



# The Global Foundation

*Together, we strive for the global common good*

## Pacific Islands Roundtable, Suva, Fiji, 2nd March, 2018



The Pacific Islands  
Roundtable

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## Agenda and Background information to the Pacific Islands Roundtable

The Global Foundation is a not for profit organisation, fully independent of governments and supported entirely by members and donors from the private sector, universities, and civil society. Its head office is based in Sydney, Australia and its scope of operations cover the world.

The Foundation seeks to serve the global common good and in so doing, promotes the concept of ‘*co-operative globalisation*’ and several related actions in support of this goal.

Two of these actions that have led to and intersect at the ***Pacific Islands Roundtable*** are as follows:

- Providing a further voice for the Pacific Islands, among others, in global affairs; and
- Encouraging action and collaboration by the private and public sectors, both globally and regionally, in taking action to address global climate change.

The meeting in Suva, Fiji enables a small, invited group, comprising a cross-section of invited contributors from business, civil society, universities, international institutions and governments, to meet with each other and also, with the leaders of the Anglican Communion, in particular, the Archbishop of Canterbury, His Grace, Most Reverend Justin Welby and the Anglican Primates from the Pacific region, who will be visiting Fiji at this time.

The ***Pacific Islands Roundtable*** meeting will discuss regional and global policy actions taking place or requiring further encouragement, following on from the most recent intergovernmental global climate talks, led by the Government of Fiji in 2017.

At the same time, the meeting will explore the progress being made in practical climate-related project actions in the Pacific and the potential for further private and public sector co-operation and investment.

Short briefs about these matters are enclosed.

The outcomes from the ***Pacific Islands Roundtable*** will inform and be discussed at the most significant global meeting of the Global Foundation, its ***Rome Roundtable***, that will next convene in June 2017.

## Attendees

### Global Foundation Members and invited guests

Mr Steve Howard, Secretary General, The Global Foundation; International Advisor, Asian Infrastructure Investment Bank (AIIB) (Chairman)

The Honourable Aiyaz Sayed-Khaiyum MP, Acting Prime Minister, Attorney-General, Fijian Government

Mr Cyrille Arnould, Head of GEEREF, European Investment Bank

Mr John Connor, Executive Director, COP23 Presidency Secretariat, Government of Fiji

Mr Ian Fraser, General Manager, GHD Asia Pacific

H.E. Sujiro Seam, Ambassador of France to Fiji

Mr Bob Lyon, Chairman, Fiji Development Bank

Rev'd Dr Bob Mitchell, CEO, Anglican Overseas Aid

Mr Frank Pegan, CEO, Catholic Super; Chair of Investor Group on Climate Change (Australasia)

Mr James Palmer, Fiji Country Manager, GHD

Ms Cristelle Pratt, Deputy Secretary General Pacific Islands Forum

Ms Louise Watson, Member of the Global Foundation Board, MD Symbol Strategic Communications

Dr Peter Wirth, Founder/Project Manager, The Barefoot Water and Sanitation Consortium

Representative, Asian Infrastructure Investment Bank (AIIB) - to be advised

### Members of the Anglican Communion

Archbishop Winston Halapua, Primate of AC Aotearoa, New Zealand, and Polynesia

Mr Fe'iloakitau Kaho Tevi, Advisor to Archbishop

Archbishop Justin Welby, Archbishop of Canterbury

Bishop Anthony Poggio, the Archbishops Adviser for the Anglican Communion

Archbishop Josiah Idowu-Fearon, Secretary General of Anglican Communion Office

Mr Phil George, Lambeth Conference Chief Executive Officer

Archbishop Philip Freier, Primate of AC Australia

Ms Anne Hywood, GenSec of AC Australia

Archbishop Philip Richardson, Primate of AC Aotearoa, New Zealand, and Polynesia

Revd Michael Hughes, GenSec of AC Aotearoa, New Zealand, and Polynesia

Archbishop George Takeli, Primate of AC Melanesia

Dr Abraham Hauriasi, GenSec of AC Melanesia

Archbishop Allan Migi, Primate of AC Papua New Guinea

Mr Dennis Kabebe, GenSec of AC Papua New Guinea

Bishop Robert Fitzpatrick, Bishop for Hawai'i and episcopal diocese of Micronesia

Bishop Andrew Hedge, Bishop of Waiapu

### Observers

Ms Gill Whiting, Anglican Communion Programme Coordinator at Lambeth Palace

Mr Lloyd Ashton, Media Officer (from AC ANZP)

Ms Natalie Kennaugh, EA to Archbishop Philip Richardson



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# COP23 Presidency Outcomes and Programmes

From the start of its Presidency of COP23 Fiji has been engaged in pursuing outcomes that will assist Fiji and the Pacific in dealing with climate change. In addition, Fiji in its role as President of the COP23 negotiations was able to oversee and guide progress on certain key aspects of the negotiations and oversee the launch of a number of new initiatives. Details of these are as follows.

## Negotiations

**2018 Talanoa Dialogue:** After extensive consultations, the Fijian COP23 Presidency announced an inclusive and participatory process that allows countries, as well as non-state actors, to share stories and showcase best practices in order to urgently raise ambition – including pre-2020 action – in nationally determined contributions (NDCs). This is ultimately to enable countries to collectively move closer to the more ambitious Paris Agreement goal of keeping the rise in global temperature to 1.5 degrees Celsius.

**Implementation Guidelines:** While important work remains to be done, COP23 made significant progress toward clear and comprehensive implementation guidelines for the Paris Agreement, which will make the agreement operational. This is crucial to help governments plan their low carbon economies and give confidence to investors and businesses that the low-carbon economy is here to stay. Countries will need to finalise the implementation guidelines at COP24 in Poland next year.

**Finalisation of the Gender Action Plan:** Countries finalised the first-ever Gender Action Plan, which aims to increase the participation of women in all UNFCCC processes. It also seeks to increase awareness of and support for the development and effective implementation of gender-responsive climate policy at all levels of government.





**Historic Breakthrough in Agriculture:** Countries reached a historic agreement on agriculture that will help countries develop and implement new strategies for adaptation and mitigation within the sector, to both reduce emissions as well as build resilience to the effects of climate change. This was historic because it was the first time in the history of the climate negotiations that countries had reached an agreement on agriculture.

**Finalisation of the Local Communities and Indigenous Peoples Platform:** This platform will provide direct and comprehensive means to give a greater voice to indigenous people in the climate negotiations and allow them to share their traditional knowledge and best practices on reducing emissions, adapting to climate change and building resilience.

**Adaptation Fund:** The Adaptation Fund was replenished with a total of US \$93.3 million, exceeding this year's funding target by US \$13 million. The Adaptation Fund has a track record of providing valuable resources to communities in developing countries for projects that help improve resilience to the effects of climate change. Projects may apply for funding to the Adaptation Fund Board, which reviews applications through a transparent process. Countries also took the important next step to ensure that the Adaptation Fund shall serve the Paris Agreement.

**First Open Dialogue between Governments and Non-State Actors:** The Fijian COP23 Presidency presided over the first ever Open Dialogue between governments and non-state actors (including civil society, local and regional governments and businesses) within the formal climate negotiations. Discussions were held surrounding two important topics. The first was how non-state actors can help countries design and implement more ambitious NDCs and the second was how to better integrate non-state actors into the climate negotiations process. Based on the success of the dialogue, there was strong enthusiasm to continue similar discussions at future COP meetings.

**Expert Dialogue on Loss and Damage:** Countries adopted a decision that will strengthen the Warsaw International Mechanism for Loss and Damage through the endorsement of the rolling five-year work plan of the executive committee (ExCom) and reaffirmation of the ExCom's ability to enhance its effectiveness. Importantly, countries





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also agreed to request the chair of the Subsidiary Body for Implementation (SBI) – one of two permanent subsidiary bodies to the UNFCCC – to organise an expert dialogue on loss and damage at the SBI session in 30 April to 10 May 2018. This dialogue will provide an important space to raise awareness about the vulnerability of Small Island Developing States and will explore options for mobilising expertise, technology and support for those affected by climate change.

**Launch of the Fiji Clearing House for Risk Transfer:** This new online resource will help connect vulnerable countries with the best available information on affordable insurance and solutions – tailored to their unique circumstances – that will allow them to better prepare for the risks posed by climate change.

## Global Partnerships

**Launch of Ocean Pathway Partnership:** The Fijian COP23 Presidency launched the Ocean Pathway Partnership to encourage the climate negotiations process to address the relationship between climate change and the ocean. In the true spirit of the Grand Coalition, the partnership will also consolidate existing work being done to create a coordinated effort among governments at all levels, existing ocean alliances and coalitions, civil society and the private sector to create a stronger link between climate action and a healthy ocean. The partnership will be co-chaired by Fiji and Sweden, who are joining forces again after leading the inaugural UN Ocean Conference in June 2017.

**Launch of InsuResilience Global Partnership:** The German Federal Ministry for Economic Cooperation and Development (BMZ) contributed 110 million euros (US \$125 million) to launch the InsuResilience Global Partnership for Climate and Disaster Risk Finance and Insurance Solutions to bring affordable insurance and other financial protection to millions of vulnerable people around the world. The contribution from BMZ follows a £30 million (US \$39 million) commitment that was made by the Government of the United Kingdom in July.

**Bonn-Fiji Commitment:** Local and regional leaders gathered to officially adopt the Bonn-Fiji Commitment of Local and Regional Leaders to Deliver the Paris Agreement at All Levels, a pledge that signals their commitment to bring forward a critical shift in global development. The Bonn-Fiji Commitment highlights the pledge to raise collective ambition for climate action.





**Health Initiative for the Vulnerable:** The World Health Organisation, in collaboration with the UNFCCC and the Fijian COP23 Presidency launched a special initiative to protect people living in Small Island Developing States from the health impacts of climate change. Its goal by 2030 is to triple the level of international financial support to climate and health in Small Island Developing States.

**America's Pledge:** A delegation of sub-national leaders led by Gov. Jerry Brown of California and former New York City Mayor Michael Bloomberg presented a report on the ongoing efforts by American states, cities, businesses and civil society to uphold the emissions reduction target of the United States under the Paris Agreement.

## **Regional Initiatives**

**Climate Action Pacific Partnership (CAPP):** Fiji held the Climate Action Pacific Partnership (CAPP) Conference on 3 - 4 July 2017 in Suva for accelerating climate action in the Pacific. Many of the ideas from this conference were fed into the Global Climate Action Agenda, which is the official UNFCCC process to boost cooperative action between governments, cities, business, investors and citizens to cut emissions rapidly and help vulnerable nations adapt to climate impacts and build their own clean energy, sustainable futures. A second CAPP event will be held in mid 2018.

**Launch of the NDC Regional Hub:** The NDC Partnership is establishing a new regional hub to support the implementation of NDCs in the Pacific. The Regional Pacific NDC Hub will be based in Suva, Fiji, and will provide expertise for developing regional solutions to mitigate global warming and enhance efforts by Pacific countries to adapt to climate change. Initial donors are Germany, the United Kingdom and Australia.

**Blue Carbon for the Pacific:** Working with Fiji and other Pacific countries, Australia will support efforts to protect and manage coastal blue carbon ecosystems in the Pacific. These ecosystems – mangroves, tidal marshes and seagrasses - sequester more carbon per square metre than almost any other ecosystem and play an important role as fisheries breeding grounds and natural buffers against coastal erosion from rising seas. AU \$6 million will be provided to strengthen blue carbon data, knowledge and capacity in the Pacific; support its integration into national greenhouse gas accounting and climate policy; and seek to catalyse public and private sector investment.





**Pacific Climate Finance and Insurance Incubator (the “Drua Incubator”):** The Fijian Government officially launched an important new initiative to develop finance and insurance products that are tailor-made to the needs and circumstances of vulnerable and low-income households in Fiji and other Pacific island countries. The Pacific Climate Finance and Insurance Incubator – known as the *Drua Incubator* – will bring together leaders in finance, investment and insurance to develop and “incubate” transformational and scalable financial and insurance products that meet the specific requirements of Pacific Small Island Development States. Together with support from the Asian Development Bank (ADB), the Government of Luxembourg will provide initial funding of 1 million euros for the initiative.

**Rural Electrification Fund:** Fiji is establishing the Rural Electrification Fund program working with the Leonardo DiCaprio Foundation, Sunergise, Fiji Locally Managed Marine Area (FLMMA) network, and Fiji Electricity Authority. The fund will provide the capital costs associated with bringing clean, renewable energy to off-grid rural communities in Fiji. By recycling the electricity fees paid by communities for clean, renewable energy back into the construction of clean energy systems for additional communities, it is intended that this new vehicle structure can be self-sustaining and could be replicated across the Pacific and other vulnerable nations.

## Domestic Initiatives

**Fiji Water and Wastewater Project:** Fiji has signed the financing arrangements for a project designed to improve access to sustainable water supply and sewerage services to approximately 270,000 Fijians in the greater Suva area. The US \$405 million project will take into account the increasing population and the need for more resilient infrastructure. The project is funded through loans from the ADB (US \$153.2 million) and EIB (US \$70.8 million), a grant by the Green Climate Fund (US \$31 million) and Government funding (US \$150.1 million).

**Low Income Household Insurance:** As outlined in the national Budget, Fiji has been working on the development of an insurance product that provides tropical cyclone insurance coverage for low-income households. This will be achieved through the implementation of a catastrophe risk insurance program featuring two products to provide tropical cyclone coverage: (i) property insurance for houses of low build quality that are still deemed insurable after some basic reinforcement, such as roof strapping; risk to be underwritten by domestic insurance companies; and (ii)





livelihoods protection insurance for low-income households whose houses are deemed uninsurable. Fiji is receiving support for this from ADB, World Bank and the International Finance Corporation.

