



All Hands on Deck

Partnership Engagement for the Blue Economy
and Ocean Conservation

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The infographic is set against a vibrant background of a tropical ocean scene. At the top center, a circular frame contains a small island with palm trees and birds. Below this, a blue ribbon banner with the title 'The Blue Economy' and 'Key Elements for SIDS' is the central focus. Five circular inset images are arranged around this center, each with a yellow banner below it. Arrows point from these five elements towards the central title. At the bottom, a horizontal row of four green banners lists additional elements: Sustainable Tourism, Fisheries Management, Renewable Energy, and Maritime Transport. The background features various maritime scenes: a beach with huts and a diver, a large cargo ship, a small boat with people, a mangrove forest, a boat with fish cages, offshore wind turbines, and a lighthouse on a small island.

The Blue Economy

Key Elements for SIDS

Sustainable Tourism

Fisheries Management

Ecosystem Conservation

Marine Aquaculture

Renewable Energy

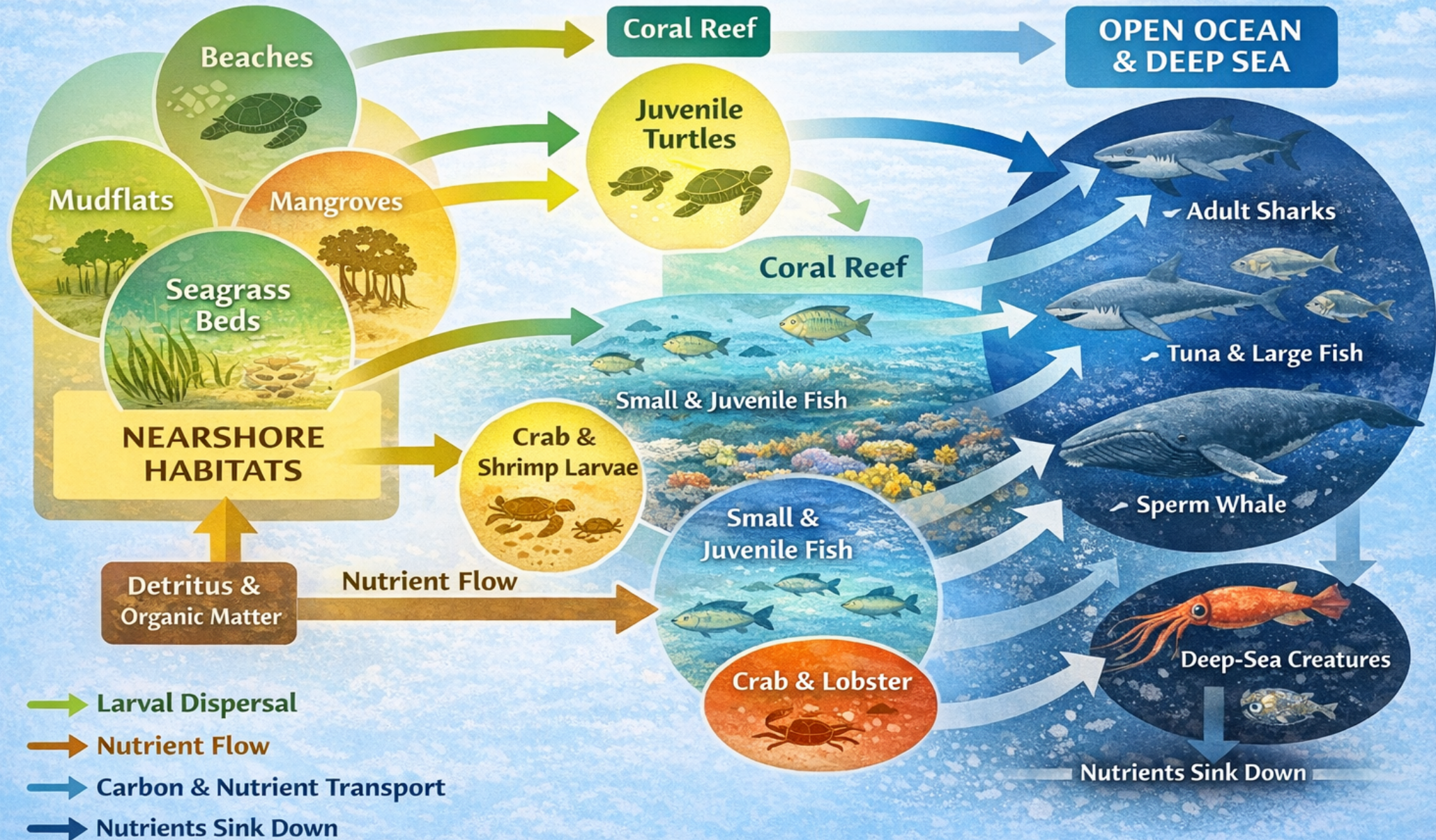
Sustainable Tourism

Fisheries Management

Renewable Energy

Maritime Transport

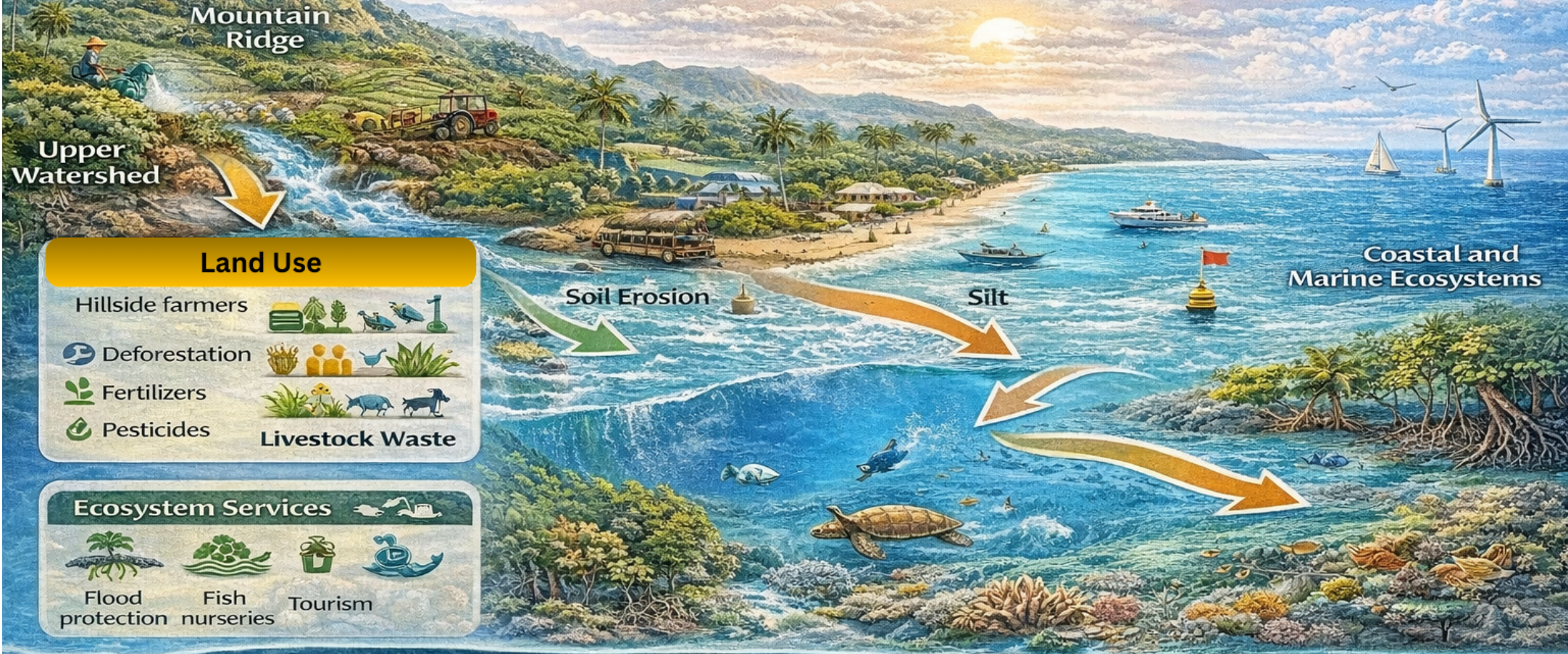
Seascape Connectivity Flow Diagram



Ridge to Reef:

How Islands' Land and Sea Are Intimately Linked

Management from mountain ridge to coral reef is key to protecting coastal ecosystems



Everything Happens on Land Flows to the Sea.

Islands' ecosystems are interconnected from "ridge to reef".

Hillside Farmers Must Be Invested in Coastal Zone and MPA Management

- Farm runoff impacts fisheries and reefs
- Deforestation increases sedimentation
- Runoff pollution sgrass

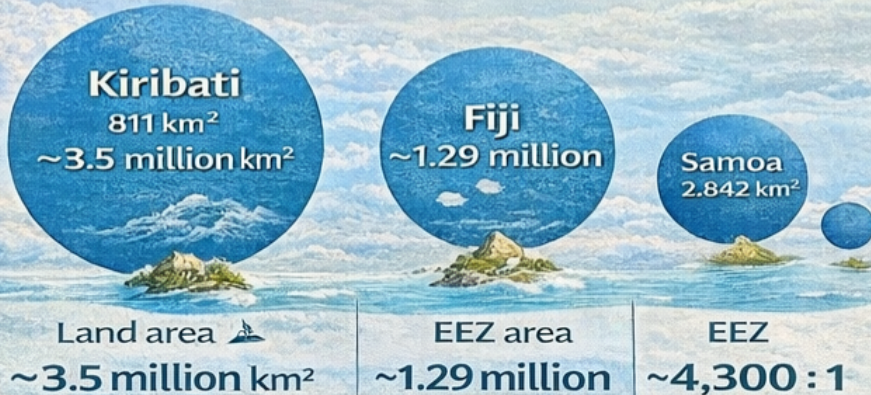
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Ocean Dependence of Small Island Developing States

How marine resources drive national economies and livelihoods

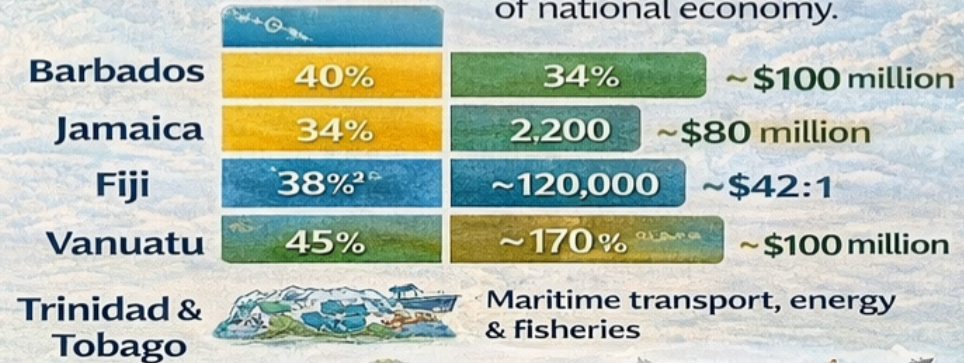
EEZ Size vs Land Area

Many SIDS control ocean territories **hundreds to thousands** of times larger than their land area.



