

Applications & Dissemination of Information about VS in the Small Island Developing Nations

“The South Pacific Experience”



EAGLE VETIVER SYSTEMS LIMITED
Green Solution for Sustainable Development

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INTRODUCTION

Traditionally, Pacific Island Nations have been introduced to very expensive unsustainable conventional methods, which when damaged are not repairable as it is too costly. Therefore a nature-based solution is needed for our problems.

Implementation of nature-based adaptation actions such as VS will see Pacific Islander families and communities to be:

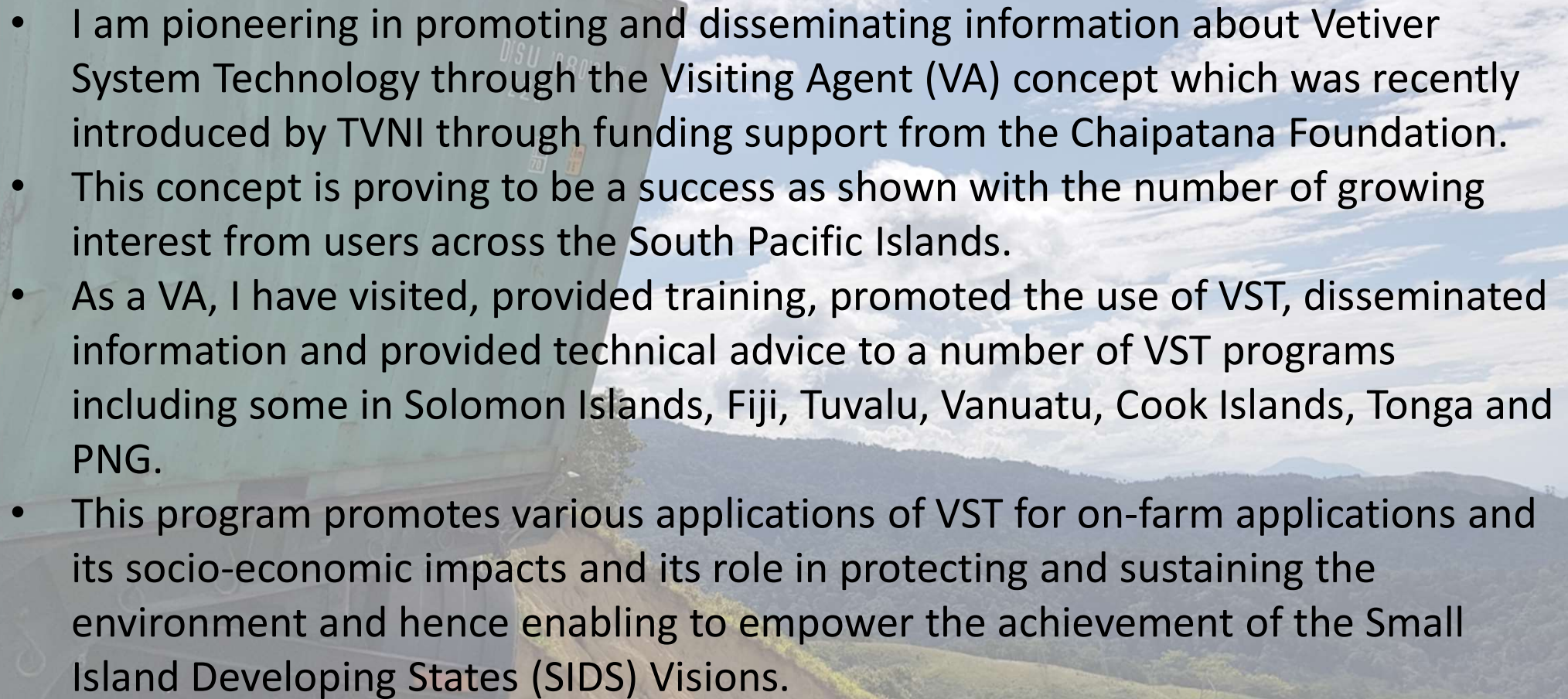
- Sustainable
- self-sufficient and
- Are prepared to be equipped and knowledgeable in meeting:
 - environmental,
 - economic and
 - social challenges affecting them by the Climate Change phenomenon, especially in environmental degradation.

OUR PROBLEMS

The **Small Island Developing Nations** in the South Pacific are facing a possible catastrophic future due to:

- A perfect storm of climate change induced extreme weather events.
- An expanding, poor and marginalized population.
- Inadequate social and basic needs services from a limited funded and poor government administration resulting amongst others serious food security and health problems.
- Exploitation of natural resources such as uncontrolled logging activities.
- Compounded by degenerating natural resources, soils, forest and inland and coastal water.

