



# **SANDWATCH TRAINING WORKSHOP 22-24 AUGUST 2012, FUNAFUTI, TUVALU**

## **WORKSHOP REPORT**

by

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## **Background**

As part of the Tuvalu National Adaptation Programme of Action (NAPA) implementation project to address coastal adaptation measures, stakeholders identified the need to introduce beach monitoring methods linked with education programmes. As a result it was decided to introduce the Sandwatch programme in Tuvalu.

A Sandwatch Training Workshop was held in Tuvalu, 22-24 August 2012. The workshop was sponsored by the Department of the Environment, Ministry of Foreign Affairs and Environment, Tourism, External Trade and Labour; the Ministry of Education and Sports; and the Sandwatch Foundation.

## **About Sandwatch**

Sandwatch seeks to change the lifestyle and habits of children, youth and adults on a community wide basis, to adapt to climate change by building ecosystem resilience, and to develop awareness of the fragile nature of the marine and coastal environment and the need to use it wisely. It is an educational process through which school students and community members learn and work together to scientifically monitor their beach environments, so as to critically evaluate the problems and conflicts, and then to develop and implement sustainable activities to address these issues. The approach involves monitoring the beach, analysing the results and identifying issues and problems, sharing the findings, and taking action (known by the acronym MAST). Sandwatch is a volunteer network of schools (students, teachers and principals); youth groups; governmental, non-governmental and community-based organizations working together to monitor and enhance their beach environments. The network is led and coordinated by the Sandwatch Foundation, a non-profit organization and is supported by the United Nations Educational, Scientific and Cultural Organization (UNESCO) through the education and science sectors, and many other organisations.

## **Workshop Objectives**

The objectives of the workshop were to:

- To familiarise participants with the Sandwatch programme of activities.
- To engage participants in a range of practical activities on the beach that could be used in their practice in school.
- To inform teachers on some links between climate change and the effects of rising sea levels.

## **Workshop Arrangements**

There were 24 participants at the workshop, mainly teachers (about half were primary school teachers and half were secondary school teachers) from:

- Nauti Primary School, Funafuti
- SDA Primary School, Funafuti
- Fetuvalu Secondary School, Funafuti
- Tolise Primary School, Vaitupu
- Motofoua Secondary School, Vaitupu

Representatives from the Department of the Environment, Ministry of Education & Sports, and the Ministry of Foreign Affairs also attended the workshop. The full list of participants is presented as Annex 1.

Carol Young, from the Faculty of Education, University of Auckland, led the workshop.

Due to limitations with air freight services to Tuvalu in July and August, the equipment purchased in advance for the training workshop did not arrive in time. However, some tape measures, magnifying glasses and rulers with spirit levels were purchased. Improvised equipment was used for some of the other measurements, e.g. food colouring was used for the measurement of longshore currents (instead of dye tablets). The equipment once delivered will be distributed to the schools and teachers represented at the workshop. As a result of the non-arrival of the equipment, water quality and wave measurements were not included in the training workshop. The programme for the training workshop is presented as Annex 2.

## **Workshop Results**

During the first day the participants divided into five groups and each group had a 20m long stretch of beach to observe and record. Having agreed on a map scale, the participants prepared sketch maps of their observations along their beach section. After completing the sketch maps the maps were joined up on the wall to make a complete picture of the entire 100 m beach length.

On the second day, participants measured beach composition and beach profiles. The mathematics teachers were excited about giving students “real” data to use in the math lessons. They also discussed rising sea levels and how the beach was likely to re-position itself further inland with rising sea levels. This resulted in discussion about seashore and mangrove planting. Measurements of longshore drift also generated a lot of interest.

On the third and final day, participants presented their sketch maps, and three groups composed songs and sang them. Participants also discussed plans for starting Sandwatch in their schools. All the participants plan to inform other teachers in their schools and for example the Principal from the SDA Primary School plans to practise the Sandwatch activities with her teachers before doing them with students. Other participants proposed holding mini-Sandwatch workshops with their colleagues. The participants were also introduced to the Sandwatch website.

## **Workshop Evaluation**

The workshop evaluation is presented as Annex 3. The evaluations were very positive and over 75% of the participants wanted more and longer Sandwatch workshops. The unofficial feedback was that the style of workshop whereby participants carried out the activities themselves - was not what they were used to – and they **loved** it.