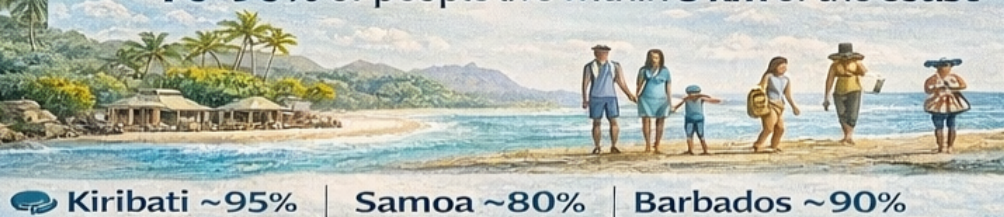
Ocean-Based Contribution to GDP

In many SIDS, ocean sectors make up a **large part** of national economy.

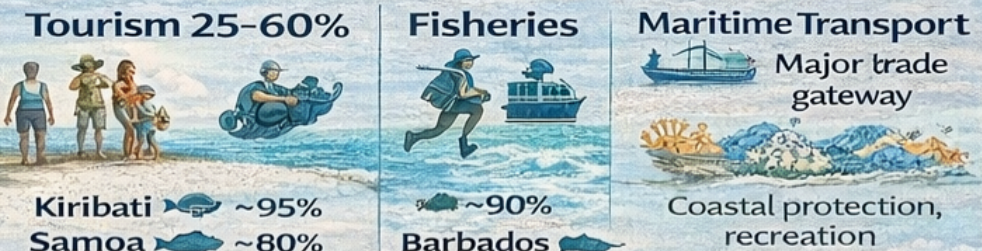


Coastal Population Dependence

70~90% of people live within 5 km of the coast



Employment Linked to the Ocean



For Small Island Developing States, the ocean is not a sector of the economy—it is the economy.

Blue Economy Contributions in Small Island Developing States (SIDS)

Annual Contributions of the Blue Economy to SIDS Countries



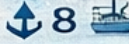
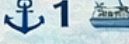
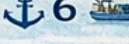
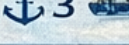
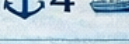
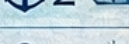
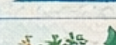
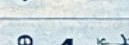
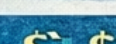
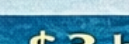
Fisheries
Number of Fishers



