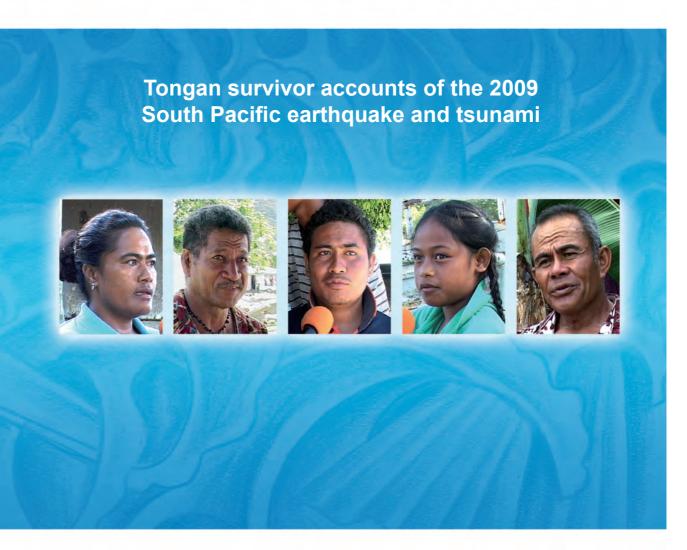
NIUATOPUTAPU TSUNAMI



Interviews by 'Anau Fonokalafi, with illustrations by Soakimi Maka Finau

Co-published by the Tonga Broadcasting Commission and the International Tsunami Information Center

Niuatoputapu Tsunami



Figure 1. Turbulent seas off Falehau, Niuatoputapu, during the tsunami of 30 September 2009.

Niuatoputapu Tsunami

Tongan survivor accounts of the 2009 South Pacific earthquake and tsunami

from interviews by 'Anau Fonokalafi

with illustrations by Soakimi Maka Finau

Co-published by the Tonga Broadcasting Commission and the International Tsunami Information Center 2013

ISBN 978-982-98077-2-4

Co-published by:

Tonga Broadcasting Commission (TBC) Fasi, Nukuʻalofa, Tonga, South Pacific Telephone: 676-23555

Facsimile: 676-24417

and

International Tsunami Information Center A UNESCO/IOC-NOAA Partnership Honolulu, Hawaii, USA E-mail: itic.tsunami@noaa.gov

URL: http://www.tsunamiwave.info

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The Tonga Broadcasting Commission was assisted by the International Tsunami Information Center under a UNESCO/IOC-NOAA partnership book publishing program. The program was implemented through the publishing consultancy of Vava'u Press Ltd., Nuku'alofa, Tonga.

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Artwork by Vava'u Press Ltd., Nuku'alofa, Tonga. Cover design by Peter Henwood.

Printed by International Tsunami Information Center (ITIC)
United Nations Educational, Scientific and Cultural Organization (UNESCO)
Intergovernmental Oceanographic Commission (IOC)
USA National Oceanic and Atmospheric Administration (NOAA)

In memory of the nine Tongans who lost their lives in the tsunami of 30 September, 2009

Kalolo Kīvalu (65), Hihifo Sosefo Lefai (59), Hihifo Losalio Lefai (53), Hihifo Polasapina Lefai (2), Hihifo Toni Lefai (1), Hihifo Heneli Losalu (68), Hihifo Lupe Ohi (85), Hihifo Tulonia Tavake (69), Hihifo Lesina Tupouto'a (74), Hihifo

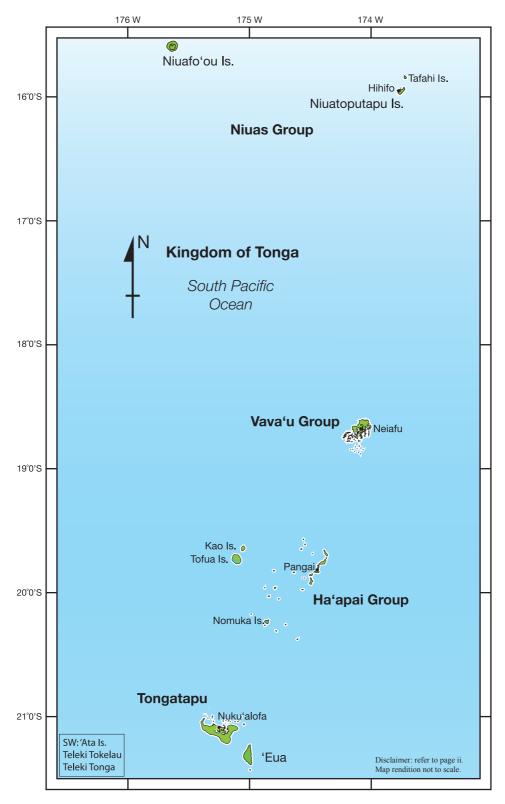


Figure 2. Map of the Kingdom of Tonga.

Foreword

The small South Pacific island of Niuatoputapu and its nearby volcanic cone Tafahi, along with a distant neighbour Niuafo'ou, form a remote region known as the "Niuas", in the far north of the Tonga islands.

Before September 2009, about 950 people lived on Niuatoputapu in the three small coastal villages of Hihifo, Falehau and Vaipoa; with another 69 or so in an elevated village on the slopes of Tafahi Island. Their largely traditional lifestyle depended on fishing, gardening and the weaving of pandanus, to produce mats; and the sea formed an integral part of their lives.

Niuatoputapu sits on the edge of the deep Tonga Trench, one of the most seismically active regions on earth. In September 2009, a powerful undersea earthquake, centred in the Tonga Trench between Niuatoputapu and Samoa, caused a large tsunami that devastated the surrounding coastlines of Western Samoa, American Samoa, and northern Tonga, and killed 189 people; nine of them in Niuatoputapu. It was September 29 in Samoa, but across the International Dateline in Tonga, it was September 30, at a local time of 6:48 am.

The tsunami was a wake-up call for everyone who lives in coastal areas. The people of the Niuas, who witnessed the power of the tsunami, will never forget that day. The earthquake generated at least three major waves with the highest rising 22.5 metres above sea level on the uninhabited southern coast of Tafahi; and 16.9 metres at Toma, on the uninhabited southeastern coast of Niuatoputapu.

Three waves swept into Hihifo, Falehau and Vaipoa, with the third wave reportedly higher than the coconut trees at the beach. Later, a survey team measured a flow height of 5.4 to 7 metres in Hihifo and Falehau, and 4.5 to 5.3 metres at Vaipoa. During the first and the second smaller waves, many of the residents evacuated to higher places and were saved in spite of the devastation to their communities.

In January 2010, the Tonga Broadcasting Commission sent a television crew to Niuatoputapu to interview the survivors. The documentary team, including myself and 'Anau Fonokalafi, interviewed over 50 people, and we took along an artist, Soakimi Maka Finau, who drew 31 sketches from the survivors' descriptions of the tsunami. We produced a one-hour documentary called "Niuatoputapu after the Tsunami of 2009", that was broadcast by Television Tonga in March 2010.

This book is based on our documentary, along with three other interviews recorded on October 3, 2010, at the Vaiola Hospital in Nuku'alofa, where several injured survivors had been evacuated for treatment. It also includes photographs and diagrams.

We would like to thank the people of Niuatoputapu for sharing their stories with us. Through their eyewitness accounts, we see how the tsunami came, and understand how the residents evacuated to higher ground.

We hope that others will be able use this book to learn about the nature of tsunamis, and that the sharing of this knowledge can save lives in future.

Masaharu Ando, Documentary Director.

About the presenters



'Anau Fonokalafi

Television Tonga producer-presenter, 'Anau Fonokalafi, traveled to Niuatoputapu to cover the impact on a small community of the earthquake and tsunami of 30 September 2009 – the island's greatest natural disaster in living memory.

At the time, 'Anau had worked in Television Tonga's production department for two years producing traditional and community programs, many of them about the assistance given to Tonga by the Japanese Government and people through its aid and volunteer projects. 'Anau began her career with the Tonga Broadcasting

Commission as a news reporter, covering general news for Radio Tonga and Television Tonga for six years. Working on the Niuatoputapu tsunami program in 2009 was a major production for 'Anau, under the direction of an experienced Japanese television director, Masaharu Ando.

'Anau who comes from Pangai, Ha'apai, lives with her family at Sopu in Nuku'alofa.



Masaharu Ando

Japanese International Cooperation Agency (JICA) Senior Volunteer, Masaharu Ando spent two years in Tonga, from September 2008-10, helping the Tonga Broadcasting Commission to produce television programs.

He worked for NHK, the Japan Broadcasting Corporation, for 33 years as a news reporter, television news director and a digital contents director, and was a Director General of NHK Kushiro Station. Ando has covered many natural disasters, natural and environmental problems as a reporter in Japan. He experienced the Kushiro

earthquake, the Okushiri tsunami, the Usu volcanic eruption, the Mihara Mt. volcanic eruption and other events. Ando has made documentary television programs on the smuggling of animals, endangered wildlife and global environment issues. In Tonga he captured on film the stories of the survivors of the Niuatoputapu tsunami.

Ando envisaged that the compelling eyewitness accounts and the material gathered from the television program could be presented in a book. It is through his efforts, with the support of JICA volunteers in transcribing the Tongan tapes, that this book has been produced for a wider audience.

Ando lives in Tokyo.



Soakimi Maka Finau

Soakimi, a young artist from Ha'apai, was invited to join Television Tonga's crew covering the impact of the September 30 tsunami on Niuatoputapu. Traveling around the remote island and visiting campsites, Soakimi talked to survivors and sketched impressions of their experiences, highlighting their dramatic escapes from the waves.

Soakimi has always loved drawing. At high school in the late 1990s he was able to advance his skills and practice pencil sketching. Soakimi now lives at Halaleva in Nukuʻalofa.

Acknowledgements

Sincere thanks are extended to the people of Niuatoputapu who shared their stories with us, and offered hospitality to our crew in the most difficult of circumstances.

This book was made possible by the work of the following people, who are thanked for their valuable input: the television crew, including the documentary director and cameraman Masaharu Ando, the producer-presenter 'Anau Fonokalafi, and the artist Soakimi Maka Finau, who traveled to Niuatoputapu to interview the survivors; the JICA volunteers who transcribed the Tongan tapes; and the production editor Mary Lyn Fonua and staff of Vava'u Press Ltd. in Nuku'alofa who implemented the program for producing the books in Tongan and English. Our thanks also go to 'Ofa Fa'anunu of the Tonga Government's National Emergency Committee, the Tonga Defence Services personnel in Niuatoputapu, and the many people who allowed us the use of their photographs, who are named individually in our illustrations list on pages xii-xiii. Finally, we are grateful to the International Tsunami Information Center (a UNESCO/IOC-NOAA Partnership) in Honolulu, Hawaii, and its Director, Laura S. L. Kong for supporting the publication of the Niuatoputapu Tsunami books for educational purposes; as well as the sponsors who helped to fund the distribution of these books to schools in Tonga. Through the generous assistance and commitment of these organizations the publication of these books was made possible.

Malo aupito.

Nanise Fifita, General Manager and Executive Producer, Tonga Broadcasting Commission.

Contents

	Page
Foreword. Masah	aru Andovii
About the presen	tersviii
Acknowledgemen	ix ix
List of figures and	d illustrationsxii
	ni?xiv
	nami following the Samoa-Tonga great
	29-30 September 2009. Laura S. L. Kongxvii
	natoputapu after the tsunami of 30
	009. 'Anau Fonokalafixxi
Niuatoputapu tsu	nami survivor accounts, translated
	interviews recorded by 'Anau Fonokalafi:
Hihifo	
1. \$	Sililo Kīvalu (63)1
2. '	Ipeni Vakatā (70)
3. N	Mikaele Pātolo (50)4
4. I	Fokikovi Lēfai (41)5
	Uluaki Losalu (68)6
	Veteange 'Akau (36)
	Paea Kuma (24)
	Mele Lēfai (30)
	Sulifa Losalu (65)
	Pouahi Holi (49)
	Lu'isa Vao (50)
	Salesi Tūtoe (34)
	Nōkisi Nau (36)
	Leone Kīvalu (38)
	Peatā Kīvalu (9)
	Siaosi Tupa (65)
	Siaosi Lino (75)
	Hika Lino (29)
	Polealisi Koloa (37)
	Moti Fangupō (27)
	Malia Nuku (42)
	Alisi (52) and Viliami Kolofoʻou (55)
	Lina Losalu (39)
24 1	āmano Losalu (46)

Falehau	ı		
	25.	Visesio Losalu (37)	25
	26.	'Enisema Kohinoa (43)	26
	27.	Mikaele Minoneti (52)	27
	28.	Sāloni Maea (27)	28
	29.	Malieta Tevesi (16)	29
	30.	Foloana Nau (10)	30
	31.	Manuake Fakaanga (39)	30
	32.	'Otolose Maea (25)	31
	33.	Uikelotu Langi (70)	33
	34.	Malakai Mini (49)	34
	35.	Louena Mini (37)	34
	36.	Malia Nive Afa (43)	36
	37.	Tevita Afa (16)	37
	38.	Nukonuka Hui (56)	38
	39.	Vātau Hui (63)	39
	40.	Mosese Vea (17)	39
	41.	Fakatu'anoa Vea (52)	40
	42.	Hemaloto Afemui (12)	41
	43.	Kolo Poʻuli (41)	41
	44.	Leone Faka'osi (41)	42
	45.	Sefilino Faka'osi (51)	42
	46.	Siale Pongipongi (64)	44
Vaipoa			
	47.	Manu Tangimausia (59)	45
	48.	Tou'anga Tangimausia (19)	46
	49.	Mele Tangimausia (38)	47
	50.	Fatai Finau (70)	48
	51.	Kakala 'Ōnesi (51)	48
	52.	Maleko 'Ōnesi (54)	48
	53.	Maka Afei (52)	50
	54.	Ma'ulolo Manu (56)	51
Tafahi			
	55.	Visesio Faka'osi (21)	52
Endnotes			53
What to do?	Sen	sing a Tsunami	55