**Sovereign Green Bond:** Fiji became the first emerging market – and third in the world – to issue a sovereign green bond to support climate change mitigation and adaptation. Green bonds are fixed income, liquid financial instruments that are used to raise funds dedicated to climate-mitigation, adaptation, and other environment-friendly projects. This provides investors an attractive investment proposition as well as an opportunity to support environmentally sound projects. The first tranche floated FJ \$40 million, and the week-long tender saw an oversubscription that ballooned to more than double that amount, with tenders received for FJ \$87.71 million.

**Legal Readiness for Climate Finance and Climate Change Act:** Fiji is undertaking a review of Fiji's legal readiness to implement its NDC based on work supported by the ADB. In addition, Fiji is looking to what other legal reforms can be undertaken to further support climate action such as the development of a national Climate Change Act.

**GCF Accreditation of the Fiji Development Bank:** GCF accredited the Fiji Development Bank (FDB) as the first development bank in the Pacific region to be a national direct access entity. The accreditation type is “micro”, which allows FDB to apply for funds up to and including US \$10 million for an individual project or an activity within a programme. This accreditation is a milestone for Fiji, as it means that Fijian projects now have direct access to GCF funds at the national level, with the FDB as the implementing agency. This means access to global public finance for climate action in Fiji.

**Launch of the Fundamental Assessment Report: Development of Fiji's NDC Energy Sector Implementation Roadmap:** The Global Green Growth Institute (GGGI) has worked the Ministry of Economy to identify the options for a pathway to follow in the development of the NDC Energy Sector Implementation Roadmap for Fiji. The objective of this Fundamental Assessment is to build the foundation preparing the NDC Energy Sector Implementation Roadmap. With the focus on identifying potential options for mitigation actions & interventions which contribute to the NDC goals, assessing barriers which prevent their implementation, identifying capacity building and technical assistance needs, to propose options for a emission reduction pathway, to identify



institutional arrangements to achieve the desired end results, and to highlight the need to Monitoring, Verification and Reporting (MRV) and baseline considerations.

**Launch of the Fijian National Adaptation Plan (NAP) Framework:** Launched at COP23, the Fijian Government is approaching its NAP as a continuous, progressive, and iterative process to ensure a systematic and strategic approach to adaptation in all government decision making. This approach aims to facilitate institutional coordination, stakeholder engagement, resource mobilisation, and – ultimately – effective adaptation actions.

**Launch of the new Ministry of Waterways:** Fiji is exploring opportunities to develop a project to manage and protect its numerous waterways, which are an important source of livelihoods, basic resources and transport. The new Ministry of Waterways has been set up to address the growing threat that flooding poses to Fijian communities, a threat that is projected to worsen due to the effects of climate change. The Ministry is responsible for the maintenance of drainage systems and management of waterways in Fiji, including creeks, tributaries and rivers. In its work to improve storm-water management, mitigate flooding and improve irrigation, the Ministry will incorporate aspects of hydrological forecasting, drainage surveillance and realignment, waterway dredging and river-embankment management. It will work with the GCF and others financiers to address its waterways challenges.

**Launch of Fiji's Climate Vulnerability Assessment:** During the World Bank/IMF Spring meetings in Washington, the Fijian Government requested the World Bank to carry out a Climate Vulnerability Assessment (CVA) of Fiji. The CVA launched at COP23 shows the vulnerabilities faced by Fiji, as well as possible solutions to tackle climate change and boost resilience. The objective of the CVA is to identify Fiji's key vulnerabilities to natural hazards and climate change and prioritise measures to strengthen resilience.





## **Embassy of France in Fiji, Statement on climate change, energy transition and related issues:**

France supports the Fiji Presidency of COP 23, providing in particular financial assistance to Amb. Khan in Geneva, to facilitate her participation in meetings and events on climate around the world.

France and Fiji engaged in a Memorandum of Understanding on “cooperation in the field of reduction of greenhouse gas emissions from ship”. This MoU provides for financial support and capacity building to allow Fiji to participate in the ongoing work in the International Maritime Organization, which is leading on the issue.

France supports the « e-POP » program, conducted by RFI (Radio France International) and IRD (Research Institute for Development), based on a network of young Pacific Islanders who produce short videos on climate change and sustainable development in Fiji, New-Caledonia, New-Zealand, Solomon Islands and Vanuatu.

IRD and the University of New-Caledonia in Noumea also have joint research programs in particular in the measurement of water, air and soil pollution in Fiji and New-Caledonia- France is chairing the International Coral Reef Initiative (ICRI) until June 2018 and in the context of the launch of the International Year of the Reef in Fiji has offered technical assistance to develop a National Coral Reef Strategy.

France convened the One Planet Summit to mark the second anniversary of the Paris Agreement on Climate on 12 December 2017. At that Summit, an initiative for Climate and Sustainable Development in the Pacific was announced, to be implemented by the AFD (French Agency for Development).

French companies (Akuo Energy and Mascara Technologies) specialized in solar energy and Solar/desalination technologies are interested in the Fiji Renewable Energy Market.



# RESPONSIBLE INVESTMENT ANNUAL REVIEW 2016/17

CSF Pty Limited, the Trustee of Catholic Super, has devoted considerable effort to Responsible Investment (RI) since early in the 2000s.

We have prepared this review on the main developments in the RI field at CSF Pty Limited (CSF) during the 2016/17 financial year. As this is our first review of this nature, we will also cover developments over previous years to give relevant context. You can also find our [Responsible Investment Policy](#) and [Climate Change Policy](#), as well as more general information on our approach, [HERE](#).

We intend to provide annual updates on our RI, and welcome input on the sorts of issues our members would like to see covered. Please feel free to contact us with ideas and suggestions.

This report covers eight major areas:

1. [Overview](#)
2. [Integration of ESG factors](#)
3. [Active ownership](#)
4. [Collaboration](#)
5. [Sustainability-themed investment](#)
6. [Climate change](#)
7. [Divestment/negative screening](#)
8. [Our new PositiveIMPACT investment option](#)



## 1. OVERVIEW

Our RI activities have four main components:

1. **Integrating Environmental, Social and Governance (ESG) issues** into our day to day investment decision-making through our process for selection and review of our external investment managers, and engagement with them.
2. **Behaving as an 'active owner'** of the companies in which we invest by engaging with them on a range of ESG issues and through exercising our right to vote at company meetings.
3. **Collaborating with other investors and industry groups** to address systemic, industry-wide RI/ESG issues that are best addressed through joining forces with others.
4. **Investing in sustainability-themed opportunities** where they meet our usual risk/return investment criteria, and at the same time generate a positive social and/or environmental impact.





## 2. INTEGRATION OF ESG FACTORS

As the overwhelming majority of our investments are externally managed, the main focus of our ESG integration effort entails:

- assessing the extent to which our existing and potential external managers embrace RJ thinking and incorporate it into their investment decisions, and
- encouraging our managers to enhance their performance in this area over time.



We classify our managers as Leaders, Improvers or Laggards and encourage them to move up through these categories (i.e. from Laggards to Leaders). Over the years, our main focus has been on managers of equity portfolios, as equities represent the majority of our assets. In the last year, we have been pleased to see material progress from a number of our managers. We have formally upgraded two of our listed equity managers from Laggard to Improver.

Since 2014, we have also been assessing property managers. Our assessment of property managers is greatly facilitated by our subscription to the Global Real Estate Sustainability Benchmark (GRESB), which undertakes a comprehensive assessment of more than 800 property vehicles globally (listed and unlisted), including funds offered by all but one of the unlisted property managers with which we invest. It is pleasing to report that CSF's managers, and Australian managers generally, perform extremely well in this survey relative to global peers. Indeed, CSF is invested in the property fund which achieved the highest rating of all 823 funds in the survey globally in the 2017 report. We rated two of our property managers as Leaders and two as Improvers (with one of those managers showing the potential to also be a Leader) based on a combination of the GRESB sustainability rating, the National Australian Built Environment Rating System (NABERS) energy efficiency rating and our direct engagement and meetings with fund managers.

The current ESG ratings of our listed equity and property managers are as follows:

Rating	Property & Infrastructure Managers	Listed Equity Managers
Leader	2	2
Improver	10	2
Laggard	8	0

We subscribed to the GRESB Infrastructure module, which was introduced in 2016. Infrastructure is an asset class where long-term sustainability issues are very much to the fore due to the long economic lives of the underlying assets and because the energy and transport sectors, which are strongly represented in infrastructure portfolios, have traditionally been heavy carbon emitters. Unfortunately, in the first year, the new GRESB service did not achieve very good coverage of the market, much lower than that of the property sector. Nonetheless, we expect that over time this will be addressed and that the GRESB Infrastructure service will enhance our understanding of our managers' position relative to global peers, and that pressure will be brought to bear on managers to enhance their performance on relevant ESG matters.

We note also that managers of fixed interest portfolios, particularly those with a credit orientation, have started to focus on ESG integration or, in some cases, report and communicate their long-standing efforts in this area. To date, we have not formally adopted ratings of our fixed interest managers but will do so as other priorities permit. We have invested in one credit strategy where sustainability analysis is a key part of the investment case (see section 5: [Sustainability-themed investment](#)).





### 3. ACTIVE OWNERSHIP

#### Engagement



Engagement involves participating in a dialogue with investee companies with a view to improving their standards of behaviour on various dimensions, often of an ESG nature. The purpose of engagement can vary but we see it as a way to, ultimately, reduce the risk and/or enhance the return generated from an investment in the company.

Engagement can be undertaken by investors individually or in collaboration with other like-minded parties. It is generally most effective when undertaken in a non-confrontational manner and "behind the scenes". We've had a dedicated engagement effort since 2003 when we became the second client of Regnan, now widely regarded as Australia's leading specialist in the area.



Engagement is a painstaking activity and it will always be impossible to know with certainty how companies would have behaved in the absence of the engagement with shareholders. Furthermore, there is a classic "free-rider" problem because all shareholders benefit from engagement activity, not just those who pay for it. Nevertheless, we believe that there is clear evidence that engagement has, over time, resulted in substantial behavioural changes by many companies across a wide range of industries. And progress has been greater in Australia than in many other countries due to the combined efforts of Regnan, the Australian Council of Superannuation Investors (ACSI), and a number of fund managers and other institutional investors. At CSF, we believe that we have played a role due to our early support of specialist engagement activity, and are proud to have done so.

As well as our early support for Regnan and ACSI in Australia, we also use the services of a specialist engagement service globally, being Bank of Montreal's Responsible Engagement Overlay (REO) service. We are one of a very small number of Australian superannuation funds contributing to engagement overlay services both in Australia and globally.

The key engagement issues or themes focussed on during 2016/17 were:

#### In Australia

- Climate change
- Water
- Human capital and conduct culture
- ESG disclosure
- Board diversity
- Remuneration

#### Globally

- Environmental standards
- Business ethics
- Human rights
- Labour standards
- Public health
- Corporate governance
- Social and environmental governance

#### Voting

We again voted on all resolutions put before General Meetings of the companies in which we invest directly in Australia, except for the stocks contained in one micro cap mandate (i.e. investing in very small companies) where the voting activity is delegated to the external manager. A summary of our voting over recent years is shown in the following table.

	Management Recommendation 2016	2015-2016 (2016)	2014-2015 (2015)	2013-2014 (2014)
<b>For</b>	1,593	1,492 (90.2%)	89.8%	90.1%
<b>Against</b>	15	135 (8.2%)	8.6%	8.0%
<b>Abstain/ Do Not Vote</b>	0	28 (1.8%)	1.6%	1.9%
<b>None (or Other)*</b>	47	0	0%	0%
<b>Total Votes</b>	<b>1,655</b>	<b>1,655 (100%)</b>	<b>100%</b>	<b>100%</b>

\* Resolutions where there is no management recommendation usually relate to proposals for remuneration of or grants of options or shares to non-executive directors, or in some cases for remuneration reports.



In 2016, we voted against management recommendations on about 8% of resolutions, which is broadly in line with the pattern of recent years.



The issue with perhaps the highest profile at company AGMs in Australia over recent years has been remuneration. The introduction of the so-called 'two Strikes' policy has given shareholders greater influence over remuneration practices at Australian companies. Under this policy, any company which receives a No vote on its remuneration policy exceeding 25% at successive AGMs is required to put a vote to spill its board to a subsequent general meeting. In 2016, some of the biggest companies listed on the Australian Stock Exchange received remuneration policy strikes from shareholders including Commonwealth Bank (51% Against) and CSL (26% Against). We were amongst the Against votes in both of these cases.

The influence of institutional shareholders was also seen in the withdrawal of contentious resolutions, including Director nominations, when it became clear that they lacked shareholder support and would be voted down.

Internationally, we note a new emergence of climate related resolutions. For international shares, our fund managers vote on our behalf because we invest via pooled or commingled funds where we do not have direct control. We review the voting behaviour of our managers and have specifically engaged with them in respect of their voting on these climate change resolutions.



## 4. COLLABORATION



Collaboration has been an important part of our RI effort for many years, and climate change has been a key focus of our collaboration. Our Chief Executive Officer, Frank Pegan, is Chairperson of the Investors Group on Climate Change (IGCC), a position he has held since 2009. In this capacity, Frank was invited to speak at a UN-sponsored climate change conference in New York in September 2014 and at the COP21 climate conference in Paris in November 2015. The New York conference was organised in an effort to enhance dialogue and build consensus on policy targets across the globe in preparation for the Paris COP21 meeting. The latter has been acclaimed as achieving a key breakthrough in global co-operation designed to address climate change.

More information on the various collaborative initiatives in which we are involved is provided in our [Responsible Investment Policy](#).