Renewable Energy

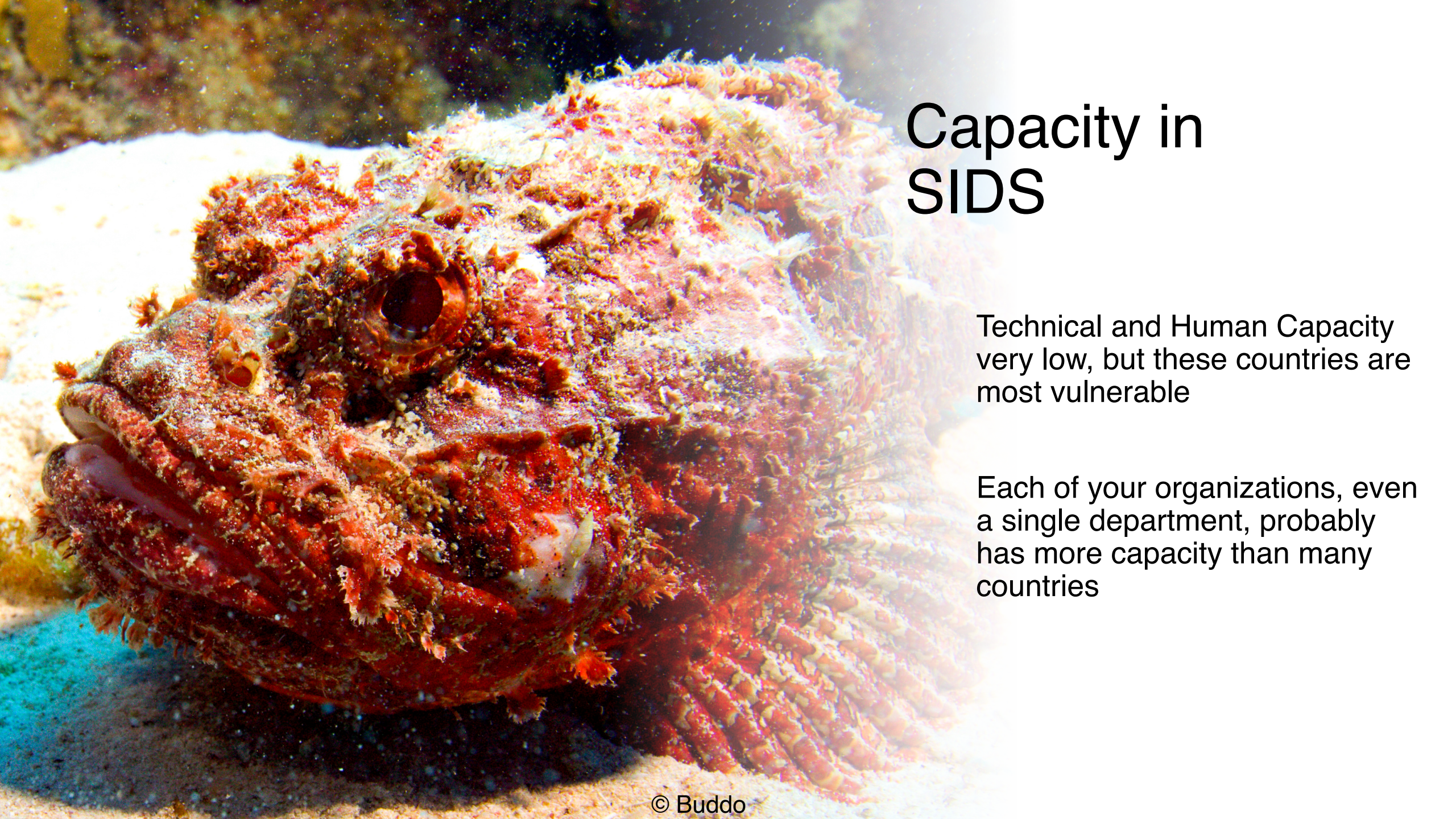


Marine Transport

	Tourism	Fisheries	Energy Revenue	Maritime Transport	
	 Tourism Per Year	 Revenue \$690*	 Energy Revenue	 Major Ports ≈ 2980 Calls	 Vessel Traffic ≈ 2660 Calls
 Jamaica	 4.2 million	 ~\$43 million	 \$100 million	 8 ports	\$250 million
 Antigua & Barbuda	 1.1 million	 ~\$900million	 \$80 million	 2 ports	\$70 million
 Barbados	 750,000	 ~\$1.6 billion	 \$120 million	 1 major port	\$125 million
 Trinidad & Tobago	 500,000	 ~\$700 million	 \$100 million	 6 ports	\$200 million
 Guyana	 300,000	 ~\$300 million	 \$130 million	 3 ports	\$70 million
 Fiji	 1.01 million	 ~\$1.5 billion	 \$300 million	 4 ports	\$250 million
 Samoa	 182,000	 ~\$200 million	 \$80 million	 2 ports	\$40 million
 Tonga	 81,000	 ~\$90 million	 \$45 million	 3 ports	\$35 million
 Kiribati	 8,000	 ~\$10 million	 \$80 million	 4 ports	\$120 million
 Vanuatu	5.5 billion	\$1 billion	\$2 billion	\$3 billion	\$600 million

Sometimes, we say:
“I have been working in the
Pacific for 15 years”





Capacity in SIDS

Technical and Human Capacity
very low, but these countries are
most vulnerable

Each of your organizations, even
a single department, probably
has more capacity than many
countries



What are we changing with our Science?

- How do we set our research agenda?
- Is there a direct link with national or regional policy?
- Do we measure this?
- Do we give credit for technical reports comparable to peer-reviewed publications?



Invasive Green Mussel and the BW Convention

- Biodiversity was being displaced, YES
- BUT: people and economics were the factors that motivated change



STEP INTO NEW WORLDS

THE ART WORLD

T ~ Thyssen-Bornemisza
B Art Contemporary
A Academy



Hunga Tonga

Crater Lake on
Island (at 3 years
old)



