

# **Interisland Exchange of Womens' Traditional Knowledge and Skills is Key to Cyclone Harold Recovery and Resilience on West Coast Santo**

## **Coconut Thatch Weaving Workshops**

**11-16 May 2020**

### **Introduction**

Category 5 Cyclone Harold made a direct hit on West Cast Santo on Monday 6 April, after spending 24 hours in a nearly stationary position close offshore. Based on satellite imagery, and eyewitness accounts, it is estimated that the eye of the storm passed directly overhead of the village areas of Kerewai 1 and Kerewai2. With severe winds lasting from 6:00am to 4:00pm, extensive damage was inevitable across the West Coast Santo area.



### **West Coast Santo Background**

The western side of Espiritu Santo is a very remote area, characterized by high rugged mountains (up to 1879m), sloping steeply towards the sea. The beaches of the West Coast tend to be black sand, and rocky in nature. A Map of Santo is available here: <https://drive.google.com/open?id=1Ylmg3Vb4qqJ6n8CHltMS-PH4DqorrZQi>

Infrastructure on West Coast Santo is extremely limited, with an unpaved road leading from Luganville to Tasiriki (3 hours) and regularly prone to riverine flooding. From Tasiriki, the only option to reach West Coast Santo villages is via boat or bush tracks. Mobile phone connectivity is also limited.

The total population of the West Coast Area council is 2592 people, in 528 households, spread across 25 primary villages and residential stations. These small villages are spread along the Coast and found in the hills. Access to inland villages is extremely difficult, often involving several hours hike.

Because of low accessibility, development is minimal and economic activity is limited to primary production, heavily dependent on the environment. Primary cash crops are Kava, Copra, Cacao, Sandalwood and villages earn additional income by marketing products like Citrus, Watermelon, Peanut and Taro in Santo's main town of Luganville. Food crops include primarily water taro, dryland taro, banana, yam, and manioc, interspersed with vegetables like island cabbage, corn, tomatoes, and cucumber.

Housing is predominantly composed of local materials, with bamboo walls, Natangura palm thatched roof *Metroxylon warburgii*, and bush rope strappings. Few cement or permanent structures exist.



### **Cyclone Damage to Housing and Community Buildings**

In addition to severe damage to environmental habitats, food gardens and water supply systems, TC Harold caused full destruction or substantial damage to over 736 structures on the West Coast, which now urgently require building materials.

Although the national government has mobilized a food relief delivery, no shelter materials have yet been provided, over one month since the cyclone hit. Not a single tarpaulin has been mobilized for the over 500 households who have lost their homes on West Coast Santo.

The traditional Natangura palms used for roof thatch were nearly completely destroyed, meaning local families could not commence rebuilding their homes. In the aftermath of TC Harold, over 7300 coconut trees were destroyed or damaged, and coconut fronds were scattered across plantations. In the past, West Coast found no use for coconut fronds, and they were considered a waste material.

## An Innovative approach to mobilize Traditional Knowledge of women Weavers

Rather than bemoan the inadequate response to the crisis, the Santo Sunset Environment Network and Edenhope Foundation, two locally based NGOs on West Coast Santo reached out to partner NGO Butterfly Trust to help source women from the island of Tanna who know how to utilize downed/dry coconut fronds for thatch making.

The Butterfly Trust quickly identified 9 weavers from Tanna island, men and women, who were already residing in the urban center of Luganville on the island of Espiritu Santo. The weaving team was paired with local West Coast environmental champions of the Santo Sunset Environment Network to undertake a 1-week training mission in over 14 badly affected communities across the West Coast of Santo.

### Purpose

The main purpose of the traditional knowledge exchange was to help the people of West Coast Santo make urgently needed roofing that from downed coconut fronds in the absence of any shelter assistance from Government.

The training workshops used the skills and knowledge of coconut thatch weaving from the island of Tanna to support TC Harold early recovery on the island of Santo among women, girls, men and boys.

