

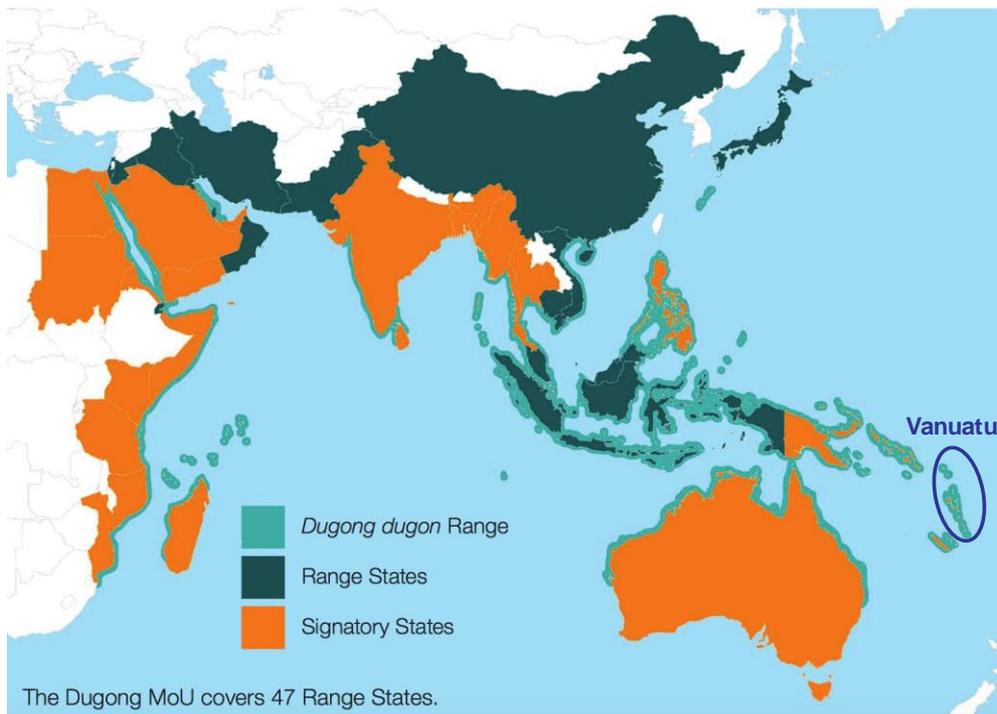
# Catalysts for Community Change

The Dugong and Seagrass Conservation  
Project in Vanuatu so far...

Dr. Christina Shaw

The Vanuatu Environmental Science Society

# Vanuatu



Vanuatu is a small island nation in the South Pacific located on the very eastern edge of the dugongs' natural range.

An archipelago of 83 volcanic islands



Seven volcanoes are active

# Vanuatu Statistics



- \* Vanuatu is a Y-shaped archipelago in the South Pacific
- \* 67 islands are inhabited
- \* The islands lie between latitudes 13-21°S and longitudes 166-172°E
- \* The archipelago is approximately 850 km in length

# Land statistics

- \* Total Land area 12,200 Sq Km
- \* Proportion of land area covered by primary forest 36.1%
- \* Total forest area 4,400 Km<sup>2</sup>
- \* Proportion of terrestrial and marine areas protected 0.5%



# Ocean Statistics

- \* Ocean area 680,220 Sq km (plus disputed Mathew and Hunter area 190,000 Sq Km)
- \* Length of coastline 3132 Km
- \* Total reef area 1,200 Sq Km
- \* Area of inner reef and lagoon 448 sq Km
- \* Vanuatu's has a narrow band of fringing reef generally less than 100m wide.



# Dugongs in Vanuatu



# Previous Dugongs studies in Vanuatu

- \* One survey has been carried out to assess the distribution, abundance, cultural importance and threats to the dugong in Vanuatu.
- \* This was in 1987.
- \* The study was carried out by a postal questionnaire survey and an aerial survey.

Chambers, MR, E Bani, and BET Barker-Hudson. "The status of the dugong (*Dugong dugon*) in Vanuatu." *South Pacific Commission, Noumea (New Caledonia)*. 1989.