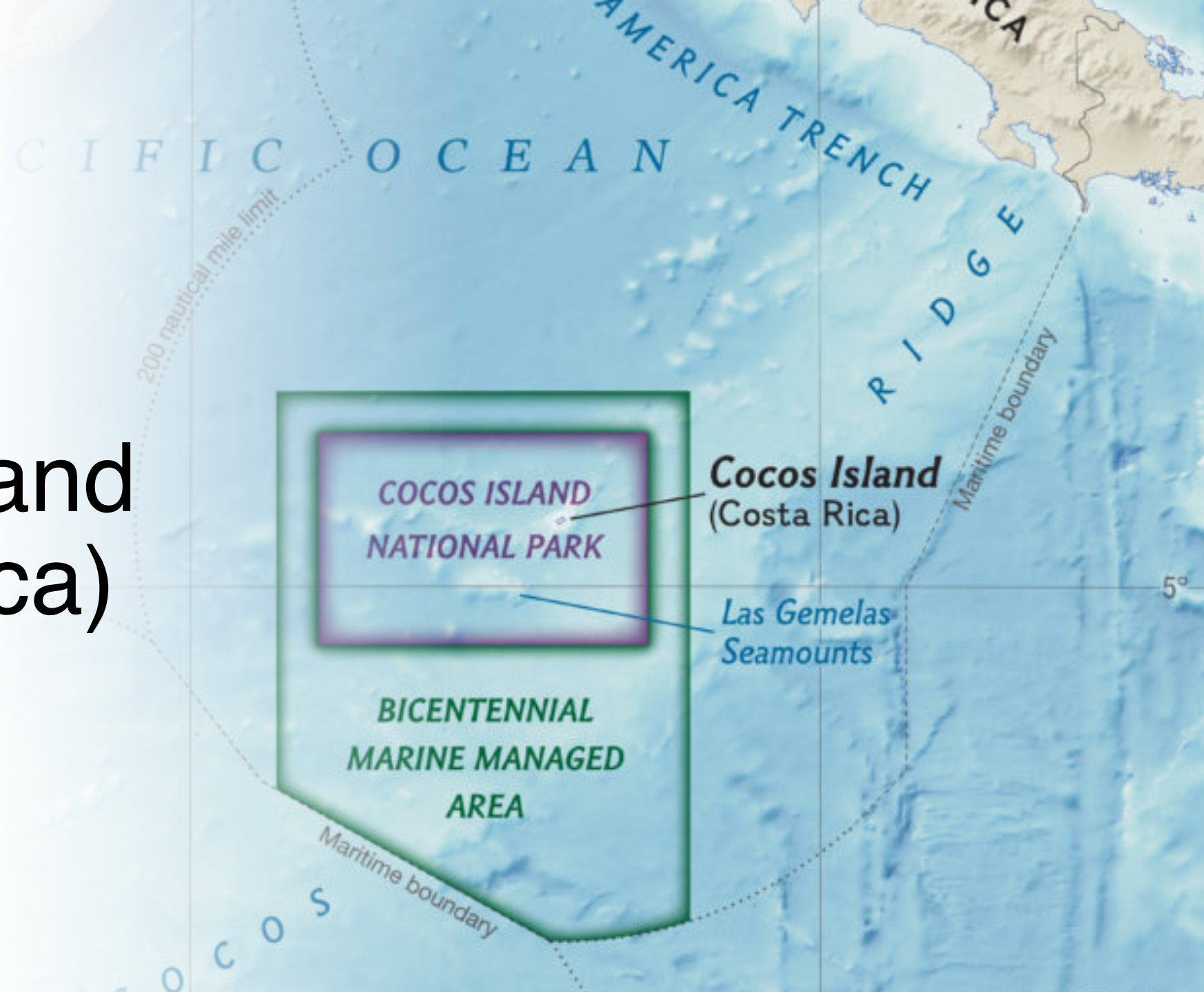




100 %
Coral
Cover



Cocos Island (Costa Rica)





Cocos Island (Costa Rica)



TBA21 Treasure of Lima Project







Christopher Serju
Sunday Gleaner Writer

JAMAICA'S MARINE research and development will mark the start of a significant chapter today with the official opening of the Alligator Head Marine Laboratory in San San, Portland.

Named after a prominent rocky outcropping which, when seen from the air, looks like an alligator, the new lab will be funded by a major Austrian entity and, according to marine ecologist Dr Dayne Buddo, is an unprecedented development for Jamaica.

"For an organisation from Europe to come to Jamaica to set up a marine lab, and for University of the West Indies (UWI) to be partnering like this is unprecedented. The magnitude of it, the way it was formulated and developed, that's significant," Buddo told **The Sunday Gleaner**.

"For some time now, the university has recognised that there is a widening knowledge gap of the marine environment in the eastern section of the island. With this new opportunity, Portland will finally get the kind of attention it needs to protect its natural resources. Knowledge gained will filter directly into policy, legislation and on-the-ground management

Austria's gift to Portland

Jamaica's third marine lab to be set up in the eastern parish

so that this critical area can be conserved," added Buddo.

The Alligator Head Marine Lab has been set up with a minimum five-year commitment from the Thyssen-Bornemisza Art Contemporary (TBA21-Academy) out of Austria, with its founder and chairwoman, Francesca von Habsburg, taking part in today's activities.

RESTORABLE LIFE SYSTEM

"As we become more aware, not only of what we have lost but how we can get it back, we can thank the good Lord to have given us a sea that can recover with a life system that is restorable, if only we could all understand how important it is to give it a chance. Let's all work together to give it that chance. The ocean will do the rest," is one of the memorable quotes from Francesca von Habsburg.

It is projected that the research done at the Portland facility will, among other things, help to reverse the destructive tendencies that have



CONTRIBUTED

Dr Dayne Buddo

plagued the coast of Portland and help to revitalise the reefs and protect the sea life.

For the UWI, which owns and operates the Port Royal Marine Lab (south coast) and Discovery Bay Marine Lab (north coast), the Alligator Head Marine Lab (eastern coast) represents a major step in empowering marine scientists to conduct the



Francesca von Habsburg

research necessary to inform debate on the dramatic coastline at the foothills of the Blue Mountains, its rainforest habitat, rich mangroves, pristine beaches and numerous snorkelling and diving locations.

The Alligator Head Marine Lab will seek to raise awareness of these important issues by pursuing a long-tested conservation and sustainable development programme through scientific research in collaboration with UWI, and a strong community outreach with the support of the Portland Environment

This involves education and policymaking and the partnership of Reef Check Dominican Republic, a non-profit organisation dedicated to empowering people to save reefs and oceans.

REEF IN 'ALARMING' STATE

"Over the years, very little has been done to protect and preserve the whole area, therefore, the reef is in an alarming state, the sea life below the surface is in urgent need of everyone's care and attention," argued Buddo.

With the TBA21-Academy providing the funding to furnish and equip the facility and funding seven research projects, the UWI is providing the other necessary support, including a grant for principal researchers to attend conferences and training programmes.

Buddo explained that while Jamaica's newest marine lab will not match the Discovery Bay facility in terms of size, it will serve as a base where science can be done in a very sustainable way.

