Apete with his dried Voivoi

Planting voivoi (pandanus) is largely considered a women's role in traditional Fijian customary practices, however, for 70-year-old Apete Camaibau, it's his bread and butter.

Of the many talents he possesses, and among his more conventional farming, engaging himself in voivoi planting is one of his more treasured activities.

The Vione man in Gau is a 'voivoi' farmer who does everything from the maintenance of his voivoi farm to the stripping of the thorns, to its boiling and drying, right up to the rolling of the long stacks of pandanus caricosus leaves.

The account of Apete's 20 years of experience as a voivoi farmer illustrates a number of social instruments that impacts the progress of a man in a more female centric agricultural venture. His voivoi farm has a total

THE VOIVOI MAN OF VIONE

of 3,000-4,000 pandanus trees which is not only for farming but also considered by him as his safe haven.

"Voivoi is known to be for ladies but for me, I see that men can also be involved in this and it has provided for my family needs and wants and has built a home over our heads," he said.

"This is also a place where I go to and have some muchneeded me-time and often, ideas would arise while I am surrounded by the voivoi, I would often talk to the plants and I find solace in it."

Voivoi is made by cutting the leaves off the voivoi plant, stripping off the thorns, then hanging them out in the sun to dry.

Once dried, a mussel shell is used to scrape each leaf repeatedly until it smoothens and then is rolled, boiled and dried again in the final process.

Apete has secured his voivoi market with a Vanua Levu lady at the Suva Market selling the voivoi at \$25 dollars per white coils with each roll containing between 80 to 120 pieces and \$60 for the 'somo' (black voivoi).

The 'somo' or rolls of black voivoi is used for the stripes in the art of mat weaving, the black colour is a result of boiling the voivoi in a special leaf or batteries in water for a few hours.

The voivoi business has excelled over the years enabling him to build his family home. He has also worked tirelessly to build upon his voivoi dream and has also managed to build a shop that operated in the village until his Mataqali established its own shop in the village.

Not only did he build a home and a shop, Apete with the voivoi money put his children through their education.

"The challenges I face are the pests that often destroy the voivoi leaves and the change in the weather pattern, when it is rainy and wet I find it most hard to look after my voivoi," he said.

With all the triumphs and challenges he faces, he has set a vision to better his voivoi business and to purchase a vehicle from the voivoi sales to assist with his market and to build a warehouse for drying of his voivoi during rainy seasons.

"Voivoi compared to other crops, will only be planted once and will continue for generations, whereas the other crops, after harvest you will need to replant," he said.

"I would like to advise our youth, this can also be used as one of the short term commodities you can cultivate to generate income every month and can earn you approximately \$2,000-\$3,000 monthly while waiting for your yaqona plants to mature in 3-5 years," advised the also skilled fisherman.



Apete Camaibau (left) in front of his Voivoi shed

TIPS TO KEEP BEES SAFE BEFORE AND AFTER A CYCLONE



During a cyclone strong winds can topple bee hives over and flash flooding that is also likely to occur, can wash bees away. Cyclones also have an impact on the available food resources for bees (flowering trees).

Being prepared and knowing what to do following a storm can help reduce the impact of cyclones for beekeepers and their bees. The Fiji experience suggests the main difference between losing only 10 - 20% of bee colonies and losing 70% or more is if the hives were strapped down tightly, including the hive bottom, boxes, and lid with the frames inside.

The hives will topple over, but it can be lifted upright shortly after the cyclone when it is safe to do so and placed back on its stand.

Without a rope secured around the hive, the frames are likely to be thrown out of the boxes and the bees lost.

A stable hive stand and not having hives too far off the ground will also help. There are more elaborate and better ways to protect hives, but a rope (or two) wound firm around the hive is a cheap solution that has worked well during the past cyclones.

- Safety first. This is obvious, but remember that your life is more important than your bees. Never put yourself or others at risk for your hives.
- Start early. As with home preparation, it is better to prepare your apiary and beekeeping response sooner rather than rushing or panicking later.
- 3. Store some sugar. After the storm, your bees' food supply may have been destroyed. You will want to be able to supply them with something to eat right away. Feed your bees with dry sugar and keep records of what flowers first after weather events.
- Repair beekeeping equipment. Seal any cracks or holes in old bee boxes to reduce exposure to wind and rain.
- Move bees where appropriate. If bees are located in a high wind area or areas which may flood, move bees into a shed or other protected and safer areas for 48hrs while the storm passes. Close entrance to the hives in the evening. Do not put bees in the house or in sheds near houses!
- 6. Mark hive location. If you want to return the hives to where they were before the cyclone, especially if you have a lot of hives to manage, take note of the position/location of each hive and write it down for future reference.
- Reduce the bee entrance as small as you can. If it is not possible to move the bees, fully closing the entrance helps prevent wind and water from getting into the hive. On the other hand, depending on the season, closing off the entrance may create unsafe high temperature conditions inside or prevent an escape by the bees in the event one is needed. This is why it is an advantage to reduce the size of the entrance as much as possible without closing it up entirely. In the event of rising water or the hive is blown into water, this entrance can be your bees last chance of an escape route. Additionally, after the cyclone, if you are not able to get to your hives immediately, this same entrance allows the bees to exit the hives.
- 8. Move bees away from trees, power lines,

- and other hazards. You do not want your hives crushed by falling trees or electrocuted by a live wire during a storm.
- Place hives on high ground. One major threat to hives during a cyclone is flooding. Keep bees off the ground, but note that placing bees higher means they are potentially more exposed to more wind.
- 10. Close up screen bottom boards. A broken window in a home during a cyclone can result in dangerous wind tunnels, and similarly, high winds during a cyclone are dangerous for bees and can create a high-pressure environment inside a hive. Many beekeepers make wind barriers with cardboard in order to help prevent a potential wind tunnel.
- 11. Tilt the hives. Tilting hives forward is important, where possible. This will help water exit the hive if it got in.
- 12. Secure hives together and/or to a heavy object and strap it down. You will need ratchet straps or rope and ground anchors (e.g. fence post/star pickets) to secure your hive(s). Securing the hives with ratchet straps or rope will help to keep it in one place and one piece. Consider securing the hives both horizontally and vertically, and securing them all together if you have multiple hives.
- 13. Put away all apiary equipment. Your apiary equipment should be stored away safely. You do not want your tools to become dangerous flying projectiles or to fly away and never be seen again!

CARING FOR BEES AFTER THE STORM

- 14. Be prompt to clean up dead hives. Hundreds of dead bees will stink after a few days. Do not hesitate to remove them. If bees have American Foulbrood Disease (AFB) this is a major issue that may impact on your entire apiary.
- 15. Do not bother your bees too much. Put them back together, but leave bees to settle for a week or so. Bees will likely be cranky, hungry, and defensive after a storm.

 Be ready to use full protective equipment

Be ready to use full protective equipment, including gloves, a bee veil, suit up, and wear

- the correct footwear.
- 16. Feed your bees. After a storm, flowers, vegetation, and other things that the bees eat may have been blown away. Keeping sugar and water on hand for sugar feeding can prevent starvation.
- 17. Watch for robbing afterwards. Scarcity created by the cyclone destroying flowers and plants will affect all hives (including neighboring and wild hives) in the area.
- 18. Reach out to your local bee associations and departments. If you need help with your bees after the storm, your local bee association is usually a great resource. Or you may be able to offer a helping hand to anowther beekeeper in need in the aftermath of the storm.