List of figures and illustrations

Figures:	Page
Figure 1.	Turbulent seas off the reef at Falehau, Niuatoputapu Island, during the
	tsunamis of 30 September 2009. Photograph Richard and Rachel Caswell
E: 0	(SY Kachina), courtesy Sylvia Hochreiner (SY Galathe) ii
Figure 2.	Map of the Kingdom of Tongavi
Figure 3.	Tsunami wave characteristics. After 'Tsunamis on the Move' poster,
	Honolulu, revised 2011. International Tsunami Information Centerxiv
Figure 4.	Diagram of features measured during post-tsunami surveys at Niuatoputapu
	and Tafahi, Tonga, for the 30 September 2009 tsunami. After Tsunami
	Glossary 2008. Intergovernmental Oceanographic Commissionxv
Figure 5.	Earthquakes can generate tsunamis. 'Tsunamis on the Move' poster,
	Honolulu, revised 2011. ITICxvi
Figure 6.	Locations of main earthquake and sub-events (circles) of the September
	2009 Samoa-Tonga great earthquake. ITICxvii
Figure 7.	Generalized tectonic sketch showing the earthquake doublet, resulting
	tsunamis, and their relationship to Samoa and Tonga. After Satake 2011. ITIC. xviii
Figure 8.	Northern peninsula, Niuatoputapu, Tonga. Aerial reconnaissance of tsunami
	damage, 30 September 2009. Photograph Pesi Fonuaxix
Figure 9.	Niuatoputapu and Hunganga inundation points, determined from satellite
J	imagery and a GPS field survey. Courtesy National Science and Technology
	Centre for Disaster Reduction, Taiwan; and GNS Sciencexix
Figure 10	Shattered by a tsunami, Hihifo, Niuatoputapu. Aerial reconnaissance, 30
	September 2009. <i>Photograph Pesi Fonua</i> xx
Figure 11	Falehau village, Niuatoputapu. Aerial reconnaissance, 30 September
118410 11.	2009. Photograph Pesi Fonuaxx
Figure 12	A pick-up truck entangled with tsunami debris, inland at Hihifo,
1 15010 12.	Niuatoputapu. 30 September 2009. Courtesy Tonga Red Cross
Figure 13	At an emergency health centre LDS Church compound, Hihifo, a family
riguic 15.	mourns. Courtesy Tonga Red Cross
Eigura 14	Hihifo, 5 October 2009. Photograph Susana Matangixxiii
rigure 15.	Examples of flow depths indicators in Hihifo village. <i>Courtesy GNS</i>
Fi 16	Sciencexxiv
Figures 16	5. & 17. Before the tsunami, Government offices at Hihifo in August 2008.
F: 10	Photographs Sione Ulakaixxv
Figure 18.	Government offices at Hihifo after the tsunami of 30 September 2009.
	Photograph Masaharu Andoxxv
Figure 19.	Before the tsunami, Likamonu Health Centre and Hospital, Hihifo, August
	2008. Photograph Sione Ulakaixxvi
Figure 20.	Likamonu Health Centre and Hospital, Hihifo, after the tsunami of 30
	September 2009. Photograph Susana Matangixxvi
Figures 21	. & 22. Before the tsunami, the Tonga Development Bank, at Hihifo, August
	2008. Photographs Sione Ulakai

Figure 23. The Tonga Development Bank	k's locatio	on after the tsunami of 30	
September 2009. Photograph	Masahar	и Andoxx	vii
Figure 24. Aerial view of Hihifo village,	Niuatopu	ıtapu, 14 October 2009, HMNZS	
Canterbury deployment. Photo	tograph L	AC Grant Armishaw, NZDFxxviii-xx	ix
Figure 25. Three villages, Falehau, Vaipo	oa, and H	ihifo. Aerial reconnaissance of	
tsunami damage, 30 September	er 2009. <i>I</i>	Photograph Pesi Fonuax	XX
Figure 26. Mud spills into the Niuatoput			
-		mber 2009. Photograph Pesi Fonuax	XX
Figure 27. Tsunami debris covers the Nii	_		
		Fonuaxx	xi
Figure 28. Tsunami waves in the lagoon	_		
-		gency Management Officexx	xi
Figure 29. Tsunami survivors gather on l			
-		ed Cross xx	κii
-	_	0. Photograph Masaharu Ando xx:	
	-	atoputapu. Courtesy GNS Science	
2 ,			
Illustrations by Soakimi Maka Finau:			
mustrations by Soakimi Maka Pinau.			
Sililo Kīvalu	2	Mele Tangimausia	47
'Ipeni Vakatā	3	Kakala and Maleko 'Ōnesi	49
Mikaele Pātolo	4	Maka Afei	50
'Uluaki Losalu	7	Maʻulolo Manu	51
Pouahi Holi			
Lu'isa Vao	.13		
Leone Kīvalu	.15		
Hika Lino	.17		
Polealisi Koloa	.18		
Moti Fangupō			
Malia Nuku			
Viliami Kolofo'ou	.21		
Lōmano Losalu	.23		
'Enisema Kohinoa	.26		
Sāloni Maea	.28		
Malieta Tevesi	.29		
Manuake Fakaanga	.31		
'Otolose Maea	.32		
Uikelotu Langi	.33		
Malakai and Louena Mini			
Tevita Afa	.37		
Vātau and Nukonuka Hui	.38		
Fakatuʻanoa Vea	.40		
Sefilino Faka'osi	.43		
Siale Pongipongi			
Touʻanga Tangimausia			

What is a Tsunami?

The phenomenon we call "tsunami" is Japanese term meaning wave ("nami") in a harbour ("tsu"). It describes is a series of traveling ocean waves of extremely long length generated primarily by earthquakes occurring below or near the ocean floor. Of the 2,100 tsunami events in recorded history since 1410 BC, 89 percent were generated by earthquakes, or earthquake-generated landslides, six percent by volcanic eruptions, three percent by landslides, and the rest by other unknown sources.

Tsunami waves follow the laws of wave physics in water. In the deep ocean, the tsunami waves propagate at jet aircraft speeds, exceeding 800 kilometers per hour, but with wave heights of only five to 100 centimeters. Tsunami waves differ from ordinary ocean waves by their great length between wave crests, often 100 km or more in the deep ocean; and differ in the time between these wave crests, ranging from 10 minutes to an hour. As they reach the shallow waters of the coast, the waves slow down, and the water can pile up into a wall of destruction 10 to 30 meters in height. The effect can be amplified where a bay, harbour or lagoon funnels the wave as it moves inland

Large tsunamis have been known to inundate up to six kilometres inland and run-up to over 40 metres (figure 3). Waves with flow depths as small as 50 cm can easily knock a person off their feet, and a tsunami two to three meters high can crush homes destroying communities. As tsunamis rush to shore, strong and often unpredictable water currents are produced, which can break boat moorings, and collect floating debris, including cars, trees, and parts of buildings, and make tsunamis even more dangerous for people.

Tsunamis are a threat to life and property for all coastal residents living near the ocean. On

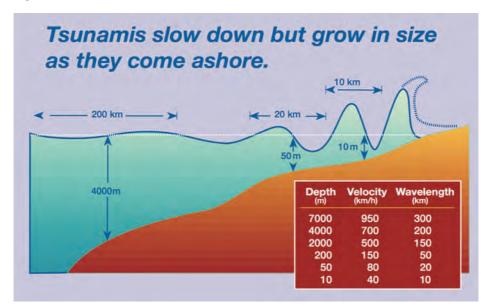


Figure 3. Tsunami wave characteristics.

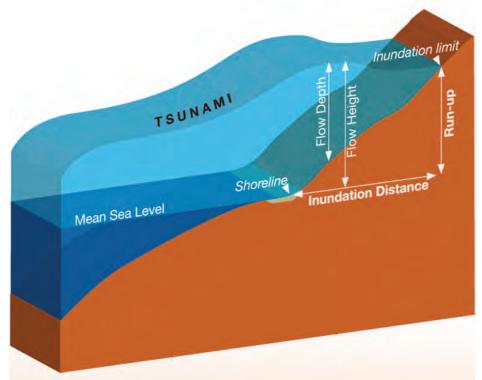


Figure 4. Diagram of features measured during post-tsunami surveys at Niuatoputapu and Tafahi, Tonga, for the 30 September 2009 tsunami.

Runup

Tafahi SW Coast 22.4 m
Tafahi coasts 10-15 m
NTT Southern tip 5.8 m
Falehau 4.7 m
Vaipoa 4.5 m
Hihifo 4.3 m
NTT Western coast 0.8-3.1 m

Innundation distance

NTT Southwest 1100 m NTT Southeastern coast 910 m Hihifo 200-570 m Falehau 190-310 m Vaipoa 120-180 m

Flow heights

Toma, NTT SE Coast 16.9 m NTT Northern peninsula, W, SE coasts 8-15 m NTT Northern tip 6-10.8 m NTT Western coast 4-7 m Hihifo 5.4-7.0 m Falehau 5.4-7.0 m Vaipoa 4.5-5.3 m

Flow depth

Hihifo 2-3.5 m

average, a destructive tsunami occurs once or twice a year somewhere around the world. Between 1975 and 2011, over 260,000 people were killed by 39 tsunamis. More than 20,000 died in the March 2011 Tohoku, Japan tsunami, 124 died in the February 2010 Chile tsunami, and 192 died in the September 2009 Samoa tsunami that hit Tutuila, American Samoa, Upolu, Samoa, and Niuatoputapu, Tonga. The 2009, 2010, and 2011 tsunamis were known as local tsunamis because most people felt the shaking of the strong and long earthquake, which was followed by tsunami waves 10-30 minutes later; that continued to cause heavy damage for several more hours. One of main lessons learned afterward was that every community needs to be prepared, and that every person should recognise nature's tsunami warning signals, and know to immediately move inland or to higher ground if they are near the shore (figure 5).

About 75 percent of the world's deadly tsunamis have occurred in the Pacific Ocean and its marginal seas, throughout history. However, tsunamis also threaten other regions, including the Indian Ocean, Mediterranean Sea, Caribbean region, and even the Atlantic Ocean. The most devastating tsunami occurred in December 2004, when a M9.3 earthquake off the coast of northwestern Sumatra, Indonesia, produced a destructive tsunami that ravaged coasts throughout the Indian Ocean, and as far away as Africa, killing 230,000 people, displacing more than one million people, and causing billions of dollars of property damage.

- Laura S. L. Kong, Director, International Tsunami Information Center

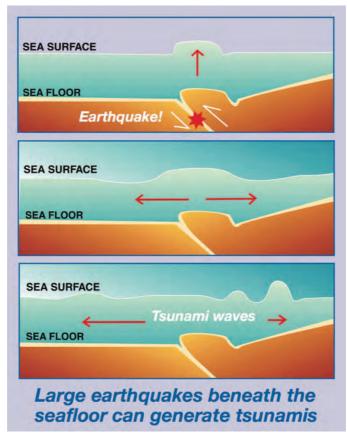


Figure 5. Earthquakes can generate tsunamis

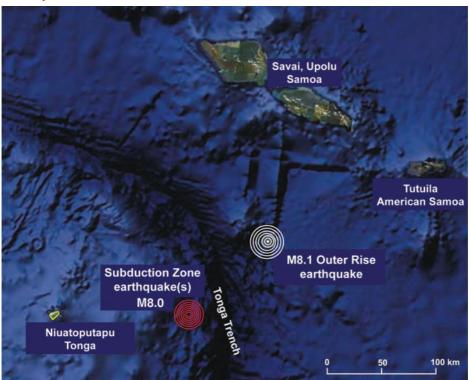
South Pacific tsunami following the Great Samoa-Tonga Earthquakes of 29-30 September 2009

The Pacific Ocean and its adjacent marginal seas are the largest, most diverse, and most tsunami-prone of any of the earth's oceans. Pacific Ocean nations face and must be prepared for both distant tsunami threats, which may take a day to traverse the Pacific, and local tsunamis, which will hit coastlines in minutes.

In 2009 a magnitude 8.1 earthquake generated a tsunami that caused deaths and casualties in Samoa, and American Samoa (29 September), and Tonga (30 September), and damage in Wallis and Futuna. Strong ground shaking was felt for at least 60 seconds, with some eyewitnesses reporting that the shaking lasted for more than two minutes. The tsunami arrived 10-20 minutes after the ground stopped shaking in Samoa, American Samoa, and Tonga, and caused deaths in Samoa (149), American Samoa (34), and Tonga (9), where most of the casualties were the elderly and young children. Maximum run-ups of 15-20+ metres were measured in all three countries, causing extensive coastal damage to structures, marine areas, coral reef, and lagoon ecosystems.

This great earthquake was actually comprised of at least two separate earthquakes (a 'doublet')

Figure 6. Locations of main earthquake and sub-events (circles) of the September 2009 Samoa-Tonga great earthquake. The doublet earthquakes occurred at nearly the same time and place, but they ruptured very differently.



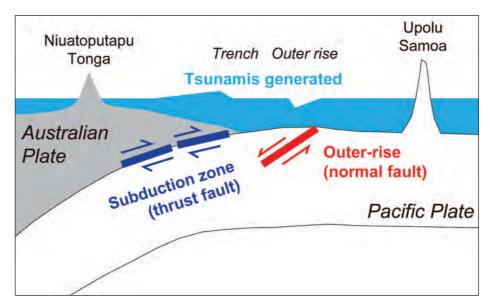


Figure 7. Generalized tectonic sketch showing the earthquake doublet (red and blue faults), resulting tsunamis, and their relationship to Samoa and Tonga. In this region, the Pacific Plate is subducting beneath the Australian Plate at a rate of about 8-9 cm per year.

that occurred within two to three minutes, and about 50-100 kilometres apart. One earthquake ruptured as a normal fault, located beneath the outer rise, east of the Tonga Trench and closer to Samoa; and the other earthquake (one or possibly two) ruptured as a thrust fault located beneath the subducting plate west of the Tonga Trench closer to Niuatoputapu. Each of these shallow undersea earthquakes could cause the seafloor and the overlying ocean to move violently enough to generate a tsunami, but scientists have not been able to distinguish from their data which earthquake occurred first, or which caused a bigger tsunami, because they occurred so close in time. Initially, using worldwide seismic data, it was assumed that a single magnitude 8.1 outer rise earthquake caused the tsunami. However, many months later, after re-examining in detail the earthquake seismograms, comparing the GPS displacement data at Samoa and Niuatoputapu, and analysing the tsunami wave data from ocean-bottom instruments, scientists then discovered that the event was an earthquake doublet, and that this would better explain the tsunami wave arrivals at the two locations. If both earthquakes generated tsunamis, this may be the reason why the tsunamis were reported to arrive about the same time (about 10-15 minutes after the earthquake), and with similar heights on southeastern Upolu, Samoa and eastern Niuatoputapu, Tonga, since their earthquakes and thus tsunami sources were located about the same distance from their respective coasts.

When tsunamis are local and very near to coasts, international and national tsunami warning centres may not be able to usefully warn citizens before the first tsunami waves arrive. Therefore, it is essential that communities invest in educating their residents about the nature of tsunamis; how they can recognize a tsunami; and what to do when they know a tsunami is coming. Preparing before the emergency, and then heeding the natural tsunami warnings when they occur are the two most important lifesaving activities.

- Laura S. L. Kong, Director, International Tsunami Information Center



Figure~8.~Niu at oput apu.~Aerial~reconnaissance~of~tsunami~damage,~30~September~2009.~View~off~northern~peninsula.

Figure 9. Niuatoputapu and Hunganga inundation points, superimposed on satellite imagery, from a GPS field survey.

