

Low technology, elevated cultivation model for vegetable farming showcased in Samoa



For centuries, low technology has been used extensively across the Pacific as a simple, traditional technology with very little capital input required. An example is the use of water containers or buckets drawn from wells for family and livestock use, and watering of crops.

The evolution of low technology, transitions low inputs into a system that is workable and affordable by the majority of grass roots people. This includes using recycled waste materials such as buckets and containers, or local material such as bamboo combined with a simple hose irrigation system.

An example of low technology promoted and showcased at this year’s Samoa Agriculture Show held from 13 – 16 October, was the raised or elevated cultivation model using bamboo and waste containers for cultivating vegetables.

The idea behind the model was to use local, waste material such as buckets and containers, bamboo and other appropriate materials for vegetable farming with a simple irrigation system used.

These models were amongst the benefits of learning and sharing of skills amongst participants from 15 countries, in relation to low tech appropriate technologies at the Secretariat of the Pacific Community’s Pacific Agricultural Plant Genetic



Resources (PAPGREN) Meeting held in Fiji in 2014.

The meeting was facilitated by the European Union (EU) supported projects under the Secretariat of the Pacific Community (SPC)'s Land Resources Division - Pacific Agriculture Policy Project (PAPP) and Increasing Agriculture Commodity Trade (IACT). This was co-hosted by the Food and Agriculture Organisation (FAO) Treaty Benefit Sharing "*Strengthening the resilience of Pacific agricultural systems to climate change through enhancing access to and use of diversity*" Project. The main outcome of the meeting was to empower and impart knowledge and skills to participants to develop these skills further to their countries for use by farmers to better their livelihoods.

Malouafuli Pueata Tanielu, Principal Crops Development Officer of the Ministry of Agriculture and Fisheries is happy with the opportunity to learn these skills from the training held at the Fiji Koronivia Research Station during the Pacific Plant Genetic Resources Network (PAPGREN) field visit.

According to Mr Tanielu, "I see this of great benefit for our small vegetable growers in Samoa especially in the urban area to support the campaign against Non Communicable Diseases (NDC) in partnership with the health sector was one of the driving factors to develop this idea further"



"The high cost of vegetable and low supply during the off season period are the main constraints in the availability of vegetable varieties for household consumption. The vegetable supply in Samoa is dependent on the commercial production which representing only 20% of total number of vegetable growers. High incidence of pests and diseases during rainy season is the main reason for the dramatic decline in vegetable supply and of course high

price due to supply and demand".

"The model is perfectly suited to alleviate supply constraints using bucket irrigation system and shade house combinations. Promotion and adoption of this model is also in

line with the new settlements of quarter acre land allocated at Vaitele, Vailele and Nuufou areas. This population in these new settlements accommodate almost 30 to 40 percent of total urban population. The technology will use as a back yard garden to provide vegetables for their own household use”.

Showcasing of this model during the Agriculture Show has generated a lot of interest from the public, farmers and schools that have participated. Two farmers have already used bamboo technology for planting leafy vegetables such as lettuce and cabbages.

“This model has been promoted in atoll countries such as Kiribati and Tuvalu and proved useful due to the limited land space available and increased urbanisation. In big countries, families living in urban or town areas can use this technology to grow their own vegetables in the backyard for improved health” says Valerie Saena-Tuia, Genetic Resources Coordinator managing the PAPGREN network.

Photo captions (Photos. L Waqainabete [1 & 2] & SPC [3]):

- 1 & 2. Showcasing the elevated cultivation model for vegetable farming using bamboo and waste containers by Samoa MAF, October 2015
3. PAPGREN participants field training and visit to Fiji Koronivia Research Station where they promoted the raised/elevated cultivation models for vegetable farming in 2014

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