Some of the comments:

- *“As a young Tuvaluan woman it is scared to me that Tuvalu is going to sink. But in joining this workshop it encouraged me to work hard and teach my colleagues and students of how to conserve and preserve our beach from sea level rise.”*
- *“Thank you to all stakeholders who have made this wonderful workshop a reality. It has been an eye opening event for such a big issue (beach sustainability) but was delivered in such a manner that it was very easy to follow and simple to implement from materials that can be obtained simply and could be done by everyone. Thank you once again Sandwatch now, I can contribute positively to the better health at our beach.”*

## Next Steps

<b>Follow-up activity</b>	<b>Group responsible</b>
1. Hold discussions with the Department of the Environment, Ministry of Education and Sports and Sandwatch Foundation about the outcome of the workshop and follow-up activities e.g. a follow-up workshop.	Department of Environment, Ministry of Education & Sports, Sandwatch Foundation
2. Follow-up on getting the equipment (presently in Suva) delivered to Tuvalu and distributed to the schools and participants.	Department of Environment & Ministry of Education & Sports.
3. Follow-up with teachers about providing information on follow-up activities for the Sandwatch website.	Sandwatch Foundation
4. Workshop report and website update	Sandwatch Foundation
5. Request articles for Sandwatch newsletter from workshop participants	Sandwatch Foundation

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### Annex 1 List of Participants

<b>First Name</b>	<b>Surname</b>	<b>School/organisation</b>
Tagimai	Solumua	Nauti Primary School (NPS)
Redina	Amina	Fetuvalu Secondary School (FSS)
Eneli	Epati	Tolise Primary School (TPS)
Lamona	Danny	TPS
Tala	Simeti	Motofoua Secondary School (MSS)
Ulise	Etuati	MSS
Betty	Vave	NPS (Principal)
Moti	Silo	TPS
Siaulete	Lito	MSS
Kautoa	Molotii	MSS
Alamita	Tealofi	NAPA, Vaitupu
Elisala	Teauai	NPS
Peteli	Paulo	Form 7
Tovia	Tovia	NPS
Motulu	Pedro	Foreign Affairs
Fineaso	Tehulu	MSS
Tineiafi	Pedro	SDA Primary
Faleie	Talava	NPS
Louise	Leitonga	NPS
Luisa	Laveti	SDA (Principal)
Fataitaiga	Eti	NPS
Siliona	Peninsula	NPS
Teimana	Avanitele	Dept of Ed
Seveleni	Kapua	Form 7

## Annex 2 Workshop Programme

### SANDWATCH CURRICULUM WORKSHOP TUVALU 22 – 24 August 2012

#### Objectives

- To familiarise participants with the Sandwatch programme of activities
- To engage participants in a range of practical activities on the beach that could be used in their practice in school
- To inform teachers on some links between climate change and the effects of rising sea levels.

#### *Day 1, August 22, 2010*

- 9.30            **Workshop Opening**  
**Under Secretary of Environment: Fakasoa Tealei**
- 10              **Introduction to Sandwatch**, Carol Young
- 10.30-11.00    Tea break
- 11.00-11.30    **Sandwatch Monitoring and Analysis 1**, Presentation,  
Background information on Sandwatch methods: Observation and recording,  
making a sketch map, erosion and accretion, waves and currents,
- 11.30 – 12.30   **Sandwatch Monitoring and Analysis Beach Practice** Beach mapping in groups  
20 m sections starting from jetty
- 12.30-1.30     Lunch
- 1.30-2.00      **Sandwatch Monitoring and Analysis Beach Practice** beach composition.  
Field session on the beach to complete observation and recording,
- 2 – 3            **Practical methods** – how to filter sand and do a beach profile

#### *Day 2, August 23, 2012*

- 0900 – 10.30   **Sandwatch Monitoring and Analysis 2**, Presentation, Carol Young  
Background information on Sandwatch methods: MAST
- 10.30 -11       Morning tea
- 11 – 12.15      **Sandwatch Monitoring and Analysis Beach Practice**  
Sand size and type, longshore currents
- 12.15-1.15     Lunch
- 1.15– 2.00      **Beach Profile, Sea level rising impacts** Practical activities at beach
- 2.00 – 3.00     **Completing Sketch map**

***Day 3, August 24 2012***

0900 – 10.00    **Sandwatch website, Project Development - Carol Young**

10.00-10.30    **Preparing Maps and presentations**

10.30-11.00    Tea break

11.00-12.30    **Presentations from each group** All sketch maps to be joined

12.30            **Finish -**

1.00             Lunch

### **Annex 3 Workshop Evaluation**

- **How will you use what you have learnt in your teaching?**

- Run a mini workshop with the teachers
- I would try to incorporate all the techniques that have helped me remember the things I have from this workshop for instance I would teach content (notes) and explain then let students do activities, make them form up other related activities and try to do them (acting) and then let them be teachers and teach whatever they have learnt to their colleagues. I would also use the 3, 2, 1 RI Q method in every class from now on.
- Learning in the classroom can be effective if students are involved in the teaching learning. Letting students involve in more practical learning experience on a certain topic matter will definitely has more recallable memory potentials in students. Encourage students /teachers to use different approaches when delivering a lesson.
- Honestly I will share this with daughter (songs & activities), form students, staff members during staff development session, management team, department members to create a proper program to support Sandwatch apart from our curriculum (commerce)
- This is one excellent extra-curricular activity so that all students are involved and the message /information is disseminated to a wider group rather than to only a certain group of students.
- Convey what was learnt during the workshop to colleagues/parents through a school-based workshop & PTA. Encourage integrated approach in all subject areas to teach Sandwatch program content.
- Integrated in our school curriculum
- I will teach the students and different communities what I have learnt.
- I will likely share everything with my students. More time to do the practical work. Organize them well and allocate an adequate time frame.
- Share with other teachers and then integrate in all the subjects being taught in school.

