacity and capabilities within the organisation to the extent that key projects, such as the commissioning of new mobile communications towers, are now carried out within his team, rather than outsourced to overseas consultants. Through this work Mr Malasia was recommended to be a manager, which is his current role. In recognition of Mr Malasia’s contributions, he has twice been awarded Bluesky’s employee of the year.



Ms Moon Chan

‘With regards to my degree, the main reason why I selected it was because of the combination of biology and medical. It was something new, I thought I would see a need for it here in Samoa. So I studied hard to go to Australia’

Scholarship

Australian Development Scholarship

Years

2007–2012

Degree

Bachelor of Biomedical Engineering

University

University of Sydney

Current position

Principal Research Scientist, Environmental & Renewable Energy Division, Scientific Research Organisation of Samoa

Brief biography

Ms Chan is responsible for a number of renewable energy research projects in the Scientific Research Organisation of Samoa (SROS). In her current work, she draws on the knowledge and skills she gained as part of her Australia Awards scholarship, which she undertook at the University of Sydney studying a Bachelor of Biomedical Engineering. Since returning from her scholarship in 2012 and gaining a position at the SROS, Ms Chan has been able to contribute in a number of different divisions, by working on research projects, coordinating with ministries about the technical aspects of projects and building capabilities of other members of staff in relation to research design and laboratory quality protocols. A particularly large and innovative project Ms Chan has been closely involved in—Samoa’s Biomass Gasification Plant—which was due to be ready for operations in late 2019. Ms Chan was recently successful in gaining a further scholarship through the Australia Awards and will undertake her Masters in Environmental Management and Sustainability as an online student with an Australian university in 2020.



Ms Patience Kinnane

‘If it wasn’t for the scholarship, I don’t think I would have a future, pretty much, because I would have just stopped at year 12, and that’s about it...No life, no future, no anything. I think the scholarship has opened up pretty much the world to me.’

Scholarship

Australian Development Scholarship

Years

2008–2013

Degree

Bachelor of Engineering (Civil Engineering)

University

Victoria University

Current position

Waste Water Treatment Plant Operator, Melbourne Water Eastern Treatment Plant

Brief biography

Ms Kinnane works in Melbourne as a Plant Operator at Melbourne Water’s Eastern Treatment Plant. After being offered an Australia Awards scholarship to study in Australia on the basis of her achievement in Foundation Year at the National University of Samoa, Ms Kinnane undertook a Bachelor of Engineering at Victoria University between 2008 and 2013. Returning to Samoa, Ms Kinnane worked for a number of years with the Samoa Water Authority, using her skills and knowledge to contribute to large infrastructure and maintenance projects in Samoa. During this time, she also shared her knowledge and skills with the team she managed, helping them to better understand the processes and diagnostics relating to monitoring water supplies. In order to be with her husband, Ms Kinnane returned to Australia in 2016.



Mr Siu Fanolua

“The achievement that I’m very proud of is when I received the Bachelor of Engineering degree, with my Mum and my Dad there. Because we went there and they were very happy because all they have done for me during my studies from my year one until the finish is something that I have to give back to them during this work life. So I’m very thankful to the Australian Government. It was a very difficult pathway for me especially and for my family. But I studied hard in order for me to get here.”

Scholarship

Australian Development Scholarship

Years

2011–2014

Degree

Bachelor of Engineering (Electrical and Electronic Engineering)

University

Victoria University

Current position

Senior Engineer (Development), Electric Power Corporation of Samoa

Brief biography

Mr Fanolua is a Senior Engineer for quality assurance and development at the Electric Power Corporation of Samoa. Prior to his award Mr Fanolua completed a Foundation Year at the National University of Samoa, finishing in the top five for science, earning him a scholarship. On return from award in 2014 he joined the Electric Power Corporation of Samoa, where he had also completed his internship while on award. A particular project he is most proud of is the commissioning and installation of off-grid rooftop solar systems for families living far from the main grid, where mains installation is expensive or not possible. The skills Mr Fanolua learnt in his Bachelor of Engineering from Victoria University have been a great help in these achievements, especially in the procurement process and feasibility studies. He has been responsible for multiple projects including several in renewable energy, building solar farms and hydro stations. He is also committed to passing on knowledge to the next generation by teaching physics and maths in his church community's study centre on a volunteer basis.