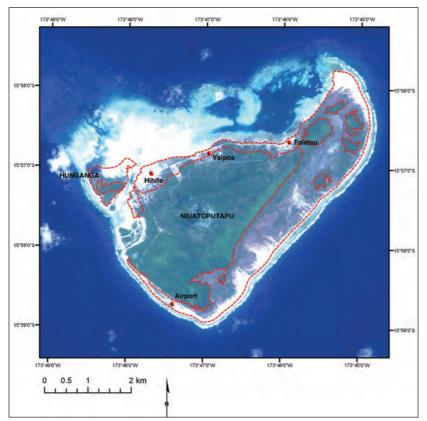




Figure 10. Hihifo, Niuatoputapu, shattered by a tsunami. Concrete foundation slabs show where the business centre stood, while the remains of homes are scattered over the area. Aerial reconnaissance, 30 September 2009.

Figure 11. Falehau village, Niuatoputapu. Mud spills into the lagoon, seafront homes have disappeared; and a dark stain on the school playing field (foreground in picture), marks the tsunami inundation limit. Aerial reconnaissance, 30 September 2009.



Introduction

Niuatoputapu after the tsunami of 30 September 2009

Niuatoputapu island in northern Tonga was hit by a devastating tsunami on 30 September, 2009. Three different waves hit on that day, triggered by an 8.1 earthquake, centred between Niuatoputapu and Samoa, claiming nine Tongan lives and injuring many people. More than half of the total households on the island were destroyed, along with the coastal vegetation and forests, as the tsunami inundated over 46 percent of the small island.

In January 2010, the Tonga Broadcasting Corporation sent a film crew to Niuatoputapu to interview survivors for a Television Tonga documentary. Three months after the terrifying disaster, Hihifo, the capital of Niuatoputapu, looked devastated and deserted. The waves affected 132 homes on the island, destroying 76 houses, seriously damaging 30,with minor damage to another 27. Government buildings and infrastructure were also destroyed or damaged. Little remained of a vibrant community that had settled this once beautiful coastal area.

From January 6-18 we filmed and interviewed over 50 people on Niuatoputapu, accompanied by an artist, Soakimi Maka Finau, who sketched eyewitness impressions.

It was evident from these eyewitness accounts that the strength and the height of the waves were different in the coastal villages of Hihifo, Vaipoa and Falehau, and that the third wave was the biggest and strongest. Some people could not be interviewed, because they were still stressed from their life-threatening experiences, and some were so shocked that they could not remember what they experienced that day.

The majority of the people who escaped the tsunami stated that they did not expect to live. When they saw the sea was coming, they fled for their lives as fast as they could go; some in vehicles, others on foot, the elderly with walking sticks, parents carrying their children, and some families on horseback. Most had seen or heard of the first wave coming, and it served as a warning. When the second and third waves came, many people had already escaped to the bush, some to higher ground, and even some to the top of the hill they call the Funga Muihelu.

Fearing for their lives, they ran as fast as they could and they did not notice the distance they ran, and how exhausted they were, or the clothes they had lost. Others, who could not run fast enough to escape the wall of water, climbed trees and clung to the boughs, hanging on for dear life above and below the surging water.

The survivors' stories tell not only of the tragedy that the disaster brought, but also of heroism, self-sacrifice, and sheer luck in the face of grave danger. There was a bus driver who left his family behind in order to carry a load of women and children to safety; caregivers who stayed in their homes to comfort the elderly, who could not run from the imminent danger; parents who rescued their children; couples who protected each other; teenagers who came back to assist the slower runners; and drivers who stopped to rescue people from the roads, only seconds away from destruction. Tragically, not all of them made it to safety. Among the tsunami's victims were the elderly, the infirm, a child and a baby. Five of the victims were caught in a vehicle that stalled while they were trying to escape the wave.

The telecommunications system on the island went down when it was hit by the tsunami, shortly before 7:00 am. Hours later, the Prime Minister's Office, in the capital Nuku'alofa, almost



Figure 12. A pick-up truck entangled with tsunami debris, inland at Hihifo, Niuatoputapu, 30 September 2009.

Figure 13. Niuatoputapu's day of tragedy. Gathering at an emergency health centre set-up at the LDS Church compound, Hihifo, a family mourns the loss of a loved one in the 30 September 2009 tsunami.





Figure 14. Hihifo tsunami damage.

600 kilometres to the south, received a satellite call from the Kuini Lavinia Airport, before noon, informing government about the disaster. A reconnaissance flight, organized by the government and the National Emergency Committee, flew over Niuatoputapu the same afternoon, but was unable to land due to tsunami flooding over the island's airstrip, and returned to Nuku'alofa. On the evening of the same day, the Tonga Navy patrol boat, VOEA Neiafu sailed for Niuatoputapu, carrying food and medical supplies, and disaster response personnel. The patrol boat arrived at Niuatoptapu on the evening of October 1. Medical officers treated the injured survivors, while a response team organized the clearing of debris from the airstrip, to allow a small aircraft to land. On October 2, Tonga's Princess Regent, HRH Princess Salote Mafile 'o Pilolevu Tuita, visited Niuatoputapu, with government officials and representatives of foreign aid donors. The most severely injured survivors were evacuated by air to the Vaiola Hospital on Tongatapu.

The Niuatoputapu tsunami serves as a warning and a lesson for Pacific island people about how an earthquake can trigger such an event. In making the documentary for Television Tonga, we hoped to discover how it was possible that so many people had survived such a powerful and destructive event, what thoughts had gone through their minds when they felt the earthquake that morning, and how had they escaped. Most importantly, we asked the survivors about their situation at the time of the interviews in January 2010, and about their future plans.

Television Tonga found most of the residents camping on higher ground above the village, where they had lived in difficult conditions in tents and makeshift shelters since the disaster. There was little water in this bush area, and the survivors were suffering from exposure, and lacked many of the comforts of home. Most had lost their livelihoods of fishing and weaving, and many were still fearful of returning to the coastal areas.

However, a few people had returned to the coastal areas and were trying to rebuild their lives.

In the village of Vaipoa, families had set up tents on the area where their previous houses stood; at Hihifo, they camped on their relatives' properties; and at Falehau some people camped in the bush allotments, closer to the hill. But in the mid-summer heat many families were finding the tents too hot, crowded and uncomfortable.

In January 2010 the Tonga Defence Services patrol boat the VOEA *Neiafu* was once again docked at Hihifo's Pasivulangi Wharf, after arriving with loads of food and other relief items brought from Nuku'alofa. Road works had begun on the road from Falehau to the airport.

Col. Siamelie Latu, the team leader for the works plan, said there was a lot of immediate work to be done. In the long term, the plan also included the upgrade of the water supply, solar energy installations, the establishment of temporary offices for government ministries, a medical clinic, repairs to the wharf and airport, and work to restore the plantations, including the replanting of pandanus. A priority was to clear the debris, still piled up in the villages, which could not be completed after the tsunami, because there was no heavy lifting equipment on the island. The work plan was based on the government's decision to allocate a new area for people to move to, especially those who had lived along the shoreline.

Peauafi Haukinima, the Niuatoputapu government representative, told Television Tonga that the three villages had been surveyed, and safer areas identified for relocation, and once agreement was reached with the land-owners, the residents could begin the procedure of land registration by the Ministry of Lands and Survey. He expected the arrangements between government and the land-owners to be endorsed by February or March 2010, and then the government would proceed to allot the land to each family so that the reconstruction could begin.

The long-term impact of the tsunami on Niuatoputapu has yet to be realized.

- 'Anau Fonokalafi, Television Tonga

Figure 15. Examples of flow depths indicators. Left photo, below, shows a watermark within a house at Hihifo. Right photo, below, shows gouge marks and bark stripped from a tree trunk in Hihifo village.







Before and after the tsunami of 30 September 2009:

Figures 19. & 20. (this page), Likamonu Health Centre and Hospital, Hihifo.

Figures 21. & 22. (facing page), before the tsunami, the Tonga Development Bank, at Hihifo.

Figure 23. (facing page), after the tsunami, the bank's former location is unrecognisable, apart from a coconut tree (upper left in picture).

Figure 19.



Figure 20.





Figure 22.







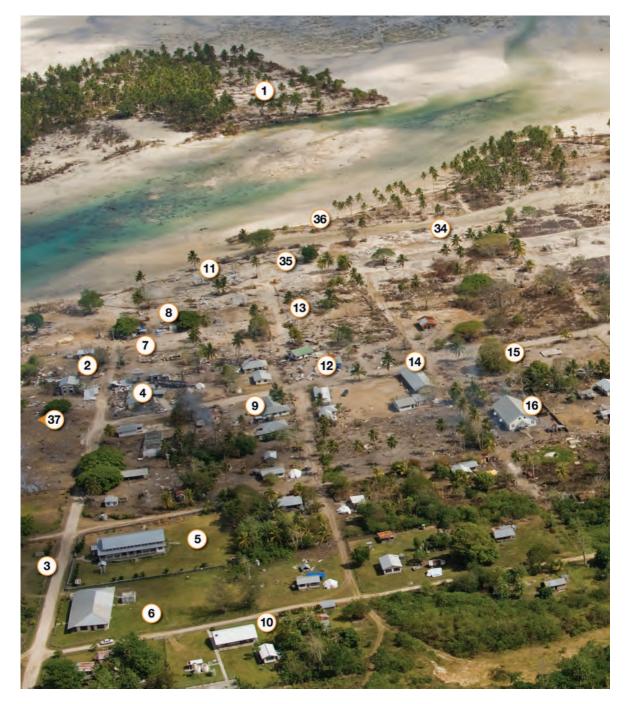
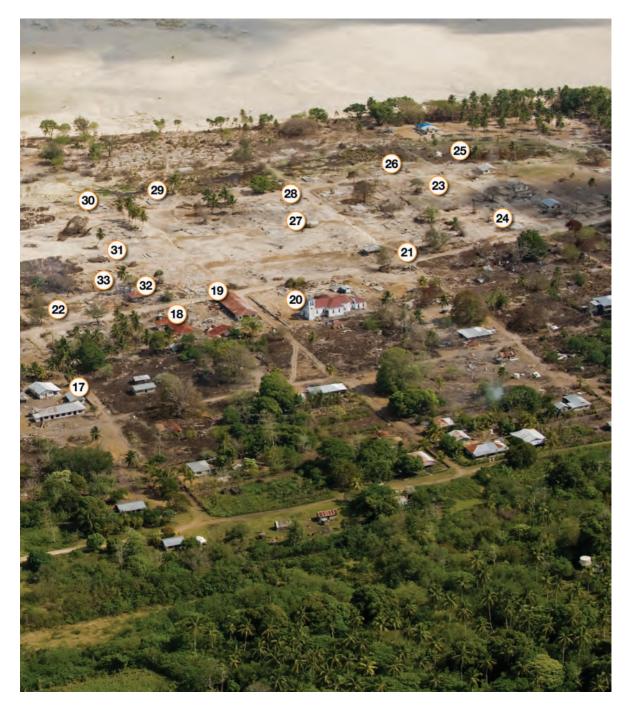


Figure 24. Aerial view of Hihifo village, Niuatoputapu, 14 October 2009, during HMNZS *Canterbury* relief deployment. Numbered locations added:

- 1. Palm Tree Island Resort, Hunganga
- 2. Tomb of Ma'atu, graveyard
- 3. Lu'isa Vao
- 4. Tonga Communications Corporation
- 5. Free Wesleyan Church

- 6. Free Wesleyan Church Hall
- 7. Government premises
- 8. Police Station
- 9. Maamafo'ou
- 10. LDS Church

- 11. Tonga Development Bank
- 12. Pouahi Holi
- 13. Nōkisi Nau
- 14. Govt. Primary School
- 15. Siaosi Tupa

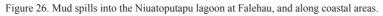


- 16. Free Church of Tonga
- 17. Free Church of Tonga Hall
- 18. & 19 Catholic Convent and Hall
- 20. Catholic Church, Hihifo.
- 21. Pick-up truck stalled (Lefai's).
- 22. Vavae tree (Visesio Losalu)
- 23. Leone Kīvalu

- 24. Sililo Kīvalu
- 25. Government residences
- 26. 'Alisi and Viliami Kolofo'ou
- 27. Lōmano and Lina Losalu
- 28. Sulifa Losalu
- 29. Polealisi Koloa
- 30. 'Uluaki Losalu, Veteange 'Akau
- 31. Sosefo Lēfai
- 32. Pea Kuma, Mele Lēfai's home
- 33. Fokikovi Lēfai
- 34. Malia Nuku
- 35. Siaosi and Hika Lino
- 36. Mikaele Pātolo
- 37. Moti Fangupō



Figure 25. Three villages, from left, Falehau, Vaipoa, and Hihifo, after the tsunami on 30 September 2009.





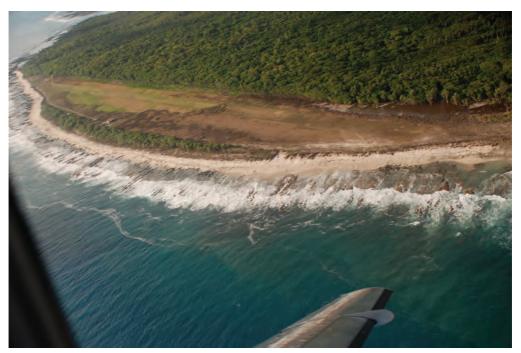


Figure 27. Tsunami debris covers the landing strip at Niuatoputapu airport on 30 September 2009.

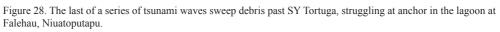






Figure 29. Tsunami survivors gather on high ground in the Niuatoputapu bush, in the early afternoon of 30 September 2009.





Niuatoputapu tsunami survivor accounts

translated from Tongan interviews recorded by 'Anau Fonokalafi

Illustrations by Soakimi Maka Finau Photographs by Masaharu Ando

Hihifo

Population 393 (204 males, 189 females)^{1.}
Tsunami², 30 September 2009:
Flow depth (above ground level) 2-3.5 m
Flow height (above sea level) 5.4-7.0 m
Inundation distance (inland) 200-570 m
Run-up (Inundation limit above sea level) 4.3 m



1. Sililo Kīvalu (63), Hihifo

"I didn't look back ... I could hear the destruction of our village, houses being torn apart and trees breaking."

When the earthquake started Sililo woke-up to find his wife returning from the morning church service. He was lying in bed, but the earthquake forced him to get up.

"When it started, it was only sliding but then, when it was shaking strongly, I got up to go outside. I knew that the sea would come ashore," he said.

Together with his wife and daughter, Sililo immediately ran off toward the hill. "They were running and shouting at me that the wave was coming, but I didn't look back, I kept on going straight ahead. When I reached the village gate, I could hear the destruction of our village, houses being torn apart and trees breaking."

Sililo's family made a 200-metre dash safely to the higher ground.