## 5. SUSTAINABILITY-THEMED INVESTMENT



In our [Responsible Investment Policy](#) we state our preparedness to undertake investments which will contribute to the social and environmental amenity of the world in which our members live and into which they will eventually retire. Any investments which we make with a sustainability theme must, however, meet standard risk/return criteria. We do not have a specific target for sustainability-themed investments as we believe that adopting such a target could lead us into investments which do not satisfy normal investment criteria, just to meet the target. Nevertheless, we have identified a number of strategies which we expect to deliver sound investment outcomes and which have a clear sustainability theme. Examples from previous years of significant unlisted investments in this category are:

- In 2013, we committed \$60 million to a global private debt fund which lends to small-to-medium-sized businesses which have a growth agenda with a clear sustainability angle. Interestingly, the second loan was to a company involved in food processing and which is based in Mill Park, a northern suburb of Melbourne. The investment period for this fund has now been completed and we are receiving distributions.





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- In 2014, we made a \$60 million commitment to a fund which invests in renewable energy and energy efficiency projects in developing countries. This Global Energy Efficiency and Renewable Energy Fund (GEEREF), was raised by an arm of the European Investment Bank. A number of European governments have contributed so-called "first loss capital" which tilts the risk/return profile in our favour. During 2016/17 we received the first distributions (repayments of capital and profits) from the Fund.
- In 2016/17:
  - We committed \$60 million to a fund which is undertaking utility-scale solar PV projects in Australia. To our knowledge, this is the first fund of its type in this country. Since 30 June, we have increased the size of this commitment to \$90m.
  - We committed \$90 million to a low carbon power fund which will invest in a range of renewables technologies across the US, and potentially the UK and Australia. We previously invested in a US solar PV fund managed by the key individuals who will be managing this new fund. That fund has since returned the capital, with a satisfactory return.



It is worth noting that in all of these cases we are an important part of the overall capital of the fund. Indeed, we are by far the largest private investor in GEEREF, the dominant investor in the Australian solar PV fund, the second largest (and only Australian) investor in the global low carbon power fund, and amongst the largest (and only Australian) investor in the global private debt fund. We see our preparedness to provide early support to strategies such as these as an important way in which we can contribute to Responsible Investment. Our early support can assist in the mainstreaming of such strategies, providing the managers with the opportunity to establish their credentials, possibly leading to larger follow-on funds. And by being early movers, we hope to achieve risk-adjusted returns exceeding those which will be available to later investors.

In the following table, we list the assets in our portfolio where:

- there is a clear sustainability angle to the strategy concerned, and the manager is a global leader in integrating sustainability into its decision-making, or
- the underlying assets generate renewable energy and therefore have inherent sustainability benefits. In some cases, the renewable energy assets form part of diversified infrastructure portfolios. In others, the strategy is dedicated solely to renewables.

Investment vehicle name	Commitment (USD \$ bn)	Invested (USD \$ bn)	Renewable energy assets as a % of portfolio (USD \$ bn)
<b>Global equities</b>			
Generation Investment Management	296.9	3.5	N/A
Stewart Investors	264.3	3.1	N/A
<b>Property<sup>3</sup></b>			
APPF Commercial	42.4	0.5	N/A
APPF Retail	59.0	0.7	N/A
APPF Industrial	97.2	1.1	N/A
GPT Office	67.1	0.8	N/A
<b>Global Credit</b>			
Generation Investment Management	26.3	0.3	60.0
<b>Renewables</b>			
Windfarms and peaking gas within Infrastructure Capital Group funds	56.2	0.7	N/A
Wind, solar and waste-to-energy within Macquarie Asia Infrastructure Fund	4.7	0.1	8.1
Lighthouse Solar Fund	36.2	0.4	60.0
Global Renewable Energy and Energy Efficiency Fund	49.4	0.6	60.0
Quinbrook Low Carbon Power Fund	0.0	0.0	88.0
<b>All</b>			
<b>Total</b>	<b>999.7</b>	<b>11.8</b>	<b>N/A</b>

<sup>1</sup> Value of the investment at 30 June 2017

<sup>2</sup> With some unlisted funds, we provide a commitment up-front. The committed amount is then drawn down progressively through an investment period as underlying investments are made. Through the life of the fund, we receive distributions of income and capital gains or losses. In this column, we show the original committed amount. It differs from the amount shown in the first column and can be higher or lower depending on where the fund is in its lifecycle. For the Macquarie Asia Infrastructure Fund, the figure shown is based on the renewables share of total assets as at 30 June 2017.

<sup>3</sup> We have only included in this table our investment in property vehicles which achieved very high rankings in the latest GRESB report.





## 6. CLIMATE CHANGE



Climate change is a key investment risk and an opportunity that we seek to manage on behalf of our members. Climate change is reflected across our integration efforts, our active ownership activities, our priorities for collaborating with others, and through our investments in sustainability-themed opportunities. Over the 2016/17 year, the most obvious aspect of our climate change response was the commitment to invest an additional \$150 million into renewable energy, as discussed in section 5: [Sustainability-themed investment](#).

More detail on our thinking on this issue is provided in our [Climate Change Policy](#) which has been approved by the Board and is overseen by the Investment Committee. Although we have been active in the area for many years, our Climate Change Policy came into force in 2016 and is reviewed on an annual basis. Some of the highlights of the policy include:

- **Beliefs:** The policy sets out in detail our investment beliefs with respect to climate change. Some key aspects of our beliefs are that:
  - climate change is already having physical impacts which are influencing investment outcomes in some areas
  - the world is at the relatively early stages of a decades-long transition to a lower carbon economy
  - as a result of mitigation efforts, some assets will become stranded (or may have already become stranded)
  - the transition to a lower carbon economy will also present investment opportunities, and
  - the integration of climate-related risks and opportunities into investment decisions is vital for enhancing our members' best interests as the low carbon transition process unfolds.
- **Engagement and Collaboration:** Engagement with companies, fund managers and policy-makers is important, and should be pursued either directly or, where this will achieve greater progress, in collaboration with like-minded parties.
- **Climate-themed investment:** We will undertake climate-themed investment which satisfies normal risk/return criteria. We will monitor investment undertaken under this banner and would like to see it increase as a proportion of total assets over time. The position as at 30 June 2017 is shown in section 5: [Sustainability-themed investment](#).
- **Reporting:** We will report to our members on our activities in this area, and hope to refine and improve this reporting over time.



One climate change related initiative of note is our support and commitment to the Montreal Pledge. We signed this pledge in 2015 and by so doing committed to measuring and reporting the carbon emissions of our listed equity portfolio on an annual basis. To conduct the measurement, we engaged the services of an independent organisation called Trucost, an acknowledged leader in the field. To date, three such measurements have been undertaken and reported.



As stated in our Climate Change Policy, over time we would like to see a reduction in the carbon emissions from our listed equity portfolio. So far, this has been seen in our global portfolio but not our Australian equities portfolio. We could reduce the carbon footprint of our portfolio by switching part of our existing portfolio into a strategy which is specifically structured to achieve this end. At least at this stage, we are not inclined to go down that path as we believe that:

- Such strategies are generally based on unconvincing data, run the risk of building in other unintended biases to the portfolio and more generally are not well-suited to achieving the favourable long-term investment returns which are our fundamental responsibility to members.
- Climate change is best addressed by a comprehensive approach spanning a range of activities and involving governments, companies, institutional investors and individuals acting in their daily lives. We consider that we are responding to the climate change challenge in a number of meaningful ways, as shown in this review.



## 7. DIVESTMENT/NEGATIVE SCREENING



From time-to-time, we receive requests for us to divest from our portfolio (i.e. sell our shareholdings) all stocks in companies involved in activities relating to issues such as tobacco, gambling, alcohol, fossil fuels, and the use of hydraulic fracturing (fracking) techniques in oil and gas production.

We frequently sympathise with the underlying concerns driving these requests, however we generally do not see divestment as a viable solution to the issues being raised. If we divest our holding in a particular company:

- In the absence of a concerted global campaign against the company concerned, it is likely to continue to operate in much the same way as it always has.
- The underlying consumer demand which the company is meeting will also continue unaffected by our divestment decision.
- We will have lost our opportunity as a shareholder to engage with the company to encourage it to improve its practices.
- It is likely that our shares will be acquired by another party which is less inclined to engage with the company concerned, reducing the likelihood that progress will be achieved.



With respect to fossil fuel/carbon, we strongly support a transition to a low carbon economy, but believe that it must be a gradual process extending over multiple decades. Ideally, we would have started this transition 20 years ago. As set out in our [Climate Change Policy](#), we believe that divestment from fossil fuel assets is not an effective way to achieve positive change in this transition process for two main reasons. Firstly, investors can have more influence over companies and their behaviour if they stay invested; once an investor sells a company they lose influence. Secondly, fossil fuels will retain an important share of global energy markets at least for a number of decades. Accordingly, the prospect is for a re-pricing of some 'at risk' high carbon assets and a reduction in the proportional contribution which fossil fuels make to meeting the growing global demand for energy as renewable energy sources and new technologies continue to grow.

This thinking also underpins our strategy of seeking out and investing in climate-related opportunities that can capture this transition process while at the same time producing solid risk-adjusted returns for our members. Our portfolio will transition over time as and when the attractive investment opportunities arise.





## 8. OUR NEW POSITIVEIMPACT INVESTMENT OPTION



At CSF, we believe that we were an early adopter of RI thinking and behaviours. The range of activities which we undertake under the RI banner is comprehensive and appropriate given the circumstances under which we operate. Importantly, we embrace RI thinking because we believe that by doing so we will deliver enhanced investment outcomes to members over the long term.

At the same time, we are aware that some of our members would like to have their superannuation investment concentrated in assets where there is a clear and tangible social or environmental impact. Because we have embraced RI over many years, we already have a number of strategies in our portfolio where there is such a clear and tangible impact. Accordingly, we introduced our new **PositiveIMPACT** option on 1 November 2017. This option is diversified across asset classes, but comprises only those strategies within each asset class where there is a tangible social or environmental benefit and/or where sustainability-driven thinking is integrated into decision-making at an advanced level. A number of the strategies included in this new option are mentioned in section 5: Sustainability-themed investment.



The listed equities strategies included in the PositiveIMPACT option do not incorporate explicit screens on the various areas which are most commonly the subject of divestment or negative screening pressures. Nonetheless, due to the philosophies and process of the managers we are using for this option, it is almost inconceivable that the portfolio will contain material exposure to activities such as those listed in section 7: Divestment/negative screening. Furthermore, due to the managers' philosophies and the depth of their fundamental processes, the portfolio will be invested in companies where standards of corporate behaviour across a wide range of important dimensions, and the focus on sustainability generally, will be extremely strong. Indeed, we expect that the standard of our portfolio on these broad quality and sustainability dimensions will exceed standards achieved in typical portfolios where explicit negative screens are applied. Accordingly, the PositiveIMPACT option may also be of interest to members who do not share our thinking on divestment vs. engagement.

More information on our PositiveIMPACT option can be found at [positiveimpact.com.au](http://positiveimpact.com.au), and is contained in our Product Disclosure Statement (PDS) and Investment guide.





## **New Infrastructure Platform**

### **Investment strategy: People – Planet - Profit**

In furtherance of leading international policies (SE4All, SDGs and the Paris Agreement), New Infrastructure Platform (NIP) will catalyze private capital to develop and improve energy and water infrastructure, increase access to both and facilitate a transition to a less carbon-intensive economy.

NIP will blend public and private capital to deliver economic and social growth in developing countries and provide private investors a risk-adjusted return. NIP would seek to directly raise [USD600/1000 m] from private investors on top of a [USD300/500m] from AIIB. NIP will catalyze further private capital and funds at projects levels.

NIP will finance the development and construction of infrastructures and distributed networks in developing countries with a specific focus on those infrastructures and networks with high social and environmental impact principally renewable energy, energy efficiency and clean water.

NIP will implement top-of-the-line ESM systems recognizing that “doing well and doing good” is the most sustainable investment strategy.

NIP will seed and/or invest equity or mezzanine in specialized regional investment vehicle to support i) the development of small and medium size projects and ii) catalyze other investors into these vehicles. NIP will invest directly in large projects equity and mezzanine.

NIP will focus on greenfield projects but also on selected existing projects to improve their economic and environmental performance. It will opportunistically buy and hold or trade assets in order to both provide an appropriate risk-adjusted return to its investors and develop a sustainable infrastructure markets in the countries and regions where it would operate.

NIP Blending: AIIB’s commitment would be subordinated to the capital of private investor. The subordination would be structured through the waterfall (the distribution of NIP’s income) in order to limit the private investors’ risk of losses and offer them a preferred return. Detailed terms to be agreed with AIIB.

NIP team will form an independent company to manage the platform.

The NIP team is built around years of working together to deliver on a triple bottom line: People – Planet – Profit

- ✓ We bring many years of experience in finance and developing countries;
- ✓ We believe that market mechanisms can be put to work to achieve SDGs;
- ✓ We are experienced in catalyzing private capital and blending it with public one for the benefit of all investors;
- ✓ We fuse the best of public funding, patience and impact with the best of private funding, efficiency and return;
- ✓ We are disciplinarian, only the success of projects will catalyze more capital, failure will scare it away.



## **FIJI WATER AND SANITATION PROJECT 2018**

It is widely believed that the practice of open defecation and use of pit toilets in villages in Fiji and other developing nations causes contamination of:

- 1/ drinking water, causing illness and death from water-borne gastroenteritis, especially in children
- 2/ damage to marine environments, resulting in adverse outcomes for fisheries and tourism.