Ms Sunema Talapusi

“It’s really good. I think it’s what we’re giving back to the country, so everything that we learnt from Australia, I’m very grateful for what I learnt during that five years because we’re able to apply it here...We were exposed to one of the best educations in the world and so we came back hoping to develop Samoa as well.”

Scholarship

Australian Development Scholarship

Years

2009–2013

Degree

Bachelor of Electrical and Biomedical Engineering

University

University of Queensland

Current position

Principal Biomedical Engineer, Tupua Tamasese Meaole, Ministry of Health

Brief biography

Ms Talapusi has played a pivotal role in the development of the biomedical engineering department in Samoa’s main hospital. She received her award after finishing in the top five for science at the National University of Samoa. After graduating from the University of Queensland in 2013 with a Bachelor of Electrical and Biomedical Engineering, she joined the hospital—which at the time had no biomedical engineers—and helped shape the department and cement its important role in the hospital. She is now in charge of the procurement and maintenance of medical equipment, as well as training in the use of the equipment for doctors and nurses. Through this she has been able to increase the capabilities of the hospital so it can treat patients with more serious conditions. Ms Talapusi has also promoted the work of biomedical engineers through presenting at the National University of Samoa which has encouraged students to pursue careers in biomedical engineering.



Ms Tausalaatoa Kolose

“It’s increasing my knowledge, improving my skills, having a different perspective of things, knowing that there are other ways that we can go about doing this sort of thing... I came back to our country to be able to better serve our people with the knowledge and the skills that we have gained through education.”

Scholarship

Australian Development Scholarship

Years

2013

Degree

Master of Information Technology

University

The University of Newcastle

Current position

Manager for Information Technology Division, Land Transport Authority

Brief biography

Ms Kolose is the Manager of Information Technology at Samoa’s Land Transport Authority (LTA). She was awarded the scholarship in 2013 at the University of Newcastle to further her studies in the area of information technology after working for the engineering division at the LTA for several years. Two years after her return, she earned the job as manager and has been managing several major projects. Currently she is in charge of a project for the upgrade of the Road Transport Administration System to a web-based system to make the monitoring a payment of vehicle registration easier and more streamlined between the two islands. Ms Kolose’s use of the knowledge and skills she learnt in her degree played a role in the successful management and completion of the project.

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Annex 1: Methodology

This annex includes an overview of the Case Study design, development and implementation. This is the sixteenth Case Study of the Facility. Samoa is one of five Case Study countries proposed in the Year 4 Facility Annual Plan. Samoa was selected as a Case Study country on the basis there was a core group of alumni identified who had studied in the area engineering or infrastructure development—key skills of importance to development in Samoa.

Overall Case Study design

The purpose of the Facility Case Studies is to collect detailed qualitative data on the impact and benefits of the Australia Awards. The Case Study methodology is based on the Facility Case Study Approach, which was developed in the inception phase of the Facility and reported in the Annual Plan for Year 1.

The Global Strategy and Australia Awards Global Monitoring and Evaluation Framework (the Framework) form the basis for the Case Study design. The research questions, propositions, data collection instruments, and report template are built around these frameworks. Findings reported by alumni are triangulated with relevant stakeholders such as employers and colleagues, and industry bodies thereby strengthening findings by providing further evidence to support or refute propositions. This methodology was developed by the Facility and SCB.

The overarching theory that has guided the design of this Case Study methodology is based upon the goal of the Australia Awards that ‘... partner countries progress their development goals and have positive relationships with Australia that advance mutual interests’.

The Case Study research questions are framed by the intended long-term outcomes of the Australia Awards as guided by the Framework:

1. How do alumni use the skills, knowledge and networks gained on award to contribute to achieving partner-country development goals?
2. How are Australia Awards contributing to Australia's economic and public diplomacy outcomes?
3. How has being an Australia Awards alumni impacted alumni?
4. Are the benefits of receiving a scholarship experienced equally by all groups who have received them?

The primary unit of analysis for this Case Study is the alumnus or alumna. Case studies seek to explore how alumni of Australia Awards have acted to contribute to the achievement of the goal and objectives of the Australia Awards.