"The wave, in my opinion, was fast and strong. Its nature is no different from that of a tornado. It spins as it travels and that is what makes it dangerous," said Sililo.

Left with only bits and pieces of his house Sililo, being the foreman in the Catholic Church, was able to move his family to land owned by the church.

Three months after the disaster he still had problems. "Our life in the past was at a satisfactory stage in terms of housing and food. Now, my family is going through a hard



Sililo Kīvalu

time," he said. It was difficult for him to think about relocating. "I understand the love that the government has for us, but at the same time, I can't leave the land on which I grew up. It belonged to my father."

Sililo was making plans for the future, but he hoped that his family could cope during the difficult time following the tsunami.

2. 'Ipeni Vakatā (70), Hihifo

"I could see something white, like sand coming from the reef, and shortly a huge wave rose above it. That was the third wave, and it came from the south."

'Ipeni was at home by the beach when he noticed the odd behaviour of the sea that morning. "The wave seemed to be spinning and boiling as it came," he said. His boat, which was tied up in the water, broke loose from its rope and was



starting to drift off with the current, so he went to get it. While trying to haul his boat ashore, 'Ipeni could see that the wave was not stopping. "It was still spinning, and as time went by the sea was rising, it was strange to me."



'Ipeni Vakatā

Going back to fetch the anchor-rope, which was hard to drag because the sea was strongly twisting it, he was caught by the next wave.

"The second wave came crashing onto my chest and carried me ashore. I held onto the rope tying it around my hand, and I could feel that my feet were no longer touching the sand. I struggled to grab hold of a feta'u tree by the beach, and I had to let go of the rope. I remained on top of the tree until the wave went past, but I could feel that the sea was still strong and spinning, heading in a north-easterly direction.

"After a while, I could see something white, like sand coming from the reef, and shortly a huge wave rose above it. That was the third wave, and it came from the south."

From where he was sitting, 'Ipeni saw the second and the third wave colliding. "The wave from the northeast and the wave from the south met, probably, about half a mile away from where I was sitting on the tree," he said. "It seemed like it went upward, then it turned and went northward."

When he was sure that the danger was over, 'Ipeni finally came down from the safety of the feta'u tree and headed straight home. "There was no house and nothing left," he said.

In the months after the tsunami 'Ipeni was living in a shack that he had built on the same spot of his previous house, but he still hoped to move somewhere safer.

3. Mikaele Pātolo (50), Hihifo

"I was also able to see the second wave as it swallowed my house. I despaired for my daughter, and wondered if she was dead."

Mikaele went to church in the morning before returning home. His young daughter was getting ready for school while he gathered his fishing gear, but then the earthquake started. "My daughter came rushing to me; she was afraid of the earthquake," he said.



After the earthquake died down, the father and daughter went their separate ways. Mikaele left to go fishing on the reef, off an uninhabited island, to the east of Hihifo.

"I noticed that the sea was running out into a low tide but then, at the same time, I could see that it was not. The sea was coming in to a high tide. I was sure that a tsunami would come, then I turned and started running back from the reef to the island."

Running with all his might, Mikaele reached the island just as he heard the booming sounds of the wave.

Mikaele Pātolo



"I went into the bush and looked for a strong tree to climb. I was almost halfway up the tree when I heard the first wave as it was heading toward Hihifo."

From his sanctuary in the tree, Mikaele saw the tsunami devouring his village. "I could clearly see the first wave surrounding my house. I was also able to see the second wave as it swallowed my house. I despaired for my daughter, and wondered if she was dead."

Mikaele said the second wave crushed several houses and carried them out to sea. Then the third wave, which he approximated to be 10 feet high, destroyed most parts of the village.

Remaining on top of the tree for another half hour after the tsunami had receded, Mikaele finally got down and searched for his family. "People were surprised when I walked up, they thought I had died," he said.

After the tsunami the family were staying at a relative's home, and Mikaele said that they were going through major changes in their life. "We are not free compared to when we were at our own place, and we're not able to care for our children well. We are hoping to get our own home so that we can be free," he said.

On top of that, Mikaele was fighting his own battle of fear. "After the tsunami, it seemed as if I had lost my mind. It was the first time I had seen anything so frightening, and I can't get it out of my mind how terrifying it was."

4. Fokikovi Lēfai (41), Hihifo

"The wave was higher than all the houses and it was black. I thought that it would get us, but we kept on running."

Fokikovi was at church and was just coming out of the service when the earthquake started, but like many people, she went home thinking nothing of the incident. Her children were cooking when she got home, but then they suddenly



ran off when they heard their neighbours shouting about a tsunami. Fokikovi, who was confused, did not know what was going on until a woman with children came by urging her to run.

"We ran with our children and got into the neighbour's vehicle, but it died just outside their gate. I told my children to get out and run, but then the engine started again. We were on our way to the hospital to get the doctor and a teacher, but the vehicle died beside the roadside."

It was at this point that Fokikovi first saw a wave coming, so she got off the pick-up truck with her children and ran toward the bushland on higher ground. "The wave was higher than all the houses, and it was black. I thought that it would get us, but we kept on running. It chased us, but we managed to get away to the bush."

Not having any knowledge about tsunamis, Fokikovi did not expect any major damage. "I was shocked when we got news that there were no houses remaining where we were."

Three months after the disaster, having nowhere else to go, Fokikovi and her family were staying with a relative while they put a shack together on another piece of land.

"We are not really free staying here. We hope to move to our own place once it is completed," she said.

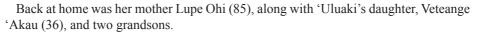
That was not the only thing that was bothering Fokikovi. "Whenever I hear the roar of the sea I wake my husband and ask him, 'What's that noise?' I always think that it is a tsunami," she said.

5. 'Uluaki Losalu (68), Hihifo

"It was a huge wave, we could see it sweeping off our breadfruit tree and our house."

When 'Uluaki Losalu went to church that morning she had no idea of the tragedy the day would bring.

"As we came out of the chapel, the earthquake started shaking," she remembers.



'Uluaki's family had never heard of a tsunami. They were carrying on with their normal daily routine when they were warned that a wave was coming.

"The children had gone down to the beach to see what was unusual about the sea. Then there were shouts about the tsunami. We didn't bother about it, and my grandson carried on feeding our pigs," said 'Uluaki.

Veteange came running, urging her mother to escape, but 'Uluaki was reluctant to go because she would not be able to carry the elderly Lupe, who could not walk.

She told her daughter, "You run! I can't go while my mother is looking at me like that. If it means dying, we will die here in the house!" But Veteange ran off and got help.

"A man from the neighbours came and carried my mother," said 'Uluaki.

Veteange and her children, also got into the neighbour's white pick-up truck.

Satisfied that her mother was taken care of, 'Uluaki decided to make her way to the higher ground.

"I went outside and the sea had surrounded our house from the first wave, so I ran, but when I got to our neighbour's house, the second wave was coming. It had reached our home and it was higher than our breadfruit tree, so I turned around, and continued running. I felt afraid; I was just thinking of dying, because I knew that I would not be able to stand against the wave," said 'Uluaki.

When 'Uluaki was tired and stopped running, her grandson [Sosefo Losalu (16)] came back and held her by the hand and urged her onward. They reached the last house on their block, when they saw the third wave.





'Uluaki Losalu, Hihifo

"It was a huge wave; we could see it sweeping off our breadfruit tree and our house, then we took-off."

Meanwhile, the neighbour's pick-up truck was caught in the wave at the other end of Hihifo trying to rescue someone who was calling for help.

"My daughter said that she felt sorry for my mother when she saw the wave coming because she would not be able to walk. Veteange had just got off of the vehicle with her son and taken three steps when the wave crashed onto them."

Veteange, her youngest son 'Ikinasio (4), and the elderly Lupe were separated in the water.

Later, when 'Uluaki made her way back to town in search of her family she found Veteange and 'Ikinasio alive, but Lupe was still missing.

A search party discovered Lupe's body soon afterward. "A prisoner found her; she was stuck at the trunk of a tree; she had been crushed to death," said 'Uluaki.

Life for 'Uluaki and her family was hard after the tsunami. "At the moment we're in a very poor situation because our source of income was from weaving."

Three months had passed, her family was willing to return to their home location. "I no longer have any worries like the first time. Everything's back to normal," 'Uluaki said.



6. Veteange 'Akau (36), Hihifo

"The tidal wave came and swept me away from my son."

Veteange 'Akau, a mother of six, who was injured in the tsunami was evacuated from Niuatoputapu to Tongatapu, where she was admitted to the Vaiola Hospital's Intensive Care Unit, along with her youngest son, 'Ikinasio.

'Ikinasio (4) was in a satisfactory condition while his mother was still in pain with a broken arm, but she was thankful to be with him.

Veteange was injured while trying to save her grandmother, Lupe Ohi. The family were passengers in the Lefai's white pick-up truck that stalled on the roadside as the wave roared toward them.

"The tidal wave came and swept me away from my son. When I was rescued, I asked the health officer on our island to look for my son, because I believed he was still alive. After a while, they found him," she said.

Veteange's other five children jumped off the vehicle and ran to higher ground, but Veteange had taken only a few steps when the wave came over.



7. Paea Kuma (24), Hihifo

Paea Kuma thought he was going to die. The white pickup truck he was driving, with over 20 passengers aboard, broke-down in the tsunami's path. Most passengers jumped off and escaped only moments before the wave crashed over the top of the vehicle.

But Paea was injured after being trapped underneath the vehicle. The following day he was evacuated from Niuatoputapu and flown with three other patients to Vaiola Hospital's Intensive Care Unit in the capital Nuku'alofa,

where he spoke to Television Tonga news on October 3, 2009.

Paea was trying to save his family and neighbours in Hihifo. They were heading for the hill, where the other villagers had gone, but then the pick-up truck stalled as the tsunami came in. He said that the wave was about 40 meters from where they were standing, and it was taller than the coconut trees and houses.

Paea could not leave because five passengers were still in the pick-up. "In a moment, I was hit by the first tidal wave, and found myself washed underneath the vehicle. I didn't know what happened to the rest of the passengers who were on the back," he said.

"I thought I was going to die, but the second wave came and hit the vehicle away from me. Then the third wave came and hit me again, and swept me away from that position to where my hand touched a fau tree. That is what saved me.

"When everything calmed down I heard someone calling - it was Kalala. We were the only two to survive, along with Veteange and her son," he said.

Kalala Lēfai (58) survived with injuries. The victims included her husband Sosefo Lefai (59), their two young grandchildren Polasapina Lēfai (2) and Toni Lēfai (1) and their elderly neighbour, Lupe Ohi (85) who were in the vehicle; and Losalio Lefai (53) who had been a passenger.

8. Mele Lēfai (30), Hihifo

"When I saw our home I just cried, I was devastated."

Mele Lēfai lost her mother Losalio Lēfai during the tsunami.

Mele, a government school teacher, was away at work on the island of Tafahi. Her mother was at home in Hihifo with Mele's younger sister, 'Ofa, and 'Ofa's husband, Paea.



"I returned home after a week to see my mother, and she had gone. I deeply feel her loss, because I did not see her before she died in this tragedy," said Mele. "When I saw our home I just cried, I was devastated. I felt out of place and homesick. At times I feel that I have been abandoned, now that I've lost my mother."

The white pick-up truck, that Mele bought a few years ago, was wrecked when it was caught by the wave. Five of the nine fatalities in the tsunami were from the people who were passengers in the pick-up truck.

Three months after the tsunami, Mele she said she was living at her aunt's place and that life was no longer the same in Niuatoputapu. "I'm used to living with my family at our home, and there's a big change because there's no one around. I have lost my parents, and there's only me left. There are times when my thoughts are occupied thinking of how life was at our home. I am still grieving the loss of my mother, and I always remember her face," said Mele.

While dealing with her own sorrow, Mele wanted to encourage others who were facing the same loss. "Don't lose hope but have faith in God that he will lead the way and bring about the help that the government has to offer," she said.



9. Sulifa Losalu (65), Hihifo

"While being tossed to-and-fro beneath the wave, I saw trees that were entirely spun, with their roots and other debris being thrown about, such was the power of the wave."

One of the first four patients flown to Tongatapu the day after the tsunami, was Sulifa Losalu. After a few days, she

was released from the Vaiola Hosital's Intensive Care Unit to a ward, where she was interviewed by Television Tonga on October 3, 2009. Sulifa told 'Anau Fonokalafi that what they had witnessed and experienced on the island was horrific.

They were at home, after attending an early morning church service, when the huge waves came. Her husband Heneli (68) called for her to run and waited for her to get her things.

As Sulifa ran out of their house, she heard and saw the horrifying sight of the wave above the coconut trees, coming toward them. Heneli yelled to run fast. They were running for their lives through the town trying to escape, when they were suddenly blindsided by the waves. The enormous strength of the wave separated her from Heneli, and that was the last time she saw him alive.

"I recall a woman running with her child, that is the last I could remember seeing as I was struck by the wave and spun endlessly beneath it. I went under a once-standing house and the rest of the debris that had been entangled within the wave. It seemed like being tossed in a never-ending tornado, and I thought it was my last day," said Sulifa.

"I gathered up whatever strength and courage I could find to fight for my life, and struggled with all my might to get to the surface for air, yet the strength of the wave would not allow it. While being tossed to-and-fro beneath the wave I saw trees that were entirely spun with their roots and other debris being thrown about, such was the power of the wave.

"I remembered just praying to Mary to please help me."

Sulifa said she was flung onto something and held tightly onto it, and managed to get up from below the surging wave to breathe.

When the tidal wave receded, to her astonishment, Sulifa realized she was sitting on the roof of a house. Her son, 'Osika, was the first to come to her rescue, and she was taken to the rest of the people, where they gathered at a building of the Church of Jesus Christ of Latter Day Saints at Hihifo.

The village children found Sulifa's statue of Mary and her handbag that she had been carrying, and returned them to her.

The Losalu's have eight children, and her family in Tongatapu were caring for her as she grieved for her beloved Heneli.



Pouahi Holi

10. Pouahi Holi (49), Hihifo

Pouahi had just come out of the church that morning and was standing outside the compound when the ground started shaking.

Shortly after the earthquake died down and seeing that people were rushing about, Pouahi looked out to sea. She could clearly make out the first wave approaching and thought of her children she had left sleeping at their home near the beach, so she started running down toward them.



"I was trying to get to my children, and it didn't matter to me if I would live or die" she said. "While I was running, I saw two bank tellers coming, and behind them came the first wave. It came bringing houses along with it.

"I could only hear shouting, telling me to go back. So I turned around and kept on running until I was tired and I stopped. Then, the farm's vehicle stopped and took me away with them to the bush." Although she did not reach home to rescue her children, Pouahi was glad that the bank's vehicle got to them first.