# An image taken from a drone in 2015 in the Maskelyn islands



# The conclusion drawn by the investigators

“On the available evidence, the dugong does not appear to be in any danger of decline or extinction in Vanuatu. The agencies which constitute such threats elsewhere - overhunting, high accidental death rates, pollution and loss of seagrass beds - do not exist in Vanuatu. Nor are they likely to on any appreciable scale in the foreseeable future. Thus Vanuatu may be one of the few countries in the dugong's very wide distribution where it is safe”

# Vanuatu Government's commitment to dugong conservation

- \* Signed CMS Dugong MoU in 2010
- \* Participated in the SPREP Pacific Year of the Dugong in 2011
- \* SPREP Pacific Islands Marine Species Programme 2013-2017
- \* Commitment under the CBD
- \* Dugongs are protected under the Fisheries Act
- \* Seagrass and dugongs protected in community conservation areas under the Environmental conservation Act

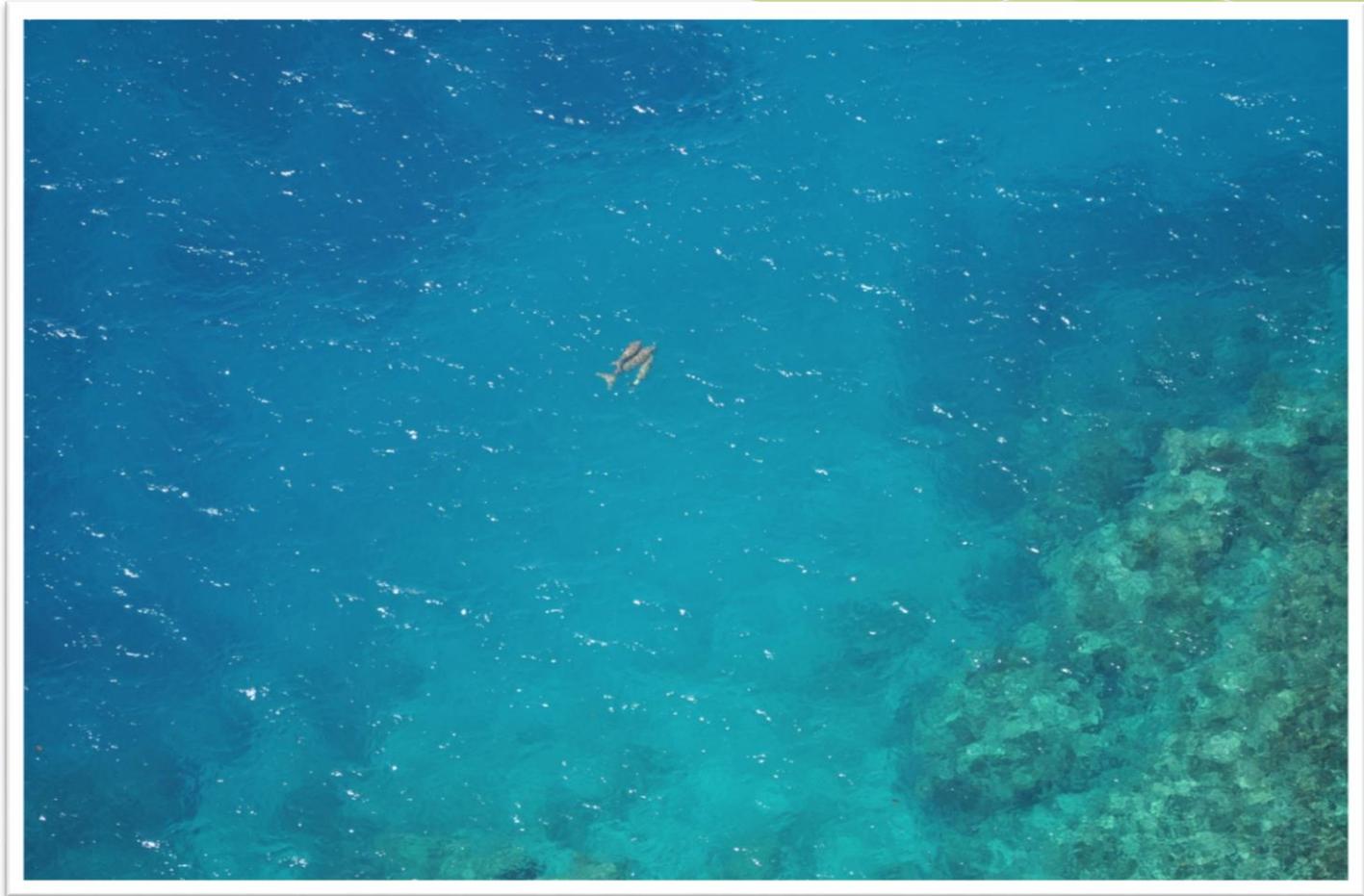
Dugongs are regularly seen



# Dugongs are often seen by Surfers



# Mother and 2 calves seen from a helicopter



Vanuatu's dugongs have a reputation  
of being friendly



# Seagrass in Vanuatu



# Previous Seagrass studies in Vanuatu

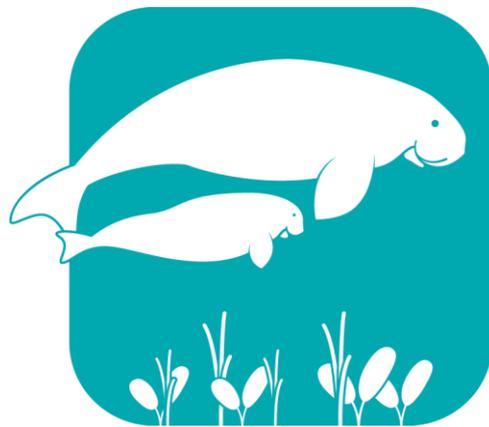
- \* There have been 2 scientific assessments of seagrasses in Vanuatu as part of wider biodiversity assessments.