The case studies are being conducted via an iterative approach whereby the qualitative phase can be designed based on what is learnt from the initial quantitative phase. In essence, the Facility implements this by drawing on data collected through a Global Tracer Survey and using this data as one of the means of developing the focus and scope of a number of case studies carried out in the following year.

As such, the planning and initial scoping of this Case Study was undertaken on the basis of the Facility's Year 3 Global Tracer Survey, which surveyed alumni who completed their scholarships between 2011 and 2016.

Methods

The data collection method used for this Case Study was through interviews. A set of questions were developed for each key participant group, namely alumni, colleagues and employers (both of alumni and generally), alumni associations; and the DFAT staff, managing contractors, and coordinating authorities working on the Australia Awards in partner countries.¹³ Questions for each key participant group align with the research propositions (located at Annex 2) and long-term outcomes of the Australia Awards. This ensures that data collected directly relate to the key questions the case studies are seeking to answer and that there is consistency across each case study.

Sample

The alumni selected for this Case Study were chosen based on two key criteria: 1. that they had undertaken study in areas relating to engineering or infrastructure development; and 2. that they completed their study between 2011 and 2016. Within the sample selected for the research, the Facility also took into account where possible—gender representation, the inclusion of persons with disability, and a variety of employment types (e.g. sector and level of seniority).

The Global Alumni Database and the Year 3 Global Tracer Survey conducted by the Facility were the key means for identifying the potential sample for this Case Study. The research team looked at these sources, and focussed on alumni who had completed their studies in the field of engineering or information technology in order to focus on the overall thematic aim of the Case Study—examining the development of infrastructure in Samoa.

In total, based on analysis of the Global Alumni Database, 36 alumni were determined to have potential ‘fit’ within the population of focus. Of these alumni, three had also completed the Year 3 Global Tracer Survey.

Within this sample, where additional information was available—i.e. the development sector of focus from their scholarship, their current employment, contact details—alumni were selected to participate in the Case Study. The Facility invited nine alumni to participate, and of this group, seven were available and agreed to be interviewed. As per the table below, the sample included four women and three men.

¹³ Case Study Interview Guides can be found on the Facility's website: www.australiaawardstracerfacility.org

Table 1 Samoa Case Study alumni participants

Interview Date (2019)	Gender	Name	Scholarship years	Scholarship	Course & University	Current Position
8/10	F	Patience Kinnane (Hetherington Carruthers)	2008–2013	Australian Development Scholarships	Bachelor of Engineering (Civil Engineering) Victoria University	Waste Water Treatment Plant Operator, Melbourne Water Eastern Treatment Plant
22/10	M	John Faamau	2012–2016	Australian Development Scholarships	Bachelor of Engineering (Civil Engineering), University of Technology Sydney	Graduate Civil Engineer, Kramer-Ausenco
22/10	M	Siu Fanolua	2011–2014	Australian Development Scholarships	Bachelor of Engineering (Electrical and Electronic Engineering), Victoria University	Senior Engineer Development, Electric Power Corporation of Samoa
23/10	F	Moon Chan	2007-2012	Australian Development Scholarships	Bachelor of Biomedical Engineering, The University of Sydney	Principal Research Scientist, Scientific Research Organisation of Samoa (SROS)
23/10	F	Tausalaatoa Kolose	2013	Australian Development Scholarships	Master of Information Technology, The University of Newcastle	Manager of Information Technology Division, Land Transport Authority
23/10	F	Sunema Talapusi	2009–2013	Australian Development Scholarships	Bachelor of Biomedical Engineering, The University of Queensland	Principal Biomedical Engineer, main hospital Tupua Tamasese Meaole (TTM)
6/11	M	Leupena Malasia	2008–2011	Australian Development Scholarships	Bachelor of Engineering (Electrical and Electronic Engineering), Victoria University	Manager Wireless Engineering & Transmission, Bluesky Samoa

In addition to the alumni who participated in the Case Study, nine other people were interviewed in order to provide context, triangulate alumni perspectives and better understand the impact of the Australian scholarships on the outcomes for Samoa and Australia. These additional interviews included stakeholders such as the colleagues of two alumni, the Australian High Commission in Apia and stakeholders from a number of Government Ministries in Samoa.

The table below lists these participants. In total, 17 people were interviewed for the Samoa Case Study.