Now, three months after the tsunami, Pouahi and her family were still living in fear. "We are still afraid. We have already planned to move to a safer place, and we wish to move as soon as possible." Their fear was not the only obstacle. "Before the tsunami, we were able to get what we wanted. Now, it seems as if our lives are just floating," she said.



11. Lu'isa Vao (50), Hihifo

Being the wife of the church minister of the Free Wesleyan Church of Tonga in Niuatoputapu, Lu'isa Vao was glad that her faith saved her and her family from the fury of the tsunami.

"We did not run, and we were probably the only ones who did not run in this area because we hoped that we would be safe in the chapel. We invited people to come, but they only ran off shouting that we should run to the hill. If I had run, I might have died on the way," she said.

Lu'isa, her husband and their children remained at the church compound and to their amazement, they were left unharmed. "The wave came and turned that way, right in front of us going in the other direction. It brought trees, houses, water tanks and the like, and we were just standing there watching.

"We are here to prove that God is alive, and I had hoped that the people of Niua had had that much faith in them. I believe that if there had been such faith, even though the waves came ashore God would have made a miracle for the people of Niua to see."

Lu'isa said that since the tsunami, her family had been restless, accommodating visitors arriving at their home. Otherwise, Lu'isa was one of a very few lucky people whose home was left untouched by the destructive waves of the tsunami.

12. Salesi Tūtoe (34), Hihifo

Salesi was at home with his family when they felt the earthquake. "It was strange because it shook for a long time – and then I heard the sea. It sounded like a waterfall."

The cautious Salesi packed his family immediately into their vehicle and headed straight for the high ground. "We did not see any of the people that were running or any of the waves. Everyone else arrived, but we were already on the hill."



He said that the tsunami left a huge impact on the people of his village. "Everybody was talking about running and how

horrifying the tsunami was when it came ashore. Now during the day, the children will run for the hill and cry out the tsunami's name. This is a clear indication of the tsunami's influence," he said. Salesi acknowledged the counselling effort put in by visiting church leaders from Tongatapu. "Their hard work and encouragement helped the people to gain confidence."



Lu'isa Vao



13. Nōkisi Nau (36), Hihifo

"We wanted to see because we did not know what a tsunami was; we had no idea it was that frightening."

"We were at the beach watching two women, who work at the Development Bank, lay their fau under the rocks."

Nokisi had never seen a tsunami and was so curious that he made no attempt to escape, and decided to remain where

he was to watch the first wave. "We wanted to see what a tsunami was like; we had no idea it was that frightening," he said.

"The first wave caught us while we were at the Tonga Development Bank. Fortunately, we managed to escape the following waves."

After glimpsing the tsunami, Nokisi ran to his apartment, about 20 metres away, where his vehicle was parked outside. "There were two high school students already seated at the back of the van," he said.

On his way to the high ground, Nokisi stopped to pick up people who needed help. "People climbed on, including government workers and others. I told them to jump into the van, to keep the doors open, and to climb in quickly. While stopping to pick up

people along the way, I could see in the mirror that the third wave was crashing down government buildings along the road. But we were already driving off in front of the Maamafo'ou Chapel."

Nokisi had not settled his mind. "It has been three months now since this tragic incident happened, and the truth is we are still fearful," he said.



14. Leone Kīvalu (38), Hihifo

Leone was at home with his family, when the earthquake came, but he had to leave his wife and children when he went to rescue the nurse practitioner's family.

"The nurse was with us at home, and she asked me for help, so we ran down to fetch her family. We got there as the first wave was coming to shore, and the next one was following close behind, but we managed to get her children across the swamp," said Leone.

After making sure that the nurse's family could continue on their way to the high ground, Leone went back to get his own family. "I got to our house, and they were not there, but my neighbours were still around. I told them to hurry and leave because the second wave was closing in."

Leone caught up with his family on the road, and they made their way to the hill before the third wave's arrival.

"The standard of life we had before was better than it is now. All our belongings are gone, but I'm content with that. My children were greatly affected, but now I can see that there's progress," said Leone.

His family was among several others who were waiting for the government's relocation plan.

15. Peatā Kīvalu (9), Hihifo

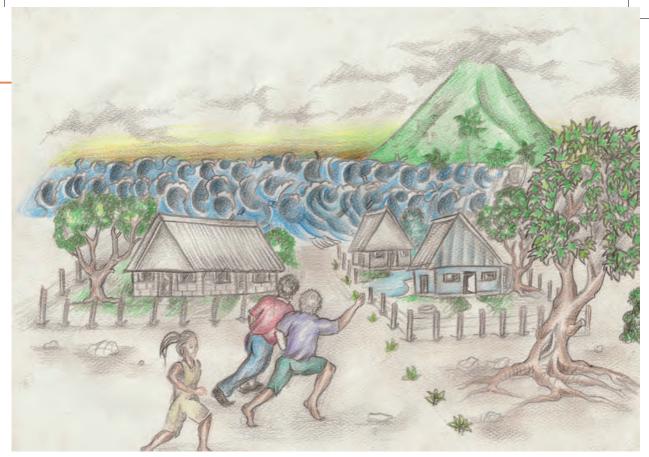
"When I saw the wave I was crying."

Peata had never seen nor heard of a tsunami before, and she was terrified when she saw the first wave.

"I was at home. The first wave I suppose was higher than our house, but it came only as far as the swamp, but I was following my dad. When I saw the wave I was crying. My dad was shouting at me to stop crying.

"I am still scared," she said.





Leone Kīvalu

16. Siaosi Tupa (65), Hihifo

Siaosi was about to leave home to go to his plantation that morning, when the earthquake shook. "I saw our mango tree shaking during the earthquake, then I went to the bush after that."

Having no clue as to what was taking place below, Siaosi was shocked when he returned to find his village destroyed. "I was surprised when I came back. My family was gone. There was no house left standing at our home," he said.



After searching for his family, Siaosi found his wife and two children had taken refuge at the Church of Tonga's chapel at Kenani, on high ground. His children had helped their mother to escape, and they remained in their sanctuary until the tsunami receded.

Unlike other victims of the tsunami who were eagerly awaiting the government's relocation decision, Siaosi was determined to remain on his land.

"I do not support the idea of moving from our area. I have no intention of moving from the home I grew up in; I will remain on my land, my home." Although Siaosi had made plans to rebuild his house, he lacked the funds to do so.



17. Siaosi Lino (75), Hihifo

"We stopped for a woman and a child who were crying beside the road. I could see that the wave was coming and it was very high."

"That morning I came outside to feed the pigs just beside the sea. I had just finished opening the coconuts when I felt that I was swaying where I was sitting," said Siaosi.

His wife Lepa, their daughter Hika, and her friend Sesika were at home. "I called Hika to come outside, but they rushed off to the sea with their pandanus. Then I heard the booming sound of the wave."

When Hika and Sesika saw the wave, they ran back home to help Siaosi take Lepa, to the front of the house. Afraid that his wife might be caught in the wave, Siaosi called his neighbour for help with his vehicle.

Then while they were getting into the vehicle, Hika had to go back into the house to fetch her purse, and the vehicle left without her.

"The sea was already surrounding the house, but it was still low. I shouted at the driver to get in and drive away quickly. When we got to the intersection, I looked back and saw the wave was beginning to smash down houses behind us," he said.

"Along the way we stopped for a woman and a child who were crying beside the road. I could see that the wave was coming, and it was very high."

Siaosi and his wife made it to the high ground safely, but they were worried about Hika, who was missing. "I couldn't think straight, wondering if she was dead or alive."

Then later in the afternoon Hika rejoined her family, with her clothes torn and scratches on her body, after being caught by the wave.

Siaosi and his family, like several others in his village, lost his home, his shop and vehicle in the tsunami. "The loss of these things worries me," he said. "Firstly, our standard of living has declined. Secondly, I'm just lost, I cannot go to the plantation anymore. I'm expecting another tsunami to come."

Siaosi remained fearful, and did not want to return to his home by the beach.

"In the meantime our greatest need is a vehicle and a radio, so that when there is an announcement of an earthquake or tsunami, there's a vehicle to get into and take off somewhere higher," he said.



Hika Lino



18. Hika Lino (29), Hihifo

Hika was at home with her friend Sesika Patolo, when the earthquake struck that morning. About ten minutes later, when they went down to the beach to cure their pandanus, the sea started acting strangely.

"A swell came in, but it was not the beginning of the tsunami; it was one foot high, and it was low tide at that time, so we came back home," said Hika.

"I saw the first wave, which came about 10 metres onto the beach. It reached the front of our house."

Taking off before the arrival of the second wave, Hika managed to escape at first, but then she paused to catch her breath. "When I saw the wave coming, I was sure that I would not be able to escape. I could not do anything and then the wave caught me." Her clothes were torn and she had scratches.

Three months later, Hika said that her life had changed. "Before the tsunami happened, I used to love going to the sea, I would go as far as the reef, but now I have not been there because I'm still afraid."



Polealisi Koloa



19. Polealisi Koloa (37), Hihifo

Polealisi was busy getting her three children ready for school, when the earthquake shook that morning. They were still in the house when the first small wave came, but everyone started to run when the second wave approached. "At that time, I felt terrified; when I saw the wave, I tried to gather my children and escape somewhere safe," she said.

By the time the third wave appeared, they were already near Losalio's house, where they remained watching. "We saw that the wave had gone past our home, and it was higher

than our house."

Polealisi provided for her family by weaving, but said that life after the tsunami had become difficult. "It is hard to find pandanus for weaving and work cannot be done, so there's no source of money."

Despite the hardship, this brave mother was making arrangements for the future. "Our group are planning to replant pandanus, because it is the fastest source of money for the family. Even if help takes a long time, I have planned to build a shelter at a safer place." Polealisi said that although her fears had slowly settled, she remained on the lookout in case another tsunami should happen.



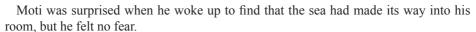
Moti Fangupō

20. Moti Fangupō (27), Hihifo

"I was looking at the water, which was underneath my bed. There was also mud in the house and I could see fish outside."

Moti Fangupō was sound asleep when the tsunami destroyed his village, and he had no part in the commotion that occurred that morning.

"I was sleeping at home; the tsunami was over and I was still asleep," he said.



"I was not afraid. I was looking at the water, which was under my bed. There was also mud in the house, and I could see fish outside."

Hearing and seeing nothing of the frightful arrival of the tsunami, Moti was lucky not only to have survived, but also to live with his mind free of trauma.



21. Malia Nuku (42), Hihifo

Malia was at the beach with her children when she heard the the sea booming. She looked out to sea and saw a wave approaching that was different from any she had seen before. "It was coming from the distance, but I could see that it was white, and I knew it was a tsunami."

Wasting no time, Malia ran with her three children to her mother's house. "We had just got there when one of my sisters arrived in her vehicle, that was why we quickly made our escape and did not see any of the waves land."



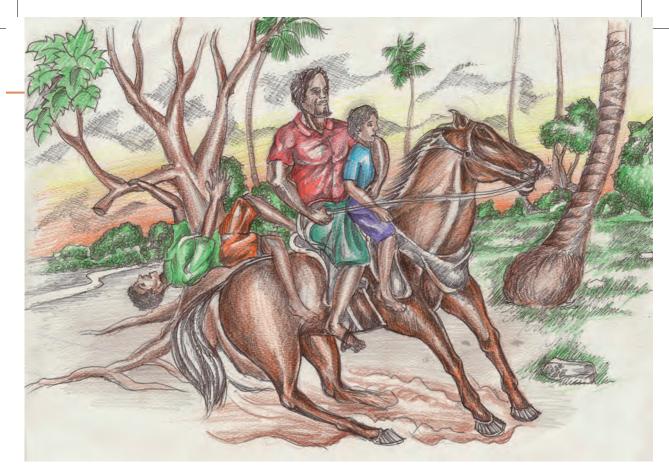
Although the tsunami took away their beachside home, Malia insisted that they would rebuild in the same spot, despite its vulnerability. "Even though our home was among those that were destroyed, because of the love that we have for the place we grew up in, we still want to stay there," she said.

After the tsunami Malia and her family were living in a shack at her mother's place. "There is a difference in our lives, because in the past we had a good house to live in."

Despite the discomfort, Malia said that her worries of the tsunami had gone. "After the tsunami I was still frightened and did not want to go back to where we lived. Knowing that God reigns over everything, I have courage and hope. I have now found my peace of mind," she said.

Malia Nuku





Viliami Kolofo'ou



22. 'Alisi (52) and Viliami Kolofo'ou (55), Hihifo

Viliami and his two boys were at home in the village of Hihifo, while his wife 'Alisi was away visiting Tafahi.

It was just after 7:00am when the earthquake shook vigorously. His boys had gone down to the beach to investigate the noise and Viliami had just started cooking in the kitchen when the commotion started.

"I heard the lady from the neighbour shouting telling us to run, that there was a tsunami coming."

"I ran off and got onto my horse. When I looked back, I saw the first wave approaching. It was not too high at that time; I think it was probably about a metre and a half."

The boys came running to get onto the horse, and as he pulled one onto the front, with the other behind him, Viliami saw the second wave coming from the beach. "I saw the second wave was about three metres high, and then we took off."

As the galloping horse went under a tree, Viliami and the boy in front bowed down to avoid a low hanging branch. But the boy at the back did not see the branch coming, and was knocked off the horse. When Viliami reached the higher ground, he realised that the boy was missing, and went back to look for him. To his relief, he found his son running together with the rest of the people making their way up the hill.

Although they did not see the final wave, Viliami said that from the distance they

could hear the destruction of the village. "I think that was when the big wave reached the town and crashed down houses; we could hear iron roofing and trees being torn down." When they were safe at the top of the hill, Viliami and his boys looked beyond and saw that their village had been destroyed. "The town was wrecked, not a single house remained where we live."

Returning to her family a month after the tragedy because of a delay in the ship's schedule, his wife 'Alisi could find no comfort in their current situation. "Our lives are greatly affected, and our happiness is not complete, as it was before when we had our own home." Like many others who have lost their homes, 'Alisi and Viliami were willing to relocate with no intention of returning to their previous site.



23. Lina Losalu (39), Hihifo

"I was at home with my children when the earthquake started. My husband had gone off to sea early in the morning. I knew that there might be a tsunami, because it was unusual how big the earthquake was," said Lina.

She was getting her children ready for school when one of her sons, who had been down at the beach, came with news of the wave. "I got hold of my toddler, and told everyone to run. When the wave reached our home, we were already on the higher ground. The wave was higher than the trees."

Lina wasted no more time watching the wave, and kept on going. "I wanted to get my children to the higher ground, because my husband was not there."

Leaving her children in a safer place, Lina went down again in search of her parents-in-law, and she met them slowly making their way up.

