INTRODUCTION

In the process of searching for vetiver supply for a land stabilisation project in Solomon Islands, I came across something very interesting and unique on the application of the Vetiver System in this south western corner of the Pacific Ocean. Although vetiver has been used and fairly widespread in Solomon, no one knows for sure where and when it came from, and who brought it into the country.

The followings are the extent and significance of the Vetiver System applications of in the Solomon Islands

KASTOM GARDEN ASSOCIATION (KGA) (www.kastomgarden.org)

I was introduced to Clement Hadosaia, KGA Manager and his staff in Honiara, Capital of Solomon Islands. In a brief overview of the work of KGA in the Solomon Islands, Clement said KGA is a lead NGO advocating food security and livelihood in the Solomon Islands, especially in isolated rural communities.

KGA has carried out independent needs assessment (food crops only) of selected communities affected by natural disasters such as flash floods, cyclones and landslides, and designed a recovery response program to address the situation with regards to food supply. KGA assistance includes: providing training on establishing vegetable nurseries and model gardens where various food crops are planted and managed on a small plot of land; and distributing planting materials: yam, cassava, sweet potato and vegetable crops. Communities were introduced not only to new techniques of food crop propagation, production and management, but also to small livestock including local chicken and ducks production.

As an NGO, KGA is primarily sponsored by Australian and Japanese aid agencies: AusAid and JICA. Its activities spread over all provinces of the country covering hundreds of remote islands and communities.

VETIVER ORIGIN: KGA Manager, Clement Hadosaia, does not know the origin of the vetiver at the KGA Head Office in Honiara and when and who introduced it to the country. Vetiver is widely found in the region and adjacent islands: PNG, Fiji, New Caledonia, Vanuatu, and Samoa and it may have been introduced by the Indian community from Fiji.
**APPLICATION OF VETIVER IN KGA:** Vetiver is currently only used for erosion control and mulching as part of a package to promote food security and livelihood in the Solomon Islands. (Appendix 1).

KGA was not aware of TVNI website, due to limited Internet access, so it does not know any other applications or benefits of the Vetiver System as a whole.

**VETIVER PLANTING AT KGA HONIARA GARDEN:** Vetiver planting is very limited, it is currently used mostly as borders for the vegetable plots and a few are for drain banks stabilisation.

*KGA Manager, Clement Hadosaia*  
*Vegetable seedling nursery*

*Paul Truong and Clement Hadosaia*  
*Drainage protection*
**Borders of vegetable plots**

**Border of vegetable plots**

**VETIVER PLANTING AT KGA IN GIZO:** As a part of KGA network in Solomon, John Holland is the coordinator for Western Province based in Gizo, the capital of the Western Province and similar to KGA Head office in Honiara, he distributes vetiver to other islands in his province.

Although he receives information and materials from Honiara KGA, he develops his network independently and he calls it FAITH (Food Always in The Home) Garden Program (FGP). Similar to Honiara Garden, FGP supplies vegetable seedlings to farmers in his province, but John Holland’s is also a commercial farm, growing crops, vegetable, chicken for meat and eggs. In addition, and most interestingly his farm is also a training centre of the
Western Province where young living-in trainees learn agriculture production including the use of vetiver for erosion control and mulching. He has published a booklet on how to grow Yam and how to use vetiver to protect the Yam crop (Appendix 2).

John Holland’s farm is quite large by local standards, and typical of the province it is on a steep slope of red loam. His vetiver is about 3 year old and really thriving on chicken manure and vetiver compost, (well above 2m high and clumps of 60-80cm in diameter). Although he has very limited knowledge of VS, his application in soil and water conservation is very good, his vetiver planting is mostly for border demarcation including a few up and down slope rows.

John Holland and Paul Truong

Contour hedges for erosion and sediment control

Contour hedges for erosion and sediment control
Vegetable garden protected by Vetiver contour hedges

Tall and vigorous growth and clump of 60-80cm in diameter

Trimming for mulch and land ready for application of proper VST
**FAITH GARDEN TRAINING PROGRAM.** As mentioned earlier the farm is also a training centre of the Western Province where young living-in trainees learn agriculture production including the use of vetiver for erosion control and mulching. The training period is 12 months, the trainees work full time on the farm with free accommodation and meals but receiving no wages. The trainees will receive a certificate (Appendix 3) and return to their islands/villages to promote and improve local food supply. There were 8 trainees last year and currently 3 are under training.