This issue has great relevance to several of the 17 United Nations Sustainable Development Goals:

SDG 3 Good Health and Wellbeing

SDG 6 Clean Water and Sanitation

SDG 13 Climate Action

SDG 14 Life Below Water

The owners of the Barefoot Resorts in the Yasawa region of Fiji inspired this project as they saw first-hand the negative impact of the problem on the local coral reefs, the fish stocks, and the health of local villagers. As a doctor with a love of Fiji, I was drawn to the project.

Together, we have formed a consortium of 5 Australian and 2 Fijian universities to investigate and improve this problem in Fiji:

1. Deakin University
2. Royal Melbourne Institute of Technology (RMIT)
3. Queensland University of Technology
4. Griffith University
5. James Cook University
6. Fiji National University
7. University of the South Pacific

We have agreed to three stages:

Stage 1. Collect data to prove or disprove that the problem exists.

Stage 2. Trial of various interventions (ie water filters, septic tanks, etc)

Stage 3. Formally assess each potential intervention. Does it work, and can it be easily maintained in a village setting?

For Stage 1, we have built and equipped a laboratory/science centre on Barefoot Resort in the Yasawas.

It will analyse water samples from multiple marine and drinking sources across the Yasawas and Mamanucas. It will also be an education centre for teachers, nurses, doctors and community groups from the region. University visits and activity have already commenced this year!

We have lobbied the Fiji Government to apply for external aid funding, but have been unsuccessful. Therefore we have funded the laboratory entirely ourselves, but need more funds.

The Australian Government, via the New Colombo Plan and via the Endeavour Scheme, have funded the Australian universities FJD \$500 000 for each of the next three years to participate in this project.

One of our core commitments is to fund local Fijian students to participate alongside their Australian colleagues, in order to build local capacity and expertise.



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## The Pacific Islands Roundtable



Namanga International Airport Pavement Investigations



Cook Islands Airport Upgrade, Namanga International Airport

### Pacific Aviation Investment Program (PAIP)

**Faleolo International Airport, Samoa**  
The condition of the pavements at Faleolo International Airport had reached a point of deterioration that led airline operators to question the airport's serviceability. GHD was engaged by the World Bank's Technical and Financial Services Unit (TFSU) to provide a Pavement Inspection Report and make recommendations to resolve Foreign Object Damage issues.

The report documented various examples of defects, with recommendations being made for urgent action to address high severity defects in a holding pattern. GHD services included packaging up a short term repair strategy which provided technical assistance to the TFSU on rectification.

### Blauerfeld International Airport, Vanuatu

Following extreme weather events over the previous five years, the condition of the airfield pavements at Blauerfeld International Airport had deteriorated to the point that several leading airlines decided to cease scheduled international operations. GHD was tasked to inspect, recommend technical solutions, deliver technical documentation of the appropriate action, assist with contractor procurement and perform supervision services to the implementation of emergency short term repairs within a three month period. In addition, GHD was also responsible for airport operations for the 3 week construction period and the approximate 20 aircraft movements per day, commencing our ability to deliver innovative design solutions that enable fast delivery of projects and deliver cost savings at the same time.

These two projects clearly demonstrate our team's ability to deliver accelerated professional services and technical solutions within a very short timeframe, whilst maintaining technical advice on major infrastructure changes.

### Cook Islands Airport Upgrade, Rarotonga and Aitutaki

This project stems from the importance of achieving tourism destination excellence, improving transportation infrastructure and ensuring energy security through renewable sources, set out in the Cook Islands Government National Sustainable Development Plan for 2011-2015.

GHD was engaged by the European Investment Bank (EIB), on behalf of the Cook Islands Airport Authority (CIAA) to carry out feasibility, concept design and financial assessments for four elements of Rarotonga International and Aitutaki Airports. The purpose of the project was to assess the feasibility of a number of key aspects, which will influence the future development of the broader sector of the Cook Islands.

A number of options were presented to the client including terminal layout, runway length and layout, apron and taxiway, renewable energy options and development of local people & tourism, economic impact and representation of local needs.

### Outcomes

A 20-year strategic and financial plan were developed, including CIAA to apply for funding and loans for the expansion of the airport terminal, runway and other facilities.

The findings of all reports and a forward investment plan were presented to the Cook Islands Airport Authority and Cook Islands Government in December 2016.

### Pavement Investigations

In July 2016, GHD coordinated investigations on airside pavements to better understand weaknesses from previous pavement investigations, determining strength and repairing pavement. GHD assisted with the procurement of pavement investigation materials, tools, equipment and sampling methods that were trialled by Rarotonga for excellent use by the Airport maintenance personnel. All investigation holes were reinstated with a rapid set concrete process, ensuring active pavements could return to service within a short space of time. The samples were carefully being shipped to New Zealand for laboratory testing.

### GLS Survey

In 2015, GHD was commissioned to undertake a topographic survey and create an GLS survey report to identify obstacles impacting the Cook Islands Limited Surface. Obstacles that could not be moved were recommended to be marked or if a programme be implemented to manage the height reduction of some obstacles to acceptable limits. A unique feature of the GLS survey was that an airborne drone was implemented as the most cost effective and dependent method to collect topographical information to an appropriate level of accuracy over the airport area in the remote Pacific location, with the data used to undertake the GLS assessment as well as be used for any future design work.

## GHD project Our work in the Pacific



Faleolo International Airport, Samoa



Blauerfeld International Airport, Vanuatu

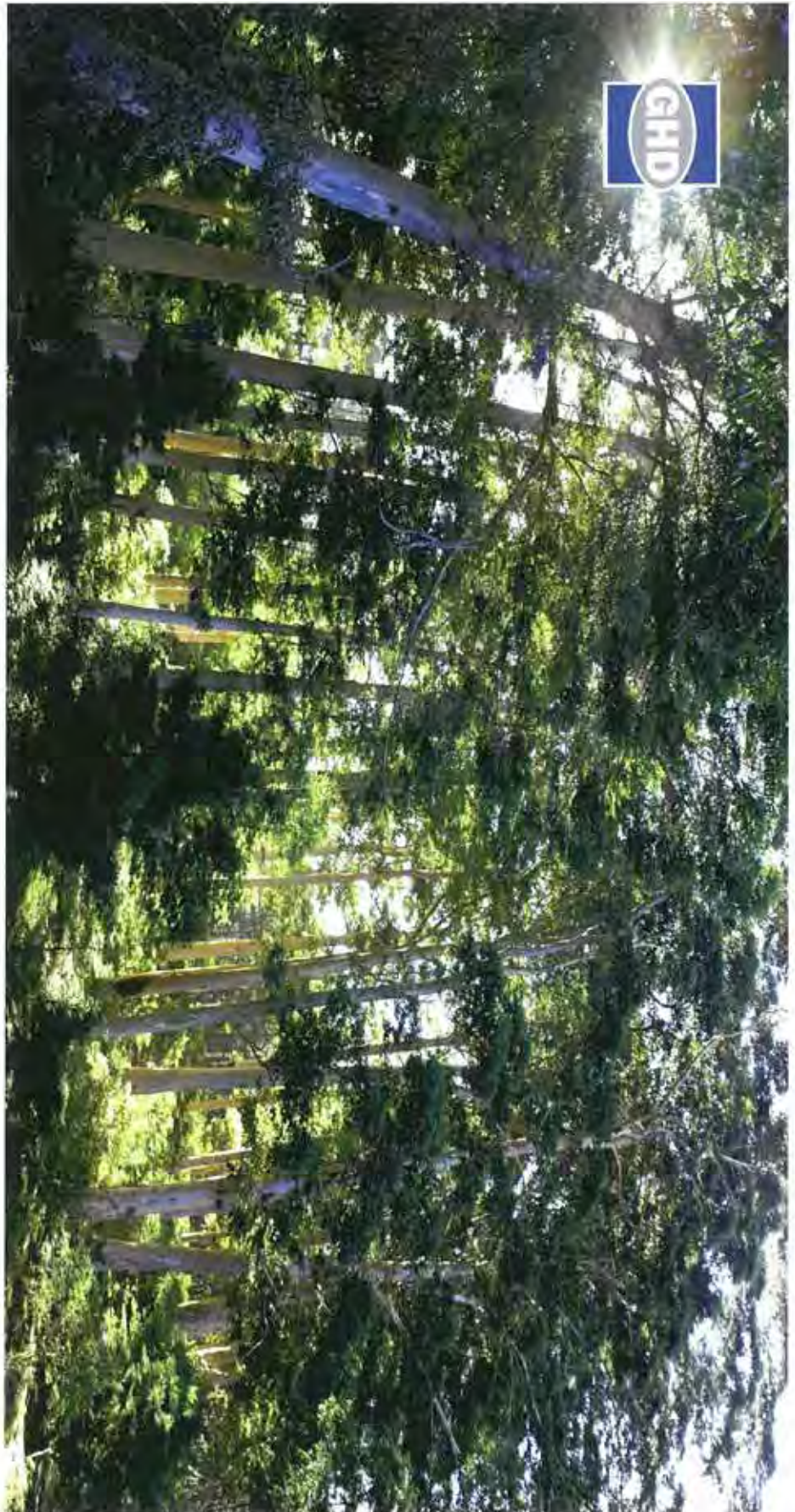




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## **GHD Experience in Climate Change**

2 June 2017





## Client

Asian  
Development Bank

## Project

### Climate change adaptation and mitigation

#### Strategic Program for Climate Resilience - Climate Change Consultancy Team (46495-001), TA-8362 PNG

The PPTA aims to design the Building Resilience to Climate Change project, focusing on climate change adaptation, based on a prior review of PNG's current climate change policies, legislation, and institutions and an assessment of the needs and gaps in the country's climate change response, including those related to climate change financing. It will (i) evaluate the technical, economic, and financial viability of proposed interventions; (ii) conduct poverty, social, and gender impact analyses as well as safeguards assessment (environment and involuntary resettlement); (iii) assess financial management, procurement, anticorruption measures, policy and legal capacity, and other institutional issues and mechanisms; (iv) propose the appropriate implementation arrangements, including funds flow and financial disbursement; and (v) prepare a procurement plan and a Project Administration Manual (PAM).

- Conduct vulnerability assessment of potential project sites and recommend criteria for project site selection in close consultation with the Government;
- Incorporated climate change risk management, through climate proofing and other measures in the preliminary engineering designs of the coastal infrastructure facilities;
- Identified and discussed the adaptation objective with all relevant stakeholders and propose mechanisms for beneficiary involvement in climate change adaptation and risk management, including adaptive capacity development for vulnerable communities;
- Conducted an analysis of the policy, legal, and regulatory framework to implement climate change adaptation interventions, including the identification of gaps that need to be addressed;
- Prepared the feasibility studies of the proposed components and the project design details and documentation, including RRP, PAM;
- Identified and prepared the preliminary design of infrastructure solutions that are suitable to the changing climate conditions in the Project sites;
- Verified construction and maintenance cost estimates for facilities selected for upgrading or new construction; Identified climate-proofing options for the selected infrastructure investments;
- Checked and finalized cost estimates for climate proofing of infrastructure for improvement or construction under the Project.







Client	Project
Asian Development Bank	<ul style="list-style-type: none"> <li>• Prepared financial and economic analyses of the overall Project and its components; identify and conduct cost-benefit and/or cost-effectiveness analysis of adaptation options, taking into account engineering, environmental, and socioeconomic perspectives including economic assessments; prepared cost estimates, financing plan, and procurement packages for the Project;</li> <li>• Conduct financial management assessment (FMA) of relevant agencies to ensure that their financial management capacity is adequate to implement the proposed Project;</li> <li>• Assessment of the potential environmental impacts of the proposed project and Preparation of the initial environmental examination (IEE);</li> <li>• Organizing and documenting stakeholder consultations, Conduct of stakeholder analysis and preparation of a consultation and participation strategy for the Project, Assessment of the potential poverty and social (including gender and indigenous peoples) impacts of climate change and the proposed project interventions;</li> <li>• Conduct a comprehensive review of climate change financing for Pacific developing member countries (DMCs);</li> <li>• Estimate current and future financing requirements for climate change initiatives in PNG; and</li> <li>• Prepare recommendations for setting up the Trust Fund or Small Grants Fund, specifying its purpose, financing modalities, implementation and governance arrangements and mechanics, timelines, subproject and/or grant selection and approval criteria, and indicative estimates of resource requirements.</li> </ul>
<b>Strengthening Climate Risk and Resilience Capacity of Pacific Developing Member Countries (PMDG) (Phase 1) (TA 7287-REG), Tonga and PNG</b>	<p>The R-CDTA across Tonga and PNG was an initiative under the Strategic Climate Fund (under the Pilot Program for Climate Resilience) under the Climate Investment Fund (CIF). The objective of PPCR was to help strengthen climate adaptation risk and resilience planning in Pacific developing member countries (DMCs). The R-CDTA implement edPPCR phase I (2010-2011) for PNG and Tonga. PPCR Phase I aimed to (a) prepare a detailed design, or Strategic Program for Climate Resilience (SPCR), for PPCR Phase II (2011-2015) and (b) undertake institution-strengthening, capacity-building and awareness-raising activities necessary for Phase II (investment phase, 2011-2015) effectiveness. PPCR PNG and Tonga Phase 1 country assistance was to support (a) mainstreaming climate change adaptation into core development planning and budgeting of ministries/agencies responsible for provision of infrastructure, noting that</p>
	