Table 2 Key stakeholder and employer/colleague interviews

Interview context	Date (2019)	Name	Position
Alumni employers or colleagues	22/10	Daniel Tait	Engineer, Kramer-Ausenco [Employer/manager of John Faamau]
	23/10	Sandra Seimi	Principal Quality Assurance—Clinical Laboratory, Tupua Tamasese Meaole (TTM) [Colleague of Sunema Talapusi]
	23/10	Folototo Leavai	Senior Registrar, Internal Medical Department, Tupua Tamasese Meaole (TTM) [Colleague of Sunema Talapusi]
Australian High Commission, Samoa	21/10	Tuileva Tuileva	Program Manager—Scholarships & Education, Australian High Commission, Samoa
	21/10	Julia Wheeler	First Secretary Education & Health, Australian High Commission, Samoa
Other stakeholders	24/10	Sarona Esera-Filipo	ACEO—Human Resources Development, Public Service Commission
	24/10	Tagaloa Sharon Aiafi	ACEO—Bilateral Aid and Training Division, Ministry of Foreign Affairs and Trade
	24/10	Ausetalia Tanuvasa	Principal Technical Officer Civil Aviation Division, Ministry of Works, Transport and Infrastructure
	24/10	Kalavini Maualaivao	Transport and Infrastructure Sector Project Coordinator, Ministry of Works, Transport and Infrastructure

Exclusions

As noted in the section above, all Case Study alumni were selected from the Year 3 Global Tracer Survey and the Global Alumni database. These sources only include those who have successfully completed their degree. Accordingly, this study excludes anyone who did not complete their scholarship.

Data collection

As part of the development of the interview questions for case studies, the Facility piloted all instruments with Australia Awards alumni who resided in Australia. Subsequently, questions have been reviewed annually and refined over the four years of the project. All interview guides can be downloaded from the Facility website: www.australiaawardstracerfacility.org.

This Case Study was conducted by Dr Daniel Edwards and Ms Leyna Clarke, Facility staff who bring relevant expertise in qualitative research and alumni tracing studies. These researchers worked together to undertake data collection and report writing: one conducted the interview and the other recorded and took notes. This enabled high-quality reliable data to be gathered. At the conclusion of interviews, the researchers discussed and verified the data to ensure completeness and accuracy.

Process

The Case Study field research was undertaken in Samoa from 21 October to 25 October 2019. Most interviews were conducted face-to-face during this period. The exception to this was interviews with two alumni: one who is currently working in Australia and who participated in a face-to-face interview in Melbourne, and another who was not in Samoa during the fieldwork dates, and participated in a telephone interview when he returned.

Alumni were requested to provide their resume to researchers where available for further background information. Participants were provided with background information relating to the research and the Facility, and all provided written informed consent to their participation and identification in reporting.

Data management and reporting

Interviews were voice recorded (with approval granted to do so). In addition, the Case Study researchers annotated responses during the interview. A transcription specialist transcribed all interview recordings. After the completion of the interview and transcription process, the Case Study researchers consolidated the written and oral recordings into a single near-verbatim transcript (with restarting of sentences and fillers excluded).

Coding and review

Interview scripts were subsequently coded using computer-assisted qualitative data analysis software, NVivo. This enabled emerging themes to be identified and links to be made between participants that supported or refuted the research propositions, as aligned with the long-term outcomes of the Australia Awards.

Analysis of the Case Study data involved a strategy that was guided by the theoretical proposition developed under the conceptual framework for the Case Study and by the techniques identified in the Facility's Case Study Approach document.

Case Study participants were sent segments of the report where clarification or review and approval were necessary—for this Case Study, this primarily involved cross checking with the Australian High Commission interview participants. Review by participants is not consistently used in qualitative research but was done so here to ensure the validity of the data and avoid errors.

Limitations

There were a number of limitations of this research that were inherent to both the nature of the research and the research process, as discussed below.

Positive response bias

It is probable that alumni who felt that they had a positive experience as an Australian Government scholarship recipient and/or had success in their career following their award are more likely to agree to participate in Case Studies. In a study by the Commonwealth Scholarship Commission in the United Kingdom (UK) (Mawer, 2014), recognition of positive response bias is highlighted:

...there is widespread recognition that a more pressing problem is nonresponse bias in which those who reply to sample surveys are likely to be engaged with alumni associations or tracing (e.g. Day, Stackhouse and Geddes, 2009) and disproportionately represent the 'successful' outcomes of scholarship programmes (p.9).