**2. What was the most useful thing you learnt at this workshop?**

- Tide measurement. How to measure and even to monitor points where the tide can actually reach. The most important and even dangerous thing is that 1cm rise is equivalent to 1m increase in high tide. 20 or 30 more years we could be under water.
- The importance of a beach and what can we help to become useful for the children or people to enjoy.
- That maximum learning can come about when you enjoy whatever you are doing and when you take ownership of whatever activities you do
- It will improve if it is integrated into the school curriculum and organized more awareness workshop to teachers as well as students, youth and parents.
- I learnt about Sandwatch and its importance to our schools especially in informing our child of the issues and potentials they can do to protect and sustain our beaches & sand.
- Core objectives of Sandwatch-setting up a study area at the beach, integrating of Maths, science, music, health science, geography and even my field commerce, measuring the current (sea current)
- At this workshop, I learnt the importance of group work, where there is much sharing and helping one another and great fun.
- Deep learning as outlined by the Sandwatch activity/project. Learning to transform oneself and one's nation will be the best approach to use in the classroom.
- Making a level using soya bean oil for measuring if there is no real level available at the time. Doing beach monitoring and beach profile.
- Multi-media expression mode. Doing the activities, knowing new people, text book as a guide.
- Sandwatch methodology (MAST). Mapping allocated areas. Beach profiles



- How to be very accurate with the measurement and the constructing of the beach profile.
- How to monitor the current where does it follow using the food dye.

### **3. How could this workshop be improved?**

- For now the workshop has been carried out very well, improvement would have to come out in the form of the participants being on time.
- If we add the number of participants increase the number of days allocated for the workshop so that we could finish all the methods indicated in the book.
- We share it to our fellow workmates so that they can realize the importance of a good clean beach and also help in CC
- Should be for a week, should be included more teachers from outer islands, should use the internet to send the data and pictures.
- Get more participants and extend length to 1 week workshop.
- The workshop could be improved if we can visit various beaches instead of one area to compare and identify the impact of currents onto our beaches.
- It can be improved in a way that involves our school children and also awareness programs to the community.
- Invite all teachers from each school to attend such workshop, also island community leaders, government leaders, church leaders.
- To teach and have workshop to most of the students and people to know the important and to learn more about this as it help to know about CC.
- This workshop could be improved if we spend more time doing activities on the beach and also come up with solutions in maintaining the beach.
- Well planned and clearly explained/state all details that need to know by the participants.
- Personally I will love to have more time to collect data especially when we come to comparison of results. Or different group at the time. More workshops on Sandwatch in the future to come.

### **4. Other comments**

- Thank you to all stakeholders who have made this wonderful workshop a reality. It has been an eye opening event for such a big issue (beach sustainability) but was delivered in such a manner that it was very easy to follow and simple to implement from materials that can be obtained simply and could be done by everyone. Thank you once again Sandwatch now, I can contribute positively to the better health at our beach.
- It was a very interesting workshop. We really enjoyed it. Hope to have more workshops like this in the future.
- Very well planned and well organized workshop. I hope it will be held in the next term break. It is so good to target all teachers for the next workshop.
- The workshop is very useful to me and love to participate more in the coming future.
- As a young Tuvaluan woman it is scared to me that Tuvalu is going to sink. But in joining this workshop it is encourage me to work hard and teach my colleagues and students of how to conserve & preserve our beach from sea level rise.
- The workshop was very beneficial and informative. I will try to share these with teachers in the school and try to introduce sand watch to the school and to make things move very soon.
- I wish to acknowledge and thank the consultant from Auckland University for the very useful workshop. Thanks the Department of Education for giving me the opportunity to learn new teaching areas.
- My hope is that teachers will put into practice what has been done during this very fruitful and educational workshop.
- More workshops to come from Sandwatch.
- More and more awareness workshops in the future for every school.

- More and more workshops needed
- It would be very beneficial if this kind of workshop can include members from different communities/groups at different levels (for effective implementation)
- We need more activities concerning climate change and other subjects like some of the activities we learnt in the 3 days workshop.
- To maintain this and also to work together to upgrade every Island in Tuvalu about CC and the important of it to us. Share different ideas from all people.