Client	Project
Asian Development Bank	<p>economic, social and health impacts (eg. dengue and vector borne diseases and livelihoods impacts) will also be included as important considerations in PPCR infrastructure design and implementation; (b) strengthening engagement of civil society (including research institutions), private sector and consideration of gender impacts; and (c) detailed assessments and related activities that will lead to the preparation of the SPCR for each country, linked to the regional SPCR. The PNG and Tonga SPCRs will identify and proposed specific investments for mainstreaming climate change, up-scaling climate resilient investments, climate proofing infrastructure, and build capacities for effective climate change adaptation in development planning and implementation at the national level. GHD was in charge of overall project management and assisting the team to fulfill responsibilities with regards to close collaboration with PNG and Tonga governments, preparing key documents, leading needs assessment capacity building report, drafting SPCR, developing and implementing a detailed project plan (inclusive of Monitoring and Evaluation), and regularly reporting of project implementation. GHD also managed key climate change mainstreaming tasks that include: assessment of identification of capacity constraints, developing national guidelines and manuals for integration of climate change factors in infrastructure planning, vulnerability assessments, assessment of climate change resilience gaps in agencies, and capacity building in climate change integration. Lastly, GHD will be engaged in overall civil society engagement, which will included: capacity needs assessment report, develop targeted information products, identify and operationalize opportunities for civil society, and develop approaches for integrating gender concerns into climate change adaptation through pilot projects.</p>
	<p><b>Climate Change Adaptation in Asia and the Pacific (TA420 REG), Philippines, Lao PDR, Cambodia, Viet Nam, Thailand, Indonesia</b></p> <p>The ADB is responding to the challenge of climate change by taking an active role in promoting the mainstreaming of mitigation and adaptation considerations throughout the Asia and Pacific Region. The bank's Climate Change Implementation Plan (CCIP), currently in draft form, is envisioned as an aspirational guiding framework to enable Regional Departments to leverage additional climate change investments funds, and help their respective Developing Member Countries (DMCs) develop and implement region-wide, country-specific and sectoral climate change investments and action plans to 2015. This CCIP needs to be formulated at the level of each Regional Dept, in parallel with the formulation of other RD CCIPs, and in alignment with each DMCs Country Partnership Strategy (CPS) and Country Office Business Plan (COBP).</p> <p>GHD supported the Southeast Asia Regional Dept (SERD) Focal Point to develop the adaptation component of SERD's CCIP. Tasks assigned included:</p>







Client	Project
DFAT (AusAid)	<p><b>A. CCIP Outline</b> – Identify key issues and needs, key DMC stakeholders/focal points, and priority sectors and investment activities; Review ADB's climate change related documents and become acquainted with target Regional adaptation priorities, and ongoing subregional and country programs relevant to CCIP; Support SERD climate change focal point to help formulate adaptation components of a CCIP outline and strategic framework for the SERD CCIP.</p> <p><b>B. Desktop Stocktaking</b> – Conduct a stock-taking of target DMC climate change documentation including mapping of key national, bilateral and multilateral climate change initiatives for adaptation, including relevant links to disaster management.</p> <p><b>C. Draft CCIP</b> – Write adaptation text for draft CCIP, reflecting SERDs priority sectors; Help identify operational entry points for the incorporation and mainstreaming of complementary and stand-alone adaptation interventions in existing and future projects; Identify policy options/mechanisms to be implemented within ADB, DMCs, the private sector and at the community level/NGOs to reduce vulnerability to climate change impacts.</p> <p><b>D. Stakeholder Consultations</b> – Conduct DMC field visits; Advise on status of target DMCs; identify appropriate adaptation tools, policies and practices for RSES &amp; CCIP consideration.</p> <p><b>E. Final draft CCIP</b> – Incorporate adaptation inputs from participating DMC stakeholder &amp; SERD consultations, and help finalize SERD CCIP.</p> <p><b>F. CCIP Approval and CPS/COBP Inclusion</b> – Facilitate/assist approval process, through target SER; Recommend possible incorporation of adaptation text for projects in each DMC's CPS &amp; COBP; Facilitate inter-departmental and country consultations to share lessons learned; and foster dialogue and buy-in of the CCIP</p>



**Australia China Environment Development Program, China**

The goal of the Australia China Environment Development Program (ACEDP) was to support China's policies for a better environment through a program of science based strategic responses. The Program was implemented through three components: Component 1 Environmental Governance and Dialogue (strategic response 1 and 2 above); Component 2 Integrated River Basin Management (strategic response 3 and 4); and, Component 3 Program Management. The initial focus of program activities was effective integrated river basin management and water resource allocation and pricing. Subsequently, the scope of program activities widened to include other environmental issues of common interest to both countries including climate change and pollution control.

GHD is the Managing Contractor responsible for the implementation of all program activities. Program management responsibilities included:



Client	Project
<p>Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH</p>	<ul style="list-style-type: none"> <li>• Management of a rolling Annual Planning process: working closely with agencies such as SEPA and MWR to identify China's key environmental issues and to design program activities in conjunction with appropriate Australian agencies such as Murray Darling Basin Commission, Department of Environment and Water Resources, CSIRO and others.</li> <li>• Management of programmed activities: including management of an US\$ 15,000,000 Imprest Account, quality assurance and monitoring and evaluation of program outcomes against objectives.</li> <li>• Detailed progress and financial management reporting.</li> <li>• Provision of technical expertise for the evaluation of technical issues and the provision of support to program activity teams.</li> </ul>
<p>Asian Development Bank</p>	<p><b>Adaptation to Climate Change and Conservation of Biodiversity, Philippines</b></p> <p>The ACCBio Project aims to develop and implement relevant adaptation strategies to compensate the effects of climate change and loss of biodiversity in selected areas of the Philippines. It is funded under the BMU International Climate Protection Initiative and implemented by the Department of Environment and Natural Resources (DENR) with support from GTZ. The process adapted by the project requires Sector Specialists/Consultants to support the technical working groups in the development of climate change adaptation strategies for the eight priority sectors: water, biodiversity, forestry, coastal and marine, agriculture, health, infrastructure and energy.</p>  <p>GHD team was in charge of preparation of an annotated bibliography based on the outline agreed with the TWG Chair and Co-Chair. Preparation of discussion papers and presentations for TWG consultation-workshops and IACC meetings. Participation in TWG meetings, stakeholder consultations and workshops; sector specialist meetings organized by Secretariat; National Conference on Climate Change Adaptation; Regional consultation workshops and other meetings called by the EXECOM or Steering Committee. - Ensure integration of cross-sectoral concerns in the discussion and strategy papers. Formulation, revision and preparation of the final draft sectoral adaptation strategies based on multi-stakeholder workshops/consultations with TWG members and comments of the IACC.</p> <p><b>Risk Mitigation and Strengthening of Endangered Reservoirs in Shandong Province, China</b></p> <p>The technical assistance (TA) will help SPG prepare an investment proposal for risk mitigation and strengthening of endangered reservoirs. The impact of the Project will be to enhance the safety and quantity of water for people, property, and the economy of downstream areas in Shandong province. Indicators and performance targets for the impact are: decreased threat of reservoir</p>






Client	Project
Santos	<p>failures, increase in irrigation, hydropower, and water supply; and improvement of flood control. Detailed and specific targets and measurable indicators will be set during TA implementation.</p> <p><b>Management of Climate Change Risks</b></p> <p>Assessment of Santos' management of current and future climate change risks in Australia and provision of advice to the Board on potential actions for managing these risks. Outcomes included:</p> <ul style="list-style-type: none"> <li>• Knowledge of wide range of climate change risks and potential impacts for a large oil &amp; gas company</li> <li>• In-depth knowledge of the risk associated with current and future infrastructure development projects in relation to climate change</li> <li>• Understanding of the types of programs implemented by infrastructure owners to respond to climate change</li> </ul>
Camden Council	<p><b>Camden Council Climate Adaptation Plan, Australia</b></p> <p>GHD was engaged to prepare the Climate Change Adaptation Plan development for Camden Council. The region will experience rapid population growth out to 2040 and beyond, and this will need to be managed while also monitoring and adapting to a projected changing climate. The adaptation plan will address these and also have an aim to meet key sustainability community well-being indicators within the region.</p>
Worsley Alumina Pty Ltd	<p><b>Worsley Alumina Climate Change Committee Advisory</b></p> <p>Worsley engaged GHD to provide advice in a peer review capacity on the development and practical implementation of climate change and greenhouse gas management strategies of Worsley Alumina Pty Ltd that assisted Worsley to meet its desired greenhouse gas management outcomes. Tasks included:</p> <ul style="list-style-type: none"> <li>• Providing advice on the structure and operation of the Greenhouse Gas Strategic Management Team</li> <li>• Providing written and oral advice on development and implementation of greenhouse gas and climate change management strategies and reports</li> </ul>
Department of Environment and Energy	<p><b>International Blue Carbon stocktake</b></p> <p>The Australian government is a participant in the International Partnership for Blue Carbon (the Partnership), in which the Department of Foreign Affairs and Trade (DFAT) and Department of the Environment and Energy (DoEE) are the representative agencies.</p>

**Policy and Governance**



Client	Project
Melbourne Water Corporation	<p>The Partnership was launched by the Australian government at COP21 in Paris with the objective of increasing the collaborative understanding of coastal blue carbon ecosystems and their role in addressing climate change.</p> <p>The Partnership includes governments, non-profit organisations, intergovernmental agencies, and scientists, who have developed strategic objectives, governance arrangements, and an initial 'roadmap' of activities to guide and accelerate further work in blue carbon. This roadmap will provide a foundation to better understand the opportunities for intertidal marine ecosystems such as seagrasses, mangroves and saltmarshes to contribute to carbon dioxide biosequestration and emissions reduction.</p> <p>These coastal ecosystems also provide critical ecosystem services, such as support of biodiversity conservation, fisheries habitat protection, water filtration and disaster risk reduction.</p>
Department of Agriculture, and Water Resources	<p><b>Carbon bio sequestration and native vegetation offset opportunities</b></p> <p>This project reviewed both the bio sequestration and native vegetation offset opportunities available to Melbourne Water available under existing regulatory and voluntary frameworks. It included more detailed analysis using four case studies in order to illustrate how the opportunities available to Melbourne Water might be implemented. The project also quantified the current and potential future carbon stocks contained in trees and/or soil for each of the case studies. Some of these represented actual plantings carried out by Melbourne Water or other landowners, while others were hypothetical simulations. Key eligibility and legal requirements were considered and cost benefit analysis also undertaken.</p> 
Department of Environment and Energy	<p><b>Carbon Farming Initiative / Emission Reduction Fund case studies</b></p> <p>GHD prepared a series of case studies for the Department of Agriculture, and Water Resources to be used as a guide to demonstrate the factors that should be taken into consideration by landholders prior to implementation of a CFI/ERF permanent environmental plantings project.</p> <p>The five case studies covered mixed farming enterprises and a range of climatic regimes in NSW, Queensland and Western Australia.</p>
	<p><b>Specialised review of SLEEK project</b></p> <p>On behalf of the Federal Department of the Environment, GHD led a three-person specialist team, which reviewed a three-year project using the OECD-Development Assistance Committee guidelines for evaluating development assistance. The System for Land-based Emissions Estimation in Kenya (SLEEK) is assisting the Government of Kenya to build a highly integrated system for measuring, reporting and verifying land based emissions. The system will ultimately enable Kenya to meet future emissions reporting requirements, engage in carbon markets and evaluate different land use scenarios for sustainable development</p>





Client	Project
Asian Development Bank	<p><b>Global Environment Facility project</b></p> <p>Carbon Sequestration Specialist for the Asian Development Bank/Global Environment Facility project that prepared a Country Programming Framework to address land degradation in the western region of China. Key tasks included an assessment of the carbon sequestration potential of western China and the identification of priority reforestation and grassland rehabilitation areas for achieving improved land management and biodiversity conservation in the region over the next 10 years.</p> <p>Following from project listed above, developed and lead a 10 day study tour visit to Australia by Directors of relevant Chinese Ministries to visit key agencies and sites addressing land degradation and climate change in Australia. Meetings were held with key agencies in Australia including the Australian Greenhouse Office and the Department of Environment and Heritage, and rural field sites were visited between Sydney and Melbourne.</p>
Department of Environment and Energy	<p><b>Supporting Indigenous involvement in carbon trading</b></p> <p>GHD was contracted by the Department of Environment and Energy to support the involvement of Indigenous Australians in carbon trading. The first stage of this work involved developing and running a series of workshops explaining the scientific, economic and legal issues associated with establishing carbon sink plantations. The team then worked with four Indigenous organisations to help them with the feasibility/business planning process for their potential carbon projects.</p> <p>As part of this process a draft "Help Guide" was prepared to help other Indigenous groups to step through the feasibility/business planning process for their potential carbon projects.</p> <p>With funding provided by the Indigenous Carbon Farming Fund, two additional feasibility studies have since been undertaken of carbon potential on Indigenous land, one in Northern NSW and the other for Yamaji Maripja in WA.</p>
Lachlan CMA	<p><b>Improving methods to reliably estimate carbon sequestration of environmental plantings</b></p> <p>GHD was engaged to provide a detailed analysis of the market opportunity that exists relating to reforestation projects in the Carbon Pollution Reduction Scheme.</p> <p>GHD evaluated the opportunities and impediments to carbon trading by the Lachlan CMA, and discussed options for suitable investment models.</p>
Department of Environment and Energy	<p><b>Analysis of the potential market for carbon credits with Indigenous co-benefits</b></p> <p>GHD provided the Department of Environment and Energy with policy advice about the potential for a premium market in carbon credits from projects that have Indigenous co-benefits.</p>