### Traditional Knowledge Exchange Team



#### Tanna Team of 9 Coconut Thatch Weavers

EoC / SSEN Team included

- Dr. Christopher Bartlett +678 5552187  
[PacificIslandClimateChange@gmail.com](mailto:PacificIslandClimateChange@gmail.com)
- Rexly Bune, Santo Sunset Environment Network
- Rehard Rojo, Santo Sunset Environment Network
- Jacob RevuRevu, Santo Sunset Environment Network
- Benua Jamu, Santo Sunset

Environment Network

- Maria Manwoo, Edenhope Foundation

Financial and technical support was provided by:

- The Butterfly Trust
- The Edenhope Foundation
- The National Disaster Management Office
- The Vanuatu Business Resilience Council

## Schedule of Trainings

The table below shows the coconut weaver training Schedule for the 1-week mission.

Community	Number of Weavers	Date/ Days of Workshops	Person responsible
Kerevenopu	2	11- 13 <sup>th</sup> May 2020 ( 3 days)	Maria Manwo & Christopher Bartlett - Santo Sunset Environment Network (SSEN)  Martha Elud & Magreth Bong (Coconut Weaver)
Sulemauri	2	11-13 <sup>th</sup> May 2020] (3 days)	Benua Jamu – SSEN  Christin Naupa & Kenneth Naupa (coconut weaver)
Tanokovu	2	11-13 <sup>th</sup> May 2020 (3 days)	Jacob Revurevu - SSEN  Maul Harry & Kathleen Telma (coconut weaver)
Pareo	1	11-13 <sup>th</sup> May 2020 (3 days)	Rexly Bune – SSEN Janet Tally (Coconut weaver)
Sauriki	2	11 – 13 <sup>th</sup> May 2020 (3days)	Richard Rojo – SSEN Kathleen Katipa & Yvette Nockiam
Linduri	1	14 – 16 <sup>th</sup> May 2020	Rexly Bune – SSEN Maul Harry (Coconut weaver)
Wusi	2	14 – 16 <sup>th</sup> May 2020	Richard Rojo – SSEN Yvette Nockiam & Janet Tally (Coconut weaver)
Kerepua	2	14 -16 <sup>th</sup> May 2020	Jacob Revurevu - SSEN

			Kathleen Telma & Magreth Bong (Coconut Weaver)
Elia	2	14 – 16 <sup>th</sup> May 2020	Benua – SSEN  Christine Naupa & Kenneth Naupa (coconut weaver)
Tasmate	2	14 – 16 <sup>th</sup> May 2020	Maria Manwo - SSEN Martha Elud (Coconut Weaver)
Vasalea	1	14 – 16 <sup>th</sup> May 2020	Christopher Bartlett - SSEN Kathleen Katipa (Coconut Weaver)



## Physical Outcomes

Community	Number of 2m thatch pieces woven	Number of Structures Roofed	People trained	
			Male	Female
Kerevenopu / Lalaolo / Tovotovo	40	To be built	3	22
Suleamauri	46	1 Half partly complete roof	20	28
Tonokovu - Voji	32	To be built	24	16
Jaranavusus	28	To be built	7	7
Valabay	34	To be built	8	16
Pareo / Salalope	200	To be built	10	21
Sauriki	180	One small complete storage house	50	34
Linduri	180	One small community hall completed	3	12
Wusi	276	Small community Kitchen completed	30	39
Kerepua	256	1 Small kitchen completed and a toilet to be completed	15	32
Elia	98	Small community Kitchen	20	30
Tasmate	115	Community kitchen completed	8	42
Vasalea	136	1 completed tool shed	15	40
<b>TOTAL</b>	<b>1,621</b>	<b>8</b>	<b>213</b>	<b>339</b>

## Intangible Outcomes

- Women, and the role they play in weaving roofing thatch for TC Harold recovery was acknowledged and expanded.
- Men recognized that women play a vital role in filling the shelter response gap left by inadequate government relief efforts.
- Previously considered unusable coconut fronds became a sought-after item after the training
- The training limited the need to rely on outside products and relief, instead building on traditional knowledge and local materials.