- \* 9 species of seagrasses have been identified.
- \* Chambers M.R., Nguyen F, Navin K.F. Seagrass communities. In : Done T.J. (ed.), Navin K.F. (ed.) *Vanuatu marine resources : report of a biological survey*. Townsville : Australian Institute of Marine Science, 1990, (501), p. 92-103.
- \* Payri, Claude. "Benthic algal and seagrass communities from Santo island in relation to habitat diversity." (2011): 337-368. In *The Natural History of Santo*. P Bouchet, Le Guyader H, Pascal O (eds.) Muséum national d'Histoire naturelle, Paris: IRD, Marseille; Pro-natura international, Paris, 572p. (patrimoines naturels; 70).

# Challenges to conservation and research in Vanuatu

Small remote developing countries such as Vanuatu face significant challenges to conserving threatened species such as:

- \* A lack of, even baseline, scientific data on the species and their habitats
- \* Limited capacity
- \* Geography
- \* Natural disasters
- \* Limited and expensive transport networks to the majority of the islands
- \* Lack of funding

# The GEF Dugong and Seagrass Conservation Project in Vanuatu



## Dugong & Seagrass CONSERVATION PROJECT



PROTECTING DUGONGS  
CONSERVING SEAGRASS  
CHANGE FOR COMMUNITIES

صندوق محمد بن زايد  
للمحافظة على الكائنات الحية  
The Mohamed bin Zayed SPECIES CONSERVATION FUND

# The Vanuatu project partners



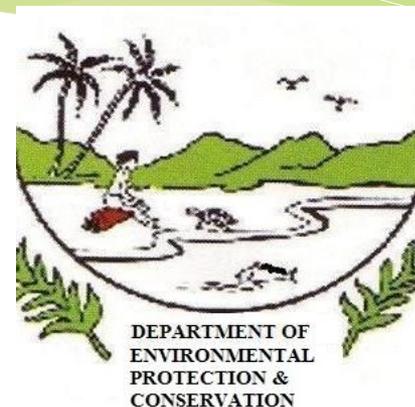
The Vanuatu  
Environmental  
Science Society