Client	Project
<p>Department of Environment and Energy</p>	<p>The project investigated the potential demand for such credits as well as the potential supply in order to determine whether the size of the market was sufficient to justify the development of an Indigenous co-benefit standard.</p> <p><b>Forest sinks workshops</b></p> <p>GHD conducted a series of 12 regional workshops, under the Australian Government's Forest Sinks and Regional NRM Support Program to build capacity in undertaking forest sink activity and integrating climate change issues with approaches to natural resource management. The workshops also provided an opportunity to introduce the latest version of the National Carbon Accounting Toolbox.</p>
<p>Department of the Environment and Energy</p>	<p><b>Technical assessment of ERF vegetation methodology determinations</b></p> <p>GHD was engaged by the Department of the Environment and Energy to conduct the technical assessment of the following Emissions Reduction Fund (ERF) vegetation sequestration methodology determinations as part of the DoBE's method determination assessment process:</p> <ul style="list-style-type: none"> <li>• Avoided clearing of native regrowth</li> <li>• Reforestation and afforestation</li> <li>• Degraded woodlands in Australia</li> </ul> <p>GHD conducted detailed analysis and comprehensive reporting on the draft determinations against the criteria set by the DoBE. GHD analysed a number of areas including CFI legislation, calculation rigour, project requirements, additional requirements, net abatement amounts, offset reporting requirements, record keeping and monitoring requirements and technical robustness.</p>
<p>Devine Agribusiness Carbon</p>	<p><b>ERF audits under Native Forest from Managed Regrowth Methodology Determination.</b></p> <p>GHD has undertaken 12 reasonable assurance audits of ERF sequestration projects located in south west Queensland. GHD conducted assurance processes to provide reasonable assurance over the projects' offsets reports and application to create Australian Carbon Credit Units (ACCUs) under the ERF Native Forest from Managed Regrowth Methodology Determination.</p>







Client	Project
CO2 Australia	<p><b>ERF audits under Reforestation and Afforestation and Human Induced Regeneration Methodology Determinations</b></p> <p>GHD has undertaken 14 reasonable assurance audits of ERF sequestration projects under the ERF Reforestation and Afforestation Methodology Determination.</p> <p>GHD has undertaken preliminary audit procedures for three projects under the ERF Human Induced Regeneration Methodology Determination</p>
Greening Australia	<p><b>Emission abatement study and project monitoring plan</b></p> <p>GHD prepared an emission abatement study and project monitoring plan on behalf of Greening Australia. The emission abatement study described Greening Australia's approach to estimating the emissions and abatement from eligible land areas within the Gondwana Link Project.</p> <p>The project monitoring plan included Project organisation; Operational control; Training and competence; Corrective and preventative action; Monitoring equipment; Data and Records</p>
Greenfleet	<p><b>Audit of forest management systems</b></p> <p>Greenfleet requested GHD undertake a third party audit of Greenfleet's progress to ensure that Greenfleet's forest management systems, developed in preparation for Greenfleet's Greenhouse Friendly (GHF) approval as an Abatement Provider, are being implemented as required under GHF.</p>
GBCMA	<p><b>Multiple carbon offset projects</b></p> <p>Development of a funding application and delivery of a pilot multiple environmental benefit carbon sink project with landholders and government agencies, including training on carbon sink establishment and monitoring for the GBCMA.</p> <p>Prepared a Greenhouse directions paper for the GBCMA to assist with the inclusion of climate change and greenhouse gas abatement and management in the Regional Catchment Strategy.</p> <p>Prepared a Greenhouse Gas Abatement Program funding proposal to the Australian Greenhouse Office on behalf of GBCMA. Several important land management projects providing significant greenhouse gas abatement were identified, including reducing nitrous oxide and methane emissions from agriculture, and carbon sequestration through the establishment of commercial farm forestry and native reforestation.</p>
SFM Australasia	<p><b>Carbon offset project development</b></p> <p>Development of projects designed to produce long term sustainable income through the establishment of forests in over cleared landscapes in Australia and New Zealand using forest landscape restoration principles. This included:</p> <ul style="list-style-type: none"> <li>Review of operations and strategy development to improve integration of carbon plantings with agriculture</li> </ul>



Client	Project
NSW agriculture	<ul style="list-style-type: none"> <li>Design of Carbon Loan facility to share risk and return with private landowners from integrated revegetation projects</li> <li>Developed business case to establish mixed species tree plantations in Australia and New Zealand as a means to improve investment returns and minimise long-term risk</li> <li>Developed Greenhouse Friendly application to become an approved greenhouse gas abatement supplier in Australia</li> <li>Developed the first forest project registered in New Zealand to create carbon credits under the Permanent Forest Sink Initiative</li> <li>Member of the international Standards Committee that revised the Climate, Community and Biodiversity Alliance Project Design Standards</li> <li>Development of biodiversity monitoring plan for 2,700 hectares of remnant vegetation on project land in Western Australia and establishment of a biodiversity funding agreement for management of 132 hectares of remnant vegetation in South Australia</li> </ul>
Australian Aid	<p><b>Development of the Indonesian National Carbon Accounting System (INCAS)</b></p> <p>Provided technical advice and capacity building to Indonesian government officials to develop an advanced greenhouse gas accounting system designed to support Indonesia's future national and international measurement, reporting and verification requirements for the land sector, including REDD+ activities. The complex nature of Indonesian forests and land uses, diverse stakeholder interests, data quality and availability, and technical capacity meant that a series of plans and capacity building workshops were needed.</p> <p>The INCAS Framework (<a href="http://www.incas-indonesia.org/methodology/the-incas-framework/">http://www.incas-indonesia.org/methodology/the-incas-framework/</a>) was designed to guide the development and implementation of INCAS from policy to data collation, modelling and reporting. Subsequently the INCAS Roadmap and INCAS Improvement Plan were prepared to guide the ongoing development of the INCAS. Key steps were:</p> <ul style="list-style-type: none"> <li>Identifying Government of Indonesia land sector reporting requirements</li> <li>Assessing the existing state of knowledge and capacity</li> <li>Determining gaps in data and capacity</li> <li>Planning activities to progress the development of the INCAS to meet Indonesia's needs.</li> </ul>
GHG abatement study	<p>GHG conducted a study that identified greenhouse gas emissions (GHGe) abatement opportunities for NSW agricultural livestock enterprises (beef cattle, lamb, dairy, wool and intensive poultry and piggeries) through an analysis of existing and emerging</p>





Client	Project
technologies and systems and comparing these on an abatement cost curve for the Climate Institute and the NSW Department of Agriculture.	
Coastal ecosystem services, assessments, and restorations	
Queensland Rail	<p><b>Coomera to Helensvale Rail Duplication</b></p> <p>Queensland Rail is currently constructing a rail duplication on the Gold Coast. The alignment traverses a number of environmental values, including mangrove communities and the Coomabah Lakes Conservation Park that forms part of the Moreton Bay Ramsar site. GHD was contracted to complete the design and environmental approvals for the project.</p> <p>Of key relevance, one of the tasks that GHD undertook was an ecological field survey to characterise the mangrove and coastal ecosystem communities within the Study Area. Information was provided to the Regulators as part of the environmental approvals process, and was also used as a basis for developing a Marine Plant Restoration Plan. Furthermore, GHD undertook a comprehensive assessment to determine whether or not a significant impact on the Moreton Bay Ramsar site may occur as a result of the project, and identified accompanying impact mitigation strategies.</p> <div data-bbox="821 1574 1077 1904">  <p>This GHD</p> </div>
Glencore	<p><b>Bowen Mangrove Monitoring</b></p> <p>GHD were engaged by Glencore to undertake an ecological assessment of Doughy Creek, located adjacent to the Bowen Coke Refinery. The ecological field surveys included mangrove community characterisation and health assessment, together with water and sediment quality monitoring and benthic infauna investigations. The field surveys were undertaken at impact and reference sites as part of a long-term monitoring program. A comprehensive monitoring report was prepared to provide the methods and results of the assessment, and included mapping of mangrove communities in terms of their ecological condition and fisheries values. Our report also provided recommendations on the frequency and timings of future ecological health assessments.</p> <div data-bbox="459 728 683 1008">  </div>



Client	Project
Royal Pines PTBC	<b>Nerang River Bank Erosion Mitigation Works</b> The Royal Pines development is located along the Nerang River, a tidal waterway on the Gold Coast. GHD was contracted to prepare a Vegetation Management Plan for the development area, together with a three-year monitoring program. A series of ten monitoring events was completed by GHD, and included a detailed assessment to evaluate the establishment of mangrove communities over time. Each monitoring report identified recommendations necessary to improve the condition and establishment of marine plants within the Study Area.
Port of Hastings Authority	<b>Western Port – Port of Hastings</b> The ecology works package included a review of current ecological and environmental values that exist in Western Port Bay to inform assessment of design options for future expansion of the Port of Hastings. It included an initial assessment of the ecological values of the Ramsar site including assessment of ecosystem services and critical ecosystem components and processes. Further assessment defining the relative impacts of the options for port development on marine, intertidal and terrestrial ecological values. The ecology component was part of a multidisciplinary package of works across the areas of port design, risk, commercial and hydrodynamics. The ecology works package involved extensive literature review, development of conceptual models, preparation of a hazard matrix, identifying knowledge gaps, preparation of ecological response curves. An innovative impact and risk assessment process that provides an ecological risk model that can be refined and used in future stages of the project.
Humboldt County Resource Conservation District, California	<b>Salt River Ecosystem Restoration</b> GHD has worked with various Northern Californian agencies for a multi-phase ecosystem restoration project along a 12 kilometer tidally influenced stream. The project purpose was to restore historic salmonid passage among 120 hectares of tidal wetlands. In the process, restoration of tidal connectivity to historic tidal wetlands allowed for the natural evolution of diverse and self-sustaining salt- and brackish-water tidal marshes, intertidal mudflat, and shallow water habitats which continually sequester carbon and benefit native species habitats.
City of Arcata, Humboldt County, California	<b>McDaniel Slough Marsh Restoration</b> As the largest tidal restoration project along Humboldt Bay, GHD facilitated the restoration of ecosystem functionality to previously diked agricultural lands so that they could return to natural salt marshes high in soil carbon. GHD offices in Northern California developed the restoration plan for this 97 hectare marsh restoration project.







Client	Project
United States National Park Service; Point Reyes National Seashore Association, California	<b>Giacomini Wetland Restoration</b> As a result of turn-of-the century levee construction, Lagunitas Creek and its tributaries on Tomales Bay had been separated from its original flood plains. As a result, natural wetland marsh hydrological and ecological functionality was severely degraded and carbon sequestration potential limited by sediment outflow to Tomales Bay. GHD provided construction management services for the restoration of 222 hectares of these wetlands; a project budgeted at nearly five million USD.
Redwood Community Action Agency Natural Resource Services	<b>Martin Slough Enhancement Project</b> This ongoing project seeks to improve fish passage, tidal gate management, flood water conveyance, riparian forest habitats, and sediment routing and capture. GHD developed several alternatives for the complex enhancement project that crossed existing tidal control structures, private and residential lands, and a municipal golf course. Analysis of the alternatives included: new tide gates; levee modifications; tidal channel design; wetlands mapping; evaluation, and creation; and, the creation of off channel ponds for storm flow water and sediment storage as well as juvenile salmonid rearing habitat.
California Trout Inc	<b>Eel River Estuary Preserve Ecosystem Enhancement Project</b> The goal of this ecosystem enhancement project is to improve geomorphic and ecosystem function in order to enhance habitats for native fisheries and aquatic species, support waterfowl and wildlife species, and benefit agricultural land management, capacity, and uses by decreasing and more effectively managing onsite flooding and sedimentation. GHD is currently designing the project to transition from a predominantly agricultural land management system to one that includes restored estuarine and tidal slough channels, freshwater streams, freshwater waterfowl ponds, as well as agricultural pastures. In this way, GHD has sought to maintain agriculturally productive capacity and uses, while enhancing natural coastal plant communities (salt marshes, slough channels, dunes) and ecosystem functions that anticipate future sea level rise and enhance carbon storage.
Townsville City Council, Local Government Authority of Queensland and the Queensland Department of Environment and Heritage Protection.	<b>Townsville Coastal Hazard Adaptation Strategy</b> This study considered the potential ongoing cumulative impacts of coastal hazards on the Townsville regional community in Far North Queensland. It considered both present extremes of climate and also projected changes in future climates up until the year 2100. The analyses included the effects of ocean inundation from storm tide events (both tropical cyclone and non-cyclonic events) together with long-term sea level rise and consideration of likely coastal recession due to erosion over time. The study has provided an assessment of over 150 separate potential adaptation options for 11 coastal Districts from Mutarnee in the north to Cungulla in the south





Client	Project
	(including Magnetic Island). For each district a series of TCC, State Government and Industry Stakeholder Workshops were completed followed by a robust economic assessment that has resulted in the identification of 'preferred' options for further future consideration.





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## **The Power of the Sun**

### *Using Solar for Health*

*Upgrading six remote health centres in the Solomon Islands with solar power, to improve the health of their local communities.*



Project Name	The Power of the Sun: Using Solar for Health			
Project Duration	January 2019 – December 2021			
Project Location	Solomon Islands			
Project Funding	TOTAL	2019	2020	2021
	\$ 157,900	\$46,200	\$50,300	\$61,400

## Background

In Australia we are very used to having constant electricity at the flick of a switch. Even during periods of heavy usage, such as heatwaves, we know that hospitals and the vulnerable have back-up supply to reduce the risk to their health, and to maintain essential equipment, such as life-support and refrigeration for drugs and medicine. Even in a country as large as Australia, it is possible and cost-effective to install and maintain the infrastructure that we need.

With six major islands and over 900 smaller islands, the Solomon Islands (SI) present a unique challenge to the way in which electricity can be generated and distributed in more traditional ways. As a result, less than 20% of people in the Solomon Islands have access to reliable electricity. This has profound implications on the everyday life, wellbeing and opportunities for most of the population. For those few who can access power, electricity costs are the highest across the Pacific.

The SI Government has recognised that the adoption of alternative electricity technology will be essential to improve the lives of their citizens across the country, and with abundant sunlight, solar power provides an ideal way forward.