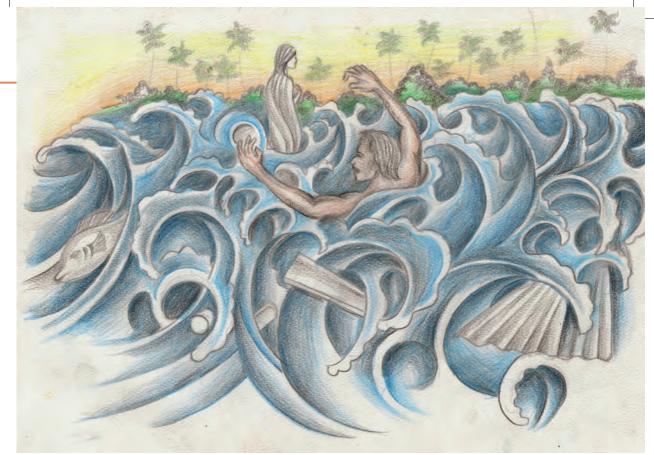
Lina and her family had no house to return to, so the family moved in with her inlaws. "This house is small and we are overcrowded, but we don't know where else to go," said Lina.

They wanted to start again by building a thatched Tongan fale, and Lina was hoping that they could find a place up on the higher ground to settle on while they awaited the government's reconstruction plan.

Life for her family had become very difficult.

"We had livestock, but now it is hard because we have moved here, and we had to leave them back where we were. My husband had a boat and fishing net providing our food. Now, if we do not have any money to buy tinned fish, there's no food. I used to weave to provide for my family, but now there is no more pandanus," said Lina.

After the tsunami, Lina felt that her family was not secure. "It's as if we're living aimlessly," she said.



Lōmano Losalu



24. Lōmano Losalu (46), Hihifo

"The town was like the deep ocean ... I resurfaced in front of the Catholic Church and I cried out to Mary's statue to save me."

"I was out fishing in the sea with my younger brother," said Lomano. "We were on our way out to the reef, when I got down from the boat to fetch our fishing net. I told my brother that I could feel an earthquake shaking, but it was not long

before it stopped."

Lomano had thrown out their first net and was just about to get the second one when they noticed the sea drying up over the reef. "The sea suddenly went dry, and we stood there confused over what was happening."

About two minutes later the first wave rose out of the sea, and Lomano told his younger brother Visesio to hold on to the boat with him, as the wave approached them.

"We were on top of the wave, and it brought us to about halfway between the reef and the beach. Then something that seemed to be spinning caught us, while the wave continued further inland reaching as far as the swamp."

"I still did not think that it was a tsunami – I told my brother that it was probably the end of days."

"I still did not think that it was a tsunami I told my brother that it was probably the end of days," said Lomano.

While hanging onto the boat, the brothers could see smaller waves following, and the booming sound of the wave seemed to intensify. "I then realised that this was a tsunami," he said.

The sea level seemed to be getting lower, so Lomano and Visesio tried to get their boat to shore, but they were shocked by what happened next. "I turned around to look behind me, and it was a very sad moment; I saw how frighteningly huge the wave was," said Lomano. "That was the second wave, which was about five metres away from us. It was heartbreaking when we thought we were seeing each other for that last time, before the wave crashed onto us."

Separated from his brother, Lomano went underwater, but managed to surface for about two seconds before he went down again. "The town was like the deep ocean at that time. I could see only about 2-3 feet of the coconut leaves above the water at the beach.

"I resurfaced in front of the Catholic Church, and I cried out to Mary's statue to save me!"

Lomano was floating about in the wave, which carried him further ashore, and left him at Sione Vea's home, stripped naked.

"It was when I got out, that I was sure I had survived. But there I was, walking in the middle of town with no clothes on – luckily, there was just me.

"At the time, when I saw the condition of the town, I did not know that anyone else had survived. I ran off to the bush in search of my parents and my wife and children, but I was not sure." he said.

Three months after the frightening events of that day, Lomano said that his family's life remained at a critical stage.

"The ocean played a major part in providing for my family's needs. Ever since the day of the tsunami, I have been to the sea only once, and my fishing gear was destroyed. We are overcrowded living in the tents given to us by the government," he said.

"When my children are playing, I still hear them shouting that we must run from the tsunami," said Lomano.

Having experienced how powerful and frightening the tsunami was, Lomano had no plans of going back home. "We plan to move wherever the government will find a place for us," he said.

Falehau

Population 265 (141 males, 124 females)^{3.}
Tsunami^{4.} 30 September 2009
Flow height (above sea level) 5.4-7.0 m
Inundation distance (inland) 190-310 m
Run-up (Inundation limit above sea level) 4.7 m



25. Visesio Losalu (37), Falehau

"The wave was really high, ... it was really strong. It overturned the boat and we got separated."

Visesio was fishing on the reef with his older brother Lomano, when the tsunami came through his village.

The brothers had thrown out their first fishing net when they got to the reef, and they were getting the second net from the boat when the sea started acting strangely. "The sea

started swelling, and we were floating; we were sitting inside the boat," he said.

While they were floating, Lomano saw the first wave coming, so they turned their boat facing the direction in which it came. They had control of the boat even when the second wave followed the first one, but they could no longer hold on when the final wave arrived.

"The wave was very high. I cannot show how high this wave was, but it was really strong. It overturned the boat and we got separated; I disappeared underwater and did not know where the boat went. I could feel that I was spinning underwater, and I was out of breath. When I was about midway to the top, I felt that I was coming to the surface, and then I caught my breath."

Visesio drifted off with the current and came ashore in the village of Hihifo. He clung onto a vavae tree at Kelemete's home, while the wave swept further inland.

"I looked out to sea to make sure that there were no more waves coming, then I ran up to the Church of Tonga compound and stayed there," he said.

Three months have passed since the tsunami, and Visesio said that his fear had gone. "I no longer feel scared, but that day was a very frightening day. I was terrified; I thought my brother had died," he said.

Visesio said he was lucky that his house in the village of Falehau remained intact. "The sea went inside, and our clothes were wet, but nothing was damaged," he said.



'Enisema Kohinoa



26. 'Enisema Kohinoa (43), Falehau

"I looked at the end of the island and saw a huge wave, which was very high, that was the third wave."

'Enisima was walking toward the wharf area. "My wife and children had gone off to do laundry, and I was heading down to the beach to fetch our horse, who had just given birth," said 'Enisema.

His attention was drawn to the sea as he heard two boys shouting.

"It was low tide at that time and dry, but suddenly the sea switched to a high tide. A short while after, the sea level started rising high above the wharf. About three minutes later the first wave came, and it washed me back home. I shouted at my wife and children to run, but I stayed behind to gather our animals."

'Enisema's family immediately made their escape to the hill, but he got swept back to the beach when the first wave left.

Then the second wave caught 'Enisema while he was still on the road, but he managed to wade in the water up to the Free Wesleyan Church in Falehau.

"I was worried about my parents who live near the beach, but I did not know that they had left.

"As I approached home, I looked at the end of the island and saw a huge wave, which was very high; that was the third wave, but I could not approximate its height."

'Enisema fled when the massive wave reached the wharf.

"When the wave came to a stop at the end of the village, my father came afloat. He was caught in the wave, and I ran over and asked him if he was alright. He said, yes, he was. I asked him about my mother, and he said she was rescued."

Although he was caught in the waves, 'Enisema was not harmed, but like everyone else in the village, the tsunami had left him homeless.

"We will not return to where we lived before in town," said 'Enisema. "We are waiting on the government to build houses for us here in the bush."

Despite the hardship of staying in tents, and the problem of water supply, 'Enisema said that they were adapting well to life in the bush. "We are able to do more while we're out here like planting, and we're making progress," he said.



27. Mikaele Minoneti (52), Falehau

His wife was busy with her pandanus and Mikaele was just leaving to go to his plantation, when it all started with the earthquake. "It was a sad morning for me when I experienced such a fright," he said.

"I was outside when I noticed our neighbour running off to the beach to see what was happening. They had seen the wave coming from the northern side, and I joined them out of curiosity.

"I could see the wharf vanish as the first wave crashed down onto it, and continued ashore almost to where I was standing."

Mikaele ran off to warn his wife and children at home, and they fled immediately for the bush.

"I was taking the lead with my wife and children following behind me. When I looked back to check if they were catching up, I could see the wave approaching the Church of Tonga compound - its residence was just collapsing, and we continued running."

An hour later when the tsunami had receded, Mikaele returned to town. "It was just like a graveyard. The homes were destroyed, there was no place to stay. My house was not completely wrecked; a part of it was taken and part of it was left for me to come back to," he said.

After the tsunami Mikaele's family was still living in the same place, and struggling with their fears. "We are still frightened because we constantly have earthquakes. My wife is afraid of sleeping at our house. My children want us to move to a safe place. Even if there is nothing happening, the children will start crying," he said.



Sāloni Maea



28. Sāloni Maea (27), Falehau

"The tsunami was coming from the back. I could see my sister waving at me to go, and so I took off and left them behind."

Sāloni was still in bed when the earthquake happened that morning. He was at home with his sister 'Otolose and elderly grandparents.

"Then I heard women shouting: 'Run! There's a wave!' The first thing that came to my mind was to run for our bus. I told my sister to get our grandparents to the door, but when I got to the bus it was already packed with women and children," said Sāloni.

The bus was parked about 100 metres away from the house, and there were about 30 to 40 passengers inside, who had no intention of getting off. Sāloni was the driver.

"We stopped at our house, and my grandparents were already standing by the door. As I was about to get off and fetch them, I heard crying and shouting for me to go. I turned around and saw the tidal wave was coming from the back. I could see my sister waving at me to go, so I took off and left them behind."

Sāloni, having made this very difficult decision to leave his grandparents and sister

behind, escaped with his passengers just as the first tidal wave approached. But he was glad that although the waves destroyed his house, his family was unharmed.

"The truth is, we are still scared, and we are not sure about going back to town in case another tsunami comes. The most important thing when there's a tsunami, is to try and get to high ground; do not worry about anything else, go as fast as possible!" he advised.

29. Malieta Tevesi (16), Falehau

Malieta was getting ready for school when she heard the people shouting about the tsunami.

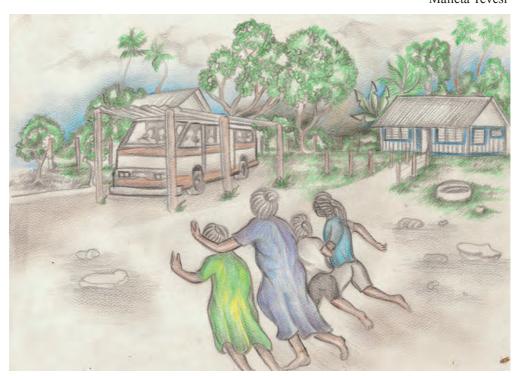
"I ran outside and saw that it was coming from the sea, so I ran and got onto the bus and went off to the higher ground," she said. The bus had not started taking its round that morning, but, Malieta said it already had people packed inside.

"I think I only saw the first wave and the third. While we were on the bus I could see the wave was small and not very



high, but it was already bringing houses and trees with it, and it seemed to be black in color," she said. Not knowing anything about tsunamis, Malieta said that she was frightened. "I was scared. I still haven't got rid of my fears," she said.

Malieta Tevesi





30. Foloana Nau (10), Falehau

"I heard people shouting about the tsunami, so I ran for the bus when it came from its parking area and got on. I only saw the first wave and I was afraid," said Foloana.

They remained on the higher ground until late that same day. "After the tsunami, we came back here to town in the evening" she said.

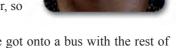
Her house was left untouched by the waves, but Foloana remained afraid. "I am still shaken and frightened of the tsunami," she said.

31. Manuake Fakaanga (39), Falehau

After her children had finished their breakfast, Manuake was getting them ready for school when the earthquake started.

"We felt the earthquake and I could see our pigs running off to the bushes, then our neighbour was shouting at us to run, there was a tsunami," she said.

"I did not run because I was worried about my mother, so I came back to take her with us to the bush."



Settling her mother into Faka'osi's vehicle, Manuake got onto a bus with the rest of her children and escaped to the high ground.

"We were shaking with fear when we got to the top of the hill with my children."

The family lost their home in the tsunami, and were now living in a shack. Manuake said changes were taking place in her family.

"When we were living in town, we would wake up and do all sorts of chores, like weaving. But here in the bush, we cook and do whatever we can, then we rest. Now, my children no longer need things from the shop, and they know that there is no source of income.

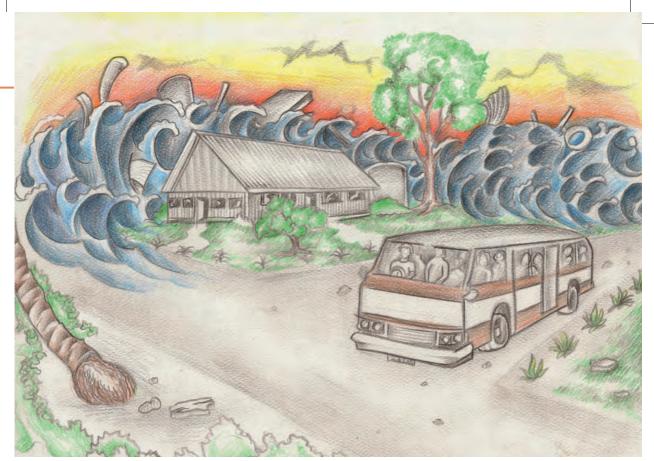
"My fear of the wave has almost gone," she said.

However, there are still obstacles that Manuake must overcome.

"My husband and children do not want to go back, and we will remain here in the bush until we are able to get a piece of land."

The pandanus by which she earns her living was wiped out by the tsunami, but Manuake was determined to continue her weaving. "We are planning to plant our pandanus because it is our only source of income here in Niuatoputapu," she said.





Manuake Fakaanga

32. 'Otolose Maea (25), Falehau

"I saw the wave bringing the house and the car, and I bowed with my eyes closed, knowing that we would not live,"

"I got up on this morning and went to my parents' house by the beach while the earthquake was shaking. I had no idea that something like this would happen," said 'Otolose.

Because she lives separately with her brother Sāloni and cares for her grandparents, 'Otolose returned home to make breakfast for them. "I had just sat down to prepare tea when I heard the wave booming – and then shouts about the tsunami, but I did not think it was true, and I continued to prepare tea."

As the noise became louder, 'Otolose went out of the house to see. "I stood there looking out to sea with my brother, and we saw the wave coming. I figured that the wave had come ashore, and I already knew that we might not survive. My grandfather could not walk, so it was difficult to try and get them from the house into a vehicle."

Sāloni rushed off to get their bus, but he returned with a full load of other passengers.





'Otolose Maea

"I was thinking of the people in the bus. They were calling for us to come, but when I looked out at the sea, I knew it would be too late if we tried to get my grandparents inside. So I told them to go.

"I went back inside the house. I got my grandparents into the living room and had my grandfather seated in his wheelchair, when my parents arrived."

