

## Quick facts

- Joseph Afa from Samoa and Isso Nihmei from Vanuatu have combined their traditional knowledge with their new skills learnt at APTC to train people to preserve and propagate bananas.
- Joseph and Isso have developed training manuals and programs to rejuvenate and share traditional knowledge across Pacific countries to assist food security and potentially save lives after a disaster.
- Traditional knowledge is the term used for ancient practices, such as for farming and medicine, used by Pacific communities for many thousands of years. Sometimes traditional knowledge is sacred and people are discouraged from sharing it across tribes or cultures.
- Bananas are rated the fourth most important food crop in the world, and possibly the most important food crop in the Pacific.
- The Laufasi technique is a practice of rapid banana propagation that enables local farmers to use a single banana shoot to grow up to 15 new planting sprouts. This means that communities can more quickly recover food sources after a natural disaster.
- The Mara technique of banana preservation which involves burying unripe bananas underground for up to two years, ready to be dug-up and eaten when crops are decimated after a cyclone.
- The ability to rapidly grow more banana trees is also creating employment and income for people in Vanuatu.



**Australian Government**  
**Department of Foreign Affairs and Trade**

CREATING SKILLS FOR LIFE

*IMPACT Case Study*

# Preserving and Propagating Bananas



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# Sharing traditional techniques for survival

Students from the Australia-Pacific Technical College are rejuvenating traditional agricultural practices in the fight against the impact of climate change in Vanuatu.

In Vanuatu, about 75 per cent of the population live in regional and remote areas, with the majority of people relying on subsistence farming to grow enough food for their family's survival.

For many, bananas are a critical food source that is highly susceptible to damage by strong winds. An inability to replace damaged or destroyed crops can be life threatening for some villages.

When natural disaster hits Vanuatu, food and water shortages during the aftermath can be more life-threatening than the ferocious winds and floods during the peak of a cyclone.

Training to preserve and rapidly propagate the Pacific's most important source of food energy, bananas, has been successfully trialled in Vanuatu by two Australia-Pacific Technical College (APTC) students studying Certificate III in Community Services.

Joseph Afa from Samoa and Isso Nihmei from Vanuatu have combined their traditional knowledge with their new skills learnt at APTC, to train people to preserve and propagate bananas. This training will help to sustain lives post-cyclone and assist people to better adapt to climate change.

"Climate change is a really big issue now," says Joseph. "So sharing information from one country to another country is a good idea because everyone needs to survive and everyone needs to know ways to adapt."

Joseph is using the Samoan Laufasi technique with local people, a practice of rapid banana propagation.

Isso is using the Mara technique of banana preservation. This technique involves burying unripe bananas underground for up to two years.

Both of these techniques have been passed on through the generations for thousands of years, but the advent of westernised living in Vanuatu has seen the erosion of many traditional practices and knowledge.

Chief Johnson Sausiara, from Teouma Futuna or Iarofa Cultural Village, said people in Vanuatu rely on overseas disaster aid after a cyclone, such as rice and canned foods. As the impact of climate change worsens, future generations need to be more self-reliant, just as their ancestors were.

"I remember at the age of six I had to rely on the preserved banana and breadfruit. When you are in the middle of nowhere you have to know how to survive, and no one would make it without food preservation."

The Laufasi technique is practised in Samoa and was taught to Joseph by his elders. As part of his APTC studies

he developed a manual to teach the method to people in Vanuatu, such as local farmer Yoki.

"Before we could only carry one sucker up the hill to plant, but now I can carry 10 to 15 shoots from the one plant – yes, it's 15 times faster," says Yoki.

"Before we plant to live and now I plant to sell. Before I didn't have a job and now I can make the garden and also enough food to sell at the market and so now I have a job. The money helps with school fees and farmer's needs, like tools."

The Laufasi technique is not only allowing Yoki and others to earn an income for the first time, the technique will also help people to recover quickly from cyclones that often destroy an entire community's banana plantation.

As well as sharing a passion to help their communities adapt to the devastating effects of natural disasters, Joseph and Isso have also developed a friendship. In their first class together they were encouraged to share cultural information, so Joseph sang his national anthem and danced the traditional Samoan *siva tau* dance.

"When I did the dance, Isso was really interested to learn it and that's how we started to build a relationship," explains Joseph.

Joseph and Isso are just two of the many success stories from APTC as thousands of graduates return to their communities across the Pacific.

Joseph is thankful to APTC for changing his life, and for providing him with the opportunity to help others and to set a good example for his children, who have promised that "they will never quit education".