### Why is solar for Health Centres so important?

Health Centres are an important part of the primary health network across the Solomon Islands, where people must often travel long distances by boat to seek health care. These health centres deliver public health care services for surrounding communities, offer birth facilities, provide inpatient and outpatient care, and refer on to the provincial hospitals.

However, conditions at many of the remote health centres are unsatisfactory. The majority have only limited electricity, forcing health staff to rely on alternative lighting, for example using mobile phone torches to deliver babies during the night, and there is no way to refrigerate medicines or vaccines.

Providing solar infrastructure to remote health centres in the Solomon Islands will have a significant impact on the health and wellbeing of the targeted communities.

Anglican Overseas Aid (AOA), in partnership with the Anglican Church of Melanesia (ACOM), have successfully piloted the approach with two health centres. These two case studies have shown that once a health centre is equipped with solar power health workers are able to provide more effective care and the health centre is frequented more often.

Once a health centre has solar-powered lighting and refrigeration, more women are having safer births with a skilled birth attendant present, more children can access properly refrigerated vaccines, and health staff are working in better conditions. Significant improvements to the primary health care of these targeted communities have already happened.

At these pilot sites, women have also reported that a reason for their increased use of the health centres is ACOM's decision to include solar-powered street lighting near the centre, enabling women to feel safer in walking to the centre at night.

### Key activities

1. Collaboration with the Ministry of Health to select the six\* health centres and clarify roles, responsibilities, warranty and maintenance.
2. Installation of appropriate solar-powered lighting and safe refrigeration for medicines and vaccines at six remote health centres\*
3. Training for health centre staff in the effective use and maintenance of solar power systems.
4. Undertake beginning and end of project surveys over a one year period to track change in use of the health post following solar installation.
5. Establishing a maintenance contract between an appropriate local provider and the Ministry of Health.
6. Establishing a battery recycling process, to lessen the negative environmental impact of the project.

\*the number of health centres to be targeted is scalable, depending on funds available.



### Budget

Activity Description	2019	2020	2021
a. Personnel (site assessment, community engagement, procurement, solar installation, technical support, project management)	\$9,000	\$10,000	\$11,000
b. Baseline and endline impact surveys	\$ 2,000	\$ 2,000	\$ 3,000
c. Solar Fridge (x 2 health centre) – Direct Drive Solar Refrigerator for Storage of Vaccine, 60L, Vestfrost VLS054	\$ 8,000	\$ 8,000	\$9,000
d. Solar Panels (x 2 health centre) – Panels, batteries, inverter, charge controller, lights, connectors, solar cabling, isolators, fuses, switches	\$14,000	\$15,000	\$16,000
e. Training on solar use & basic maintenance for health post staff	\$200	\$300	\$400
f. Maintenance of solar-power system	\$1,000	\$2,000	\$3,000
g. Transport, freight, logistics	\$ 7,000	\$ 8,000	\$ 9,000
<b>Sub-Total</b>	<b>\$ 41,200</b>	<b>\$ 45,300</b>	<b>\$ 51,400</b>
h. Accountability, monitoring & evaluation	\$ 5,000	\$ 5,000	\$10,000
<b>TOTAL</b>	<b>\$46,200</b>	<b>\$ 50,300</b>	<b>\$ 61,400</b>

NB. Budget is adaptable relative to funding availability. This budget includes funding for an evaluation in year 3. (Further information on project details and budget available on request.)

### Impact

By the end of the three-year project, AOA and ACOM will have:

1. Installed solar-powered lighting and refrigeration in six health centres. These centres will be self-sustaining and 'handed over' to the Ministry of Health for future administration.
2. Equipped health centre staff to use solar power effectively and access technical maintenance support as needed.
3. Improved access to safe vaccines for children in six remote communities.
4. Improved facilities for delivering primary health care.
5. Developed a strong model of collaboration with the Ministry of Health for potential replication across church and government run health services across the country.
6. Monitored the impact of solar-powered lighting and refrigeration on use of health centres.





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### Working in Anglican partnerships

AOA has partnered with the ACOM in the Solomon Islands for more than 20 years, and since 2009 has brought life-changing solar-inspired solutions in the areas of health, education and business development.

ACOM was established more than 150 years ago, and has the broadest reach of any church or organisation across the Solomon Islands. This extensive network provides credibility and access into even the most remote communities.

ACOM has a high level of solar technical expertise, with a strong track record in enabling community members to begin their own solar microbusiness selling some of the most reliable solar products on the local market at a price that is affordable to people living in remote communities. For example, AOA's solar livelihoods program *Bringing Light to Rural Families* – delivered by ACOM – has been so successful in the province of Isobel that kerosene is no longer imported there – solar lighting has completely eclipsed kerosene lamps.

The Project Coordinator, Holland Sikou, is a qualified electrician and solar technician, with extensive experience delivering the installation of solar power in schools, health posts, and community centres.

Importantly, ACOM also has strong Government relationships essential for effective collaboration with the Ministry of Health and also the Ministry of Energy and Mines, which oversees solar power installations.

AOA is fully accredited with the Australian Government and is a signatory to the ACFID Code of Conduct. AOA has strong program management capacity and technical guidance, with designated technical expertise in the areas of renewable energy, and impact monitoring and evaluation.



### Key People – Project Management

**Holland Sikou** *ACOM Solar for Health Project Coordinator*



Holland is a trained electrician and solar technician who will coordinate the project, including liaison with the Ministry of Health, leading the specification and installation of the solar systems, and training in maintenance and effective use. Holland also manages the AOA-funded small-business program *Bringing Light to Rural Families* that has established solar agents across the Solomon Islands. Holland brings strong leadership skills to this role, and a track record of delivering effective solar power systems in remote contexts.

**Tim Hartley** *AOA Disaster, Risk and Resilience Coordinator*



Tim leads AOA's Climate Change and Disaster Response programs, with technical skills in disaster risk reduction and a strong understanding of solar and other renewable energy programming across the Pacific. With qualifications in engineering and environmental management, Tim has previously managed a Pacific-wide environmental resilience project across 16 countries. Tim has strong experience managing complex projects and stakeholders in Australia, Asia and the Pacific, and will provide technical support to the project.

**Grace Asten** *AOA Monitoring and Evaluation Coordinator*



Grace brings a wide range of experience from across small and large NGOs in the international development sector, with a particular focus on the evaluation of program impact and effectiveness. At AOA, Grace provides support to projects across the Pacific, particularly in promoting self-reliance and program design and evaluation. Grace will provide monitoring and evaluation support to the project.

**Dr Chris Morgan** *Technical Advisor, Child Health*



Chris is the Head of International Development at the Burnet Institute in Melbourne. He is also a physician with extensive experience including international child health, maternal and newborn care, birth-dose vaccination against hepatitis B, health-system strengthening, and health-worker education and training. Chris is Chair of the WHO Immunisation Practices Advisory Committee. Chris will provide technical guidance to the project, particularly in





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## Sunergise Introductory Pack

August 2017



# Company Profile

Sunergise designs, builds, owns and operates solar power systems for businesses and communities.

Our customers get cheaper energy immediately, and see **long-term savings grow** as electricity costs rise

In **four years**, we have deployed 13MW of solar in the Pacific region. In 2014 we acquired Clay Energy, a Suva-based EPC provider with **15 years expertise** in the region.

To date we have saved 8560 tonnes of Carbon across all the installations we have deployed over the last 4 years.





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## An award winning solution

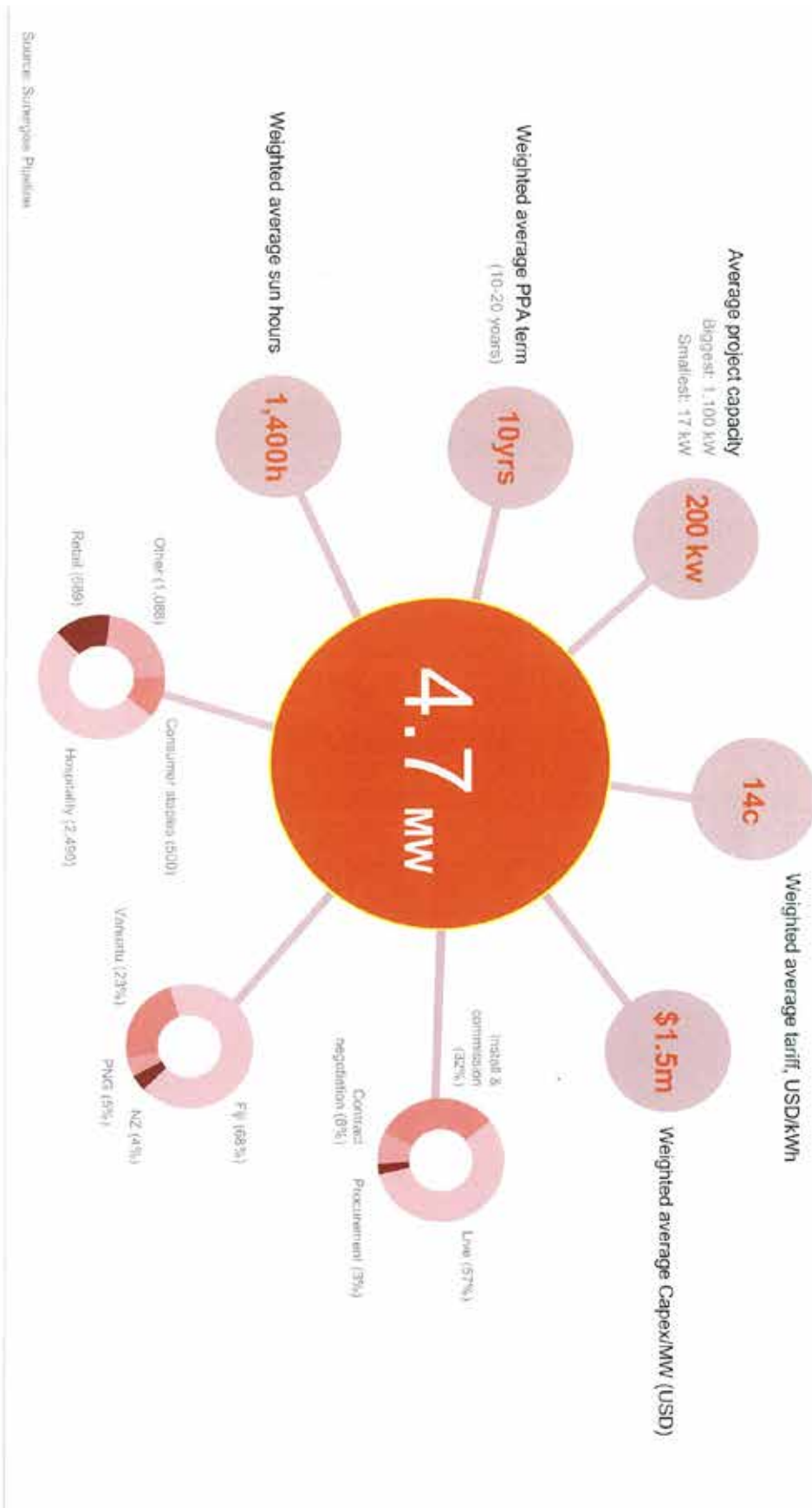
In recognition of both its technical competence and contribution to communities, Sunergise has been the beneficiary of several industry sustainability awards.

- 2016 Winner -Westpac Prime Minister's International for Best Large Business Operating Internationally.
- 2016 Winner -Enphrse SEANZ Industry 2016 Award for Largest Solar PV Implementation
- 2015 Winner -Energy Globe National Award Vanuatu 2015
- 2014 Winner ABB Award for Largest Offshore Grid Connected Solar PV Installation
- 2014 Winner As overall winner of the New Zealand based Sustainable Business Network's 2014 Renewables Impact award Sunergise trumped the show with its combined technical and business solution.