While some work has been done on the east coast it is usually limited to a one- or two-day stay, but the upgrade will represent a major step up for

Prepare for a splash!

Today's official launch of the Alligator Head Marine Lab in San San, Port Antonio, Portland, will require a few wardrobe changes for persons looking to participate fully in the activities.

From 10 o'clock until 12:30 the activities will be all underwater – snorkelling and diving to include a reef visit and coral nursery. This is confined to certified divers who should have already confirmed with the organisers, and who will be required to carry the appropriate gear.

For the press conference slated for 12:30-1:00 o'clock, Francesca von Habsburg, Dr Karl Aiken, Dr Dayne Buddo and Ruben Torres will be on hand to provide information.

The official opening ceremony takes place from 1:00-2:00 o'clock with Francesca von Habsburg and Dr Dayne Buddo collaborating on the project presentation.

Lunch will follow immediately and then from 3:00-5:00 o'clock it will be back to the water activities – swimming

New marine lab opens in Portland

MONA:

THE UNIVERSITY of the West Indies, Mona has joined forces with the Thyssen-Bornemisza Art Contemporary 21 Academy (TBA21 Academy) and its founder, Francesca von Habsburg, to open a third marine laboratory in Jamaica to continue relevant research to preserve marine life.

The University currently operates the Discovery Bay Marine Laboratory (DBML) in St Ann and the Port Royal Marine Laboratory in Kingston. The new Alligator Head Marine Laboratory is located in Portland in eastern Jamaica, along the San San coastline.

"UWI owns and operates two marine labs (and) for some time now. The University has recognised that there is a widening knowledge gap of the marine environment in the eastern section of the island. With this opportunity, Portland will finally get the attention it needs to protect its natural resources," Pro-Vice Chancellor and Principal of The UWI, Mona Campus Professor Archibald



Pro-Vice Chancellor and Principal of The UWI, Mona Campus, Professor Archibald McDonald, and Francesca von Habsburg, founder of TBA21 Academy, untie a rope signalling the official opening of the UWI Alligator Head Marine Lab in San San, Port Antonio.

on-the-ground management so that the critical areas of marine life which are threatened can be conserved," the principal added. The property on which the Alligator Head Marine Lab is located was sponsored by Francesca von Habsburg, founder and chairwoman of TBA21 Academy.

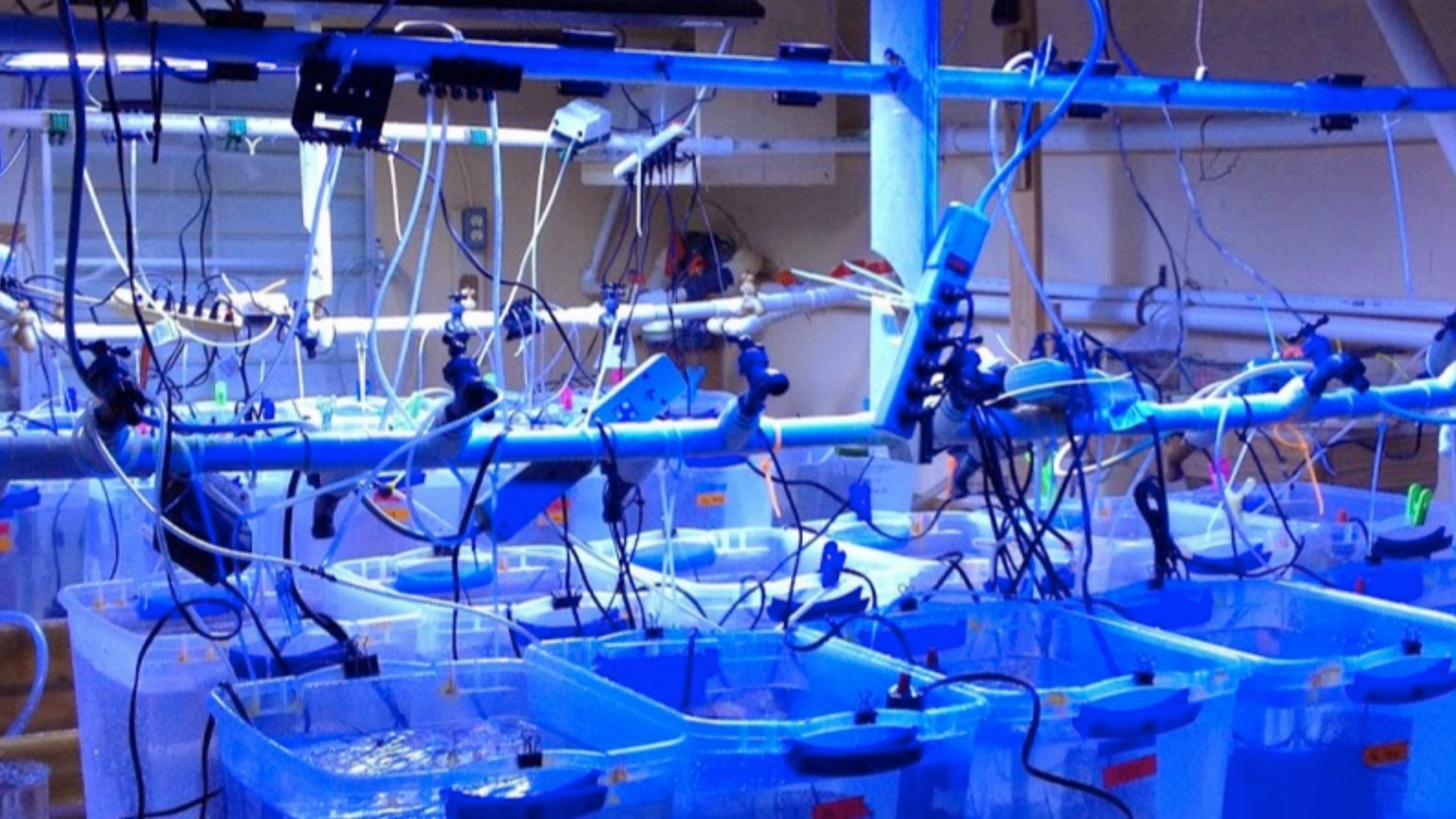
US\$240,000 because her family strongly believes in environmental preservation.