Implementing partner



The Vanuatu  
Fisheries  
Department

Project Partner

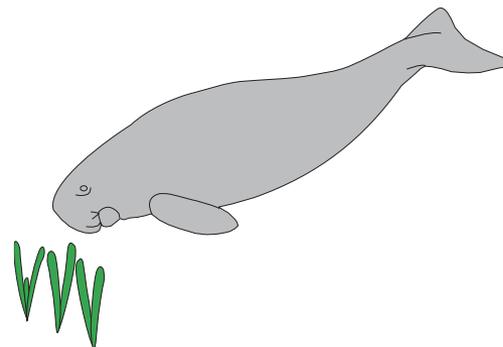
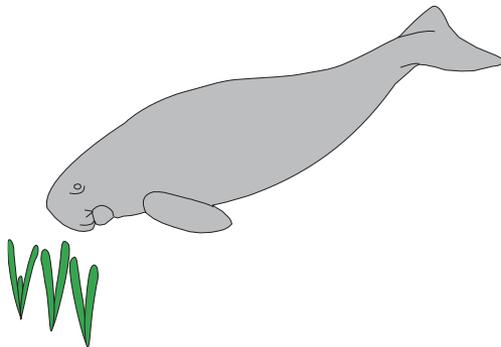


The Department of  
Environmental  
Protection and  
Conservation

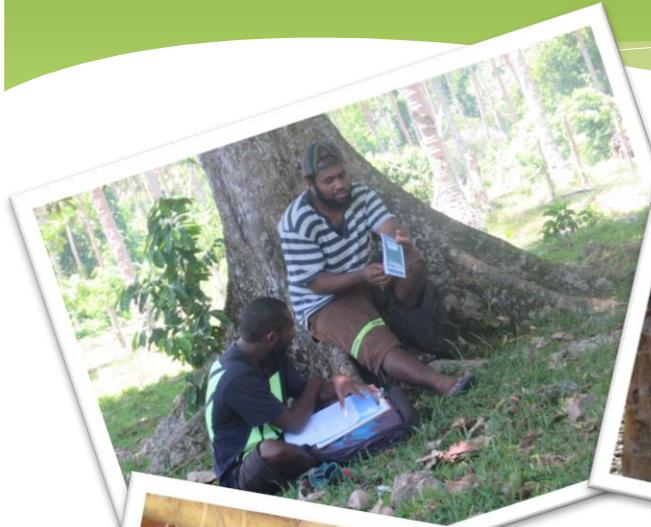
Project Partner

# Project Activities

- \* Update the information about the distribution of dugongs in Vanuatu and the threats they face.
- \* Increase awareness of dugongs and seagrass
- \* Nation Plan of Action for dugongs and their seagrass habitat.



# Interviews with villagers and fishermen



# Travelling for the dugong questionnaire



Will the Dugong and Seagrass  
Conservation Project be a  
catalyst for change in Vanuatu?

# Collaboration at the community level



VESS



VESS

# Interview with Joseph Soksok



# Collaboration at the national level

- \* National Facilitating Committee (NFC) was created under the umbrella of the project.
- \* The committee is made up of representatives from government departments (fisheries, environment and tourism) and NGOs (VESS and Wan Smol Bag).
- \* Vanuatu now has a national platform for government departments and NGOs to work together with the unified aim of conserving one of Vanuatu's most iconic animals.

# The National Facilitating Committee



# Collaboration at the international level

- \* Access to tools such as the dugong catch / by-catch questionnaire
- \* Advice from international experts

Has allowed Vanuatu to use the investment to maximize the effectiveness of the project

# Using the tools



United Nations Environment Programme

Convention on the Conservation of  
Migratory Species of Wild Animals

**UNEP/CMS OFFICE – ABU DHABI**

United Arab Emirates



## STANDARDISED DUGONG CATCH / BYCATCH QUESTIONNAIRE

Interviewer Name: \_\_\_\_\_ Date: \_\_\_\_\_ Data Sheet Serial Number: \_\_\_\_\_

Town: \_\_\_\_\_ Province: \_\_\_\_\_

### INTRODUCTION STATEMENT

Note: Reading this statement to the interviewee is compulsory. It ensures all interviews are treated equally.

My name is \_\_\_\_\_. I work for a project run by the \_\_\_\_\_, which is an organization based in \_\_\_\_\_ (*insert location*) which is supporting research to protect the ocean for fishers and wildlife. The goal of this project is to learn more about capture of dugongs and any other marine wildlife in coastal fisheries of \_\_\_\_\_ (*insert location*). We would like to ask you some questions about wildlife you have seen, what fishing gear you use (if any), where you fish, and questions like that. We have maps and pictures that can be used to help answer some of the questions. The

# Using the experts

- \* CMS Dugong Technical Group of Experts (CMS-DTG)
- \* Project Coordination Team (PCT)
- \* Delivered a workshop in Vanuatu on using the questionnaire
- \* Checked educational materials were technically correct.
- \* Assisted with project proposals to other funders
- \* Assisting with project and survey design

# Creating capacity



- \* Two young Ni-Vanuatu marine scientists have been employed on the project.