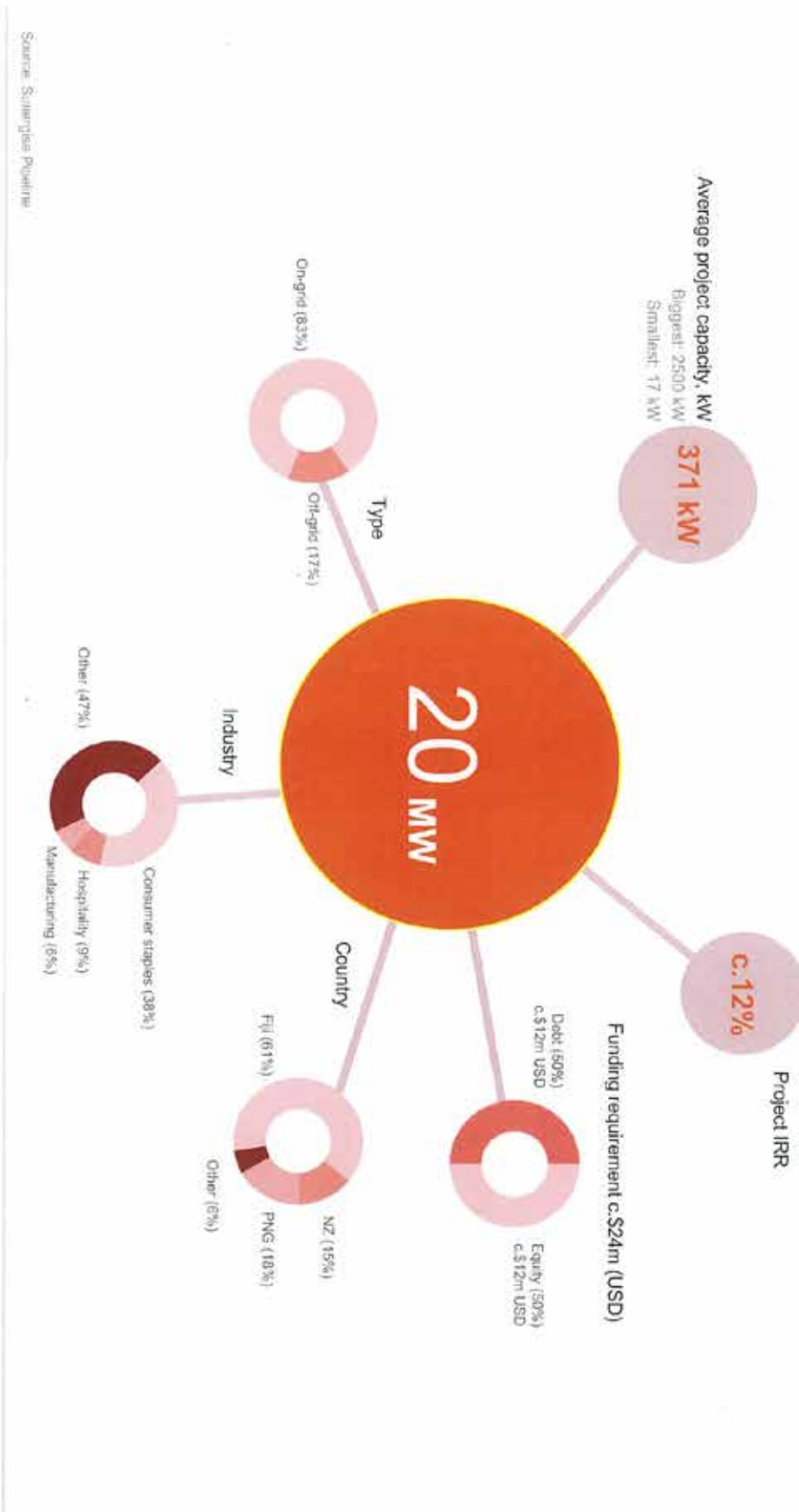
## SunPlus installed capacity





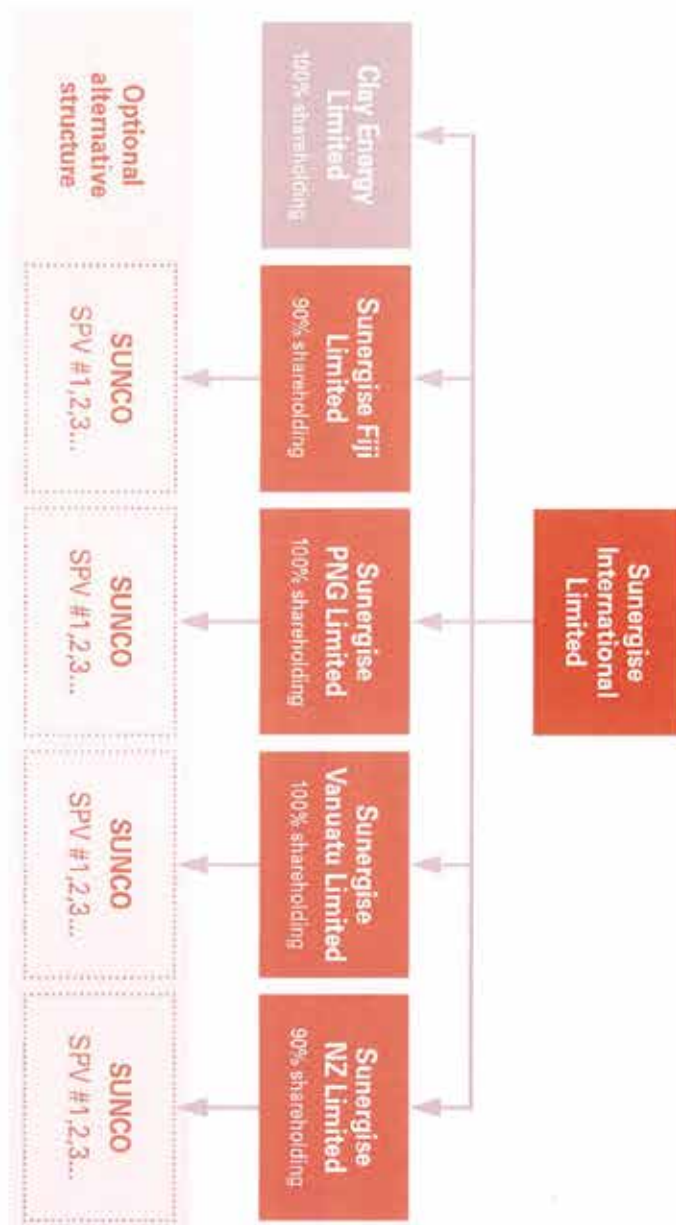


## SunPlus pipeline profile





# Corporate Structure







# The Sunergise team

## BOARD

**Managing Director**  
Paul Makumbi  
Full-time / New Zealand  
Responsible for special projects of the Group

**Managing Director**  
Andy Ranga  
Full-time / Fiji  
Responsible for international business development across the Pacific

**Chairman**  
Bob Lyon  
Fiji  
Extensive banking, financial, marketing and telecommunications experience

**Director**  
Denny Kennedy  
USA  
Founder of Sunergise and environmentalist

## MANAGEMENT TEAM

**CEO (acting)**  
John Mangos  
Full-time / Fiji  
Responsible for day to day operations of the Group

**CTO**  
Bruce Clay  
Full-time / Fiji  
Responsible for leading all technological choices and fulfilment of product delivery

**Marketing Director**  
Lochlan McPherson  
Part-time / New Zealand  
Responsible for the Marketing and brand development

**NZ Market Director**  
Nick Worthington  
Part-time / New Zealand  
Responsible for the New Zealand operations

**CFO**  
Jane Wacziarg  
Full-time / Fiji  
Responsible for all finance matters across the Group



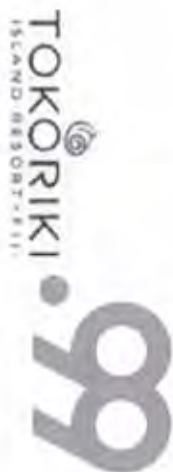
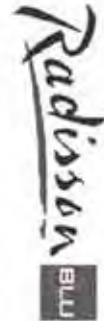


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## SunPlus Customers







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# Corporate

Play Video <https://vimeo.com/238302855>



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## The Pacific Islands Roundtable

### Radisson Blu Resort

Fiji, Denarau Island



460 kW

**Host:** Carlson Rezidor Hotel Group, one of the world's largest and most dynamic hotel groups

**Impact:** The system will produce 597 MWh of renewable electricity annually, and help avoid the importation of 175,000 litres of diesel per year

**Milestone:** This installation is the Pacific Islands' largest roof mounted solar power system for a resort

**Capacity:** Sized to supply the daily usage of the resort

**Backup:** PLC controller has been installed to enable the system to operate together with the backup generator in times of grid power failures

**Equipment:** JA Solar Modules, Sunny Tripower inverters

**Video:** [Radisson Blu Fiji Denarau Island](#)

"Every year we monitor our carbon footprint and energy usage as we improve on it. Collaborating with Sunergise gives us the opportunity to put our commitments into action. We are now able to enjoy savings on our total power bill, and to share our solar credentials with our guests."

Gerard Knight  
General Manager of Radisson Blu Resort Fiji Denarau Island





## Overview of Clay Engineering

Best in class EPC resources and capability, with strong relationships and valuable reputation in the region

- Market leading renewable energy EPC provider in the Pacific
- >15 years of experience in renewable asset development and management
- Growing local team of 45 highly skilled engineers, technicians and project management staff
- Depth of experience with different installation types off-grid and grid connect
- Independent and complimentary product offerings
- Growing pool of experienced PV sub-contractors in the Pacific for regional works including Solomon Is, Vanuatu, Marshall Is and Nauru
- Standalone revenues of USD\$5.81m p.a.
- Growing retail offering



### Key Pipeline Projects

- Tesla / Kaimbu Resort 400kWp construction start mid-Nov 2017 - approximate contract value \$1m
- MFAT East Sepik rural Electrification 600kWp construction start mid-Dec 2017 – approximate contract value \$6m
- Solomon Power 300kW hybrid system contract being finalised with construction starting December 2017



# Pacific Footprint of Clay Engineering

## Overview

Clay Engineering is a leading EPC provider in the Pacific, with more than 15 years of experience.

Direct access to Clay Engineering's growing resource of local engineering and technical capability, and its depth of expertise across the region, is a crucial component of Sunergise's competitive advantage.

## Testimonials

*"Fiji got the Olympic 7's Gold, and congratulations. For me, you and all of your crew get the Gold for all the work ever done for us."*

Steve Rhodes, Fiji

*"It's not often enough to find a company that says what they can and will do and actually fulfil their obligation."*

Alan Howell, Fiji







# Marshall Islands Project

Republic of Marshall Islands, Majuro



**Client:** 3,915 Marshalls Energy Company (MEC) customers

**Capacity:** equivalent in size to about 100 residential systems

**Funding:** UAE-Pacific Partnership Fund and the Abu Dhabi Fund for Development, in a program managed by Masdar, Abu Dhabi's renewable energy company

**Innovative design:** the power generation plant is designed to collect both rainwater and solar energy

**Media coverage:** [TV3 Newshub](#)

**Annual Diesel Savings:** 236,000 litres (est)

**CO2 Avoided Annually:** 652 tonnes



# Vanuatu Solar Project

Port Vila, Vanuatu



**Client:** Vanuatu Government

**Funding:** UAE Pacific Partnership Fund

**Annual Diesel Savings:** 324,537 litres  
(est)

**CO2 Avoided Annually:** 896 tonnes

**Capacity:** 767kWp Grid Connected

Parliament Ground Array: 330kWp

Parliament Car Park (132 spaces):  
315kWp

VMGD Ground Array: 122 kWp





## SunAccess

SunAccess is a unique pay-as-you-go electricity solution for rural households that are currently supplied by village based diesel micro-grids

- SunAccess is a full service offering which involves retrofitting village micro-grids by financing, building, operating and maintaining a solar system and batteries that are coupled to an existing generator.
- Average system is capable of providing power 24/7, with approximately 87% generated by solar and batteries and 13% from diesel.
- Sunergise will retail power to households from the solar-battery portion of the grid at a pre-agreed daily rate, which on a per unit basis will be cheaper than diesel generation.
- SunAccess requires no upfront down payment on equipment - instead households pay a fixed daily rate.

### Key projects

#### Nasau Village, Koro Island, Fiji

- 92 Households
- 9kWp Solar Panels
- 12kW battery Inverters
- 43kWh Battery Capacity
- Spark Smart Meter prepay billing system

#### Nasoki Village, Moala Island, Fiji

- 53 Households
- 12kWp Solar Panels
- 18kW battery Inverters
- 40kWh Battery Capacity
- Spark Smart Meter prepay billing system





## Utility Scale

Utility scale projects are projects where the off-taker is the local power utility

- Through this offering, as an alternative to targeting individual commercial customers, Sunergise may opt to focus on selling output on a wholesale basis directly to utilities replacing costly diesel generation. The potential for these projects in the Pacific region is large as most utilities have renewable energy targets and are looking at private sector involvement to meet these

### Key projects

- Fiji Electric Authority 5MW Solar Farm:** This is FEA's first foray into integration of solar energy into the national grid. A utility scale solar plant is to be based in western Viti Levu island. Sunergise has signed an MOU with FEA to create a JV to deliver the 5MW solar farm and sign an IPP with FEA

### Utility Scale Projects

12 MW







### **FIJI WATER AND SANITATION PROJECT 2018**

It is widely believed that the practice of open defecation and use of pit toilets in villages in Fiji and other developing nations causes contamination of:

- 1/ drinking water, causing illness and death from water-borne gastroenteritis, especially in children
- 2/ damage to marine environments, resulting in adverse outcomes for fisheries and tourism.

This issue has great relevance to several of the 17 United Nations Sustainable Development Goals:

SDG 3 Good Health and Wellbeing

SDG 6 Clean Water and Sanitation

SDG 13 Climate Action

SDG 14 Life Below Water

The owners of the Barefoot Resorts in the Yasawa region of Fiji inspired this project as they saw first-hand the negative impact of the problem on the local coral reefs, the fish stocks, and the health of local villagers. As a doctor with a love of Fiji, I was drawn to the project.

Together, we have formed a consortium of 5 Australian and 2 Fijian universities to investigate and improve this problem in Fiji:

1. Deakin University
2. Royal Melbourne Institute of Technology (RMIT)
3. Queensland University of Technology
4. Griffith University
5. James Cook University
6. Fiji National University
7. University of the South Pacific

We have agreed to three stages:

Stage 1. Collect data to prove or disprove that the problem exists.

Stage 2. Trial of various interventions (ie water filters, septic tanks, etc)

Stage 3. Formally assess each potential intervention. Does it work, and can it be easily maintained in a village setting?

For Stage 1, we have built and equipped a laboratory/science centre on Barefoot Resort in the Yasawas. It will analyse water samples from multiple marine and drinking sources across the Yasawas and Mamanucas. It will also be an education centre for teachers, nurses, doctors and community groups from the region. University visits and activity have already commenced this year!

We have lobbied the Fiji Government to apply for external aid funding, but have been unsuccessful. Therefore we have funded the laboratory entirely ourselves, but need more funds.

The Australian Government, via the New Colombo Plan and via the Endeavour Scheme, have funded the Australian universities FJD \$500 000 for each of the next three years to participate in this project.

One of our core commitments is to fund local Fijian students to participate alongside their Australian colleagues, in order to build local capacity and expertise.

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**The Global Foundation**  
*Together, we strive for the global common good*



**The Pacific Islands  
Roundtable**

**Notes:**





**The Global  
Foundation**

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global common good*

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