INTRODUCING VETIVER SYSTEM TO KGA

KGA has had very little knowledge of various VS applications and benefits, so following a short tour of the farm I used my Laptop to introduce VST to John Holland’s family and trainees, including several videos. His family included his wife, son, cousin and a few grandchildren. They all followed the presentation intensely, I was not sure whether their interest was on VST or the pictures and sound of the videos (the farm has no electricity so the family has no TV). But we had a very long and fruitful discussion following the presentation, with a lot of questions, particularly from the trainees so I think they have followed the technical aspects of the presentation and had gained a good knowledge of VST.

After the presentation, we inspected the farm and discussed the pro and con of his various vetiver’s planting and how to prepare good planting slips for sale and distribution to new members of his group.

*Introducing VST to John Holland’s family and trainees on Laptop*
Robo Vanoh explained VST to John Holland’s family and 3 female trainees (right)

Trainees preparing seedlings for distribution and how to trim vetiver hedge for mulch

Discussing pros and cons of various vetiver plantings to John Holland’s family and trainees and how to prepare good planting slips
OTHER VETIVER PLANTINGS IN THE SOLOMON

**PANATINA ROAD, HONIARA:** Panatina Road is located on the ridge top of the hill overlooking Honiara. A total length of at least 10km of this road was planted on both sides with vetiver to stabilise it. It is a mystery as Clement Hadosaia has no record of when it was planted and by whom. By the size of the clumps, this planting must be at least 5-6 year old and whoever planted it must know what they are doing as the planting was done very professionally, and been properly maintained since then.

![Correctly planted on both sides of the road](image1)

![Vigorous growth and well maintained by local resident as dust screen](image2)
Local resident uses the hedge as dust screen as well as ornamental, and trims it at the start of the wet season

**ORNAMENTAL:** Vetiver was also used purely for landscaping purpose in Honiara. This planting is along the main road of the city, in front of the National Stadium. Another mystery as it is not known who planted it and it is very well maintained by the city.

As ornamental along the main road of the city

Very well maintained by the city
**PALM OIL PLANTATION:** Vetiver is being used for drainage channel bank stabilisation on a palm oil plantation GPPOL, outside Honiara

*Plantation Manager Mesach Boge and Robo Vanoh in front of a temporary nursery*

*Drainage channel stabilisation*

**POTENTIAL BENEFIT OF VETIVER SYSTEM IN SOLOMON**

Amongst the various applications and benefits of VST, the two that KGA and FAITH Garden most interested are:

**HANDICRAFT PRODUCTION:** The Melanesian has a rich culture of handicraft making for traditional use such as Bilum, a shoulder type bag used by both men and women, in Papua New Guinea (PNG). The Bilum are traditionally made from Sisal, tree bark, jute, cotton or hemp. Both Clement Hadosaia and John Holland were very excited on learning that vetiver biomass is an excellent material and has been used for handicraft production around the world, particularly by the Thai and Venezuelan. Both recognised that this is an important means of poverty alleviation for rural women in remote island communities.
Sisal drying at FAITH GARDEN

Bilum from PNG and bag from Solomon

Hemp bag from Solomon

Cotton Bilum from PNG

WASTEWATER TREATMENT: On a farm adjacent to FAITH GARDEN the effluent from an outdoor toilet block discharges directly to the stream on the boundary of the farm. A demonstration will be set up to show how vetiver will be used to treat this effluent, preventing it from discharging to local stream.

Toilet block

Toilet outlet pipe
Demonstration site

Vetiver planting area for sewage disposal
APPENDICES

Appendix 1: KGA information brochure

KGA Values
KGA is committed to the following values:
- Value having a friendly, self-sustaining environment in which staff sees that they are part of the same organisation and that organisation is part of them.
- We will always work to maintain the simplicity of grass-roots approaches, which give opportunity to farmers, technical people, staff, researchers and interested people to select and use.
- In addition, we will promote equality between all citizens, male and female, young and old, because participation and transparency are important tools for achieving and ensuring fair distributions of benefits.