# Leveraging further funding

## Critical Ecosystem Partnership Fund (CEPF) small grant to produce education materials

### Dugongs and their Seagrass habitats



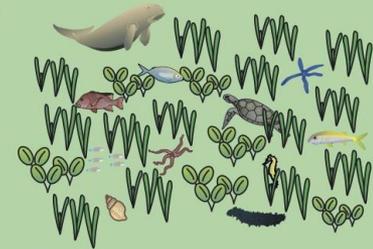
By Christina Shaw

### Seagrasses

Seagrasses are flowering plants that live under water in the sea. Their leaves have veins and their roots anchor them in the seabed. They use sunlight to grow and live in shallow water.



Seagrass beds are habitat for many different species of animals.



### Seagrass beds have many benefits

- Provide food and shelter for fish, shellfish, dugongs, green turtles, sea cucumbers and seahorses: animals that we eat or that tourists like to see
- Create nurseries for juvenile shellfish and fish
- Work together with mangroves and coral reefs to cycle nutrients and to protect our coastlines against storm surges, cyclones and erosion
- Oxygenate and filter sea water
- Take in carbon dioxide, which helps to reduce the effects of climate change including ocean acidification

### Threats to Seagrass beds

- Activities that reduce water clarity and increase the amount of sediment in the water, e.g. from run-off, dredging, coastal clearing and land reclamation.
- Physical damage from boat propellers, anchors and trawling.
- Sewage, litter and other waste products.
- Cyclones and floods



### We can help keep Seagrass beds healthy by:

- Reducing run-off of sediments and pollutants from land into the sea
- Keeping beaches and the sea free from litter
- Looking after mangroves and coral reefs
- Taking care when driving boats over seagrass beds
- Not anchoring in seagrass beds
- Monitoring seagrass beds to ensure they are staying healthy



This poster was designed and produced by VESS with funding from the Critical Ecosystem Partnership Fund.

Images downloaded from Ian Image Library ([www.ian.unccs.edu/imageLibrary/](http://www.ian.unccs.edu/imageLibrary/)) and created by: Christine Aliu, Catherine Cotter, Zane Healey, Diana Klein, Kim Krueger, Tracey Sebby, Dieter Tracey, Lucy Van Essen-Fishman and Joanna Woerner.



# Posters in the communities



# Leveraging further funding

- \* CEPF large grant to extend the activities of the dugong and seagrass project to conduct aerial surveys with drones and start Seagrass Watch in Vanuatu .



# Engaging a volunteer

- \* Australian volunteer to assist with developing appropriate eco-tourism involving wildlife in Vanuatu.



Connecting people, changing lives, reaching our region

## Wildlife Ecotourism Advisor

General Information	
Assignment Code:	AV0317VU46P
Position Title:	Wildlife Ecotourism Advisor <b>(APPLICATIONS CLOSE 21st March 2017)</b>
Duration:	12 months
Proposed Start Date:	June 2017
Assignment Location:	Port Vila , Vanuatu
Assignment Summary	
Take a walk on the wild side and help conserve Vanuatu's threatened species and ecosystems whilst improving the livelihoods of the local community!	
Vanuatu lies in the East Melanesian Islands hotspot for Biodiversity and has a high number of endemic species and iconic species such as dugongs and sea turtles. There are untapped opportunities to develop ecotourism products based on this natural wealth. However there is a fine balance between tourism helping threatened species and causing them or communities harm. Your expertise will shift the balance in favour of conservation whilst improving local livelihoods.	
VSES is a young organisation and our aim is to use science as a tool for conservation in Vanuatu.	

# Benefits for VESS



**V E S S**  
VANUATU ENVIRONMENTAL  
— SCIENCE SOCIETY —

- \* Establishment of the organisation
- \* Confidence to design further studies
- \* Credibility to apply for future funding

# A catalyst for change?

- \* Change from commitment to conservation action.
- \* Increase in capacity, collaboration and communication

Resulting in a brighter future for dugongs and seagrass in Vanuatu.

Thank you for your attention