Then 'Otolose saw the wave coming, sweeping a house and a car straight in their direction. "I could not differentiate which wave was which at this time, I was mixed up. I saw the wave bringing the house and the car, and I bowed with my eyes closed, knowing that we would not live."

Miraculously, for this family who were holding on to each other, awaiting death's arrival, the floating house and car hit a pua tree outside and swayed off in another direction. Only the sea entered the house.

"The wave seemed to have weakened, but its pressure was strong. The sea came up to as high as half of the wall," said 'Otolose.

Once they were sure that there were no more waves coming, 'Otolose's family made their way to the bush.

33. Uikelotu Langi (70), Falehau

Uikelotu was in the kitchen boiling a kettle for an elderly man at her home, when she heard shouts about a tsunami coming.

"I came outside just when the second wave went past, so I thought that I should climb onto the water tank where I'd be safe," she said.

The wave that followed was bigger than she expected. "I could see the wave coming, it was higher than the water tank, and when it hit me, I fell head-on beside the tank.



"I was struggling to resurface, and when I got up my clothes had come off and my skirt was gone. I clung onto a Si tree with both hands, but the wave was still knocking me about, and it finally took me to the chapel's verandah."

Uikelotu's house was destroyed by the tsunami, but her family had managed to build a temporary shack and a Tongan fale on the same spot. "Our whole house was just lifted and thrown to the side of the road," she said. Although they are right beside the sea, Uikelotu preferred to remain in their current location because of its convenience for her family. "We are much more comfortable staying here."

Uikelotu said that she was still struggling with her fears. "Whenever I see waves at the reef, I just want to go somewhere far; I am still terrified."







34. Malakai Mini (49), Falehau

"The sea... seemed to be bulging up and boiling."

"I did not know that there was an earthquake because I was walking at that time with my youngest daughter. When I heard the people beating on the roofing iron I looked around thinking it was a tornado, but when they shouted that it was an earthquake, I stopped. That is when I felt the earthquake," said Malakai.

He returned home and his wife Louena and eldest daughter were getting ready for school. Malakai was outside in the cooking hut when he heard shouts about the tsunami.

"I stood by the door and looked out to sea, it seemed to be bulging up and boiling. When I looked towards the east, the first wave had already made its way to shore. It was about one metre high."

Malakai turned off the stove then ran to the house and told his family to leave. He took the lead with the younger of the two girls, while Louena followed with their eldest. Then he put the little girl into a vehicle.

"I thought that if the wave came and I was slow in running then my child would be safe, because I kept on stopping for my wife and eldest daughter who were dragging along as they waited for her parents to catch up."

Once they arrived on the higher area, curious, Malakai went further to the top and looked beyond. "There was no sign of a tree or the usual things I would see. That is when it dawned on me, where are we going to go back to? There was not a single house standing!" said Malakai.

After the tsunami they had found a safer spot in the bush, and Malakai had no intention of returning home. "I do not want to go back to town, because I saw for myself the terrible strength of the tsunami. I am still afraid up to this day. I feel more content staying out here in the bush," he said.

35. Louena Mini (37), Falehau

Louena was bathing her daughter, getting her ready for school when news of the tsunami arrived.

"I shouted at my husband to run with one, while I took the other. We saw only the first wave; it came as far as the beach, and I did not have a chance to see the last two waves."

Wasting no time to look back, her husband Malakai had the youngest taken away in a van, while Louena put the elder girl on the bus.





Malakai and Louena Mini

"There were many people on the bus, several of them were women. I had to stay behind because my parents had not shown up," said Louena. Her parents finally came on the back road and continued on foot to the hill with Louena's assistance.

"I felt our loss when we returned to find that the house was gone, nothing was left. I had to go down to the beach and collect my Tongan crafts, but they were no use at all."

After seeking refuge in the bush, Louena was still not sure if they would return to their home in the village. "My children do not want to go back to town because they saw for themselves what happened. We have put together the remaining bits of our house for this shelter. We will return to town if there is a house to go back to," said Louena.

Like other victims of the tsunami, they faced several other difficulties on top of the need for a proper house.

"We earned our living from weaving, but the pandanus was destroyed, and now there's no source of money to cater for my children's school needs," she said.

They hoped that the construction work would start, and provide a job for Malakai.

36. Malia Nive Afa (43), Falehau

"We put in all our might into running that day. We were running and holding onto our clothes, and crying out!"

Malia has nine children – eight boys and a girl. Some of her children lived with her father at their home by the beach, while the rest stayed with her close to the bush.



"I was at home with my children, we knew of the earthquake, but we did not know that the wave had come inland. We were still in the house when a woman from the neighbour yelled at us; half of the people had already gone to the bush at that time."

The first and second wave had passed, but Malia caught sight of the final wave.

"I ran down to call my daughter, I could see the wave had reached the middle of town. What I could see was like smoke, and the land was just pitch-black," she said.

"When I saw the haze, I turned around and ran. I was running off together with my son. I ran into the bushes, but my son climbed into a Tava tree at our home. We put in all our might into running that day. We were running and holding onto our clothes, and crying out. Jesus, there was no resting, we were running fast!"

Malia was fortunate that the tsunami left her home unharmed, but she felt sorry for her neighbours. "We were all crying, seeing how miserable everyone else was," she said.

Although their house remained intact, Malia and her family had no intention of going back home. "Firstly, I saw how horrifying and frightening the wave was," she said.

Malia hoped to get a piece of land when the government made its allocation on the high ground where they were living. "Where we stayed is not our own home, that is why I want to remain here." she said.

Life for Malia and her family after the tsunami was hard. "The houses we are living in are neither big enough nor good enough to suit the way we live."

A bigger issue was Malia's health. "I am a sickly person. Before the tsunami, I was living a free life but now, most times I live in fear, and because of that, my life is affected. Whenever I remember the tsunami, my body starts being uneasy and at times like this my mind needs to be freed," she said.

Malia wished that there would be no more tsunami for her island home of Niuatoputapu.



Tevita Afa

37. Tevita Afa (16), Falehau

Malia Afa's son, Tevita, ran with her at the sight of the third wave.

"I was at home and I took off so that I could see the wave," he said, "but when I saw the wave was coming close, I ran back and climbed up the Tava tree. There was no time to run to the bush because the wave was coming really fast. I looked beyond, and I saw that the trees and houses had all vanished."



Tevita said the wave was surprisingly weak when it reached where he was, and then the water started withdrawing. "I was scared, I was only thinking of dying," he said.

Although he was terrified by what he saw, Tevita said after the tsunami that he was doing away with his fears, and was no longer afraid.



38. Nukonuka Hui (56), Falehau

Nukonuka was sweeping outside her house while her children were busy cooking. Her husband had gone off to the plantation that morning.

"After the earthquake, the tsunami came. We did not expect a tsunami to come," she said.

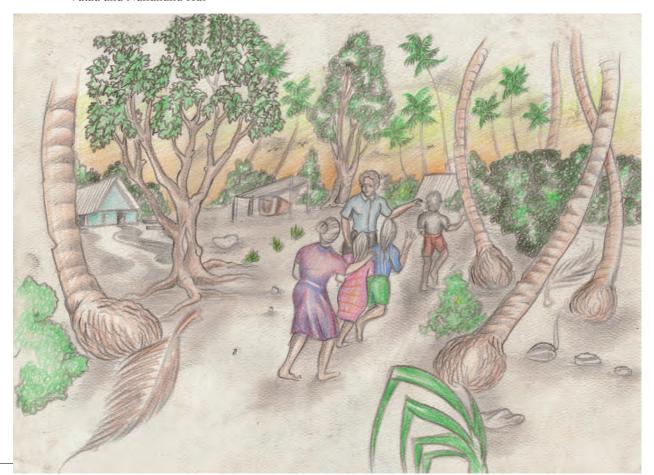
Fleeing with her children and others from the neighbourhood, Nukonuka and two girls got caught in the last wave, while her children made it safely to the bush. "My children ran off with another lady. I followed with two

other girls and the wave caught us. The girls were wounded," she said.

In the water, Nukonuka became separated from the two girls and found herself washed onto the lali (drum) in front of the Church of Tonga. After getting help for her lost companions, Nukonuka continued on her way to the bush.

"When the tsunami caught me and the girls I was afraid," she said. "There are times when I remember how we were hit." Nukunuku ran off and stayed in the bush, and only returned to her family when her fear was gone. "We're making progress, because I feel better now," she said. Nukonuka had a few more hurdles to overcome.

Vātau and Nukunuku Hui



"Our source of income came from weaving, which catered for my family's needs. Now, the pandanus has been destroyed, and there is no more source of income for the family. Now, we're living in tents from Red Cross and the government. It's not the same compared to before when we had a house."

Although their home was destroyed by the tsunami, Nukonuka preferred to remain at the same location. "We're waiting on the government for their help, however long it takes. We think that it will take generations before another tsunami comes; we're going back," she said.



39. Vātau Hui (63), Falehau

Vātau had gone off early in the morning to work on his plantation. He felt the earthquake, but he was surprised when an old man came and related the dreadful news of the tsunami.

"I heard the earthquake while I was in the bush. The ground was just swaying, and I knew that there was no house standing here in Falehau, but I did not expect a tsunami. I only heard the booming sound from the sea," said Vātau.

Like other families in his village, Vātau and Nukonuka Hui were struggling to make ends meet. "It is now difficult trying to earn a living for the family. Our source of income was from the pandanus and kava. I would go out to sea about twice a week to fish, but now everything has been destroyed.

"If help from the government takes a long time, we will try and get our children to build a house for the family to stay in," he said.

Although $V\bar{a}$ tau was going through a tough time, he was not willing to give up. "I am thinking of trying out all possible options like the ocean, weaving and plantation just to get my family back to where life was in the past."

40. Mosese Vea (17), Falehau

Mosese had just risen out of bed that morning and joined others who went off to the beach to look at the wave. "I went out of curiosity, to see what the wave was like," he said. "I was about 20 metres away from the wave, and we escaped onto a small hill."

"There were others in my age group, both big and small," he said of those who were running with him.

From his viewpoint on the hill, Mosese saw all three waves.

"The first wave was not really big; the second was higher; and the third was the wave that destroyed most of the houses," he said.





Fakatu'anoa Vea



41. Fakatu'anoa Vea (52), Falehau

"I was at home feeding my chickens and pigs when the earthquake started, and my neighbour was telling me that the sea was unusual."

He urged his neighbour to go off to higher ground, but Fakatu'anoa stayed behind. "I wanted to see what the wave was like," he said. "I was standing under a Langakali tree beside my house when the first wave came. It was muddy, and I could see fish coming on top. When the second wave came, I had already started running to look for my family."

His son and daughter were at his father-in-law's house, but he could not find his wife. "I did not know where my wife was at that time, and we ran off to the bush. I just found out after the tsunami, when we returned, that she was caught by the wave in town."

Fakatu'anoa was upset when he found that the tsunami had left only the cement floor of his house. "I felt sorry for myself that there was no house for me to stay in," he said. "Now that we're living in other people's homes, we're not as free as it was when we were staying at our own place."

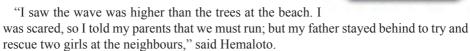
Although he has a daughter in Tongatapu, moving to the main island was not an option for Fakatu'anoa. "We're only waiting for the government. Whatever their decision is, we will accept it, because they will be building the houses for us. "We're glad that

although God took away the houses, our lives were saved, so that we can have another go at the future," he said.

42. Hemaloto Afemui (12), Falehau

"My father stayed behind to try and rescue two girls at the neighbours,"

Hemaloto was in school, in one of his early sessions for Class 6, when the tsunami arrived that morning. After hearing the shouting and running about, the teacher ended the session, and everyone left to go home.



"I feel that I have not got over the tsunami. I am still afraid."

Hemaloto thought that if another tsunami happened in future, children his age should be praying more and remain on high ground.



43. Kolo Po'uli (41), Falehau

"It was a very frightening wave."

Kolo Po'uli acted immediately when the earthquake started that morning, and fled with her daughter to higher ground.

"I jumped from our house, and ran yelling at my daughter to run, because the wave was coming from the market next to the wharf. We ran off together with other women from our neighbourhood, including our minister's wife and her children.

"Then Vave called us to come back because the wave had gone. We came and stayed by the chapel, then we later went back to the bush and joined the others there."

Kolo saw only the first wave, but said that she still had not overcome her fears. "We are living in panic in case another wave comes, like the one that we saw. It was a very frightening wave."

The tsunami devoured her home, but Kolo had built a shack on the same location. She believed that there was no need to move elsewhere.

"I think I am alright staying here in this house; it is secure, like the previous one we had before the tsunami came," she said.

44. Leone Faka'osi (41), Falehau

"There were things in the house, but it didn't matter. It was more important that I survived with my children."

"It was about seven in the morning. We saw for ourselves the coming of the first wave, the second and the third," said Leone, who was at his home by the beach with his wife and four children.



Leone's family, who had already squeezed into their five-seater minimal with about eleven other passengers, watched in awe.

"The first wave came up to the beach and returned, reaching the wharf. The second wave was bigger, coming closer to where we were in the vehicle. The third wave followed closely behind, and I could see that nothing would remain in our house, so we took off. We were about 30 metres apart, but we could hear our houses being trashed by the wave," he said. "Although there were things in the house, but it didn't matter. It was more important that I survived with my children."

Having reached the high ground safely, Leone returned to town two days later to find that the tsunami had left him homeless. "My thoughts at that time had not fully returned to normal," he said. "I still wonder, what would have happened if we were caught by the wave?"

After the tsunami his family had settled on higher ground. "We will not leave this place. We will probably remain here and wait for the government's decision, that we might get a piece of land to live on," he said.

However, life in tents on the hill presented a few obstacles. "When it rains, the tents leak. When we need water, we have to go and fetch water from the village, then come back here," he said.



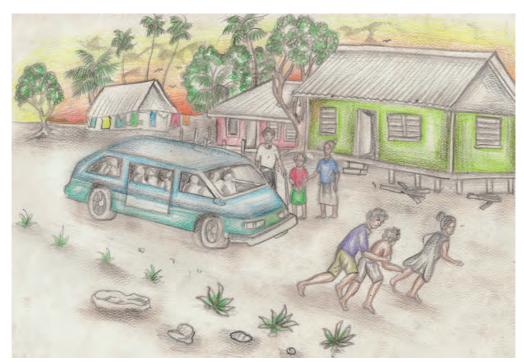
45. Sefilino Faka'osi (51), Falehau

"After the earthquake shook, I had a feeling that something would happen - a tsunami or a volcanic eruption,"

Sefilino, his wife and grandchild were at home during the earthquake, and watched the arrival of the first and the second wave.

"After the ground shook, I had a feeling that something might happen - a tsunami or a volcanic eruption," said Sefilino.