Chief Johnson, speaking on behalf of his community and others, explains that what APTC does is invaluable.

"It is very important that APTC comes to our villages and helps our communities. In the world we live in today it is very hard to spread information about traditional knowledge, and we need somebody to come in and to help get the message through to our young people in the Pacific," he says.

"Here we are trying to speed-up the process of making people understand the value of traditional knowledge and its value for their survival – without APTC it could take another 100 years, but with them it will be faster."

<sup>1</sup> Source: Daniells, J., L. Englberger and A. Lorens. 2011 (revised). *Farm and Forestry Production and Marketing Profile for Banana and Plantain (Musa spp.)*. In: Elevitch, C.R. (ed.). *Specialty Crops for Pacific Island Agroforestry Permanent Agriculture Resources (PAR)*, Holualoa, Hawai'i. <http://www.groforestry.net/jscps>

<sup>2</sup> Manual: [http://www.nab.vu/sites/all/files/projects/spcgiz\\_banana\\_multiplication\\_manual.pdf](http://www.nab.vu/sites/all/files/projects/spcgiz_banana_multiplication_manual.pdf) (PDF, Size: 1.3MB)



Joseph Afa, SPC-GIZ and APTC staff with Iarofa Cultural Village



Isso and Chief Johnson Sausiara using the Mara technique

Two children from Iarofa Cultural Village

## Laufasi - banana propagation

Joseph Afa introduced the Laufasi technique to Vanuatu, along with his manual in the local Ni-Vanuatu Bislama language during his work placement at SPC-GIZ (Secretariat of the Pacific Community - Deutsche Gesellschaft fuer Internationale Zusammenarbeit).

The Laufasi technique is a practice of rapid banana propagation that enables local farmers to use a single banana shoot to grow up to 15 new planting sprouts. This means that communities can more quickly recover food sources after a natural disaster.

"Through his APTC studies, and subsequent work placement at SPC-GIZ, Joseph has been able to introduce an ancient agricultural custom from Samoa and replicate that plant adaptation model here," says Joseph's APTC teacher, Annie Dares.

"Following its successful trial it is now being replicated into other communities across Vanuatu."

SPC-GIZ believes the banana multiplication technique may "radically reduce" the dependence of Ni-Vanuatu people on disaster rice aid.

For Joseph it is simply about being able to help the local people of Vanuatu to better adapt to climate change.

"It's time to share information, good information, and to share the traditional knowledge. It doesn't cost much money to do banana propagation, but if you buy the food it would cost money," Joseph says.

"Traditional food is rich in vitamins and minerals. So introducing this technique from my ancestors will help people to use their land to grow food and encourage them to go back to local food instead of eating those canned and import foods from the shops."

## Laufasi - banana propagation

Isso Nihmei used his APTC training to help teach others about a traditional way to preserve edible bananas by burying them underground for more than two years.

This Mara technique is common practice at Isso's home of Futuna Island, where they preserve a small portion of annual banana crops for the aftermath of a natural disaster and subsequent food shortages.

Because the process is quite detailed, Isso has developed a manual in the local Ni-Vanuatu Bislama language. Essentially, the technique involves burying the bananas deep underground so they may be dug-up later, cooked in coconut milk and eaten. Regarded as a delicacy, Mara bananas have the texture of cheese, a pungent smell, but a sweet taste.

## Pacific connection: sharing traditional knowledge

In addition to developing technical expertise and skills, APTC courses are an opportunity for people from 14 Pacific Island countries to meet, learn and share their culture, experience and traditional knowledge.

The banana propagation and preservation techniques are prime examples of how APTC is facilitating cultural and traditional knowledge sharing across the Pacific.

"APTC is the college that brings in the Pacific students like Fijians and Samoans to study. We build relationships and we share friendships, knowledge, tradition, songs, dance," says Isso Nihmei.

"So in this way we come to realise we Pacific Islanders have a common lifestyle so that means we no longer need to just keep our traditional knowledge, but we also have to share it. If we keep it to ourselves then we might lose the practices."

Joseph Afa, says the cultural exchanges at APTC have benefitted him immensely, changing his outlook on life, as well as the local people.

"The sharing of the experience of my ancestors is important because it continues the friendship and sharing of information between the countries," says Joseph.

APTC and its approach that encourages students to share culture and information are also applauded by Chief Johnson Sausiara, from Teouma Futuna or Iarofa Cultural Village.

"We have the knowledge sitting near the tree, but who will help us bring that out of the shade and into the sun to share with others? APTC and Isso [and Joseph] are the ones who can help us bring that into the sun," he says.