As a matter of fact – VST first birthed out of the Fiji Islands some 60+ years ago by Late John Greenfield. Yet we are behind in the implementation. It is through this VA initiative that I am actively disseminating information on the use of VST – which is now proving to be a success.

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- I am pioneering in promoting and disseminating information about Vetiver System Technology through the Visiting Agent (VA) concept which was recently introduced by TVNI through funding support from the Chaipatana Foundation.
 - This concept is proving to be a success as shown with the number of growing interest from users across the South Pacific Islands.
 - As a VA, I have visited, provided training, promoted the use of VST, disseminated information and provided technical advice to a number of VST programs including some in Solomon Islands, Fiji, Tuvalu, Vanuatu, Cook Islands, Tonga and PNG.
 - This program promotes various applications of VST for on-farm applications and its socio-economic impacts and its role in protecting and sustaining the environment and hence enabling to empower the achievement of the Small Island Developing States (SIDS) Visions.

FOLLOWING SLIDES ARE SOME OF THE COMMON PROBLEMS ACROSS THE ISLAND NATIONS:

UNCONTROLLED DISPOSAL OF SOLID WASTE INTO THE WATERWAYS



ESCALATING COASTAL EROSION ON ALL THE ISLAND NATIONS



LOSS OF ARABLE AGRICULTURAL LAND THROUGH RIVERBANK EROSION



- ▶ We need to ACT now to capture valuable topsoil normally washed away by the erosional activities. This program is now helping to do that.



When the soils blanket is taken away – what happens? It **BLEEDS**, when it *bleeds*, What do you do? **IGNORE** it!!

Obviously not, you have to dress the wound.

PREVENTION

is better than

CURE

the latter is costly.

OUR ISLAND NATIONS ARE **BLEEDING** TO DEATH



**THEY NEED OUR
INTERVENTION**

OUR SOLUTION

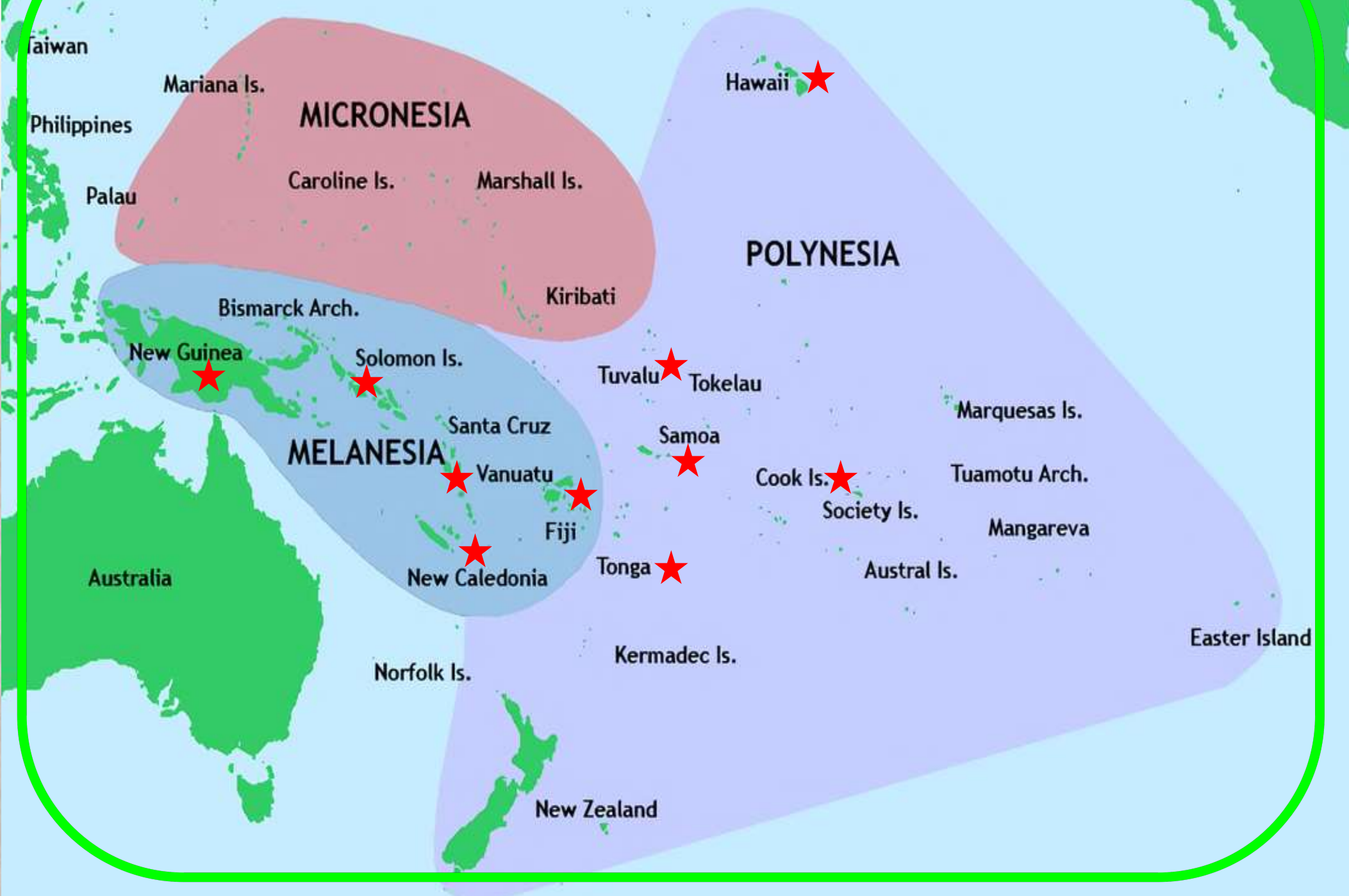
One part of our solution is the introduction of **low cost** and relatively simple technology that can help build resilient “**do it yourself**” communities both in rural and urban areas. We need Nature-based solutions - one such technology is the use of **Vetiver System Technology**