Organisational Structure

National & International Partners
- The Ministry of Agriculture & Livestock (MAL)
- TermCricle - Australia
- National Agriculture Research Institute (NARI-PNG)
- Secretariat of the Pacific Community (SPC)
- Pacific Islands Farmer Organisation Network
- Pacific Organic and Ethical Trade Community

Projects and Major Donors
- Food & Agriculture Organisation (FAO)
- European Union (EU)
- UNDP - SAVI Project – Solomon Islands
- RAS-PRYN - Medium Term Cooperation Program Phase 2 (MTCP-2)

For detailed information please contact: The Manager or Information & Planning Officer - KGA Phone: (677) 39551, mobile: (677) 795544. Or write to KGA, P.O. Box 742, Honiara Solomon Is. Email: kastomgaden@kastomgaden.org Or visit our Website: http://kastomgaden.org Location: Buns Creek (near Zai Na Tina Organic Farm.

Introduction:
Kastom Gaden Association (KGA) is one of the largest NGOs, and one of few "Farmer Organisations" in Solomon Islands. KGA has been growing numbers of farmers in Solomon Islands since 1991. Under the leadership of its co-founders, John Tuata and Tony James, KGA started as a small but innovative initiative of the Australian NGO APARCE. Since 2000 it has become a registered NGO, under the Charitable Trust Act.

Vision:
KGA's Vision is "A future of healthy soil that yields healthy food, for a healthy nation."

Mission Statement:
KGA's Mission is: "To strengthen village-based food security in Solomon Islands using participatory, practical, grass-roots approaches that enable village people to examine, understand and develop their own solutions to improving household food security and village-based agriculture economy."

Aims and Objectives:
- To strengthen family food security and income generation through a livelihoods approach
- To improve the capacity of KGA partner organizations and networking to provide advice and information to partners & farmers
- To increase capacity of village entrepreneurs to process & market agricultural commodities
- To provide quality information collected and used by KGA & partners in the implementation of the program components
- To develop & disseminate technologies to improve low input management system for piggery and poultry (Village Chickens)
- To provide information, training and resources to the PMI membership.
- To effectively and efficiently manage/coordinate program components & project implementation according to schedule & budget as well as reporting of program/project activities

KGA INFORMATION BROCHURE

Tasting on local Crop Diversity for Health, Wealth and Resilience

Healthy Soil Healthy Food Healthy Living

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Welcome to Kastom Gaden Association

Clement Hadasa

PROMOTING CROP DIVERSIFICATION FOR FOOD AND NUTRITIONAL SECURITY IN SOLOMON ISLANDS

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- TermCricle - Australia
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Appendix 2: John Holland Booklet on Yam growing

C. Nursery and Planting Yam

1. Seasoning – store yam tubers in cool but dry place from one week to a month long. This process allows the yam to be rapidly grown in producing shoots.

2. Cutting a Yam Tubers – This is one way to increase yam planting materials. Chop the yam tuber into multiple pieces. Note: Larger pieces may result in large new rooted tubers. Make a "V" cut in the top side of each yam cutting to indicate the up direction during planting. Then leave them to dry out over one to two days or even a week. Coat them with fire ashes from a fire place or Stone in a cool dry place to avoid fungi growing on them.

3. Nursery – bury the yam cuttings. Choose a shady area that has:
   - Rich black soil (lots of humus).
   - Lots of forest organic materials filled leaves and grass, cutting logs and coconut husks.
   - Free from dead leaves and fungi laden and healthy soil.
   Make sure the yam cuttings face up, then partially bury them. Cover them with the organic materials. Leave them in the nursery for two weeks or more before transplanting onto permanent yam plots.

A good and well matched garden will keep improving the soil (expect a great yield).
Yam plots that are 40m x 50m should provide enough yams to feed the whole family and have sufficient planting material to continue to planting.
Appendix 3: FAITH GARDEN Program graduation certificate