Accordingly, it is likely that the alumni in the Samoa Case Study had a positive bias towards their experience, outcomes and views of Australia. The Facility has developed interview questions and analyses approaches to reduce the impact of this bias—these are applied consistently across all case studies. Through this approach, leading questions are avoided and alumni are offered opportunities to reflect on their outcomes at the beginning and at the end of the interview without specific questions to guide their answers.

Nature of the research

Outcome 1 of the Global Strategy is: 'alumni are using the skills, knowledge and networks gained on award to contribute to achieving partner-country development goals'. However, some alumni have shaped development goals rather than contributed to them, and while it may be outside the purview of partner-country development goals that this research is being evaluated against, such contributions are still significant.

Throughout the research it has conducted, Facility has consistently experienced difficulty in evaluating Outcome 2 'alumni are contributing to cooperation between Australia and partner countries', and Outcome 3 'effective, mutually advantageous partnerships between institutions and business [have been developed] in Australia and partner countries'. These two outcomes are aligned with the second research question for the Case Study 'How are Australia Awards contributing to Australia's economic and public diplomacy outcomes?' There is an overlap and difficulty in differentiating 'cooperation' and 'partnerships'. The research team delineated them by determining that Outcome 2 relates to people-to-people links including informal relationships; whereas Outcome 3 specifically relates to institutional links between the partner country and Australia, which alumni have contributed to establishing.

No issues were encountered by the research team in collecting, collating, coding or analysing data related to Outcome 4 of the Australia Awards—'Alumni view Australia, Australians and Australian expertise positively'.

Research process

The ability to code the interview transcripts effectively is dependent on understanding the partner-country development goals, at the time these alumni were awarded their scholarships. Researchers involved in the Case Study made concerted attempts to identify relevant secondary data such as policy documents, papers, books and digital resources to provide background and insight into development plans, policies and changes over the time span of 2011 to 2016, the years of focus for when these alumni completed their scholarship.

Annex 2: Case Study Propositions

Explanatory case studies require the development of propositions that are intricately linked to the original research questions. A proposition is a statement that helps direct attention to something that should be examined in a Case Study. The researcher has to make a speculation, on the basis of the literature and any other earlier evidence, as to what they expect the findings of the research to be. When a Case Study proposal includes specific propositions, it increases the likelihood that the researcher can limit the scope of study and complete the project. The researcher can have several propositions to guide the study, but each must have a distinct focus and purpose. The data collection and analysis can then be structured in order to support or refute the research propositions.

For the Facility, propositions were formed using the Global Strategy outcomes as the basis. Sub-propositions were formulated by speculating on the underlying assumption or enabling factors that realise the proposition. In alignment with the methodology, instruments will be designed to collect data that both support and refute the propositions.

1. Alumni use their skills knowledge and networks to contribute to achieving partner-country development goals.¹⁴
 - a. alumni develop skills, knowledge and networks on award that enable and are used to contribute to achieving partner-country development goals
 - b. alumni understand, value and want to contribute to partner-country development goals.
2. Alumni are contributing to cooperation between Australia and partner countries
 - a. alumni possess and are able to leverage their useful networks and relationships.
3. Effective, mutually advantageous partnerships between institutions and business [have been developed] in Australia and partner countries
 - a. alumni possess and are able to leverage their useful networks and relationships
 - b. partnerships that are developed are effective and mutually advantageous to participating countries.
4. Alumni view Australia and Australian expertise positively
 - a. alumni's views are underpinned by their experiences in Australia.
5. The benefits of receiving an Australia Awards or scholarship are experienced equally by all recipients.
 - a. receiving an Australia Awards or scholarship positively addresses, rather than reinforces, imbalances that are associated with gender and disability.

¹⁴ This proposition differs from the Australia Awards Program Logic long-term outcome number 1 in order to link this proposition to the Goal of the Australia Awards Program. The use of the term 'partner-country development goals instead of 'sustainable development' makes the proposition and ensuing questions more relevant and relatable to alumni.