Because of his poor physical condition and his great concern for his family's safety,



Sefilino Faka'osi

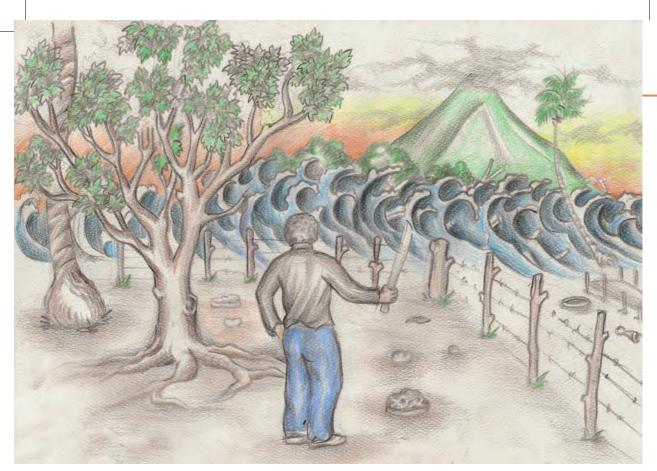
Sefilino wanted to take immediate action, but his wife ignored his advice. "I told my wife that we should walk to the bush, but she did not believe in what I said. About five minutes after that, we saw the sea coming. The first wave came onto the shore, and the sea was turbulent. When it left, the sea dried up. The second wave followed, and it was higher than the wharf."

Sefilino and his family went out by the roadside asking for help from vehicles that were driving past, but none of them stopped. "It was terrifying. We were crying because we had no thought of surviving when we saw the wave coming," he said.

To their relief, 'Esinito Tauvaka and his boys came to the rescue. "He was heading for my family because he saw that no vehicle stopped for us. When the third wave came, we had reached the higher ground."

Three months now after the tsunami's departure, Sefilino believed that his fear had gone. "I no longer feel afraid because it was just a natural disaster. I trust in God, and I am willing to return to the village with my family because of church and the sickness that I have."

Sefilino and his family were originally from the island of Tafahi. They had moved to Falehau to educate their children, who had finished school and had gone to live in Tongatapu. Although they planned to remain in the same location where their home was destroyed, they hoped that they would be able to get a piece of land once the government carried out the relocation work.



Siale Pongipongi



46. Siale Pongipongi (64), Falehau

"I did not value anything here at home – the only important thing to me was my life and my daughter's life."

Standing under his breadfruit tree, Siale with his adopted daughter Seneti, and her mother, watched as the first two waves made their way to shore. "The colour was normal, but the sea was boiling when they came," he said.

"The first and second waves came as far as the graveyard, and that is when we left, but I had also seen the third wave. It was really huge; it was above the trees. I did not value anything here at home – the only important thing to me was my life and my daughter's life," said Siale.

Siale's house was partly ruined by the waves. "The louvres were smashed in and all the rooms on the seafront side were torn down by the wave."

Siale said that his family remained on alert. "Whenever it starts shaking, even if just a little, we are always ready to leave."

Vaipoa

Population 292 (142 males, 150 females).⁵
Tsunami⁶ 30 September 2009:
Flow height (above sea level) 4.5-5.3 m
Inundation distance (inland) 120-180 m

Run-up (Inundation limit above sea level) 4.5 m



47. Manu Tangimausia (59), Vaipoa

"It was crushing houses, uprooting trees and whatever it came past, nothing stood. ... it will never be forgotten until we die."

Manu was among those who saw all three waves of the tsunami that destroyed his village. "It is not like any other disaster, the waves are of a very different nature compared to anything else in the world," he said.

He was at home with his family when there was a long earthquake, followed by a very loud noise from the sea. "We stood there and looked out at the sea; we saw that it had dried up, and a short while after that the first wave came."

Manu packed his family into their vehicle and they could see the first two waves coming ashore. "These waves were different from the ordinary ones, they were rotating as they came. One came right after the other."

In Vaipoa the first wave went as far as the seashore, and the second one went further inland, but no major damage was done until the third wave arrived. "I could see that it was higher than me. It was crushing houses, uprooting trees and whatever it came past; nothing stood."

Seeing the fury of the final wave, Manu got into his vehicle and drove off with his family to the bush. "We ran off because we were afraid that if we were caught in the wave we would perish."

Although he sometimes forgets about the tsunami when he is busy with daily chores, Manu said that he was still terrified. "I still haven't got rid of that feeling, maybe it will never go away or be forgotten until we die."

Manu strongly advised that if ever a tsunami warning is issued, one should: "Run as fast as possible; don't wait!",

Manu's son Tou'anga Tangimausia, and his sister-in-law Mele Tangimausia, also ran from the approaching waves.



48. Tou'anga Tangimausia (19), Vaipoa

"When I saw the destruction, I had an idea of the wave's nature and felt scared."

Tou'anga was at the beach when he heard the noise from the sea. "I thought it was the VOEA patrol boat arriving because of the way it was booming."

When he saw that it wasn't a navy ship but a wave heading for the shore, Tou'anga took off. Telling an old lady, who was sitting close by, that a tsunami was coming and helping

her to carry her two children, Tou'anga quickly ran for the hill and was warning people he came across about the tsunami.

However, his curiosity brought him back to the village to witness the second wave. "I saw that it was really strong, so I moved further inland and stood by the gate at the Mormon church, and then the third wave came."

Surprisingly, Tou'anga went out to meet the final wave, which in his opinion was just the tail of the wave, so it was not as strong at that point. "I saw that it was weak so I went and swam around in it. I was surfing and collecting fish."

When the wave receded and he returned to the rest of his village who were on the higher ground. "I could see that the people were terrified, but to me and how I felt - I felt no fear." However, after seeing the destruction in two of his neighbouring villages, Tou'anga admitted that it was then that he felt frightened. "I thought there was no major

Tou'anga Tangimausia



damage like it is here in Vaipoa. But when I saw the destruction, I had an idea of the wave's nature and felt scared." Tou'anga was sure that if another tsunami comes, he would never go and swim in it.

49. Mele Tangimausia (38), Vaipoa

"Because we live close to the sea, I don't want to go back there,"

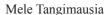
The disturbing noise from the sea caught Mele's attention while she was at a neighbour's house near the beach.

When she saw the first wave approaching, Mele was afraid and thinking only of her mother and two children, she started running home. "I was frightened. I wanted to get them to the bush before the wave caught them."

Fortunately, her family were already on the road by the time Mele reached home and she gathered them into a vehicle they called to stop. By the time the second wave reached the village, everyone was safely settled on the high ground.

The tsunami destroyed their home, but Mele had reason to be thankful. "I don't worry about anything, what counts is that my children and mother are safe."

Mele had no intention of returning to their previous home. "I am still scared because we live close to the sea, I don't want to go back there," she said.









50. Fatai Finau (70), Vaipoa

Three months on from the tragic events of 30 September, 2009, Fatai Finau, of Vaipoa still could not forget what happened. "It is always on my mind," she said.

This elderly woman, who lived with her daughter, Mele Tangimausia, and grandchildren, had just returned home from church that morning, when she heard disturbing sounds coming from the sea. Her family were away on an errand and Fatai was at home alone, so she asked a boy to run down to the shore to see what was causing the noise.

When the boy returned with news that a wave was coming, Fatai who relies very much on her walking stick, was terrified and left her home immediately. "I was scared to death and did not stop to look around. I wanted to get away to the bush," she said. "It was too frightening, because I am not fortunate to walk like you. The only thing to do was to run, but I could only limp as fast as I could."

Accompanied by the boy who saw the wave, Fatai made it safely to the bush before any of the waves caught her.

Although she did not see the destruction of the village, Fatai was reluctant to revisit her home. "Whenever I go to church and come past our home, it is as if I can see the wave coming. That is why I don't want to go there anymore." After the tsunami Fatai was staying in a temporary shack, and waiting for the government's decision to relocate.



51. Kakala 'Ōnesi (51)

52. Maleko 'Ōnesi (54), Vaipoa

The tsunami was a surprise for Kakala 'Ōnesi who was at home in Vaipoa. "I had no idea that such a disaster would happen," she said.

The first wave caught Kakala, her husband Maleko, and their children while they were outside their house.

Maleko had gathered the family in their vehicle. "We were getting into our pick-up truck, my wife and daughter

were with me in the front, and my son was at the back. We had just started the engine when the wave crashed in on us, going straight into the front of our house," said Maleko.

"My daughter yelled and said that my son fell into the sea. So I turned off the motor and got down to look for him in the back of the pickup truck, but he was not there. Then I saw him sitting on top of the cab," he said.

Kakala said that a bigger wave was rolling in from the sea, and so Maleko had to break through their back fence with a hammer to drive the vehicle away from the sea. "We tried to get away before it caught up with us," she said.

"We are living fearful lives, afraid that something might happen again."

Maleko and his family made it to the hill, and remained there until the final wave receded.

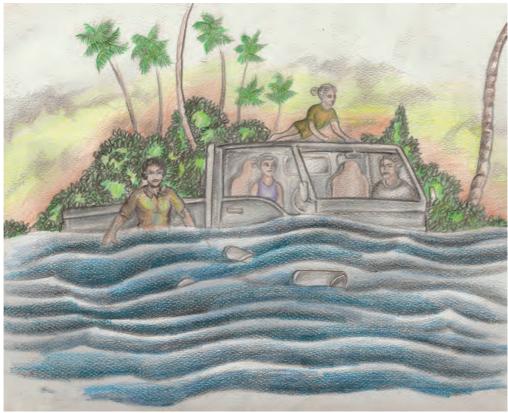
Later that day he returned to the village to find that their house had been torn apart. "I felt hopeless, especially for my family. But if a life had been lost, it would have been much worse," he said.



Although the family had found refuge in Hihifo, Kakala said that they had not settled down. "We are living fearful lives, afraid that something might happen again. When I hear the sea I want to go to the bush because I am scared. I still have not found peace," she said.

They were living in a shack close to the sea, but Maleko hoped to move his family to a more secure permanent residence. In the meantime, he said that although his wife and children were still afraid, he was content that they were making progress.







Maka Afei



53. Maka Afei (52), Vaipoa

Maka Afei was caught out on the sea shore when the tsunami hit his village. Unlike many others who witnessed three furious waves, he saw only two.

"I was at the beach with my wife to lay fau under the rocks when it happened at around 7:30 am.

"It was low tide at first but then the sea started making noises. I could see that the water was rising, coming from the reef. It was slowly growing, and after a short while switched into a high tide.

"It was just the coming of the tide, which was like a first wave; it rolled me over and swept me ashore. It was strong, and seemed to be digging up the sand when it came."

Maka's wife ran off with the rest of the villagers to the hill. Maka got onto his feet on the road, and then saw the second wave coming in. "It was the same height as I am and it was strong. It dug up the sand and smashed down all the houses," he said.

Caught in the middle of the wave, Maka managed to grab hold of a pandanus tree, and he hung onto it while the wave swept on further inland. "These were the only two waves that came ashore, which did the damage here," he said.

"This is the first time for something like this to happen. We have heard stories, but now we have witnessed a tsunami for ourselves. It was a very frightening day," he said.

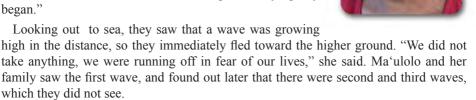


Ma'ulolo Manu

54. Ma'ulolo Manu (56), Vaipoa

"We did not take anything, we were running off with fear for our lives."

Ma'ulolo was at home near the sea with her children and some of her grandchildren when they heard a frightening sound. "When we heard the sea roaring, a terrifying day began."



Although they have built a shack at a new location, life for Ma'ulolo remains insecure. "I sleep, but I live in terror right now. I am always on the lookout for a tsunami.

"Since the day of the tsunami my grandchildren no longer take their usual route to school along the road by the sea. They go and return through the bushes because they are afraid another tsunami might come," she said.

Sadly, life was not the same anymore. "The way it is these days, I live with fear of the tsunami. There's no thought of anything else, my thoughts are occupied by the tsunami."



Tafahi

Population⁷: 69 (39 males, 30 females).

Volcanic cone islet⁹: area 3.4 km²; maximum altitude 560 m.

Tsunami 30 September 2009:

Run-up⁸ (Inundation limit above sea level) 10-15 m; southwestern coast 22.4 m.



54. Visesio Faka'osi (21), Tafahi

"It wasn't like the ordinary waves because it was spinning as it came, uprooting trees – it brought along the big trees at the beach."

Visesio was among several people who were seeing off a boat at the jetty that morning.

"After the earthquake, the sea started getting deep, then suddenly it went dry. After a short while the big wave

appeared, the first wave," he said.

"It was just the first wave that I saw, then I ran because I was afraid, seeing that it came as high as the trees. It was not like the ordinary waves because it was spinning as it came, uprooting trees — it brought along the big trees at the beach."

Like Visesio, everyone else was terrified. "They were crying aloud, and everyone just ran for their lives to the high ground," he said.

After his experience, Visesio was reluctant to go near the sea. "I still do not feel like going to the sea, I'm still afraid of going alone."



Figure 31. Debris in the lagoon on the northwestern coastline of Niuatoputapu Island, with Tafahi's cone in the distance, seen during a post-tsunami survey.

Endnotes

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Tsunamis can be detected using our human senses. Recognize a tsunami's natural warning signs.

FEEL

- Big local earthquakes may cause tsunamis.
- FEEL the ground shaking severely, or for a long time?

SEE

- Tsunami may be preceded by rapid fall in sea level as the ocean recedes, exposing reefs, rocks, and fishes on the sea bottom.
- Tsunami often come ashore as a wall of water, and quickly flood inland.
- SEE an unusual disappearance of water, or oncoming wall of water?

HEAR

- Abnormal ocean activity, a wall of water, and approaching tsunami create a loud "roaring" sound similar to that of a train or jet aircraft.
- HEAR the roar?

RUN

- Don't wait for official evacuation orders.
- Immediately leave low-lying coastal areas.
- Move inland to higher ground.
- RUN if you see a tsunami coming!











International Tsunami Information Center A UNESCO/IOC - NOAA Partnership E-mail: itic.tsunami@noaa.gov Web: http://www.tsunamiwave.info

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'Anau Fonokalafi, of Television Tonga, interviews over 50 survivors of the Niuatoputaputsunami, caused by the great Samoa-Tonga earthquake of 30 September 2009.

The survivors' accounts describe not only the disaster, but also tell of heroism, self-sacrifice, and sheer luck in the face of grave danger, while revealing the tragic consequences of the tsunami on their shattered communities.

This book based on a television documentary, "Niuatoputapu after the tsunami of 30 September 2009", with sketches by Soakimi Maka Finau, also includes photographs and diagrams that will help Pacific islanders understand the need for tsunami preparedness, and how earthquakes can cause tsunamis.

ISBN: 978-982-98077-2-4