"Sixty per cent of our reefs are deteriorating beyond repair, and protecting our ocean should be one of our most important priorities. The whole reef and bay of San San, right over to the Blue Lagoon, has been left devastated. I am not the only one grieving for the reef," she told *UWIMONA Now* in an interview following the launch. "I am very proud to have The UWI as my partner. This project is a fact-finding exercise – a learning opportunity – and most of all a potential lifeline for the area: for the residents, fishermen, children and visitors. It will affect us all in a positive way. I am extremely grateful to Dr Dayne Buddo and Dr Ruben Torres for setting up the lab in this location," she said. Buddo, UWI research director and principal investigator, said over the

next three years seven initial research projects would be undertaken at the laboratory. The research projects, which will be carried out with funding from TBA21, include: lionfish research and control, zooplankton and ichthyoplankton.



Coral Restoration



The image shows a close-up view of several black plastic nursery bags filled with young mangrove plants. The plants have vibrant green, lanceolate leaves and thin, upright stems. They are growing densely in the bags. In the background, a blue tarp is visible on the ground, and some larger, more established mangrove trees with dark trunks and dense foliage are partially visible. The scene is outdoors, likely at a nursery or a restoration site.

Mangrove Restoration



Shark and Ray Monitoring



Sea Turtle Conservation

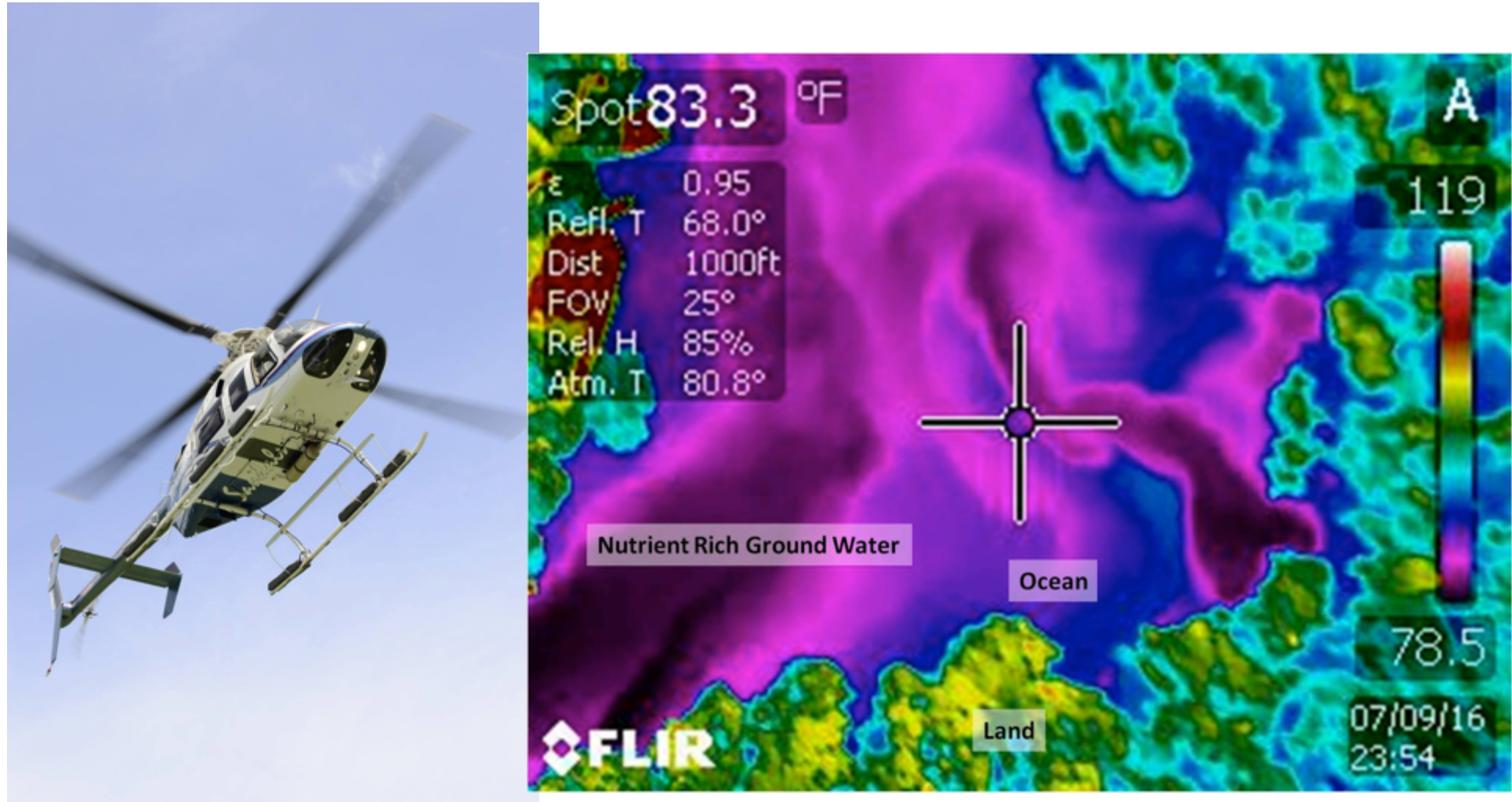
Lionfish Control and Management



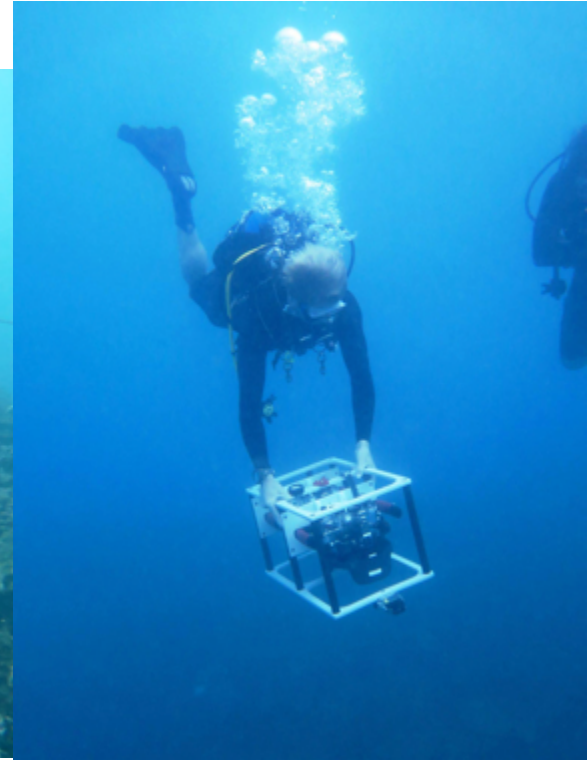


Make it popular to
get the public
engaged

Submerged Groundwater Discharges (UWI, Sandals, AHF and SUNY)



UWI – AHML, AHF and SIO 3-D Imagery of Reefs



Engaging a new community

- How do you get in the door?



Engaging a new community

2 Simple Questions

- What do you need ?
- How can I help ?



Engaging a new community

One of my lessons I learnt

- **W:** Why
- **A:** Am
- **I:** I
- **T:** Talking??



Savannah State University – Tropical Marine Ecology Course in Jamaica

Started by just a
conversation



What motivates me to protect the ocean?

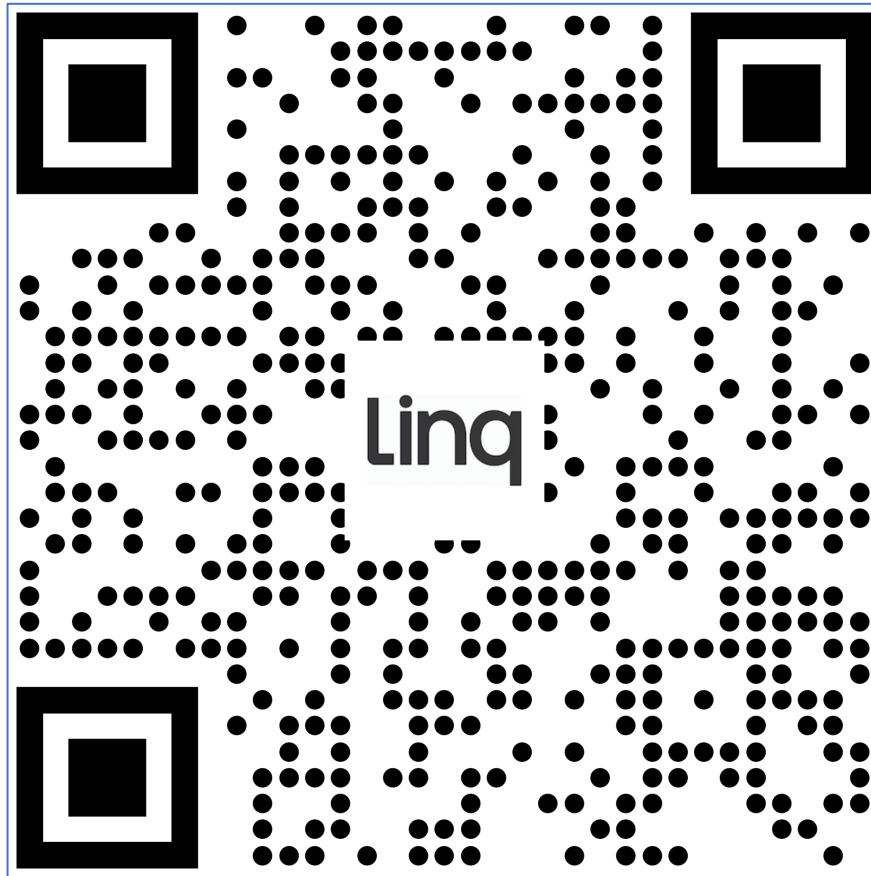


Overarching Principle

We will only protect what
we think is important to us



Thank you



dayne@discover70.org

