

TA-6619 REG: Marine Aquaculture, Reefs, Renewable Energy, and Ecotourism for Ecosystem Services

CONTEXT

Savusavu is a picturesque harbour town that provides safe anchorage for visiting yachts and is the focus of tourism activities on Fiji's second largest island of Vanua Levu. It has a population of around 7,000 and is the commercial hub for the Cakaudrove province consisting of 50,000+ people living in scattered in villages and settlements, most of whom are small scale commercial or subsistence farmers. Development has been ad hoc and threatens the health of Savusavu Bay, the second largest bay in the Pacific, as well as human health. The town also faces the effects of climate change.

Degradation of the marine environment is the main problem. **Waste** from the town and surrounding areas is dumped in a mangrove area and chemicals, plastics and heavy metals leach into the bay. The town depends on septic tanks for **sewage disposal** and open drains/creeks carry grey water into the bay. Rising sea levels and more frequent and intense cyclones have resulted in **foreshore erosion** and siltation of the bay.

SOLUTION

The **Savusavu Blue Town Model** is a replicable framework to address ocean pollution and climate change while building communities with sustainable livelihoods. The seven pillars of the **Savusavu Blue Town Model** are:

- Creation of a **masterplan** to manage future development
- Implementation of an integrated **waste management plan**
- Integrated coastal management program for **marine conservation**
- Coastal income generation and environmental preservation initiative to create **sustainable livelihoods**
- Implementation of an **environmental education program**
- Creation of an **ecotourism program**, showcasing the Blue Town Model in action
- Transition to alternative sources of energy via **renewable energy**

The **Savusavu Blue Town Model** meets all 17 of the United Nation's Sustainable Development Goals and proposes:
(i) the formation of **public-private partnerships** to empower coastal communities to make sustainability and resiliency central to their development and daily life
(ii) protection of our oceans in a way that simultaneously **generates economic activity**
(iii) creation a **mechanism to transfer technologies** to least developed coastal towns, whose tropical marine diversity is crucial to our entire planet's ability to adapt and mitigate the impact of climate change from rising sea temperatures

TECHNOLOGY

AI and GIS technology to map existing conditions. Technological solutions for tracking, tracing and processing of plastic waste and composting green waste. Please note that due to the increase in frequency and strength of severe weather and tropical cyclones, marine renewable energy solutions have limited potential in this part of the Pacific Ocean.

BUSINESS MODEL for an integrated waste management plan (a pillar of the Savusavu Blue Town Model)

There are four single action items related to the pillars of the **Savusavu Blue Town Model** as follows:

- Relocation of town dump site to reduce marine pollution and rehabilitation of the existing site including replanting of mangroves for **blue carbon credits** (**waste management plan** and **marine conservation**).
- A recycling program starting with rubbish collection points that have waste separated into compartments for landfill, recycling and green waste/composting (**waste management plan** and **environmental education program**) to create **revenue generation** through sale of valued waste and/or provisions by strategic partners (**sustainable livelihoods**), as well as **plastic credits**.

PROJECT SUMMARY

PROJECT NAME:

Savusavu Blue Town Model

CAPITAL COST:

US \$5 million for all listed items

GEOGRAPHICAL LOCATION:

Fiji, Pacific Islands

TYPE OF PROJECT:

Marine Aquaculture, Reefs, Ecotourism

PROJECT TIMELINE:

2023-2025 Ongoing

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- A composting facility that includes the huge volumes of wood chip from local saw mills. Organic wood chip compost has value as an **export product, import substitution** and easily accessible fertiliser for local farmers (**waste management plan** and **sustainable livelihoods**). Wood chips piles in the town pose a major health and environmental problem as they spontaneously combust several times each year resulting in the closure of the hospital and relocation of patients.
- Low-grade plastic can be also turned into **clean high-grade oil/fuel** - waste to energy - or **other useful products** (**waste management plan** and **sustainable livelihoods**).

FINANCING

Fiji is a developing island nation and areas other than the main island lack investment and funding. These outer islands have large pristine marine areas that make them ideal for conservation and ecotourism activities but they are under risk from uncontrolled and poorly managed development along with the effects of climate change.

Each of the single action items above presents a different type of economic opportunity for business/conservation organisations/donors and for improving the welfare of the community. Poverty remains a significant factor in environmental degradation and addressing this issue through economic activities that preserve the environment are key to the success of the Savusavu Blue Town Model. **We are seeking funding of \$5 million from investors/donors who share this vision.**

RESULTS

Recycling, composting and waste to energy will provide new employment opportunities and help to alleviate poverty. All of the proposed single action items will improve the health of the bay - our most important natural asset - and ensure the longevity of pearl and edible oyster industries as well as fishing as a major food source for the local community.

LESSONS LEARNED

There have been several attempts to initiate work on the Savusavu Blue Town Model. Implementation is an enormous undertaking. In order to move forward, we are focusing on one main pillar of the Savusavu Blue Town Model - an integrated waste management plan that also supports other pillars - and have divided it into single action items to reduce scale, risk, and start creating tangible impact on the ground where it is most needed.

DEVELOPER

Justin Hunter is the concept architect of the Blue Town Model. The Savusavu Blue Town Committee works collaboratively to implement the model and to ensure that any new development in the town fulfills the pillars of the Savusavu Blue Town Model as described above. Savusavu Blue Town Committee members have developed the integrated waste management plan, the project summary and video presentation.

Bright Tide representatives, as part of the Bright Tide Blue Economy Accelerator Program, donated their time, knowledge, and skills to assist the Savusavu Blue Town Committee in the initial application to ADB MARES.

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and Ecotourism for Ecosystem Services

REFERENCES

[Conservation CSR Programmes | Workshops & Hackathons | Bright Tide \(bright-tide.co.uk\)](#)

ADDITIONAL APPENDICES

[Blue Town Model Presentation](#)

[Savusavu Mangrove and Waste Management Project Concept Note](#)

[Savusavu Town Council Waste Management Plan](#)

[Sustainable Pearl Meat Farming](#)

[Recycling Program](#)