We need Sustainable Solutions that are:

- Nature-based
- Low-cost
- Sustainable
- and Easy-to-Use



PACIFIC ISLAND NATIONS CURRENTLY USING VST



Sewage Effluent Treatment



PAPUA NEW GUINEA



Gully Erosion Protection



FIJI ISLANDS – Coastal Erosion Protection



Infrastructure Protection



Protection of Riverbanks against Soil Erosion



COOK ISLANDS – Stream bank protection and wastewater



KINGDOM OF SAMOA - Riverbank Protection Trial



SOLOMON ISLANDS

Infrastructure Protection



Environmental Protection



Slope protection



Gully erosion protection (new planting)



Mangroves, stonewall and Vetiver for coastal erosion (new planting)

TUVALU - Landfill Leachate



Wastewater Treatment



SUMMARY

Lack of knowledge and technology dissemination:

Two major setbacks are: (1) ignorance of the technology by administrators, policy makers and planners, (2) Lack of technical know-how on the planting procedures is another why the system is failing and users are not convinced. This concept is now focused on trouble-shooting and correcting the misconceptions.

Leadership:

New technology introduction requires farsighted leadership with vision and commitment. A committed lead organization is required. Good NGOs and private sector companies can often do this best. Commitment is rarely found in most government organizations. The only Government that is taking the lead in promoting VST is the Government of Fiji.

Low-cost solution and problems thereof:

Generally VS is seen as a low-cost technology that does not attract high budget allocations, that gives opportunities and attractiveness for corrupt practices are much less than for high-cost alternatives which is a norm – one main reason why VST is not a preferred solution.

Technology:

Majority of solutions have in the past an engineering base. Most of our engineers have not been trained in bioengineering solutions, particularly those that are low cost. Low-cost biological solutions are often seen as too simple and as such are unattractive. Again applying low-cost solutions results in lower fees for designers and executing contractors.

- We need a global fund to upscale the **Visiting Agent Concept** – it is through this concept that we can be able to identify the misconceptions and promote effective and correct implementation procedures. We have more than enough research papers – we need practical implementations.

ACKOWLEGEMENTS

- Firstly I would like to express my special thanks and gratitude, on behalf of the people of the South Pacific Islands to the people of Thailand through **The Chaipattana Foundation** who provided us with initial funding aid of \$30K for the Visiting Agent Concept.
- I would also like to thank The Office of the Royal Development Projects Board for hosting us and the hospitality accorded to us.
- I would also like to acknowledge CBOs, NGOs, Private Sector companies, Community Groups and Government Organizations who are actively using and promoting the use of Vetiver Grass as a sustainable tool in protecting our Island Nations from the devastation caused by climate change and the pollutions inflicted on us by Developed Nations.
- I would also like to thank Sir Richard Grimshaw, Dr. Dale Rechmeler, Mr Jim Smyle and Dr Paul Truong who have been mentoring me during my Vetiver journey – you guys are true Champions.
- I would also like to acknowledge my very many friends and followers on FB, who in one way or another whom we have been sharing ideas together about VS.
- Finally, I would also like to thank and acknowledge unknown owners of one or two of the photographs I used in my presentation.



**THANK
YOU**

“SOIL GIVES LIFE – WATER IS LIFE
think vetiver”