## **Lessons learned**

The week-long traditional knowledge exchange on coconut thatch weaving yielded valuable lessons and experiences which may be replicated elsewhere:

- Use dry coconut fronds but not green coconut leaves, because green leaves, when they dry on the roof will become loose/slack due to shrinkage. When green leaves shrink there will be holes in the roof and it will be more likely to rot.
- Dry coconut fronds can be washed with or soaked in water for easy weaving, as they will be more flexible when wet
- Used buraos (Dry) in tying coconut leaves as this rope is better than Pandanus as it is stronger and more flexible. Bush ropes can also be used, but these ropes tend to be less flexible and harder to work with. In some villages, weavers used mosquito netting as a rope, and even Chinese plastic rope. Always use ropes that are thin and strong/ or ropes that can last for a long time. The type of ropes to be used should be clearly communicated in advance.
- Use bamboo flat lengths of between 2-3m as the bar on which coconut leaves are folded and tied for thatch pieces
- The bamboo lengths should be as thin and narrow as possible (e.g. <5cm) because thin bamboo will use the least space and makes tying ropes easier and stronger.
- Weaving of coconut can use 3 or 4 leaves to bend over the bamboo. For some people with small hands, 4 leaves is too much, and so 3 can be used. 4 leaves however make the thatch more watertight
- The spacing of thatch on roof should be as close together as possible (2 inch). Small spacing will ensure water will not come into the house, and the thatch roofs can last for 5 – 10 years.
- If you build a fire under the newly thatched roof and smoke cures the thatch, it will last longer
- Thatch roofing should be tightly tied enough to the structure/frame of the house to keep the thatch from flying out during strong wind. Thatch can be tied using bush rope or also nailed with 2" roofing nails.
- Two to Three days is a suitable time for training of this nature, often trainings cannot start on the first day due to village preparation, and so time must be built into the program for unexpected delays.

## **Challenges**

- At the current time, many cyclone relief activities are taking place in each community, meaning villagers have limited time to focus on a weaving training as they look for food, water and repair shelters
- CDCCs members are essential to organizing community weaving workshops, and without their support, participation of the community is lower than expected.
- TC Harold caused extensive damage to all trees, including coconuts. While many coconut leaves were downed, many of them had already rotted by the

time of the training. Plantations are often far distances from the villages, so people had to walk long distances to collect fronds for the weaving workshops. In some cases, the weaving trainers did not have access to enough leaf coconut to make a complete a thatch for housing. Some communities were well prepared with materials, others had not amassed enough leaves, bamboo and rope.

- Villagers found that it is more time consuming to do weaving with leaf coconut compared to the leaf of the Natankura palm. This is because it is a new skill and learning takes time
- Workshops were organized in main village centers only, however there are many small stations located in the hills of West Coast Santo, so for many people walking for a long distance across steep hills to training sites was difficult
- Due to the cyclone, there was a lack of shelter for meeting purpose, this caused problems as extreme sun and rain affected training workshops. Also there was limited shelter and accommodation for weaving team members.
- Lack or shortage of leaf coconut and other material need (e.g. ropes and bamboos) for weaving during the weaving practical, this is due to damage by TC Harold also pressure on these resources for normal house rebuilding during this period.
- Many people in West Coast Santo do not speak fluent Bislama, so much of the activity was done in local language making it difficult for trainers from other islands
- Weaving of thatch is traditionally women's work, and so it was challenging to encourage men and boys to learn this skill, although in some communities men actively participated in weaving training
- In some communities, although villages were informed in advance by letter and SMS message, villagers did not prepare in advance with coconut weaving materials, which slowed down progress



## Conclusions

- Coconut Thatch weaving is a new skill for the people of the West Coast, this training represents the first time that a group of Tannese weavers came to the area to teach this practice.
- Coconut thatch is a viable alternative to Natangura, particularly in cyclone disaster contexts when other leaves are in short supply or unavailable
- Coconut thatch weaving can be undertaken by both women and men, and is an important gender-relevant activity which can empower women, girls and people with disability to meaningfully contribute to cyclone relief and recovery. Traditional gender roles and sensitivities have an impact on the participation in weaving of each demographic
- Use of locally available materials is often better for environmental sustainability and resilience than always relying on externally sourced materials
- Traditional knowledge from one island can be successfully transferred to other islands in times of need, particularly when government has failed to supply tarpaulins and other shelter materials
- New skills based on Vanuatu's rich sources of traditional knowledge around house construction, food preservation, sustainable agriculture , medicine/health should be built into relief and recovery programs
- Using existing and locally-based NGOs like the Santo Sunset Environment Network and the Edenhope Foundation to organize and deliver trainings is more appropriate, cost effective and successful then using large international NGOs or urban-based departments



